MK Electric Catalogue









Wireless • Wiring Devices • Circuit Protection • Cable Management

CATALOGUE NO. 48

MK Catalogue

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Our total commitment to customer service reflects the growing needs of specifiers, distributors and installers

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MK Electric is the UK's choice

Energy Savings | Health & Safety | Sustainability | Quality & Reliability



Part of the Honeywell Global Family

As part of Honeywell's global operation, MK Electric can literally draw upon a world of technologies to develop the best products and solutions. While the bulk of MK's manufacturing and distribution is handled in the UK to serve the UK, this global access ensures MK's customers have access to the latest ideas and manufacturing advancements from around the world to deliver state-of-the-art, cost-effective products.

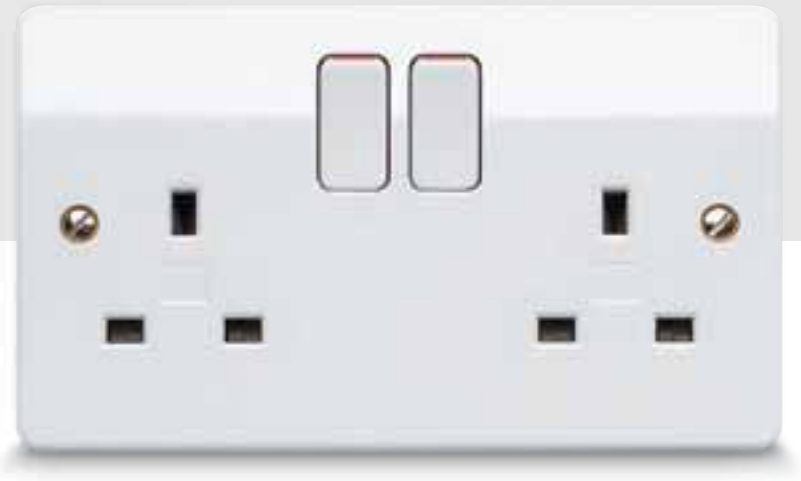
this global access ensures MK's customers have access to the latest ideas and manufacturing advancements from around the world

Innovation has been the driving force behind Honeywell since 1885, and as Chairman and CEO of Honeywell since 2002, David M. Cote has continued the company's commitment to developing energy-saving, sustainable products that improve the quality of life.

David M. Cote
Chairman and CEO of Honeywell

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Serving the UK for more than 90 years



As part of Honeywell's global operation, the brands in the Electrical Devices & Systems (ED&S) division — MK Electric, Friedland, Ex-Or and Homexpert by Honeywell — are able to utilise ideas and manufacturing advancements from around the world to deliver state-of-the-art, cost-effective products both locally and worldwide.

Key to its strategy of growth, Honeywell ED&S continues to focus on Energy Efficiency and Smart Buildings. All ED&S products are built to maximize energy efficiency. Some, such as Ex-Or Managed Lighting Systems, or Honeywell LED Utility Lighting, directly contribute to the conservation of energy. Others, such as MK Electric's Prestige 3D cable management products, are manufactured using recycled materials.

Headquartered in the UK, the ED&S division has key manufacturing facilities in the UK, Germany, Saudi Arabia, Malaysia and India, sales offices across Europe and the Middle East, that distributes to over 100 countries and employs more than 3,000 people worldwide.

UK operations feature 5 locations, employs over 1,000 people, and is one of the few businesses to retain manufacturing sites in the UK for the UK market.

Honeywell | MK by Honeywell | Friedland by Honeywell | Ex-Or by Honeywell | homexpert by Honeywell

Sockets | Wireless | Home Automation | LED Utility Lighting | Switches
Circuit Protection | Thermostats | Cable Management | Anti-Microbial
Sensors | Lighting Management | Power Distribution | Security Lighting | Chimes





MK Electric Sensors

MK Sensors are designed to deliver energy savings and lighting usage management in a wide range of commercial applications.



Ex-Or MLS Digital Managed Lighting

The Ex-Or MLS Digital Managed Lighting System has been designed to provide optimum lighting conditions and maximum flexibility for office lighting projects of any size.

The Ex-Or MLS Digital offers considerably more benefits than stand-alone lighting control options and time-of-day lighting management systems. It can provide a fully integrated lighting and lighting management scheme far more effectively than similar specification luminaires driven by a conventional time-of-day lighting management system.

Lighting represents, on average, up to 40% of a building's total energy consumption; and also the largest opportunity for energy savings.

Honeywell LED Utility Lighting

For saving money, saving time and saving the environment, choose Honeywell LED Utility Lighting. The amazing energy efficiency delivers direct savings to your bottom line, and the reduced maintenance needs — the lamps last up to six times longer than flourescent lamps — save both time and money. Honeywell LED Utility lighting is the essence of endurance.



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ED&S Lighting Controls and LED technologies can offer savings of up to 30% on energy consumption in commercial buildings.



Energy Savings

- Installing Honeywell LED Utility Lighting in place of existing fluorescent luminaires resulted in a 70% load reduction for Manchester University.
- MK's Energy Saving Switches are used to cut energy costs in many hotels, student accommodation and other residential applications.
- Southampton City Council has reduced the energy consumption at its six-storey city centre car park by 35% following the installation of lighting control systems from Ex-Or.
- In a typical office, MK or Ex-Or Sensors installed in a corridor can save up to 80%* of the energy used to light that area.
- In a typical warehouse, MK or Ex-Or Sensors installed in toilets can save up to 90%* of the energy used to light that area.
- In a typical school, MK or Ex-Or Sensors installed in classrooms can save up to 45%* of the energy used to light those areas.





The UK's choice for energy savings, sustainability and safety

* Source: E Source Energy Business Intelligence

As MK Electric nears its 100th anniversary the business is still evolving and innovating to meet the ever changing demands of our customers and the market place. MK Electric has led the market in Quality, Reliability, Safety and Responsibility since 1919.



MK MASTERSEAL PLUS™: MK ELECTRIC HAS ALWAYS BEEN AT THE FOREFRONT OF TECHNICAL INNOVATION, NOT LEAST IN THE IP ENVIRONMENT



As the UK's market leader in the supply of electrical wiring accessories, our aim is to lead the way in considering Sustainable Development in all activities. Our objectives are to provide innovation for the built environment, whilst preserving the natural environment. We will achieve this by reducing our environmental impact, undertaking a number of initiatives.

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From product form and function, to exceptional customer service, wide distribution and sustainable sourcing to manufacturing techniques, we understand that each of these elements is equally important to our customers.



Quality, Reliability, Safety and Responsibility are embedded at all levels of the company. These, and our unrivalled product portfolio, see us well equipped to face the challenges that lie before us. As ever, our customers are at the centre of everything we do, and MK and Honeywell solutions and technologies are delivering new products and processes which are more energy efficient and less harmful to the environment, this is what we call our 'Sustainable Opportunities'.





MK SENSORS: PRESENCE DETECTION FOR ENERGY EFFICIENT LIGHTING CONTROL

Responding to our customers' and market feedback, we are constantly striving to develop ever more innovative products underpinned by excellent customer service levels.



ECHO™: WIRELESS, BATTERYLESS, SELF-POWERED

Quality and Reliability

At MK we pride ourselves on using superior manufacturing techniques in all our manufacturing sites. All MK products are manufactured from superior quality materials to ISO 9002 certification.

Whilst other manufacturers may make claims on reliability MK products are truly reliable, we demonstrate this with comprehensive product guarantees of up to 20 years*.

MK's operating systems work towards continuous improvement, ensuring the standards are maintained and improved. The latest statistics (2008) showed that less than 1 product per 1,000,000 sold was found to be faulty (that is less than 0.001%). The MK investigation response team have a target of 5 working days to deal with any issues and bring the case to a resolution.

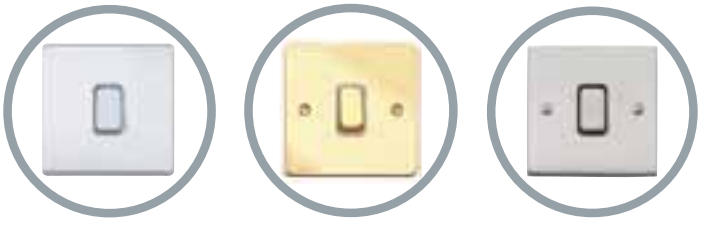
All MK products undergo rigorous testing to ensure maximum Quality, Reliability and Safety. Each product undergoes 100% electrical and visual testing at the point of manufacture.

British Standards require a socket outlet to be tested to 25,000 socket insertions – the MK test laboratory has tested MK sockets to over 1,000,000 plug insertions with no reported faults, or issues with wear and tear. Similarly, British Standards require a switch to be tested to 25,000 switches, the MK test laboratory has tested MK switches to over 1,000,000 on-off switch operations with no reported faults, or issues with wear and tear.

MK Quality and Reliability

Less that 1 in 1,000,000 field faults





ASPECT EDGE ALLOY

*See individual ranges for exceptions

- **Quality** – Manufactured to ISO 9002 certification, using superior manufacturing techniques
- **Reliability** – Comprehensive 20 year product guarantee, 10 years for Electronic Devices, Circuit Protection and Cable Management*
- **Safety** – 100% factory tested, each product undergoes up to 200 individual tests, for a 'fit and forget' installation every time
- **Responsibility** – Innovation for the Built Environment – Preservation of the Natural Environment

Safety

MK Sockets – The Safest Available

MK's sockets have a "child resistant shutter system", which is designed to inhibit access to the electricity supply, unless all three pins of a British plug are in position.

By choosing our safety sockets, you can be sure that you are giving your building the ultimate in electrical protection.

All electrical sockets manufactured to the British Standard must incorporate a shutter mechanism. British Standards require that a minimum safety level is achieved in the design and manufacture of electrical accessories. MK's socket design offers the maximum safety benefit and is the most difficult shutter mechanism to defeat unless correctly being used with a British plug.

All standard 13A MK sockets incorporate the 3-pin operated shutter system.

3-PIN "CHILD RESISTANT SHUTTER SYSTEM"
MK safety shutter only opens when pressure is applied simultaneously through the three pins, considerably reducing misuse

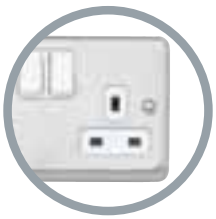




MASTERSEAL PLUS



LOGIC PLUS



ALBANY PLUS



METALCLAD PLUS

All Logic Plus products are made from Urea, which has inherent anti-microbial properties

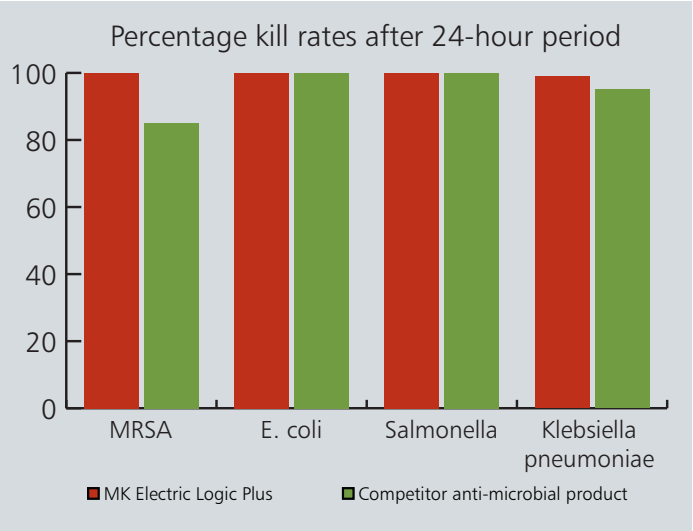
*See individual ranges for exceptions

Safety

Anti-Microbial Products

The issues around the cleanliness within health establishments such as hospitals, surgeries and dentists etc. continue to be raised by health professionals, government departments, the media and the general public.

In 2008, MK Electric commissioned independent testing on the Logic Plus range and a competitor's 'Anti-Microbial' range by a reputable independent UKAS accredited laboratory. The laboratory tested the products, after cleaning with disinfectant (the Government's 'Deep Clean' policy targeted all hospitals to adopt a deep clean program, which includes cleaning all fixtures and fittings). The organisms MRSA, E-Coli, Salmonella and Klebsiella Pneumoniae were applied to the products. Results were collected at 0 minutes, 4 hour, 8 hour and 24 hour intervals.



Source: MK commissioned report, 2008

The Results

MRSA Logic Plus has a kill rate of 99.9% compared to the competitor's Anti Microbial product with only 86.4%.

Both products had an equal 99.9% kill rate for **E-Coli** and **Salmonella**.

Klebsiella Pneumoniae Logic Plus has a kill rate of 98.9%, compared to the competitor's Anti Microbial product with 95.4%.

The Logic Plus range is produced using Urea Formaldehyde, a high grade thermoset material, which has similar inherent properties to antimicrobial additives, which inhibit the growth of infectious diseases such as MRSA, E-Coli, Salmonella and Klebsiella Pneumoniae. In addition, Logic Plus products are scratch-free thanks to high quality mould tools, which means there are no dirt traps for bacteria to breed. Whilst cleanliness is key to fighting these infections, and not replaced by the use of MK's Logic Plus products, the independent results show that the range is more effective than a competitor's Anti-Microbial products at killing MRSA organisms and contributes beneficially to any hygiene regime.





Responsibility

MK Electric, and the wider Honeywell business, has teams of engineers and technology specialists working to develop new products for our customers and processes for our business.

Honeywell's Energy Efficiency Technologies help our Global customer's better meet the growing demand for electricity while curbing fossil fuel emissions. 50% of Honeywell's $37 billion product portfolio is geared towards delivering energy savings and efficiency – from building management and process solutions systems to biofuel technologies and turbocharged engine platforms.

To Honeywell, environmental stewardship means acting in a way that is both productive and sustainable. We design products that help conserve energy, reduce waste, and protect our homes, offices and public buildings. We help other companies become more efficient and productive with our products and solutions.

Honeywell solutions and technologies expand sustainable capacity and improve the efficiency of products and processes, fostering what we call our 'Sustainable Opportunity'.



MK SENSORS: ENERGY SAVING SOLUTIONS FOR LIGHTING CONTROL



ALL MK MANUFACTURING SITES ARE WORKING UNDER ENVIRONMENTAL MANAGEMENT SYSTEMS TO REDUCE THEIR IMPACT ON THE ENVIRONMENT

MK will reduce its environmental impact in the following areas:

Climate Change

Waste Minimisation

Supply Chain Partnerships

Product Innovation



Sustainable Opportunities

Sustainability is a term which is widely used, but rarely defined. This has resulted in many companies claiming to be 'sustainable'; to manufacture 'sustainable' products; to be conducting business in a 'sustainable' way.

But what does this really mean? How does a business prove to be Sustainable and how does a business offer Sustainable Opportunities?

When considering which products to specify, procure or install you may be asking yourself a number of questions to try to establish if the product can be considered to be from a sustainable source. Put simply, when considering if a product is sustainable you should be asking yourself the following questions:

SUSTAINABILITY

Where does it come from?

Who made it?

What is it made of?

What is it packaged in?

What will happen to it at the end of its life?



OVER 8 MILLION 2 GANG SOCKET OUTLETS ARE MANUFACTURED AND DISTRIBUTED IN THE UK EVERY YEAR

Where does it come from?

74% of MK products are manufactured in the UK.

In the example of the MK Logic Plus 2 Gang Switch Socket Outlet for the UK market, it is estimated that the components and product travel a distance of 16 times less when manufactured in one of MK's UK facilities, compared to one produced in a Far Eastern facility. With over 70,000 less miles travelled from the UK manufactured socket there is a clear reduction in the products' carbon footprint when compared to one of its Far Eastern manufactured counterparts.

Where ever possible MK Electric manufacture within, or close to, a local market. This not only keeps the transportation of components and finished products to a minimum, but also allows us to react quickly to changes in the market requirements. Products come off the production line and are delivered direct to our UK warehouse within 24 hours. Far Eastern manufactured products can often spend over 3 months in transit, negating any opportunity for late changes in production to meet a specific market or customer demand.





Who made it?

All MK Electric factories operate to the Health, Safety and Environmental Management Standards implemented globally by Honeywell. In addition all MK Electric Operating Sites, and Global Supply Chains are accredited to the following third party assessed international standards:

ISO 9001	**Quality**
OHSAS 18001	**Health & Safety**
ISO 14001	**Environment**

For products sourced outside of the UK and for other global markets we operate an 'Ethical Trading Policy'. Non EU suppliers are subject to the MK Electric 'Social Responsibility in Supply Chains' audit and development program. Our team of Supplier Development Engineers, manned by country nationals, visit ALL suppliers and factories in Developing or Non EU countries. We have robust processes in place to identify potential areas for concern, including Child Labour, Conditions of Employment (such as wages, working times etc), Health and Safety, Supply Chain Management and Environmental issues. These regular site visits result in the development of continuous improvement plans, and the early identification of any link in our Supply Chain not meeting the high standards required.



MK Electric

"We consider the well being of workers in our international supply chains to be a priority. As a condition of supply we ensure that all goods made on our behalf are produced in conditions that are safe, decent and that support working people in maintaining a reasonable standard of living".



PRESTIGE 3D EXTRUDED LENGTHS ARE MANUFACTURED FROM 90% RECYCLED MATERIAL*

What is it made of?

MK Electric aims to maximise the use of recycled materials in its products. The company's long term policy of sourcing recycled PVCu for Cable Management means that systems such as Prestige 3D offer the most recycled content of comparable systems on the market. Across the entire Cable Management range, the recycled content of extrusions is 90%*.

The use of recycled PVCu, which is made from waste, off-cuts and bar lengths collected from fabricators in the window industry, supports MK's commitment to sustainability in two ways; it diverts over 5,000 tonnes of material destined for landfill and prevents the equivalent tonnage of new virgin material being produced with the associated savings in energy, providing a 94% saving in carbon dioxide emissions compared to production of virgin PVC polymer.

The RoHS Directive and the UK RoHS regulations came into force on 1 July 2006, and were updated again in 2008, and are concerned with the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment. These Regulations implement EU Directive 2002/95 which bans the placing on the EU market of new electrical and electronic equipment containing more than agreed levels of lead, cadmium, mercury, hexavalent chromium, polybrominated biphenyl (PBB) and polybrominated diphenyl ether (PBDE) flame retardants. After consultation it was established that a vast majority of products within the MK portfolio fell outside of the scope of the regulations, that is they were not effected by this new regulation. However, at MK our product development engineers are working to ensure our products carry the lowest possible risk to health and the environment. As such, MK Electric are working towards making all products voluntarily RoHS compliant.

The REACH Regulations (Registration, Evaluation, Authorisation and restriction of Chemicals), which came into force in June 2007, are also concerned with the use of Chemicals in products and their effect on health and the environment. All MK products have been confirmed as being REACH compliant, and contain no 'Substance of Very High Concern'.



* Based on 2008 consumption

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Cardboard: over 80% is sourced from 100% recycled material

Wood: no use of virgin wood, all pallets are 'second use'

Plastic: up to 10% recycled content

Approximately 550 tonnes of packaging recovered and 520 tonnes of packaging recycled

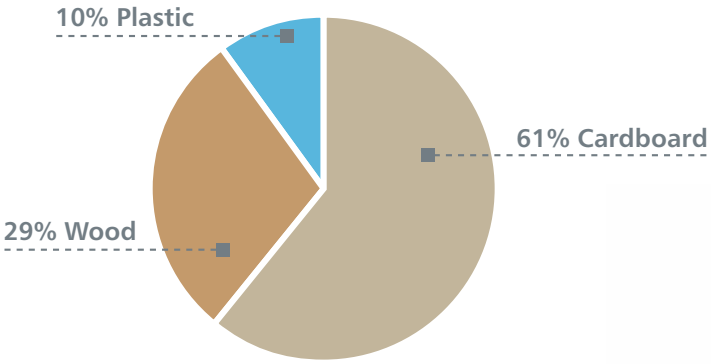
What is it packaged in?

MK Electric, Ackermann, Friedland and Superswitch, collectively put approximately 1500 tonnes of packaging materials onto the market each year. This includes cardboard used in boxes and cartons, wood used in pallets and plastic used in individual product bags.

MK Electric is subject to and complies with the Producer Responsibility (Packaging Waste) Regulations and the Packaging Essential Requirements Regulations. As such, 67% of cardboard packaging is recovered at the end of its life and 92% of that is recycled.

MK Electric is working to further reduce packaging and increase recycling.

Packaging brought to market each year







MK Packaging Policy

- Eliminate excessive or unnecessary packaging of its products.
- Maximise the recycled content of packing materials.
- Design packaging to aid recycling.
- Utilise reusable packaging where possible.
- Eliminate the use of ink with a heavy metal content.
- Minimise the use of solvent based adhesives.
- Avoid false or ambiguous environmental claims on packaging.
- Follow the principle of the Government's green claims code.
- Provide packaging disposal information to the consumer.
- Identify packaging materials through the use of appropriate identification symbols.
- Identify plastics with the use of the SPI identification symbol.
- Obtain pallets from suppliers whose wood is obtained from sustainable source.
- Reuse repaired pallets and provide broken pallets for recycling.
- Consider plant health requirements when importing / exporting wood packaging.

What will happen to it at the end of its life?

MK aim to make it as easy as possible to recycle products and packaging at the end of their life. MK products do not fall within the scope of the Waste Electrical and Electronic Equipment Regulations (WEEE). However, key materials used in the manufacture of MK products can be recovered or recycled where facilities exist:

- Ferrous and non ferrous metals
- Polycarbonate, nylon, PVC

Innovative snap together modular designs make products easier to separate, enabling quick dismantling and eliminating additional fastening components.

All packaging components carry material identification marks indicating recyclability.

The Quality and Reliability of MK products ensure they have a longer life in use, which means the replacement and recycling of the products happen less often, offering a more sustainable installation.



MK Electric – The Sustainable Choice

- MK have a comprehensive range of energy saving products to help our customers save energy and reduce their carbon footprint

Where does it come from?

- 74% of MK products are manufactured in the UK, keeping product miles and carbon emissions to a minimum

Who made it?

- Manufacturing outside of the UK is conducted under an 'Ethical Trading Policy'
- All Global Supply Chains are accredited to ISO 9001 (Quality), OHSAS 18001 (Health & Safety), ISO 14001 (Environment)

What is it made of?

- MK's PVCu Cable Management extrusions are manufactured from 90% recycled content*
- Logic Plus has inherent anti-microbial properties with kill rates on MRSA of 99.9%
- All MK products are voluntarily RoHS compliant, even though technically out of scope
- All MK products have been confirmed as REACH compliant – that is they do not contain 'substances of very high concern'

What is it packaged in?

- 67% of cardboard packaging is recovered at the end of its life; 92% of that is recycled
- 100% of wood, over 80% of cardboard and up to 10% of plastic used in packaging is from reuse or recycled sources

What will happen to it at the end of its life?

- Key materials used in the manufacture of MK products can be recovered or recycled where facilities exist
- All packaging components carry material identification marks indicating recyclability
- Quality and Reliability mean products have a longer life in use and need replacing less often (product guarantee is up to 20 years)
- All products undergo rigorous testing to ensure maximum Quality, Reliability and Safety – products are tested to exceed British Standards

Pioneering Continuous Improvement Programs ensure we are constantly striving to provide the best products and services to our customer, in most efficient way.

* Based on 2008 consumption

Honeywell's Environmental Values: a Comprehensive Commitment

Honeywell is dedicated to protecting the environment with a comprehensive and contemporary commitment. This is one of the central tenets of how Honeywell does business throughout the world.

Honeywell



Honeywell design products that help conserve energy, reduce waste, and protect homes and offices. Honeywell helps other companies become more efficient and productive with their products and solutions. Corporate-wide core processes identify and address risk and promote a culture of safety excellence.

Honeywell values its standing as a respected and responsible global business leader. Honeywell recognises that environmental stewardship is behaviour expected of corporate leaders today. It is a pillar of their reputation with the customers they serve.

Honeywell assists communities and companies in meeting the challenges posed by climate change policies and requirements by reducing the consumption of fossil fuels.

In January 2005, Honeywell received the Landfill Methane Outreach Program "Project of the Year" award for 2004 from the U.S. Environmental Protection Agency for an innovative landfill gas recovery initiative, resulting in substantial greenhouse gas reductions.

On May 16, 2007, Honeywell joined former President Bill Clinton and mayors of the world's large cities to announce a global Energy Efficiency Building Retrofit Program, a project of the Clinton Climate Initiative. The program is a global effort to help cities around the world improve the energy efficiency of buildings and decrease greenhouse gas emissions. Buildings are a major global consumer of energy and Honeywell is working with participating cities to identify and implement conservation and opportunities in their facilities. The Clinton Climate Initiative is assisting partner cities (including London, Paris, Barcelona,



Honeywell embraces its obligation of environmental stewardship through the pursuit of technology that is building a world that's safer and more secure … more comfortable and energy efficient … more innovative and productive.

Madrid, Rome, Moscow, Mumbai, New York, Beijing, Hong Kong and more) to develop and implement large scale projects resulting in substantial reductions in energy usage and greenhouse gas emissions.

The Clinton Climate Initiative is also helping to create the first universal measurement tool to help enable cities to track their own carbon footprint and monitor the effectiveness of carbon reduction programs.

Honeywell, and its businesses, will continue to develop products and technologies that improve efficiency and lower greenhouse gas emissions. In 2007 Honeywell established 5-year greenhouse gas and energy efficiency objectives for its internal operations. By 2012 Honeywell will reduce its greenhouse gas emissions by 30%, and will increase its energy efficiency by 20%, both from a 2004 baseline year.

MK, and the whole UK Electrical Devices and Systems business, have joined the Prince of Wales' May Day Network, the UK's largest group of businesses committed to taking action on climate change. The May Day Network will share best practice and promises to play a powerful role in reducing the UK's carbon emissions.

Over 1300 businesses of all sizes from all sectors are working to realise the benefits from taking action on climate change. As part of the Prince's May Day Network, Business in the Community is working with sectors to pool their efforts in tailored collaborative initiatives.





range introduction

Let there be light

MK Astral™, the advanced lighting system from MK Electric, brings out the best in your environment and is the ideal lighting and blind control solution if you are looking to enhance the ambience and atmosphere in any room or residence.

Used in conjunction with the Dianemo system, MK Astral™ can be part of a full Home Control solution.

Providing sophisticated and inspirational lighting control, MK Astral™ is an extremely versatile and intelligent system, which incorporates the award winning Z-Wave® RF communications technology from Zensys (now part of Sigma Designs), ensuring the ultimate in both reliability and flexibility.

With the freedom to create the perfect lighting scenes for home or business environments, MK Astral™ is the obvious choice for those who value ease and confidence of operation.

Z-Wave®

Products that speak Z-Wave® work together better

features and benefits



Wireless

Innovative technology, easy to install and programme

- MK Astral™ communicates via a 2 way RF signal
- Wireless technology offers end user flexibility and peace of mind



MESH

Offers the most reliable wireless communication system

- MK Astral™ devices link together in a network to form a MESH
- Signals can be routed around obstacles



Interoperable

Expandable system beyond lighting and blind control

- Z-Wave® has been adopted by more than 160 companies
- Integrate to other systems using a Smart Interface with RS232 connectivity
- Fully compatible with the Dianemo Home Control solution



Energy Saving

Control lighting to reduce energy usage

- When in standby mode MK Astral™ mains powered devices are designed to consume <1 watt

Convenience
Control any light from any point in your home – they do not need to be wired together

Reliability
Mains powered devices form a MESH network - multi communication paths are established to give the most reliable RF performance

Flexibility
Ideal for retrofit and new build - can be installed into existing lighting circuits, no need for additional wiring

Confidence
All devices are transmitters and receivers – the user gets positive acknowledgement that his instructions have been received at all target devices

Atmosphere
Differing ways to control the lighting are offered - Scene and Group control give the freedom to create the perfect lighting scenarios, with dramatically differing effects

Occupancy simulation
A standard security feature – simply set your lights to repeat the last 24 hours of activity at the push of a single button

Rapid installation and connection
Uses standard installation practices - fits a 35mm BS back box and has familiar electrical connections

Blinds
Include DC powered blinds into any lighting scene

Choice of lamps
Compatible with most types of lamps - including standard incandescent, halogen and compact fluorescent*

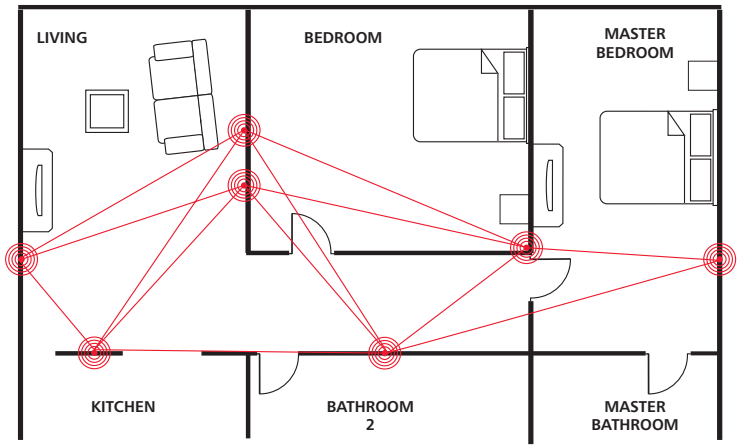
Extensive solutions
Uses Zensys, a proven RF platform – allows unparalleled control over curtains, blinds etc using equipment from over 180 manufacturers

Great looks
Numerous faceplate finishes are available to match your décor and taste and blends effortlessly with the ergonomically designed remote control, the use of multi coloured LEDs extend across all products to give clear common and informative indications to the user

**neutral or Low Energy Lighting Adaptor may be required*

Reliable RF Technology
The RF we use within our products is 2 way and MESH based. This means that all our devices are linked together in a robust network, to give the most reliable RF performance.

Remember - If a RF signal cannot reach its target device it will automatically re-route through other devices in the network.






Remote Control


1 Gang Battery Controller Module with White (WHI) Fascia


1 Gang Switch Module with Brushed Stainless Steel (BSS B) Fascia


2 Gang 300W Dimmer Module


2 Gang Dimmer Polished Brass (PBR B) Fascia

Future proof your home automation

The Dianemo® System, integrated with MK Astral™ advanced lighting and blind controls, offers a cost effective, future proof, flexible home control system that can be integrated into any internal or external space, along with a host of other products and services.



- The Dianemo system allows easy to use control of even the most sophisticated home entertainment equipment
- Security control is fully integrated into the Dianemo system
- Control the room environment from wherever you are
- Access your Dianemo system from anywhere at any time
- The Dianemo system works with a wide range of communication protocols, IP, Z-Wave, RS232, RS485, infra-red (IR) and WiFi.
- Media Managers' control all aspects of the Dianemo system and these can be easily added into any new device allowing easy control of all new equipment.
- The system architecture is designed to easily accommodate new technologies as they come along.



To find out more visit www.mkelectric.co.uk

Product Selector

Remote Control and Battery Controllers

Mains Controller Modules

When selecting products for your installation – follow these 6 easy steps

step 1 **Select the Primary Controller**

We recommend a Remote Control, though this could be a Battery Controller

step 2 **Select the Switching and Dimming Modules you require**

We offer a range of these modules in both 1 and 2 Gang versions with various power ratings

step 3 **Select any additional Controllers you require**

In addition to the Remote Control, we offer Mains and Battery Powered Controllers in both 1 and 2 Gang versions

step 4 **Select the aesthetic faceplates to suit your requirements**

These are supplied in a wide range of colours in both plastic and metal aesthetic finishes

step 5 **Extend the system beyond lighting control**

Choose from PIRs, Plug-Through Switches and Dimmers, Blind Controllers or other interfaces to create a more complete home automation system.

It is important to be fully conversant with the wiring requirements and loading capabilities of the MK Astral™ system before placing your order – if unsure please get in contact.



LRC14ULBS



LIB1UCHA



LIB2UCHA



LIM1UC



LIM2UC

LRC14ULBS 1
REMOTE CONTROL

LIB1UCHA 1
1 GANG BATTERY CONTROLLER

LIB2UCHA 1
2 GANG BATTERY CONTROLLER

Select the appropriate 1 Gang or 2 Gang Dimmer Fascia for your Battery Controller Module.

Operating Frequency 868.4 MHz

LIM1UC 1
1 GANG MAINS CONTROLLER MODULE

LIM2UC 1
2 GANG MAINS CONTROLLER MODULE

Select the appropriate 1 Gang or 2 Gang Dimmer Fascia for your Mains Controller Module.

Operating Frequency 868.4 MHz

MOUNTING BOXES ARE REQUIRED FOR MAINS CONTROLLER MODULES, SWITCH MODULES AND DIMMER MODULES

MOUNTING BOXES: Flush 35mm

Switch Modules

Dimmer Modules

Fluorescent Dimmer Modules

(AVAILABLE EARLY 2012)





LSM11UC



LSM12UC



LDM31UC



LDM32UC



LDM61UC



LFD51UC



LFD52UC

LSM11UC 1
1 GANG
10AX SWITCH MODULE

LSM12UC 1
2 GANG
10AX SWITCH MODULE

Select the appropriate 1 Gang or 2 Gang Switch Fascia for your Switch Controller Module.

Suitable for use with the following load types and maximum load ratings only.

GLS / Tungsten filament
25 - 2400W

Tungsten halogen
25 - 2000W

Fluorescent tubes with ferro-magnetic ballast and power factor correction
18 - 1800W

Maximum load capacitance
140µF

Fluorescent tubes with electronic ballast*
(eg 30 x 18W tubes/ballasts)
18 - 540W

Compact fluorescent (low energy) lamps*
25 - 750W

ELV Tungsten halogen ferro-magnetic or electronic transformers*
25 - 1500VA

* requires Neutral connection to switch

BS EN 60669-2-1
BS EN 61000-6-1 / 3
ETSI EN 301489-1 / 2
ETSI EN 300220-1/ 2

If your lighting control point has no neutral wired to it and you are switching

· Compact Fluorescent and LED lamps

· Low energy, fluorescent or LED lighting with separate ballasts

You may need to fit a Low Energy Lighting Adapter. Please call Technical Services at +44 (0) 1268 563720 for further information.

LDM31UC 1
1 GANG 300W
DIMMER MODULE

LDM32UC 1
2 GANG 300W
DIMMER MODULE

LDM61UC 1
1 GANG 600W
DIMMER MODULE

Select the appropriate 1 Gang or 2 Gang Dimmer Fascia for your Dimmer Controller Module.

Suitable for use with the following load types and maximum load ratings only.

1G 300W Dimmer
GLS Tungsten filament Tungstent Halogen 25-300W

12V ELV Tungsten halogen with wirewound or electronic transformers
35-300VA

1G 600W Dimmer
GLS Tungsten filament Tungstent Halogen 25-600W

12V ELV Tungsten halogen with wirewound or electronic transformers
35-600VA

2G 600W Dimmer
GLS Tungsten filament Tungsten Halogen
25-300W/channel

12V ELV Tungsten halogen with wirewound or electronic transformers
35-300VA/channel

Not suitable for any other load type. Do not use different types of lamp on the same load circuit.

LFD51UC 1
1GANG 6AX
FLUORESCENT DIMMER

LFD52UC 1
2GANG 6AX
FLUORESCENT DIMMER

Select the appropriate 1 Gang or 2 Gang Dimmer Fascia for your Dimmer Controller Module.

Rated switching current per output channel is 6AX

Each channel can support up to 10 analogue dimmable ballasts of 0-10V or 1-10V type, used to drive Fluorescent or LED loads

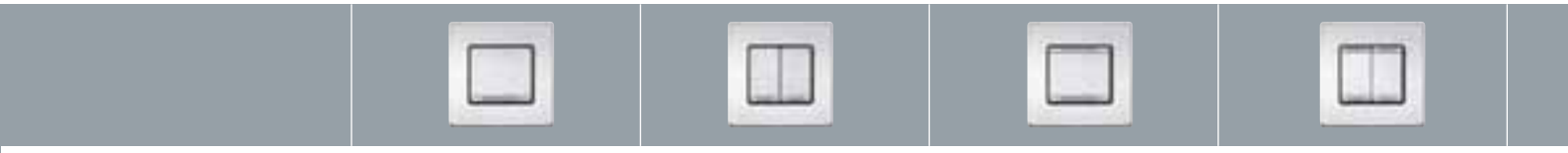
Suitable for use with source type ballasts only.

Not suitable for any other load type.

Do not use different types of lamp on the same load circuit.

Switch Fascias

Dimmer Fascias also used for Battery and Mains Controllers



FINISHES – METAL	THE FINAL SUFFIX REPRESENTS THE COLOUR OF INSERTS. W = WHITE INSERTS, B = BLACK INSERTS			
	1 GANG	2 GANG	1 GANG	2 GANG
BRUSHED STAINLESS STEEL (BSS)	LSF21BSSW 1 LSF21BSSB 1	LSF22BSSW 1 LSF22BSSB 1	LDF21BSSW 1 LDF21BSSB 1	LDF22BSSW 1 LDF22BSSB 1
LACQUERED BRUSHED STEEL (LBS)	LSF21LBSW 1 LSF21LBSB 1	LSF22LBSW 1 LSF22LBSB 1	LDF21LBSW 1 LDF21LBSB 1	LDF22LBSW 1 LDF22LBSB 1
POLISHED BRASS (PBR)	LSF21PBRB 1	LSF22PBRB 1	LDF21PBRB 1	LDF22PBRB 1
POLISHED CHROME (POC)	LSF21POCB 1	LSF22POCB 1	LDF21POCB 1	LDF22POCB 1
FINISHES – PLASTIC				
TITANIUM (TTA)	LSF11TTA 1	LSF12TTA 1	LDF11TTA 1	LDF12TTA 1
CHARCOAL (CHA)	LSF11CHA 1	LSF12CHA 1	LDF11CHA 1	LDF12CHA 1
CHAMPAGNE (CHM)	LSF11CHM 1	LSF12CHM 1	LDF11CHM 1	LDF12CHM 1
WHITE (WHI)	LSF11WHI 1	LSF12WHI 1	LDF11WHI 1	LDF12WHI 1

Accessories

PIR Detector

Blind Controller Module

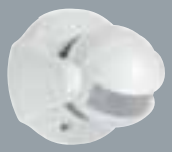
Plug-Through Switch/Dimmer Module

Interfaces

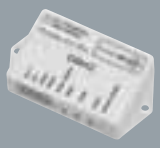
(AVAILABLE EARLY 2012)



LRC130



LPIR1U



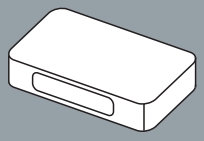
LDBC1U



LPTSM1U



LPTDM1U



LSI1UWHI

LRC130 1
ALTERNATIVE BUTTONS FOR REMOTE CONTROL (PACK CONTAINS 30 VARIATIONS)

LPIR1U 1
PIR DETECTOR

868.4MHz

Up to 50m RF range (open field)

Can control a group of up to 5 devices

6 to 12m Range detection range

100° field of view

Adjustable time on period 5sec to 12 min

Low battery indicator

Supplied with batteries and wall fixings

Battery-powered 3 x AA supplied

For indoor use only

Please note the PIR unit cannot be associated to the 2nd Gang of a 2 Gang Product; only 1 PIR can be associated to any group

LDBC1U 1
DC BLIND CONTROLLER

868.4MHz

Up to 50m RF range (open field)

DC powered

On board independent control of blind

Stop at any point between fully open and fully close

Self calibrating in use

For indoor use only

Suitable for use with 8 to 30V DC Powered Blinds

5A rated load

Please note the power supply and motor required to power the DC blind is provided with the blind and not the Astral controller.

LDBC1U can be included into lighting scenes

LPTSM1U 1
1 GANG
600W SWITCH MODULE

LPTDM1U 1
1 GANG
400W DIMMER MODULE

Suitable for use with GLS, Incandescent, Tungsten Filament or Mains Halogen Lighting

Max load for switch: 600W

Max load for dimmer: 400W

Can be controlled from: MK Astral™ devices when included into a system; on product control via push button
Allows operation of plug in stand and table lamps

Load status indicator

Mains powered

Internal fuse protection against overload or short circuit

Low standby power consumption

Up to 30m RF range (open field)

Responds to system All Off commands

Can be included into lighting scenes

LSI1UWHI 1
SMART INTERFACE

Apple iOS Interface Option:

WiFi to Z-Wave Interface for use with WiFi Routers in conjunction with the iPhone, iPad or iPod Touch.

Use with the MK Astral App to control individual MK Astral devices and user designated scenes.

All devices can be allocated to rooms and appropriately named.

Can instigate Holiday Mode.

Used in Conjunction with downloadable MK Astral App from iTunes App store

RS232 Interface Option:

RS232 Interface to allow control of Z-Wave devices by third party computer based product with RS232 communications port.

Used in conjunction with 3rd Party generated software - not supplied by MK Electric.





range introduction

Imagine switch technology and automated systems that need no wiring, use no batteries and are effortless to install and commission. Echo™ is an innovative range of entirely wireless, batteryless and self-powered switches and controls which can work together offering even more convenience and energy saving opportunities.

Echo™ enables you to create your own automated control system for a domestic or commercial environment. With the ability to incorporate a range of transmitters from switches, temperature sensors and presence detectors, alongside a range of receivers, the installer can create a flexible system which can deliver safety, comfort, cost savings and energy efficiency for the building owner or user.

The MK Echo™ portfolio is enabled by EnOcean technology. EnOcean based products make use of the energy generated by slight changes in pressure, light levels or temperature, to provide self-powered, batteryless and wireless solutions. This technology is used by many world leading manufacturers, products from these companies can be used together to provide solutions for energy efficient buildings which are more flexible and cost efficient to design, build and operate.

To find out more visit www.mkelectric.co.uk.

features and benefits

Wireless
Instant installation and location flexibility, reducing disruption and cost.

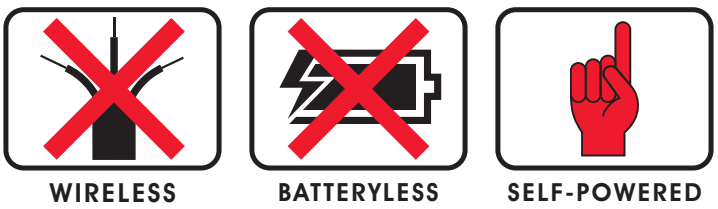
Batteryless
Low maintenance and low running costs makes Echo™ a very versatile and sustainable option.

Self-powered
Uses innovative technology to 'harvest' energy.

Automated systems
Gives the user control over their local environment ensuring maximum comfort and convenience.

Energy savings
With additional local control, alongside the use of temperature sensors and presence detectors, users can create an energy efficient environment.

Be it a functional building, office, home or hotel suite, Echo™ is the future of switch technology and automation systems.



Application Example: Hotel Bedroom

In this example the installer is able to create an automated system to enable the control of lights, curtains and temperature to ensure comfort for the guest, whilst delivering energy efficiency and cost savings for the hotel without disturbing the fabric of the room. In addition, with wireless transmitters, the layout and positioning is completely flexible and can be changed quickly without disruption.

The guest is able to easily control their local environment from a number of locations within the room. A 2 channel transmitter by the entry doorway enables control of both the bedroom and living area lighting. An additional 4 channel transmitter next to the bed gives further control of not only the bedroom and living area lighting, but also the curtains and an all off function. There is additional control in the bathroom and on the balcony.

The hotel is able to control all lighting, heating and cooling by the card switch transmitter, ensuring guests do not leave lighting or air conditioning on when they leave the room. The hotel is also able to ensure a safe environment; the presence detector can be programmed to turn low level lighting on when a guest enters the room during the hours of darkness. In addition the presence detector can be programmed to turn lighting off, or dim to a low level when no presence is detected in the room but the card switch is still in place. Door contacts ensure the air conditioning is not in use whilst the balcony doors are open, offering further energy savings. The temperature sensor can also help control energy costs; in a cold environment a reduction in temperature by just two degrees during the hours of sleep can have a big impact on the overall energy bill.

The KNX gateway enables each Echo-controlled hotel room to be linked to a central computer, where a facilities manager can remotely monitor and control each hotel room, and the overall system.

To find out more visit www.mkelectric.co.uk.





SWITCH RECEIVER



MOTOR CONTROLLER



PLUG-THROUGH DIMMER RECEIVER

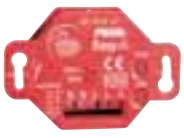


4 CHANNEL TRANSMITTER
1 - LIVING AREA LIGHTS
2 - BEDROOM LIGHTS
3 - PLUG-THROUGH LIGHT
4 - ALL OFF



I CHANNEL TRANSMITTER





SWITCH RECEIVER



2 CHANNEL TRANSMITTER
1 - BEDROOM LIGHTS
2 - LIVING AREA



CARD TRANSMITTER

BALCONY

WINDOW

WINDOW

LIVING AREA

BEDROOM

BATHROOM

1 CHANNEL IP66 TRANSMITTER



DOOR CONTACT



DIMMER RECEIVER



PRESENCE DETECTOR



TEMPERATURE SENSOR



KNX GATEWAY (SEE WEBSITE FOR MORE DETAILS)

KEY

- LIGHT
- TRANSMITTER
- RECEIVER
- OTHER

Floorplan is for illustrative purposes only. For details on usage please see the product pages or visit www.mkelectric.co.uk

Modular Transmitters

	1 CHANNEL MODULAR TRANSMITTER	2 CHANNEL MODULAR TRANSMITTER	MODULAR CARD SWITCH TRANSMITTER	MODULAR WALL TEMPERATURE SENSOR TRANSMITTER
				
FINISHES				
WHITE	**K5786WHI** 1	**K5789WHI** 1	**K5744CWHI** 1	**K5744WHI** 1
BLACK	**K5786BLK** 1	**K5789BLK** 1	**K5744CBLK** 1	**K5744BLK** 1
ALUMINIUM	**K5786ALU** 1	**K5789ALU** 1	**K5744CALU** 1	**K5744ALU** 1
				ONLY COMPATIBLE WITH THE K5422G KNX GATEWAY OR A DEDICATED SEPARATE RECEIVER. SEE WEBSITE FOR DETAILS.
	For use with K5776, K5779 frames and K5412 locator	For use with K5776, K5779 frames and K5412 locator	For use with K5776, K5779 frames and K5412 locator	For use with K5776, K5779 frames and K5412 locator.
	OPERATING FREQUENCY: 868.3Mhz IP RATING: IP2 x D DIMENSIONS: 55 x 55mm ETSI EN 301489-1/3 ETSI EN 300220-1/2	OPERATING FREQUENCY: 868.3Mhz IP RATING: IP2 x D DIMENSIONS: 55 x 55mm ETSI EN 301489-1/3 ETSI EN 300220-1/2	OPERATING FREQUENCY: 868.3Mhz IP RATING: IP2 x D DIMENSIONS: 55 x 55mm ETSI EN 301489-1/3 ETSI EN 300220-1/2	OPERATING FREQUENCY: 868.3Mhz IP RATING: IP2 x D DIMENSIONS: 55 x 55mm ETSI EN 301489-1/3 ETSI EN 300220-1/2

MOUNTING SWITCH TRANSMITTERS: All can be mounted directly to the wall surface – screws supplied. All can be mounted to back boxes – screws supplied. Logic Plus and Aspect type transmitters can also be mounted using supplied adhesive pads

Modular Frames

FINISHES	1G FRAME GLOSSY FINISH	2G FRAME GLOSSY FINISH
		
WHITE	K5776WHI 1	K5779WHI 1
BLACK	K5776BLK 1	K5779BLK 1
ALUMINIUM	K5776ALU 1	K5779ALU 1
	For use with K5412 locator and K5786, K5789, K5744, K5744C transmitters. Surface mount installation only. DIMENSIONS: 83 x 83mm	For use with K5412 locator and K5786, K5789, K5744, K5744C transmitters. Surface mount installation only. DIMENSIONS: 83 x 154mm

FINISHES	1G FRAME GLASS FINISH	2G FRAME GLASS FINISH
		
GLASS, BLACK	K5776GLAB 1	K5779GLAB 1
GLASS, GREEN	K5776GLAG 1	K5779GLAG 1
GLASS, ALUMINIUM	K5776GLAA 1	K5779GLAA 1
GLASS, GROOVED ALUMINIUM	K5776GLAGA 1	K5779GLAGA 1
	For use with K5412 locator and K5786, K5789, K5744, K5744C transmitters. Surface mount installation only. DIMENSIONS: 85 x 85mm	For use with K5412 locator and K5786, K5789, K5744, K5744C transmitters. Surface mount installation only. DIMENSIONS: 85 x 157mm

MOUNTING SWITCH TRANSMITTERS: All can be mounted directly to the wall surface – screws supplied. All can be mounted to back boxes – screws supplied. Logic Plus and Aspect type transmitters can also be mounted using supplied adhesive pads

TRANSMITTERS

Logic Plus





FINISHES	1 CHANNEL TRANSMITTER	2 CHANNEL TRANSMITTER
WHITE	K4786WHI 1	K4789WHI 1
GRAPHITE	K4786GRA 1	K4789GRA 1

OPERATING FREQUENCY:
868.3Mhz

IP RATING:
IP2 x D

DIMENSIONS:
86 x 86mm

BS EN 60669-1 :
BS EN 60669-2-1 :
ETSI EN 301 489-1 + -3 :
ESTI EN 300 220-3

OPERATING FREQUENCY:
868.3Mhz

IP RATING:
IP2 x D

DIMENSIONS:
86 x 86mm

BS EN 60669-1 :
BS EN 60669-2-1 :
ETSI EN 301 489-1 + -3 :
ESTI EN 300 220-3

Albany Plus





FINISHES	1 CHANNEL TRANSMITTER	2 CHANNEL TRANSMITTER
BRUSHED STAINLESS STEEL	K4766BSS* 1	K4767BSS* 1
LACQUERED BRUSHED STEEL		
SILVER ANODIZED ALUMINIUM		
BRUSHED CHROME	K4766BRC* 1	K4766BRC* 1
POLISHED CHROME	K4766PCR* 1	K4766PCR* 1
SATIN GOLD	K4766SAG* 1	K4767SAG* 1
PORCELAIN WHITE		
LUSTROUS IVORY		
LUSTROUS BLACK		
POLISHED BRASS		
TEXTURED IRON		
DESERT BRONZE		
ANTIQUE BRASS		
TEXTURED COPPER		

*** Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW.**

Where there is no asterix, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts

LEAD TIMES: Please contact our Customer Services Department on: 01268 563 404

OPERATING FREQUENCY:
868.3Mhz

IP RATING:
IP2 x D

DIMENSIONS:
86 x 86mm

BS EN 60669-1 :
BS EN 60669-2-1 :
ETSI EN 301 489-1 + -3 :
ESTI EN 300 220-3

OPERATING FREQUENCY:
868.3Mhz

IP RATING:
IP2 x D

DIMENSIONS:
86 x 86mm

BS EN 60669-1 :
BS EN 60669-2-1 :
ETSI EN 301 489-1 + -3 :
ESTI EN 300 220-3

MOUNTING SWITCH TRANSMITTERS: All can be mounted directly to the wall surface – screws supplied. All can be mounted to back boxes – screws supplied. Logic Plus and Aspect type transmitters can also be mounted using supplied adhesive pads

Aspect

Edge

1 CHANNEL TRANSMITTER	2 CHANNEL TRANSMITTER	1 CHANNEL TRANSMITTER	2 CHANNEL TRANSMITTER
			
K23476BSS* 1	K23477BSS* 1	K13476BSS* 1	K13477BSS* 1
K23476LBS* 1	K23477LBS* 1	K13476LBS* 1	K13477LBS* 1
		K13476SAA* 1	K13477SAA* 1
K23476BRC* 1	K23477BRC* 1	K13476BRC* 1	K13477BRC* 1
K23476POC* 1	K23477POC* 1	K13476POC* 1	K13477POC* 1
K23476SAG* 1	K23477SAG* 1	K13476SAG* 1	K13477SAG* 1
K23476WHIW 1	K23477WHIW 1	K13476WHIW 1	K13477WHIW 1
K23476LIVW 1	K23477LIVW 1	K13476LIVW 1	K13477LIVW 1
K23476LBKB 1	K23477LBKB 1	K13476LBKB 1	K13477LBKB 1
K23476PBR* 1	K23477PBR* 1	K13476PBR* 1	K13477PBR* 1
K23476TIRB 1	K23477TIRB 1	K13476TIRB 1	K13477TIRB 1
K23476DBZB 1	K23477DBZB 1	K13476DBZB 1	K13477DBZB 1
K23476ABSB 1	K23477ABSB 1	K13476ABSB 1	K13477ABSB 1
K23476TCOB 1	K23477TCOB 1	K13476TCOB 1	K13477TCOB 1

*** Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW.**

Where there is no asterix, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts

OPERATING FREQUENCY: 868.3 Mhz IP RATING: IP2 x D DIMENSIONS: 86 x 86mm BS EN 60669-1 : BS EN 60669-2-1 : ETSI EN 301 489-1 + -3 : ESTI EN 300 220-3	OPERATING FREQUENCY: 868.3 Mhz IP RATING: IP2 x D DIMENSIONS: 86 x 86mm BS EN 60669-1 : BS EN 60669-2-1 : ETSI EN 301 489-1 + -3 : ESTI EN 300 220-3	OPERATING FREQUENCY: 868.3 Mhz IP RATING: IP2 x D DIMENSIONS: 86 x 86mm BS EN 60669-1 : BS EN 60669-2-1 : ETSI EN 301 489-1 + -3 : ESTI EN 300 220-3	OPERATING FREQUENCY: 868.3 Mhz IP RATING: IP2 x D DIMENSIONS: 86 x 86mm BS EN 60669-1 : BS EN 60669-2-1 : ETSI EN 301 489-1 + -3 : ESTI EN 300 220-3

MOUNTING SWITCH TRANSMITTERS: All can be mounted directly to the wall surface – screws supplied. All can be mounted to back boxes – screws supplied. Logic Plus and Aspect type transmitters can also be mounted using supplied adhesive pads

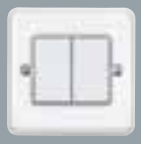
TRANSMITTERS

Metalclad Plus

Masterseal Plus

Other

Presence Detector

	1 CHANNEL TRANSMITTER	2 CHANNEL TRANSMITTER	1 CHANNEL TRANSMITTER	2 CHANNEL TRANSMITTER	REMOTE CONTROL TRANSMITTER	WINDOW CONTACT TRANSMITTER	SENSOLUX SOLAR-PRESENCE DETECTOR
							
FINISHES							
ALUMINIUM	**K3786ALM** 1	**K3787ALM** 1			**K5417R** 1	**K5421** 1	**K5754** 1 ONLY COMPATIBLE WITH THE K5435R RECEIVER OR THE K5422G KNX GATEWAY. SEE WEBSITE FOR DETAILS.
GREY			**K55400GRY** 1	**K55406GRY** 1			
WHITE	**K3786WHI** 1	**K3787WHI** 1	**K55400WHI** 1	**K55406WHI** 1			
BLACK			**K55400BLK** 1	**K55406BLK** 1			

Provides interlock functionality for use with multi-function receivers and blind controllers.

Solar powered.

Solar powered with optional backup battery.

OPERATING FREQUENCY: 868.3 Mhz
IP RATING: IP2 x D
DIMENSIONS: 86 x 86mm
BS EN 60669-1 : BS EN 60669-2-1 : ETSI EN 301 489-1 + -3 : ESTI EN 300 220-3

OPERATING FREQUENCY: 868.3 Mhz
IP RATING: IP2 x D
DIMENSIONS: 86 x 86mm
BS EN 60669-1 : BS EN 60669-2-1 : ETSI EN 301 489-1 + -3 : ESTI EN 300 220-3

OPERATING FREQUENCY: 868.3 Mhz
IP RATING: IP66
DIMENSIONS: 95 x 95 x 57mm
BS EN 60669-1 : BS EN 60669-2-1 : ETSI EN 301 489-1 + -3 : ESTI EN 300 220-3

OPERATING FREQUENCY: 868.3 Mhz
IP RATING: IP66
DIMENSIONS: 95 x 95 x 57mm
BS EN 60669-1 : BS EN 60669-2-1 : ETSI EN 301 489-1 + -3 : ESTI EN 300 220-3

OPERATING FREQUENCY: 868.3 Mhz
IP RATING: IP2 x D
DIMENSIONS: 50 x 82 x 21mm
BSEN 60669-1 : BS EN 60669-2-1 : ETSI EN 301 489-1 + -3 : ESTI EN 300 220-3

OPERATING FREQUENCY: 868.3Mhz
IP RATING: IP40
DIMENSIONS: 110 x 19 x 15mm and 23 x 14 x 6mm
EN 301489-1/3 EN 300220-1/2

OPERATING FREQUENCY: 868.3Mhz
IP RATING: IP50
DIMENSIONS: 108 x 108 x 26.8mm
EN 301489-1/3 EN 300220-1/2

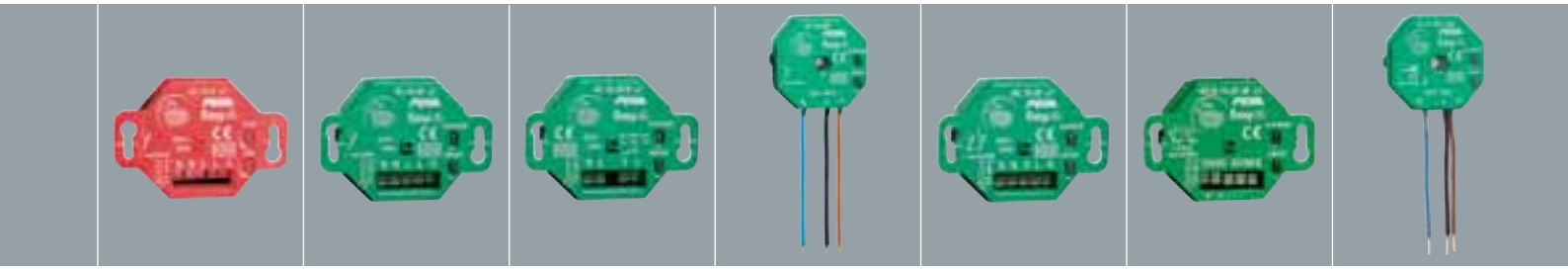
MOUNTING SWITCH TRANSMITTERS: All can be mounted directly to the wall surface – screws supplied. All can be mounted to back boxes – screws supplied. Logic Plus and Aspect type transmitters can also be mounted using supplied adhesive pads

RECEIVERS

1 Channel Switch Receivers

2 Channel Switch Receivers

1 Channel Dimmer Receiver



K5434R 1
1 CHANNEL SWITCH RECEIVER

Provides basic on/off functionality only.

SUPPLY:
230V / 50Hz

LOAD RATINGS:
GLS/Incandescent: 2500W
Halogen: 1200W
Inductive: 600VA
Electronic Ballasts: 3 units

Operating Frequency:
868.3MHz

DIMENSIONS:
Depth: 27mm

EN 60669-2-1
EN 301489-1/3
EN 300220-1/2

K5432R 1
1 CHANNEL MULTI-FUNCTION SWITCH RECEIVER

Multi-functional device providing: single button, stairwell, time-delay, fan, scene operating modes and interlock functions for use with window contact.

SUPPLY:
230V / 50Hz

LOAD RATINGS:
GLS/Incandescent: 2500W
Halogen: 1200W
Inductive: 600VA
Electronic Ballasts: 3 units

Operating Frequency:
868.3MHz

DIMENSIONS:
Depth: 27mm

EN 60669-2-1
EN 301489-1/3
EN 300220-1/2

K5431R 1
1 CHANNEL VOLT-FREE, MULTI-FUNCTION SWITCH RECEIVER

Multi-functional device providing: single button, stairwell, time-delay, fan, scene operating modes and interlock functions for use with window contact.

SUPPLY:
230V / 50Hz

LOAD RATINGS:
GLS/Incandescent:

1200W @ 230Vac
50W @ 30Vdc
Halogen: 600W @ 230Vac

Operating Frequency:
868.3MHz

DIMENSIONS:
Depth: 27mm

EN 60669-2-1
EN 301489-1/3
EN 300220-1/2

K5437R 1
1 CHANNEL MULTI-FUNCTIONAL SWITCH RECEIVER LEADED

Multi-functional device providing: single button, stairwell, time-delay, fan, scene operating modes and interlock functions for use with window contact.

SUPPLY:
230V / 50Hz

LOAD RATINGS:
GLS/Incandescent: 2500W

Halogen: 1200W
Inductive: 600VA

Electronic Ballasts: 3 units

Operating Frequency:
868.3MHz

DIMENSIONS:
Depth: 27mm

EN 60669-2-1
EN 301489-1/3
EN 300220-1/2

K5433R 1
2 CHANNEL MULTI-FUNCTION SWITCH RECEIVER

Multi-functional device providing: single button, stairwell, time-delay, fan, scene operating modes and interlock functions for use with window contact.

SUPPLY:
230V / 50Hz

LOAD RATINGS (per channel):
GLS/Incandescent: 500W
Halogen: 100W
Inductive: 100VA
Electronic Ballasts: 1 unit

Operating Frequency:
868.3MHz

DIMENSIONS:
Depth: 27mm

EN 60669-2-1
EN 301489-1/3
EN 300220-1/2

K5430R 1
2 CHANNEL 24VDC MULTI-FUNCTION SWITCH RECEIVER

Multi-functional device providing single button, pulsed and time-delay operating modes

SUPPLY:
24Vdc

LOAD RATINGS (per channel):
300mA @ 24Vdc

Operating Frequency:
868.3MHz

DIMENSIONS:
Depth: 27mm

EN 60669-2-1
EN 301489-1/3
EN 300220-1/2

K5436R 1
1 CHANNEL MULTI-FUNCTIONAL DIMMER RECEIVER LEADED

Multi-functional device providing: soft start, turn-on memory, switch, stairwell and scene operating modes.

SUPPLY:
230V / 50Hz

LOAD RATINGS:
60-210W

Suitable for use with GLS/ Incandescent/Halogen lamps and 12V low voltage lighting powered by dimmable electronic transformers only.

Operating Frequency:
868.3MHz

DIMENSIONS:
Depth: 27mm

EN 60669-2-1
EN 301489-1/3
EN 300220-1/2

MOUNTING SWITCH TRANSMITTERS: All can be mounted directly to the wall surface – screws supplied. All can be mounted to back boxes – screws supplied. Logic Plus and Aspect type transmitters can also be mounted using supplied adhesive pads

RECEIVERS

Plug-Through Receiver

Alternative Receivers

Presence Detector Receiver



K5427S 1
PLUG-THROUGH SWITCH

Multi-functional device providing: single button, stairwell, time-delay, fan, scene operating modes and interlock functions for use with window contact.

SUPPLY:
230V / 50Hz

LOAD RATINGS:
GLS/Incandescent: 2500W
Halogen: 1250W
Inductive: 600VA
Electronic Ballasts: 3 units

Operating Frequency:
868.3MHz

DIMENSIONS:
130 x 68 x 48mm

EN 60669-2-1
EN 301489-1/3
EN 300220-1/2



K5428D 1
PLUG-THROUGH DIMMER

Multi-functional device providing: soft start, turn-on memory, switch, stairwell and scene operating mode.

SUPPLY:
230V / 50Hz

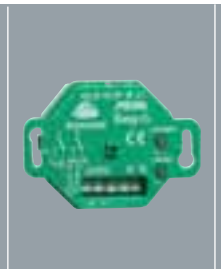
LOAD RATINGS:
60-420W

Suitable for use with GLS/ Incandescent/Halogen lamps and 12V low voltage lighting powered by dimmable electronic transformers only

Operating Frequency:
868.3MHz

DIMENSIONS:
130 x 68 x 48mm

EN 60669-2-1
EN 301489-1/3
EN 300220-1/2



K5438R 1
DC MOTOR CONTROLLER

Multi-functional device providing: blind control, scene and interlock functions for use with window contact.

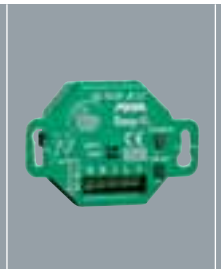
SUPPLY:
24Vdc

LOAD RATINGS:
1A

Operating Frequency:
868.3MHz

DIMENSIONS:
Depth: 27mm

EN 60669-2-1
EN 301489-1/3
EN 300220-1/2



K5439R 1
AC MOTOR CONTROLLER

Multi-functional device providing: blind control, scene and interlock functions for use with window contact.

SUPPLY:
230V / 50Hz

LOAD RATINGS:
600VA

Operating Frequency:
868.3MHz

DIMENSIONS:
Depth: 27mm

EN 60669-2-1
EN 301489-1/3
EN 300220-1/2



K5418R 1
SMALL LOAD SWITCH RECEIVER 400 WATT

OPERATING FREQUENCY:
868.3Mhz

IP RATING: IP2 x D

DIMENSIONS:
47.4 x 34.6 x 28.9mm

BSEN 60669-1 :
BS EN 60669-2-1 :
ETSI EN 301 489-1 + -3 :
ESTI EN 300 220-3



K5420R 1
10AX SWITCH RECEIVER/REPEATER

OPERATING FREQUENCY:
868.3Mhz

IP RATING: IP2 x D

DIMENSIONS:
175.5 x 50.3 x 32.25mm

BSEN 60669-1 :
BS EN 60669-2-1 :
ETSI EN 301 489-1 + -3 :
ESTI EN 300 220-3



K5435R 1
SENSOLUX 1 CHANNEL ENERGY CONTROLLER RECEIVER

For use with K5754 Sensolux Presence detector only

SUPPLY:
230V / 50Hz

LOAD RATINGS:
GLS/Incandescent: 2300W
Halogen: 1250W
Fluorescent Lamps: 1000VA
Inductive: 600VA
Electronic Ballasts: 5 unit

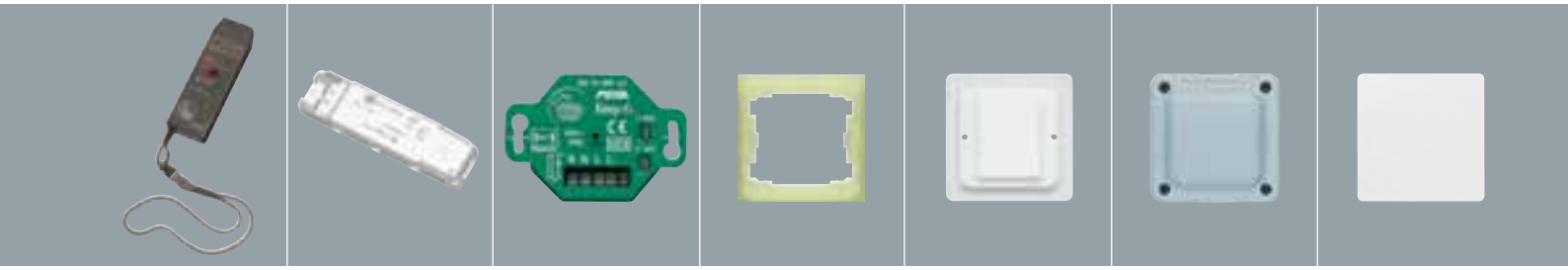
Operating Frequency:
868.3MHz

DIMENSIONS:
45 x 38 x 23mm

EN 60669-2-1
EN 301489-1/3
EN 300220-1/2

MOUNTING SWITCH TRANSMITTERS: All can be mounted directly to the wall surface – screws supplied. All can be mounted to back boxes – screws supplied. Logic Plus and Aspect type transmitters can also be mounted using supplied adhesive pads

Accessories



K541R 1
FIELD STRENGTH INDICATOR

K5414R 1
1 LEVEL REPEATER

REPEATS SIGNAL ONCE. WILL NOT REPEAT A PREVIOUSLY REPEATED TELEGRAM.

K5440R 1
2 LEVEL REPEATER

WILL REPEAT A PREVIOUSLY REPEATED TELEGRAM.

K5412L 1
LUMINOUS LOCATOR FRAME FOR USE WITH MODULAR TRANSMITTERS

K4710P 1
SURFACE MOUNTED PATTRESS FOR USE WITH LOGIC PLUS TRANSMITTER

K55000GRY 1
K55000WHI 1
K55000BLK 1
IP66 ENCLOSURE FOR USE WITH RECEIVERS, CHECK INDVIDUAL RECEIVER DIMENSIONS

KPAD 1
ADHESIVE PAD FOR USE WITH LOGIC PLUS SWITCH TRANSMITTER AND ASPECT SWITCH TRANSMITTER

Can be operated as either a level 1 or level 2 repeater in the system to extend RF range.

Operating Frequency: 868.3MHz

DIMENSIONS:
Depth: 27mm

EN 60669-2-1
EN 301489-1/3
EN 300220-1/2

MOUNTING SWITCH TRANSMITTERS: All can be mounted directly to the wall surface – screws supplied. All can be mounted to back boxes – screws supplied. Logic Plus and Aspect type transmitters can also be mounted using supplied adhesive pads

Logic Plus™



range introduction

Logic Plus™ wiring devices from MK Electric have been designed to perfectly complement modern interiors, offering an unobtrusive and sophisticated look totally in keeping with today's design. Technically, they exceed British Standard requirements with patented features that make these products the most advanced and safest available.

Logic Plus™ products are made from a high grade thermoset material which has an inherent antimicrobial property. In recent independent tests, the Logic Plus™ products were equal to, or exceeded, competitor 'Anti-Bac' products when tested for resistance to MRSA, E.Coli, Salmonella and Klebsiella pneumoniae.

They are easy to install and available through our extensive distributor network.

The range is backed by MK's quality and reliability and provides the largest selection of wiring devices in any single range.

Echo™ is an innovative range of entirely wireless, batteryless and self powered switches, only available from MK Electric and in finishes to complement the Logic Plus™ range. Please see page 31 for details.

features and benefits

Total safety

3-pin operated 'child resistant shutter system', which is designed to inhibit access to the electricity supply, unless all 3 pins of a standard British 13A plug are in position. Logic Plus™ products include an inherent antimicrobial property as a result of the high grade thermoset material used to manufacture.

Unrivalled quality and reliability

Products are made from the very best materials and production processes. All products are 100% tested.

Quick and easy to install

Features to ensure a quick and easy installation come as standard across the range, including in-line terminals, funnel entrances to terminals, backed out and captive screws and clear terminal markings.

Outstanding range

Extensive selection of wiring devices providing a total solution.

20 year guarantee

Gives total peace of mind to you and your customers.
(10 year guarantee for electronic devices)

CONTOURED TO BLEND INTO THE WALL

DOUBLE POLE SWITCHING
Switches both live and neutral (neutral makes first, breaks last) means added safety for the user

OPTIONAL NEON INDICATOR SHOWS WHEN SWITCH IS ON

3mm MINIMUM SWITCH CONTACT GAP



HIGH GLOSS, HIGH QUALITY THERMOSET MATERIAL
Inherent antimicrobial properties, resists scratching, maintains appearance

3-PIN "CHILD RESISTANT SHUTTER SYSTEM"
Designed to inhibit access to the electricity supply, unless all 3 pins of a standard British 13A plug are in position



TERMINAL MARKINGS
Clearly marked on all rear mouldings

TERMINAL SCREWS
Backed out and held captive within the terminal housing

IN-LINE TERMINALS
Allow wire to be cut stripped to the same length

FUNNEL ENTRANCE TO TERMINALS
Terminals are upwards facing to make installation easier

DUAL EARTH TERMINALS
Available for installations that require high integrity earthing

Comprehensive range of Part M compliant products including socket outlets with outboard rockers, wide rocker switches and graphite coloured frontplates



Combined TV, FM, DAB, satellite and telephone sockets save on installation time and space



Simple but effective screwless cord grip on connection units – securely holds the cable



Specification Notes



The 3 pin operated safety shutter makes Logic Plus™ sockets the safest available



Many sockets are fitted with two earth terminals to provide high integrity earthing



Terminals are grouped in-line with terminal screws backed out ready for easy wiring. Clear marking on dark background makes the terminals easily identifiable

Switchsocket Outlets

13 AMP FLUSH



K2757GRA K2757D1RED



K2747WHI



K2657WHI K2657D1RED



K2647WHI

K2757WHI 10
K2757GRA 10
1 GANG DP
WITH DUAL EARTH TERMINALS

K2757D1RED 5
1 GANG DP
WITH RED FRONTPLATE, RED ROCKER
AND DUAL EARTH TERMINALS

K2747WHI 50
2 GANG DP

K2657WHI 10
K2657GRA 10
1 GANG DP WITH NEON
AND DUAL EARTH TERMINALS

K2657D1RED 5
1 GANG DP
WITH RED FRONTPLATE, RED ROCKER,
NEON AND DUAL EARTH TERMINALS

K2647WHI 5
2 GANG DP WITH NEONS

MOUNTING BOXES:
FLUSH 25mm
1 GANG: 861ZIC
2 GANG: 862ZIC
FLUSH 35mm
(for extra wiring space)
1 GANG: 866ZIC
2 GANG: 886ZIC
3 GANG: K863
SURFACE
1 GANG: K2140WHI
2 GANG: K2142WHI
3 GANG: K2153WHI

DIMENSIONS:
1 GANG: 86 x 86mm
2 GANG: 86 x 146mm
3 GANG: 86 x 206mm

FIXING CENTRES:
1 GANG: 60.3mm
2 GANG: 120.6mm
3 GANG: 180.9mm

BS 1363 Pt 2: 1995



K2757D1WHI



K2747D1WHI



K2747D1RED



K2737WHI

K2757D1WHI 10
1 GANG DP
WITH RED ROCKER
AND DUAL EARTH TERMINALS

K2757D2WHI 10
1 GANG DP
WITH GREEN ROCKER
AND DUAL EARTH TERMINALS

K2747D1WHI 5
2 GANG DP
WITH RED ROCKERS

K2747D1RED 5
2 GANG DP
WITH RED FRONTPLATE AND
RED ROCKERS

K2737WHI 5
3 GANG DP
WITH DUAL EARTH TERMINALS

High integrity earthing
K2757, K2657 and K2737 are fitted with two earth terminals to provide a double earth facility for use when installations require a high integrity protective connection as specified within BS 7671: 2008.

K2737
13A fuse protects all three outlets

WITH OUTBOARD ROCKERS 13 AMP FLUSH



K2746WHI



K2746GRA



K2476WHI



K2476GRA

K2746WHI 10
K2746GRA 10
2 GANG DP
WITH OUTBOARD ROCKERS
AND DUAL EARTH TERMINALS

K2746CEWHI 10
2 GANG DP
WITH OUTBOARD ROCKERS
AND 'CLEAN EARTH' FACILITY

K2476WHI 10
K2476GRA 10
2 GANG DP
WITH OUTBOARD ROCKERS DUAL EARTH
AND NEONS

K2476CEWHI 10
2 GANG DP
WITH OUTBOARD ROCKERS,
NEONS AND 'CLEAN EARTH'
FACILITY

K2746CE is provided with facility for 'clean earth' connection.

DIMENSIONS:
86 x 146mm

FIXING CENTRES:
120.6mm

BS 1363 Pt 2: 1995

Combination Plates

RCD PROTECTED
13 AMP
FLUSH


K2746D1WHI


K2746D1RED


K2746D2WHI


K6211WHI


K6231WHI


K6233WHI


K6300WHI


K6303WHI

FILTERED
13 AMP
FLUSH


K1816WHI


K1826WHI


K1800WHI

Combination Plates
13 AMP
FLUSH


K2741WHI


K2740WHI

K2746D1WHI 10

K2746D1RED 10
2 GANG DP
WITH RED OUTBOARD ROCKERS
AND DUAL EARTH TERMINALS

K2476D1WHI 10

K2476D1RED 10
2 GANG DP
WITH RED OUTBOARD ROCKERS, NEONS
AND DUAL EARTH TERMINALS

K2746D2WHI 10
2 GANG DP
WITH GREEN OUTBOARD ROCKERS AND
DUAL EARTH TERMINALS

For sockets complying with Medical Electrical Installation Guidance Notes (MEIGaN), see page 158

MOUNTING BOXES:
FLUSH: 862ZIC (25mm)
FLUSH: 886ZIC (35mm for extra wiring space)
SURFACE: K2142WHI

K2746 and K2746D1 are fitted with two earth terminals to provide a double earth facility for use when installations require a high integrity protective connection as specified within BS 7671: 2008.

K6211WHI 1
2 GANG
10mA RATED TRIPPING CURRENT
ACTIVE CONTROL CIRCUIT

K6231WHI 1
2 GANG
30mA RATED TRIPPING CURRENT
ACTIVE CONTROL CIRCUIT

K6233WHI 1
2 GANG
30mA RATED TRIPPING CURRENT
PASSIVE CONTROL CIRCUIT

MOUNTING BOXES:
FLUSH: 886ZIC – 35mm deep
SURFACE: K2140WHI – 30mm deep

Earth pin operated shutter.

These a.c. and pulsating d.c. fault current sensitive products have up to 15mm thick frontplates and are suitable for boxes with 30mm min. depth and supply voltages of 240V 50Hz.

A 25mm deep box (862ZIC) can be used but conduit entry is restricted.

Refer to Sentrysocket section, page 292, for more information on active and passive control circuits.

DIMENSIONS: 86 x 146mm

FIXING CENTRES: 120.6mm

BS 7288: 1990

All units are a.c. and pulsating d.c. fault current sensitive devices.

Maximum total load 13A

K6300WHI 1
1 GANG
30mA RATED TRIPPING CURRENT
ACTIVE CONTROL CIRCUIT

K6303WHI 1
1 GANG
30mA RATED TRIPPING CURRENT
PASSIVE CONTROL CIRCUIT

K1816WHI 1
2 GANG DP
SPIKE

K1816KOWHI 1
2 GANG DP
SPIKE WITH
TAMPERPROOF SCREW

K1826WHI 1
2 GANG DP
SPIKE AND RFI

K1826KOWHI 1
2 GANG DP
SPIKE AND RFI WITH
TAMPERPROOF SCREW

K1800WHI 5
REPLACEMENT FILTER CASSETTE

MOUNTING BOXES:
FLUSH: 886ZIC
SURFACE: K2172WHI

K1816 provides filtering to reduce voltage spikes only.

K1826 provides two way filtering to reduce voltage spikes and radio frequency interference on the mains. Protected by thermal cut-out.

BS 5733: 2010

K2741WHI 1
2 GANG DP
COMBINATION PLATE WITH
4 X EURO APERTURE

K2740WHI 1
4 GANG DP
COMBINATION PLATE WITH
TV/FM/DAB/SAT X 2 QUAD,
TV, TELEPHONE AND
4 X EURO APERTURE

MOUNTING BOXES:
FLUSH 35mm
2 GANG: 857ZIC*
4 GANG: 853ZIC*

FLUSH 47mm
2 GANG: 858ZIC*
4 GANG: 854ZIC*

*Provides segregation between power and TV/FM/SAT/DAB/Euro Module sections

Switchsocket Outlets

NON STANDARD 13 AMP FLUSH


K1257WHI


K1246WHI


K1257D1WHI


K1246D1WHI

K1257WHI 10
1 GANG DP

K1246WHI 10
2 GANG DP

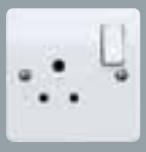
K1257D1WHI 10
1 GANG DP
WITH RED ROCKER

K1246D1WHI 10
2 GANG DP
WITH RED ROCKERS

K1246D1RED 10
2 GANG DP
WITH RED FRONTPLATE
AND RED ROCKERS

MOUNTING BOXES:
FLUSH 25mm
1 GANG: 861ZIC
2 GANG: 862ZIC
FLUSH 35mm (for extra wiring space)
1 GANG: 866ZIC
2 GANG: 886ZIC
SURFACE
1 GANG: K2140WHI
2 GANG: K2142WHI
These products are provided with facilities for 'clean earth' connection and are suitable for non standard plugs with 'T' shaped earth pin.
DIMENSIONS: 1 gang: 86 x 86mm
2 gang: 86 x 146mm
FIXING CENTRES: 1 gang: 60.3mm
2 gang: 120.6mm
BS 1363 Pt 2: 1995 where relevant

ROUND PIN 13 AMP FLUSH


K2891WHI


K2893WHI


K2493WHI

K2891WHI 10
1 GANG
5A DP SHUTTERED

K2893WHI 10
1 GANG
15A DP SHUTTERED

K2493WHI 10
1 GANG
15A DP SHUTTERED
WITH NEON

MOUNTING BOXES:
FLUSH:
861ZIC (25mm)
866ZIC (35mm for extra wiring space)
SURFACE:
K2140WHI
DIMENSIONS:
86 x 86mm
FIXING CENTRES:
60.3mm
BS 546: 1950

Socket Outlets

13 AMP FLUSH


K780WHI


K781WHI


K781RED

K780WHI 10
1 GANG

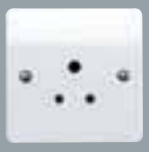
K781WHI 10

K781RED 10
2 GANG
WITH DUAL EARTH TERMINAL

MOUNTING BOXES:
FLUSH 25mm
1 GANG: 861ZIC
2 GANG: 862ZIC
FLUSH 35mm (for extra wiring space)
1 GANG: 866ZIC
2 GANG: 886ZIC
SURFACE
1 GANG: K2140WHI
2 GANG: K2142WHI
K781 is fitted with two earth terminals to provide a double earth facility for use when installations require a high integrity protective connection as specified within BS 7671: 2008.
DIMENSIONS:
1 gang: 86 x 86mm
2 gang: 86 x 146mm
FIXING CENTRES:
1 gang: 60.3mm
2 gang: 120.6mm
BS 1363: Pt2: 1995

ROUND PIN FLUSH


K770WHI


K771WHI


K772WHI

K770WHI 10
1 GANG
2A SHUTTERED

K771WHI 10
1 GANG
5A SHUTTERED

K772WHI 10
1 GANG
15A SHUTTERED

MOUNTING BOXES:
FLUSH:
861ZIC (25mm)
866ZIC (35mm for extra wiring space)
SURFACE:
K2140WHI
DIMENSIONS:
86 x 86mm
FIXING CENTRES:
60.3mm
BS 546: 1950

15 AMP 127V FLUSH (NON UK)


K2251WHI


K2252WHI

K2251WHI 10
1 GANG
SHUTTERED
(NON UK)

K2252WHI 5
2 GANG
SHUTTERED
(NON UK)

MOUNTING BOXES:
FLUSH 25mm
1 GANG: 861ZIC
2 GANG: 862ZIC
FLUSH 35mm (for extra wiring space)
1 GANG: 866ZIC
2 GANG: 886ZIC
SURFACE
1 GANG: K2140WHI
2 GANG: K2142WHI
DIMENSIONS:
1 gang: 86 x 86mm
2 gang: 86 x 146mm
FIXING CENTRES:
1 gang: 60.3mm
2 gang: 120.6mm
SASO 2203:2003

Socket Outlets

16 AMP
2P + E
FLUSH
(NON UK)



K4150WHI



K4152WHI

K4150WHI 10
1 GANG
16A 250V
SHUTTERED
(NON UK)

K4152WHI 5
2 GANG
16A 250V
SHUTTERED
(NON UK)

MOUNTING BOXES:

FLUSH: (35mm)
1 GANG: 866ZIC
2 GANG: 886ZIC

SURFACE:
1 GANG: K2031WHI
2 GANG: K2172WHI

These products are not suitable for installation in 25mm boxes

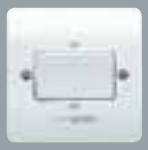
DIMENSIONS:
1 gang: 86 x 86mm
2 gang: 86 x 146mm

FIXING CENTRES:
1 gang: 60.3mm
2 gang: 120.6mm

IEC 60884-1: 2006

Three Pole Fan Isolator

10 AMP
FLUSH



K4857WHI



K4859WHI



K4858

K4857WHI 10
WITH SWITCHLOCK
AND PADLOCK

K4859WHI 10
WITHOUT SWITCHLOCK

K4858 10
SWITCHLOCK
FOR FAN ISOLATOR

K2000 1
PADLOCK

MOUNTING BOXES:

FLUSH:
3995ZIC

SURFACE:
K2160WHI

For local isolation of fans with or without timers for repair or routine maintenance.

DIMENSIONS:
86 x 86mm

FIXING CENTRES:
60.3mm

BS EN 60947-3: 1992

Shaver Socket Outlet

FLUSH



K700WHI

K700WHI 10
SHAVER SOCKET OUTLET
200-250 VOLTS 50/60Hz
FUSED
Incorporates a self-resetting overload device, limiting current to 20VA.

MOUNTING BOXES:

FLUSH:
861ZIC

SURFACE:
K2140WHI

Must not be installed in a bathroom or shower room.

Designed for wiring onto lighting circuits

DIMENSIONS:
86 x 86mm

FIXING CENTRES:
60.3mm

BS 4573: 1970

Shaver/Toothbrush Supply Units

FLUSH



K701WHI



K706WHI

K701WHI 1
SHAVER/TOOTHBRUSH
SUPPLY UNIT
DUAL VOLTAGE
115/230V OUTPUT
(220/240V 50/60Hz INPUT)

K706WHI 1
SHAVER/TOOTHBRUSH
SUPPLY UNIT
DUAL VOLTAGE
115/230V OUTPUT
(120/130V 50/60Hz INPUT)
(NON UK)

MOUNTING BOXES:

FLUSH: 878ZIC
SURFACE: K2172WHI

This design incorporates a double wound isolating transformer rated 20VA at 230 or 115 volts it meets BS EN 61558 making it safe for use in bathrooms. Insertion of a shaver/ toothbrush plug automatically switches on by energising the primary side of the isolating transformer – removal automatically switches off. The transformer is protected against overload by an automatic solid state overload device with automatic resetting.

DIMENSIONS: 146 x 86mm

FIXING CENTRES: 120.6mm

BS EN 61558-2-5: 1998

Features and Benefits



A screwless cord grip automatically clamps and securely holds the cable in connection units with base and front flex outlets



Switched units are double pole with neutral pole contacts 'making' before and 'breaking' after live contacts. Rockers with built-in indicators are available



When servicing or repairing appliances, fuse carriers remain attached to the frontplate when opened and can be padlocked for safety



An optional tamperproof screw on fuse carriers is particularly useful for appliances in public areas



In-line terminals, backed out captive terminal screws and clear marking make wiring up easy

Connection Units

SWITCHED FLUSH



K330WHI 10
K330GRA 10
DP WITH FLEX OUTLET
IN BASE AND THICK FRONTPLATE

K370WHI 10
K370GRA 10
DP WITH NEON, FLEX OUTLET
IN BASE AND THICK FRONTPLATE

K370D1WHI 10
DP WITH NEON, FLEX OUTLET
IN BASE, THICK FRONTPLATE
AND RED ROCKER

K1030WHI 10
DP WITH FRONT FLEX OUTLET

MOUNTING BOXES:
K1030, K1040, K1060 and K1070
FLUSH: 866ZIC (35mm)
SURFACE: K2031WHI

K330 and K370
FLUSH: 866ZIC (35mm)
SURFACE: K2140WHI

All units are fitted with a 13A fuse-link to BS 1362. See page 206 for spare fuse-links.

The fuse carrier can be locked in the open position by removing the fuse and using K2000 fuse carrier padlock.



K1040WHI 10
DP

K1040KOWHI 10
DP WITH TAMPERPROOF SCREW

K1060WHI 10
DP WITH NEON

K1060D1WHI 10
DP WITH NEON AND RED ROCKER

K1070WHI 10
DP WITH FRONT FLEX OUTLET
AND NEON

K1070D1WHI 10
DP WITH FRONT FLEX OUTLET,
NEON AND RED ROCKER

K2000 1
PADLOCK (FOR FUSE CARRIER)

K1030 and K1070 front flex outlet products cannot be mounted directly onto MK Cable Box K2131WHI. A mounting frame K2134WHI will have to be used between the product and the box.

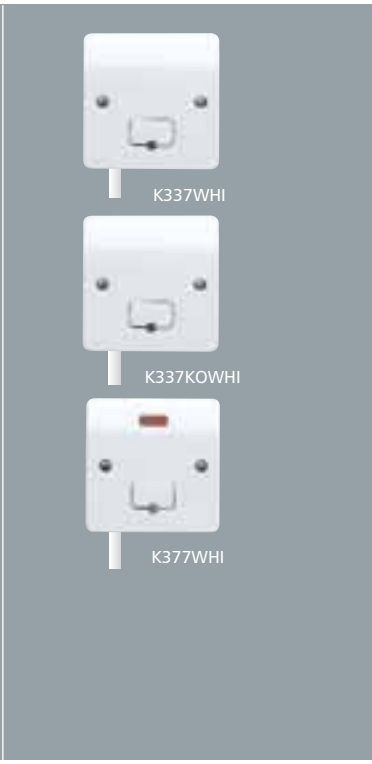
Base entry frontplates are 12.5mm deep

DIMENSIONS:
86 x 86mm

FIXING CENTRES:
60.3mm

BS 1363 Pt 4: 1995

UNSWITCHED FLUSH



K337WHI 10
WITH FLEX OUTLET
IN BASE AND THICK FRONTPLATE

K337KOWHI 10
WITH FLEX OUTLET
IN BASE, THICK FRONTPLATE
AND TAMPERPROOF SCREW
FOR FUSE CARRIER

K377WHI 10
WITH FLEX OUTLET
IN BASE, NEON AND
THICK FRONTPLATE

MOUNTING BOXES:

FLUSH:
866ZIC (35mm)

SURFACE:
K2140WHI

All units are fitted with a 13A fuse-link to BS 1362. See page 206 for spare fuse-links.

Base entry frontplates are 12.5mm deep

The fuse carrier can be locked in the open position by removing the fuse and using K2000 fuse carrier padlock

DIMENSIONS: 86 x 86mm

FIXING CENTRES: 60.3mm

BS 1363 Pt 4: 1995

Dual Switch

DP Switches

20 AMP FLUSH



K5208WHI



K5207WHI

K5208WHI 10
K5207WHI 10
WITH NEON

FOR CONTROLLING DUAL IMMERSION HEATERS

MOUNTING BOXES:

FLUSH:
866ZIC (35mm)

SURFACE:
K2140WHI

Only mounting boxes with an earth terminal should be used.

These products are marked 'on' and 'off' against the one-way DP switch and 'sink' and 'bath' against the two-way SP switch.

DIMENSIONS: 86 x 86mm

FIXING CENTRES: 60.3mm

BS EN 60669-1: 1999

20 AMP FLUSH



K5403WHI



K5423WHI



K5423WHWHI



K5423D1WHI

K5403WHI 10
WITH FLEX OUTLET IN BASE

K5423WHI 10
WITH FLEX OUTLET IN BASE AND NEON

K5423WHWHI 10
WITH FLEX OUTLET IN BASE, NEON AND MARKED 'WATER HEATER'.

K5423D1WHI 10
WITH FLEX OUTLET IN BASE, NEON AND RED ROCKER

MOUNTING BOXES:

FLUSH:
866ZIC (35mm)

SURFACE:
K2140WHI
K2031WHI (for extra wiring space)

Base entry frontplates are 12.5mm deep.

All switches are complete with earth terminals.

Not recommended for switching large banks of PCs.

DIMENSIONS:
86 x 86mm

FIXING CENTRES:
60.3mm

BS EN 60669-1: 1999

32 AMP FLUSH



K5105WHI

K5105WHI 10
WITH NEON

K5105GRA 10
WITH NEON

MOUNTING BOXES:

FLUSH:
866ZIC (6mm² conductors)
877ZIC (10mm² conductors)

SURFACE:
K2140WHI (6mm² conductors)
K2031WHI (10mm² conductors)

Supplied with 8 self-adhesive plastic identification labels marked hob, fan, oven, water heater, shower, air conditioner, cooker and washing machine.

Not recommended for switching large banks of PCs.

DIMENSIONS: 86 x 86mm

FIXING CENTRES: 60.3mm

BS EN 60669-1: 1999

50 AMP MOULDED FLUSH



K5205WHI



K5215CKWHI

K5205WHI 1
K5215WHI 1
WITH NEON

K5215CKWHI 1
WITH NEON AND MARKED 'COOKER'

K5215SHWHI 1
WITH NEON AND MARKED 'SHOWER'

MOUNTING BOXES:

FLUSH:
886ZIC (6mm² conductors)
878ZIC (10mm² conductors)

SURFACE:
K2172WHI

K5205WHI and **K5215WHI**
Supplied with 8 self-adhesive plastic identification labels marked hob, fan, oven, water heater, shower, air conditioner, cooker and washing machine.

Not recommended for switching large banks of PCs.

DIMENSIONS: 86 x 146mm

FIXING CENTRES: 120.6mm

BS EN 60669-1: 1999

50 AMP METAL



K5230WHI



K5012WHI

K5230WHI 1
WITH NEON SURFACE MOUNTED

K5012WHI 1
WITH NEON FLUSH MOUNTED

K5230
Supplied with mounting box. Earth terminal fitted on base of box.

Not recommended for switching large banks of PCs.

DIMENSIONS: 150 x 89 x 50mm

KNOCKOUTS: 8 x 20mm

TERMINAL CAPACITY:
16mm² conductors

BS EN 60669-1: 1999

K5012
Not supplied with mounting box.
FLUSH: 5120ALM

Supplied with earth terminals.

Not recommended for switching large banks of PCs.

DIMENSIONS: 178 x 165mm

BS EN 60669-1: 1999

Cooker Connection Unit

Cooker Controls

45 AMP MOULDED FLUSH	45 AMP MOULDED SURFACE	45 AMP METAL FLUSH	45 AMP METAL SURFACE



K5045WHI



K5060WHI



K5061WHI



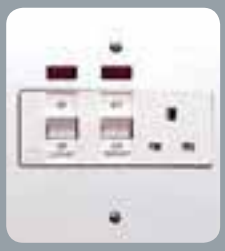
K5040WHI



K5041WHI



K5011WHI



K5001WHI

K5045WHI 10

MOUNTING BOX

FLUSH:
877ZIC (46mm)

Supplied complete with terminal block, each terminal of which will accommodate up to two 10mm² conductors.

Moulded cover plate, cable clamp included.

DIMENSIONS:
86 x 86mm

FIXING CENTRES:
60.3mm

BS 5733: 2010

K5060WHI 1

45A
DP MAIN SWITCH
AND 13A
SWITCHSOCKET OUTLET

K5061WHI 1

45A
DP MAIN SWITCH
AND 13A
SWITCHSOCKET OUTLET
WITH NEONS

MOUNTING BOXES:

FLUSH:
886ZIC (Up to 6mm² conductor)
878ZIC (Up to 10mm² conductor)

Rotary operated shutter.

DIMENSIONS:
86 x 146mm

FIXING CENTRES:
120.6mm

BS 4177: 1992

K5040WHI 1

45A
DP MAIN SWITCH
AND 13A
SWITCHSOCKET OUTLET

K5041WHI 1

45A
DP MAIN SWITCH
AND 13A
SWITCHSOCKET OUTLET
WITH NEONS

Supplied complete with mounting box and cable restraint.

Fitted with earth terminals.

Rotary operated shutter.

DIMENSIONS:
86 x 146 x 60mm

BS 4177: 1992

K5011WHI 1

45A
DP MAIN SWITCH
AND 13A
SWITCHSOCKET OUTLET
WITH NEONS

MOUNTING BOX

FLUSH:
5120ALM

Fitted with earth terminals.

Rotary operated shutter.

DIMENSIONS:
178 x 165mm

BS 4177: 1992

K5001WHI 1

45A
DP MAIN SWITCH
AND 13A
SWITCHSOCKET OUTLET
WITH NEONS

Supplied complete with mounting box.

Fitted with earth terminals.

Rotary operated shutter.

DIMENSIONS:
156 x 144 x 67mm

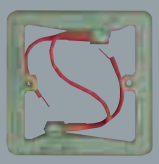
KNOCKOUTS:
5 x 25mm.
Two in each of top and bottom, one in back.

BS 4177: 1992

PLATESWITCHES

Neon Locator





K3041

K3041 5
NEON PLATESWITCH LOCATOR
200-250V. 50Hz.
TUNGSTEN GLS LAMPS ONLY

Neon Plateswitch Locator is for use with any 1, 2 and 3 gang Logic Plu™ plateswitches.

Used for location of switches in dark situations.

FIXING CENTRES: 60.3mm

BS 5733: 2010

Side Access, Captive Terminal Screws

10 AMP FLUSH



K4870GRA



K4871WHI



K4872WHI



K4872GRA

K4870WHI 10
K4870GRA 10
1 GANG SP
ONE-WAY

K4871WHI 10
K4871GRA 10
1 GANG SP
TWO-WAY

K4872WHI 10
K4872GRA 10
2 GANG SP
TWO-WAY

MOUNTING BOXES:

FLUSH:
1, 2 & 3 GANG: 3995ZIC
4 & 6 GANG: 862ZIC

SURFACE:
1, 2 & 3 GANG: K2160WHI
4 & 6 GANG: K2161WHI

These switches do not have to be derated when used with fluorescent or inductive loads.

K4871, K4872, K4873, K4874, K4879
These switches can be wired as either one-way or two-way.

Top Access, Backed out and Captive Terminal screws

10 AMP FLUSH



K4875WHI



K4873WHI



K4874WHI



K4879WHI

K4875WHI 10
1 GANG
INTERMEDIATE

K4876WHI 10
1 GANG DP
ONE-WAY

K4873WHI 10
3 GANG SP
TWO-WAY

K4874WHI 5
4 GANG SP
TWO-WAY

K4879WHI 5
6 GANG SP
TWO-WAY

DIMENSIONS:
1, 2 & 3 gang: 86 x 86mm
4 & 6 gang: 86 x 146mm

FIXING CENTRES:
1, 2 & 3 gang: 60.3mm
4 & 6 gang: 120.6mm

BS EN 60669-1: 1999

20A VERSIONS
K4870, K4873, K4874, K4875, K4871 & K4872 are all available as 20A SP versions. Use suffix D2WHI when ordering.

K4867WHI
is 20A DP 1 way version of K4871.

K4868WHI
is 20A DP 1 way version of K4872.

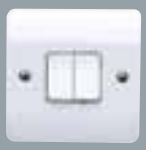
20 AMP FLUSH



K4870D2WHI



K4871D2WHI



K4872D2WHI

K4870D2WHI 10
1 GANG SP
ONE-WAY

K4871D2WHI 10
1 GANG SP
TWO-WAY

K4872D2WHI 10
2 GANG SP
TWO-WAY

10 AMP FLUSH



K4878BWHI



K4878PWHI

K4878BWHI 10
1 GANG SP
TWO WAY
PUSH SWITCH WITH BELL SYMBOL
PUSH TO MAKE OR BREAK

K4878PWHI 10
1 GANG SP
TWO WAY
PUSH SWITCH MARKED 'PRESS'
PUSH TO MAKE OR BREAK

MOUNTING BOXES:

FLUSH:
3995ZIC

SURFACE:
K2160WHI

DIMENSIONS:
86 x 86mm

FIXING CENTRES:
60.3mm

BS EN 60669-1: 1999

PLATESWITCHES

Top Access, Backed out and Captive Terminal screws

WITH WIDE ROCKERS
10 AMP
FLUSH

Architrave Switches

10 AMP
FLUSH

Lockable Fire Alarm Isolator Switch

20 AMP DP
FLUSH

Intelligent Dimmer Switches

230V a.c. 50Hz
TUNGSTEN FILAMENT AND LOW VOLTAGE HALOGEN LIGHTING
FLUSH



Wide rocker plateswitches are not only a stylish alternative to standard plateswitches, but with the fixing screws hidden, the rocker cap acts as an additional barrier to prevent unwanted tampering in public areas. They are also very practical and easy to use for the young and elderly alike.


K4781GRA


K4782GRA


K4783WHI


K4785WHI


K4841WHI


K4842WHI


K4848BWHI


K4848PWHI


K4780WHI


K1501WHILV


K1521WHILV


K1522WHILV

K4781WHI 10
K4781GRA 10
1 GANG SP TWO-WAY
WITH WIDE ROCKER

K4782WHI 10
K4782GRA 10
2 GANG SP TWO-WAY
WITH WIDE ROCKERS

K4783WHI 10
3 GANG SP TWO-WAY
WITH WIDE ROCKERS

K4785WHI 10
K4785GRA 10
1 GANG SP INTERMEDIATE
WITH WIDE ROCKER

MOUNTING BOXES:
FLUSH: 3995ZIC
SURFACE:
K2160WHI
K2140WHI (for extra wiring space)

These switches do not have to be derated when used with fluorescent or inductive loads.

DIMENSIONS: 86 x 86mm
FIXING CENTRES: 60.3mm

BS EN 60669-1: 1999

20A DP VERSIONS

K4787WHI is 20A DP 1 way version of K4781.

K4788WHI is 20A DP 1 way version of K4782.

BS EN 60669-1: 1999

K4841WHI 5
1 GANG SP
TWO-WAY

K4842WHI 5
2 GANG SP
TWO-WAY

K4848BWHI 5
1 GANG SP PUSH SWITCH
WITH BELL SYMBOL
PUSH TO MAKE OR BREAK

K4848PWHI 5
1 GANG SP PUSH SWITCH
MARKED 'PRESS'
PUSH TO MAKE OR BREAK

MOUNTING BOXES:
FLUSH:
1 GANG: 3921ZIC
2 GANG: 3922ZIC
SURFACE:
1 GANG: K2151WHI
2 GANG: K2152WHI

These switches do not have to be derated when used with fluorescent or inductive loads.

K4841, K4842 These switches can be wired as either one-way or two-way.

DIMENSIONS:
1 gang: 86 x 32mm;
2 gang: 146 x 32mm

FIXING CENTRES:
1 gang: 60.3mm;
2 gang: 120.6mm

BS EN 60669-1: 1999

K4780WHI 1
20A DP LOCKABLE FIRE ALARM ISOLATOR SWITCH

MOUNTING BOXES:
866ZIC

DIMENSIONS: 86 X 86MM

FIXING CENTRES: 60.3MM

BS 60669-2-4: 2005

The isolator has primarily been introduced for use in Alarm Systems that must comply with BS 5839-12002+A2:2008

K1501WHILV 1
1 GANG SINGLE
TWO WAY 60W/VA-500W/400 VA

K1521WHILV 1
1 GANG SINGLE
TWO WAY 40W/VA-300W/240 VA

K1522WHILV 1
1 GANG DOUBLE
TWO WAY 2 x 40W/VA-300W/240 VA

MOUNTING BOXES:

WITH/WITHOUT PATTRESS
(Pattress is supplied with K1501, K1521)

K1522
FLUSH: 861ZIC/866ZIC
SURFACE: K2140WHI

K1501, K1521
FLUSH:
with pattress: 16mm deep min 3995ZIC
without pattress: 25mm deep min 861ZIC
SURFACE: K2160WHI/K2140WHI

Dimmers comply with BS EN 55015 (CISPR 15) for RFI suppression.

Micro controller based circuitry to provide electronic soft-start and overload protection. Suitable for use with good quality electronic or wire wound transformers. Can also be used with good quality mains voltage halogen lamps incorporating GU10 bases. Please check with lamp manufacturer to determine suitability.

DIMENSIONS: 86 x 86mm

FIXING CENTRES: 60.3mm

Conforms to BS EN 60669-2-1, BS EN 55015

Standard Dimmer Switches

230V a.c. 50Hz
TUNGSTEN FILAMENT
FLUSH


K1511WHI


K1531WHI


K1532WHI


K1533WHI

K1511WHI 1
1 GANG SINGLE
ONE WAY 65-450W

K1531WHI 1
1 GANG SINGLE
ONE WAY 40-250W

K1532WHI 1
1 GANG DOUBLE
ONE WAY 2 x 40-250W

K1533WHI 1
1 GANG DOUBLE
TWO WAY 2 x 40-250W

K1534WHI 1
1 GANG SINGLE
TWO WAY 40-250W

K1535WHI 1
1 GANG SINGLE
TWO WAY 65-450W

MOUNTING BOXES:
FLUSH: 861ZIC-25mm deep. With pattress: 3995ZIC-16mm deep min
SURFACE: K2140WHI-30mm deep. With pattress: K2160WHI-16mm deep min
Only suitable for tungsten filament lamps.
NOT suitable for fluorescent lamps or low voltage lighting.
DIMENSIONS: 86 x 86mm
FIXING CENTRES: 60.3mm
Conforms to BS EN 60669-2-1 and BS EN 55015

Dimmer Switches

230V a.c. 50Hz
COMPACT
FLUORESCENT
FLUSH


K1525WHI

K1525WHI 1
1 GANG SINGLE
TWO WAY 11-300W
240VA FOR COMPACT
FLUORESCENT LAMPS ONLY

MOUNTING BOXES:
FLUSH:
With pattress: 16mm deep min 3995ZIC
Without pattress: 25mm deep min 861ZIC
SURFACE: K2160WHI/K2140WHI
Dimmers comply with BS EN 55015 (CISPR15) for RFI suppression.
Micro controller based circuitry to provide electronic starting and overload protection for dimmable compact fluorescent lamps. This product is designed to start at full brightness regardless of dimmer setting automatically adjusting to the desired level after a short period
Max number of lamps (4)
DIMENSIONS: 86 x 86MM
FIXING CENTRES: 60.3MM
Conforms to BS EN 60669-2-1, BS EN 55015

Dimmer Switches (NON UK)

200-250V a.c.
50 or 60Hz
FLUSH


K1541WHI


K1561WHI


K1631WHI


K1661WHI

K1541WHI 1
1 GANG SINGLE
ONE WAY
75-500W 50Hz

K1561WHI 1
1 GANG SINGLE
TWO WAY
100-1000W 50Hz

K1631WHI 1
1 GANG SINGLE
ONE WAY
40-250W 60Hz

K1641WHI 1
1 GANG SINGLE
ONE WAY
75-500W 60Hz

K1661WHI 1
1 GANG SINGLE
TWO WAY
100-1000W 60Hz

K1539WHI 1
FAN CONTROLLER
1 GANG SINGLE ONE WAY
300 VA 50Hz

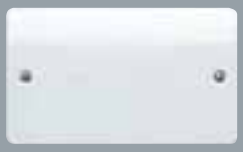
MOUNTING BOXES
FLUSH: 861ZIC-25mm deep min
SURFACE: K2140WHI-30mm deep
DIMENSIONS: 86 x 86mm
FIXING CENTRES: 60.3mm

Blank Plates

FLUSH


K3825WHI


K3827WHI


K3828WHI


K5033WHI

K3825WHI 10
1 GANG MOULDED
ARCHITRAVE

K3827WHI 10
1 GANG MOULDED

K3828WHI 10
2 GANG MOULDED

K5033WHI 1
METAL

K3825WHI
For use with 3921ZIC and K2151WHI MOUNTING BOXES:.

K5033WHI
For use with 5120ALM deep metal box.

DIMENSIONS:
K3825WHI: 86 x 31mm
K3827WHI: 86 x 86mm
K3828WHI: 86 x 146mm
K5033WHI: 178 x 165mm

FIXING CENTRES:
K3825WHI: 60.3mm
K3827WHI: 60.3mm
K3828WHI: 120.6mm
K5033WHI: 133mm

BS 5733: 2010

Flex Outlet Frontplate

FLUSH


K1090WHI

K1090WHI 10
FLEX OUTLET FRONTPLATE.
UNFUSED
20 AMP RATING

Complete with three pairs of terminals, each suitable for 2 x 2.5mm² conductors and a 1.5mm² flexible cord.
A cord-grip is also fitted.

Frontplate thickness is 12.5mm.
Hole diameter is 11mm.

DIMENSIONS:
86 x 86mm

FIXING CENTRES:
60.3mm

BS 5733: 2010

MODULAR POWER AND MULTIMEDIA

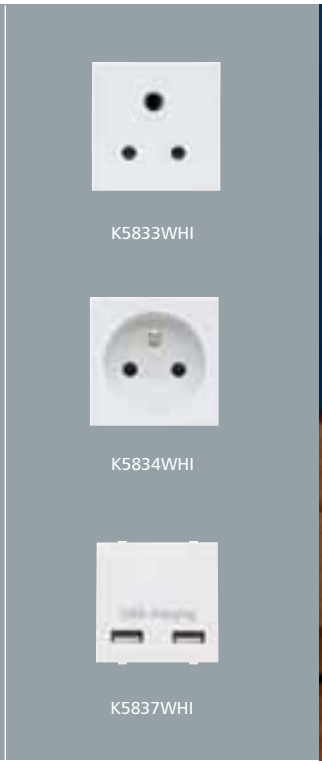
Euro Modular Frontplates

Euro Power Modules

FRONTPLATES









K181WHI 10
1 GANG EURO FRONTPLATE
ONE MODULE
APERTURE SIZE 25 X 50MM

K182WHI 10
K182GRA 10
1 GANG EURO FRONTPLATE
TWO MODULE
APERTURE SIZE 50 X 50MM

K184WHI 10
K184GRA 10
2 GANG EURO FRONTPLATE
FOUR MODULE
APERTURE SIZE 100 X 50MM

K185WHI 1
3 GANG EURO FRONTPLATE
SIX MODULE
APERTURE SIZE 150 X 150MM

MOUNTING BOXES:
Suitable for flush boxes to BS 4662: 2006 and surface boxes to BS 5733: 2010
Refer to appropriate module for minimum box depth.

K185WHI
MOUNTING BOX: 35mm
VTS8035 (For use with Pinnacle and Premier cable management systems)
K2153WHI 30mm

FIXING CENTRES: 1 gang: 60.3mm
2 gang: 120.6mm

BS 5733: 2010 where applicable

Note: No grid required, modules just clip into place

K5830WHI 10
K5830BLK 10
UK 1 GANG EURO 2 MODULE
13A 250V SHUTTERED

K5831WHI 10
K5831BLK 10
GERMAN 2P+E
16A 250V SHUTTERED
EURO 2 MODULE (NON UK)

K5832WHI 10
K5832BLK 10
AMERICAN 2P+E
15A 127V SHUTTERED
EURO 2 MODULE (NON UK)

K5830
MOUNTING BOX: 35mm minimum
46mm (for extra wiring space)
DIMENSIONS: 50 x 50mm
BS 1363: Pt2: 1995

K5831
MOUNTING BOX: 46mm
DIMENSIONS: 50 x 50mm
IEC 60884-1: 2006

K5832
MOUNTING BOX: 35mm
46mm (for extra wiring space)
DIMENSIONS: 50 x 50mm
SASO 2203: 2003

K5833WHI 10
K5833BLK 10
UK 1 GANG EURO 2 MODULE
5A 250V SHUTTERED

K5834WHI 10
K5834BLK 10
FRENCH/BELGIAN 2P+E
16A 250V SHUTTERED
EURO 2 MODULE (NON UK)

K5837WHI 1
K5837BLK 1
USB CHARGING MODULE
EURO 2 MODULE

K5833
MOUNTING BOX: 35mm minimum
46mm (for extra wiring space)
DIMENSIONS: 50 x 50mm
BS 546: 1950

K5834
MOUNTING BOX: 46mm
DIMENSIONS: 50 x 50mm
NF C61-341

K5837
MOUNTING BOX: 35mm
46mm (for extra wiring space)
DIMENSIONS: 50 x 50mm

Features 2 charging sockets each delivering 1A charging current at 5Vdc (total 2A max). Allows charging of portable devices via USB 2.0 type A plug.

IEC 60950-1
IEC 61000-6-1/3

Euro Datacom Modules

RJ11/12


K5887WHI


K5887BLK

K5887WHI 5
K5887BLK 5
RJ11/12
ONE MODULE 25 X 50MM

Suitable for both RJ11 and RJ12 jacks

RJ11; 4 wire
RJ12; 6 wire

MOUNTING BOXES:
Minimum box depth 25mm

FCC68
EN 41003

RJ45 CAT 6


K5846WHI


K5846sBLK


K5864WHI

K5846WHI 5
K5846BLK 5
RJ45 CAT 6
ONE MODULE 25 X 50MM

K5846sWHI 5
K5846sBLK 5
RJ45 CAT 6 SCREENED
ONE MODULE 25 X 50MM

K5864WHI 5
RJ45 CAT 6 ANGLED
ONE MODULE 25 X 50MM

Cat 6 performance.

Suitable for both 568A and 568B wiring schemes.

MOUNTING BOXES:
Minimum Box Depth 35mm

ISO/IEC 11801
EN 50173
TIA 568
EN 41003

RJ45 CAT 5E


K5844WHI


K5845WHI


K5845BLK

K5844WHI 5
RJ45 CAT 5E ANGLED
ONE MODULE 25 X 50MM

K5845WHI 5
K5845BLK 5
RJ45 CAT 5E
ONE MODULE 25 X 50MM

Enhanced Cat 5 performance. Suitable for both 568A and 568B wiring schemes.

Supplied with cable tie and cable anchors to secure wires in the connectors.

MOUNTING BOXES:
Minimum box depth 25mm standard

ISO/IEC 11801
EN 50173
TIA 568
EN 41003

TELEPHONE


K5820WHI


K5821WHI


K5821BLK

K5820WHI 5
K5820BLK 5
TELEPHONE MASTER
ONE MODULE 25 X 50MM

K5821WHI 5
K5821BLK 5
TELEPHONE SECONDARY
ONE MODULE 25 X 50MM

MOUNTING BOXES:
Minimum depth 25mm

BS 6312 Pt 2

BNC


K5801WHI

K5801WHI 5
BNC 50Ω
ONE MODULE 25 X 50MM

50 Ohm crimp connector suitable for use with RG58, URM43, URM76 and Beldon 9907 type co-axial cables.

MOUNTING BOXES:
Minimum box depth 25mm

Mains operated products and extra low voltage modules must not be installed within the same frontplate. Refer to BS 7671: 2008 for details.

Euro Multimedia Modules

TV CO-AXIAL OUTLETS
FOR DIGITAL TV
SCREENED
NON ISOLATED

AUDIO & HD


K5850WHI


K5850BLK


K5851WHI


K5851BLK


K5855WHI


K5855BLK



K5852WHI


K5852DABWHI



K5853WHI



K5853DABWHI


K5854DABWHI


K5807WHI


K5805WHI


K5806WHI


K5809WHI


K5809BLK

K5850WHI 5
K5850BLK 5
SINGLE OUTLET (IEC MALE)
ONE MODULE 25 X 50MM

K5851WHI 5
K5851BLK 5
SINGLE OUTLET (IEC FEMALE)
ONE MODULE 25 X 50MM

K5855WHI 5
K5855BLK 5
SINGLE F-TYPE SATELLITE SOCKET
ONE MODULE 25 X 50MM

Fully screened non isolated TV outlets containing a combination of single, TV/FM Diplexer and TV/FM/SAT Triplexer for use within digital TV systems and interactive TV services. Single outlets for connection to a single TV, FM or Satellite co-axial aerial lead.

MOUNTING BOXES:
Min box depth 32mm

DIMENSIONS:
1 Module 25 x 50mm
2 Module 50 x 50mm

BS 3041: 1997
IEC 169-2: 1965
BS EN 50083 & BS 5733: 2010
where applicable

K5852WHI 5
K5852BLK 5
TWIN OUTLET
TV/FM DIPLEXER
TWO MODULE 50 X 50MM
(IRELAND ONLY)

K5852DABWHI 5
K5852DABBLK 5
TWIN OUTLET TV-FM/DAB DIPLEXER
TWO MODULE 50 X 50MM

K5853WHI 5
K5853BLK 5
TRIPLE OUTLET
TV/FM/SATELLITE TRIPLEXER
TWO MODULE 50 X 50MM
(IRELAND ONLY)

TV/FM diplexer units for connection to a single co-axial aerial lead with combined TV and FM signals.
TV/FM/SAT triplexer units for connection to a single co-axial aerial lead with combined TV, FM and Satellite signals

K5853DABWHI 5
K5853DABBLK 5
TRIPLE OUTLET TV-FM/DAB-SAT
TRIPLEXER TWO MODULE 50 X 50MM

K5854DABWHI 5
K5854DABBLK 5
QUAD OUTLET TV-FM/DAB-2XSAT
TWO MODULE 50 X 50MM

K5807WHI 5
K5807BLK 5
FEMALE HDMI OUTLET

K5807 Female HDMI Outlet is HDMI 1.1, 1.2 and 1.3 compatible, HDCP compliant.
Data Rate: Up to 2.25 Gbps
Scan: Up to 1080p/1920x1200
Input Connector:
1 x HDMI Female (Type A)
Output Connector:
1 x HDMI Female (Type A)
Supports high resolution input:
PC: VGA, SVGA,
SXVGA (1280x1024) and UXGA (1600x1200, 1920x1200)
HDTV: 480p, 720p, 1080i and 1080p
HDMI input cable should be no larger than 20m.
Weight of product: 16g
Dimensions: 50 x 50 x 20mm

K5805WHI 5
K5805BLK 5
AUDIO BINDING POST SET
FOR SINGLE LOUD SPEAKER

K5806WHI 5
K5806BLK 5
RCA TO SCREW TERMINATION SET
1 RED AND 1 BLACK

K5809WHI 5
K5809BLK 5
TRIPLE RCA TO SCREW
TERMINATION SET
1 YELLOW, 1 WHITE, 1 RED

WEIGHT: 23g
DIMENSIONS:
50 x 25 x 28mm

PERFORMANCE

SINGLE OUTLETS

TV/FM IEC MALE OR FEMALE
DC-950MHz

SAT F-TYPE
DC-1.75GHz

TV/FM/SAT PRODUCTS

OUTLET	DIPLEXER	OUTLET	TRIPLEXER
TV	5-65MHz 470-862MHz	TV	5-65MHZ 470-862MHz
FM/DAB	87.5-108MHz	FM	87.5-108MHz
SAT	N/A	SAT1	950-2300MHz

TV/FM/DAB/SAT PRODUCTS FOR DIGITAL RADIO

OUTLET	DIPLEXER	OUTLET	TRIPLEXER
TV	5-65MHz 470-862MHz	TV	5-65MHz 470-862MHz
FM/DAB	87.5-230MHz	FM	87.5-230MHz
SAT OR SAT1	N/A	SAT1	950-2300MHz
SAT2		SAT2	5-2300MHz

These products are fully compatible with Labgear TV distribution systems and are approved for use in "Sky Homes" and "Homes On" specifications

LJU6C Datacom Frontplates

LJU6C Datacom Modules

BLANKS


K180WHI


K188WHI


K188BLK


K186WHI


K186BLK

K180WHI 10
TWO MODULE
BLANK 50 X 50MM

K188WHI 10
K188BLK 10
ONE MODULE
BLANK 25 X 50MM

K186WHI 10
K186BLK 10
HALF MODULE
BLANK 12.5 X 50MM

MOUNTING BOXES:
Minimum depth 16mm

BS 5733: 2010 where applicable

FRONTPLATES


K172WHI

K172WHI 10
1 GANG TWIN
LJU6C FRONTPLATE
TWO MODULE
APERTURE SIZE 22 X 37MM

MOUNTING BOXES:
suitable for flush boxes to BS 4662: 1970 and surface boxes to BS 5733: 2010

Refer to appropriate module for minimum box depth.

FIXING CENTRES:
1 gang: 60.3mm
2 gang: 120.6mm

BS 5733: 2010 where appropriate

Note: No grid required, modules just clip into place

RJ11/12


K5787WHI

K5787WHI 5
RJ11/12
ONE MODULE

Suitable for both RJ11 and RJ12 jacks.

RJ11: 4 wire
RJ12: 6 wire

MOUNTING BOXES:
Minimum box depth 25mm

FCC68
EN41003

RJ45 CAT 6


K5746WHI


K5746BLK


K5746sWHI


K5746sBLK

K5746WHI 5
K5746BLK 5
RJ45 CAT 6
ONE MODULE

K5746sWHI 5
K5746sBLK 5
RJ45 CAT 6
SCREENED
ONE MODULE

Cat 6 performance.

Suitable for both 568A and 568B wiring schemes.

MOUNTING BOXES:
Minimum Box Depth 35mm

ISO/IEC 11801
EN 50173
TIA 568
EN 41003

RJ45 CAT 5E


K5745WHI


K5745BLK

K5745WHI 5
K5745BLK 5
RJ45 CAT 5E
ONE MODULE

Enhanced Cat 5 performance. Suitable for both 568A and 568B wiring schemes.

MOUNTING BOXES:
Minimum box depth 25mm

ISO/IEC 11801
EN 50173
TIA 568
EN 41003

BLANKS


K170WHI


K170BLK

K170WHI 10
K170BLK 10
ONE MODULE BLANK

MOUNTING BOXES:
Minimum box depth 16mm

BS 5733: 2010 where appropriate

MK Modular Frontplates

MK Modular Datacom Modules

Telephone Socket Outlets



FLUSH



K191WHI



K192WHI



K193WHI



K194WHI





K420WHI K421WHI





K487WHI K190WHI



K422WHI



K427WHI



K4817WHI



K3540WHI

K191WHI 5
1 GANG
ONE MODULE

K192WHI 5
1 GANG
TWO MODULE

K193WHI 5
2 GANG
THREE MODULE

K194WHI 5
2 GANG
FOUR MODULE

MOUNTING BOXES:

Suitable for flush boxes to BS 4662: 1970 and surface boxes to BS 5733: 2010

See Modules for correct box depth.

BS 5733: 2010 where applicable

K420WHI 10
TELEPHONE OUTLET
MASTER ONE MODULE

K421WHI 10
TELEPHONE OUTLET
SECONDARY ONE MODULE

K487WHI 10
RJ11
TELEPHONE/DATA SOCKET
ONE MODULE

K190WHI 5
BLANK
ONE MODULE

MOUNTING BOXES:

K420 and K421
are approved under OFTEL approval No.NS/G/23/L/100005 for direct and indirect connections between a termination point of a public telecommunications system and any piece of approved telecommunications apparatus.

BS 6312 Pt 2

K487 FCC 68

K190 Minimum depth 16mm

BS 5733: 2010 where applicable

K422WHI 10
1 GANG
TELEPHONE MASTER

K427WHI 10
1 GANG
TELEPHONE SECONDARY

K4817WHI 10
1 GANG
RJ11 TELEPHONE SOCKET

K3540WHI 10
3 PIN WITH
TELEPHONE SYMBOL (NON UK)

400NAT 10
IDC INSERTION TOOL

K422 and K427
Are approved under OFTEL approval No. NS/G/23/L/100005 for direct and indirect connections between a termination point of a public telecommunications system and any piece of approved telecommunications apparatus.

BS 6312 Pt 2

K4817 FCC 68

K3540
Accepts standard BS 546 2A 2 pin and earth plug where 2 pins are used for telephone circuits and the earth pin is used to ensure correct polarity.

BS 546: 1950 where relevant

TV/FM and Satellite Co-Axial Socket Outlets

FOR DIGITAL AND INTERACTIVE SERVICES
SCREENED, NON ISOLATED
FLUSH


K3550WHI


K3551WHI


K3555WHI


K3552WHI


K3552DABWHI


K3553WHI


K3553DABWHI


K3554DABWHI

K3550WHI 10
SINGLE OUTLET
(IEC MALE)

K3551WHI 10
SINGLE OUTLET
(IEC FEMALE)

K3555WHI 10
SINGLE OUTLET
F-TYPE SATELLITE SOCKET

K3552WHI 10
TWIN TV/FM
DIPLEXER

Fully screened non isolated TV outlets containing a combination of single, TV/FM Diplexer, TV/FM/SAT Triplexer and secondary telephone outlets for use within digital TV systems and interactive TV services.

K3552DABWHI 10
TWIN TV/FM
DAB DIPLEXER

K3553WHI 10
TRIPLE TV/FM/SAT
TRIPLEXER

K3553DABWHI 10
TRIPLE TV/FM DAB/SAT
TRIPLEXER

K3554DABWHI 10
QUAD TV/FM DAB/SATX2
QUADPLEXER

Single outlets for connection to a single TV, FM or Satellite co-axial aerial lead.
TV/FM diplexer units for connection to a single co-axial aerial lead with combined TV and FM signals.

MOUNTING BOXES:
Minimum box depth 32mm
1 gang: Flush: 866ZIC
Surface: K2181WHI
2 gang: Flush: 886ZIC
Surface: K2183WHI

DIMENSIONS:
1 gang: 86 x 86mm
2 gang: 86 X 146mm

FIXING CENTRES:
1 gang: 60.3mm
2 gang: 120.6mm

PERFORMANCE

SINGLE OUTLETS

TV/FM IEC MALE OR FEMALE
DC-950MHz

SAT F-TYPE
DC-950MHz

TV/FM and Satellite Co-Axial Socket Outlets with Telephone Outlet

FOR DIGITAL AND INTERACTIVE TV SERVICES
FLUSH


K3557WHI


K3561WHI


K3561DABWHI


K3562WHI


K3563WHI


K3563DABWHI


K3564DABWHI


K3565DABWHI


K3566DABWHI

K3557WHI 10
SINGLE OUTLET (IEC MALE)
WITH TELEPHONE SECONDARY

K3561WHI 5
TRIPLE TV/FM/SAT TRIPLEXER
WITH TELEPHONE SECONDARY

TV/FM/SAT triplexer units for connection to a single co-axial aerial lead with combined TV, FM and Satellite signals

K3561DABWHI 5
TRIPLE TV/FM DAB/SAT TRIPLEXER
WITH TELEPHONE SECONDARY

K3562WHI 5
TWIN TV/FM DIPLEXER
WITH SINGLE TV (IEC MALE)
AND TELEPHONE SECONDARY

K3563WHI 5
TRIPLE TV/FM/SAT TRIPLEXER
WITH SINGLE TV (IEC MALE)
AND TELEPHONE SECONDARY

Telephone Secondary outlet for use with interactive TV digital services.

K3562 and **K3563** outlets with additional single TV (male) outlet for secondary distribution of TV signal

K3563DABWHI 5
TRIPLE TV/FM/DAB/SAT TRIPLEXER
WITH SINGLE TV (IEC MALE)
AND TELEPHONE SECONDARY

K3564DABWHI 5
QUAD TV/FM DAB/SATX2 QUADPLEXER
WITH TELEPHONE SECONDARY

K3565DABWHI 5
QUADPLEXER + RJ45
AND TELEPHONE SECONDARY

K3566DABWHI 5
QUADPLEXER
WITH TELEPHONE SECONDARY
AND SINGLE TV (IEC MALE)

TV/FM/SAT PRODUCTS

OUTLET	DIPLEXER
TV	5-65MHz 470-862MHz
FM/DAB	87.5-108MHz
SAT	N/A

OUTLET	TRIPLEXER
TV	5-65MHZ 470-862MHz
FM	87.5-108MHz
SAT1	950-2300MHz

TV/FM/DAB/SAT PRODUCTS FOR DIGITAL RADIO

OUTLET	DIPLEXER
TV	5-65MHz 470-862MHz
FM/DAB	87.5-230MHz
SAT OR SAT1	N/A
SAT2	

OUTLET	TRIPLEXER
TV	5-65MHz 470-862MHz
FM	87.5-230MHz
SAT1	950-2300MHz
SAT2	5-2300MHz

BS 3041: 1997
IEC169-2: 1965
BS EN 50083 where applicable
BS 5733: 2010 where applicable
BS 6312 Pt2

DAB Products are not available in Ireland

TV/FM and Satellite Co-Axial Socket Outlets

Grid Plus Frontplates

NON ISOLATED
FLUSH

ISOLATED
FLUSH


K3520WHI


K3523WHI


K3525WHI


K3525D1WHI

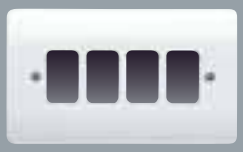

K3521WHI


K3522WHI

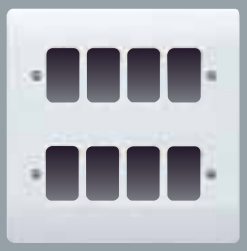

K3631GRA

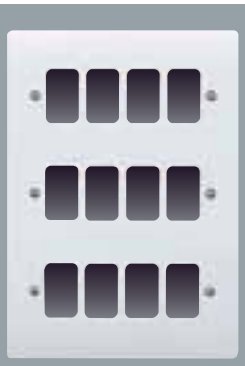

K3632WHI


K3633GRA


K3634WHI


K3636WHI


K3638WHI


K3639WHI

K3520WHI 10
SINGLE OUTLET

K3523WHI 10
TWIN OUTLET

K3525WHI 10
SINGLE F TYPE SATELLITE SOCKET

K3525D1WHI 10
TWIN F TYPE SATELLITE SOCKET

MOUNTING BOXES:

FLUSH:
861ZIC (25mm)

SURFACE:
K2140WHI

Single outlet for connection to a single TV or FM co-axial aerial lead. Twin outlet for connection to each of two separate TV/FM, co-axial aerial leads.

DIMENSIONS: 86 x 86mm

FIXING CENTRES: 60.3mm

BS 5733: 2010 where applicable

BS 3041: 1977
IEC 169-2: 1965

K3521WHI 10
SINGLE OUTLET

K3522WHI 10
TWIN OUTLET
WITH FM/TV DIPLEXER

MOUNTING BOXES:

FLUSH:
861ZIC (25mm)

SURFACE:
K2140WHI

Provides safety isolation rated at 2000Va.c. between aerial lead and socket.
Single outlet for connection to a single TV or FM co-axial aerial lead. Twin outlet with TV/FM diplexer for connection to single co-axial aerial lead with combined TV & FM signals.

DIMENSIONS: 86 x 86mm

FIXING CENTRES: 60.3mm

BS 5733: 2010 where applicable
BS 3041: 1977 IEC 169-2: 1965

K3631WHI 10
K3631GRA 10
1 MODULE

K3632WHI 10
K3632GRA 10
2 MODULE

K3633WHI 10
K3633GRA 10
3 MODULE

K3634WHI 10
K3634GRA 10
4 MODULE

All modules from the Grid Plus range can be used with these frontplates.

DIMENSIONS:
1 & 2 MODULE: 86 x 86mm
3 & 4 MODULE: 86 x 146mm
6 & 8 MODULE: 146 x 146mm
12 MODULE: 206 x 146mm

BS 5733: 2010

K3636WHI 1
K3636GRA 1
6 MODULE

K3638WHI 1
K3638GRA 1
8 MODULE

K3639WHI 1
12 MODULE



range introduction

MK Sensors are designed to deliver energy savings and lighting usage management in a wide range of commercial applications. Lighting represents, on average, up to 40% of a building's total energy consumption; and also the largest opportunity for energy savings.

The MK Sensor range deploys three main types of sensor technology – namely PIR, Microwave and Ultrasonic – in a variety of devices configured for ceiling or corner mounting; as well as long range detection.

Most products in the MK Sensors range have a built-in photocell, providing occupancy and light level detection. The range is also complemented by a host of accessories and ancillaries – such as programmers and controllers – which combine to make the range easy to install, easy to understand and easy to use.

features and benefits

- **Built in photocell provides light level detection**
- **Sensors can be installed for absence detection**
- **6A and 10A products**
- **Easy to install and program**
- **Flush and surface mounted variants available**
- **Ideal for most interior environments**



Product featured is a Superior PIR.
To find out more visit www.mkelectric.co.uk

Simple Fit Sensors

Standard PIRs

Superior PIRs

BattenFit Sensors

IP65



K5015



K5016



K4010



K4011



K4015



K4017



K4041 / K4042
K4043 / K4044



K4046 / K4047
K4048 / K4049

K5015 1
SIMPLE FIT PHOTOCELL WITH PIR
FLUSH MOUNTED
6A

K5016 1
SIMPLE FIT PHOTOCELL WITH PIR
SURFACE MOUNTED
6A

DIMENSIONS:
Flush: 76 x 86mm
Surface: 86 x 86mm x 54.5mm

K4010 1
SLIM FLUSH, 6A

K4011 1
SURFACE, 6A

DIMENSIONS:
Slim: 65 x 115mm
Surface: 100 x 72mm

K4015 1
SLIM FLUSH, 6A

K4016 1
SURFACE, 6A

K4017 1
DUAL CIRCUIT, FLUSH, 6A

K4018 1
DUAL CIRCUIT, SURFACE, 6A

K4019 1
SLIM FLUSH
9 X DSI BALLASTS

K4020 1
SURFACE
25 X DSI BALLASTS

DIMENSIONS:
Slim: 65 x 115mm
Surface: 100 x 72mm

K4041 1
BATTENFIT SENSOR
2A SWITCHING

K4042 1
BATTENFIT SENSOR
2A SWITCHING PCELL

K4043 1
BATTENFIT SENSOR
REGULATING PCELL DSI

K4044 1
BATTENFIT SENSOR
REGULATING PCELL DALI

DIMENSIONS:
121 x 40 x 29mm

K4046 1
BATTENFIT SENSOR
2A SWITCHING
IP65

K4047 1
BATTENFIT SENSOR
2A SWITCHING PCELL
IP65

K4048 1
BATTENFIT SENSOR
REGULATING PCELL DSI
IP65

K4049 1
BATTENFIT SENSOR
REGULATING PCELL DALI
IP65

DIMENSIONS:
150 x 40 x 29mm

OPERATING VOLTAGE: 230V 50Hz, MATERIAL: Flame retardant PC/ABS, RECOMMENDED CIRCUIT PROTECTION: 10A

Microwave Digital Sensors

Ultrasonic

Long Range Detector

Universal Photocell

Accessories



K4025



K4032



K4030



K4031



K4035



K4036



K4039 / K4040



K4045



K4050



K4051



K4052



K4053

K4025BLU 1
CEILING MOUNTED, FLUSH, DSI, BLUE, 6A

K4025YEL 1
CEILING MOUNTED, FLUSH, DSI, YELLOW, 6A

K4025RED 1
CEILING MOUNTED, FLUSH, DSI, RED, 6A

K4025GRN 1
CEILING MOUNTED, FLUSH, DSI, GREEN, 6A

K4032 1
CORNER MOUNTED 20M RANGE, SURFACE, 10A

K4033 1
CORNER MOUNTED 20M RANGE, SEMI FLUSH, 10A

DIMENSIONS:
Ceiling: 100 x 72mm
Corner: 74 x 95mm

K4030 1
CORNER MOUNTED, SURFACE, 10A

K4031 1
CORNER MOUNTED, SEMI FLUSH, 10A

DIMENSIONS:
Ceiling: 100 x 72mm
Corner: 74 x 95mm

K4035 1
CORNER MOUNTED, 30M RANGE, FLUSH MOUNTED

K4036 1
CORNER MOUNTED, 30M RANGE, BOX MOUNTED

K4037 1
CORNER MOUNTED, 60M RANGE, FLUSH MOUNTED

K4038 1
CORNER MOUNTED, 60M RANGE, BOX MOUNTED

K4039 1
BOX MOUNTED, SINGLE CIRCUIT CONTROL UNIT, 10A

K4040 1
BOX MOUNTED, DUAL CIRCUIT CONTROL UNIT, 10A

DIMENSIONS:
Flush: 170 x 120 x 80mm
Surface: 125 x 175 x 145mm

OPERATING VOLTAGE:
230V 50Hz

MATERIAL:
Zinc & Polycarbonate

K4045 1
SLIMLINE FLUSH, 6A

DIMENSIONS:
65 x 115mm

K4050 1
HAND-HELD PROGRAMMER

K4051 1
TWO BUTTON HAND-HELD CONTROLLER

K4052 1
MULTIFUNCTION HAND-HELD CONTROLLER

K4053 1
DIGITAL PROGRAMMER

K4054 1
PLASTERBOARD FIXING KIT

K4034 1
WALL MOUNTING KIT FOR K4030 AND K4032

DIMENSIONS:
K4050: 75 x 58 x 18mm
K4051 & K4052: 120 x 56 x 22mm
K4053: 150 x 35 x 35mm

BATTERIES REQUIRED:
K4050: 2 x CR 2032
K4051 & K4052: 2 x AAA
K4053: 3 x AAA



range introduction

A range of temperature control products for domestic heating applications. The products are used typically where a gas boiler is installed, and maintain the space temperature in a room, or a whole house at the desired level.

features and benefits

Attractive designs

Curved lines, low profile appearance and neutral colour let the units blend with their environment.

Ease of Installation

A range of features allow installation to be quick and easy, including wiring knock-outs and trunking guides, large wiring terminals with captive washers.

Easy to programme

Electronic Timeswitches and Programmers feature a built-in start-up programme, all models have clear and easy to follow User Guides.

Room Thermostat



KT6360BWHI

KT6360BWHI 1
LINE VOLTAGE SPDT
THERMOSTAT WITH NEON LAMP

Mains voltage room thermostat to give automatic temperature control of domestic wet central heating systems.

Can be used to directly switch a circulating pump or boiler, or to operate spring return and motor open/motor close zone valves.

Can switch electrical heating loads up to 10A.

All products conform to standards: BS EN 60730-1, BS EN 60730-2-7, BS EN 55014-1, BS EN 55014-2

Electronic Timeswitches



KST6100AWHI



KST6100CWHI

KST6100AWHI 1
1 DAY TIMER,
SINGLE OUTPUT WITH
LCD DISPLAY

KST6100CWHI 1
7 DAY TIMER,
SINGLE OUTPUT WITH
LCD DISPLAY

KST6100AWHI

24 hour timeswitch with two ON/OFF switching times per day.

Suitable for combi boilers, added zones or any application where small electrical loads need switching.

KST6100CWHI

Single channel timeswitch with up to three ON/OFF switchings per day, ideal for combi installations or as a zone control on larger systems.

All products conform to standards: BS EN 60730-1, BS EN 60730-2-7, BS EN 55014-1, BS EN 55014-2

Electronic Programmers



KST6400AWHI

KST6400AWHI 1
1 DAY CH+DHW PROGRAMMER,
DUAL OUTPUT WITH
LCD DISPLAY

KST6400AWHI

Fully featured electronic programmer offering 24 hour programming with up to three ON/OFF switchings, which can be set independently for heating and hot water.

All products conform to standards: BS EN 60730-1, BS EN 60730-2-7, BS EN 55014-1, BS EN 55014-2

Programmable Thermostats



KCMR701AWHI



KCMR707AWHI

KCMR701AWHI 1
1 DAY PROGRAMMABLE
THERMOSTAT WITH SPDT OUTPUT
AND OK BUTTON

KCMR707AWHI 1
7 DAY PROGRAMMABLE
THERMOSTAT WITH SPDT OUTPUT
AND OK BUTTON

KCMR701AWHI

A 24 hour programmable room thermostat to control heating systems, includes 4 independent temperature levels and built-in memory to retain the user program indefinitely.

KCMR707AWHI

A 7 day programmable room thermostat to control heating systems, includes 'Holiday Button' for energy saving and built-in memory to retain the user program indefinitely.

All products conform to standards: BS EN 60730-1, BS EN 60730-2-7, BS EN 55014-1, BS EN 55014-2



range introduction

MK Electric offers a comprehensive range of white ceiling accessories for all requirements. Included in the range are enhanced 'safety' lampholders.

Unlike most other 'safety' lampholders, when the lamp is removed it automatically shields the contact by means of a specially designed shutter and it remains that way until a lamp is replaced.

Therefore when no lamp is in place contact pins are totally isolated, preventing any danger of electrocution.

features and benefits

Ease of installation

Pendant sets incorporate a heat resistant lampholder (1150WHI), and ceiling rose with a transparent base and clear terminal markings for ease of identification. Terminals are grouped in line with neutral, loop-in and earth terminals (1161WHI).

Safety

Shockguard Plus has a specially designed shutter that automatically shields the lamp contacts, therefore eliminating the danger of electrocution.

Reliability

All products are 100% tested before delivery for confidence, so a 'fit and forget' installation can be achieved. Fully compliant with the relevant British Standards BS 7895 for bayonet lampholders with enhanced safety and BS EN 61184.

Durability

Manufactured from the highest quality materials to give a high gloss finish, which is both scratch and colour fade resistant.

Ceiling Switches

Mounting Blocks and Cords

6 AMP SURFACE



3191WHI



3192D1WHI



3190RCWHI



3190RCD1WHI

3191WHI 5
6A SP ONE-WAY

3191D1WHI 5
6A SP ONE-WAY
WITH 2m WHITE CORD
AND 1X GRAPHITE BANGLE

3192WHI 5
6A SP TWO-WAY

3192D1WHI 5
6A SP TWO-WAY
WITH 2m WHITE CORD
AND 1X GRAPHITE BANGLE

Supplied with mounting blocks.

Earth terminal is riveted in base of mounting blocks.

3191 and **3192** are supplied with 1.5m switch cord.

3190 is supplied with 2m of red switch cord and 2 acorns.

BANGLE DIAMETER: 50mm

These switches do not have to be derated when used with fluorescent or inductive loads.

FIXING CENTRES: 50.8mm

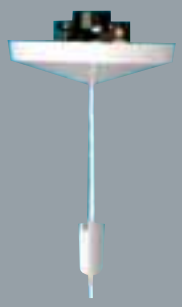
BS EN 60669-1: 1999

3190RCWHI 5
6A SP TWO-WAY
PULL TO MAKE OR PULL TO BREAK
(MOMENTARY SWITCH ACTION)

3190RCD1WHI 5
6A SP TWO-WAY
WITH 3M RED CORD
AND 2X RED BANGLE

Supplied with mounting blocks.

WITHOUT MOUNTING BLOCKS FLUSH



3131WHI



3151WHI

3131WHI 5
6A SP TWO-WAY

3151WHI 5
16A DP ONE-WAY

Mounting blocks are not supplied. Use 2051WHI or 2056WHI.

Suitable for installation in small circular conduit boxes to BS 4568 Pt 2: 1970. See page 368.

Ceiling switch cords are 1.5m minimum length.

These switches do not have to be derated when used with fluorescent or inductive loads.

FIXING CENTRES: 50.8mm

BS EN 60669-1: 1999

50A FLUSH



3164WHI



8329SSWHID1T9

3164WHI 5
50A DP ONE-WAY
WITH NEON
FITTED WITH
CEILING SWITCH CORD
OF 1.5m MINIMUM LENGTH

8329SSWHID1T9 5
2m WHITE CORD WITH JOINT
UNION AND GRAPHITE BANGLE

MOUNTING BOXES:

SURFACE Moulded
2140WHI, 2180WHI
2031WHI (extra wiring space)

FLUSH Steel
877ZIC (for full load applications)

SURFACE Metal
2211ALM, 2213ALM

Fitted with a mechanical 'OFF' indicator. The switch fully complies with the 16th Edition IEE Wiring Regulations with respect to safety isolation for maintenance purposes and provides a full 3mm contact gap when 'OFF'.

DIMENSIONS: 86 x 86mm

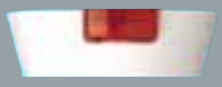
BANGLE DIAMETER: 50mm

FIXING CENTRES: 60.3mm

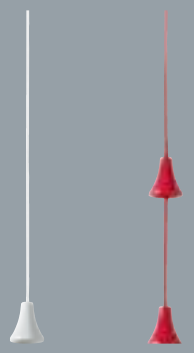
BS EN 60669-1: 1999



2051WHI



2056WHI



8329SSWHI 9420SS

2051WHI 10
MOUNTING BLOCK
FOR 6A OR 16A
SWITCHES

2056WHI 5
MOUNTING BLOCK
WITH NEON
FOR 6A OR 16A
SWITCHES

8329SSWHI 10
1.5M WHITE CEILING SWITCH CORD
COMPLETE WITH ACORN
AND ONE PIECE JOINT UNION

9420SS 1
2M RED CEILING SWITCH CORD
COMPLETE WITH TWO RED ACORNS
AND ONE PIECE JOINT UNION

2051WHI and **2056WHI**

Earth terminal riveted in base.

DIAMETER: 83mm

FIXING CENTRES: 50.8mm

BS EN 60669-1: 1999

Ceiling Roses

Lampholders









Unlike most 'safety' lampholders, when a lamp is removed Shockguard Plus automatically seals the contact by means of specially designed shutter and it remains that way until the lamp is replaced.
This means that with no bulb in place there is no danger of electrocution from exposed contacts, as the contact pins are fully shielded.



The MK Ceiling Rose has a transparent base, precut aperture and clear markings for ease of installation. Terminal layout allows cables to be cut to the same length and the earth terminal is positioned for easier cable access.

1161WHI 10
FOUR TERMINALS LINE, NEUTRAL, LOOP-IN AND EARTH

1163WHI 10
CEILING ROSE HALO

Incorporate tunnel type terminals, and knockouts which accommodate 3 x 2.5mm² cables and allow for off centre cable entries, transparent terminal block and equal length wire stripping.

Suitable for fittings of up to 5kgs. Heavier fittings must be installed using independent support eg. ceiling hook.

The ceiling roses are suitable for mounting over BS 4568 Pt 2 circular conduit boxes.

DIAMETER (Cover): 84mm

DEPTH (Cover): 34mm

BS 67: 1987

The Ceiling Rose Halo gives a neat finish should the ceiling be damaged.

1170WHI 10
BC PENDANT LAMPHOLDER WITH AUTOMATIC CORDGRIP

1171WHI 10
BC PENDANT LAMPHOLDER WITH AUTOMATIC CORDGRIP AND PROTECTIVE SKIRT

1180WHI 10
SKIRT FOR MK LAMPHOLDER LIST NO. 1170WHI

1181WHI 10
SKIRT FOR MK LAMPHOLDER LIST NO. 1171WHI

All MK lampholders are heat resistant to category T2 of BS EN 61184 and are therefore capable of operation with lamp cap temperatures up to 210°C.

BS EN 61184: 1997 T2 Rated.

Ceiling Accessories

Lampholders

SG TYPE



1150WHI

1150WHI 10
BC PENDANT
SG TYPE LAMPHOLDER

Shockguard SG Type lampholders automatically shield contacts by means of a shutter when the lamp is removed.

All MK SG Type lampholders are heat resistant to category T2 of BS EN 61184 and are therefore capable of operation with lamp cap temperatures up to 210°C.

BS EN 61184: 1997
BS 7895: 1997

Pendant Sets

SG TYPE



1186WHI

1189WHI

1186WHI 10
150mm PENDANT SET

1189WHI 10
230mm PENDANT SET

1186WHI and **1189WHI** incorporate a lampholder (1170WHI), heat resisting PVC insulated and sheathed flexible 0.75mm² two core circular cable complying with BS 6500: 2000 (Table 29) and a ceiling rose fitted with line, neutral, loop-in and earth terminals (1161WHI).

This assembly will support a light fitting of up to 3kgs.



1146WHI

1149WHI

1146WHI 10
SG TYPE
150mm PENDANT SET

1149WHI 10
SG TYPE
230mm PENDANT SET

1146WHI and **1149WHI** incorporate a SG lampholder (1150WHI), heat resisting PVC insulated and sheathed flexible 0.75mm² two core circular cable complying with BS 6500: 2000 (Table 29) and a ceiling rose fitted with line, neutral, loop-in and earth terminals (1161WHI).

This assembly will support a light fitting of up to 3kgs.

Batten Lampholders

SG TYPE



1172WHI



1174WHI



1179WHI

1172WHI 10
BC ANGLED

1174WHI 10
HEAT RESISTANT TAILS, LIVE, NEUTRAL, LOOP-IN AND EARTH TERMINALS

1179WHI 10
SURFACE MOUNTING PATTRESS BLOCK

All MK lampholders are heat resistant to category T2 of BS EN 61184 and are therefore capable of operation with lamp cap temperatures up to 210°C.

1174WHI also incorporates heat resistant wires connecting the terminals in the base to the lampholder. It has terminals mounted in the base and knockouts which accommodate 3 x 2.5 mm² cables and allow for off centre cable entries.

BS EN 61184: 1997 T2 Rated.

1179WHI pattress block is for use with angled batten lampholders 1172WHI and 1142WHI.

SG TYPE



1152WHI



1154WHI

1152WHI 10
SG TYPE
ANGLED BATTEN LAMPHOLDER
HEAT RESISTANT TAILS, LIVE, NEUTRAL, LOOP-IN AND EARTH TERMINALS

1154WHI 10
SG TYPE
BATTEN LAMPHOLDER
HEAT RESISTANT TAILS, LIVE, NEUTRAL, LOOP-IN AND EARTH TERMINALS

Shockguard SG Type lampholders automatically shield contacts by means of a shutter when the lamp is removed.

All MK SG Type lampholders are heat resistant to category T2 of BS EN 61184 and are therefore capable of operation with lamp cap temperatures up to 210°C.

1152WHI and **1154WHI** also incorporate heat resistant wires connecting the terminals in the base to the lampholder.

BS EN 61184: 1997 T2 Rated.

BS 7895: 1997

technical hotline +44 (0)1268 563720



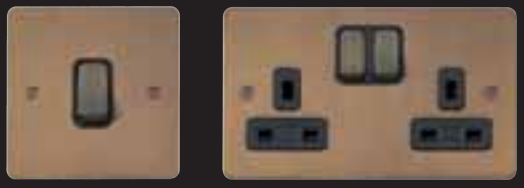
the monarch, dubai

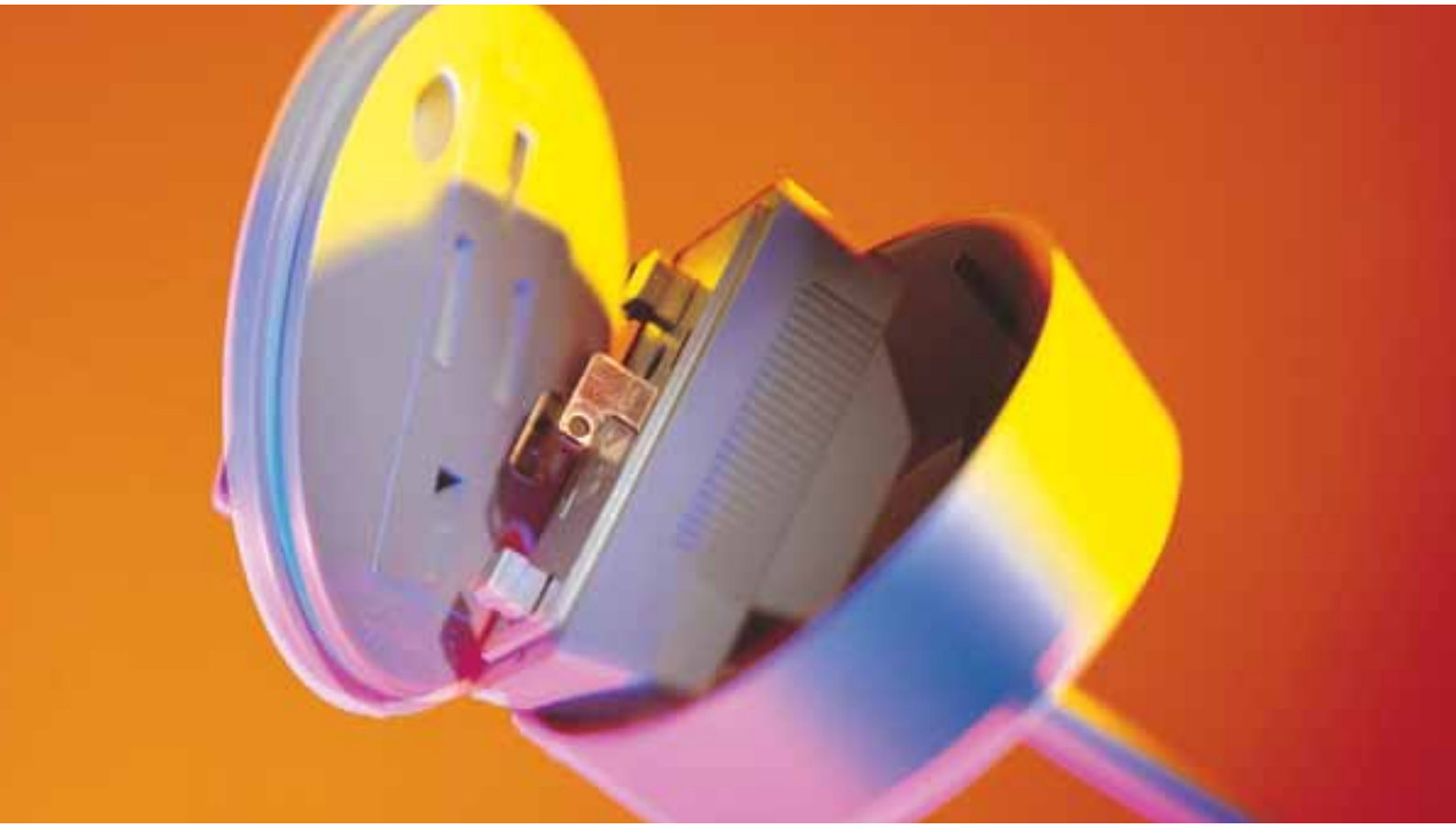
With its distinctive blue glass skin, Monarch Dubai and The Monarch Office Tower are a striking landmark on the Dubai skyline. Inside the twin towers the interiors of the hotel with its 236 luxury rooms and suites, and the 37 storey building of office space with each floor at approximately 12,000 square feet, are no less impressive.

MK's Edge range, manufactured in a unique dark brass finish, was an essential component in creating the overall look of sumptuous quality. Given a material sample by the project's interior design team, MK was able to quickly produce a finished example that achieved the levels of elegance and sophistication required for this prestigious development.

Impressed by the speedy response and the factory-ready sample the interiors team gave the go-ahead to specify the customised product range throughout.

Available on a worldwide basis, the MK Design Service is supported by a dedicated team to ensure the seamless delivery of your chosen products.
To find out more visit www.mkelectric.co.uk





range introduction

The MK Link connection and distribution system brings plug-in convenience and versatility for lighting installations.

It is a modular plug and socket interface that provides electrical connection in one easy click-in action. Luminaires can be plugged in without circuit isolation. All live contacts are inaccessible and the earthing connection is made before any other.

features and benefits

- **Live contacts are inaccessible**
- **Earth Contact – first to make, last to break**
- **Mechanical and Electrical Connection in one 'click-in' action**
- **Strong load grips support up to 5kg**

3 Pin Accessories

3 PIN PLUGS 6 AMP





K3230WHI

K3230WHI 10
WHITE 3 PIN PLUG
WITH CORD GRIP

DIMENSIONS:
57 x 25 x 25mm

TERMINALS:
Phase, neutral and earth terminals will each accept 1 x 0.75, 1 x 1.00mm* conductors.

NOTE:
K3230 can be used with the 4 pin socket outlets in this range.

WARNING:
Plugs **must only** be wired to loads, luminaires or appliances.

BS 6972 & BS 5733

3 PIN SOCKETS 6 AMP



K3220WHI



K3212WHI

K3220WHI 10
CIRCULAR (BESA)

K3212WHI 10
ARCHITRAVE
WITH TRUNKING CLAMP

DIMENSIONS:
K3220: 74mm dia. & 7mm depth
K3212:
86 x 33 x 6mm & 7mm depth

FIXING CENTRES:
K3220: 50.8mm diagonal BESA
K3212: 60.3mm

MOUNTING BOXES:
K3220: Conduit BESA Egatube boxes or surface K3203WHI circular box

TERMINALS:
Phase, neutral, earth & 'loop in' terminals will each accept
5 x 0.75, 5 x 1.00, 4 x 1.50, 3 x 2.50 or 2 x 4.00mm² conductors

NOTE: only 3 pin plugs can be used with these sockets

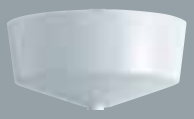
BS 6972 & BS 5733

3 PIN CEILING ROSES 6 AMP



K3240WHI





K3240WHI

K3240WHI 10
CEILING ROSE (BESA)
WITH 3 PIN PLUG

K3241WHI 5
SURFACE MOUNTING
CEILING ROSE WITH 3 PIN PLUG

DIMENSIONS:
K3240: 75mm dia. x 44mm & 7mm fitting depth
K3241: 80mm dia. x 58mm surface

FIXING CENTRES:
K3240: 50.8mm diagonal BESA
K3241: Slotted screw holes (No.8), 50.8mm centres, can be mounted on a BESA box

MOUNTING BOXES:
K3240: Conduit BESA Egatube boxes or surface K3203WHI circular box

TERMINALS:
Phase, neutral, earth and 'loop in' terminals will each accept 5 x 0.75, 5 x 1.00, 4 x 1.50, 3 x 2.50, or 2 x 4.00mm conductors

BS 6972 & BS 5733

3 Pin Pre-wired

3 PIN PLUGS 6 AMP



K3232WHI



K3233WHI

K3232WHI 10
3 PIN PLUG FITTED WITH
2M WHITE PVC FLEX

K3233WHI 5
3 PIN PLUG FITTED WITH
3M WHITE PVC FLEX

K3232WHI & **K3233WHI**
incorporate K3230WHI fitted with the respective length of heat resisting PVC insulated and sheathed flexible 0.75mm three core circular cable complying with BS 6500: 2000 (Table 29).

3 PIN CEILING ROSES 6 AMP



K3242WHI



K3243LSF

K3242WHI 10
CEILING ROSE AND 3 PIN PLUG
FITTED WITH 2M PVC FLEX

K3243WHI 5
CEILING ROSE AND 3 PIN PLUG
FITTED WITH 3M PVC FLEX

K3242LSF 10
CEILING ROSE AND 3 PIN PLUG
FITTED WITH 2M LSF FLEX

K3243LSF 5
CEILING ROSE AND 3 PIN PLUG
FITTED WITH 3M LSF FLEX

K3242WHI & **K3243WHI**
incorporate K3240WHI fitted with the respective length of heat resisting PVC insulated and sheathed flexible 0.75mm three core circular cable complying with BS 6500: 2000 (Table 29).

K3242LSF & **K3243LSF**
incorporate K3240WHI fitted with the respective length of low smoke zero halogen insulated and sheathed flexible 0.75mm three core circular cable to BS 6972 & BS 5733.

GENERAL SPECIFICATION
Rated voltage for all plugs, sockets and pre-wired assemblies 250V 50Hz
Rated load current for all plugs, sockets and pre-wired assemblies 6A
Static suspension load for plugs, sockets and pre-wired assemblies 5kg max.

4 Pin Accessories

4 PIN PLUGS 6 AMP



K4230WHI

K4230WHI 10
WHITE 4 PIN PLUG WITH CORD GRIP

DIMENSIONS:
57 x 35 x 44mm

TERMINALS;
Phase neutral, earth and auxiliary terminals will each accept
1 x 0.75, 1 x 1.00mm conductors

NOTE
K4230 cannot be used with the 3 pin socket outlets in this range

WARNING
Plugs must only be wired to loads, luminaires or appliances

BS 6972 & BS 5733

4 PIN SOCKETS 6 AMP



K4214WHI





K4220WHI

K4214WHI 10
ONE GANG 4 PIN SOCKET OUTLET

K4220WHI 10
CIRCULAR (BESA) 4 PIN SOCKET OUTLET

DIMENSIONS:
K4214: 86 x 86 x 9mm & 5mm depth
K4220: 74mm dia. & 7mm depth

FIXING CENTRES:
K4214: 60.3mm
K4220: 50.8mm diagonal (BESA)

MOUNTING BOXES:
K4214: Surface K2160WHI, flush dryline QFB1WHI or flush solid 861ZIC
K4220: Conduit BESA Egatube boxes or surface K3203WHI circular box

TERMINALS:
Phase, neutral, earth, auxiliary & 'loop in' terminals will each accept
5 x 0.75, 5 x 1.00, 4 x 1.50,
3 x 2.50 or 2 x 4.00mm conductors

NOTE: 3 and 4 pin plugs can be used with the 4 pin socket outlets in this range.

BS 6972 & BS 5733

4 PIN CEILING ROSES 6 AMP



K4240WHR



K4240WHR

K4240WHR 10
CEILING ROSE (BESA) WITH RED 4 PIN PLUG

DIMENSIONS:

FIXING CENTRES:
50.8mm diagonal (BESA)

MOUNTING BOXES:
Conduit BESA Egatube boxes or surface K3203WHI circular box

TERMINALS:
Phase, neutral, earth, auxiliary & 'loop in' terminals will each accept
5 x 0.75, 5 x 1.00, 4 x 1.50,
3 x 2.50 or 2 x 4.00mm conductors

BS 6972 & BS 5733

4 Pin Pre-wired

PREWIRED 4 PIN PLUGS 6 AMP



K4232WHR



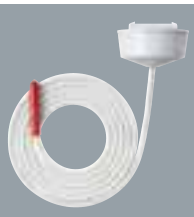
K4232WHR 10
RED 4 PIN PLUG WITH 2M WHITE PVC FLEX.

K4233WHR 5
RED 4 PIN PLUG WITH 3M WHITE PVC FLEX

K4232WHR & **K4233WHR**
incorporate K4230WHI fitted with the respective length of heat resisting PVC insulated and sheathed flexible 0.75mm four core circular cable complying with BS 6500:2000 (Table 29)

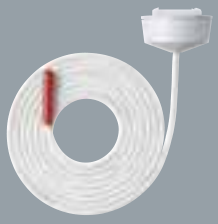
BS 6972 & BS 5733

PREWIRED 4 PIN CEILING ROSES



K4242WHR





K4243LSF

K4242WHR 10
CEILING ROSE WITH RED 4 PIN PLUG AND 2M PVC FLEX

K4243WHR 5
CEILING ROSE WITH RED 4 PIN PLUG AND 3M PVC FLEX

K4242LSF 10
CEILING ROSE WITH RED 4 PIN PLUG AND 2M LSF FLEX

K4243LSF 5
CEILING ROSE WITH RED 4 PIN PLUG AND 3M LSF FLEX

K4242WHR & **K4243WHR**
incorporate K4240WHR fitted with the respective length of heat resisting PVC insulated and sheathed flexible 0.75mm four core circular cable complying with BS 6500:2000 (Table 29)

K4242LSF & **K4243LSF**
incorporate K4240WHR fitted with the respective length of low smoke zero halogen insulated and sheathed flexible 0.75mm four core circular cable to BS 6972 & BS 5733

GENERAL SPECIFICATION
Rated voltage for all plugs, sockets and pre-wired assemblies 250V 50Hz
Rated load current for all plugs, sockets and pre-wired assemblies 6A
Static suspension load for plugs, sockets and pre-wired assemblies 5kg max.

Mounting Boxes

ARCHITRAVE MOULDED FLUSH



K2151WHI

K2151WHI 10
1 GANG
ARCHITRAVE BOX

K2151WHI
Earth terminal fitted in base.
DIMENSIONS:
87 x 33 x 16mm
FIXING CENTRES:
60.3mm

BS 5733:1995

STEEL FLUSH



3921ZIC

3921ZIC 10
1 GANG
ARCHITRAVE BOX

With earth terminal
DIMENSIONS:
75 x 27 x 27mm
FIXING CENTRES:
60.3mm
KNOCKOUTS:
3 x 16mm
BS 4662:1970

SQUARE MOULDED FLUSH



QFB1WHI



QFB/IG1



K2160WHI

QFB1WHI 20
1 GANG
DRY LINING BOX

QFB/IG1 20
1 GANG
DRY LINING BOX
WITH INTUMESCENT GASKET

K2160WHI 10
1 GANG 16mm
MOULDED BOX

QFB1
All round flange for flush fit. One piece moulded lug automatically snaps into place. No rear projections. Clamp device on cable entry. Will accommodate partition thicknesses between 6mm and 16mm. Earth terminal facility.

K2160WHI
Earth terminal fitted in base of boxes.
DIMENSIONS:
K2160: 87 x 87mm
FIXING CENTRES: 60.3mm
BS 5733: 1995

QFB/IG1
Pre-fitted with intumescent gaskets to give fire protection, in accordance with BS 476 Pt 22: 1987. In a fire situation, a chemical reaction will occur with the intumescent material. The void behind the wiring device will be filled, providing protection against the passage of fire.

BS 4662: 1970 where applicable.

STEEL FLUSH



861ZIC

861ZIC 10
1 GANG
ONE ADJUSTABLE LUG

With earth terminal
DIMENSIONS:
75 x 75mm
FIXING CENTRES:
60.3mm
KNOCKOUTS:
12 x 20mm
BS 4662:1970

See pages 368 for the full selection of circular conduit boxes.

CIRCULAR SURFACE



K3203WHI



2ECR1WHI



2ECR3WHI

K3203WHI 10
CIRCULAR SURFACE
MOUNTING BOX

2ECR13WHI 25
2ECR13BLK 25
20mm LOOP-IN

2ECR1WHI 25
2ECR1BLK 25
20mm BACK OUTLET

2ECR3WHI 25
2ECR3BLK 25
20mm TWO WAY

2ECR8WHI 10
2ECR8BLK 10
20mm TWO WAY AND
BACK OUTLET

K3203WHI
DIMENSIONS: 85mm dia x 31mm
FIXING CENTRES: 50.8mm BESA

CONDUIT BOXES
20mm Loop-in boxes have
4 x 20mm knockouts on underside.
MATERIAL: PVC-U
LID FIXING CENTRES:
50.8mm
PILLAR THREAD SIZE:
M4 (Brass inserts)

All boxes contain a moulded recess for earth terminal.

GENERAL SPECIFICATION
Rated voltage for all plugs, sockets and pre-wired assemblies 250V 50Hz
Rated load current for all plugs, sockets and pre-wired assemblies 6A
Static suspension load for plugs, sockets and pre-wired assemblies 5kg max.

Distribution Boxes



Fixing of the distribution box to lighting trunking is made easy through the choice of cable entry points.



The distribution box can be suspended on drop rods utilising Caddy Clips.*



The distribution box can be fitted directly to the wall or ceiling using the pilot holes provided in the base.



K4204 1
4 GANG 6A
4 PIN SOCKET
LIGHTING DISTRIBUTION BOX

K4208 1
8 GANG 6A
4 PIN SOCKET
LIGHTING DISTRIBUTION BOX

K4210 1
10 GANG 6A
4 PIN SOCKET
LIGHTING DISTRIBUTION BOX

DIMENSIONS:

K4204: 80 x 222 x 237mm
K4208: 80 x 222 x 400mm
K4210: 80 x 222 x 465mm

MOUNTINGS:
Provision for screw (No. 8) fix to walls or trunking and slots for *Caddy Clips on top, bottom and back faces.

Conduit entries with snap fit blanks; 20 & 25mm in top, bottom and back faces. Outlets can be wired as 1 or 2 banks.

TERMINAL CAPACITY:
3 x 6mm rated at 16A.
Each socket is rated at 6A.

Extruded aluminium body with VO rated plastic terminal housing. Both 3 & 4 pin plugs can be used with the distribution box 4 pin socket outlets.

BS 5733

*Caddy Clip is a registered trade mark of Erico Europa (UK) Ltd. Reading.



range introduction

Tungsten and fluorescent lamps make the Clearshave range the obvious choice for bathrooms.*

Units are available with or without a shaver/toothbrush socket and can be mounted horizontally or vertically.

A standard pull cord controls lighting and two way switching allows most units to be linked to a lightswitch or another Clearshave.

features and benefits

- **Automatic energisation after plug insertion**
- **Overload protection**
- **Ideal for washrooms and bathrooms***
- **Shaver socket accepts a range of shaver plugs**
- **Clearshave products with shaver sockets are now all suitable for use with electric toothbrushes too**

* Where current Wiring Regulations permit

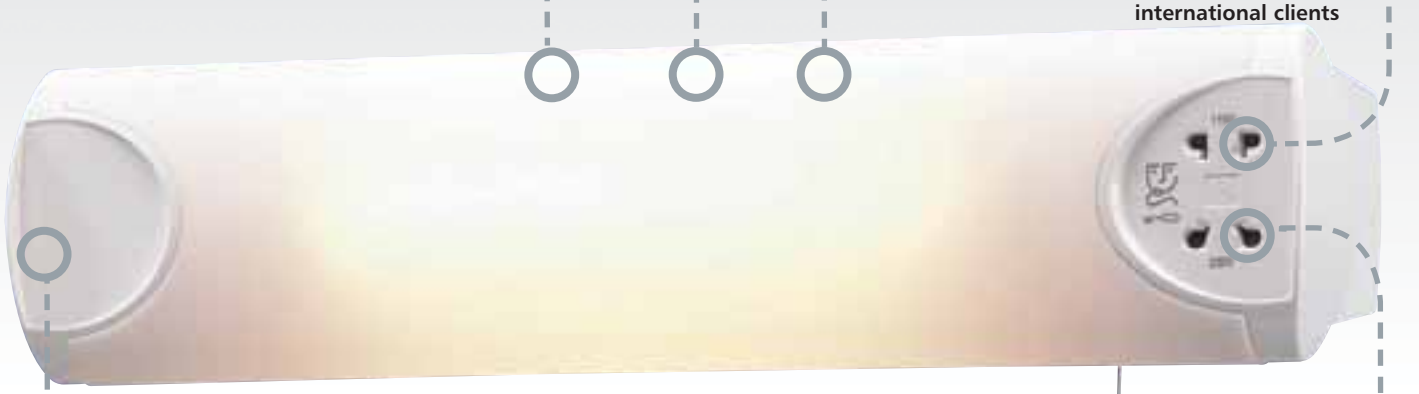
Clearshave Plus

SOFT WHITE FINISH ON FLUORESCENT LIGHTS
Provides a soft glow, prevents glare on glass and improves ease of use

CURVED STYLING AND SMOOTH DIFFUSER
More aesthetically pleasing than square products, complementing the decor of the most modern interiors

MODULAR MOUNTING PLATE AND LIGHT UNIT
Allows decorating to be completed before final fitting of shaverlight

SOCKETS ACCEPT MOST TYPES OF SHAVER AND ELECTRIC TOOTHBRUSH PLUGS, INCLUDING UK, EUROPEAN, AUSTRALIAN AND US STANDARDS
Ideal for hotels with international clients



MANUFACTURED FROM POLYCARBONATE
Durable and resistant to damage caused by misuse

ALL DEVICES OFFER 2-WAY SWITCHING
Lamp can be switched independently by a separate pull switch for flexibility of operation

SOCKET MODULES ARE SHUTTERED
Prevents access to live parts without a plug. Safe operation and compliance to the latest BS EN 61558 standard

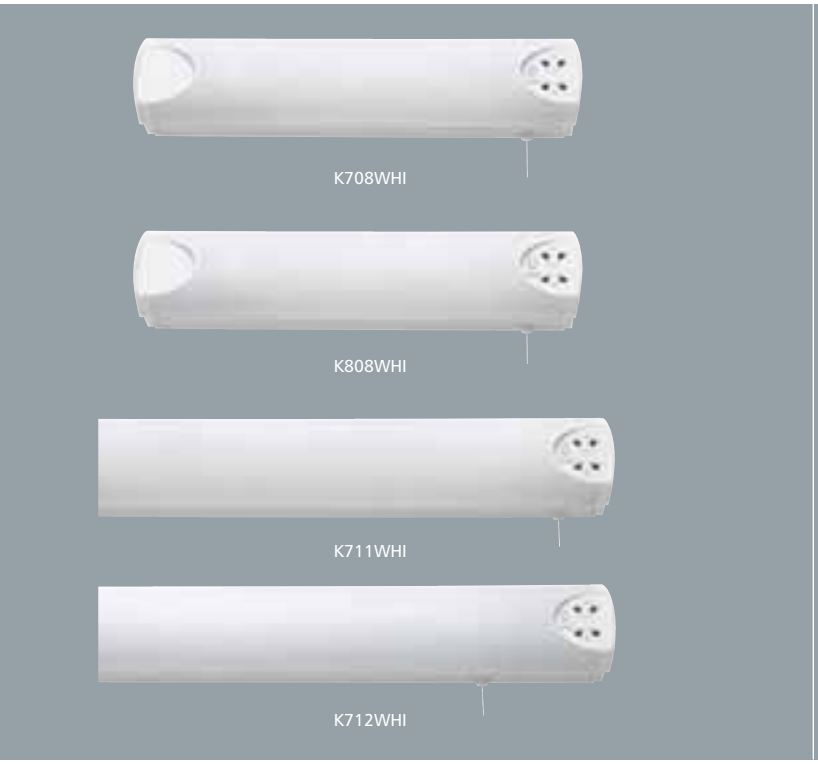
Standards and approvals

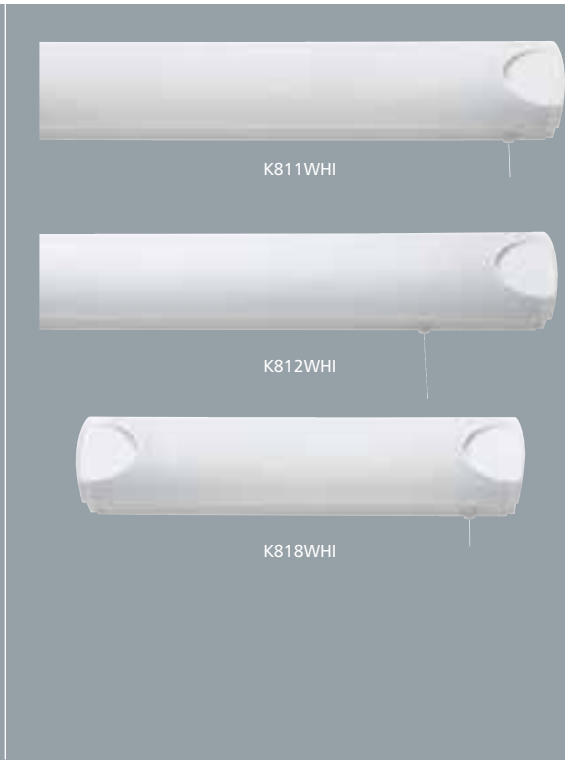
All Clearshave Plus products have been tested by the Lighting Association laboratory and licensed by ASTA.
All Clearshave Plus luminaires comply with EN 60598-2-1

- **Shaver supply units of shaver lights comply with BS EN 61558-2-5: 1998**
- **Luminaires are rated IP20 to BS EN 60529: 1992**
- **IP20 (Luminaires) and IP41 (Shaver/toothbrush sockets) are suitable for installation in zone 3 as defined in the current IEE Wiring Regulations (BS 7671)**

Shaverlights

Luminaires





K708WHI 1
60W 284mm TUNGSTEN STRIP LAMP (SUPPLIED)

K808WHI 1
11W SINGLE ENDED FLUORESCENT TUBE (SUPPLIED)

K711WHI 1
15W WARM WHITE 450mm FLUORESCENT TUBE (SUPPLIED)

K712WHI 1
18W WARM WHITE 600mm FLUORESCENT TUBE (SUPPLIED)

K811WHI 1
15W WARM WHITE 450mm FLUORESCENT TUBE (SUPPLIED)

K812WHI 1
18W WARM WHITE 600mm FLUORESCENT TUBE (SUPPLIED)

K818WHI 1
11W SINGLE ENDED FLUORESCENT TUBE (SUPPLIED)

Horizontal/vertical light units with a dual voltage shaver/toothbrush socket.

Units are supplied complete with a pull cord switch which controls the light only.

All Clearshave units incorporate a dual voltage shaver/toothbrush socket, with a double wound isolating transformer rated 20VA at 230 or 115 volts which meets BS 61558-2-5: 1998 and allows the user to comply with BS 7671: 1992 of the IEE Wiring Regulations where permitted for use in bathrooms.

Any British, American, European or Australian shaver/toothbrush plug can be inserted to give the required voltage.

Insertion of a plug automatically switches on the shaver/toothbrush socket by energising the primary side of the isolating transformer – removal automatically switches off.

The transformer is protected against overload by an automatic overload device with automatic resetting.

NB. All Clearshave units are suitable for two-way switching.

DIMENSIONS:
K708WHI: 448 x 100 x 82.5mm
K711WHI: 605 x 100 x 82.5mm
K712WHI: 758 x 100 x 82.5mm
K808WHI: 448 x 100 x 82.5mm

BS EN 60598-2-1: 1989

BS EN 61558-2-5: 1998

These products are horizontal/vertical light units.

DIMENSIONS:
K811WHI: 605 x 100 x 82.5mm
K812WHI: 758 x 100 x 82.5mm
K818WHI: 448 x 100 x 82.5mm

NB. All Clearshave Luminaire units are suitable for two-way switching.

BS EN 60598-2-1: 1989

BONDING REQUIREMENTS:

When installed in a room containing a fixed bath or shower, Clearshave units should be bonded in accordance with the latest edition of the IEE Wiring Regulations.



introduction

MK's decorative wiring device ranges have now been updated to include a new range of stylish finishes that offer greater choice and flexibility.

With 16 high quality finishes available across 4 individual ranges you will now find a style and finish that will compliment any modern, contemporary or traditional interior design scheme.

Great design relies on that precise combination of material, texture, colour and tone to create that wow factor. The ability to do the same thing with your wiring devices means you never have to settle for second best. Whether it's a new finish, combining technology or adding engraving to your products MK's Design Service team can help you achieve your design goals.

MK Electric have continued to invest in their UK manufacturing equipment, in order to be more flexible to your decorative wiring device needs whilst still offering the same level of quality and service.

features and benefits

- **16 Stunning finishes, including 8 brand new finishes**
- **4 Individual range options**
- **Choices of a screwed or screwless aesthetic**
- **Choice of frontplate depth – modern 1.5mm, contemporary 4mm or traditional 9mm**
- **Compliment any interior design scheme**
- **Flexibility and custom options with MK's Design Service**



BRUSHED STAINLESS STEEL (BSS)



BRUSHED CHROME (BRC)



LACQUERED BRUSHED STEEL (LBS)



POLISHED CHROME (POC/PCR)



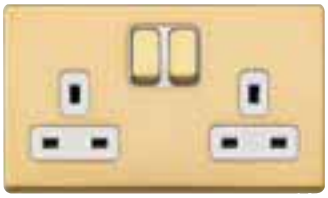
SILVER ANODIZED ALUMINIUM (SAA)



PORCELAIN WHITE (WHI)



LUSTROUS IVORY (LIV)



SATIN GOLD (SAG)



LUSTROUS BLACK (LBK)



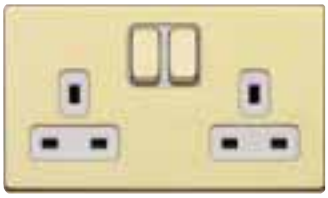
BRUSHED NICKEL (BNI)



BLACK NICKEL (BLN)



DESERT BRONZE (DBZ)



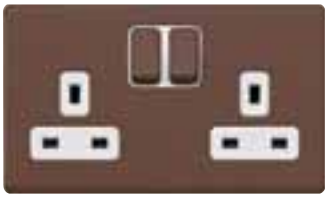
POLISHED BRASS (PBR)



ANTIQUE BRASS (ABS)



TEXTURED IRON (TIR)



TEXTURED COPPER (TCO)



range introduction

The simple, clean styling of Aspect is both modern and contemporary, so it looks at home anywhere, in almost any kind of environment where style and quality are important. The profile is just 4mm slim, so it's discreet, as well as stylish, while the concealed screws leave an elegant frontplate, making it more attractive still.

In addition to impressive looks, with Aspect comes unrivalled safety. Utilising MK's 3-pin operated safety shutter, that prevents misuse and unsafe access to live circuitry, Aspect offers the user the peace of mind and comfort that they have the safest range of wiring devices available installed in their surroundings.

Echo™ is an innovative range of entirely wireless, batteryless and self powered switches, only available from MK Electric and in finishes to complement the Aspect range. Please see page 31 for details.

features and benefits

Slim profile 'screwless' front plates of only 4mm
Provide a clean and flawless look that complements the décor of the finest interiors.

Total safety
3-pin operated "child resistant shutter system", which is designed to inhibit access to the electricity supply, unless all 3 pins of a standard British 13A plug are in position.

13 standard high quality finishes
Aspect now offers a range of fresh, reassuring and creative colours.

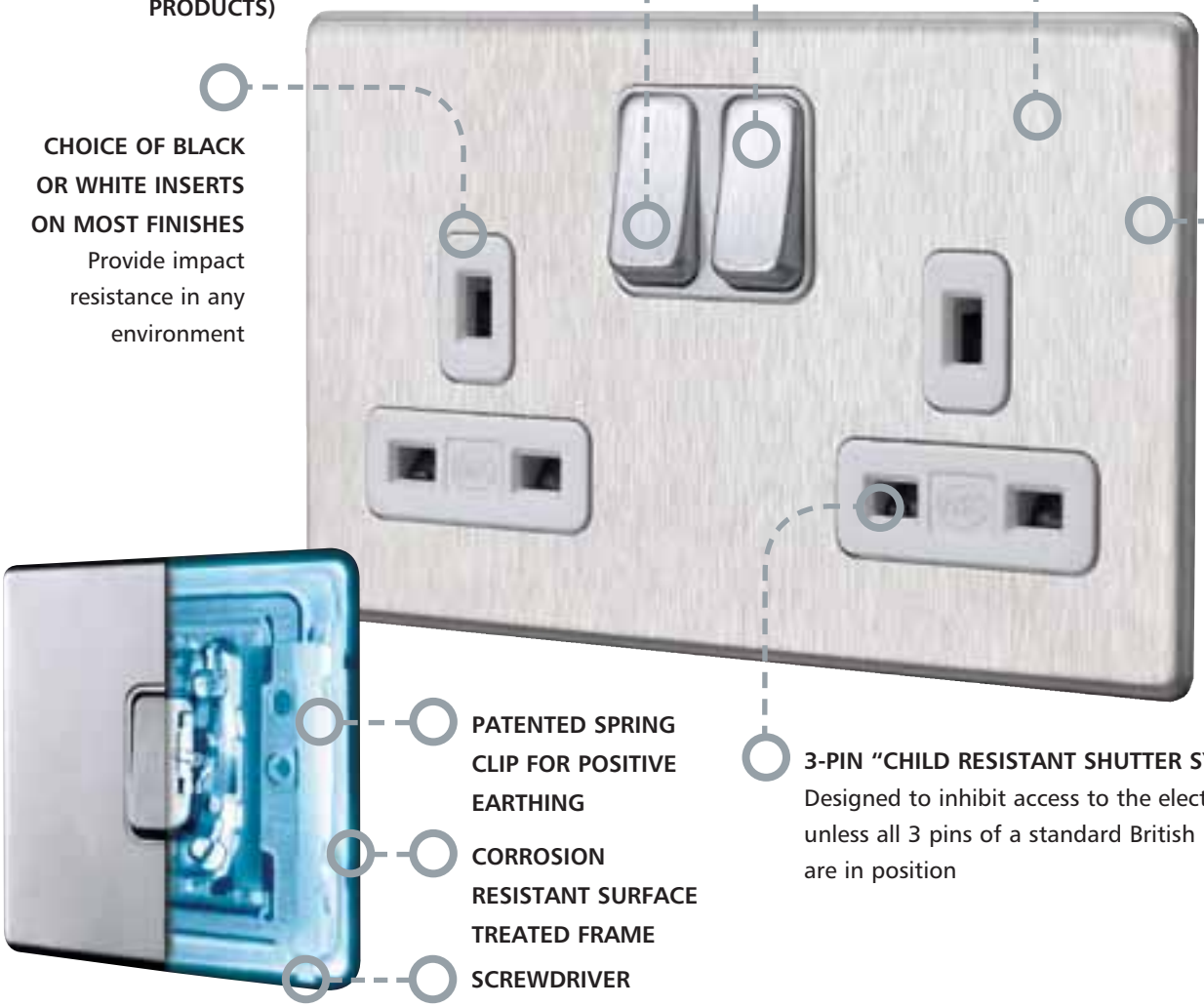
Design Service
Perfect for when only a creative solution will do.

MATCHING METAL ROCKER SWITCHES (EXCLUDING NEON PRODUCTS)

DOUBLE POLE SWITCHING

13 HIGH QUALITY FINISHES TO CHOOSE FROM

CHOICE OF BLACK OR WHITE INSERTS ON MOST FINISHES
Provide impact resistance in any environment



STYLISH SLIM DESIGN
Frontplate profile only 4mm

PATENTED SPRING CLIP FOR POSITIVE EARTHING

CORROSION RESISTANT SURFACE TREATED FRAME

SCREWDRIVER GUIDING RAMP

3-PIN "CHILD RESISTANT SHUTTER SYSTEM"
Designed to inhibit access to the electricity supply, unless all 3 pins of a standard British 13A plug are in position

As well as a wide choice of finishes, MK Aspect is available in a range of outlets for interactive and digital TV, IT and telecomms services. There are reliable and effective dimmer switches, and a comprehensive range of modular switches – all simple to install.

Terminal screws are backed out and captive Terminals are upwards facing to make installation easier.

Funnel entrance to terminals.

Clear terminal markings for easy identification.







Switchsocket Outlets

	1 GANG DP DUAL EARTH 13 AMP	1 GANG DP WITH NEON DUAL EARTH 13 AMP	2 GANG DP DUAL EARTH 13 AMP	2 GANG DP WITH NEON DUAL EARTH 13 AMP	1 GANG DP ROUND PIN 5 AMP
					
FINISHES					
BRUSHED STAINLESS STEEL	K24357BSS* 1	K24657BSS* 1	K24347BSS* 1	K24647BSS* 1	K24382BSS* 1
LACQUERED BRUSHED STEEL	K24357LBS* 1	K24657LBS* 1	K24347LBS* 1	K24647LBS* 1	K24382LBS* 1
BRUSHED CHROME	K24357BRC* 1	K24657BRC* 1	K24347BRC* 1	K24647BRC* 1	K24382BRC* 1
POLISHED CHROME	K24357POC* 1	K24657POC* 1	K24347POC* 1	K24647POC* 1	K24382POC* 1
SATIN GOLD	K24357SAG* 1	K24657SAG* 1	K24347SAG* 1	K24647SAG* 1	K24382SAG* 1
PORCELAIN WHITE	K24357WHIW 1	K24657WHIW 1	K24347WHIW 1	K24647WHIW 1	K24382WHIW 1
LUSTROUS IVORY	K24357LIVW 1	K24657LIVW 1	K24347LIVW 1	K24647LIVW 1	K24382LIVW 1
LUSTROUS BLACK	K24357LBKB 1	K24657LBKB 1	K24347LBKB 1	K24647LBKB 1	K24382LBKB 1
POLISHED BRASS	K24357PBR* 1	K24657PBR* 1	K24347PBR* 1	K24647PBR* 1	K24382PBR* 1
TEXTURED IRON	K24357TIRB 1	K24657TIRB 1	K24347TIRB 1	K24647TIRB 1	K24382TIRB 1
DESERT BRONZE	K24357DBZB 1	K24657DBZB 1	K24347DBZB 1	K24647DBZB 1	K24382DBZB 1
ANTIQUE BRASS	K24357ABSB 1	K24657ABSB 1	K24347ABSB 1	K24647ABSB 1	K24382ABSB 1
TEXTURED COPPER	K24357TCOB 1	K24657TCOB 1	K24347TCOB 1	K24647TCOB 1	K24382TCOB 1

LEAD TIMES: Please contact our Customer Services Department on: 01268 563 404

*** Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW.**

Where there is no asterix, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts

MOUNTING BOXES: FLUSH 35mm: 866ZIC FLUSH 46mm: 877ZIC (for extra wiring space) DIMENSIONS: 86 x 86mm FIXING CENTRES: 60.3mm BS 1363 Pt 2: 1995	MOUNTING BOXES: FLUSH 35mm: 866ZIC FLUSH 46mm: 877ZIC (for extra wiring space) DIMENSIONS: 86 x 86mm FIXING CENTRES: 60.3mm BS 1363 Pt 2: 1995 Neon is only available in white or black insulated rocker.	MOUNTING BOXES: FLUSH 35mm: 886ZIC FLUSH 47mm: 878ZIC (for extra wiring space) DIMENSIONS: 86 x 146mm FIXING CENTRES: 120.6mm BS 1363 Pt 2: 1995	MOUNTING BOXES: FLUSH 35mm: 886ZIC FLUSH 47mm: 878ZIC (for extra wiring space) DIMENSIONS: 86 x 146mm FIXING CENTRES: 120.6mm BS 1363 Pt 2: 1995 Neon is only available in white or black insulated rocker.	MOUNTING BOXES: FLUSH 35mm: 866ZIC FLUSH 46mm: 877ZIC (for extra wiring space) DIMENSIONS: 86 x 86mm FIXING CENTRES: 60.3mm BS 546: 1950
Dual Earth: Fitted with two earth terminals to provide a double earth facility for use when installations require a high integrity protective connection as specified within BS 7671: 2008.	Dual Earth (see note box)		Dual Earth (see note box)	

Socket Outlets

Floor Mounted Socket Outlets

1 GANG DP ROUND PIN 15 AMP	1 GANG DUAL EARTH 13 AMP	2 GANG DUAL EARTH 13 AMP	1 GANG ROUND PIN 5 AMP	FLOOR SOCKET 1 GANG 13 AMP	FLOOR SOCKET 1 GANG 13 AMP
					
K24383BSS* 1	K24780BSS* 1	K24781BSS* 1	K24381BSS* 1	K24740BSS* 1	K24742BSS* 1
K24383LBS* 1	K24780LBS* 1	K24781LBS* 1	K24381LBS* 1	K24740LBS* 1	K24742LBS* 1
K24383BRC* 1	K24780BRC* 1	K24781BRC* 1	K24381BRC* 1	K24740BRC* 1	K24742BRC* 1
K24383POC* 1	K24780POC* 1	K24781POC* 1	K24381POC* 1	K24740POC* 1	K24742POC* 1
K24383SAG* 1	K24780SAG* 1	K24781SAG* 1	K24381SAG* 1	K24740SAG* 1	K24742SAG* 1
K24383WHIW 1	K24780WHIW 1	K24781WHIW 1	K24381WHIW 1	K24740WHIW 1	K24742WHIW 1
K24383LIVW 1	K24780LIVW 1	K24781LIVW 1	K24381LIVW 1	K24740LIVW 1	K24742LIVW 1
K24383LBKB 1	K24780LBKB 1	K24781LBKB 1	K24381LBKB 1	K24740LBKB 1	K24742LBKB 1
K24383PBR* 1	K24780PBR* 1	K24781PBR* 1	K24381PBR* 1	K24740PBR* 1	K24742PBR* 1
K24383TIRB 1	K24780TIRB 1	K24781TIRB 1	K24381TIRB 1	K24740TIRB 1	K24742TIRB 1
K24383DBZB 1	K24780DBZB 1	K24781DBZB 1	K24381DBZB 1	K24740DBZB 1	K24742DBZB 1
K24383ABSB 1	K24780ABSB 1	K24781ABSB 1	K24381ABSB 1	K24740ABSB 1	K24742ABSB 1
K24383TCOB 1	K24780TCOB 1	K24781TCOB 1	K24381TCOB 1	K24740TCOB 1	K24742TCOB 1

*** Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW.**

Where there is no asterix, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts

MOUNTING BOXES:
FLUSH 35mm: 866ZIC
FLUSH 46mm: 877ZIC
(for extra wiring space)

DIMENSIONS:
86 x 86mm

FIXING CENTRES: 60.3mm

BS 546: 1950

MOUNTING BOXES:
FLUSH 35mm: 866ZIC
FLUSH 46mm: 877ZIC
(for extra wiring space)

DIMENSIONS:
86 x 86mm

FIXING CENTRES: 60.3mm

BS 1363 Pt. 2: 1995

Dual Earth
(see note box)

MOUNTING BOXES:
FLUSH 35mm: 886ZIC
FLUSH 47mm: 878ZIC
(for extra wiring space)

DIMENSIONS:
86 x 146mm

FIXING CENTRES: 120.6mm

BS 1363 Pt 2: 1995

Dual Earth
(see note box)

MOUNTING BOXES:
FLUSH 35mm: 866ZIC
FLUSH 46mm: 877ZIC
(for extra wiring space)

DIMENSIONS:
86 x 86mm

FIXING CENTRES: 60.3mm

BS 546: 1950

MOUNTING BOXES:
FLUSH 35mm: 866ZIC
FLUSH 46mm: 877ZIC
(for extra wiring space)

Rotary operated shutter

DIMENSIONS:
102 x 86mm

FIXING CENTRES: 60.3mm

Floor sockets have fixing screws

BS1363 Pt. 2: 1995

MOUNTING BOXES:
FLUSH 35mm: 886ZIC
FLUSH 47mm: 878ZIC
(for extra wiring space)

Rotary operated shutter

DIMENSIONS:
102 x 146mm

FIXING CENTRES: 120.6mm

Floor sockets have fixing screws

BS1363 Pt. 2: 1995

Shaver/ Toothbrush Supply Outlet

DUAL VOLTAGE
115/230V OUTPUT
220/240V
50/60Hz INPUT

Connection Units Switched

DP
13 AMP

DP
WITH NEON
13 AMP

DP WITH
NEON &
FLEX OUTLET
13 AMP

Connection Units Unswitched

WITH NEON
13 AMP







FINISHES					
BRUSHED STAINLESS STEEL	K24709BSS* 1	K24941BSS* 1	K24961BSS* 1	K24971BSS* 1	K24958BSS* 1
LACQUERED BRUSHED STEEL	K24709LBS* 1	K24941LBS* 1	K24961LBS* 1	K24971LBS* 1	K24958LBS* 1
BRUSHED CHROME	K24709BRC* 1	K24941BRC* 1	K24961BRC* 1	K24971BRC* 1	K24958BRC* 1
POLISHED CHROME	K24709POC* 1	K24941POC* 1	K24961POC* 1	K24971POC* 1	K24958POC* 1
SATIN GOLD	K24709SAG* 1	K24941SAG* 1	K24961SAG* 1	K24971SAG* 1	K24958SAG* 1
PORCELAIN WHITE	K24709WHIW 1	K24941WHIW 1	K24961WHIW 1	K24971WHIW 1	K24958WHIW 1
LUSTROUS IVORY	K24709LIVW 1	K24941LIVW 1	K24961LIVW 1	K24971LIVW 1	K24958LIVW 1
LUSTROUS BLACK	K24709LBKB 1	K24941LBKB 1	K24961LBKB 1	K24971LBKB 1	K24958LBKB 1
POLISHED BRASS	K24709PBR* 1	K24941PBR* 1	K24961PBR* 1	K24971PBR* 1	K24958PBR* 1
TEXTURED IRON	K24709TIRB 1	K24941TIRB 1	K24961TIRB 1	K24971TIRB 1	K24958TIRB 1
DESERT BRONZE	K24709DBZB 1	K24941DBZB 1	K24961DBZB 1	K24971DBZB 1	K24958DBZB 1
ANTIQUE BRASS	K24709ABSB 1	K24941ABSB 1	K24961ABSB 1	K24971ABSB 1	K24958ABSB 1
TEXTURED COPPER	K24709TCOB 1	K24941TCOB 1	K24961TCOB 1	K24971TCOB 1	K24958TCOB 1

LEAD TIMES: Please contact our Customer Services Department on: 01268 563 404

*** Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW.**

Where there is no asterix, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts

MOUNTING BOXES:
FLUSH: 878ZIC

This design incorporates a double wound isolating transformer rated 20VA at 230 or 115 volts and meets BS EN 61558-2-5: 1998 making it safe for use in bathrooms.

Insertion of a shaver/ toothbrush plug automatically switches on by energising the primary side of the isolating transformer – removal automatically switches off. The transformer is protected against overload by an automatic solid state overload device with automatic resetting.

DIMENSIONS:
146 x 86mm

FIXING CENTRES: 120.6mm

BS EN 61558-2-5: 1998

MOUNTING BOXES:
FLUSH: 877ZIC

All connection units are fitted with a 13A fuse (to BS 1362).

TERMINAL CAPACITY:
2 x 6mm² stranded (max)

DIMENSIONS:
86 x 86mm

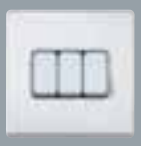
FIXING CENTRES:
60.3mm

BS 1363-4: 1995

Neon is only available in white or black insulated rocker.

Matching metal capped fuse carriers are standard on all Aspect Connection Units (except Black and White).

Switches

WITH NEON & FLEX OUTLET 13 AMP	1 GANG SP 2 WAY 20 AMP	2 GANG SP 2 WAY 20 AMP	3 GANG SP 2 WAY 10 AMP	1 GANG SP 2 WAY 20 AMP WITH LARGE ROCKER	2 GANG SP 2 WAY 20 AMP WITH LARGE ROCKERS
					
K24978BSS* 1	K24371BSS* 1	K24372BSS* 1	K24373BSS* 1	K23471BSS* 1	K23472BSS* 1
K24978LBS* 1	K24371LBS* 1	K24372LBS* 1	K24373LBS* 1	K23471LBS* 1	K23472LBS* 1
K24978BRC* 1	K24371BRC* 1	K24372BRC* 1	K24373BRC* 1	K23471BRC* 1	K23472BRC* 1
K24978POC* 1	K24371POC* 1	K24372POC* 1	K24373POC* 1	K23471POC* 1	K23472POC* 1
K24978SAG* 1	K24371SAG* 1	K24372SAG* 1	K24373SAG* 1	K23471SAG* 1	K23472SAG* 1
K24978WHIW 1	K24371WHIW 1	K24372WHIW 1	K24373WHIW 1	K23471WHIW 1	K23472WHIW 1
K24978LIVW 1	K24371LIVW 1	K24372LIVW 1	K24373LIVW 1	K23471LIVW 1	K23472LIVW 1
K24978LBKB 1	K24371LBKB 1	K24372LBKB 1	K24373LBKB 1	K23471LBKB 1	K23472LBKB 1
K24978PBR* 1	K24371PBR* 1	K24372PBR* 1	K24373PBR* 1	K23471PBR* 1	K23472PBR* 1
K24978TIRB 1	K24371TIRB 1	K24372TIRB 1	K24373TIRB 1	K23471TIRB 1	K23472TIRB 1
K24978DBZB 1	K24371DBZB 1	K24372DBZB 1	K24373DBZB 1	K23471DBZB 1	K23472DBZB 1
K24978ABSB 1	K24371ABSB 1	K24372ABSB 1	K24373ABSB 1	K23471ABSB 1	K23472ABSB 1
K24978TCOB 1	K24371TCOB 1	K24372TCOB 1	K24373TCOB 1	K23471TCOB 1	K23472TCOB 1

*** Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW.**

Where there is no asterix, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts

MOUNTING BOXES:
FLUSH: 877ZIC

All connection units are fitted with a 13A fuse (to BS 1362).

TERMINAL CAPACITY:
2 x 6mm² stranded (max)

DIMENSIONS:
86 x 86mm

FIXING CENTRES:
60.3mm

BS 1363-4: 1995

Neon is only available in white or black rocker.

Matching metal capped fuse carriers are standard on all Aspect Connection Units (except Black and White).

MOUNTING BOXES:
FLUSH: 861ZIC

TERMINAL CAPACITY:
2 x 6mm² Stranded (max)

DIMENSIONS:
86 x 86mm

FIXING CENTRES:
60.3mm

BS EN 60669-1: 1999

MOUNTING BOXES:
FLUSH: 861ZIC

TERMINAL CAPACITY:
2 x 6mm² Stranded (max)

DIMENSIONS:
86 x 86mm

FIXING CENTRES:
60.3mm

BS EN 60669-1: 1999

MOUNTING BOXES:
FLUSH: 861ZIC

DIMENSIONS:
86 x 86mm

FIXING CENTRES:
60.3mm

BS EN 60669-1: 1999

MOUNTING BOXES:
FLUSH: 861ZIC

DIMENSIONS:
86 x 86mm

ROCKER DIMENSIONS:
22 x 40mm

FIXING CENTRES:
60.3mm

BS EN 60669-1: 1999

MOUNTING BOXES:
FLUSH: 861ZIC

DIMENSIONS:
86 x 86mm

ROCKER DIMENSIONS:
22 x 40mm

FIXING CENTRES:
60.3mm

BS EN 60669-1: 1999

Switches

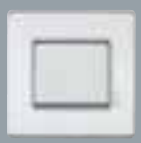
1 GANG SP
2 WAY
20 AMP
WITH WIDE
ROCKER

High Current Switches

1 GANG DP
WITH NEON
32 AMP

1 GANG DP
WITH NEON
50 AMP

3 POLE
FAN
ISOLATOR






FINISHES				
BRUSHED STAINLESS STEEL	K23473BSS* 1	K24305BSS* 1	K24336BSS* 1	K24859BSS* 1
LACQUERED BRUSHED STEEL	K23473LBS* 1	K24305LBS* 1	K24336LBS* 1	K24859LBS* 1
BRUSHED CHROME	K23473BRC* 1	K24305BRC* 1	K24336BRC* 1	K24859BRC* 1
POLISHED CHROME	K23473POC* 1	K24305POC* 1	K24336POC* 1	K24859POC* 1
SATIN GOLD	K23473SAG* 1	K24305SAG* 1	K24336SAG* 1	K24859SAG* 1
PORCELAIN WHITE	K23473WHIW 1	K24305WHIW 1	K24336WHIW 1	K24859WHIW 1
LUSTROUS IVORY	K23473LIVW 1	K24305LIVW 1	K24336LIVW 1	K24859LIVW 1
LUSTROUS BLACK	K23473LBKB 1	K24305LBKB 1	K24336LBKB 1	K24859LBKB 1
POLISHED BRASS	K23473PBR* 1	K24305PBR* 1	K24336PBR* 1	K24859PBR* 1
TEXTURED IRON	K23473TIRB 1	K24305TIRB 1	K24336TIRB 1	K24859TIRB 1
DESERT BRONZE	K23473DBZB 1	K24305DBZB 1	K24336DBZB 1	K24859DBZB 1
ANTIQUE BRASS	K23473ABSB 1	K24305ABSB 1	K24336ABSB 1	K24859ABSB 1
TEXTURED COPPER	K23473TCOB 1	K24305TCOB 1	K24336TCOB 1	K24859TCOB 1

LEAD TIMES: Please contact our Customer Services Department on: 01268 563 404

*** Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW.**

Where there is no asterix, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts

MOUNTING BOXES:
FLUSH: 861ZIC

DIMENSIONS:
86 x 86mm

ROCKER
DIMENSIONS:
50 x 40mm

FIXING CENTRES:
60.3mm

BS EN 60669-1: 1999

MOUNTING BOXES:
FLUSH: 861ZIC

DIMENSIONS:
86 x 86mm

ROCKER
DIMENSIONS:
22 x 40mm

FIXING CENTRES:
60.3mm

BS EN 60669-1: 1999

MOUNTING BOXES:
FLUSH: 878ZIC

DIMENSIONS:
86 x 146mm

FIXING CENTRES:
120.6mm

BS EN 60669-1: 1999

MOUNTING BOXES:
FLUSH: 861ZIC

DIMENSIONS:
86 x 86mm

FIXING CENTRES:
60.3mm

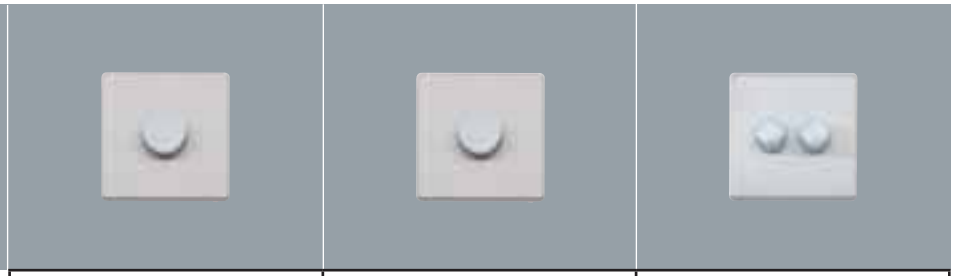
BS EN 60947-3: 1992

Intelligent Dimmers (CE marked)

2 WAY SINGLE
230V a.c. 50Hz
60W/VA MIN-
500W/400VA
MAX.

2 WAY SINGLE
230V a.c. 50Hz
40W/VA MIN.
300W/240VA
MAX.

2 WAY DOUBLE
230V a.c. 50Hz
40W/VA MIN.
300W/240VA
MAX. FOR EACH
DIMMER



K24301BSS 1	K24521BSS 1	K24522BSS 1
K24301LBS 1	K24521LBS 1	K24522LBS 1
K24301BRC 1	K24521BRC 1	K24522BRC 1
K24301POC 1	K24521POC 1	K24522POC 1
K24301SAG 1	K24521SAG 1	K24522SAG 1
K24301WHI 1	K24521WHI 1	K24522WHI 1
K24301LIV 1	K24521LIV 1	K24522LIV 1
K24301LBK 1	K24521LBK 1	K24522LBK 1
K24301PBR 1	K24521PBR 1	K24522PBR 1
K24301TIR 1	K24521TIR 1	K24522TIR 1
K24301DBZ 1	K24521DBZ 1	K24522DBZ 1
K24301ABS 1	K24521ABS 1	K24522ABS 1
K24301TCO 1	K24521TCO 1	K24522TCO 1



MOUNTING BOXES:
FLUSH 866ZIC – 35mm
deep min
DIMENSIONS:
86 x 86mm
FIXING CENTRES: 60.3mm

MOUNTING BOXES:
FLUSH 866ZIC – 35mm
deep min
DIMENSIONS:
86 x 86mm
FIXING CENTRES: 60.3mm

MOUNTING BOXES:
FLUSH 866ZIC – 35mm
deep min
DIMENSIONS:
86 x 86mm
FIXING CENTRES: 60.3mm

These dimmers employ the latest micro-controller based circuitry to provide electronic soft-start and overload protection. They are suitable for use with good quality electronic or wire-wound transformers. Can also be used with good quality halogen lamps incorporating GU10 bases. Please check with lamp manufacturer to determine suitability.

NOT SUITABLE FOR FLUORESCENT LOADS.

Conform to latest standards BS EN 60669-2-1.

All intelligent dimmers have a combined push-on/push-off switch and rotary dimmer control, and are suitable for one or two-way switching. Only one dimmer can be used in a two way switching circuit.

They are radio frequency interference suppressed to BS EN 55015.

Dimmers (NON UK)

220V A.C. 50HZ
60-500W
SINGLE

220V A.C. 50HZ
100-1000W
SINGLE

Grid Plus Modular Frontplates SUPPLIED WITH MOUNTING FRAME

1 MODULE

2 MODULE






FINISHES				
BRUSHED STAINLESS STEEL	K24541BSS 1	K24561BSS 1	K24331BSS 1	K24332BSS 1
LACQUERED BRUSHED STEEL	K24541LBS 1	K24561LBS 1	K24331LBS 1	K24332LBS 1
BRUSHED CHROME	K24541BRC 1	K24561BRC 1	K24331BRC 1	K24332BRC 1
POLISHED CHROME	K24541POC 1	K24561POC 1	K24331POC 1	K24332POC 1
SATIN GOLD	K24541SAG 1	K24561SAG 1	K24331SAG 1	K24332SAG 1
PORCELAIN WHITE	K24541WHI 1	K24561WHI 1	K24331WHI 1	K24332WHI 1
LUSTROUS IVORY	K24541LIV 1	K24561LIV 1	K24331LIV 1	K24332LIV 1
LUSTROUS BLACK	K24541LBK 1	K24561LBK 1	K24331LBK 1	K24332LBK 1
POLISHED BRASS	K24541PBR 1	K24561PBR 1	K24331PBR 1	K24332PBR 1
TEXTURED IRON	K24541TIR 1	K24561TIR 1	K24331TIR 1	K24332TIR 1
DESERT BRONZE	K24541DBZ 1	K24561DBZ 1	K24331DBZ 1	K24332DBZ 1
ANTIQUE BRASS	K24541ABS 1	K24561ABS 1	K24331ABS 1	K24332ABS 1
TEXTURED COPPER	K24541TCO 1	K24561TCO 1	K24331TCO 1	K24332TCO 1

LEAD TIMES: Please contact our Customer Services Department on: 01268 563 404

MOUNTING BOXES: FLUSH 866ZIC – 35mm deep min.

DIMENSIONS: 86 x 86mm

FIXING CENTRES: 60.3mm

Suitable for tungsten GLS lamps only, with internal fuses.

NOT SUITABLE FOR FLUORESCENT LOADS.

MOUNTING BOXES: FLUSH 866ZIC – 35mm deep min.

DIMENSIONS: 86 x 86mm

FIXING CENTRES: 60.3mm

Suitable for tungsten GLS lamps only, with internal fuses.

NOT SUITABLE FOR FLUORESCENT LOADS.

MOUNTING BOX: FLUSH: 891ALM

DIMENSIONS: 86 x 86mm

BS 5733: 2010

MOUNTING BOX: FLUSH: 891ALM

DIMENSIONS: 86 x 86mm

BS 5733: 2010

Switch Modules

3 MODULE	4 MODULE	6 MODULE	8 MODULE	BLANK INSERT
				
K24333BSS 1	K24334BSS 1	K24346BSS 1	K24348BSS 1	K4880BSS* 1
K24333LBS 1	K24334LBS 1	K24346LBS 1	K24348LBS 1	K4880LBS* 1
K24333BRC 1	K24334BRC 1	K24346BRC 1	K24348BRC 1	K4880BRC* 1
K24333POC 1	K24334POC 1	K24346POC 1	K24348POC 1	K4880POC* 1
K24333SAG 1	K24334SAG 1	K24346SAG 1	K24348SAG 1	K4880SAG* 1
K24333WHI 1	K24334WHI 1	K24346WHI 1	K24348WHI 1	K4880WHIW 1
K24333LIV 1	K24334LIV 1	K24346LIV 1	K24348LIV 1	K4880LIVW 1
K24333LBK 1	K24334LBK 1	K24346LBK 1	K24348LBK 1	K4880LBKB 1
K24333PBR 1	K24334PBR 1	K24346PBR 1	K24348PBR 1	K4880PBR* 1
K24333TIR 1	K24334TIR 1	K24346TIR 1	K24348TIR 1	K4880TIRB 1
K24333DBZ 1	K24334DBZ 1	K24346DBZ 1	K24348DBZ 1	K4880DBZB 1
K24333ABS 1	K24334ABS 1	K24346ABS 1	K24348ABS 1	K4880ABSB 1
K24333TCO 1	K24334TCO 1	K24346TCO 1	K24348TCO 1	K4880TCOB 1

*** Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW.**

Where there is no asterix, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts

MOUNTING BOX: FLUSH: 892ALM
DIMENSIONS: 86 x 146mm
BS 5733: 2010

MOUNTING BOX: FLUSH: 892ALM
DIMENSIONS: 86 x 146mm
BS 5733: 2010

MOUNTING BOX: FLUSH: 893ALM
DIMENSIONS: 146 x 146mm
BS 5733: 2010

MOUNTING BOX: FLUSH: 893ALM
DIMENSIONS: 146 x 146mm
BS 5733: 2010

Matching metal decorative caps are standard on all Aspect Grid Blank Inserts (except WHI).
BS 5733: 2010

Switch Modules
10 Amp

FINISHES	10 AMP SP 1 WAY	10 AMP DP 1 WAY	10 AMP SP 2 WAY	10 AMP SP 2 WAY RETRACTIVE SWITCH	10 AMP SP 2 WAY RED RETRACTIVE SWITCH
					
BRUSHED STAINLESS STEEL	K4881BSS* 1	K4981BSS* 1	K4882BSS* 1	K4885BSS* 1	K4885RED 1
LACQUERED BRUSHED STEEL	K4881LBS* 1	K4981LBS* 1	K4882LBS* 1	K4885LBS* 1	K4885REDB 1
BRUSHED CHROME	K4881BRC* 1	K4981BRC* 1	K4882BRC* 1	K4885BRC* 1	
POLISHED CHROME	K4881POC* 1	K4981POC* 1	K4882POC* 1	K4885POC* 1	
SATIN GOLD	K4881SAG* 1	K4981SAG* 1	K4882SAG* 1	K4885SAG* 1	
PORCELAIN WHITE	K4881WHIW 1	K4981WHIW 1	K4882WHIW 1	K4885WHIW 1	
LUSTROUS IVORY	K4881LIVW 1	K4981LIVW 1	K4882LIVW 1	K4885LIVW 1	
LUSTROUS BLACK	K4881LBKB 1	K4981LBKB 1	K4882LBKB 1	K4885LBKB 1	
POLISHED BRASS	K4881PBR* 1	K4981PBR* 1	K4882PBR* 1	K4885PBR* 1	
TEXTURED IRON	K4881TIRB 1	K4981TIRB 1	K4882TIRB 1	K4885TIRB 1	
DESERT BRONZE	K4881DBZB 1	K4981DBZB 1	K4882DBZB 1	K4885DBZB 1	
ANTIQUE BRASS	K4881ABSB 1	K4981ABSB 1	K4882ABSB 1	K4885ABSB 1	
TEXTURED COPPER	K4881TCOB 1	K4981TCOB 1	K4882TCOB 1	K4885TCOB 1	

LEAD TIMES: Please contact our Customer Services Department on: 01268 563 404

*** Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW.**

Where there is no asterix, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts

These switches do NOT have to be derated when used with fluorescent or inductive loads.
BS EN 60669-1: 1999

These switches do NOT have to be derated when used with fluorescent or inductive loads.
BS EN 60669-1: 1999

These switches do NOT have to be derated when used with fluorescent or inductive loads.
BS EN 60669-1: 1999

These switches do NOT have to be derated when used with inductive loads.
Note: Push switches are not designed for fluorescent loads.
BS EN 60669-1: 1999

These switches do NOT have to be derated when used with inductive loads.
Note: Push switches are not designed for fluorescent loads.
BS EN 60669-1: 1999

Not available in other finishes

Switch Modules 20 Amp

10 AMP SP 2 WAY RETRACTIVE SWITCH MARKED WITH BELL SYMBOL	10 AMP SP 2 WAY RETRACTIVE SWITCH MARKED 'PRESS'	10 AMP 2 WAY CENTRE OFF RETRACTIVE SWITCH	20 AMP SP 1 WAY	20 AMP DP 1 WAY PUSH TO MAKE	20 AMP DP 1 WAY RED ROCKER PUSH TO MAKE
					
K4885BWHI 1 **K4885BBLK** 1	**K4885PWHI** 10 **K4885PBLK** 1	**K4900WHI** 10 **K4900BLK** 10	**K4891BSS*** 1 **K4891LBS*** 1 **K4891BRC*** 1 **K4891POC*** 1 **K4891SAG*** 1 **K4891WHIW** 1 **K4891LIVW** 1 **K4891LBKB** 1 **K4891PBR*** 1 **K4891TIRB** 1 **K4891DBZB** 1 **K4891ABSB** 1 **K4891TCOB** 1	**K4910BSS*** 1 **K4910LBS*** 1 **K4910BRC*** 1 **K4910POC*** 1 **K4910SAG*** 1 **K4910WHIW** 1 **K4910LIVW** 1 **K4910LBKB** 1 **K4910PBR*** 1 **K4910TIRB** 1 **K4910DBZB** 1 **K4910ABSB** 1 **K4910TCOB** 1	**K4910RED** 10 **K4910REDB** 1

*** Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW.**

Where there is no asterix, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts

These switches do NOT have to be derated when used with inductive loads.

Note: Push switches are not designed for fluorescent loads.

BS EN 60669-1: 1999

Not available in other finishes

These switches do NOT have to be derated when used with inductive loads.

Note: Push switches are not designed for fluorescent loads.

BS EN 60669-1: 1999

These switches do NOT have to be derated when used with inductive loads.

Note: Push switches are not designed for fluorescent loads.

BS EN 60669-1: 1999

These switches do NOT have to be derated when used with fluorescent or inductive loads.

BS EN 60669-1: 1999

These switches do NOT have to be derated when used with inductive loads.

Note: Push switches are not designed for fluorescent loads.

BS EN 60669-1: 1999

Not available in other finishes

Switch Modules
20 Amp

20 AMP DP 1 WAY PUSH TO BREAK RETRACTIVE	20 AMP DP 1 WAY RED ROCKER PUSH TO BREAK RETRACTIVE	20 AMP SP 2 WAY	20 AMP SP 2 WAY RED ROCKER	20 AMP SP 2 WAY SWITCH WITH INTEGRAL NEON LOCATOR
				
FINISHES				
BRUSHED STAINLESS STEEL		K4892BSS* 1		
LACQUERED BRUSHED STEEL		K4892LBS* 1		
BRUSHED CHROME		K4892BRC* 1		
POLISHED CHROME		K4892POC* 1		
SATIN GOLD		K4892SAG* 1		
PORCELAIN WHITE		K4892WHIW 1		
LUSTROUS IVORY		K4892LIVW 1		
LUSTROUS BLACK		K4892LBKB 1		
POLISHED BRASS		K4892PBR* 1		
TEXTURED IRON		K4892TIRB 1		
DESERT BRONZE		K4892DBZB 1		
ANTIQUE BRASS		K4892ABSB 1		
TEXTURED COPPER		K4892TCOB 1		
K4915WHI 10 K4915BLK 10	K4915RED 10 K4915REDB 1		K4892RED 10 K4892REDB 10	K4892LWHI 10 K4892LBLK 1

LEAD TIMES: Please contact our Customer Services Department on: 01268 563 404

*** Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW.**

Where there is no asterix, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts

These switches do NOT have to be derated when used with inductive loads.

Note: Push switches are not designed for fluorescent loads.

BS EN 60669-1: 1999

Not available in other finishes

These switches do NOT have to be derated when used with inductive loads.

Note: Push switches are not designed for fluorescent loads.

BS EN 60669-1: 1999

These switches do NOT have to be derated when used with fluorescent or inductive loads.

BS EN 60669-1: 1999

These switches do NOT have to be derated when used with fluorescent or inductive loads.

BS EN 60669-1: 1999

Not available in other finishes

20 AMP SP 2 WAY & CENTRE OFF LATCHING	20 AMP SP 2 WAY RED ROCKER & CENTRE OFF LATCHING	20 AMP INTERMEDIATE	20 AMP INTERMEDIATE RED ROCKER	20 AMP DP 1 WAY	20 AMP DP 1 WAY WITH NEON
					
K4899BSS* 1	K4899RED 10	K4893BSS* 1	K4893RED 10	K4896BSS* 1	K4896NWHI 1
K4899LBS* 1		K4893LBS* 1	K4893REDB 10	K4896LBS* 1	K4896NBLK 1
K4899BRC* 1		K4893BRC* 1		K4896BRC* 1	
K4899POC* 1		K4893POC* 1		K4896POC* 1	
K4899SAG* 1		K4893SAG* 1		K4896SAG* 1	
K4899WHIW 1		K4893WHIW 1		K4896WHIW 1	
K4899LIVW 1		K4893LIVW 1		K4896LIVW 1	
K4899LBKB 1		K4893LBKB 1		K4896LBKB 1	
K4899PBR* 1		K4893PBR* 1		K4896PBR* 1	
K4899TIRB 1		K4893TIRB 1		K4896TIRB 1	
K4899DBZB 1		K4893DBZB 1		K4896DBZB 1	
K4899ABSB 1		K4893ABSB 1		K4896ABSB 1	
K4899TCOB 1		K4893TCOB 1		K4896TCOB 1	

*** Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW.**

Where there is no asterix, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts

These switches do NOT have to be derated when used with fluorescent or inductive loads.

BS EN 60669-1: 1999

These switches do NOT have to be derated when used with inductive loads.

Note: Push switches are not designed for fluorescent loads.

BS EN 60669-1: 1999

Not available in other finishes

These switches do NOT have to be derated when used with fluorescent or inductive loads.

BS EN 60669-1: 1999

These switches do NOT have to be derated when used with fluorescent or inductive loads.

BS EN 60669-1: 1999

Not available in other finishes

These switches do NOT have to be derated when used with fluorescent or inductive loads.

BS EN 60669-1: 1999

These switches do NOT have to be derated when used with fluorescent or inductive loads.

BS EN 60669-1: 1999

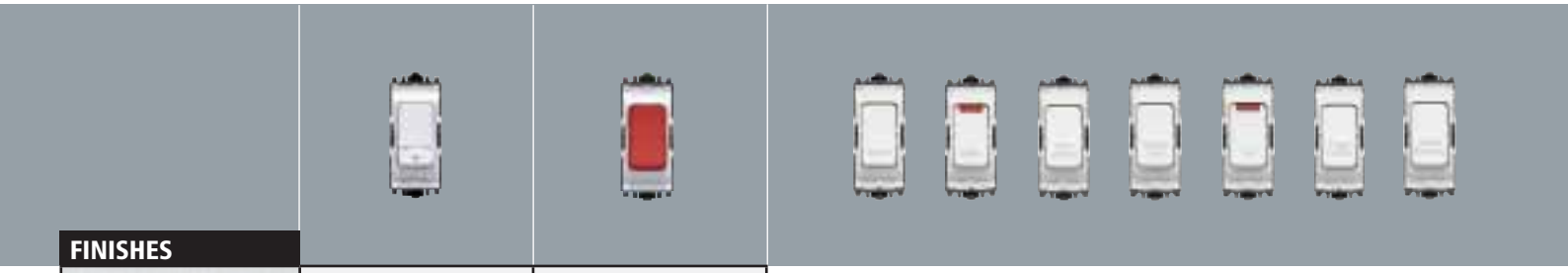
Not available in other finishes

Switch Modules 20 Amp

20 AMP
DP
1 WAY
WITH WINDOW

20 AMP
DP
1 WAY
RED ROCKER

Printed Modules with and without Neon



FINISHES		
BRUSHED STAINLESS STEEL	K4896WWHI 10 K4896WBLK 10	K4896RED 10
LACQUERED BRUSHED STEEL		
BRUSHED CHROME		
POLISHED CHROME		
SATIN GOLD		
PORCELAIN WHITE		
LUSTROUS IVORY		
LUSTROUS BLACK		
POLISHED BRASS		
TEXTURED IRON		
DESERT BRONZE		
ANTIQUE BRASS		
TEXTURED COPPER		

LEAD TIMES: Please contact our Customer Services Department on: 01268 563 404

These switches do NOT have to be derated when used with fluorescent or inductive loads.

BS EN 60669-1: 1999

These switches do NOT have to be derated when used with fluorescent or inductive loads.

BS EN 60669-1: 1999

Not available in other finishes

K4896 PRINTED MODULE

FOR WHITE ROCKERS, USE THE SUFFIX 'WHI'. FOR BLACK ROCKERS, USE THE SUFFIX 'BLK'. FOR EXAMPLE: K4896BRWHI OR K4896BRBLK

BOILER K4896BR	WASTE DISPOSAL K4896WD	HOB K4896HB
DISHWASHER K4896DW	WASHING MACHINE K4896WM	IMM. HEATER K4896IH
COOKER HOOD K4896CH	TUMBLE DRYER K4896TD	PLINTH HEATER K4896PH
FAN K4896FN	WASHER DRYER K4896WDR	WORKTOP LIGHTING K4896WL
FRIDGE K4896FG	MICROWAVE K4896MW	WINE COOLER K4896WC
FREEZER K4896FZ	HEATER K4896HR	WARMING DRAWER K4896WDA
FRIDGE FREEZER K4896FF	OVEN K4896OV	COFFEE MACHINE K4896CM

K4896N PRINTED MODULE WITH NEON

FOR WHITE ROCKERS, USE THE SUFFIX 'WHI'. FOR BLACK ROCKERS, USE THE SUFFIX 'BLK'. FOR EXAMPLE: K4896NBRWHI OR K4896NBRBLK

BOILER K4896NBR	WASTE DISPOSAL K4896NWD	HOB K4896NHB
DISHWASHER K4896NDW	WASHING MACHINE K4896NWM	IMM. HEATER K4896NIH
COOKER HOOD K4896NCH	TUMBLE DRYER K4896NTD	PLINTH HEATER K4896NPH
FAN K4896NFN	WASHER DRYER K4896NWDR	WORKTOP LIGHTING K4896NWL
FRIDGE K4896NFG	MICROWAVE K4896NMW	WINE COOLER K4896NWC
FREEZER K4896NFZ	HEATER K4896NHR	WARMING DRAWER K4896NWDA
FRIDGE FREEZER K4896NFF	OVEN K4896NOV	COFFEE MACHINE K4896NCM

Note: K4896NIH (Imm. Heater with Neon) is not available with black rockers.

Key Switch Modules

20 AMP INTERMEDIATE KEY SWITCH	20 AMP SP KEY SWITCH 2 WAY	20 AMP SP KEY SWITCH 2 WAY MARKED 'EMG LTG'	20 AMP DP KEY SWITCH 1 WAY	20 AMP DP EMERGENCY LIGHTING	20 AMP SP KEY SWITCH 2 WAY BIASED 1 WAY
					
K4894WHI 10 **K4894BLK** 1	**K4898WHI** 10 **K4898BLK** 1	**K4898ELWHI** 10 **K4898ELBLK** 1	**K4917WHI** 10 **K4917BLK** 1	**K4917ELWHI** 10	**K4918WHI** 10 **K4918BLK** 10
BS EN 60669-1: 1999 Key (3405ZIC) is supplied.	BS EN 60669-1: 1999 Key (3405ZIC) is supplied.	BS EN 60669-1: 1999 Key (3405ZIC) is supplied.	BS EN 60669-1: 1999 Key (3405ZIC) is supplied.	BS EN 60669-1: 1999 Key (3405ZIC) is supplied.	BS EN 60669-1: 1999 Key (3405ZIC) is supplied.

Not available in other finishes

Indicator Modules

FINISHES	200-250V NEON	200-250V NEON	200-250V FLUORESCENT	21-36V FILAMENT	21-36V FILAMENT
					
BRUSHED STAINLESS STEEL	K4889RED 10 K4889REDB 1	K4889AMB 10	K4889GRN 10	K4836RED 10	K4836AMB 10
LACQUERED BRUSHED STEEL					
BRUSHED CHROME					
POLISHED CHROME					
SATIN GOLD					
PORCELAIN WHITE					
LUSTROUS IVORY					
LUSTROUS BLACK					
POLISHED BRASS					
TEXTURED IRON					
DESERT BRONZE					
ANTIQUE BRASS					
TEXTURED COPPER					

LEAD TIMES: Please contact our Customer Services Department on: 01268 563 404

BS 5733: 2010 | BS 5733: 2010 | BS 5733: 2010 | BS 5733: 2010 | BS 5733: 2010

Not available in other finishes

Dimmer Switch Modules

TUNGSTEN FILAMENT AND LOW VOLTAGE LIGHTING

Accessory Modules

21-36V FILAMENT	1 GANG 40W/ VA-220W/180VA, 230VA.C, 50HZ TWO WAY ONE MODULE	1 GANG 60W/ VA-400W/320VA, 230VA.C, 50HZ TWO WAY TWO MODULE	0-10V/1-10V FLUORESCENT CONTROLLER ONE MODULE	SINGLE TV CO-AXIAL OUTLET NON-ISOLATED	SINGLE TV CO-AXIAL OUTLET ISOLATED
					
K4836GRN 10	K4501BSS*LV 1	K4500BSS*LV 1	K4499BSS* 1	K4520WHI 10	K4521WHI 10
	K4501LBS*LV 1	K4500LBS*LV 1	K4499LBS* 1	K4520BLK 1	K4521BLK 1
	K4501BRC*LV 1	K4500BRC*LV 1	K4499BRC* 1		
	K4501POC*LV 1	K4500POC*LV 1	K4499POC* 1		
	K4501SAG*LV 1	K4500SAG*LV 1	K4499SAG* 1		
	K4501WHIWLV 1	K4500WHIWLV 1	K4499WHIW 1		
	K4501LIVWLV 1	K4500LIVWLV 1	K4499LIVW 1		
	K4501LBKBLV 1	K4500LBKBLV 1	K4499LBKB 1		
	K4501PBR*LV 1	K4500PBR*LV 1	K4499PBR* 1		
	K4501TIRBLV 1	K4500TIRBLV 1	K4499TIRB 1		
	K4501DBZBLV 1	K4500DBZBLV 1	K4499DBZB 1		
	K4501ABSBLV 1	K4500ABSBLV 1	K4499ABSB 1		
	K4501TCOBLV 1	K4500TCOBLV 1	K4499TCOB 1		

*** Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW.**

Where there is no asterix, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts

BS 5733: 2010

These dimmers incorporate the latest in micro-controller based circuitry to provide electronic soft-start and overload protection. They are radio frequency interference suppressed to BS EN 55015.

Suitable for use with good quality electronic or wire wound transformers. Can also be used with good quality mains voltage halogen lamps incorporating GU10 bases. Please check with lamp manufacturer to determine suitability.

Matching metal decorative caps are standard on all Aspect Grid Dimmers (except WHI).

K4500 is only suitable for use in 2, 4 and 8 module grids.

They are not suitable for fluorescent lamps.

Note: Refer to technical section for derating factors when more than one unit is used in any one box.

Conforms to the latest standard BS EN 60669-2-1.

MK Fluorescent Grid Dimmers are low voltage controllers for connection to 1-10V controllable ballasts.

For direct connection to TV or FM aerial co-axial downlead. NOT to be used in same enclosure as mains exceeding 50V.

BS 3041: 1977

IEC 169-2: 1965

BS 5733: 2010 where applicable.

For direct connection to TV or FM aerial co-axial downlead. NOT to be used in same enclosure as mains exceeding 50V.

BS 3041: 1977

IEC 169-2: 1965

BS 5733: 2010 where applicable.

Not available in other finishes

When ordering K4501 and K4500, use the suffix 'LV' right at the end, eg. K4501BSSWLV

Not available in other finishes

Accessory Modules

FINISHES	BUZZER UNIT 200-250V	BUZZER UNIT 21-36V	16 AMP CORD OUTLET	13 AMP FUSE UNIT	13 AMP FUSE UNIT WITH TAMPERPROOF SCREW
					
BRUSHED STAINLESS STEEL	K4000WHI 10	K4001WHI 10	K4886WHI 10 K4886BLK 1	K4890WHI 10 K4890BLK 1	K4890KOWHI 10 K4890KOBLK 1
LACQUERED BRUSHED STEEL					
BRUSHED CHROME					
POLISHED CHROME					
SATIN GOLD					
PORCELAIN WHITE					
LUSTROUS IVORY					
LUSTROUS BLACK					
POLISHED BRASS					
TEXTURED IRON					
DESERT BRONZE					
ANTIQUE BRASS					
TEXTURED COPPER					

LEAD TIMES: Please contact our Customer Services Department on: 01268 563 404

200-250V BS 5733: 2010	Sound output level Av 61 db @ 15 feet. BS 5733: 2010	Complete with 3 pairs of terminals. The supply terminals are suitable for up to 2 x 2.5mm² or 1 x 4mm² solid conductors. The load terminals are suitable for one 1.5mm² flexible cord. A cord grip is also fitted. BS 5733: 2010	Fuse carrier comes with 13A cartridge fuse link to BS 1362. BS 5733: 2010	Fuse carrier comes with 13A cartridge fuse link to BS 1362. BS 5733: 2010

Not available in other finishes

Euro Modular Frontplates

EURO 1 MODULE 25 X 50MM	EURO 2 MODULE 50 X 50MM	EURO 4 MODULE 100 X 50MM
		
K24181BSS 1	**K24182BSS** 1	**K24184BSS** 1
K24181LBS 1	**K24182LBS** 1	**K24184LBS** 1
K24181BRC 1	**K24182BRC** 1	**K24184BRC** 1
K24181POC 1	**K24182POC** 1	**K24184POC** 1
K24181SAG 1	**K24182SAG** 1	**K24184SAG** 1
K24181WHI 1	**K24182WHI** 1	**K24184WHI** 1
K24181LIV 1	**K24182LIV** 1	**K24184LIV** 1
K24181LBK 1	**K24182LBK** 1	**K24184LBK** 1
K24181PBR 1	**K24182PBR** 1	**K24184PBR** 1
K24181TIR 1	**K24182TIR** 1	**K24184TIR** 1
K24181DBZ 1	**K24182DBZ** 1	**K24184DBZ** 1
K24181ABS 1	**K24182ABS** 1	**K24184ABS** 1
K24181TCO 1	**K24182TCO** 1	**K24184TCO** 1



MOUNTING BOXES:

Suitable for flush boxes to BS 4662: 2006 and surface boxes to BS 5733: 2010 Refer to appropriate module for minimum box depth.

FIXING CENTRES: 60.3mm

BS 5733: 2010 where applicable.

Note: No grid required, modules just clip into place.

MOUNTING BOXES:

Suitable for flush boxes to BS 4662: 2006 and surface boxes to BS 5733: 2010 Refer to appropriate module for minimum box depth.

FIXING CENTRES: 60.3mm

BS 5733: 2010 where applicable.

Note: No grid required, modules just clip into place.

MOUNTING BOXES:

Suitable for flush boxes to BS 4662: 2006 and surface boxes to BS 5733: 2010 Refer to appropriate module for minimum box depth.

FIXING CENTRES: 120.6mm

BS 5733: 2010 where applicable.

Note: No grid required, modules just clip into place.

Euro Power Modules

UK 1 GANG 13 AMP 250V EURO* TWO MODULE	GERMAN 2P+E 16 AMP 250V SHUTTERED EURO* TWO MODULE (NON UK)	AMERICAN 15 AMP 127V SHUTTERED EURO* TWO MODULE (NON UK)	UK 1 GANG 5 AMP 250V SHUTTERED EURO* TWO MODULE	FRENCH/BELGIAN 2P+E 16AMP 250V SHUTTERED EURO* TWO MODULE (NON UK)
				

FINISHES					
BRUSHED STAINLESS STEEL	K5830WHI 10	K5831WHI 10	K5832WHI 10	K5833WHI 10	K5834WHI 10
LACQUERED BRUSHED STEEL					
BRUSHED CHROME					
POLISHED CHROME					
SATIN GOLD					
PORCELAIN WHITE	K5830BLK 10	K5831BLK 10	K5832BLK 10	K5833BLK 10	K5834BLK 10
LUSTROUS IVORY					
LUSTROUS BLACK					
POLISHED BRASS					
TEXTURED IRON					
DESERT BRONZE					
ANTIQUE BRASS					
TEXTURED COPPER					

LEAD TIMES: Please contact our Customer Services Department on: 01268 563 404

MOUNTING BOX: 35mm minimum 46mm (for extra wiring space). DIMENSIONS: 50 x 50mm BS 1363 Part 2: 1995	MOUNTING BOX: 46mm DIMENSIONS: 50 x 50mm IEC 60884-1: 2006	MOUNTING BOX: 35mm 46mm (for extra wiring space) DIMENSIONS: 50 x 50mm SASO 2203: 2003	MOUNTING BOX: 35mm minimum 46mm (for extra wiring space). DIMENSIONS: 50 x 50mm BS 546: 1950	MOUNTING BOX: 46mm DIMENSIONS: 50 x 50mm NF C61-341

Not available in other finishes

Euro Datacom Modules

USB CHARGING MODULE	RJ11/12 ONE MODULE 25X50MM	RJ45 CAT 6 ONE MODULE 25X50MM	RJ45 CAT 6 SCREENED ONE MODULE 25X50MM	RJ45 CAT 6 ANGLED ONE MODULE 25X50MM	RJ45 CAT 5E ANGLED ONE MODULE 25X50MM
					
K5837WHI 1 **K5837BLK** 1	**K5887WHI** 5 **K5887BLK** 5	**K5846WHI** 5 **K5846BLK** 5	**K5846SWHI** 5 **K5846SBLK** 5	**K5864WHI** 5	**K5844WHI** 5
K5837 MOUNTING BOX: 35mm minimum 46mm for extra wiring space DIMENSIONS: 50 x 50mm IEC 60950-1 IEC 61000-6-1/3	Suitable for both RJ11 and RJ12 jacks RJ11; 4 wire RJ12; 6 wire MOUNTING BOXES: Minimum box depth 35mm FCC68 EN 41003	Cat 6 performance. Suitable for both 568A and 568B wiring schemes. MOUNTING BOXES: Minimum Box Depth 35mm ISO/IEC 11801 EN 50173 TIA 568 EN 41003	Cat 6 performance. Suitable for both 568A and 568B wiring schemes. MOUNTING BOXES: Minimum Box Depth 35mm ISO/IEC 11801 EN 50173 TIA 568 EN 41003	Cat 6 performance. Suitable for both 568A and 568B wiring schemes. MOUNTING BOXES: Minimum Box Depth 35mm ISO/IEC 11801 EN 50173 TIA 568 EN 41003	Enhanced Cat 5 performance. Suitable for both 568A and 568B wiring schemes. MOUNTING BOXES: Minimum box depth 35mm standard ISO/IEC 11801 EN 50173 TIA 568 EN 41003

Not available in other finishes

Mains operated products and extra low voltage modules must not be installed within the same frontplate aperture. Refer to BS 7671: 2008 for details.

*** Euro frontplates can be found on page 101.**

Euro Datacom Modules

RJ45 CAT 5E ONE MODULE 25 X 50MM	TELEPHONE MASTER ONE MODULE 25 X 50MM	TELEPHONE SECONDARY ONE MODULE 25 X 50MM	BNC 50 ONE MODULE 25 X 50MM
			
FINISHES			
BRUSHED STAINLESS STEEL	K5845WHI 5	K5820WHI 5	K5821WHI 5	K5801WHI 5
LACQUERED BRUSHED STEEL				
BRUSHED CHROME				
POLISHED CHROME				
SATIN GOLD				
PORCELAIN WHITE				
LUSTROUS IVORY	K5845BLK 5	K5820BLK 5	K5821BLK 5	
LUSTROUS BLACK				
POLISHED BRASS				
TEXTURED IRON				
DESERT BRONZE				
ANTIQUE BRASS				
TEXTURED COPPER				

LEAD TIMES: Please contact our Customer Services Department on: 01268 563 404

Enhanced Cat 5 performance.

Suitable for both 568A and 568B wiring schemes.

MOUNTING BOXES: Minimum box depth 35mm standard

ISO/IEC 11801
EN 50173
TIA 568
EN 41003

MOUNTING BOXES: Minimum depth 35mm

BS 6312 Pt 2

MOUNTING BOXES: Minimum depth 35mm

BS 6312 Pt 2

50 Ohm crimp connector suitable for use with RG58, URM43, URM76 and Beldon 9907 type co-axial cables.

MOUNTING BOXES: Minimum box depth 35mm

Not available in other finishes

Mains operated products and extra low voltage modules must not be installed within the same frontplate. Refer to BS 7671: 2008 for details.

Euro Multimedia Modules

SINGLE OUTLET (IEC MALE) ONE MODULE 25 X 50MM	SINGLE OUTLET (IEC FEMALE) ONE MODULE 25 X 50MM	SINGLE F-TYPE SATELLITE SOCKET ONE MODULE 25 X 50MM	TWIN OUTLET TV/FM DIPLEXER TWO MODULE 50 X 50MM (IRELAND ONLY)	TWIN OUTLET TV-FM/DAB DIPLEXER TWO MODULE 50 X 50MM
				
K5850WHI 5 **K5850BLK** 5	**K5851WHI** 5 **K5851BLK** 5	**K5855WHI** 5 **K5855BLK** 5	**K5852WHI** 5 **K5852BLK** 5	**K5852DABWHI** 5 **K5852DABBLK** 5

Fully screened non isolated TV outlets containing a combination of single, TV/FM Diplexer, TV/FM/SAT Triplexer and BT secondary telephone outlets for use within digital TV systems and interactive TV services.

Single outlets for connection to a single TV, FM or Satellite co-axial aerial lead.

MOUNTING BOXES:
Min box depth 47mm

DIMENSIONS:
ONE MODULE 25 x 50mm
TWO MODULE 50 x 50mm

BS 3041: 1997 IEC 169-2: 1965
BS EN 50083 & BS 5733: 2010 where applicable.

TV/FM Diplexer units for connection to a single co-axial aerial lead with combined TV and FM signals.

PERFORMANCE

Single	TV:	DC - 950MHz
	Sat:	DC - 1.75GHz
Diplexer	TV:	5 - 65MHz 470 - 862MHz
	FM:	87.5 - 108 MHz

TV/FM/DAB FOR DIGITAL RADIO

PERFORMANCE

Diplexer	TV:	5-65MHz 470-862MHz
	FM/DAB:	87.5-230MHz

These products are fully compatible with Labgear TV distribution systems and are approved for use in "Sky Homes" and "Homes On" specifications.

Not available in other finishes

Euro Multimedia Modules

TRIPLE OUTLET TV/FM/SATELLITE TRIPLEXER TWO MODULE 50 X 50MM (IRELAND ONLY)	TRIPLE OUTLET TV-FM/DAB-SAT TRIPLEXER TWO MODULE 50 X 50MM	QUAD OUTLET TV-FM/DAB-2XSAT TWO MODULE 50 X 50MM	FEMALE HDMI OUTLET
			

FINISHES				
BRUSHED STAINLESS STEEL	K5853WHI 5	K5853DABWHI 5	K5854DABWHI 5	K5807WHI 5
LACQUERED BRUSHED STEEL	K5853BLK 5	K5853DABBLK 5	K5854DABBLK 5	K5807BLK 5
BRUSHED CHROME				
POLISHED CHROME				
SATIN GOLD				
PORCELAIN WHITE				
LUSTROUS IVORY				
LUSTROUS BLACK				
POLISHED BRASS				
TEXTURED IRON				
DESERT BRONZE				
ANTIQUE BRASS				
TEXTURED COPPER				

LEAD TIMES: Please contact our Customer Services Department on: 01268 563 404

TV/FM diplexer units for connection to a single co-axial aerial lead with combined TV and FM signals.
TV/FM/SAT triplexer units for connection to a single co-axial aerial lead with combined TV, FM and Satellite signals

PERFORMANCE

SINGLE OUTLETS

TV/FM IEC MALE OR FEMALE
DC-950MHz

SAT F-TYPE
DC-1.75GHz

TV/FM/SAT PRODUCTS

OUTLET	DIPLEXER	OUTLET	TRIPLEXER
TV	5-65MHz 470-862MHz	TV	5-65MHZ 470-862MHz
FM/DAB SAT	87.5-108MHz N/A	FM SAT1	87.5-108MHz 950-2300MHz

TV/FM/DAB/SAT PRODUCTS FOR DIGITAL RADIO

OUTLET	DIPLEXER	OUTLET	TRIPLEXER
TV	5-65MHz 470-862MHz	TV	5-65MHz 470-862MHz
FM/DAB SAT OR SAT1 SAT2	87.5-230MHz N/A	FM SAT1 SAT2	87.5-230MHz 950-2300MHz 5-2300MHz

K5807 Female HDMI Outlet is HDMI 1.1, 1.2 and 1.3 compatible, HDCP compliant.
Data Rate: Up to 2.25 Gbps
Scan: Up to 1080p/1920x1200
Input Connector:
1 x HDMI Female (Type A)
Output Connector:
1 x HDMI Female (Type A)
Supports high resolution input:
PC: VGA, SVGA,
SXVGA (1280x1024) and UXGA (1600x1200, 1920x1200)
HDTV: 480p, 720p, 1080i and 1080p
HDMI input cable should be no larger than 20m.
Weight of product: 16g
Dimensions: 50 x 50 x 20mm

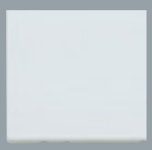
Not available in other finishes

For the full range of Euro multimedia modules, please see Logic Plus page 56

These products are fully compatible with Labgear TV distribution systems and are approved for use in "Sky Homes" and "Homes On" specifications.

Euro Blank Modules

EURO
TWO MODULE
(50 X 50MM)



K180WHI	10

MOUNTING BOXES:
Min. box depth 16mm

BS 5733: 2010 where applicable

EURO
ONE MODULE
(25 X 50MM)



K188WHI	10
K188BLK	10

MOUNTING BOXES:
Min. box depth 16mm

BS 5733: 2010 where applicable

EURO
1/TWO MODULE
(12.5 X 50MM)



K186WHI	10
K186BLK	10

MOUNTING BOXES:
Min. box depth 16mm

BS 5733: 2010 where applicable

LJU6C Datacom Frontplate

1 GANG
TWO MODULE
22 X 37MM



K24171BSS	1
K24171LBS	1
K24171BRC	1
K24171POC	1
K24171SAG	1
K24171WHI	1
K24171LIV	1
K24171LBK	1
K24171PBR	1
K24171TIR	1
K24171DBZ	1
K24171ABS	1
K24171TCO	1

MOUNTING BOXES:
suitable for flush boxes to BS 4662: 1970 and surface boxes to BS 5733: 2010

Refer to appropriate module for minimum box depth.

FIXING CENTRES:
1 gang: 60.3mm
2 gang: 120.6mm

BS 5733: 2010 where appropriate

Note: No grid required, modules just clip into place

2 GANG
TWO MODULE
22 X 37MM



K24172BSS	1
K24172LBS	1
K24172BRC	1
K24172POC	1
K24172SAG	1
K24172WHI	1
K24172LIV	1
K24172LBK	1
K24172PBR	1
K24172TIR	1
K24172DBZ	1
K24172ABS	1
K24172TCO	1

MOUNTING BOXES:
suitable for flush boxes to BS 4662: 1970 and surface boxes to BS 5733: 2010

Refer to appropriate module for minimum box depth.

FIXING CENTRES:
1 gang: 60.3mm
2 gang: 120.6mm

BS 5733: 2010 where appropriate

Note: No grid required, modules just clip into place

Not available in other finishes

LJU6C Datacom Modules

FINISHES	RJ11/12 ONE MODULE	RJ45 CAT 6 ONE MODULE	RJ45 CAT 6 SCREENED ONE MODULE	RJ45 CAT 5E ONE MODULE
				
BRUSHED STAINLESS STEEL	K5787WHI 5	K5746WHI 5 K5746BLK 5	K5746sWHI 5 K5746sBLK 5	K5745WHI 5 K5745BLK 5
LACQUERED BRUSHED STEEL				
BRUSHED CHROME				
POLISHED CHROME				
SATIN GOLD				
PORCELAIN WHITE				
LUSTROUS IVORY				
LUSTROUS BLACK				
POLISHED BRASS				
TEXTURED IRON				
DESERT BRONZE				
ANTIQUE BRASS				
TEXTURED COPPER				

LEAD TIMES: Please contact our Customer Services Department on: 01268 563 404

Suitable for both RJ11 and RJ12 jacks.
RJ11: 4 wire
RJ12: 6 wire
MOUNTING BOXES:
Minimum box depth 35mm
FCC68
EN41003

Cat 6 performance.
Suitable for both 568A and 568B wiring schemes.
MOUNTING BOXES:
Minimum Box Depth 35mm
ISO/IEC 11801
EN 50173
TIA 568
EN 41003

Cat 6 performance.
Suitable for both 568A and 568B wiring schemes.
MOUNTING BOXES:
Minimum Box Depth 35mm
ISO/IEC 11801
EN 50173
TIA 568
EN 41003

Enhanced Cat 5 performance.
Suitable for both 568A and 568B wiring schemes.
MOUNTING BOXES:
Minimum box depth 25mm
ISO/IEC 11801
EN 50173
TIA 568
EN 41003

Not available in other finishes

LJU6C Datacom Blanks

Blank Plates

LJU6C
ONE MODULE
(22 X 37MM)

	1 GANG	2 GANG
	K24330BSS 1	K24329BSS 1
	K24330LBS 1	K24329LBS 1
	K24330BRC 1	K24329BRC 1
	K24330POC 1	K24329POC 1
	K24330SAG 1	K24329SAG 1
	K24330WHI 1	K24329WHI 1
K170WHI 10	K24330LIV 1	K24329LIV 1
K170BLK 10	K24330LBK 1	K24329LBK 1
	K24330PBR 1	K24329PBR 1
	K24330TIR 1	K24329TIR 1
	K24330DBZ 1	K24329DBZ 1
	K24330ABS 1	K24329ABS 1
	K24330TCO 1	K24329TCO 1



MOUNTING BOXES:
Minimum box depth 16mm
BS 5733: 2010 where appropriate

MOUNTING BOXES:
FLUSH:
866ZIC
DIMENSIONS:
86 x 86mm
FIXING CENTRES:
1 gang: 60.3mm
BS 5733: 2010

MOUNTING BOXES:
FLUSH:
886ZIC
DIMENSIONS:
86 x 146mm
FIXING CENTRES:
2 gang: 120.6mm
BS 5733: 2010

Not available in other finishes



range introduction

Edge™ is a range of wiring devices that combine function and style. The design is smooth, clean and the products are very slim – in fact just 1.5mm. An impressive yet subtle statement, available in an unrivalled range of finishes, Edge™ is the choice in modern, contemporary or traditional interiors where style and detail are the desired effect.

In addition to the wide choice of standard finishes, a made-to-order service gives designers the ability to match almost any RAL colour required.

With Edge™ comes unrivalled safety. Utilising MK's 3-pin operated safety shutter, that prevents misuse and unsafe access to live circuitry, Edge™ offers the user the peace of mind and comfort that they have the safest range of wiring devices available installed in their surroundings.

Echo™ is an innovative range of entirely wireless, batteryless and self powered switches, only available from MK Electric and in finishes to complement the Edge™ range. Please see page 31 for details.

features and benefits

Slim profile frontplates of only 1.5mm with matching flat head screws throughout
A clean and practical range of products that complement the finest interiors.

Total safety
3-pin operated "child resistant shutter system", which is designed to inhibit access to the electricity supply, unless all 3 pins of a standard British 13A plug are in position.

Comprehensive range of sockets, switches and modular ancillary products
Mean that whatever the application, the Edge™ range has a wiring device to suit.

14 standard high quality finishes with a made-to-order service
Allows designers the flexibility to provide the finish of their choice.

DOUBLE POLE SWITCHING

MATCHING METAL ROCKER SWITCHES ON SELECTED FINISHES



FLATHEAD SCREWS THROUGHOUT

STYLISH SLIM-LINE DESIGN
Frontplate profile only 1.5mm

3-PIN "CHILD RESISTANT SHUTTER SYSTEM"
Designed to inhibit access to the electricity supply, unless all 3 pins of a standard British 13A plug are in position

14 HIGH QUALITY FINISHES TO CHOOSE FROM

OPTIONAL BLACK OR WHITE INSERTS ON SELECTED FINISHES
Provide impact resistance in any environment

Terminal screws are backed out and captive. Terminals are upwards facing to make installation easier.

Funnel entrance to terminals.

Clear terminal markings for easy identification.



The built-in lock in the Edge™ 13A Lockable Socket ensures that power cannot be turned on or off without the removeable key, making it ideal for communal areas such as hotel lobbies.



Combination plates provide one neat solution to all power, data, TV and satellite outlet requirements.



Switchsocket Outlets

	1 GANG DP DUAL EARTH 13 AMP	1 GANG DP WITH NEON DUAL EARTH 13 AMP	NON STANDARD 1 GANG DP CLEAN EARTH 13 AMP	2 GANG DP DUAL EARTH 13 AMP
				
FINISHES				
BRUSHED STAINLESS STEEL	K14357BSS* 1	K14657BSS* 1	K14268BSS* 1	K14347BSS* 1
LACQUERED BRUSHED STEEL	K14357LBS* 1	K14657LBS* 1	K14268LBS* 1	K14347LBS* 1
SILVER ANODIZED ALUMINIUM	K14357SAA* 1	K14657SAA* 1	K14268SAA* 1	K14347SAA* 1
BRUSHED CHROME	K14357BRC* 1	K14657BRC* 1	K14268BRC* 1	K14347BRC* 1
POLISHED CHROME	K14357POC* 1	K14657POC* 1	K14268POC* 1	K14347POC* 1
SATIN GOLD	K14357SAG* 1	K14657SAG* 1	K14268SAG* 1	K14347SAG* 1
PORCELAIN WHITE	K14357WHIW 1	K14657WHIW 1	K14268WHIW 1	K14347WHIW 1
LUSTROUS IVORY	K14357LIVW 1	K14657LIVW 1	K14268LIVW 1	K14347LIVW 1
LUSTROUS BLACK	K14357LBKB 1	K14657LBKB 1	K14268LBKB 1	K14347LBKB 1
POLISHED BRASS	K14357PBR* 1	K14657PBR* 1	K14268PBR* 1	K14347PBR* 1
TEXTURED IRON	K14357TIRB 1	K14657TIRB 1	K14268TIRB 1	K14347TIRB 1
DESERT BRONZE	K14357DBZB 1	K14657DBZB 1	K14268DBZB 1	K14347DBZB 1
ANTIQUE BRASS	K14357ABSB 1	K14657ABSB 1	K14268ABSB 1	K14347ABSB 1
TEXTURED COPPER	K14357TCOB 1	K14657TCOB 1	K14268TCOB 1	K14347TCOB 1

LEAD TIMES: Please contact our Customer Services Department on: 01268 563 404

*** Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW.**

Where there is no asterix, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts

MOUNTING BOXES:
FLUSH 35mm: 866ZIC
FLUSH 46mm: 877ZIC
(for extra wiring space)

DIMENSIONS:
86 x 86mm

FIXING CENTRES: 60.3mm

BS 1363 Pt 2: 1995

MOUNTING BOXES:
FLUSH 35mm: 866ZIC
FLUSH 46mm: 877ZIC
(for extra wiring space)

DIMENSIONS:
86 x 86mm

FIXING CENTRES: 60.3mm

BS 1363 Pt 2: 1995

Neon is only available in white or black insulated rocker.

MOUNTING BOXES:
FLUSH 35mm: 866ZIC
FLUSH 46mm: 877ZIC
(for extra wiring space)

DIMENSIONS:
86 x 86mm

FIXING CENTRES: 60.3mm

BS 1363 Pt 2: 1995
(where relevant)
These products are provided with facilities for 'clean earth' connections and are suitable for non-standard plugs with 'T' shaped earth pins.

MOUNTING BOXES:
FLUSH 35mm: 886ZIC
FLUSH 47mm: 878ZIC
(for extra wiring space)

DIMENSIONS:
86 x 146mm

FIXING CENTRES: 120.6mm

BS 1363 Pt 2: 1995

Dual Earth: Fitted with two earth terminals to provide a double earth facility for use when installations require a high integrity protective connection as specified within BS 7671: 2008.

Dual Earth
(see note box)

2 GANG DP CLEAN EARTH 13 AMP



K14345BSS*	1
K14345LBS*	1
K14345SAA*	1
K14345BRC*	1
K14345POC*	1
K14345SAG*	1
K14345WHIW	1
K14345LIVW	1
K14345LBKB	1
K14345PBR*	1
K14345TIRB	1
K14345DBZB	1
K14345ABSB	1
K14345TCOB	1

MOUNTING BOXES:
FLUSH 35mm: 886ZIC
FLUSH 47mm: 878ZIC
(for extra wiring space)

DIMENSIONS:
86 x 146mm

FIXING CENTRES: 120.6mm

BS 1363 Pt 2: 1995

2 GANG DP WITH NEON DUAL EARTH 13 AMP



K14647BSS*	1
K14647LBS*	1
K14647SAA*	1
K14647BRC*	1
K14647POC*	1
K14647SAG*	1
K14647WHIW	1
K14647LIVW	1
K14647LBKB	1
K14647PBR*	1
K14647TIRB	1
K14647DBZB	1
K14647ABSB	1
K14647TCOB	1

MOUNTING BOXES:
FLUSH 35mm: 886ZIC
FLUSH 47mm: 878ZIC
(for extra wiring space)

DIMENSIONS:
86 x 146mm

FIXING CENTRES: 120.6mm

BS 1363 Pt 2: 1995

Neon is only available in white or black insulated rocker.

Dual Earth
(see note box)

NON STANDARD 2 GANG DP CLEAN EARTH 13 AMP



K14246BSS*	1
K14246LBS*	1
K14246SAA*	1
K14246BRC*	1
K14246POC*	1
K14246SAG*	1
K14246WHIW	1
K14246LIVW	1
K14246LBKB	1
K14246PBR*	1
K14246TIRB	1
K14246DBZB	1
K14246ABSB	1
K14246TCOB	1

MOUNTING BOXES:
FLUSH 35mm: 886ZIC
FLUSH 47mm: 878ZIC
(for extra wiring space)

DIMENSIONS:
86 x 146mm

FIXING CENTRES:
120.6mm

BS 1363 Pt 2: 1995
(where relevant)

These products are provided with facilities for 'clean earth' connections, and are suitable for non-standard plugs with T shaped earth pins. Refer to non-standard plugs page 224.

1 GANG DP ROUND PIN 15 AMP



K14383BSS*	1
K14383LBS*	1
K14383SAA*	1
K14383BRC*	1
K14383POC*	1
K14383SAG*	1
K14383WHIW	1
K14383LIVW	1
K14383LBKB	1
K14383PBR*	1
K14383TIRB	1
K14383DBZB	1
K14383ABSB	1
K14383TCOB	1

MOUNTING BOXES:
FLUSH 35mm:
866ZIC
FLUSH 46mm:
877ZIC
(for extra wiring space)

DIMENSIONS:
86 x 86mm

FIXING CENTRES: 60.3mm

BS 546: 1950

*** Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW.**

Where there is no asterix, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts

Switchsocket Outlets

	IN-LINE COMBINATION PLATES 4 GANG DP DUAL EARTH 13A, EURO FOUR MODULE 100 X 50MM	2 GANG DP DUAL EARTH 13A,EURO 6 MODULE 50 X 50MM (X3)	STACKED COMBINATION PLATE 4 GANG DP DUAL EARTH 13A EURO 8 MODULE 100 X 50MM (X2)
			
FINISHES			
BRUSHED STAINLESS STEEL	K14200BSS* 1	K14205BSS* 1	K14100BSS* 1
LACQUERED BRUSHED STEEL	K14200LBS* 1	K14205LBS* 1	K14100LBS* 1
SILVER ANODIZED ALUMINIUM	K14200SAA* 1	K14205SAA* 1	K14100SAA* 1
BRUSHED CHROME	K14200BRC* 1	K14205BRC* 1	K14100BRC* 1
POLISHED CHROME	K14200POC* 1	K14205POC* 1	K14100POC* 1
SATIN GOLD	K14200SAG* 1	K14205SAG* 1	K14100SAG* 1
PORCELAIN WHITE	K14200WHIW 1	K14205WHIW 1	K14100WHIW 1
LUSTROUS IVORY	K14200LIVW 1	K14205LIVW 1	K14100LIVW 1
LUSTROUS BLACK	K14200LBKB 1	K14205LBKB 1	K14100LBKB 1
POLISHED BRASS	K14200PBR* 1	K14205PBR* 1	K14100PBR* 1
TEXTURED IRON	K14200TIRB 1	K14205TIRB 1	K14100TIRB 1
DESERT BRONZE	K14200DBZB 1	K14205DBZB 1	K14100DBZB 1
ANTIQUE BRASS	K14200ABSB 1	K14205ABSB 1	K14100ABSB 1
TEXTURED COPPER	K14200TCOB 1	K14205TCOB 1	K14100TCOB 1

LEAD TIMES: Please contact our Customer Services Department on: 01268 563 404

*** Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW.**

Where there is no asterix, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts

MOUNTING BOXES:**
(for K14200)
FLUSH 35mm: K14201
FLUSH 47mm: K14202

DIMENSIONS:
86 x 442.8mm

BS 1363 Pt 2: 1995

** See page 197 for box dimensions

Dual Earth (see note box)

MOUNTING BOXES:**
(for K14205)
FLUSH 35mm: K14206
FLUSH 47mm: K14207

DIMENSIONS:
86 x 407.9mm

BS 1363 Pt 2: 1995

** See page 197 for box dimensions

Dual Earth (see note box)

MOUNTING BOXES:**
FLUSH 35mm: K14101
FLUSH 47mm: K14102

DIMENSIONS:
173 x 293.6mm

BS 1363 Pt 2: 1995

** See page 197 for box dimensions

Dual Earth (see note box)

Mains operated products and extra low voltage modules must not be installed within the same frontplate aperture. Refer to BS 7671: 2008 for details.

Socket Outlets

1 GANG DUAL EARTH 13 AMP	2 GANG DUAL EARTH 13 AMP	1 GANG 2 AMP	1 GANG 5 AMP	SWITCHED SOCKET 1 GANG 5 AMP
				
K14780BSS* 1	K14781BSS* 1	K14380BSS* 1	K14381BSS* 1	K14382BSS* 1
K14780LBS* 1	K14781LBS* 1	K14380LBS* 1	K14381LBS* 1	K14382LBS* 1
K14780SAA* 1	K14781SAA* 1	K14380SAA* 1	K14381SAA* 1	K14382SAA* 1
K14780BRC* 1	K14781BRC* 1	K14380BRC* 1	K14381BRC* 1	K14382BRC* 1
K14780POC* 1	K14781POC* 1	K14380POC* 1	K14381POC* 1	K14382POC* 1
K14780SAG* 1	K14781SAG* 1	K14380SAG* 1	K14381SAG* 1	K14382SAG* 1
K14780WHIW 1	K14781WHIW 1	K14380WHIW 1	K14381WHIW 1	K14382WHIW 1
K14780LIVW 1	K14781LIVW 1	K14380LIVW 1	K14381LIVW 1	K14382LIVW 1
K14780LBKB 1	K14781LBKB 1	K14380LBKB 1	K14381LBKB 1	K14382LBKB 1
K14780PBR* 1	K14781PBR* 1	K14380PBR* 1	K14381PBR* 1	K14382PBR* 1
K14780TIRB 1	K14781TIRB 1	K14380TIRB 1	K14381TIRB 1	K14382TIRB 1
K14780DBZB 1	K14781DBZB 1	K14380DBZB 1	K14381DBZB 1	K14382DBZB 1
K14780ABSB 1	K14781ABSB 1	K14380ABSB 1	K14381ABSB 1	K14382ABSB 1
K14780TCOB 1	K14781TCOB 1	K14380TCOB 1	K14381TCOB 1	K14382TCOB 1

*** Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW.**

Where there is no asterix, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts

MOUNTING BOXES:
FLUSH 35mm: 866ZIC
FLUSH 46mm: 877ZIC
(for extra wiring space)

DIMENSIONS:
86 x 86mm

FIXING CENTRES: 60.3mm

BS 1363 Pt 2: 1995

MOUNTING BOXES:
FLUSH 35mm: 886ZIC
FLUSH 47mm: 878ZIC
(for extra wiring space)

DIMENSIONS:
86 x 146mm

FIXING CENTRES:
120.6mm

BS 1363 Pt 2: 1995

Dual Earth
(see note box)

MOUNTING BOXES:
FLUSH 25mm: 861ZIC
FLUSH 35mm: 866ZIC
(for extra wiring space)

DIMENSIONS:
86 x 86mm

FIXING CENTRES: 60.3mm

Earth pin linear operated shutter

BS 546: 1950

MOUNTING BOXES:
FLUSH 35mm: 866ZIC
FLUSH 46mm: 877ZIC
(for extra wiring space)

DIMENSIONS:
86 x 86mm

FIXING CENTRES: 60.3mm

BS 546: 1950

MOUNTING BOXES:
FLUSH 35mm: 866ZIC
FLUSH 46mm: 877ZIC
(for extra wiring space)

DIMENSIONS:
86 x 86mm

FIXING CENTRES: 60.3mm

BS 546: 1950

Floor Mounted Euro Frames

Key Operated Socket Outlet and Switch

	1 GANG STANDARD	2 GANG STANDARD	KEY OPERATED 1 GANG DP DUAL EARTH 13 AMP	KEY OPERATED 1 GANG DP SWITCH 20 AMP
				
FINISHES				
BRUSHED STAINLESS STEEL	K14790BSS 1	K14791BSS 1	K14355BSS* 1	K14378BSS 1
LACQUERED BRUSHED STEEL	K14790LBS 1	K14791LBS 1	K14355LBS* 1	K14378LBS 1
SILVER ANODIZED ALUMINIUM	K14790SAA 1	K14791SAA 1	K14355SAA* 1	K14378SAA 1
BRUSHED CHROME	K14790BRC 1	K14791BRC 1	K14355BRC* 1	K14378BRC 1
POLISHED CHROME	K14790POC 1	K14791POC 1	K14355POC* 1	K14378POC 1
SATIN GOLD	K14790SAG 1	K14791SAG 1	K14355SAG* 1	K14378SAG 1
PORCELAIN WHITE	K14790WHI 1	K14791WHI 1	K14355WHIW 1	K14378WHI 1
LUSTROUS IVORY	K14790LIV 1	K14791LIV 1	K14355LIVW 1	K14378LIV 1
LUSTROUS BLACK	K14790LBK 1	K14791LBK 1	K14355LBKB 1	K14378LBK 1
POLISHED BRASS	K14790PBR 1	K14791PBR 1	K14355PBR* 1	K14378PBR 1
TEXTURED IRON	K14790TIR 1	K14791TIR 1	K14355TIRB 1	K14378TIR 1
DESERT BRONZE	K14790DBZ 1	K14791DBZ 1	K14355DBZB 1	K14378DBZ 1
ANTIQUE BRASS	K14790ABS 1	K14791ABS 1	K14355ABSB 1	K14378ABS 1
TEXTURED COPPER	K14790TCO 1	K14791TCO 1	K14355TCOB 1	K14378TCO 1

LEAD TIMES: Please contact our Customer Services Department on: 01268 563 404

*** Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW.**

Where there is no asterix, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts

MOUNTING BOXES:
FLUSH: 1 GANG: 866ZIC

DIMENSIONS:
102 x 86mm

FIXING CENTRES:
60.3mm

Boxes must have a minimum depth of 35mm.

MOUNTING BOXES:
FLUSH: 2 GANG: 886ZIC

DIMENSIONS:
102 x 146mm

FIXING CENTRES:
120.6mm

Boxes must have a minimum depth of 35mm.

MOUNTING BOX:
FLUSH 47mm: 878ZIC

DIMENSIONS:
86 x 146mm

FIXING CENTRES:
120.6mm

BS 1363 Pt 2: 1995

Dual Earth
(see note box)

MOUNTING BOX:
FLUSH 46mm: 877ZIC

DIMENSIONS:
86 x 86mm

FIXING CENTRES:
60.3mm

BS EN 60669-1: 1999

1 GANG DP LOCKABLE FIRE ALARM ISOLATOR SWITCH 20 AMP

Shaver/ Toothbrush Supply Units

DUAL VOLTAGE
OUTPUT 115/230V
INPUT 220/240V
50/60HZ

120/130V INPUT
(NON UK)







K14379BSS 1	**K14709BSS*** 1	**K14710BSS*** 1
	K14709LBS* 1	**K14710LBS*** 1
	K14709SAA* 1	**K14710SAA*** 1
	K14709BRC* 1	**K14710BRC*** 1
	K14709POC* 1	**K14710POC*** 1
	K14709SAG* 1	**K14710SAG*** 1
	K14709WHIW 1	**K14710WHIW** 1
	K14709LIVW 1	**K14710LIVW** 1
	K14709LBKB 1	**K14710LBKB** 1
	K14709PBR* 1	**K14710PBR*** 1
	K14709TIRB 1	**K14710TIRB** 1
	K14709DBZB 1	**K14710DBZB** 1
	K14709ABSB 1	**K14710ABSB** 1
	K14709TCOB 1	**K14710TCOB** 1

Only available in Brushed Stainless Steel

*** Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW.**

Where there is no asterix, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts



MOUNTING BOX:
FLUSH 46mm: 877ZIC

DIMENSIONS:
86 x 86mm

FIXING CENTRES:
60.3mm

BS 60669-2-4: 2005

The isolator has primarily been introduced for use in alarm systems that must comply with BS 5839 Part 1

MOUNTING BOXES:
FLUSH: 878ZIC

This design incorporates a double wound isolating transformer rated 20VA at 230 or 115 volts and
meets BS EN 61558-2-5: 1998, making it safe for use in bathrooms.

Insertion of a shaver/toothbrush plug automatically switches on output by energising the primary side of the isolating transformer – removal automatically switches it off. The transformer is protected against overload by an automatic solid state overload device with automatic resetting.

DIMENSIONS: 146 x 86mm

FIXING CENTRES: 120.6mm

BS EN 61558-2-5: 1998

Connection Units Switched

	DP 13 AMP	DP WITH NEON** 13 AMP	DP WITH FLEX OUTLET 13 AMP	DP WITH NEON** & FLEX OUTLET 13 AMP
				
FINISHES				
BRUSHED STAINLESS STEEL	K14941BSS* 1	K14961BSS* 1	K14931BSS* 1	K14971BSS* 1
LACQUERED BRUSHED STEEL	K14941LBS* 1	K14961LBS* 1	K14931LBS* 1	K14971LBS* 1
SILVER ANODIZED ALUMINIUM	K14941SAA* 1	K14961SAA* 1	K14931SAA* 1	K14971SAA* 1
BRUSHED CHROME	K14941BRC* 1	K14961BRC* 1	K14931BRC* 1	K14971BRC* 1
POLISHED CHROME	K14941POC* 1	K14961POC* 1	K14931POC* 1	K14971POC* 1
SATIN GOLD	K14941SAG* 1	K14961SAG* 1	K14931SAG* 1	K14971SAG* 1
PORCELAIN WHITE	K14941WHIW 1	K14961WHIW 1	K14931WHIW 1	K14971WHIW 1
LUSTROUS IVORY	K14941LIVW 1	K14961LIVW 1	K14931LIVW 1	K14971LIVW 1
LUSTROUS BLACK	K14941LBKB 1	K14961LBKB 1	K14931LBKB 1	K14971LBKB 1
POLISHED BRASS	K14941PBR* 1	K14961PBR* 1	K14931PBR* 1	K14971PBR* 1
TEXTURED IRON	K14941TIRB 1	K14961TIRB 1	K14931TIRB 1	K14971TIRB 1
DESERT BRONZE	K14941DBZB 1	K14961DBZB 1	K14931DBZB 1	K14971DBZB 1
ANTIQUE BRASS	K14941ABSB 1	K14961ABSB 1	K14931ABSB 1	K14971ABSB 1
TEXTURED COPPER	K14941TCOB 1	K14961TCOB 1	K14931TCOB 1	K14971TCOB 1

LEAD TIMES: Please contact our Customer Services Department on: 01268 563 404

*** Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW.**

Where there is no asterix, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts

MOUNTING BOXES:
FLUSH 35mm: 866ZIC
FLUSH 46mm: 877ZIC
(for extra wiring space)

All connection units are fitted with a 13A fuse (to BS 1362).

TERMINAL CAPACITY:
2 x 6mm² stranded (max)

DIMENSIONS:
86 x 86mm

FIXING CENTRES: 60.3mm

BS 1363 Pt 4: 1995

MOUNTING BOXES:
FLUSH 35mm: 866ZIC
FLUSH 46mm: 877ZIC
(for extra wiring space)

All connection units are fitted with a 13A fuse (to BS 1362).

TERMINAL CAPACITY:
2 x 6mm² stranded (max)

DIMENSIONS:
86 x 86mm

FIXING CENTRES:
60.3mm

BS 1363 Pt 4: 1995

****NOTE: Neon is only available in white or black insulated rocker.**

MOUNTING BOXES:
FLUSH 35mm: 866ZIC
FLUSH 46mm: 877ZIC
(for extra wiring space)

All connection units are fitted with a 13A fuse (to BS 1362).

TERMINAL CAPACITY:
2 x 6mm² stranded (max)

DIMENSIONS:
86 x 86mm

FIXING CENTRES: 60.3mm

BS 1363 Pt 4: 1995

MOUNTING BOXES:
FLUSH 35mm: 866ZIC
FLUSH 46mm: 877ZIC
(for extra wiring space)

All connection units are fitted with a 13A fuse (to BS 1362).

TERMINAL CAPACITY:
2 x 6mm² stranded (max)

DIMENSIONS:
86 x 86mm

FIXING CENTRES: 60.3mm

BS 1363 Pt 4: 1995

****NOTE: Neon is only available in white or black insulated rocker.**

Matching metal capped fuse carriers are standard on all Edge™ Connection Units (except BLK, WHI and Neon).

Connection Units
Unswitched

13 AMP	WITH NEON 13 AMP	WITH FLEX OUTLET 13 AMP	WITH NEON & FLEX OUTLET 13 AMP
			
K14948BSS* 1	K14958BSS* 1	K14989BSS* 1	K14978BSS* 1
K14948LBS* 1	K14958LBS* 1	K14989LBS* 1	K14978LBS* 1
K14948SAA* 1	K14958SAA* 1	K14989SAA* 1	K14978SAA* 1
K14948BRC* 1	K14958BRC* 1	K14989BRC* 1	K14978BRC* 1
K14948POC* 1	K14958POC* 1	K14989POC* 1	K14978POC* 1
K14948SAG* 1	K14958SAG* 1	K14989SAG* 1	K14978SAG* 1
K14948WHIW 1	K14958WHIW 1	K14989WHIW 1	K14978WHIW 1
K14948LIVW 1	K14958LIVW 1	K14989LIVW 1	K14978LIVW 1
K14948LBKB 1	K14958LBKB 1	K14989LBKB 1	K14978LBKB 1
K14948PBR* 1	K14958PBR* 1	K14989PBR* 1	K14978PBR* 1
K14948TIRB 1	K14958TIRB 1	K14989TIRB 1	K14978TIRB 1
K14948DBZB 1	K14958DBZB 1	K14989DBZB 1	K14978DBZB 1
K14948ABSB 1	K14958ABSB 1	K14989ABSB 1	K14978ABSB 1
K14948TCOB 1	K14958TCOB 1	K14989TCOB 1	K14978TCOB 1

*** Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW.**

Where there is no asterix, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts

MOUNTING BOXES:
FLUSH 35mm: 866ZIC
FLUSH 46mm: 877ZIC
(for extra wiring space)

All connection units are fitted with a 13A fuse (to BS 1362).

TERMINAL CAPACITY:
2 x 6mm² stranded (max)

DIMENSIONS:
86 x 86mm

FIXING CENTRES: 60.3mm

BS 1363 Pt 4: 1995

MOUNTING BOXES:
FLUSH 35mm: 866ZIC
FLUSH 46mm: 877ZIC
(for extra wiring space)

All connection units are fitted with a 13A fuse (to BS 1362).

TERMINAL CAPACITY:
2 x 6mm² stranded (max)

DIMENSIONS:
86 x 86mm

FIXING CENTRES: 60.3mm

BS 1363 Pt 4: 1995

MOUNTING BOXES:
FLUSH 35mm: 866ZIC
FLUSH 46mm: 877ZIC
(for extra wiring space)

All connection units are fitted with a 13A fuse (to BS 1362).

TERMINAL CAPACITY:
2 x 6mm² stranded (max)

DIMENSIONS:
86 x 86mm

FIXING CENTRES: 60.3mm

BS 1363 Pt 4: 1995

MOUNTING BOXES:
FLUSH 35mm: 866ZIC
FLUSH 46mm: 877ZIC
(for extra wiring space)

All connection units are fitted with a 13A fuse (to BS 1362).

TERMINAL CAPACITY:
2 x 6mm² stranded (max)

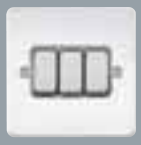
DIMENSIONS:
86 x 86mm

FIXING CENTRES: 60.3mm

BS 1363 Pt 4: 1995

Matching metal capped fuse carriers are standard on all Edge™ Connection Units (except BLK, WHI and Neon).

Switches

1 GANG SP 2 WAY 20 AMP	2 GANG SP 2 WAY 20 AMP	3 GANG SP 2 WAY 10 AMP	1 GANG SP 2 WAY 20 AMP WITH LARGE ROCKER
			
FINISHES				
BRUSHED STAINLESS STEEL	K14371BSS* 1	K14372BSS* 1	K14373BSS* 1	K13471BSS* 1
LACQUERED BRUSHED STEEL	K14371LBS* 1	K14372LBS* 1	K14373LBS* 1	K13471LBS* 1
SILVER ANODIZED ALUMINIUM	K14371SAA* 1	K14372SAA* 1	K14373SAA* 1	K13471SAA* 1
BRUSHED CHROME	K14371BRC* 1	K14372BRC* 1	K14373BRC* 1	K13471BRC* 1
POLISHED CHROME	K14371POC* 1	K14372POC* 1	K14373POC* 1	K13471POC* 1
SATIN GOLD	K14371SAG* 1	K14372SAG* 1	K14373SAG* 1	K13471SAG* 1
PORCELAIN WHITE	K14371WHIW 1	K14372WHIW 1	K14373WHIW 1	K13471WHIW 1
LUSTROUS IVORY	K14371LIVW 1	K14372LIVW 1	K14373LIVW 1	K13471LIVW 1
LUSTROUS BLACK	K14371LBKB 1	K14372LBKB 1	K14373LBKB 1	K13471LBKB 1
POLISHED BRASS	K14371PBR* 1	K14372PBR* 1	K14373PBR* 1	K13471PBR* 1
TEXTURED IRON	K14371TIRB 1	K14372TIRB 1	K14373TIRB 1	K13471TIRB 1
DESERT BRONZE	K14371DBZB 1	K14372DBZB 1	K14373DBZB 1	K13471DBZB 1
ANTIQUE BRASS	K14371ABSB 1	K14372ABSB 1	K14373ABSB 1	K13471ABSB 1
TEXTURED COPPER	K14371TCOB 1	K14372TCOB 1	K14373TCOB 1	K13471TCOB 1

*** Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW.**

Where there is no asterix, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts

MOUNTING BOXES: FLUSH: 861ZIC	MOUNTING BOXES: FLUSH: 861ZIC	MOUNTING BOXES: FLUSH: 861ZIC	MOUNTING BOXES: FLUSH: 861ZIC
TERMINAL CAPACITY 2 x 6mm² Stranded (max)	TERMINAL CAPACITY 2 x 6mm² Stranded (max)	TERMINAL CAPACITY 2 x 6mm² Stranded (max)	DIMENSIONS: 86 x 86mm
DIMENSIONS: 86 x 86mm	DIMENSIONS: 86 x 86mm	DIMENSIONS: 86 x 86mm	ROCKER DIMENSIONS: 22 x 40mm
FIXING CENTRES: 60.3mm	FIXING CENTRES: 60.3mm	FIXING CENTRES: 60.3mm	FIXING CENTRES: 120.6mm
BS .EN 60669-1: 1999	BS EN 60669-1: 1999	BS EN 60669-1: 1999	BS 60669-1: 1999
These switches do not have to be derated when used with fluorescent or inductive loads	These switches do not have to be derated when used with fluorescent or inductive loads	These switches do not have to be derated when used with fluorescent or inductive loads	These switches do not have to be derated when used with fluorescent or inductive loads

NOT RECOMMENDED FOR SWITCHING LARGE BANKS OF PCS

2 GANG SP 2 WAY 20 AMP WITH LARGE ROCKERS	High Current Switches: 1 GANG DP WITH NEON 32 AMP	High Current Switches: 1 GANG DP WITH NEON 50 AMP	Cooker Control Unit: 45 AMP DP MAIN SWITCH AND 13 AMP SWITCH SOCKET OUTLET WITH NEONS	3 Pole Fan Isolator	32A Triple Pole & Neutral Switch
					
K13472BSS* 1	K14305BSS* 1	K14336BSS* 1	K14361BSS* 1	K14859BSS* 1	K14114BSS* 1
K13472LBS* 1	K14305LBS* 1		K14361LBS* 1	K14859LBS* 1	K14114LBS* 1
K13472SAA* 1	K14305SAA* 1		K14361SAA* 1	K14859SAA* 1	K14114SAA* 1
K13472BRC* 1	K14305BRC* 1		K14361BRC* 1	K14859BRC* 1	K14114BRC* 1
K13472POC* 1	K14305POC* 1		K14361POC* 1	K14859POC* 1	K14114POC* 1
K13472SAG* 1	K14305SAG* 1		K14361SAG* 1	K14859SAG* 1	K14114SAG* 1
K13472WHIW 1	K14305WHIW 1		K14361WHIW 1	K14859WHIW 1	K14114WHIW 1
K13472LIVW 1	K14305LIVW 1		K14361LIVW 1	K14859LIVW 1	K14114LIVW 1
K13472LBKB 1	K14305LBKB 1		K14361LBKB 1	K14859LBKB 1	K14114LBKB 1
K13472PBR* 1	K14305PBR* 1		K14361PBR* 1	K14859PBR* 1	K14114PBR* 1
K13472TIRB 1	K14305TIRB 1		K14361TIRB 1	K14859TIRB 1	K14114TIRB 1
K13472DBZB 1	K14305DBZB 1		K14361DBZB 1	K14859DBZB 1	K14114DBZB 1
K13472ABSB 1	K14305ABSB 1		K14361ABSB 1	K14859ABSB 1	K14114ABSB 1
K13472TCOB 1	K14305TCOB 1		K14361TCOB 1	K14859TCOB 1	K14114TCOB 1

*** Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW.**

Where there is no asterix, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts

MOUNTING BOXES:
FLUSH: 861ZIC

DIMENSIONS:
86 x 86mm

ROCKER DIMENSIONS:
22 x 40mm

FIXING CENTRES:
120.6mm

BS 60669-1:1999

These switches do not have to be derated when used with fluorescent or inductive loads

NOT RECOMMENDED FOR SWITCHING LARGE BANKS OF PCS

MOUNTING BOXES:
FLUSH: 866ZIC

DIMENSIONS:
86 x 86mm

FIXING CENTRES:
60.3mm

BS EN 60669-1: 1999

These switches do not have to be derated when used with fluorescent or inductive loads.

MOUNTING BOXES:
FLUSH: 866ZIC

DIMENSIONS:
86 x 86mm

FIXING CENTRES:
60.3mm

BS EN 60669-1: 1999

These switches do not have to be derated when used with fluorescent or inductive loads.

MOUNTING BOXES:
FLUSH: 878ZIC

45A DP Main Switch and 13A Switchsocket outlet with NEONS (Up to 10mm² conductor).

Rotary operated shutter.

DIMENSIONS:
86 x 146mm

FIXING CENTRES:
120.6mm

BS 4177: 1992

To allow adequate wiring space, mounting box must be installed 6mm to 10mm sub flush to the wall surface.

MOUNTING BOXES:
FLUSH: 877ZIC

DIMENSIONS:
86 x 186mm

FIXING CENTRES:
60.3mm

BS EN 60947-3:1999

To allow adequate wiring space, mounting box must be installed 6mm to 10mm sub flush to the wall surface.

MOUNTING BOXES:

FLUSH: 5268ALM (Mounting box should be mounted 6 to 10mm sub-flush to the wall)

DIMENSIONS:
203 x 140mm

TERMINAL CAPACITY:
16mm2 conductors

BS EN 60947-3: 1999

Intelligent Dimmers (CE marked)

2 WAY SINGLE 230V A.C. 50HZ 60W/VA MIN.- 500W/400VA MAX.	2 WAY DOUBLE 230V A.C. 50HZ 60W/VA MIN. 450W/360VA MAX. FOR EACH DIMMER	2 WAY SINGLE 230V A.C. 50HZ 40W/VA MIN. 300W/240VA MAX.	2 WAY DOUBLE 230V A.C. 50HZ 40W/VA MIN. 300W/240VA MAX. FOR EACH DIMMER






FINISHES				
BRUSHED STAINLESS STEEL	K14301BSS 1	K14302BSS 1	K14521BSS 1	K14522BSS 1
LACQUERED BRUSHED STEEL	K14301LBS 1	K14302LBS 1	K14521LBS 1	K14522LBS 1
SILVER ANODIZED ALUMINIUM	K14301SSA 1	K14302SSA 1	K14521SAA 1	K14522SAA 1
BRUSHED CHROME	K14301BRC 1	K14302BRC 1	K14521BRC 1	K14522BRC 1
POLISHED CHROME	K14301POC 1	K14302POC 1	K14521POC 1	K14522POC 1
SATIN GOLD	K14301SAG 1	K14302SAG 1	K14521SAG 1	K14522SAG 1
PORCELAIN WHITE	K14301WHI 1	K14302WHI 1	K14521WHI 1	K14522WHI 1
LUSTROUS IVORY	K14301LIV 1	K14302LIV 1	K14521LIV 1	K14522LIV 1
LUSTROUS BLACK	K14301LBK 1	K14302LBK 1	K14521LBK 1	K14522LBK 1
POLISHED BRASS	K14301PBR 1	K14302PBR 1	K14521PBR 1	K14522PBR 1
TEXTURED IRON	K14301TIR 1	K14302TIR 1	K14521TIR 1	K14522TIR 1
DESERT BRONZE	K14301DBZ 1	K14302DBZ 1	K14521DBZ 1	K14522DBZ 1
ANTIQUE BRASS	K14301ABS 1	K14302ABS 1	K14521ABS 1	K14522ABS 1
TEXTURED COPPER	K14301TCO 1	K14302TCO 1	K14521TCO 1	K14522TCO 1

LEAD TIMES: Please contact our Customer Services Department on: 01268 563 404

MOUNTING BOXES:
FLUSH 866ZIC – 35mm deep min
DIMENSIONS:
86 x 86mm
FIXING CENTRES: 60.3mm

MOUNTING BOXES:
FLUSH 886ZIC – 35mm deep min
DIMENSIONS:
86 x 146mm
FIXING CENTRES: 120.6mm

MOUNTING BOXES:
FLUSH 866ZIC – 35mm deep min
DIMENSIONS:
86 x 86mm
FIXING CENTRES: 60.3mm

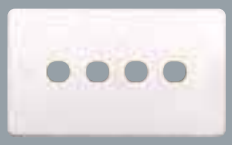
MOUNTING BOXES:
FLUSH 866ZIC – 35mm deep min
DIMENSIONS:
86 x 86mm
FIXING CENTRES: 60.3mm

These dimmers employ the latest micro-controller based circuitry to provide electronic soft-start and overload protection. They are suitable for use with good quality electronic or wire-wound transformers. Can also be used with good quality halogen lamps incorporating GU10 bases. Please check with lamp manufacturer to determine suitability.
NOT SUITABLE FOR FLUORESCENT LOADS.
Conform to latest standards BS EN 60669-2-1 and BS EN 55015.

All intelligent dimmers have a combined push-on/push-off switch and rotary dimmer control, and are suitable for one or two-way switching. They are radio frequency interference suppressed to BS EN 55015.

NOT RECOMMENDED FOR SWITCHING LARGE BANKS OF PCS

Toggle Switch Frontplates
SUPPLIED WITH GRIDS

1 MODULE	2 MODULE	3 MODULE	4 MODULE
			
K14431BSS 1	**K14432BSS** 1	**K14433BSS** 1	**K14434BSS** 1
K14431LBS 1	**K14432LBS** 1	**K14433LBS** 1	**K14434LBS** 1
K14431SAA 1	**K14432SAA** 1	**K14433SAA** 1	**K14434SAA** 1
K14431BRC 1	**K14432BRC** 1	**K14433BRC** 1	**K14434BRC** 1
K14431POC 1	**K14432POC** 1	**K14433POC** 1	**K14434POC** 1
K14431SAG 1	**K14432SAG** 1	**K14433SAG** 1	**K14434SAG** 1
K14431WHI 1	**K14432WHI** 1	**K14433WHI** 1	**K14434WHI** 1
K14431LIV 1	**K14432LIV** 1	**K14433LIV** 1	**K14434LIV** 1
K14431LBK 1	**K14432LBK** 1	**K14433LBK** 1	**K14434LBK** 1
K14431PBR 1	**K14432PBR** 1	**K14433PBR** 1	**K14434PBR** 1
K14431TIR 1	**K14432TIR** 1	**K14433TIR** 1	**K14434TIR** 1
K14431DBZ 1	**K14432DBZ** 1	**K14433DBZ** 1	**K14434DBZ** 1
K14431ABS 1	**K14432ABS** 1	**K14433ABS** 1	**K14434ABS** 1
K14431TCO 1	**K14432TCO** 1	**K14433TCO** 1	**K14434TCO** 1
MOUNTING BOX FLUSH: 891ALM DIMENSIONS: 86 x 86mm BS 5733: 2010	MOUNTING BOX FLUSH: 891ALM DIMENSIONS: 86 x 86mm BS 5733: 2010	MOUNTING BOX FLUSH: 892ALM DIMENSIONS: 86 x 146mm BS 5733: 2010	MOUNTING BOX FLUSH: 892ALM DIMENSIONS: 86 x 146mm BS 5733: 2010

Toggle Switch Modules

Grid Plus Modular Frontplates
SUPPLIED WITH GRIDS

	20 AMP SP 1 WAY	20 AMP SP 2 WAY	20 AMP DP 1 WAY	20 AMP INTERMEDIATE	1 MODULE
					
FINISHES					
BRUSHED STAINLESS STEEL	K14891BSS 1	K14892BSS 1	K14896BSS 1	K14893BSS 1	K14331BSS 1
LACQUERED BRUSHED STEEL	K14891LBS 1	K14892LBS 1	K14896LBS 1	K14893LBS 1	K14331LBS 1
SILVER ANODIZED ALUMINIUM	K14891SAA 1	K14892SAA 1	K14896SAA 1	K14893SAA 1	K14331SAA 1
BRUSHED CHROME	K14891BRC 1	K14892BRC 1	K14896BRC 1	K14893BRC 1	K14331BRC 1
POLISHED CHROME	K14891POC 1	K14892POC 1	K14896POC 1	K14893POC 1	K14331POC 1
SATIN GOLD	K14891SAG 1	K14892SAG 1	K14896SAG 1	K14893SAG 1	K14331SAG 1
PORCELAIN WHITE	K14891WHI 1	K14892WHI 1	K14896WHI 1	K14893WHI 1	K14331WHI 1
LUSTROUS IVORY	K14891LIV 1	K14892LIV 1	K14896LIV 1	K14893LIV 1	K14331LIV 1
LUSTROUS BLACK	K14891LBK 1	K14892LBK 1	K14896LBK 1	K14893LBK 1	K14331LBK 1
POLISHED BRASS	K14891PBR 1	K14892PBR 1	K14896PBR 1	K14893PBR 1	K14331PBR 1
TEXTURED IRON	K14891TIR 1	K14892TIR 1	K14896TIR 1	K14893TIR 1	K14331TIR 1
DESERT BRONZE	K14891DBZ 1	K14892DBZ 1	K14896DBZ 1	K14893DBZ 1	K14331DBZ 1
ANTIQUE BRASS	K14891ABS 1	K14892ABS 1	K14896ABS 1	K14893ABS 1	K14331ABS 1
TEXTURED COPPER	K14891TCO 1	K14892TCO 1	K14896TCO 1	K14893TCO 1	K14331TCO 1

LEAD TIMES: Please contact our Customer Services Department on: 01268 563 404

These switches do NOT have to be derated when used with fluorescent and inductive loads.

BS EN 60699-1: 1999

These switches do NOT have to be derated when used with fluorescent and inductive loads.

BS EN 60699-1: 1999

These switches do NOT have to be derated when used with fluorescent and inductive loads.

BS EN 60699-1: 1999

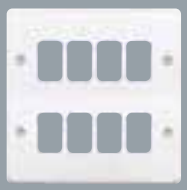
These switches do NOT have to be derated when used with fluorescent and inductive loads.

BS EN 60699-1: 1999

MOUNTING BOX FLUSH: 891ALM

DIMENSIONS: 86 x 86mm

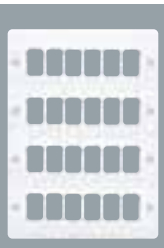
BS 5733: 2010

2 MODULE	3 MODULE	4 MODULE	6 MODULE	8 MODULE	9 MODULE
					
K14332BSS 1	K14333BSS 1	K14334BSS 1	K14346BSS 1	K14348BSS 1	K14349BSS 1
K14332LBS 1	K14333LBS 1	K14334LBS 1	K14346LBS 1	K14348LBS 1	K14349LBS 1
K14332SAA 1	K14333SAA 1	K14334SAA 1	K14346SAA 1	K14348SAA 1	K14349SAA 1
K14332BRC 1	K14333BRC 1	K14334BRC 1	K14346BRC 1	K14348BRC 1	K14349BRC 1
K14332POC 1	K14333POC 1	K14334POC 1	K14346POC 1	K14348POC 1	K14349POC 1
K14332SAG 1	K14333SAG 1	K14334SAG 1	K14346SAG 1	K14348SAG 1	K14349SAG 1
K14332WH 1	K14333WHI 1	K14334WHI 1	K14346WHI 1	K14348WHI 1	K14349WHI 1
K14332LIV 1	K14333LIV 1	K14334LIV 1	K14346LIV 1	K14348LIV 1	K14349LIV 1
K14332LBK 1	K14333LBK 1	K14334LBK 1	K14346LBK 1	K14348LBK 1	K14349LBK 1
K14332PBR 1	K14333PBR 1	K14334PBR 1	K14346PBR 1	K14348PBR 1	K14349PBR 1
K14332TIR 1	K14333TIR 1	K14334TIR 1	K14346TIR 1	K14348TIR 1	K14349TIR 1
K14332DBZ 1	K14333DBZ 1	K14334DBZ 1	K14346DBZ 1	K14348DBZ 1	K14349DBZ 1
K14332ABS 1	K14333ABS 1	K14334ABS 1	K14346ABS 1	K14348ABS 1	K14349ABS 1
K14332TCO 1	K14333TCO 1	K14334TCO 1	K14346TCO 1	K14348TCO 1	K14349TCO 1
MOUNTING BOX FLUSH: 891ALM DIMENSIONS: 86 x 86mm BS 5733: 2010	MOUNTING BOX FLUSH: 892ALM DIMENSIONS: 86 x 146mm BS 5733: 2010	MOUNTING BOX FLUSH: 892ALM DIMENSIONS: 86 x 146mm BS 5733: 2010	MOUNTING BOX FLUSH: 893ALM DIMENSIONS: 146 x 146mm BS 5733: 2010	MOUNTING BOX FLUSH: 893ALM DIMENSIONS: 146 x 146mm BS 5733: 2010	MOUNTING BOX FLUSH: 895ALM DIMENSIONS: 206 x 146mm BS 5733: 2010

Grid Plus Modular Frontplates
SUPPLIED WITH GRIDS

Grid Plus Spare Mounting Frames







FINISHES	12 MODULE	18 MODULE	24 MODULE	1 MODULE ARCHITRAVE	1 MODULE MOUNTING FRAME
BRUSHED STAINLESS STEEL	K14352BSS 1	K14358BSS 1	K14354BSS 1	K14401BSS 1	K14701 10
LACQUERED BRUSHED STEEL	K14352LBS 1	K14358LBS 1	K14354LBS 1	K14401LBS 1	
SILVER ANODIZED ALUMINIUM	K14352SAA 1	K14358SAA 1	K14354SAA 1	K14401SAA 1	
BRUSHED CHROME	K14352BRC 1	K14358BRC 1	K14354BRC 1	K14401BRC 1	
POLISHED CHROME	K14352POC 1	K14358POC 1	K14354POC 1	K14401POC 1	
SATIN GOLD	K14352SAG 1	K14358SAG 1	K14354SAG 1	K14401SAG 1	
PORCELAIN WHITE	K14352WHI 1	K14358WHI 1	K14354WHI 1	K14401WHI 1	
LUSTROUS IVORY	K14352LIV 1	K14358LIV 1	K14354LIV 1	K14401LIV 1	
LUSTROUS BLACK	K14352LBK 1	K14358LBK 1	K14354LBK 1	K14401LBK 1	
POLISHED BRASS	K14352PBR 1	K14358PBR 1	K14354PBR 1	K14401PBR 1	
TEXTURED IRON	K14352TIR 1	K14358TIR 1	K14354TIR 1	K14401TIR 1	
DESERT BRONZE	K14352DBZ 1	K14358DBZ 1	K14354DBZ 1	K14401DBZ 1	
ANTIQUE BRASS	K14352ABS 1	K14358ABS 1	K14354ABS 1	K14401ABS 1	
TEXTURED COPPER	K14352TCO 1	K14358TCO 1	K14354TCO 1	K14401TCO 1	

LEAD TIMES: Please contact our Customer Services Department on: 01268 563 404

MOUNTING BOX
FLUSH: 895ALM
DIMENSIONS:
206 x 146mm
BS 5733: 2010

MOUNTING BOX
FLUSH: 898ALM
DIMENSIONS:
206 x 206mm
BS 5733: 2010

MOUNTING BOX
FLUSH: 900ALM
DIMENSIONS:
207 x 267mm
BS 5733: 2010

MOUNTING BOX
FLUSH: 3891ZIC
MOUNTING FRAME
K14801
DIMENSIONS:
38.8 x 91.75
BS 5733: 2010

Not available in other finishes

Switch Modules

2 MODULE MOUNTING FRAME	3 MODULE MOUNTING FRAME	4 MODULE MOUNTING FRAME	6 MODULE MOUNTING FRAME	1 MODULE ARCHITRAVE MOUNTING FRAME	BLANK INSERT
					
K14702 10	K14703 10	K14704 10	K14706 10	K14801 10	K4880BSS* 1 K4880LBS* 1 K4880SSA* 1 K4880BRC* 1 K4880POC* 1 K4880SAG* 1 K4880WHIW 1 K4880LIVW 1 K4880LBKB 1 K4880PBR* 1 K4880TIRB 1 K4880DBZB 1 K4880ABSB 1 K4880TCOB 1

*** Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW.**

Where there is no asterix, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts

Will only fit MK Mounting Box 3891ZIC

BS 5733: 2010

Not available in other finishes

Switch Modules
10 Amp

FINISHES	10 AMP SP 1 WAY	10 AMP DP 1 WAY	10 AMP SP 2 WAY	10 AMP SP 2 WAY RETRACTIVE SWITCH	10 AMP SP 2 WAY RED RETRACTIVE SWITCH
					
BRUSHED STAINLESS STEEL	K4881BSS* 1	K4981BSS* 1	K4882BSS* 1	K4885BSS* 1	K4885RED 1 K4885REDB 1
LACQUERED BRUSHED STEEL	K4881LBS* 1	K4981LBS* 1	K4882LBS* 1	K4885LBS* 1	
SILVER ANODIZED ALUMINIUM	K4881SAA* 1	K4981SAA* 1	K4882SAA* 1	K4885SAA* 1	
BRUSHED CHROME	K4881BRC* 1	K4981BRC* 1	K4882BRC* 1	K4885BRC* 1	
POLISHED CHROME	K4881POC* 1	K4981POC* 1	K4882POC* 1	K4885POC* 1	
SATIN GOLD	K4881SAG* 1	K4981SAG* 1	K4882SAG* 1	K4885SAG* 1	
PORCELAIN WHITE	K4881WHIW 1	K4981WHIW 1	K4882WHIW 1	K4885WHIW 1	
LUSTROUS IVORY	K4881LIVW 1	K4981LIVW 1	K4882LIVW 1	K4885LIVW 1	
LUSTROUS BLACK	K4881LBKB 1	K4981LBKB 1	K4882LBKB 1	K4885LBKB 1	
POLISHED BRASS	K4881PBR* 1	K4981PBR* 1	K4882PBR* 1	K4885PBR* 1	
TEXTURED IRON	K4881TIRB 1	K4981TIRB 1	K4882TIRB 1	K4885TIRB 1	
DESERT BRONZE	K4881DBZB 1	K4981DBZB 1	K4882DBZB 1	K4885DBZB 1	
ANTIQUE BRASS	K4881ABSB 1	K4981ABSB 1	K4882ABSB 1	K4885ABSB 1	
TEXTURED COPPER	K4881TCOB 1	K4981TCOB 1	K4882TCOB 1	K4885TCOB 1	

LEAD TIMES: Please contact our Customer Services Department on: 01268 563 404

*** Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW.**

Where there is no asterix, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts

These switches do NOT have to be derated when used with fluorescent or inductive loads.

BS EN 60669-1: 1999

These switches do NOT have to be derated when used with fluorescent or inductive loads.

BS EN 60669-1: 1999

These switches do NOT have to be derated when used with fluorescent or inductive loads.

BS EN 60669-1: 1999

These switches do NOT have to be derated when used with inductive loads.

Note: Push switches are not designed for fluorescent loads.

BS EN 60669-1: 1999

These switches do NOT have to be derated when used with inductive loads.

Note: Push switches are not designed for fluorescent loads.

BS EN 60669-1: 1999

Not available in other finishes

Switch Modules 20 Amp

10 AMP SP 2 WAY RETRACTIVE SWITCH MARKED WITH BELL SYMBOL	10 AMP SP 2 WAY RETRACTIVE SWITCH MARKED 'PRESS'	10 AMP 2 WAY CENTRE OFF RETRACTIVE SWITCH	20 AMP SP 1 WAY	20 AMP DP 1 WAY PUSH TO MAKE	20 Amp DP 1 WAY RED ROCKER PUSH TO MAKE
					
K4885BWHI 1 **K4885BBLK** 1	**K4885PWHI** 10 **K4885PBLK** 1	**K4900WHI** 10 **K4900BLK** 10	**K4891BSS*** 1 **K4891LBS*** 1 **K4891SAA*** 1 **K4891BRC*** 1 **K4891POC*** 1 **K4891SAG*** 1 **K4891WHIW** 1 **K4891LIVW** 1 **K4891LBKB** 1 **K4891PBR*** 1 **K4891TIRB** 1 **K4891DBZB** 1 **K4891ABSB** 1 **K4891TCOB** 1	**K4910BSS*** 1 **K4910LBS*** 1 **K4910SAA*** 1 **K4910BRC*** 1 **K4910POC*** 1 **K4910SAG*** 1 **K4910WHIW** 1 **K4910LIVW** 1 **K4910LBKB** 1 **K4910PBR*** 1 **K4910TIRB** 1 **K4910DBZB** 1 **K4910ABSB** 1 **K4910TCOB** 1	**K4910RED** 10 **K4910REDB** 1

*** Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW.**

Where there is no asterix, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts

These switches do NOT have to be derated when used with inductive loads.

Note: Push switches are not designed for fluorescent loads.

BS EN 60669-1: 1999

Not available in other finishes

These switches do NOT have to be derated when used with inductive loads.

Note: Push switches are not designed for fluorescent loads.

BS EN 60669-1: 1999

These switches do NOT have to be derated when used with inductive loads.

Note: Push switches are not designed for fluorescent loads.

BS EN 60669-1: 1999

These switches do NOT have to be derated when used with fluorescent or inductive loads.

BS EN 60669-1: 1999

These switches do NOT have to be derated when used with inductive loads.

Note: Push switches are not designed for fluorescent loads.

BS EN 60669-1: 1999

Not available in other finishes

Switch Modules 20 Amp

20 AMP DP 1 WAY PUSH TO BREAK RETRACTIVE	20 AMP DP 1 WAY RED ROCKER PUSH TO BREAK RETRACTIVE	20 AMP SP 2 WAY	20 AMP SP 2 WAY RED ROCKER	20 AMP SP 2 WAY SWITCH WITH INTEGRAL NEON LOCATOR
				
FINISHES				
BRUSHED STAINLESS STEEL		K4892BSS* 1		
LACQUERED BRUSHED STEEL		K4892LBS* 1		
SILVER ANODIZED ALUMINIUM		K4892SAA* 1		
BRUSHED CHROME		K4892BRC* 1		
POLISHED CHROME		K4892POC* 1		
SATIN GOLD		K4892SAG* 1		
PORCELAIN WHITE	K4915WHI 10	K4892WHIW 1	K4892RED 10	K4892LWHI 10
LUSTROUS IVORY	K4915BLK 10	K4892LIVW 1	K4892REDB 10	K4892LBLK 1
LUSTROUS BLACK	K4915RED 10	K4892LBKB 1		
POLISHED BRASS	K4915REDB 1	K4892PBR* 1		
TEXTURED IRON		K4892TIRB 1		
DESERT BRONZE		K4892DBZB 1		
ANTIQUE BRASS		K4892ABSB 1		
TEXTURED COPPER		K4892TCOB 1		

LEAD TIMES: Please contact our Customer Services Department on: 01268 563 404

*** Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW.**

Where there is no asterix, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts

These switches do NOT have to be derated when used with inductive loads.

Note: Push switches are not designed for fluorescent loads.

BS EN 60669-1: 1999

Not available in other finishes

These switches do NOT have to be derated when used with inductive loads.

Note: Push switches are not designed for fluorescent loads.

BS EN 60669-1: 1999

These switches do NOT have to be derated when used with fluorescent or inductive loads.

BS EN 60669-1: 1999

These switches do NOT have to be derated when used with fluorescent or inductive loads.

Additional information on printed modules available in Grid Plus Section, pages 175.

BS EN 60669-1: 1999

Not available in other finishes

20 AMP SP 2 WAY & CENTRE OFF LATCHING	20 AMP SP 2 WAY RED ROCKER & CENTRE OFF LATCHING	20 AMP INTERMEDIATE	20 AMP INTERMEDIATE RED ROCKER	20 AMP DP 1 WAY	20 AMP DP 1 WAY WITH NEON
					
K4899BSS* 1	K4899RED 10	K4893BSS* 1	K4893RED 10	K4896BSS* 1	K4896NWHI 1
K4899LBS* 1		K4893LBS* 1	K4893REDB 10	K4896LBS* 1	K4896NBLK 1
K4899SAA* 1		K4893SAA* 1		K4896SAA* 1	
K4899BRC* 1		K4893BRC* 1		K4896BRC* 1	
K4899POC* 1		K4893POC* 1		K4896POC* 1	
K4899SAG* 1		K4893SAG* 1		K4896SAG* 1	
K4899WHIW 1		K4893WHIW 1		K4896WHIW 1	
K4899LIVW 1		K4893LIVW 1		K4896LIVW 1	
K4899LBKB 1		K4893LBKB 1		K4896LBKB 1	
K4899PBR* 1		K4893PBR* 1		K4896PBR* 1	
K4899TIRB 1		K4893TIRB 1		K4896TIRB 1	
K4899DBZB 1		K4893DBZB 1		K4896DBZB 1	
K4899ABSB 1		K4893ABSB 1		K4896ABSB 1	
K4899TCOB 1		K4893TCOB 1		K4896TCOB 1	

*** Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW.**

Where there is no asterix, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts

These switches do NOT have to be derated when used with fluorescent or inductive loads.

BS EN 60669-1: 1999

These switches do NOT have to be derated when used with inductive loads.

Note: Push switches are not designed for fluorescent loads.

BS EN 60669-1: 1999

Not available in other finishes

These switches do NOT have to be derated when used with fluorescent or inductive loads.

BS EN 60669-1: 1999

These switches do NOT have to be derated when used with fluorescent or inductive loads.

BS EN 60669-1: 1999

Not available in other finishes

These switches do NOT have to be derated when used with fluorescent or inductive loads.

BS EN 60669-1: 1999

These switches do NOT have to be derated when used with fluorescent or inductive loads.

BS EN 60669-1: 1999

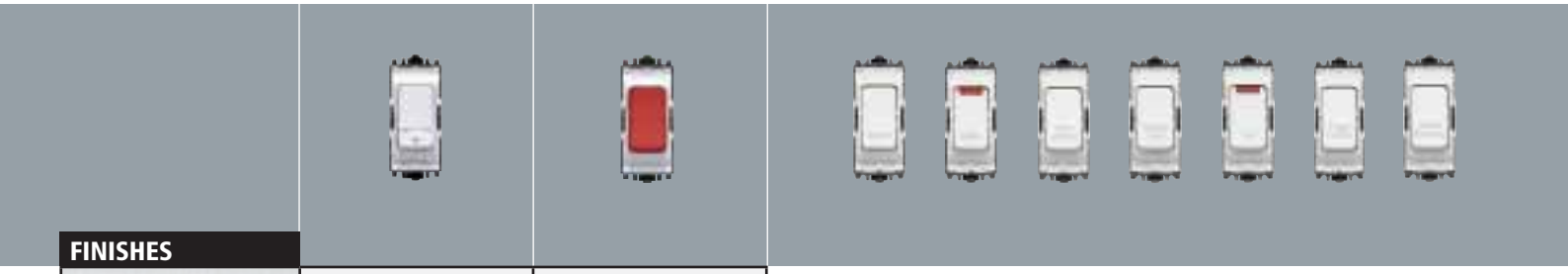
Not available in other finishes

Switch Modules 20 Amp

20 AMP
DP
1 WAY
WITH WINDOW

20 AMP
DP
1 WAY
RED ROCKER

Printed Modules with and without Neon



FINISHES		
BRUSHED STAINLESS STEEL	K4896WWHI 10 K4896WBLK 10	K4896RED 10
LACQUERED BRUSHED STEEL		
SILVER ANODIZED ALUMINIUM		
BRUSHED CHROME		
POLISHED CHROME		
SATIN GOLD		
PORCELAIN WHITE		
LUSTROUS IVORY		
LUSTROUS BLACK		
POLISHED BRASS		
TEXTURED IRON		
DESERT BRONZE		
ANTIQUE BRASS		
TEXTURED COPPER		

LEAD TIMES: Please contact our Customer Services Department on: 01268 563 404

These switches do NOT have to be derated when used with fluorescent or inductive loads.

BS EN 60669-1: 1999

These switches do NOT have to be derated when used with fluorescent or inductive loads.

BS EN 60669-1: 1999

Not available in other finishes

K4896 PRINTED MODULE

FOR WHITE ROCKERS,USE THE SUFFIX 'WHI'. FOR BLACK ROCKERS, USE THE SUFFIX 'BLK'. FOR EXAMPLE: K4896BRWHI OR K4896BRBLK

BOILER K4896BR	**WASTE DISPOSAL** K4896WD	**HOB** K4896HB
DISHWASHER K4896DW	**WASHING MACHINE** K4896WM	**IMM. HEATER** K4896IH
COOKER HOOD K4896CH	**TUMBLE DRYER** K4896TD	**PLINTH HEATER** K4896PH
FAN K4896FN	**WASHER DRYER** K4896WDR	**WORK TOP LIGHTING** K4896WL
FRIDGE K4896FG	**MICROWAVE** K4896MW	**WINE COOLER** K4896WC
FREEZER K4896FZ	**HEATER** K4896HR	**WARMING DRAWER** K4896WDA
FRIDGE FREEZER K4896FF	**OVEN** K4896OV	**COFFEE MACHINE** K4896CM

K4896N PRINTED MODULE WITH NEON

FOR WHITE ROCKERS,USE THE SUFFIX 'WHI'. FOR BLACK ROCKERS, USE THE SUFFIX 'BLK'. FOR EXAMPLE: K4896NBRWHI OR K4896NBRBLK

BOILER K4896NBR	**WASTE DISPOSAL** K4896NWD	**HOB** K4896NHB
DISHWASHER K4896NDW	**WASHING MACHINE** K4896NWM	**IMM. HEATER** K4896NIH
COOKER HOOD K4896NCH	**TUMBLE DRYER** K4896NTD	**PLINTH HEATER** K4896NPH
FAN K4896NFN	**WASHER DRYER** K4896NWDR	**WORK TOP LIGHTING** K4896NWL
FRIDGE K4896NFG	**MICROWAVE** K4896NMW	**WINE COOLER** K4896NWC
FREEZER K4896NFZ	**HEATER** K4896NHR	**WARMING DRAWER** K4896NWDA
FRIDGE FREEZER K4896NFF	**OVEN** K4896NOV	**COFFEE MACHINE** K4896NCM

Note: K4896NIH (Imm. Heater with Neon) is not available with black rockers.

Not available in other finishes

Key Switch Modules

20 AMP INTERMEDIATE KEY SWITCH	20 AMP SP KEY SWITCH 2 WAY	20 AMP SP KEY SWITCH 2 WAY MARKED 'EMG LTG'	20 AMP DP KEY SWITCH 1 WAY	20 AMP DP EMERGENCY LIGHTING	20 AMP SP KEY SWITCH 2 WAY BIASED 1 WAY
					
K4894WHI 10 **K4894BLK** 1	**K4898WHI** 10 **K4898BLK** 1	**K4898ELWHI** 10 **K4898ELBLK** 1	**K4917WHI** 10 **K4917BLK** 1	**K4917ELWHI** 10	**K4918WHI** 10 **K4918BLK** 10
BS EN 60669-1: 1999 Key (3405ZIC) is supplied.	BS EN 60669-1: 1999 Key (3405ZIC) is supplied.	BS EN 60669-1: 1999 Key (3405ZIC) is supplied.	BS EN 60669-1: 1999 Key (3405ZIC) is supplied.	BS EN 60669-1: 1999 Key (3405ZIC) is supplied.	BS EN 60669-1: 1999 Key (3405ZIC) is supplied.

Not available in other finishes

Indicator Modules

FINISHES	200-250V NEON	200-250V NEON	200-250V FLUORESCENT	21-36V FILAMENT	21-36V FILAMENT
					
BRUSHED STAINLESS STEEL	K4889RED 10 K4889REDB 1	K4889AMB 10	K4889GRN 10	K4836RED 10	K4836AMB 10
LACQUERED BRUSHED STEEL					
SILVER ANODIZED ALUMINIUM					
BRUSHED CHROME					
POLISHED CHROME					
SATIN GOLD					
PORCELAIN WHITE					
LUSTROUS IVORY					
LUSTROUS BLACK					
POLISHED BRASS					
TEXTURED IRON					
DESERT BRONZE					
ANTIQUE BRASS					
TEXTURED COPPER					
	BS 5733: 2010	BS 5733: 2010	BS 5733: 2010	BS 5733: 2010	BS 5733: 2010

LEAD TIMES: Please contact our Customer Services Department on: 01268 563 404

Not available in other finishes

Dimmer Switch Modules

TUNGSTEN FILAMENT AND LOW VOLTAGE LIGHTING

Accessory Modules

21-36V FILAMENT	1 GANG 40W/ VA-220W/180VA, 230VA.C, 50HZ TWO WAY ONE MODULE	1 GANG 60W/ VA-400W/320VA, 230VA.C, 50HZ TWO WAY TWO MODULE	0-10V/1-10V FLUORESCENT CONTROLLER ONE MODULE	SINGLE TV CO-AXIAL OUTLET NON-ISOLATED	SINGLE TV CO-AXIAL OUTLET ISOLATED
					
K4836GRN 10	K4501BSS*LV 1	K4500BSS*LV 1	K4499BSS* 1	K4520WHI 10	K4521WHI 10
	K4501LBS*LV 1	K4500LBS*LV 1	K4499LBS* 1	K4520BLK 1	K4521BLK 1
	K4501SAA*LV 1	K4500SAA*LV 1	K4499SAA* 1		
	K4501BRC*LV 1	K4500BRC*LV 1	K4499BRC* 1		
	K4501POC*LV 1	K4500POC*LV 1	K4499POC* 1		
	K4501SAG*LV 1	K4500SAG*LV 1	K4499SAG* 1		
	K4501WHIWLV 1	K4500WHIWLV 1	K4499WHIW 1		
	K4501LIVWLV 1	K4500LIVWLV 1	K4499LIVW 1		
	K4501LBKBLV 1	K4500LBKBLV 1	K4499LBKB 1		
	K4501PBR*LV 1	K4500PBR*LV 1	K4499PBR* 1		
	K4501TIRBLV 1	K4500TIRBLV 1	K4499TIRB 1		
	K4501DBZBLV 1	K4500DBZBLV 1	K4499DBZB 1		
	K4501ABSBLV 1	K4500ABSBLV 1	K4499ABSB 1		
	K4501TCOBLV 1	K4500TCOBLV 1	K4499TCOB 1		

*** Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW.**

Where there is no asterix, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts

BS 5733: 2010

Not available in other finishes

These dimmers incorporate the latest in micro-controller based circuitry to provide electronic soft-start and overload protection. They are radio frequency interference suppressed to BS EN 55015.

Suitable for use with good quality electronic or wire wound transformers. Can also be used with good quality mains voltage halogen lamps incorporating GU10 bases. Please check with lamp manufacturer to determine suitability.

Matching metal decorative caps are standard on all Aspect Grid Dimmers (except WHI).

K4500 is only suitable for use in 2, 4 and 8 module grids.

They are not suitable for fluorescent lamps.

Note: Refer to technical section for derating factors when more than one unit is used in any one box.

Conforms to the latest standard BS EN 60669-2-1.

When ordering K4501 and K4500, use the suffix 'LV' right at the end, eg. K4501BSSWLV

MK Fluorescent Grid Dimmers are low voltage controllers for connection to 1-10V controllable ballasts.

For direct connection to TV or FM aerial co-axial downlead. NOT to be used in same enclosure as mains exceeding 50V.

BS 3041: 1977

IEC 169-2: 1965

BS 5733: 2010 where applicable.

Not available in other finishes

For direct connection to TV or FM aerial co-axial downlead. NOT to be used in same enclosure as mains exceeding 50V.

BS 3041: 1977

IEC 169-2: 1965

BS 5733: 2010 where applicable.

Accessory Modules

FINISHES	BUZZER UNIT 200-250V	BUZZER UNIT 21-36V	16 AMP CORD OUTLET	13 AMP FUSE UNIT	13 AMP FUSE UNIT WITH TAMPERPROOF SCREW
					
BRUSHED STAINLESS STEEL	K4000WHI 10	K4001WHI 10	K4886WHI 10 K4886BLK 1	K4890WHI 10 K4890BLK 1	K4890KOWHI 10 K4890KOBLK 1
LACQUERED BRUSHED STEEL					
SILVER ANODIZED ALUMINIUM					
BRUSHED CHROME					
POLISHED CHROME					
SATIN GOLD					
PORCELAIN WHITE					
LUSTROUS IVORY					
LUSTROUS BLACK					
POLISHED BRASS					
TEXTURED IRON					
DESERT BRONZE					
ANTIQUE BRASS					
TEXTURED COPPER					

LEAD TIMES: Please contact our Customer Services Department on: 01268 563 404

200-250V
BS 5733: 2010

Sound output level Av 61 db @ 15 feet.
BS 5733: 2010

Complete with 3 pairs of terminals. The supply terminals are suitable for up to 2 x 2.5mm² or 1 x 4mm² solid conductors. The load terminals are suitable for one 1.5mm² flexible cord.
A cord grip is also fitted.
BS 5733: 2010

Fuse carrier comes with 13A cartridge fuse link to BS 1362.
BS 5733: 2010

Fuse carrier comes with 13A cartridge fuse link to BS 1362.
BS 5733: 2010

Not available in other finishes

Euro Modular Frontplates

EURO 1 MODULE 25 X 50MM	EURO 2 MODULE 50 X 50MM	EURO 4 MODULE 100 X 50MM
		
K14181BSS 1	**K14182BSS** 1	**K14184BSS** 1
K14181LBS 1	**K14182LBS** 1	**K14184LBS** 1
K14181SAA 1	**K14182SAA** 1	**K14184SAA** 1
K14181BRC 1	**K14182BRC** 1	**K14184BRC** 1
K14181POC 1	**K14182POC** 1	**K14184POC** 1
K14181SAG 1	**K14182SAG** 1	**K14184SAG** 1
K14181WHI 1	**K14182WHI** 1	**K14184WHI** 1
K14181LIV 1	**K14182LIV** 1	**K14184LIV** 1
K14181LBK 1	**K14182LBK** 1	**K14184LBK** 1
K14181PBR 1	**K14182PBR** 1	**K14184PBR** 1
K14181TIR 1	**K14182TIR** 1	**K14184TIR** 1
K14181DBZ 1	**K14182DBZ** 1	**K14184DBZ** 1
K14181ABS 1	**K14182ABS** 1	**K14184ABS** 1
K14181TCO 1	**K14182TCO** 1	**K14184TCO** 1



MOUNTING BOXES:

Suitable for flush boxes to BS 4662: 2006 and surface boxes to BS 5733: 2010 Refer to appropriate module for minimum box depth.

FIXING CENTRES: 60.3mm

BS 5733: 2010 where applicable.

Note: No grid required, modules just clip into place.

MOUNTING BOXES:

Suitable for flush boxes to BS 4662: 2006 and surface boxes to BS 5733: 2010 Refer to appropriate module for minimum box depth.

FIXING CENTRES: 60.3mm

BS 5733: 2010 where applicable.

Note: No grid required, modules just clip into place.

MOUNTING BOXES:

Suitable for flush boxes to BS 4662: 2006 and surface boxes to BS 5733:1995 Refer to appropriate module for minimum box depth.

FIXING CENTRES: 120.6mm

BS 5733: 2010 where applicable.

Note: No grid required, modules just clip into place.

Euro Power Modules

UK 1 GANG 13 AMP 250V EURO* TWO MODULE	GERMAN 2P+E 16 AMP 250V SHUTTERED EURO* TWO MODULE (NON UK)	AMERICAN 15 AMP 127V SHUTTERED EURO* TWO MODULE (NON UK)	UK 1 GANG 5 AMP 250V SHUTTERED EURO* TWO MODULE	FRENCH/BELGIAN 2P+E 16AMP 250V SHUTTERED EURO* TWO MODULE (NON UK)
				

FINISHES					
BRUSHED STAINLESS STEEL					
LACQUERED BRUSHED STEEL					
SILVER ANODIZED ALUMINIUM					
BRUSHED CHROME					
POLISHED CHROME					
SATIN GOLD					
PORCELAIN WHITE	K5830WHI 10	K5831WHI 10	K5832WHI 10	K5833WHI 10	K5834WHI 10
LUSTROUS IVORY	K5830BLK 10	K5831BLK 10	K5832BLK 10	K5833BLK 10	K5834BLK 10
LUSTROUS BLACK					
POLISHED BRASS					
TEXTURED IRON					
DESERT BRONZE					
ANTIQUE BRASS					
TEXTURED COPPER					

LEAD TIMES: Please contact our Customer Services Department on: 01268 563 404

MOUNTING BOX: 35mm minimum 46mm for extra wiring space. DIMENSIONS: 50 x 50mm BS 1363 Part 2: 1995	MOUNTING BOX: 46mm DIMENSIONS: 50 x 50mm IEC 60884-1: 2006	MOUNTING BOX: 35mm 46mm (for extra wiring space) DIMENSIONS: 50 x 50mm SASO 2203: 2003	MOUNTING BOX: 35mm minimum 46mm for extra wiring space. DIMENSIONS: 50 x 50mm BS 546: 1950	MOUNTING BOX: 46mm DIMENSIONS: 50 x 50mm NF C61-341

Not available in other finishes

Mains operated products and extra low voltage modules must not be installed within the same frontplate aperture. Refer to BS 7671: 2008 for details.

*** Euro frontplates can be found on page 137.**

Euro Datacom Modules

USB CHARGING MODULE	RJ11/12 ONE MODULE 25X50MM	RJ45 CAT 6 ONE MODULE 25X50MM	RJ45 CAT 6 SCREENED ONE MODULE 25X50MM	RJ45 CAT 6 ANGLED ONE MODULE 25X50MM	RJ45 CAT 5E ANGLED ONE MODULE 25X50MM
					
K5837WHI 1 **K5837BLK** 1	**K5887WHI** 5 **K5887BLK** 5	**K5846WHI** 5 **K5846BLK** 5	**K5846sWHI** 5 **K5846sBLK** 5	**K5864WHI** 5	**K5844WHI** 5
K5837 MOUNTING BOX: 35mm minimum 46mm for extra wiring space DIMENSIONS: 50 x 50mm IEC 60950-1 IEC 61000-6-1/3	Suitable for both RJ11 and RJ12 jacks RJ11; 4 wire RJ12; 6 wire MOUNTING BOXES: Minimum box depth 35mm FCC68 EN 41003	Cat 6 performance. Suitable for both 568A and 568B wiring schemes. MOUNTING BOXES: Minimum Box Depth 35mm ISO/IEC 11801 EN 50173 TIA 568 EN 41003	Cat 6 performance. Suitable for both 568A and 568B wiring schemes. MOUNTING BOXES: Minimum Box Depth 35mm ISO/IEC 11801 EN 50173 TIA 568 EN 41003	Cat 6 performance. Suitable for both 568A and 568B wiring schemes. MOUNTING BOXES: Minimum Box Depth 35mm ISO/IEC 11801 EN 50173 TIA 568 EN 41003	Enhanced Cat 5 performance. Suitable for both 568A and 568B wiring schemes. MOUNTING BOXES: Minimum box depth 35mm standard ISO/IEC 11801 EN 50173 TIA 568 EN 41003

Not available in other finishes

Mains operated products and extra low voltage modules must not be installed within the same frontplate aperture. Refer to BS 7671: 2008 for details.

*** Euro frontplates can be found on page 137.**

Euro Datacom Modules

RJ45 CAT 5E ONE MODULE 25 X 50MM	TELEPHONE MASTER ONE MODULE 25 X 50MM	TELEPHONE SECONDARY ONE MODULE 25 X 50MM	BNC 50 ONE MODULE 25 X 50MM
			
FINISHES			
BRUSHED STAINLESS STEEL	**K5845WHI** 5	**K5820WHI** 5	**K5821WHI** 5	**K5801WHI** 5
LACQUERED BRUSHED STEEL	**K5845BLK** 5	**K5820BLK** 5	**K5821BLK** 5	
SILVER ANODIZED ALUMINIUM				
BRUSHED CHROME				
POLISHED CHROME				
SATIN GOLD				
PORCELAIN WHITE				
LUSTROUS IVORY				
LUSTROUS BLACK				
POLISHED BRASS				
TEXTURED IRON				
DESERT BRONZE				
ANTIQUE BRASS				
TEXTURED COPPER				

LEAD TIMES: Please contact our Customer Services Department on: 01268 563 404

Enhanced Cat 5 performance. Suitable for both 568A and 568B wiring schemes.

MOUNTING BOXES: Minimum box depth 35mm standard

ISO/IEC 11801
EN 50173
TIA 568
EN 41003

MOUNTING BOXES: Minimum depth 35mm

BS 6312 Pt 2

MOUNTING BOXES: Minimum depth 35mm

BS 6312 Pt 2

50 Ohm crimp connector suitable for use with RG58, URM43, URM76 and Beldon 9907 type co-axial cables.

MOUNTING BOXES: Minimum box depth 35mm

Not available in other finishes

Mains operated products and extra low voltage modules must not be installed within the same frontplate. Refer to BS 7671: 2008 for details.

Euro Multimedia Modules

SINGLE OUTLET (IEC MALE) ONE MODULE 25 X 50MM	SINGLE OUTLET (IEC FEMALE) ONE MODULE 25 X 50MM	SINGLE F-TYPE SATELLITE SOCKET ONE MODULE 25 X 50MM	TWIN OUTLET TV/FM DIPLEXER TWO MODULE 50 X 50MM (IRELAND ONLY)	TWIN OUTLET TV-FM/DAB DIPLEXER TWO MODULE 50 X 50MM
				
K5850WHI 5 **K5850BLK** 5	**K5851WHI** 5 **K5851BLK** 5	**K5855WHI** 5 **K5855BLK** 5	**K5852WHI** 5 **K5852BLK** 5	**K5852DABWHI** 5 **K5852DABBLK** 5

Fully screened non isolated TV outlets containing a combination of single, TV/FM Diplexer, TV/FM/SAT Triplexer and BT secondary telephone outlets for use within digital TV systems and interactive TV services.

Single outlets for connection to a single TV, FM or Satellite co-axial aerial lead.

MOUNTING BOXES:
Min box depth 47mm

DIMENSIONS:
ONE MODULE 25 x 50mm
TWO MODULE 50 x 50mm

BS 3041: 1997 IEC 169-2: 1965
BS EN 50083 & BS 5733: 2010 where applicable.

TV/FM Diplexer units for connection to a single co-axial aerial lead with combined TV and FM signals.

TV/FM/SAT Triplexer units for connection to a single co-axial aerial lead with combined TV, FM and Satellite signals

PERFORMANCE

Single	TV:	DC - 950MHz
	Sat:	DC - 1.75GHz
Diplexer	TV:	5 - 65MHz 470 - 862MHz
	FM:	87.5 - 108 MHz

TV/FM/DAB FOR DIGITAL RADIO

PERFORMANCE

Diplexer	TV:	5-65MHz 470-862MHz
	FM/DAB:	87.5-230MHz

These products are fully compatible with Labgear TV distribution systems and are approved for use in "Sky Homes" and "Homes On" specifications.

For the full range of Euro multimedia modules, please see Logic Plus page 56

Euro Multimedia Modules

TRIPLE OUTLET TV/FM/SATELLITE TRIPLEXER TWO MODULE 50 X 50MM (IRELAND ONLY)	TRIPLE OUTLET TV-FM/DAB-SAT TRIPLEXER TWO MODULE 50 X 50MM	QUAD OUTLET TV-FM/DAB-2XSAT TWO MODULE 50 X 50MM	FEMALE HDMI OUTLET
			

FINISHES				
BRUSHED STAINLESS STEEL				
LACQUERED BRUSHED STEEL				
SILVER ANODIZED ALUMINIUM				
BRUSHED CHROME				
POLISHED CHROME				
SATIN GOLD				
PORCELAIN WHITE	**K5853WHI** 5	**K5853DABWHI** 5	**K5854DABWHI** 5	**K5807WHI** 5
LUSTROUS IVORY	**K5853BLK** 5	**K5853DABBLK** 5	**K5854DABBLK** 5	**K5807BLK** 5
LUSTROUS BLACK				
POLISHED BRASS				
TEXTURED IRON				
DESERT BRONZE				
ANTIQUE BRASS				
TEXTURED COPPER				

LEAD TIMES: Please contact our Customer Services Department on: 01268 563 404

TV/FM diplexer units for connection to a single co-axial aerial lead with combined TV and FM signals.
TV/FM/SAT triplexer units for connection to a single co-axial aerial lead with combined TV, FM and Satellite signals

PERFORMANCE

SINGLE OUTLETS

TV/FM IEC MALE OR FEMALE
DC-950MHz

SAT F-TYPE
DC-1.75GHz

TV/FM/SAT PRODUCTS

OUTLET	DIPLEXER	OUTLET	TRIPLEXER
TV	5-65MHz 470-862MHz	TV	5-65MHZ 470-862MHz
FM/DAB	87.5-108MHz	FM	87.5-108MHz
SAT	N/A	SAT1	950-2300MHz

TV/FM/DAB/SAT PRODUCTS FOR DIGITAL RADIO

OUTLET	DIPLEXER	OUTLET	TRIPLEXER
TV	5-65MHz 470-862MHz	TV	5-65MHz 470-862MHz
FM/DAB	87.5-230MHz	FM	87.5-230MHz
SAT OR SAT1	N/A	SAT1	950-2300MHz
SAT2		SAT2	5-2300MHz

K5807 Female HDMI Outlet is HDMI 1.1, 1.2 and1.3 compatible, HDCP compliant.

Data Rate: Up to 2.25Gbps

Scan: Up to 1080p/1920 x 1200

Input Connector:
1 x HDMI Female (TypeA)

Output Connector:
1 x HDMI Female (TypeA)

Supports high resolution input:

PC: VGA, SVGA,

SXVGA (1280 x 1024)and UXGA (1600 x 1200,1920 x 1200)

HDTV:480p,720p,1080i and 1080p

HDMI input cable should be no larger than 20m.

Weight of product:16g

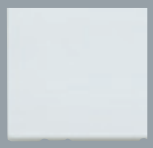
Dimensions:50 x 50 x 20mm

For the full range of Euro multimedia modules, please see Logic Plus page 56

These products are fully compatible with Labgear TV distribution systems and are approved for use in "Sky Homes" and "Homes On" specifications.

Euro Blank Modules

EURO
TWO MODULE
(50 X 50MM)



K180WHI	10

EURO
ONE MODULE
(25 X 50MM)



K188WHI	10
K188BLK	10

EURO
1/2 MODULE
(12.5 X 50MM)



K186WHI	10
K186BLK	10

LJU6C Datacom Frontplate

1 GANG
TWO MODULE
22 X 37MM



K14172BSS	10
K14172LBS	10
K14172SAA	10
K14172BRC	10
K14172POC	10
K14172SAG	10
K14172WHI	10
K14172LIV	10
K14172LBK	10
K14172PBR	10
K14172TIR	10
K14172DBZ	10
K14172ABS	10
K14172TCO	10

LJU6C Datacom Modules

RJ11/12
ONE MODULE



K5787WHI	5
K5787BLK	5

RJ45 CAT 6
ONE MODULE



K5746WHI	5
K5746BLK	5

MOUNTING BOXES:
Min. box depth 16mm

BS 5733: 2010 where applicable

MOUNTING BOXES:
Min. box depth 16mm

BS 5733: 2010 where applicable

MOUNTING BOXES:
Min. box depth 16mm

BS 5733: 2010 where applicable

MOUNTING BOXES:
suitable for flush boxes to BS 4662: 2006 and surface boxes to BS 5733: 2010

Refer to appropriate module
for minimum box depth.

FIXING CENTRES:
1 gang: 60.3mm
2 gang: 120.6mm

BS 5733: 2010 where appropriate

Note: No grid required, modules just clip into place

Suitable for both RJ11 and RJ12 jacks.

RJ11: 4 wire
RJ12: 6 wire

MOUNTING BOXES:
Minimum box depth 35mm

FCC68
EN41003

Cat 6 performance.

Suitable for both 568A and 568B wiring schemes.

MOUNTING BOXES:
Minimum Box Depth 35mm

ISO/IEC 11801
EN 50173
TIA 568
EN 41003

LJU6C Datacom Modules

RJ45
CAT 6
SCREENED
ONE MODULE



K5746SWHI	5
K5746SBLK	5

Cat 6 performance.

Suitable for both 568A and 568B wiring schemes.

MOUNTING BOXES:
Minimum Box Depth 35mm

ISO/IEC 11801
EN 50173
TIA 568
EN 41003

RJ45
CAT 5E
ONE MODULE



K5745WHI	5
K5745BLK	5

Enhanced Cat 5 performance.
Suitable for both 568A and 568B wiring schemes.

MOUNTING BOXES:
Minimum box depth 25mm

ISO/IEC 11801
EN 50173
TIA 568
EN 41003

LJU6C Datacom Blanks

LJU6C
ONE MODULE
(22 X 37MM)



K170WHI	10
K170BLK	10

MOUNTING BOXES:
Minimum box depth 16mm

BS 5733: 2010 where appropriate

TV/Satellite

TV/FM
SINGLE
NON-ISOLATED



K14320BSS*	1
K14320LBS*	1
K14320SAA*	1
K14320BRC*	1
K14320POC*	1
K14320SAG*	1
K14320WHIW	1
K14320LIVW	1
K14320LBKB	1
K14320PBR*	1
K14320TIRB	1
K14320DBZB	1
K14320ABSB	1
K14320TCOB	1

MOUNTING BOXES:

FLUSH: 861ZIC
SURFACE K2140WHI

Single outlet for connection to a single TV or FM co-axial aerial lead.

DIMENSIONS:
86 x 86mm

FIXING CENTRES:
60.3mm

BS 3041: 1977
IEC169-2: 1965
BS 5733: 2010 where applicable

FINISHES

- BRUSHED STAINLESS STEEL
- LACQUERED BRUSHED STEEL
- SILVER ANODIZED ALUMINIUM
- BRUSHED CHROME
- POLISHED CHROME
- SATIN GOLD
- PORCELAIN WHITE
- LUSTROUS IVORY
- LUSTROUS BLACK
- POLISHED BRASS
- TEXTURED IRON
- DESERT BRONZE
- ANTIQUE BRASS
- TEXTURED COPPER

LEAD TIMES: Please contact our Customer Services Department on: 01268 563 404

*** Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW.**

Where there is no asterix, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts

Blank Plates

TV/FM SINGLE ISOLATED	TV/FM TWIN ISOLATED DIPLEXER	SINGLE F TYPE SATELLITE	1 GANG	2 GANG
				
K14321BSS* 1	K14322BSS* 1	K14325BSS* 1	K14330BSS 1	K14329BSS 1
K14321LBS* 1	K14322LBS* 1	K14325LBS* 1	K14330LBS 1	K14329LBS 1
K14321SAA* 1	K14322SAA* 1	K14325SAA* 1	K14330SAA 1	K14329SAA 1
K14321BRC* 1	K14322BRC* 1	K14325BRC* 1	K14330BRC 1	K14329BRC 1
K14321POC* 1	K14322POC* 1	K14325POC* 1	K14330POC 1	K14329POC 1
K14321SAG* 1	K14322SAG* 1	K14325SAG* 1	K14330SAG 1	K14329SAG 1
K14321WHIW 1	K14322WHIW 1	K14325WHIW 1	K14330WHI 1	K14329WHI 1
K14321LIVW 1	K14322LIVW 1	K14325LIVW 1	K14330LIV 1	K14329LIV 1
K14321LBKB 1	K14322LBKB 1	K14325LBKB 1	K14330LBK 1	K14329LBK 1
K14321PBR* 1	K14322PBR* 1	K14325PBR* 1	K14330PBR 1	K14329PBR 1
K14321TIRB 1	K14322TIRB 1	K14325TIRB 1	K14330TIR 1	K14329TIR 1
K14321DBZB 1	K14322DBZB 1	K14325DBZB 1	K14330DBZ 1	K14329DBZ 1
K14321ABSB 1	K14322ABSB 1	K14325ABSB 1	K14330ABS 1	K14329ABS 1
K14321TCOB 1	K14322TCOB 1	K14325TCOB 1	K14330TCO 1	K14329TCO 1

*** Available with the option of either White or Black inserts. Add Suffix 'W' or 'B' to part number when ordering, E.g. KxxxxBSSW.**

Where there is no asterix, the final suffix W = White Insert, B = Black Insert, E.g. KxxxxWHIW = Porcelain White finish with White inserts

MOUNTING BOXES:
FLUSH: 861ZIC

Provides safety isolation rated at 2000Va.c. between aerial lead and socket. Single outlet for direct connection to a single TV or FM co-axial aerial lead.

DIMENSIONS:
86 x 86mm

FIXING CENTRES:
60.3mm

BS 3041: 1977
IEC169-2: 1965
BS 5733: 2010 where applicable

MOUNTING BOXES:
FLUSH: 861ZIC

Provides safety isolation rated at 2000Va.c. between aerial lead and socket. Twin outlet with TV/FM diplexer for connection to single co-axial aerial lead with combined TV & FM signals.

DIMENSIONS: 86 x 86mm

FIXING CENTRES:
60.3mm

BS 3041: 1977
IEC169-2: 1965
BS 5733: 2010 where applicable

MOUNTING BOXES:

FLUSH: 861ZIC
SURFACE: K2140WHI

DIMENSIONS:
86 x 86mm

FIXING CENTRES:
60.3mm

BS 3041: 1977
IEC169-2: 1965
BS 5733: 2010 where applicable

MOUNTING BOXES:

FLUSH:
866ZIC

DIMENSIONS:
86 x 86mm

FIXING CENTRES:
1 gang: 60.3mm

BS 5733: 2010

MOUNTING BOXES:

FLUSH:
886ZIC

DIMENSIONS:
86 x 146mm

FIXING CENTRES:
2 gang: 120.6mm

BS 5733: 2010



Echo switch (transmitter) - Aspect brushed stainless steel

Available on a worldwide basis, the MK Design Service is supported by a dedicated team to ensure the seamless delivery of your chosen products.
To find out more visit **www.mkelectric.co.uk**



range introduction

With a crisp clean edge and luxurious finishes of brushed nickel, black nickel and polished chrome, Alloy™ brings style and decadence to both contemporary and classical interiors. Alloy's finishes have been designed to harmonise seamlessly with contemporary light fittings and door furniture to create a truly coordinated look that evolves as interior design trends change.

features and benefits

Available in Brushed Nickel, Black Nickel and Polished Chrome

Providing a range of products that will complement the décor of any interior.

Total Safety

MK 13A sockets have a 3-pin operated "child resistant shutter system", which is designed to inhibit access to the electricity supply unless all 3 pins of a standard British 13A plug are in position.

Ease of installation

Ideal for retrofits and other decorative applications where back box space is limited.

MATCHING METAL ROCKERS

DOUBLE POLE SWITCHING



MATCHING SCREWS

OPTIONAL INSERT COLOUR
Choice of black or white inserts on selected products

9MM SQUARE EDGE FRONTPLATE

3-PIN "CHILD RESISTANT SHUTTER SYSTEM"
Designed to inhibit access to the electricity supply, unless all 3 pins of a standard British 13A plug are in position (except K5261)

MODERN STYLING
Crisp, clean edge provides a stylish, modern appearance

Terminal screws are backed out and captive and terminals are upwards facing to make installation easier.

Funnel entrance to terminals.

Clear terminal markings for easy identification.



AVAILABLE IN THREE FINISHES



Brushed Nickel (BNI)



Black Nickel (BLN)



Polished Chrome (POC)

Switchsocket Outlets

13 AMP
FLUSH


K5357BNI


K5347BLN


K5347POC

K5357BNI 1
K5357BLN 1
K5357BNIUCW 1
K5357BNIUCB 1
K5357POCUCW 1
K5357POCUCB 1
K5357POC 1
1G 13A DP
SWITCHED SOCKET OUTLET

K5347BNI 1
K5347BLN 1
K5347POCUCW 1
K5347POCUCB 1
K5347POC 1
2G 13A DP
SWITCHED SOCKET OUTLET

UCW- UNCAPPED WHITE ROCKERS
UCB- UNCAPPED BLACK ROCKERS

MOUNTING BOXES:

FLUSH 25mm
1 gang: 861ZIC
2 gang: 862ZIC

FLUSH 35mm (for extra wiring space)
1 gang: 866ZIC
2 gang: 886ZIC

High integrity earthing. K5357 is fitted with two earth terminals to provide a double earth facility when installations require a high integrity protective connection as specified within BS 7671: 2008

13 AMP NON STANDARD FLUSH


K1278BNI


K1278BLN

K1278BNI 1
K1278BLN 1
K1278POC 1
1G 13A DP NON STD
SWITCHED SOCKET OUTLET

MOUNTING BOXES:

FLUSH 25mm
861ZIC

FLUSH 35mm (for extra wiring space)
866ZIC

K1278 has facility for 'clean earth' connection and is suitable for non-standard plugs with 'T' shaped earth pins. See page 224.

DIMENSIONS:
87.5 x 87.5mm

FIXING CENTRES:
60.3mm

BS 1363 Pt 2:1995 (where relevant)

DIMENSIONS:
1 gang: 87.5 x 87.5mm
2 gang: 87.5 x 149.5mm

FIXING CENTRES:
1 gang: 60.3mm
2 gang: 120.6mm

BS 1363 Pt 2:1995

Shaver/ Toothbrush Supply Units


K4404POC

K4404BNI 1
K4404BLN 1
K4404POC 1
SHAVER/TOOTHBRUSH UNIT
115/230V INPUT

MOUNTING BOXES:

FLUSH: 878ZIC

This design incorporates a double wound isolating transformer rated 20VA at 230 or 115 volts it meets BS EN61558-2-5 making it safe for use in bathrooms. Insertion of a shaver/toothbrush plug automatically switches on by energising the primary side of the isolating transformer – removal automatically switches off. The transformer is protected against overload by an automatic solid state overload device with automatic resetting.

DIMENSIONS: 149.5 x 87.5mm

FIXING CENTRES: 120.6mm

BS EN61558-2-5:1998

Connection Units

FLUSH


K5971BNI


K5971POC

K5361BNI 1
K5361BLN 1
K5361POC 1
13A DP SWITCHED
CONNECTION UNIT/NEON

K5971BNI 1
K5971BLN 1
K5971POC 1
13A DP SWITCHED
CONNECTION UNIT FLEX/
NEON

MOUNTING BOXES:

FLUSH: 866ZIC
All units are fitted with a 13A fuse (to BS 1362)

TERMINAL CAPACITY
2 x 6mm² stranded (max)

DIMENSIONS:
87.5 x 87.5mm

FIXING CENTRES:
60.3mm

BS 1363 Pt 4:1995

DP Switches

32 AMP AND
50 AMP
FLUSH


K5305BLN


K5336POC

K5305BNI 1
K5305BLN 1
K5305POC 1
32A DP SWITCH WITH NEON

K5336BNI 1
K5336BLN 1
K5336POC 1
50A DP SWITCH WITH NEON

MOUNTING BOXES:

K5305 FLUSH:
866ZIC (6mm² conductors)
877ZIC (10mm² conductors)

K5336 FLUSH:
886ZIC (6mm² conductors)
878ZIC (10mm² conductors)

Fitted with an earth terminal.

These products are not recommended for switching large banks of PCs

DIMENSIONS:
K5305: 87.5 x 87.5mm
K5336: 87.5 x 149.5mm

FIXING CENTRES:
K5305: 60.3mm
K5336: 120.6mm

BS EN 60669-1: 1999

Cooker Control Unit

45 AMP DP MAIN SWITCH AND
13 AMP SWITCH SOCKET OUTLET WITH NEONS FLUSH


K5261BNI


K5261BLN


K5261POC

K5261BNI 1
K5261BLN 1
K5261POC 1
COOKER CONTROL UNIT

MOUNTING BOXES:

FLUSH:
886ZIC (Up to 6mm² conductor)
878ZIC (Up to 10mm² conductor)

Rotary operated shutter.

DIMENSIONS:
87.5 x 149.5mm

FIXING CENTRES:
120.6mm

BS 4177:1992

Please add insert colour to product code when ordering, Polished Chrome and Brushed Nickel are available with White or Black inserts, order POCW, POCB, BNIW or BNIB. Black Nickel is only available with Black inserts.

Plateswitches

10 AMP
FLUSH


K5371BNI


K5371POC

K5371BNI 1
K5371BLN 1
K5371BNIUCW 1
K5371BNIUCB 1
K5371POCUCW 1
K5371POCUCB 1
K5371POC 1
1G 10A SP 2 WAY SWITCH

K5379BNI 1
K5379BLN 1
K5379BNIUCW 1
K5379BNIUCB 1
K5379POCUCW 1
K5379POCUCB 1
K5379POC 1
2G 10A SP 2 WAY SWITCH

K5373BNI 1
K5373BLN 1
K5373POC 1
3G 10A SP 2 WAY SWITCH

SUPPLIED WITH BLACK OR WHITE PLASTIC ROCKERS ONLY

UCW – UNCAPPED WHITE ROCKERS
UCB – UNCAPPED BLACK ROCKERS

MOUNTING BOXES:
FLUSH: 3995ZIC

These switches do not have to be derated when used with fluorescent or inductive loads. Switches can be wired as either one-way or two-way.

DIMENSIONS: 87.5 x 87.5mm
FIXING CENTRES: 60.3mm
BS EN 60669-1: 1999

Standard Dimmer Switches

230V a.c. 50Hz
TUNGSTEN FILAMENT
FLUSH


K5306BNI


K5307BLN


K5307POC

K5306BNI 1
K5306BLN 1
K5306POC 1
1G 2 WAY 40-250W
SINGLE DIMMER-STD

K5301BNI 1
K5301BLN 1
K5301POC 1
1G 2 WAY 60-500W
SINGLE DIMMER-STD

K5307BNI 1
K5307BLN 1
K5307POC 1
1G 2 WAY 40-250W
DOUBLE DIMMER-STD

Conforming to the latest standards BS EN60669-2-1 and BS EN55015, they are overload protected and are suitable for use with tungsten filament lamps only.

Two way dimmers use push on/push off switches.

They are not suitable for use with fluorescent loads, electronic transformers or wire-wound transformers in low voltage lighting systems.

MOUNTING BOXES FOR ALL DIMMERS
FLUSH:
1 gang: 861ZIC: 25mm deep min
866ZIC: 35mm deep
DIMENSIONS:
1 gang: 86 x 86mm
FIXING CENTRES:
1 gang: 60.3mm

Intelligent Dimmer Switches

230V A.C. 50HZ
TUNGSTEN FILAMENT
AND LOW VOLTAGE
FLUSH


K5306BNILV


K5307BLNLV


K5307POCLV

K5306BNILV 1
K5306BLNLV 1
K5306POCLV 1
1G 2 WAY 40-300W/240VA
SINGLE DIMMER-LV

K5301BNILV 1
K5301BLNLV 1
K5301POCLV 1
1G 2 WAY 60-500W/400VA
SINGLE DIMMER-LV

K5307BNILV 1
K5307BLNLV 1
K5307POCLV 1
1G 2 WAY 40-300W/240VA
DOUBLE DIMMER-LV

Conforming to the latest standards BS EN60669-2-1 and BS EN55015, they use 'state of the art' micro controller based circuitry to provide soft start and overload protection.

The soft start feature helps in greatly prolonging the life of tungsten, normal or halogen lamps.

Suitable for use with good quality electronic or wire wound transformers. Can also be used with good quality mains voltage halogen lamps incorporating GU10 bases. Please check with lamp manufacturer to determine suitability.

Not suitable for use with fluorescent loads.

Blank Plates

FLUSH


K5330BLN


K5329BNI

K5330BNI 1
K5330BLN 1
K5330POC 1
1G BLANK PLATE

K5329BNI 1
K5329BLN 1
K5329POC 1
2G BLANK PLATE

DIMENSIONS:
1 gang: 87.5 x 87.5mm
2 gang: 87.5 x 149.5mm

FIXING CENTRES:
1 gang: 60.3mm
2 gang: 120.6mm

BS 5733:2010

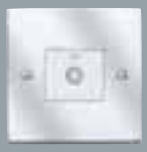
Please add insert colour to product code when ordering, Polished Chrome and Brushed Nickel are available with White or Black inserts, order POCW, POCB, BNIW or BNIB. Black Nickel is only available with Black inserts.

TV/FM Coaxial and Satellite Socket Outlets

FLUSH


K5320BNI


K5321BLN


K5321POC


K5322BNI


K5325BLN


K5325POC

K5320BNI 1
K5320BLN 1
K5320POC 1
TV/FM SINGLE
NON-ISOLATED OUTLET

K5321BNI 1
K5321BLN 1
K5321POC 1
TV/FM SINGLE
ISOLATED OUTLET

K5322BNI 1
K5322BLN 1
K5322POC 1
TV/FM DIPLEXER
TWIN OUTLET

K5325BNI 1
K5325BLN 1
K5325POC 1
F TYPE SATELLITE
SOCKET OUTLET

MOUNTING BOXES:

FLUSH:861ZIC

K5320 K5325 Single outlet for connection to a single TV or FM co-axial aerial lead.

K5321, K5322 Provides safety isolation rated at 2000Va.c. between aerial lead and socket. Single outlet for connection to a single TV or FM co-axial aerial lead. Twin outlet with TV/FM diplexer for connection to single co-axial aerial lead with combined TV &FM signals. Suitable for UHF TV and VHF FM radio.

DIMENSIONS: 87.5 x 87.5mm
FIXING CENTRES: 60.3mm

IEC169-2: 1965 BS 5733: 2010 where applicable

Please add insert colour to product code when ordering, Polished Chrome and Brushed Nickel are available with White or Black inserts, order POCW, POCB, BNIW or BNIB. Black Nickel is only available with Black inserts.

Euro Data Frontplates

FLUSH


K181BNI


K182BLN


K184POC

K181BNI 1
K181BLN 1
K181POC 1
1G 1 MODULE
EURO DATA FRONTPLATE

K182BNI 1
K182BLN 1
K182POC 1
1G 2 MODULE
EURO DATA FRONTPLATE

K184BNI 1
K184BLN 1
K184POC 1
2G 4 MODULE
EURO DATA FRONTPLATE

MOUNTING BOXES:

Suitable for flush boxes to BS 4662:1970 and surface boxes to BS 5733: 2010.

Refer to appropriate data modules for minimum box depth.

See pages 54-56 for complete data module selection.

FIXING CENTRES
1 gang: 60.3mm 2 gang: 120.6mm

BS 5733: 2010 where applicable

Note: No grid required, modules just clip into place.

Euro Power Modules


K5830WHI


K5831WHI


K5832WHI

K5830WHI 10
K5830BLK 10
UK EURO 2 MODULE
13A 250V SHUTTERED

K5831WHI 10
K5831BLK 10
GERMAN 2P+E
16A 250V SHUTTERED
EURO 2 MODULE (NON UK)

K5832WHI 10
K5832BLK 10
AMERICAN
15A 127V SHUTTERED
EURO 2 MODULE (NON UK)

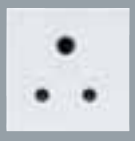
K5830
MOUNTING BOX: 35mm minimum 46mm (for extra wiring space)
DIMENSIONS: 50 x 50mm
BS 1363 Pt2:1995

K5831
MOUNTING BOX: 46mm
DIMENSIONS: 50 x 50mm
IEC 60884-1: 2002

K5832
MOUNTING BOX: 35mm
46mm (for extra wiring space)
DIMENSIONS: 50 x 50mm
SAS0 2203: 2003

See pages 54-56 for the full range of available Euro modules

Euro Power Modules



K5833WHI



K5834WHI



K5837WHI

MK Modular Data Frontplates

FLUSH



K5091BNI



K5091POC

K5091BNI 1
K5091BLN 1
K5091POC 1
1 MODULE
DATA/TELECOM FRONTPLATE

K5092BNI 1
K5092BLN 1
K5092POC 1
2 MODULE
DATA/TELECOM FRONTPLATE

MOUNTING BOXES:

FLUSH 35mm
(for extra wiring space)
866ZIC

See page 58 for appropriate data modules and mounting frames.

DIMENSIONS:
87.5 x 87.5mm

BS 5733: 2010
where applicable

FIXING CENTRES:
60.3mm

BS 5733: 2010
where applicable

Note: Require appropriate grid.
K5091: Use K3701
K5092: Use K3702
Refer to Page 192

MK Modular Data Frontplates

FLUSH



K5093BNI

K5093BNI 1
K5093BLN 1
K5093POC 1
3 MODULE
DATA/TELECOM FRONTPLATE

K5094BNI 1
K5094BLN 1
K5094POC 1
4 MODULE
DATA/TELECOM FRONTPLATE

MOUNTING BOXES:

FLUSH 35mm
(for extra wiring space)
886ZIC

See page 58 for appropriate data modules and mounting frames.

DIMENSIONS:
87.5 x 149.5mm

BS 5733: 2010
where applicable

FIXING CENTRES:
120.6mm

BS 5733: 2010
where applicable

Note: Require appropriate grid.
K5093: Use K3703
K5094: Use K3704
Refer to Page 192

Grid Plus Frontplates

FLUSH



K5331BNI



K5332BNI



K5332BLN

K5331BNI 1
K5331BLN
K5331POC 1
1G GRID FRONTPLATE

K5332BNI 1
K5332BLN
K5332POC 1
2G GRID FRONTPLATE

DIMENSIONS:
87.5 x 87.5mm

See pages 176-191 for the appropriate switch modules.

For modules in black inserts and capped rockers choose POC modules, see page 92.

BS 5733: 2010

Grid Plus Frontplates

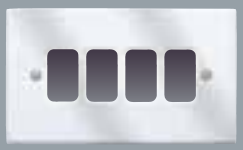
FLUSH



K5333BNI



K5334BLN



K5334POC

K5333BNI 1
K5333BLN
K5333POC 1
3G GRID FRONTPLATE

K5334BNI 1
K5334BLN
K5334POC 1
4G GRID FRONTPLATE

DIMENSIONS:
87.5 x 149.5mm

See pages 176-191 for the appropriate switch modules.

For modules in black inserts and capped rockers choose POC modules, see page 92.

BS 5733: 2010

K5833WHI 10
K5833BLK 10
UK EURO 2 MODULE
5A 250V SHUTTERED

K5834WHI 10
K5834BLK 10
FRENCH/BELGIAN 2P+E
16A 250V SHUTTERED
EURO 2 MODULE (NON UK)

K5837WHI 1
K5837BLK 1
USB CHARGING MODULE
EURO 2 MODULE

K5833
MOUNTING BOX: 35mm minimum
46mm (for extra wiring space)
DIMENSIONS: 50 x 50mm
BS 546:1950

K5834
MOUNTING BOX: 46mm
DIMENSIONS: 50 x 50mm
NFC61-341

K5837
MOUNTING BOX: 35mm
46mm (for extra wiring space)
DIMENSIONS: 50 x 50mm

Features 2 charging sockets each delivering 1A charging current at 5Vdc (total 2A max). Allows charging of portable devices via USB 2.0 type A plug.

IEC 60950-1
IEC 61000-6-1/3

See pages 54-56 for the full range of available Euro modules



range introduction

Available in Brushed Stainless Steel, Brushed Chrome, Satin Gold and Polished Chrome finishes, Albany Plus™ brings stylish yet subtle good looks to both contemporary and classical interiors. Being manufactured from the finest materials, Albany Plus™ wiring devices maintain their high quality appearance for years to come.

Echo™ is an innovative range of entirely wireless, batteryless and self powered switches, only available from MK Electric and in finishes to complement the Albany Plus™ range. Please see page 31 for details.

features and benefits

Available in Brushed Stainless Steel, Brushed Chrome, Satin Gold and Polished Chrome

Providing a range of products that complement the décor and requirements of any interior.

Albany Plus™ Brushed Chrome and Satin Gold are pre-treated with a heat-cured powder lacquer finish

Brushed Chrome and Satin Gold products are coated with a special heat-cured powder lacquer finish ensuring that the range is durable, tarnish resistant and maintains its stylish and understated appearance for many years, and eliminates the need for a gasket.

Total Safety

MK sockets have a 3-pin operated “child resistant shutter system”, which is designed to inhibit access to the electricity supply unless all 3 pins of a standard British 13A plug are in position.

Design Service

Perfect for when only a customised solution will do.



STYLISH CURVED DESIGN
Blends unobtrusively into the environment

3-PIN "CHILD RESISTANT SHUTTER SYSTEM"
Designed to inhibit access to the electricity supply, unless all 3 pins of a standard British 13A plug are in position

PRE-TREATED HEAT-CURED POWDER LACQUER FINISH (BRC AND SAG)
Ensures that the range is durable and tarnish resistant and eliminates the requirement for a gasket

Terminal screws are backed out and captive. Terminals are upwards facing to make installation easier.

Funnel entrance to terminals.

Clear terminal markings for easy identification.



Polished Chrome finish complements modern interior design.



Brushed Chrome finish has subtle good looks to suit classic interiors.



Switchsocket Outlets
13 AMP

	1 GANG DP DUAL EARTH TERMINALS FLUSH	2 GANG DP FLUSH	2 GANG DP WITH RED ROCKERS FLUSH	1 GANG DP DUAL EARTH TERMINALS WITH NEON FLUSH
				
FINISHES				
BRUSHED STAINLESS STEEL	K2958BSS 10	K2948BSS 5	K2948D6BSS 5	K2458BSS 10
BRUSHED CHROME	K2958BRC 10	K2948BRC 5	K2948D6BRC 5	K2458BRC 10
SATIN GOLD	K2958SAG 10	K2948SAG 5		K2458SAG 10
POLISHED CHROME	K2958PCR 10	K2948PCR 5		K2458PCR 10

High Integrity Earthing
K2958, K2458, K2947
Fitted with two earth terminals to provide a double earth facility for use when installations require a high integrity protective connection as specified within BS 7671: 2008

High Integrity Earthing
K2958, K2458, K2947
Fitted with two earth terminals to provide a double earth facility for use when installations require a high integrity protective connection as specified within BS 7671: 2008.

MOUNTING BOXES:

FLUSH 25mm
1 GANG: 861ZIC
2 GANG: 862ZIC

FLUSH 35mm (for extra wiring space)
1 GANG: 866ZIC
2 GANG: 886ZIC

SURFACE WITH KNOCKOUTS
1 GANG: K899ALM
2 GANG: K897ALM

SURFACE WITHOUT KNOCKOUTS
1 GANG: K829ALM
2 GANG: K830ALM

DIMENSIONS:
1 GANG: 86 x 86mm
2 GANG: 86 x 146mm

FIXING CENTRES:
1 GANG: 60.3mm
2 GANG: 120.6mm

BS 1363 Pt 2: 1995

Double pole switching
All switchsockets have double pole switching (neutral makes first, breaks last).

Switchsocket Outlets

	2 GANG DP WITH NEONS FLUSH	2 GANG DP WITH OUTBOARD ROCKERS AND DUAL EARTH TERMINALS FLUSH	2 GANG DP WITH OUTBOARD RED ROCKERS AND DUAL EARTH TERMINALS FLUSH	2 GANG DP WITH OUTBOARD ROCKERS AND 'CLEAN EARTH' FACILITY FLUSH	1 GANG DP WITH CLEAN EARTH FACILITY FLUSH
					
FINISHES					
BRUSHED STAINLESS STEEL	K2448BSS 5	K2947BSS 5	K2947D6BSS 5	K2947CEBSS 5	K1258BSS 10
BRUSHED CHROME	K2448BRC 5	K2947BRC 5	K2947D6BRC 5	K2947CEBRC 5	
SATIN GOLD	K2448SAG 5	K2947SAG 5			
POLISHED CHROME	K2448PCR 5	K2947PCR 5		K2947CEPCR 5	K1258PCR 10

High Integrity Earthing
K2958, K2458, K2947
Fitted with two earth terminals to provide a double earth facility for use when installations require a high integrity protective connection as specified within BS 7671: 2008.

K2947CE
This product is provided with facilities for 'clean earth' connection.
BS 1363 Pt 2: 1995

K1258, K1259,
These products are provided with facilities for 'clean earth' connection and are suitable for non standard plugs with 'T' shaped earth pin.
See page 224.

BS 1363 Pt 2: 1995 where relevant

MOUNTING BOXES:

FLUSH 25mm
1 GANG: 861ZIC
2 GANG: 862ZIC

FLUSH 35mm (for extra wiring space)
1 GANG: 866ZIC
2 GANG: 886ZIC

SURFACE WITH KNOCKOUTS
1 GANG: K899ALM
2 GANG: K897ALM

SURFACE WITHOUT KNOCKOUTS
1 GANG: K829ALM
2 GANG: K830ALM

DIMENSIONS:
1 GANG: 86 x 86mm
2 GANG: 86 x 146mm

FIXING CENTRES:
1 GANG: 60.3mm
2 GANG: 120.6mm

BS 1363 Pt 2: 1995

Double pole switching
All switchsockets have double pole switching (neutral makes first, breaks last).

Switchsocket Outlets RCD Protected

2 GANG DP WITH CLEAN EARTH FACILITY FLUSH	2 GANG DP FILTERED 13 AMP SPIKE AND RFI FLUSH	REPLACEMENT FILTER SOCKET	1 GANG DP 5 AMP SHUTTERED ROUND PIN FLUSH	1 GANG DP 15 AMP SHUTTERED ROUND PIN FLUSH	1 GANG 30MA RATED TRIPPING CURRENT ACTIVE CONTROL CIRCUIT FLUSH
					
K1259BSS 5	**K2826BSS** 5	**K1800WHI** 5	**K2881BSS** 10	**K2883BSS** 10	
K1259BRC 5	**K2826BRC** 5		**K2881BRC** 10	**K2883BRC** 10	**K6301BRC** 5
K1259SAG 5	**K2826SAG** 5		**K2881SAG** 10	**K2883SAG** 10	
K1259PCR 5	**K2826PCR** 5		**K2881PCR** 10	**K2883PCR** 10	

K1258, K1259,
These products are provided with facilities for 'clean earth' connection and are suitable for non standard plugs with 'T' shaped earth pin.
See page 224.

BS 1363 Pt 2: 1995 where relevant

MOUNTING BOX: 866ZIC

Provides two way filtering to reduce voltage spikes and radio frequency interference. Protected by thermal cut out. Fitted with two earth terminals to provide a double earth facility when installations require a high integrity protective connection as specified within BS 7671: 2008.

Maximum total load 13A

DIMENSIONS: 86 x 146 x 39mm

FIXING CENTRES: 120.6mm

BS 5733: 2010

Maxiumum total load is 13A

BS 5733: 2010

MOUNTING BOXES:

FLUSH 25mm: 861ZIC

FLUSH 35mm: (for extra wiring space) 866ZIC

SURFACE (BRC) WITH KNOCKOUTS: K899ALM WITHOUT KNOCKOUTS: K829ALM

DIMENSIONS: 86 x 86mm

FIXING CENTRES: 60.3mm

BS 546: 1950

MOUNTING BOXES:

FLUSH 25mm: 861ZIC

FLUSH 35mm: (for extra wiring space) 866ZIC

SURFACE (BRC) WITH KNOCKOUTS: K899ALM WITHOUT KNOCKOUTS: K829ALM

DIMENSIONS: 86 x 86mm

FIXING CENTRES: 60.3mm

BS 546: 1950

MOUNTING BOXES

FLUSH: 886ZIC
Boxes must have a minimum depth of 30mm

SURFACE (BRC) WITH KNOCKOUTS: K897ALM WITHOUT KNOCKOUTS: K830ALM

It is important to ensure that the correct control circuit, active or passive, is selected for each application.

Only suitable for supply voltage of 240V a.c., 50Hz.

DIMENSIONS: 86 x 146mm

FIXING CENTRES: 120.6mm

BS 7288: 1990

Switchsocket Outlets RCD Protected	Socket Outlets	MEIGaN Socket Outlets		
13 AMP	13 AMP			
1 GANG 30MA RATED TRIPPING CURRENT PASSIVE CONTROL CIRCUIT FLUSH	2 GANG WITH DUAL EARTH TERMINALS FLUSH	1 GANG DP SWITCHED FLUSH	1 GANG DP UNSWITCHED FLUSH	2 GANG DP WITH OUTBOARD ROCKERS FLUSH







FINISHES					
BRUSHED STAINLESS STEEL	**K6304BSS** 5	**K733BSS** 5	**K2958BLU** 1 ENGRAVED "MEDICAL EQUIPMENT ONLY"	**K732BLU** 1 ENGRAVED "MEDICAL EQUIPMENT ONLY"	**K2947CEBLU** 5 "CLEAN EARTH" FACILITY. ENGRAVED "MEDICAL EQUIPMENT ONLY"
BRUSHED CHROME		**K733BRC** 5			
SATIN GOLD					
POLISHED CHROME		**K733PCR** 5			

It is important to ensure that the correct control circuit, active or passive, is selected for each application.

Only suitable for supply voltage of 240V a.c., 50Hz.

BS 7288: 1990

High Integrity Earthing
K733 is fitted with two earth terminals to provide a double earth facility when installations require a high integrity protective connection as specified within BS 7671 IEE Wiring Regulations.

Product complies with the Medical Electrical Installation Guidance Notes (MEIGaN)

Product complies with the Medical Electrical Installation Guidance Notes (MEIGaN)

K2947CEBLU
K733CEBLU
These product are provided with facilities for "clean earth" connection.

Product complies with the Medical Electrical Installation Guidance Notes (MEIGaN)

MOUNTING BOXES:

FLUSH 25mm
1 GANG: 861ZIC
2 GANG: 862ZIC

FLUSH 35mm (for extra wiring space)
1 GANG: 866ZIC
2 GANG: 886ZIC

SURFACE WITH KNOCKOUTS:
1 GANG: K899ALM
2 GANG: K897ALM

WITHOUT KNOCKOUTS:
1 GANG: K829ALM
2 GANG: K830ALM

DIMENSIONS:
1 GANG: 86 x 86mm
2 GANG: 86 x 146mm

FIXING CENTRES:
1 GANG: 60.3mm
2 GANG: 120.6mm

BS 1363 Pt 2: 1995
(except for K6304)

Key Operated Socket Outlet and Switch

Floor Mounted Socket Outlets
13 AMP

2 GANG UNSWITCHED SOCKET FLUSH	13 AMP 1 GANG DP DUAL EARTH KEY OPERATED SOCKET FLUSH	20 AMP 1 GANG DP KEY OPERATED SWITCH FLUSH	1 GANG SWITCHSOCKET SPRING LOADED HINGED COVER PLATE	1 GANG SWITCHSOCKET SPRING LOADED HINGED COVER PLATE	2 GANG SOCKET WITH SPRING LOADED HINGED COVER PLATE
					
K733CEBLU 5 "CLEAN EARTH" FACILITY. ENGRAVED "MEDICAL EQUIPMENT ONLY"	**K2949BSS** 5	**K2158BSS** 5	**740BSS** 10	**741BSS** 10	**742BSS** 5
			740BRC 10	**741BRC** 10	**742BRC** 5
			740SAG 10	**741SAG** 10	**742SAG** 5

K2947CEBLU
K733CEBLU
These product are provided with facilities for "clean earth" connection.

BS 1363 Pt 2: 1995

Product complies with the Medical Electrical Installation Guidance Notes (MEIGaN)

MOUNTING BOXES:

FLUSH 35mm:
1 GANG: 866ZIC
2 GANG: 886ZIC

SURFACE WITH KNOCKOUTS:
1 GANG: K899ALM
2 GANG: K897ALM

WITHOUT KNOCKOUTS:
1 GANG: K829ALM
2 GANG: K830ALM

DIMENSIONS:
1 GANG: 86 x 86mm
2 GANG: 86 x 146mm

K2949
BS 1363: Pt2: 1995

MOUNTING BOXES:

FLUSH 35mm:
1 GANG: 866ZIC
2 GANG: 886ZIC

SURFACE WITH KNOCKOUTS:
1 GANG: K899ALM
2 GANG: K897ALM

WITHOUT KNOCKOUTS:
1 GANG: K829ALM
2 GANG: K830ALM

DIMENSIONS:
1 GANG: 86 x 86mm
2 GANG: 86 x 146mm

K2158
BS EN 60669 – 1: 1999

MOUNTING BOXES:

FLUSH:
1 GANG: 866ZIC
2 GANG: 886ZIC

Boxes must have a minimum depth of 35mm

Rotary operated shutter.

DIMENSIONS:
1 GANG: 102 x 86mm
2 GANG: 102 x 146mm

FIXING CENTRES:
1 GANG: 60.3mm
2 GANG: 120.6mm

BS 1363 Pt2: 1995

MOUNTING BOXES:

FLUSH:
1 GANG: 866ZIC
2 GANG: 886ZIC

Boxes must have a minimum depth of 35mm

Rotary operated shutter.

DIMENSIONS:
1 GANG: 102 x 86mm
2 GANG: 102 x 146mm

FIXING CENTRES:
1 GANG: 60.3mm
2 GANG: 120.6mm

BS 1363 Pt2: 1995

MOUNTING BOXES:

FLUSH:
1 GANG: 866ZIC
2 GANG: 886ZIC

Boxes must have a minimum depth of 35mm

Rotary operated shutter.

DIMENSIONS:
1 GANG: 102 x 86mm
2 GANG: 102 x 146mm

FIXING CENTRES:
1 GANG: 60.3mm
2 GANG: 120.6mm

BS 1363 Pt2: 1995

Connection Units

SWITCHED FUSED

DP SWITCHED WITH FLEX OUTLET FLUSH

DP SWITCHED FLUSH

DP SWITCHED WITH TAMPERPROOF FUSE CARRIER SCREW FLUSH

DP SWITCHED WITH NEON FLUSH







FINISHES					
BRUSHED STAINLESS STEEL	K931BSS 5	K941BSS 5	K941KOBSS 5	K961BSS 5	K961D6BSS 5
BRUSHED CHROME	K931BRC 5	K941BRC 5	K941KOBRC 5	K961BRC 5	K961D6BRC 5
SATIN GOLD	K931SAG 5	K941SAG 5	K941KOSAG 5	K961SAG 5	K961D6SAG 5
POLISHED CHROME	K931PCR 5	K941PCR 5	K941KOPCR 5	K961PCR 5	K961D6PCR 5

MOUNTING BOXES:

FLUSH: 866ZIC

SURFACE (BRC):
WITH KNOCKOUTS: K899ALM
WITHOUT KNOCKOUTS: K829ALM

All connection units are fitted with a 13A fuse (to BS 1362)

TERMINAL CAPACITY: 2 x 6mm² stranded (max)

DIMENSIONS: 86 x 86mm

FIXING CENTRES: 60.3mm

BS 1363 Pt 4: 1995

Connection Units UNSWITCHED FUSED

DP SWITCHED WITH FLEX OUTLET AND NEON FLUSH	DP SWITCHED WITH FLEX OUTLET AND NEON FLUSH	DP SWITCHED WITH FLEX OUTLET, NEON AND TAMPERPROOF FUSE CARRIER SCREW FLUSH	WITH TAMPERPROOF FUSE CARRIER SCREW FLUSH	WITH TAMPERPROOF FUSE CARRIER SCREW FLUSH
				
K971BSS 5	**K971D6BSS** 5	**K971KOBSS** 5	**K948BSS** 5	**K948KOBSS** 5
K971BRC 5	**K971D6BRC** 5	**K971KOBRC** 5	**K948BRC** 5	**K948KOBRC** 5
K971SAG 5	**K971D6SAG** 5	**K971KOSAG** 5	**K948SAG** 5	**K948KOSAG** 5
K971PCR 5			**K948PCR** 5	**K948KOPCR** 5

MOUNTING BOXES:

FLUSH: 866ZIC

SURFACE (BRC) :
WITH KNOCKOUTS:
K899ALM

WITHOUT KNOCKOUTS:
K829ALM

All connection units are fitted with a 13A fuse
(to BS 1362)

TERMINAL CAPACITY
2 x 6mm² stranded (max)

DIMENSIONS: 86 x 86mm

FIXING CENTRES: 60.3mm

BS 1363 Pt 4: 1995

Connection Units
UNSWITCHED FUSED

WITH NEON FLUSH

WITH FLEX OUTLET AND NEON FLUSH

DP Switches
20 AMP

FLUSH

WITH NEON FLUSH

WITH FLEX OUTLET AND NEON FLUSH







FINISHES					
BRUSHED STAINLESS STEEL	K958BSS 5	K978BSS 5	K5213BSS 5	K5233BSS 5	K5233D6BSS 5
BRUSHED CHROME	K958BRC 5	K978BRC 5	K5213BRC 5	K5233BRC 5	K5233D6BRC 5
SATIN GOLD	K958SAG 5	K978SAG 5	K5213SAG 5	K5233SAG 5	K5233D6SAG 5
POLISHED CHROME		K978PCR 5		K5233PCR 5	

MOUNTING BOXES:
FLUSH: 866ZIC
SURFACE (BRC) :
WITH KNOCKOUTS: K899ALM
WITHOUT KNOCKOUTS:
K829ALM
All connection units are fitted with a 13A fuse (to BS 1362)
TERMINAL CAPACITY
2 x 6mm² stranded (max)
DIMENSIONS: 86 x 86mm
FIXING CENTRES: 60.3mm
BS 1363 Pt 4: 1995

MOUNTING BOXES:
FLUSH:
866ZIC
SURFACE (BRC)
WITH KNOCKOUTS:
K899ALM
WITHOUT KNOCKOUTS:
K829ALM
TERMINAL CAPACITY
2 x 6mm² stranded (max)
DIMENSIONS:
86 x 86mm
FIXING CENTRES:
60.3mm
BS EN 60669-1: 1999

DP Switches are not recommended for switching large banks of PCs

High Current Switches

WITH FLEX OUTLET AND NEON FLUSH

32 AMP FLUSH

50 AMP FLUSH

Cooker Control Units

45 AMP DP MAIN SWITCH AND 13 AMP SWITCH SOCKET OUTLET WITH NEONS FLUSH

Triple Pole & Neutral Switch

32 AMP WITH NEON FLUSH

Shaver/Toothbrush Supply Units

DUAL VOLTAGE 115/230V OUTPUT (220/240V 50/60HZ INPUT) FLUSH



K5250BSS 5	K5106BSS 5	K5236BSS 5	K5261BSS 5	K5114BSS 5	K703BSS 5
K5250BRC 5	K5106BRC 5	K5236BRC 5	K5261BRC 5	K5114BRC 5	K703BRC 5
K5250SAG 5	K5106SAG 5	K5236SAG 5	K5261SAG 5	K5114SAG 5	K703SAG 5
K5250PCR 5	K5106PCR 5	K5236PCR 5	K5261PCR 5	K5114PCR 5	K703PCR 5

DP Switches are not recommended for switching large banks of PCs

MOUNTING BOXES:

FLUSH:
866ZIC (6mm² conductors)
877ZIC (10mm² conductors)

SURFACE (BRC) :

WITH KNOCKOUTS:
K899ALM

WITHOUT KNOCKOUTS:
K829ALM

DIMENSIONS:
86 x 86mm

FIXING CENTRES:
60.3mm

BS EN 60669-1: 1999

MOUNTING BOXES:

FLUSH:
886ZIC (6mm² conductors)
878ZIC (10mm² conductors)

SURFACE (BRC)

WITH KNOCKOUTS
K897ALM

WITHOUT KNOCKOUTS
K830ALM

DIMENSIONS:
86 x 146mm

FIXING CENTRES:
120.6mm

BS EN 60669-1: 1999

MOUNTING BOXES:

FLUSH:
886ZIC
(Up to 6mm² conductor)
878ZIC
(Up to 10mm² conductor)

Rotary operated shutter.

DIMENSIONS:
86 x 146mm

FIXING CENTRES:
120.6mm

BS 4177: 1992

MOUNTING BOX:

FLUSH: 878ZIC

This product is rated at 440 volts with a motor load rating of up to 12kW – 16 HP at 415V 3 phase.

It has a utilisation category of AC22A – switching of mixed resistive and inductive loads including moderate overloads for a continuous duty of 32 amps. Making capacity is 2000 amps peak.

TERMINAL CAPACITY:
16mm² conductors.

DIMENSIONS:
146 x 86mm

BS EN 60947-3: 1992

MOUNTING BOXES:

FLUSH: 878ZIC

This design incorporates a double wound isolating transformer rated 20VA at 230 or 115 volts and meets BS EN 61558-2-5:1998 making it safe for use in bathrooms.

Insertion of a shaver/toothbrush plug automatically switches on by energising the primary side of the isolating transformer – removal automatically switches off. The transformer is protected against overload by an automatic solid state overload device with automatic resetting.

DIMENSIONS: 146 x 86mm

FIXING CENTRES: 120.6mm

BS EN 61558-2-5: 1998

Flex Outlets (NON UK)

Plateswitches

DUAL VOLTAGE 115/230V OUTPUT (120/130V 50/60HZ INPUT) NON UK FLUSH

FLUSH

10 AMP FLUSH

2 GANG SP TWO-WAY FLUSH

3 GANG SP TWO-WAY FLUSH











FINISHES					
BRUSHED STAINLESS STEEL		K2240BSS 5	K4671BSS 5	K4672BSS 5	K4673BSS 5
BRUSHED CHROME	K707BRC 5	K2240BRC 5	K4671BRC 5	K4672BRC 5	K4673BRC 5
SATIN GOLD		K2240SAG 5	K4671SAG 5	K4672SAG 5	K4673SAG 5
POLISHED CHROME			K4671PCR 5	K4672PCR 5	K4673PCR 5

MOUNTING BOXES:

FLUSH: 878ZIC

This design incorporates a double wound isolating transformer rated 20VA at 230 or 115 volts and meets BS EN 61558-2-5:1998 making it safe for use in bathrooms.

Insertion of a shaver/ toothbrush plug automatically switches on by energising the primary side of the isolating transformer – removal automatically switches off. The transformer is protected against overload by an automatic solid state overload device with automatic resetting.

DIMENSIONS: 146 x 86mm

FIXING CENTRES: 120.6mm

BS EN 61558-2-5: 1998

MOUNTING BOXES:

FLUSH: 866ZIC

SURFACE (BRC) WITH KNOCKOUTS: K899ALM

WITHOUT KNOCKOUTS: K829ALM

Cable diameter: Minimum 4mm Maximum 14.5mm

DIMENSIONS: 1 gang: 86 x 86mm

FIXING CENTRES: 1 gang: 60.3mm

BS 5733: 2010

MOUNTING BOXES:

FLUSH: 3995ZIC

SURFACE (BRC) : WITH KNOCKOUTS: K899ALM WITHOUT KNOCKOUTS: K829ALM

These switches do not have to be derated when used with fluorescent or inductive loads.

Switches can be wired as either one-way or two-way.

DIMENSIONS: 86 x 86mm

FIXING CENTRES: 60.3mm

BS EN 60669-1: 1999

If an intermediate switch is required, a modular (Grid Plus) version is available. Order K3431 grid plate, K3701 grid frame and K4893WHI 20A intermediate switch.

3 Pole Fan Isolator

Standard Dimmer Switches

230Va.c. 50Hz TUNGSTEN FILAMENT

1 GANG SP TWO-WAY 10 AMP WIDE ROCKER FLUSH	2 GANG SP TWO-WAY WIDE ROCKER FLUSH	10 AMP WITHOUT SWITCHLOCK FLUSH	SWITCHLOCK FOR FAN ISOLATOR	1 GANG TWO WAY SINGLE 40W MIN, 250W MAX FLUSH	1 GANG TWO WAY SINGLE 60W MIN, 500W MAX FLUSH
					
K4761BSS 5	**K4762BSS** 5	**K4860BSS** 1	**K4858** 10	**K1534BSS** 1	**K1551BSS** 1
K4761BRC 5	**K4762BRC** 5	**K4860BRC** 1		**K1534BRC** 1	**K1551BRC** 1
K4761SAG 5	**K4762SAG** 5	**K4860SAG** 1		**K1534SAG** 1	**K1551SAG** 1
K4761PCR 5	**K4762PCR** 5	**K4860PCR** 1		**K1534PCR** 1	**K1551PCR** 1

MOUNTING BOXES:

FLUSH: 3995ZIC

SURFACE: K2160WHI

For local isolation of fans with or without timers for repair or routine maintenance.

DIMENSIONS:
86 x 86mm

FIXING CENTRES:
60.3mm

BS EN 60947-3: 1992

Conforming to the latest standards BS EN 60669-2-1 and BS EN 55015, they are overload protected and are suitable for use with tungsten filament lamps only.

Two way dimmers use push on/push off switches.

They are not suitable for use with fluorescent loads or with electronic or with wire-wound transformers in low voltage lighting systems.

Standard Dimmer Switches

230Va.c. 50Hz TUNGSTEN FILAMENT

	1 GANG TWO WAY DOUBLE 40W, 250W MAX FOR EACH DIMMER FLUSH	2 GANG TWO WAY DOUBLE 60W MIN, 450W MAX FOR EACH DIMMER FLUSH	2 GANG TWO WAY TRIPLE 40W MIN, 250W MAX FOR EACH DIMMER FLUSH
			
FINISHES			
BRUSHED STAINLESS STEEL	K1532BSS 1	K1552BSS 1	K1533BSS 1
BRUSHED CHROME	K1532BRC 1	K1552BRC 1	K1533BRC 1
SATIN GOLD	K1532SAG 1	K1552SAG 1	K1533SAG 1
POLISHED CHROME	K1532PCR 1	K1552PCR 1	K1533PCR 1



Conforming to the latest standards BS EN 60669-2-1 and BS EN 55015, they are overload protected and are suitable for use with tungsten filament lamps only.

Two way dimmers use push on/push off switches.

They are not suitable for use with fluorescent loads or with electronic or with wire-wound transformers in low voltage lighting systems.

Intelligent Dimmer Switches

230VA.C. 50HZ TUNGSTEN FILAMENT

1 GANG TWO WAY SINGLE
40W/VA MIN,
300W/240VA MAX
FLUSH

1 GANG TWO WAY SINGLE
60W/VA MIN,
500W/400VA MAX
FLUSH

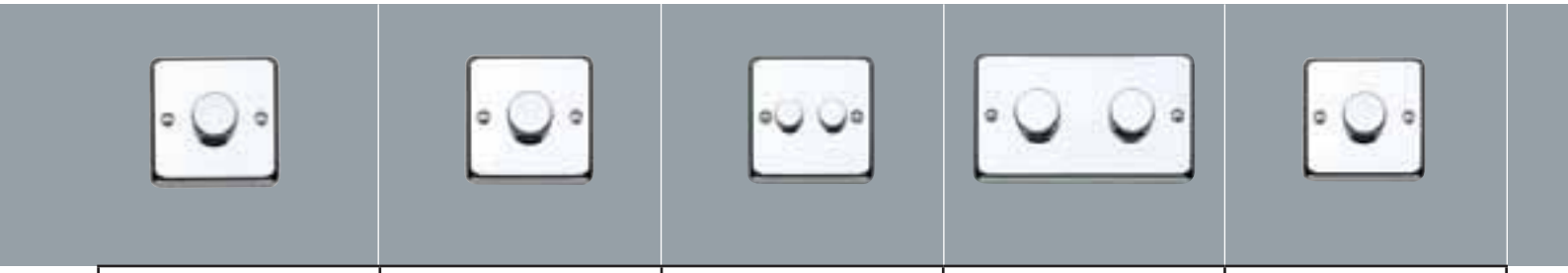
1 GANG TWO WAY DOUBLE
40W/VA MIN,
300W/240VA MAX
FOR EACH DIMMER
FLUSH

2 GANG TWO WAY DOUBLE
60W/VA MIN,
450W/360VA MAX FOR EACH DIMMER
FLUSH

Dimmer Switches

(NON UK) 200-240Va.c. 50Hz or 60Hz

1 GANG SINGLE ONE WAY
75–500W 50HZ
FLUSH



K1536BSSLV 1	K1551BSSLV 1	K1532BSSLV 1	K1552BSSLV 1	K1541BSS 1
K1536BRCLV 1	K1551BRCLV 1	K1532BRCLV 1	K1552BRCLV 1	K1541BRC 1
K1536SAGLV 1	K1551SAGLV 1	K1532SAGLV 1	K1552SAGLV 1	K1541SAG 1
K1536PCRLV 1	K1551PCRLV 1	K1532PCRLV 1	K1552PCRLV 1	K1541PCR 1

Conforming to the latest standards BS EN 60669-2-1 and BS EN 55015, they use 'state of the art' micro controller based circuitry to provide soft start and overload protection.

The soft start feature helps in greatly prolonging the life of tungsten, normal or halogen lamps.

Suitable for use with good quality electronic or wire wound transformers. Can also be used with good quality mains voltage halogen lamps incorporating GU10 bases. Please check with lamp manufacturer to determine suitability.

Not suitable for use with fluorescent loads.

Dimmer Switches

1 GANG SINGLE TWO WAY 100–1000W 50HZ
FLUSH

Blank Plates

1 GANG
FLUSH

2 GANG
FLUSH

TV/FM Coaxial Socket Outlets

NON ISOLATED
FLUSH

ISOLATED
FLUSH







FINISHES									
BRUSHED STAINLESS STEEL	K1561BSS	1	K3330BSS	10	K3329BSS	5	K3580BSS	5	K3581BSS	5
BRUSHED CHROME	K1561BRC	1	K3330BRC	10	K3329BRC	5	K3580BRC	5	K3581BRC	5
SATIN GOLD	K1561SAG	1	K3330SAG	10	K3329SAG	5	K3580SAG	5	K3581SAG	5
POLISHED CHROME	K1561PCR	1	K3330PCR	10	K3329PCR	5	K3580PCR	5	K3581PCR	5

MOUNTING BOXES FOR DIMMERS:

FLUSH:
1 GANG: 861ZIC 25mm deep min
2 GANG: 862ZIC 25mm deep min

866ZIC: 35mm min for K1532BRCLV K1532SAGLV

DIMENSIONS:
1 GANG: 86 x 86mm
2 GANG: 86 x 146mm

FIXING CENTRES:
1 GANG: 60.3mm
2 GANG: 120.6mm

MOUNTING BOXES:

FLUSH:
1 GANG:866ZIC
2 GANG:886ZIC

SURFACE (BRC) :
WITH KNOCKOUTS:
1 GANG: K899ALM
2 GANG: K897ALM

WITHOUT KNOCKOUTS:
1 GANG: K829ALM
2 GANG: K830ALM

DIMENSIONS:
1 GANG: 86 x 86mm
2 GANG: 86 x 146mm

FIXING CENTRES:
1 GANG: 60.3mm

BS 5733: 2010

MOUNTING BOXES:

FLUSH:
1 GANG:866ZIC
2 GANG:886ZIC

SURFACE (BRC) :
WITH KNOCKOUTS:
1 GANG: K899ALM
2 GANG: K897ALM

WITHOUT KNOCKOUTS:
1 GANG: K829ALM
2 GANG: K830ALM

DIMENSIONS:
1 GANG: 86 x 86mm
2 GANG: 86 x 146mm

FIXING CENTRES:
1 GANG: 60.3mm

BS 5733: 2010

MOUNTING BOXES:

FLUSH:861ZIC

SURFACE (BRC) :
WITH KNOCKOUTS: K899ALM
WITHOUT KNOCKOUTS: K829ALM

K3580
Single outlet for connection to a single TV or FM co-axial aerial lead.

K3581, K3582
Provides safety isolation rated at 2000Va.c. between aerial lead and socket. Single outlet for connection to a single TV or FM co-axial aerial lead. Twin outlet with TV/

Satellite Socket Outlets

Floor Mounted Euro Frame

TWIN OUTLET WITH TV/FM DIPLEXER FLUSH	SINGLE OUTLET F TYPE SATELLITE SOCKET FLUSH	1 GANG STANDARD FLOOR MOUNTED EURO FRAME	1 GANG RECESS FLOOR MOUNTED EURO FRAME	2 GANG STANDARD FLOOR MOUNTED EURO FRAME	2 GANG RECESS FLOOR MOUNTED EURO FRAME
					
K3582BSS 5	**K3585BSS** 1	**790BSS** 10	**791BSS** 10	**795BSS** 10	**796BSS** 10
K3582BRC 5	**K3585BRC** 1	**790BRC** 10	**791BRC** 10	**795BRC** 10	**796BRC** 10
K3582SAG 5	**K3585SAG** 1	**790SAG** 10	**791SAG** 10	**795SAG** 10	**796SAG** 10
K3582PCR 5	**K3585PCR** 1				

IEC 169-2: 1965

DIMENSIONS:
86 x 86mm

FIXING CENTRES:
60.3mm

BS 5733: 2010 where applicable

FM diplexer for connection to single co-axial aerial lead with combined TV &FM signals. Suitable for UHF TV and VHF FM radio.

Fully screened modular TV/ Satellite outlets are available to fit Euro frontplates. See page 56 for details.

MOUNTING BOXES:

FLUSH:
1 GANG: 866ZIC
2 GANG: 886ZIC

Boxes must have a minimum depth of 35mm

DIMENSIONS:
1 GANG: 102 x 86mm
2 GANG: 102 x 146mm

FIXING CENTRES:
1 GANG: 60.3mm
2 GANG: 120.6mm

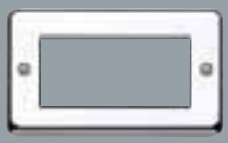
NOTE:
Recessed Euro Frame products must be used with 'F' Type connectors. This ensures full lid closure when the aerial lead is disconnected.

Power sockets must only be used with the standard Euro Frame products as the recessed type may NOT allow full plug engagement.

BS 5733: 2010

For a complete selection of Euro modules, see pages 54-56.

Euro, LJU6C and MK Modular Data Frontplates

	EURO 1 MODULE FLUSH	EURO 2 MODULE FLUSH	EURO 4 MODULE FLUSH	LJU6C 2 MODULE FLUSH
				
FINISHES				
BRUSHED STAINLESS STEEL	**K181BSS** 5	**K182BSS** 5	**K184BSS** 5	**K172BSS** 5
BRUSHED CHROME	**K181BRC** 5	**K182BRC** 5	**K184BRC** 5	**K172BRC** 5
SATIN GOLD	**K181SAG** 5	**K182SAG** 5	**K184SAG** 5	**K172SAG** 5
POLISHED CHROME	**K181PCR** 5	**K182PCR** 5	**K184PCR** 5	**K172PCR** 5

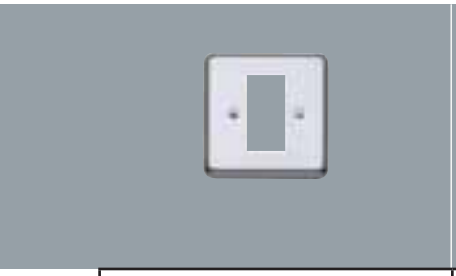
For a complete selection of Euro, LJU6C and MK Modular Data modules and more information see pages 54-58.

DIMENSIONS:
1 & 2 module: 86 x 86mm
3 & 4 module: 86 x 146mm

BS 5733: 2010.

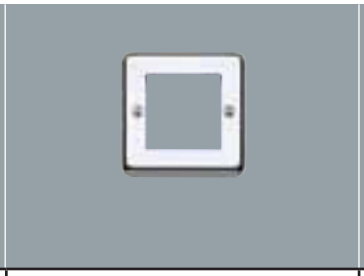
Note: LJU6C and Euro Data Frontplates: no grid required, modules just clip into place. MK Modular require appropriate grid.

MK MODULAR
1 MODULE
FLUSH



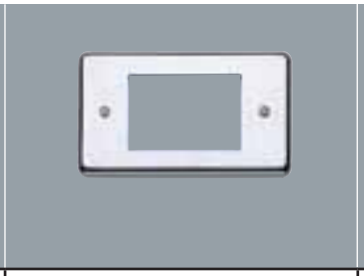
K391BSS	10
K391BRC	10
K391SAG	10
K391PCR	10

MK MODULAR
2 MODULE
FLUSH



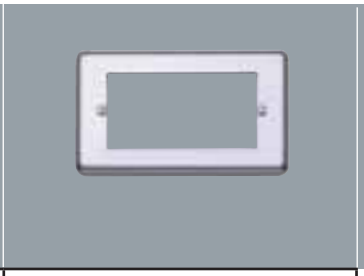
K392BSS	10
K392BRC	10
K392SAG	10
K392PCR	10

MK MODULAR
3 MODULE
FLUSH



K393BSS	5
K393BRC	5
K393SAG	5
K393PCR	5

MK MODULAR
4 MODULE
FLUSH



K394BSS	5
K394BRC	5
K394SAG	5
K394PCR	5

For a complete selection of Euro, LJU6C and MK Modular Data modules and more information see pages 54-58.

DIMENSIONS:
1 & 2 module: 86 x 86mm
3 & 4 module: 86 x 146mm

BS 5733: 2010.

Note: LJU6C and Euro Data Frontplates: no grid required, modules just clip into place. MK Modular require appropriate grid.

Euro Power Modules

UK 1 GANG EURO 2 MODULE 13 AMP 250V SHUTTERED	GERMAN 2P+E 16 AMP 250V SHUTTERED EURO 2 MODULE (NON UK)	AMERICAN 15 AMP 127V SHUTTERED EURO 2 MODULE (NON UK)	UK 1 GANG EURO 2 MODULE 5 AMP 250V SHUTTERED	FRENCH/ BELGIAN 2P+E 16AMP 250V SHUTTERED EURO TWO MODULE (NON UK)	USB CHARGING MODULE EURO 2 MODULE
					

FINISHES						
BRUSHED STAINLESS STEEL	K5830WHI 10	K5831WHI 10	K5832WHI 10	K5833WHI 10	K5834WHI 10	K5837WHI 1
BRUSHED CHROME						
SATIN GOLD	K5830BLK 10	K5831BLK 10	K5832BLK 10	K5833BLK 10	K5834BLK 10	K5837BLK 1
POLISHED CHROME						

K5830
MOUNTING BOX: 35mm minimum
46mm (for extra wiring space)
DIMENSIONS:
50 x 50mm
BS 1363 Pt 2:1995

K5831
MOUNTING BOX: 46mm
DIMENSIONS:
50 x 50mm
IEC 60884-1: 2006

K5832
MOUNTING BOX: 35mm
46mm (for extra wiring space)
DIMENSIONS:
50 x 50mm
SASO 2203: 2003

K5833
MOUNTING BOX:
35mm minimum
46mm (for extra wiring space)
DIMENSIONS:
50 x 50mm
BS 546:1950

K5834
MOUNTING BOX:
46mm
DIMENSIONS:
50 x 50mm
NFC61-341

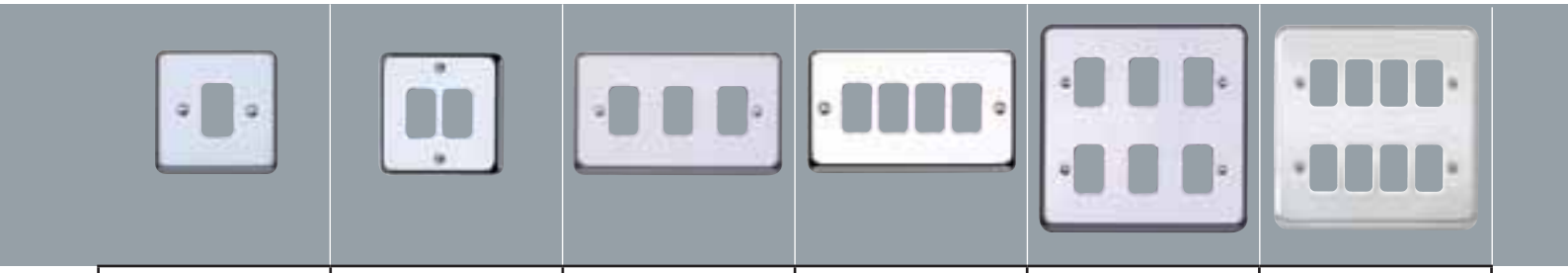
K5837
MOUNTING BOX: 35mm
46mm (for extra wiring space)

DIMENSIONS: 50 x 50mm

Features 2 charging sockets each delivering 1A charging current at 5Vdc (total 2A max). Allows charging of portable devices via USB 2.0 type A plug.

IEC 60950-1
IEC 61000-6-1/3

Grid Plus Frontplates



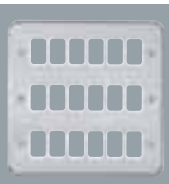
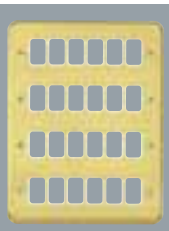
1 MODULE FLUSH	2 MODULE FLUSH	3 MODULE FLUSH	4 MODULE FLUSH	6 MODULE FLUSH	8 MODULE FLUSH
K3431BSS 10	K3432BSS 10	K3433BSS 5	K3434BSS 5	K3436BSS 1	K3438BSS 1
K3431BRC 10	K3432BRC 10	K3433BRC 5	K3434BRC 5	K3436BRC 1	K3438BRC 1
K3431SAG 10	K3432SAG 10	K3433SAG 5	K3434SAG 5	K3436SAG 1	K3438SAG 1
K3431PCR 10	K3432PCR 10	K3433PCR 5	K3434PCR 5	K3436PCR 1	K3438PCR 1

For a complete selection of Grid Plus switch modules see Grid Plus pages 176 - 191.

DIMENSIONS:
Architrave: 118 x 38mm
1 & 2 module: 86 x 86mm
3 & 4 module: 86 x 146mm

BS 5733: 2010

Grid Plus Frontplates

	9 MODULE FLUSH	12 MODULE FLUSH	18 MODULE FLUSH	24 MODULE FLUSH	ARCHITRAVE 1 MODULE FLUSH
					
FINISHES					
BRUSHED STAINLESS STEEL	K3439BSS 1	K3442BSS 1	K3448BSS 1	K3454BSS 1	K3401BSS 10
BRUSHED CHROME	K3439BRC 1	K3442BRC 1	K3448BRC 1	K3454BRC 1	K3401BRC 10
SATIN GOLD	K3439SAG 1	K3442SAG 1	K3448SAG 1	K3454SAG 1	K3401SAG 10
POLISHED CHROME	K3439PCR 1	K3442PCR 1	K3448PCR 1	K3454PCR 1	K3401PCR 10

For a complete selection of Grid Plus switch modules see Grid Plus, pages 176-191.

DIMENSIONS:
Architrave: 118 x 38mm
6 & 8 module:146 x 146mm
9 & 12 module: 206 x 146mm

BS 5733: 2010





range introduction

Grid Plus is a modular switching and monitoring system in a choice of attractive finishes to match complementary accessory ranges.

The comprehensive range of modules includes switches, indicators, dimmers, secret key switches, printed switches and buzzer units – making it the ideal system for commercial and public building applications.

Easy to fit and change, Grid Plus modules simply clip into place from the front of the mounting frame.

features and benefits

Vast range
Comprehensive range of grid and plate modules from a single manufacturer making the range flexible and suitable for more installations.

Ease of installation
Grid modules 'clip fit' to the frame without any requirement for special tools. They can be moved, removed or replaced whilst the frame is fitted to the box making installation or replacement speedy and simple.

Durability
Grid frames are made from pre-galvanised steel to provide extra high corrosion resistance preventing tarnishing. Ensures longevity of product.

Safety
Grid frames earth terminal capacity exceeds current standards for total safety assurance. All products are 100% tested before delivery for confidence of a 'fit and forget' installation. 20 year guarantee.

Blank Inserts

Switch Modules 10 Amp

FINISHES	1 MODULE BLANK INSERT	10 AMP SP ONE WAY	10 AMP DP ONE WAY	10 AMP SP TWO WAY	10 AMP SP TWO-WAY RETRACTIVE SWITCH
					
WHITE	**K4880WHI** 10	**K4881WHI** 10	**K4981WHI** 10	**K4882WHI** 10	**K4885WHI** 10
BLACK	**K4880BLK** 10	**K4881BLK** 10	**K4981BLK** 10	**K4882BLK** 10	**K4885BLK** 10
GRAPHITE	**K4880GRA** 10	**K4881GRA** 10		**K4882GRA** 10	

These switches do NOT have to be derated when used with fluorescent or inductive loads.

BS EN 60669-1: 1999

These switches do NOT have to be derated when used with fluorescent or inductive loads.

BS EN 60669-1: 1999

These switches do NOT have to be derated when used with fluorescent or inductive loads.

BS EN 60669-1: 1999

Note: Push switches are not designed for flourescent loads.

BS EN 60669-1: 1999

Grid modules with a selection of other finishes are also available.
See pages 91 and 127.

Switch Modules 20 Amp

10 AMP SP TWO-WAY RED RETRACTIVE SWITCH	10 AMP SP TWO-WAY RETRACTIVE SWITCH MARKED WITH BELL SYMBOL	10 AMP SP TWO-WAY RETRACTIVE SWITCH MARKED 'PRESS'	10 AMP SP TWO WAY CENTRE OFF RETRACTIVE SWITCH	20 AMP SP ONE-WAY
				
K4885RED 1	**K4885BWHI** 1	**K4885PWHI** 10	**K4900WHI** 10	**K4891WHI** 10
K4885REDB 1	**K4885BBLK** 1	**K4885PBLK** 1	**K4900BLK** 10	**K4891BLK** 10
				K4891GRA 10
Note: Push switches are not designed for flourescent loads. BS EN 60669-1: 1999	Note: Push switches are not designed for fluorescent loads. BS EN 60669-1: 1999	Note: Push switches are not designed for fluorescent loads. BS EN 60669-1: 1999	Note: Push switches are not designed for fluorescent loads. BS EN 60669-1: 1999	These switches do NOT have to be derated when used with fluorescent or inductive loads. BS EN 60669-1: 1999

B suffix on the list number denotes black inserts

Switch Modules
20 Amp

FINISHES	20 AMP DP ONE-WAY PUSH TO MAKE	20 AMP DP ONE-WAY RED ROCKER PUSH TO MAKE	20 AMP DP ONE-WAY PUSH TO BREAK RETRACTIVE	20 AMP DP ONE-WAY RED ROCKER PUSH TO BREAK RETRACTIVE	20 AMP SP TWO WAY
					
WHITE	**K4910WHI** 10	**K4910RED** 10	**K4915WHI** 10	**K4915RED** 10	**K4892WHI** 10
BLACK	**K4910BLK** 10	**K4910REDB** 1	**K4915BLK** 10	**K4915REDB** 1	**K4892BLK** 10
GRAPHITE					

These switches do NOT have to be derated when used with fluorescent or inductive loads.

BS EN 60669-1: 1999

These switches do NOT have to be derated when used with fluorescent or inductive loads.

Note: Push switches are not designed for fluorescent loads.

BS EN 60669-1: 1999

Note: Push switches are not designed for fluorescent loads.

BS EN 60669-1: 1999

Note: Push switches are not designed for fluorescent loads.

BS EN 60669-1: 1999

These switches do NOT have to be derated when used with fluorescent or inductive loads.

BS EN 60669-1: 1999

B suffix on the list number denotes black inserts

20 AMP SP TWO-WAY RED ROCKER	20 AMP SP TWO-WAY SWITCH WITH INTEGRAL NEON LOCATOR	20 AMP SP TWO-WAY AND CENTRE OFF LATCHING	20 AMP SP RED ROCKER TWO-WAY AND CENTRE OFF LATCHING	20 AMP INTERMEDIATE	20 AMP INTERMEDIATE RED ROCKER
					
K4892RED 10	**K4892LWHI** 10	**K4899WHI** 10	**K4899RED** 10	**K4893WHI** 10	**K4893RED** 10
K4892REDB 10	**K4892LBLK** 1	**K4899BLK** 10		**K4893BLK** 10	**K4893REDB** 10

These switches do NOT have to be derated when used with fluorescent or inductive loads.

BS EN 60669-1: 1999

These switches do NOT have to be derated when used with fluorescent or inductive loads.

BS EN 60669-1: 1999

B suffix on the list number denotes black inserts

Switch Modules 20 Amp

Printed Modules with and without Neon

FINISHES	20 AMP DP ONE-WAY		20 AMP DP ONE-WAY NEON		20 AMP DP ONE-WAY WITH WINDOW		20 AMP DP ONE-WAY RED ROCKER		20 AMP DP ONE-WAY BOILER		20 AMP DP ONE-WAY BOILER NEON	
												
WHITE	**K4896WHI**	10	**K4896NWHI**	1	**K4896WWHI**	10	**K4896RED**	10	**K4896BRWHI**	1	**K4896NBRWHI**	1
BLACK	**K4896BLK**	10	**K4896NBLK**	1	**K4896WBLK**	10			**K4896BRBLK**	1	**K4896NBRBLK**	1

BS EN 60669-1: 1999 BS EN 60669-1: 1999 BS EN 60669-1: 1999 BS EN 60669-1: 1999 BS EN 60669-1: 1999 BS EN 60669-1: 1999

20 AMP DP ONE-WAY DISHWASHER	20 AMP DP ONE-WAY DISHWASHER NEON	20 AMP DP ONE-WAY COOKER HOOD	20 AMP DP ONE-WAY COOKER HOOD NEON	20 AMP DP ONE-WAY FAN	20 AMP DP ONE-WAY FAN NEON	20 AMP DP ONE-WAY FRIDGE
						
K4896DWWHI 1	**K4896NDWWHI** 1	**K4896CHWHI** 1	**K4896NCHWHI** 1	**K4896FNWHI** 1	**K4896NFNWHI** 1	**K4896FGWHI** 1
K4896DWBLK 1	**K4896NDWBLK** 1	**K4896CHBLK** 1	**K4896NCHBLK** 1	**K4896FNBLK** 1	**K4896NFNBLK** 1	**K4896FGBLK** 1
BS EN 60669-1: 1999	BS EN 60669-1: 1999	BS EN 60669-1: 1999	BS EN 60669-1: 1999	BS EN 60669-1: 1999	BS EN 60669-1: 1999	BS EN 60669-1: 1999

Printed Modules with and without Neon

	20 AMP DP ONE-WAY FRIDGE NEON	20 AMP DP ONE-WAY FREEZER	20 AMP DP ONE-WAY FREEZER NEON	20 AMP DP ONE-WAY FRIDGE FREEZER	20 AMP DP ONE-WAY FRIDGE FREEZER NEON
					
FINISHES					
WHITE	**K4896NFGWHI** 1	**K4896FZWHI** 1	**K4896NFZWHI** 1	**K4896FFWHI** 1	**K4896NFFWHI** 1
BLACK	**K4896NFGBLK** 1	**K4896FZBLK** 1	**K4896NFZBLK** 1	**K4896FFBLK** 1	**K4896NFFBLK** 1
	BS EN 60669-1: 1999	BS EN 60669-1: 1999	BS EN 60669-1: 1999	BS EN 60669-1: 1999	BS EN 60669-1: 1999

20 AMP DP ONE-WAY WASTE DISPOSAL	20 AMP DP ONE-WAY WASTE DISPOSAL NEON	20 AMP DP ONE-WAY WASHING MACHINE	20 AMP DP ONE-WAY WASHING MACHINE NEON	20 AMP DP ONE-WAY TUMBLE DRYER	20 AMP DP ONE-WAY TUMBLE DRYER NEON
					
K4896WDWHI 1	**K4896NWDWHI** 1	**K4896WMWHI** 1	**K4896NWMWHI** 1	**K4896TDWHI** 1	**K4896NTDWHI** 1
K4896WDBLK 1	**K4896NWDBLK** 1	**K4896WMBLK** 1	**K4896NWMBLK** 1	**K4896TDBLK** 1	**K4896NTDBLK** 1
BS EN 60669-1: 1999	BS EN 60669-1: 1999	BS EN 60669-1: 1999	BS EN 60669-1: 1999	BS EN 60669-1: 1999	BS EN 60669-1: 1999

Printed Modules with and without Neon

	20 AMP DP ONE-WAY WASHER DRYER	20 AMP DP ONE-WAY WASHER DRYER NEON	20 AMP DP ONE-WAY MICROWAVE	20 AMP DP ONE-WAY MICROWAVE NEON	20 AMP DP ONE-WAY HEATER
					
FINISHES					
WHITE	**K4896WDRWHI** 1	**K4896NWDRWHI** 1	**K4896MWWHI** 1	**K4896NMWWHI** 1	**K4896HRWHI** 1
BLACK	**K4896WDRBLK** 1	**K4896NWDRBLK** 1	**K4896MWBLK** 1	**K4896NMWBLK** 1	**K4896HRBLK** 1
	BS EN 60669-1: 1999	BS EN 60669-1: 1999	BS EN 60669-1: 1999	BS EN 60669-1: 1999	BS EN 60669-1: 1999

20 AMP DP ONE-WAY HEATER NEON	20 AMP DP ONE-WAY OVEN	20 AMP DP ONE-WAY OVEN NEON	20 AMP DP ONE-WAY HOB	20 AMP DP ONE-WAY HOB NEON	20 AMP DP ONE-WAY IMMERSION HEATER
					
K4896NHRWHI 1	**K4896OVWHI** 1	**K4896NOVWHI** 1	**K4896HBWHI** 1	**K4896NHBWHI** 1	**K4896IHWHI** 1
K4896NHRBLK 1	**K4896OVBLK** 1	**K4896NOVBLK** 1	**K4896HBBLK** 1	**K4896NHBBLK** 1	**K4896IHBLK** 1
BS EN 60669-1: 1999	BS EN 60669-1: 1999	BS EN 60669-1: 1999	BS EN 60669-1: 1999	BS EN 60669-1: 1999	BS EN 60669-1: 1999

Printed Modules with and without Neon

	20 AMP DP ONE-WAY IMMERSION HEATER NEON	20 AMP DP ONE-WAY PLINTH HEATER	20 AMP DP ONE-WAY PLINTH HEATER NEON	20 AMP DP ONE-WAY WORKTOP LIGHTING	20 AMP DP ONE-WAY WORKTOP LIGHTING NEON
					
FINISHES					
WHITE	**K4896NIHWHI** 1	**K4896PHWHI** 1	**K4896NPHWHI** 1	**K4896WLWHI** 1	**K4896NWLWHI** 1
BLACK		**K4896PHBLK** 1	**K4896NPHBLK** 1	**K4896WLBLK** 1	**K4896NWLBLK** 1
	BS EN 60669-1: 1999	BS EN 60669-1: 1999	BS EN 60669-1: 1999	BS EN 60669-1: 1999	BS EN 60669-1: 1999

20 AMP DP ONE-WAY WINE COOLER	20 AMP DP ONE-WAY WINE COOLER NEON	20 AMP DP ONE-WAY WARMING DRAWER	20 AMP DP ONE-WAY WARMING DRAWER NEON	20 AMP DP ONE-WAY COFFEE MACHINE	20 AMP DP ONE-WAY COFFEE MACHINE NEON
					
K4896WCWHI 1	**K4896NWCWHI** 1	**K4896WDAWHI** 1	**K4896NWDAWHI** 1	**K4896CMWHI** 1	**K4896NCMWHI** 1
K4896WCBLK 1	**K4896NWCBLK** 1	**K4896WDABLK** 1	**K4896NWDABLK** 1	**K4896CMBLK** 1	**K4896NCMBLK** 1
BS EN 60669-1: 1999	BS EN 60669-1: 1999	BS EN 60669-1: 1999	BS EN 60669-1: 1999	BS EN 60669-1: 1999	BS EN 60669-1: 1999

Secret Key Switch Modules

	20 AMP INTERMEDIATE SECRET KEY SWITCH	20 AMP SP TWO-WAY SECRET KEY SWITCH	20 AMP SP TWO-WAY SECRET KEY SWITCH MARKED 'EMG LTG TEST'	20 AMP DP ONE-WAY SECRET KEY SWITCH	20 AMP DP EMERGENCY LIGHTING
					
FINISHES					
WHITE	**K4894WHI** 10	**K4898WHI** 10	**K4898ELWHI** 10	**K4917WHI** 10	**K4917ELWHI** 10
BLACK	**K4894BLK** 1	**K4898BLK** 1	**K4898ELBLK** 1	**K4917BLK** 1	
	BS EN 60669-1: 1999 Key (3405ZIC) is supplied.	BS EN 60669-1: 1999 Key (3405ZIC) is supplied.	BS EN 60669-1: 1999 Key (3405ZIC) is supplied.	BS EN 60669-1: 1999 Key (3405ZIC) is supplied.	BS EN 60669-1: 1999 Key (3405ZIC) is supplied.

Indicator Unit Modules

20 AMP SP TWO-WAY SECRET KEY SWITCH (BIASED ONE WAY)	200-250V NEON	200-250V NEON	200-250V FLUORESCENT	21-36V FILAMENT	21-36V FILAMENT
					
K4918WHI 10	**K4889RED** 10	**K4889AMB** 10	**K4889GRN** 10	**K4836RED** 10	**K4836AMB** 10
K4918BLK 10	**K4889REDB** 1				
BS EN 60669-1: 1999 Key (3405ZIC) is supplied.	BS 5733: 2010	BS 5733: 2010	BS 5733: 2010	BS 5733: 2010	BS 5733: 2010

B suffix on the list number denotes black inserts

Indicator Unit Modules

21-36V
FILAMENT

Dimmer Switch Modules

TUNGSTEN FILAMENT AND LOW VOLTAGE LIGHTING

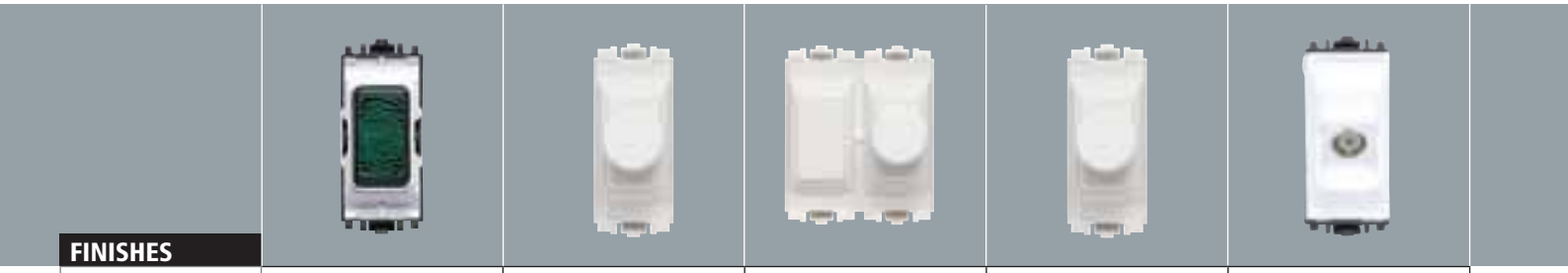
40W/VA-220W/
180VA MAX
230V A.C., 50HZ
ONE MODULE

60W/VA-400W/
320VA MAX
230V A.C., 50HZ
TWO MODULE

0-10V/1-10V
FLUORESCENT
CONTROLLER
ONE MODULE

Accessory Modules

SINGLE TV
CO-AXIAL OUTLET
NON-ISOLATED



FINISHES					
WHITE	K4836GRN 10	K4501WHILV 1	K4500WHILV 1	K4499WHI 1	K4520WHI 10
BLACK		K4501BLKLV 1	K4500BLKLV 1	K4499BLK 1	K4520BLK 1

BS 5733: 2010

These dimmers employ the latest microcontroller based circuitry to provide electronic soft start and overload protection.

Suitable for use with good quality electronic or wire wound transformers. Can also be used with good quality mains voltage halogen lamps incorporating GU10 bases. Please check with lamp manufacturer to determine suitability.

K4501WHI/BLK Max. No. of low voltage T/F's – 3

K4500WHI/BLK Max. No. of low voltage T/F's – 5

Not suitable for fluorescent loads.

All dimmers have push on – push off, 2 way switches, integral with rotary control.

Note: Refer to technical section for derating.

Conform to BS EN 60669-2-1 and BS EN 55015

MK Fluorescent Grid Dimmers are low voltage controllers for connection to 1-10V controllable ballasts.

For direct connection to TV or FM aerial co-axial downlead. NOT to be used in same enclosure as mains exceeding 50V.

BS 3041: 1977

IEC 169-2: 1965

BS 5733: 2010 where applicable.

SINGLE TV CO-AXIAL OUTLET ISOLATED	BUZZER UNIT 200-250V	BUZZER UNIT 21-36V	16A CORD OUTLET	13A FUSE UNIT	13A FUSE UNIT WITH TAMPERPROOF SCREW
					
K4521WHI 10	**K4000WHI** 10	**K4001WHI** 10	**K4886WHI** 10	**K4890WHI** 10	**K4890KOWHI** 10
K4521BLK 1			**K4886BLK** 1	**K4890BLK** 1	**K4890KOBLK** 1
For direct connection to TV or FM aerial co-axial downlead. NOT to be used in same enclosure as mains exceeding 50V. BS 3041: 1977 IEC 169-2: 1965 BS 5733: 2010 where applicable.	Sound output level Av 61 db @ 15 feet. BS 5733: 2010	Sound output level Av 61 db @ 15 feet. BS 5733: 2010	Complete with 3 pairs of terminals. The supply terminals are suitable for up to 2 x 2.5mm² or 1 x 4mm² solid conductors. The load terminals are suitable for one 1.5mm² flexible cord. A cord grip is also fitted.	Fuse carrier comes with 13A cartridge fuse link to BS 1362.	Fuse carrier comes with 13A cartridge fuse link to BS 1362.

SELECTION CHART

	1	2	3	4	6
COVER PLATES					
LOGIC PLUS	K3631WHI/GRA 10	K3632WHI/GRA 10	K3633WHI/GRA 10	K3634WHI/GRA 10	K3636WHI/GRA 1
METALCLAD PLUS	K3491ALM 10	K3492ALM 10	K3493ALM 5	K3494ALM 5	K3496ALM 1
ALBANY PLUS See Albany Plus Pg 173	K3431 1	K3432 1	K3433 1	K3434 1	K3436 1
EDGE See Edge Pg 124	K14331 1	K14332 1	K14333 1	K14334 1	K14346 1
ASPECT See Aspect Pg 90	K24331 1	K24332 1	K24333 1	K24334 1	K24346 1
ALLOY See Alloy Pg 152	K5331 1	K5332 1	K5333 1	K5334 1	
BOXES					
LOGIC PLUS flush	891ALM 10 2 x 20mm knockouts	891ALM 10 2 x 20mm knockouts	892ALM 5 4 x 20, 4 x 25mm knockouts	892ALM 5 4 x 20, 4 x 25mm knockouts	893ALM 5 4 x 20, 4 x 25mm knockouts
	821ALM 10 without knockouts	821ALM 10 without knockouts	822ALM 5 without knockouts	822ALM 5 without knockouts	823ALM 5 without knockouts
LOGIC PLUS surface metal	K2213ALM 5 5 x 20mm knockouts	K2213ALM 5 5 x 20mm knockouts	K2214ALM 5 7 x 20mm knockouts	K2214ALM 5 7 x 20mm knockouts	
	K2211ALM 5 without knockouts	K2211ALM 5 without knockouts	K2212ALM 5 without knockouts	K2212ALM 5 without knockouts	
LOGIC PLUS surface moulded	K2140WHI 10 with knockouts	K2140WHI 10 with knockouts	K2142WHI 5 with knockouts	K2142WHI 5 with knockouts	
LOGIC PLUS surface pvc	K2181WHI 10 with knockouts	K2181WHI 10 with knockouts	K2183WHI 5 with knockouts	K2183WHI 5 with knockouts	
METALCLAD PLUS & ALBANY PLUS surface	K8891ALM 10 5 x 20mm knockouts	K8891ALM 10 5 x 20mm knockouts	K8892ALM 5 7 x 20mm knockouts	K8892ALM 5 7 x 20mm knockouts	K8893ALM 5 4 x 20mm, 4 x 25mm knockouts
	K8821ALM 10 without knockouts	K8821ALM 10 without knockouts	K8822ALM 5 without knockouts	K8822ALM 5 without knockouts	K8823ALM 5 without knockouts
	K8901ALM 10 deep box 5 x 20mm knockouts	K8901ALM 10 deep box 5 x 20mm knockouts	K8902ALM 10 deep box 4 x 20mm, 4 x 25mm knockouts	K8902ALM 10 deep box 4 x 20mm, 4 x 25mm knockouts	
ALBANY PLUS ASPECT & EDGE	891ALM 10 2 x 20mm knockouts	891ALM 10 2 x 20mm knockouts	892ALM 5 4 x 20, 4 x 25mm knockouts	892ALM 5 4 x 20, 4 x 25mm knockouts	893ALM 5 4 x 20, 4 x 25mm knockouts
flush	821ALM 10 without knockouts	821ALM 10 without knockouts	822ALM 5 without knockouts	822ALM 5 without knockouts	823ALM 5 without knockouts
GRIDS					
Edge/Insignia & Aspect cover plates include an integral grid	K3701 10	K3702 10	K3703 10	K3704 10	K3703 X 2 10

8	9	12	18	24	Architrave
K3638WHI/GRA 1		**K3639WHI** 1			
K3498ALM 1	**K3499ALM** 1	**K3502ALM** 1	**K3508ALM** 1	**K3514ALM** 1	
K3438 1	**K3439** 1	**K3442** 1	**K3448** 1	**K3454** 1	**K3401** 1
K14348 1	**K14349** 1	**K14352** 1	**K14358** 1	**K14354** 1	**K14401** 1
K24348 1					
893ALM 5 4 x 20, 4 x 25mm knockouts		**895ALM** 1 5 x 20, 5 x 25mm knockouts			
823ALM 5 without knockouts		**825ALM** 1 without knockouts			
K8893ALM 5 4 x 20mm, 4 x 25mm knockouts	**K8895ALM** 1 5 x 20mm, 5 x 25mm knockouts	**K8895ALM** 1 5 x 20mm, 5 x 25mm knockouts	**K8898ALM** 1 5 x 20mm, 5 x 25mm knockouts	**K8900ALM** 1 6 x 20mm, 6 x 25mm knockouts	
K8823ALM 5 without knockouts	**K8825ALM** 1 without knockouts	**K8825ALM** 1 without knockouts	**K8826ALM** 1 without knockouts	**K8827ALM** 1 without knockouts	
893ALM 5 4 x 20, 4 x 25mm knockouts	**895ALM** 1 5 x 20, 5 x 25mm knockouts	**895ALM** 1 5 x 20, 5 x 25mm knockouts	**898ALM** 1 6 x 32mm knockouts	**900ALM** 1 6 x 32mm knockouts	**3895ZIC** 5 3 x 20mm knockouts (for flush mounting only)
823ALM 5 without knockouts	**825ALM** 1 without knockouts	**825ALM** 1 without knockouts			**3891ZIC** 5 1 gang Architrave Boxes for EDGE
K3704 X 2 10	**K3703 X 3** 10	**K3704 X 3** 10	**K3706 X 3** 10	**K3706 X 4** 10	**K3708ZIC** 10

High Power Dimmer





range introduction

When an installation requires the specification of a dimmer to control larger lighting loads, the MK Electric High Power Dimmer will meet your requirements, and give you the confidence that you have specified a product which comes with MK's brand standards of quality, reliability, safety and responsibility.

As with all MK products the High Power Dimmer is manufactured to ISO 9002 certification using only the most superior manufacturing techniques and raw materials. Each product undergoes 100% electrical and visual testing to ensure reliability and safety, and is guaranteed for 2 years.

The High Power Dimmer includes a host of different functions, enabling lighting scene control, stairwell lighting and push button dimmer with memory. For applications up to 3000W loads, an installation can be specified to include a Master and up to 2 Slaves.

Dimming can offer energy savings compared to powering a lamp to full brightness.

features and benefits

- **Up to 1000W dimming output per unit**
- **Up to 3000W dimming output when utilising Master and Slaves**
- **Provides rotary control using a 1-10V interface such as the K4499 Fluorescent Controller Module from the MK Electric Grid Plus Range**
- **Universal, Trailing Edge and Leading Edge Dimmers available**
- **Automatic load detection on Universal module**
- **Central on/off function**
- **Staircase lighting function with or without switch-off warning**
- **Lighting scene control with two, user adjustable, preset scene levels**
- **Overload and short circuit protection**

Function Selection

Operating Modes

Function	Description
Push button dimmer with memory	Non cyclic dimming with maximum & minimum brightness limit adjustment. Soft start switch on at last dimming level.
Push button dimmer without memory	Non cyclic dimming with maximum & minimum brightness limit adjustment. Soft start switch on at maximum level.
Push button cyclic dimmer with memory	Cyclic dimming with maximum & minimum brightness limit adjustment. Soft start switch on at last dimming level.
Push button cyclic dimmer without memory	Cyclic dimming with maximum & minimum brightness limit adjustment. Soft start switch on at maximum level.
Stairwell lighting controller with turn off warning	Time Delay Switch with 50% brightness turn off warning. Adjustable time-on period between 1sec - 2.3hrs. Adjustable turn-off warning periods between 1sec - 8min.
Stairwell lighting controller without turn of warning	Time Delay Switch without turn off warning. Adjustable brightness and time-on period.
Scene Control Dimmer	Two user adjustable preset scene levels.
Rotary Dimmer using 0/1-10V control	Rotary control dimming with conventional 0/1-10V controls, (e.g. MK K4499).

Product Selector

List Number	Description	230V Tungsten Filament Lamps	12V Wirewound Transformers	12V Electronic Transformers
K1400	1kW UNIVERSAL DIMMER - MASTER/SLAVE	Yes 60-1000W	Yes 50-900VA	Yes 50-900VA
K1401M	1kW LEADING EDGE DIMMER - MASTER	Yes 60-1000W	Yes 50-900VA	–
K1401S	1kW LEADING EDGE DIMMER - SLAVE	Yes 60-1000W	Yes 50-900VA	–
K1402M	1kW TRAILING EDGE DIMMER - MASTER	Yes 60-1000W	–	Yes 50-900VA
K1402S	1kW TRAILING EDGE DIMMER - SLAVE	Yes 60-1000W	–	Yes 50-900VA

Compatible Wiring Devices

List Number	Descripton	Product Range
K4499WHI / BLK	0-10V FLUORESCENT CONTROLLER ONE MODULE	GRID PLUS
K4900WHI / BLK	10A RETRACTIVE GRID SWITCH	GRID PLUS

1kW Din Rail Dimmer Modules

UNIVERSAL 1kW



K1400

K1400 1
1kW UNIVERSAL DIMMER – MASTER/SLAVE

Dimensions:
108 x 55 x 60mm
6 DIN module

Mounting:
Suitable for mounting onto 35mm DIN rail.

Terminals:
Mains supply/slave control:
2 x 1.5mm² or 1 x 2.5mm²
T1/2/3 Switch control: 1 x 1mm²

Loads:
Resistive, Incandescent and Mains Halogen lamps: 60-1000W

Low voltage wire-wound transformers: 50-900VA

Low voltage electronic transformers: 50-900VA

Maximum control line length: 100m

EN 60669-2-1

LEADING EDGE 1kW



K1401M

K1401M 1
1kW LEADING EDGE DIMMER – MASTER

Dimensions:
108 x 55 x 60mm
6 DIN module

Mounting:
Suitable for mounting onto 35mm DIN rail.

Terminals:
Mains supply/slave control:
2 x 1.5mm² or 1 x 2.5mm²
T1/2/3 Switch control: 1 x 1mm²

Loads:
Resistive, Incandescent and Mains Halogen lamps: 60-1000W

Low voltage wire-wound transformers: 50-900VA

Maximum control line length: 100m

EN 60669-2-1

For use with up to 2 x K1401S or K1402S slaves

1kW



K1401S

K1401S 1
1kW LEADING EDGE DIMMER – SLAVE

Dimensions:
108 x 55 x 60mm
6 DIN module

Mounting:
Suitable for mounting onto 35mm DIN rail.

Terminals:
Mains supply/slave control:
2 x 1.5mm² or 1 x 2.5mm²
T1/2/3 Switch control: 1 x 1mm²

Loads:
Resistive, Incandescent and Mains Halogen lamps: 60-1000W

Low voltage wire-wound transformers: 50-900VA

Maximum control line length: 100m

EN 60669-2-1

For use with K1401M or K1402M Master dimmers

TRAILING EDGE 1kW



K1402M

K1402M 1
1kW TRAILING EDGE DIMMER – MASTER

Dimensions:
108 x 55 x 60mm
6 DIN module

Mounting:
Suitable for mounting onto 35mm DIN rail.

Terminals:
Mains supply/slave control:
2 x 1.5mm² or 1 x 2.5mm²
T1/2/3 Switch control: 1 x 1mm²

Loads:
Resistive, Incandescent and Mains Halogen lamps: 60-1000W

Low voltage electronic transformers: 50-900VA

Maximum control line length: 100m

EN 60669-2-1

For use with up to 2 x K1401S or K1402S slaves

1kW



K1402S

K1402S 1
1kW TRAILING EDGE DIMMER – SLAVE

Dimensions:
108 x 55 x 60mm
6 DIN module

Mounting:
Suitable for mounting onto 35mm DIN rail.

Terminals:
Mains supply/slave control:
2 x 1.5mm² or 1 x 2.5mm²
T1/2/3 Switch control: 1 x 1mm²

Loads:
Resistive, Incandescent and Mains Halogen lamps: 60-1000W

Low voltage electronic transformers: 50-900VA

Maximum control line length: 100m

EN 60669-2-1

For use with K1401M or K1402M Master dimmers

High Powered Dimmers are Din Rail mounted, suitable for any standard BS EN 50022 35mm Din Rail, and are 6 Din Modules wide.

Steel Boxes

25mm FLUSH



861ZIC 10
1 GANG
ONE ADJUSTABLE LUG

862ZIC 5
2 GANG
ONE ADJUSTABLE LUG

With earth terminal, and adjustable lug
DIMENSIONS:
1 gang: 75 x 75mm
2 gang: 75 x 135mm
FIXING CENTRES:
1 gang: 60.3mm
2 gang: 120.6mm
KNOCKOUTS:
1 gang: 12 x 20mm
2 gang: 10 x 20mm
2 x 25mm
BS 4662: 2006

35mm FLUSH



K863 5
FOR 3 GANG
K2737 LOGIC PLUS™
SWITCHSOCKET

Fitted with two earth terminals.
Two adjustable lugs.
DIMENSIONS: 203 x 75mm
FIXING CENTRES: 180.9mm
KNOCKOUTS:
3 gang: 14 x 20mm
6 x 20mm
BS 5733: 2010

35mm FLUSH



866ZIC 10
1 GANG
ONE ADJUSTABLE LUG

886ZIC 5
2 GANG
ONE ADJUSTABLE LUG

DIMENSIONS:
1 gang: 75 x 75mm
2 gang: 75 x 135mm
FIXING CENTRES:
1 gang: 60.3mm
2 gang: 120.6mm
KNOCKOUTS:
1 gang: 7 x 20mm
3 x 25mm
2 gang: 11 x 20mm
4 x 25mm
BS 4662: 2006

46mm 47mm FLUSH



877ZIC 10
1 GANG
46MM DEEP

878ZIC 5
2 GANG 47MM DEEP
ONE ADJUSTABLE LUG

DIMENSIONS:
1 gang: 75 x 75mm
2 gang: 75 x 135mm
FIXING CENTRES:
1 gang: 60.3mm
2 gang: 120.6mm
KNOCKOUTS:
1 gang: 6 x 20mm
4 x 25mm
2 gang: 9 x 20mm
6 x 25mm
BS 4662: 2006

MOUNTING BOX ACCESSORIES see page 201

Flush and surface mounted metal boxes and frames, surface PVC and moulded urea boxes, frames and accessories.

All MK flush metal boxes are manufactured from superior materials and are fitted with earth terminals, an adjustable lug for out of square alignment and include more than an adequate number of knockouts.

41mm SURFACE FOR USE WITH LOGIC PLUS™



K2211ALM 5
1 GANG
WITHOUT KNOCKOUTS

K2212ALM 5
2 GANG
WITHOUT KNOCKOUTS

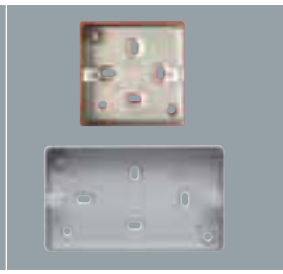
All boxes are fitted with an earth terminal.
DIMENSIONS:
1 gang: 86 x 86mm
2 gang: 86 x 146mm
FIXING CENTRES:
1 gang: 60.3mm
2 gang: 120.6mm
BS 5733: 2010



K2213ALM 5
1 GANG
5 X 20MM KNOCKOUTS

K2214ALM 5
2 GANG
7 X 20MM KNOCKOUTS

All boxes are fitted with an earth terminal.
DIMENSIONS:
1 gang: 86 x 86mm
2 gang: 86 x 146mm



2211ALM 5
1 GANG
WITHOUT KNOCKOUTS

2212ALM 5
2 GANG
WITHOUT KNOCKOUTS

2213ALM 5
1 GANG
5 X 20MM KNOCKOUTS

2214ALM 5
2 GANG
7 X 20MM KNOCKOUTS

FIXING CENTRES:
1 gang: 60.3mm
2 gang: 120.6mm
BS 5733: 2010

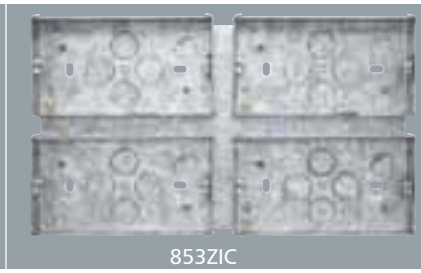
Steel Boxes

35mm
47mm
FLUSH

35mm
47mm
FLUSH







K14101 1
35mm FOR EDGE STACKED
COMBINATION PLATE K14100

K14102 1
47mm FOR EDGE STACKED
COMBINATION PLATE K14100

Fitted with two earth terminals.
Two adjustable lugs.
DIMENSIONS: 279.6 x 159.5mm
FIXING CENTRES: 268.2mm / 87.3mm
KNOCKOUTS:
35mm 18 x 20mm, 6 x 25mm
47mm 12 x 20mm, 12 x 25mm
BS 5733: 2010

K14201 1
35mm FOR EDGE IN-LINE
COMBINATION PLATE K14200

K14202 1
47mm FOR EDGE IN-LINE
COMBINATION PLATE K14200

Fitted with two earth terminals.
Two adjustable lugs.
DIMENSIONS: 430 x 75mm
FIXING CENTRES: 417.4mm
KNOCKOUTS:
35mm Middle Box: 6 x 20mm, 2 x 25mm
35mm End Boxes: 15 x 20mm, 5 x 25mm
47mm Middle Box: 4 x 20mm, 4 x 25mm
47mm End Boxes: 10 x 20mm, 10 x 25mm
BS 5733: 2010

K14206 1
35mm FOR EDGE IN-LINE
COMBINATION PLATE K14205

K14207 1
47mm FOR EDGE IN-LINE
COMBINATION PLATE K14205

Fitted with two earth terminals.
Two adjustable lugs.
DIMENSIONS: 392 x 75mm
FIXING CENTRES: 382.5mm
KNOCKOUTS:
35mm Left 2G Box: 7 x 20mm, 3 x 25mm
35mm Middle Boxes: 4 x 20mm
35mm Right Box: 6 x 20mm
47mm Left 2G Box: 4 x 20mm, 6 x 25mm
47mm Middle Boxes: 2 x 20mm, 1 x 25mm
47mm Right Box: 4 x 20mm, 1 x 25mm
BS 5733: 2010

853ZIC 1
35MM FOR LOGIC PLUS™
4 GANG COMBINATION PLATE
K2740WHI

854ZIC 1
47MM FOR LOGIC PLUS™
4 GANG COMBINATION PLATE
K2740WHI

857ZIC 1
35MM FOR LOGIC PLUS™
2 GANG COMBINATION PLATE
K2741WHI

858ZIC 1
47MM FOR LOGIC PLUS™
2 GANG COMBINATION PLATE
K2741WHI

BS 5733: 2010

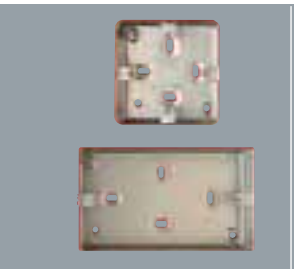
41mm
SURFACE

48mm
SURFACE

55mm
FLUSH

65mm
FLUSH

40mm
SPARE BOXES













2001ALM 5
1 GANG
WITHOUT KNOCKOUTS

2002ALM 5
2 GANG
WITHOUT KNOCKOUTS

2003ALM 5
1 GANG
5 X 20MM KNOCKOUTS

2004ALM 5
2 GANG
7 X 20MM KNOCKOUTS

All boxes are fitted with an earth terminal.
DIMENSIONS:
1 gang: 86 x 86mm
2 gang: 86 x 146mm
FIXING CENTRES:
1 gang: 60.3mm
2 gang: 120.6mm
BS 5733: 2010

MOUNTING BOX ACCESSORIES see page 201

K5400WHI 1
2 GANG
4 X 20MM KNOCKOUTS
4X 25MM KNOCKOUTS

DIMENSIONS:
86 x 146mm
FIXING CENTRES:
120.6mm
BS 5733: 2010

5120ALM 1
FOR FLUSH
COOKER CONTROL UNIT
K5011WHI

Fitted with two earth terminals.
DIMENSIONS:
152 x 140 x 55mm
KNOCKOUTS: 5 x 25mm.
Two in each of the top & bottom, one in the back.
BS 4177: 1992

5268ALM 1
FOR 32 AMP
TP & N SWITCHES
5114WHI

Fitted with 2 earth terminals
DIMENSIONS:
178 x 114 x 65mm
KNOCKOUTS:
5 x 25mm.
Two in each of the top and bottom, one in the back.
BS 5733: 2010

K829ALM 5
1 GANG
WITHOUT KNOCKOUTS

K830ALM 5
2 GANG
WITHOUT KNOCKOUTS

K899ALM 10
1 GANG
5 X 20MM KNOCKOUTS

K897ALM 5
2 GANG
8 X 20MM KNOCKOUTS

Spares or replacements for the surface Metalclad Plus range. All boxes are fitted with an earth terminal.
BS 5733: 2010

Steel Boxes

ARCHITRAVE FLUSH



3921ZIC 10
1 GANG

DIMENSIONS:
1 gang: 75 x 27 x 27mm

FIXING CENTRES:
1 gang: 60.3mm

KNOCKOUTS:
1 gang: 3 x 16mm

BS 4662: 2006

DUAL FLUSH



887ZIC 5
DUAL BOX

888ZIC 10
DIVIDING SCREEN FOR DUAL BOX

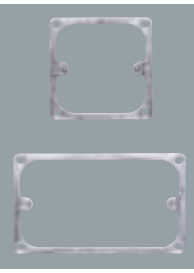
Dual box 887ZIC will accept any two flush accessories with 86mm square plates and two M3.5 fixing holes on 60.3mm centres.

DIMENSIONS:
75 x 161 x 35mm

KNOCKOUTS:
2 gang 10 x 20mm
4 x 25mm

BS 4662: 2006

Metal Frames For Panel Mounting



K2200 10
1 GANG

K2202 5
2 GANG

FIXING CENTRES:
1 gang: 60.3mm
2 gang: 120.6mm

BS 5733: 2010

PVC Boxes

19mm SURFACE



2120WHI 10
FOR 1, 2 AND 3 GANG PLATESWITCHES

With earth terminal

DIMENSIONS:87 x 87mm

FIXING CENTRES: 60.3mm

KNOCKOUTS 'Cut-out' provided in top and bottom for 16mm oval PVC conduit. 20mm round 'push-out' type knockout in base for cable entry. Fixing holes are also provided for mounting to wall or over BS 4568 Pt.2 small circular boxes. BS 5733: 2010

32mm SURFACE



2180WHI 10
1 GANG

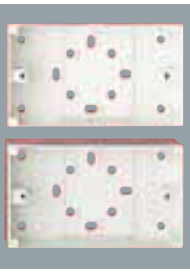
2181WHI 10
1 GANG

DIMENSIONS: 87 x 87mm

FIXING CENTRES: 60.3mm

KNOCKOUTS:
2180: One 'push-out' for 20mm oval conduit in top, one 'cut-out' for 20mm or 25mm oval conduit and one 20mm round 'push-out' in the base.
2181: One 'push-out' for 20mm round conduit in top and one 20mm round 'push-out' in base.

BS 5733: 2010



2182WHI 5
2 GANG

2183WHI 5
2 GANG

DIMENSIONS: 87 x 148mm

FIXING CENTRES: 120.6mm

KNOCKOUTS:
2182: Two 'push-outs' for 20mm oval conduit in top, two 'cut-outs' for 20mm or 25mm oval conduit and one 20mm round 'push-out' in base
2183: One 'push-out' for 20mm round conduit in top and one 20mm round 'push-out' in base.

BS 5733: 2010

Blank Plates

METALCLAD PLUS



K3390ALM 5
FOR 1 GANG SURFACE BOXES K899 & K829

K3369ALM 5
FOR 2 GANG SURFACE BOXES K830 & K897

DIMENSIONS:
K3390: 86 x 86mm
K3369: 86 x 147mm

FIXING CENTRES:
K3390: 60.3mm
K3369: 120.6mm

BS 5733: 2010

METALCLAD



3390ALM 10
FOR 1 GANG SURFACE BOXES 899 & 829

3370ALM 10
FOR 1 GANG SURFACE BOXES 891 & 821

3369ALM 5
FOR 2 GANG SURFACE BOXES 892 & 822

DIMENSIONS:
3390: 81 x 81mm
3370: 76 x 76mm
3369: 76 x 136mm

FIXING CENTRES:
1 gang: 60.3mm
2 gang: 120.6mm

BS 5733: 2010

PVC Boxes

32mm SURFACE



K2181WHI 10
FOR 1 GANG LOGIC PLUS™ POWER ACCESSORIES

K2183WHI 5
FOR 2 GANG LOGIC PLUS™ POWER ACCESSORIES

K2185WHI 5
FOR 3 GANG LOGIC PLUS™ POWER ACCESSORIES

KNOCKOUTS:
K2181: One 'cut-out' for 20mm round conduit in top face, one 'cut-out' for 20mm or 25mm oval conduit in lower face and one 20mm round 'push-out' in the base.
K2183 and K2185: One 'cut-out' for 20mm round conduit in top face, two 'cut-outs' for 20mm or 25mm oval conduit in lower face and one 20mm round 'push-out' in the base. Both boxes are suitable for fitting over 1 gang and 2 gang BS 4662 flush steel boxes respectively

DIMENSIONS:
1 gang: 87 x 87mm
2 gang: 87 x 148mm
3 gang: 87 x 208mm

FIXING CENTRES:
1 gang: 60.3mm
2 gang: 120.6mm
3 gang: 180.9mm

BS 4662: 2006 where applicable

Guardian Socket Cover



GWR1WHI 1
1 GANG

Accessories not supplied with unit.

FIXING CENTRES:
60.3mm

Moulded Boxes

DRY LINING 35mm FLUSH



QFB1WHI 20
1 GANG

QFB2WHI 10
2 GANG

All round flange for a flush fit. One piece moulded lug automatically snaps into place. No rear projections. Clamp device on cable entry. Will accommodate partition thickness between 6mm and 16mm. Earth terminal facility.

BS 4662: 2006

MOUNTING BOX ACCESSORIES see page 201

Moulded Boxes

ARCHITRAVE SURFACE



K2151WHI 10
1 GANG
ARCHITRAVE BOX

K2152WHI 5
2 GANG
ARCHITRAVE BOX

Earth terminal fitted in base of boxes.

DIMENSIONS:
1 gang: 87 x 33 x 16mm
2 gang: 148 x 33 x 16mm

FIXING CENTRES:
1 gang: 60.3mm
2 gang: 120.6mm

BS 5733: 2010

16mm SURFACE



K2160WHI 10
FOR 1, 2 AND
3 GANG LOGIC PLUS™
PLATESWITCHES

K2161WHI 5
FOR 4 AND 6 GANG
LOGIC PLUS™
PLATESWITCHES

Earth terminal fitted in base of boxes. Knockouts provided in sides and bases.

DIMENSIONS:
1 gang: 87 x 87mm
2 gang: 87 x 148mm

FIXING CENTRES:
1 gang: 60.3mm
2 gang: 120.6mm

BS 5733: 2010

30mm SURFACE



K2140WHI 10
FOR 1 GANG
LOGIC PLUS™
POWER ACCESSORIES

K2142WHI 5
FOR 2 GANG
LOGIC PLUS™
POWER ACCESSORIES

Knockouts in base and sides for cable entry

K2142 and K2153 are suitable for fitting over 1 gang and 2 gang BS 4662 flush steel boxes respectively

K2153WHI 5
FOR 3 GANG
LOGIC PLUS™
POWER ACCESSORIES

DIMENSIONS:
1 gang: 87 x 87mm
2 gang: 87 x 148mm
3 gang: 87 x 208mm

FIXING CENTRES:
1 gang: 60.3mm
2 gang: 120.6mm
3 gang: 180.9mm

BS 5733: 2010

32mm SURFACE



2140WHI 10
FOR 1 GANG
POWER ACCESSORIES
SQUARE CORNERS

Knockouts are provided in base and sides for cable entry

DIMENSIONS:
1 gang: 87 x 87mm
2 gang: 87 x 148mm

FIXING CENTRES:
1 gang: 60.3mm
2 gang: 120.6mm

BS 5733: 2010

44mm SURFACE



2031WHI 10
FOR 1 GANG
POWER ACCESSORIES

Knockouts in base and sides for cable entry.

DIMENSIONS:
87 x 87mm

FIXING CENTRES:
60.3mm

BS 5733: 2010

DRY LINING 35mm FLUSH



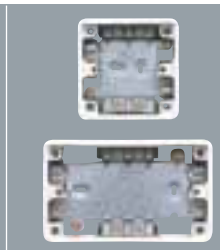
QFB/IG1 20
1 GANG WITH
INTUMESCENT GASKET

QFB/IG2 10
2 GANG WITH
INTUMESCENT GASKET

QFB/IG1 & **QFB/IG2**
Pre-fitted with intumescent gaskets to give fire protection, in accordance with BS 476 Pt.22: 1987. In a fire situation, a chemical reaction will occur with the intumescent material. The void behind the wiring device will be filled, providing protection against the passage of fire.

BS4662: 2006

MI CABLE BOXES 37mm SURFACE



K2131WHI 5
1 GANG
10 CLAMPS

K2132WHI 5
2 GANG
12 CLAMPS

Clamps accept 20mm sealing pots.

DIMENSIONS:
1 gang: 92 x 92mm
2 gang: 92 x 152mm

FIXING CENTRES:
1 gang: 60.3mm
2 gang: 120.6mm

BS 5733: 2010

DUAL BOX 38mm SURFACE



K2025WHI 5
FOR MOUNTING
TWO X 1 GANG
LOGIC PLUS™
ACCESSORIES

This box has two slots in base with 60.3mm and 120.6 fixing centres for fitting over BS 4226 flush boxes. Knockouts provided for cable entry.

Includes integral dividing fillet.

DIMENSIONS: 86 x 172 mm

BS 5733: 2010

40mm SURFACE



K2031WHI 10
FOR 1 GANG
LOGIC PLUS™
POWER ACCESSORIES

K2172WHI 5
FOR 2 GANG
LOGIC PLUS™ 45 AMP
DP SWITCHES

Knockouts provided in sides and base.

K2172: Earth terminal fitted in base of box.

DIMENSIONS:
K2031: 87 x 87mm
K2172: 87 x 148mm

FIXING CENTRES:
K2031: 60.3mm
K2172: 120.6mm

BS 5733: 2010

FLANGE BOXES 45mm FLUSH



K2061WHI 5
1 GANG

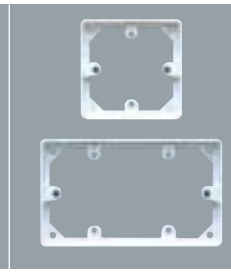
K2062WHI 5
2 GANG

DIMENSIONS:
K2061: 88 x 88mm
K2062: 88 x 148mm

FIXING CENTRES:
K2061: 60.3mm
K2062: 120.6mm

BS 5733: 2010

Mounting Frames For Trunking



K2134WHI 10
1 GANG 20MM DEEP
FOR LOGIC PLUS™
ACCESSORIES

K2133WHI 10
2 GANG 20MM DEEP
FOR LOGIC PLUS™
ACCESSORIES

FIXING CENTRES:
1 gang: 60.3mm
2 gang: 120.6mm

BS 5733: 2010

LOGIC PLUS™ ACCESSORIES/BOX COMPATIBILITY CHART

SURFACE MOUNTING

Moulded	Depth: (mm) 16 Moulded	30 Moulded	32* PVC	38 Moulded	40 Moulded	41 Steel	41* Steel	48* Steel	55
1 gang Sockets (13A)		K2140	K2181	K2025	K2031	K2211ALM	K2213ALM		
2 gang Sockets		K2142	K2183		K2172	K2212ALM	K2214ALM	K5400	
3 gang Sockets		K2153	K2185						
RCD Sockets					K2172	K2212ALM	K2214ALM	K5400	
Filtered Sockets					K2172	K2212ALM	K2214ALM	K5400	
Connection Units		K2140	K2181	K2025	K2031	K2211ALM	K2213ALM		
20A DP Switches		K2140	K2181	K2025	K2031	K2211ALM	K2213ALM		
K5105 32A DP Switch		K2140	K2181	K2025	K2031	K2211ALM	K2213ALM		
K5205, K5215 (CK & SH)					K2172	K2212ALM	K2214ALM		
K5230								K5400	
K5060, K5061					K2212	K2214ALM		K5400	
K5040, K5041				▬					
K5001									▬
K700		K2140	K2181	K2025		K2211ALM	K2213ALM		
K701					K2172				
1, 2 & 3 gang Switches	K2160	K2140	K2181	K2025	K2031	K2211ALM	K2213ALM		
4 & 6 gang Switches	K2161	K2142	K2183		K2172	K2212ALM	K2214ALM	K5400	
1 gang Architrave Switch	K2151								
2 gang Architrave Switch	K2152								
Dimmers using Pattress									
K1501, K1511, K1531, K1532	K2160								
K1521, K1534, K1533, K1535	K2160								
Dimmers not using Pattress									
K1501, K1511, K1531, K1532		K2140	K2181	K2025	K2031				
K1521, K1534, K1533, K1535		K2140	K2181	K2025		K2211ALM	K2213ALM		
K191 & K192		K2140 ■	K2181	K2025		K2211ALM	K2213ALM		
K193 & K194		K2142 ■	K2183			K2212ALM	K2214ALM	K5400	
Data/Telecom Plates	K2160	K2140	K2181	K2025		K2211ALM	K2213ALM		

FLUSH MOUNTING

(Steel & Dry lining)

	Depth: (mm) 16	25*	27*	35*	45	47*	55
1 gang Sockets (13A)		861ZIC		QFB/IG1	K2061	877ZIC	
2 gang Sockets		862ZIC		QFB/IG2	K2062	878ZIC	
3 gang Sockets		K863					
RCD Sockets				886ZIC	K2062	878ZIC	
Filtered Sockets				886ZIC	K2062	878ZIC	
Connection Units				866ZIC	K2061	877ZIC	
20A DP Switches				866ZIC	K2061	877ZIC	
K5105 32ADP Switch				866ZIC		877ZIC	
K5205, K5215 (CK & SH)				886ZIC	K2062	878ZIC	
K5012							K5120ALM
K5045					K2061	877ZIC	
K5060, K5061				886ZIC	K2061	878ZIC	
K5011							K5120ALM
K700		861ZIC		866ZIC	K2061	877ZIC	
K701						878ZIC	
1, 2 & 3 gang Switches		861ZIC		866ZIC	K2061	877ZIC	
4 & 6 gang Switches		862ZIC		886ZIC	K2062		
1 gang Architrave Switch			3921ZIC				
Dimmers using Pattress							
K1501, K1511, K1531, K1532							
K1521, K1534, K1533, K1535						878ZIC	
Dimmers not using Pattress							
K1501, K1511, K1531, K1532		861ZIC		866ZIC	K2061	877ZIC	
K1521, K1534, K1533, K1535		861ZIC			K2062	877ZIC	
K191 & K192		861ZIC ■		866ZIC ■	K2061	877ZIC ■	
K193 & K194		862ZIC ■		886ZIC ■	K2062	878ZIC ■	
Data/Telecom Plates		861ZIC		866ZIC	K2061	877ZIC	

▬ Box supplied with accessory ■ Dependent upon modules used * With conduit entry knockouts

NOTE: The size of the cable and nature of installation should be taken into consideration when choosing box depth.

Switchsocket Outlets

MINI LOGIC
13 AMP
SURFACE



2959WHI



2949WHI

2959WHI 10
1 GANG SP

2949WHI 5
2 GANG SP

These products are supplied with a mounting box.

Mounting boxes have knockouts for cables.

DIMENSIONS:
1 gang: 74 x 64 x 46mm
2 gang: 133 x 64 x 46mm

BS 1363 Pt.2:1995

Socket Outlets For Circular Conduit Boxes

ROUND PIN



312WHI



315WHI

312WHI* 10
1 GANG
2A
UNSHUTTERED

315WHI 10
1 GANG
5A
SHUTTERED

These products are designed for use with circular conduit boxes to BS 4568: Pt.2:1970. See page 368. *The IEE Wiring Regulations does not recommend the use of unshuttered sockets in household situations

DIAMETER:
68mm

FIXING CENTRES:
50.8mm

BS 546:1950

Switchsocket Outlets

13 AMP
PANEL MOUNTING



2531WHI



2532WHI

2531WHI 5
1 GANG SP
SWITCHSOCKET

2532WHI 5
2 GANG SP
SWITCHSOCKET

Supplied with M3.5 threaded eyelets and fixing screws.

These products have side entry terminals.

BS 1363 Pt.2:1995

Socket Outlets

13 AMP
PANEL MOUNTING



734WHI



735WHI



1232D1

734WHI 10
1 GANG
CRUCIFORM SOCKET

735WHI 10
1 GANG
CIRCULAR SOCKET

1232D1 10
1 GANG
NON STANDARD

Supplied with M3.5 threaded eyelets and fixing screws.

734 and **735** have side entry terminals.

They are also available with rear entry terminals. Use suffix D5WHI when ordering.

1232D1 has rear entry terminals and is provided with facilities for 'clean earth' connection and are suitable for non-standard plugs with 'T' shaped earth pin.

734, 735
BS 1363 Pt.2:1995

1232D1
BS 1363 Pt.2:1995 where relevant.

DP Switch

TWIN
25 AMP
MOULDED
FLUSH



5257WHI



5243BRO



5246BRO

5257WHI 5
TWIN DP SWITCH

5243BRO 5
MOULDED PHASE BARRIER
FOR SURFACE APPLICATIONS

5246BRO 5
MOULDED PHASE BARRIER
FOR FLUSH APPLICATIONS

MOUNTING BOXES

FLUSH: 886ZIC

SURFACE: 2182WHI

Suitable for installation in boxes to a minimum depth of 35mm. Complete with earth terminals and thermostat looping terminal

DIMENSIONS: 86 x 146mm

FIXING CENTRES: 120.6mm

DIAMETER OF FLEX OUTLETS:
11mm for 'FAN'
13mm for 'HEATER'

BS EN 60669-1: 1999

MOULDED PHASE BARRIERS
Self-adhesive labels are supplied for application to interior and exterior of switch to indicate when voltage exceeds 250 volts.

Triple Pole & Neutral Switches

32 AMP
METAL

FLUSH



5114WHI

5114WHI 1
FLUSH MOUNTED
WITH NEON

SURFACE



5115WHI

5115WHI 1
SURFACE MOUNTED
WITH NEON



5116WHI

5116WHI 1
SURFACE MOUNTED
WITH NEON

MOUNTING BOX
FLUSH: 5268ALM

These products have a utilisation category of AC22 – rated operational current (Ie),32A – rated operational voltage (Ue), 440V. They are suitable for switching mixed resistive and inductive loads including moderate overloads.

5114 is also available in Albany Plus finishes (page 163).

All switches may be locked in the 'ON' or 'OFF' position with the use of the MK Padlock 8000.

5116 is available in Metalclad Plus version (page 214).

TERMINAL CAPACITY:
16mm² conductors. On surface mounted versions the earth terminal is fitted on base of box.

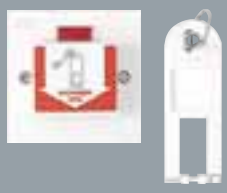
DIMENSIONS:
5114: 203 x 140mm
5115: 182 x 118 x 82mm
5116: 137 x 76 x 53mm

KNOCKOUTS:
5115: 5 x 25mm. Two top and bottom, one in back
5116: 6 x 20mm. Wiring space limits recommended cable size to 6mm².

BS EN 60947-3:1999

Energy Saving Switch

FLUSH



4724WHI

4724WHI 10
20A DP SWITCH
WITH KEYTAG



4700WHI

4700WHI 10
SPARE KEYTAG

MOUNTING BOXES:
FLUSH:866ZIC
SURFACE:2160WHI

The MK Energy Saving Switch provides a simple and effective way of reducing electricity consumption while increasing safety in buildings where appliances may be left on in unoccupied rooms.
By removing the keytag the power is switched off eliminating the need to switch off each individual light or appliance. A neon locator light on the switch unit makes it easy to locate when entering darkened rooms.

DIMENSIONS: 86 x 86mm

FIXING CENTRES: 60.3mm

BS EN 60669-1:1999

Time Delay Switch

FLUSH



1610WHI

1610WHI 1
LAMP LOAD
400 WATTS MAX.
60 WATTS MIN.
AT 240V 50Hz

MOUNTING BOXES:
FLUSH:3995ZIC-16mm deep min
SURFACE: 2140WHI-30mm deep

Adjustable 2-15 minutes. Fused at 3 amps. Multi-way. Built in neon locator.

Not suitable for fluorescent lamps or low voltage lighting systems.

DIMENSIONS:
86 x 86mm

FIXING CENTRES:
60.3mm

Clock Connectors

FUSED



993WHI

993WHI 10
SURFACE MOUNTING
suitable for installation in small circular conduit boxes to BS 4568 Pt.2:1970.



995WHI

995WHI 10
FLUSH MOUNTING



997WHI

997WHI 10
SURFACE MOUNTING

Fitted with 2 amp fuse-link to BS 1362. Terminals will accommodate 2.5mm² conductors.

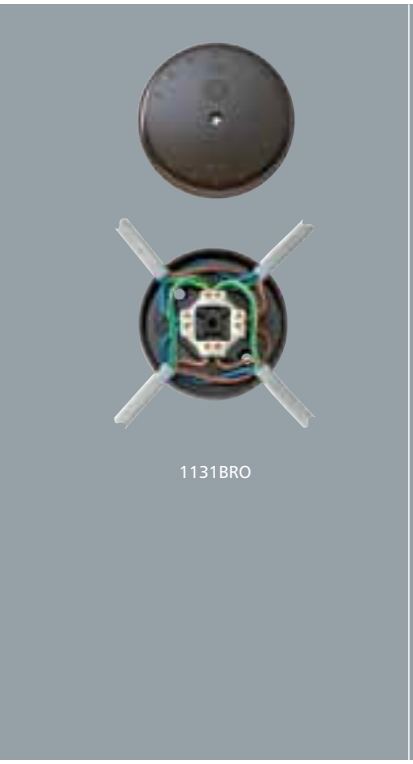
993WHI See page 206 for Replacement Fuse Link and Replacement Fuse Carrier 6084SL

995WHI includes earthing facilities and is suitable for mounting in BS 4662 boxes. The removable fuse carrier is fully recessed and total projection of the plate is only 4.2mm. A knockout on the underside is provided so an M3.5 screw or hook engages with a tapped lug on the box (for hanging a wall clock).

DIMENSIONS:
993WHI: 67mm diameter
995WHI: 86 x 86mm
997WHI: 65 x 65 x 32mm

FIXING CENTRES:
993WHI: 50.8mm
995WHI: 60.3mm

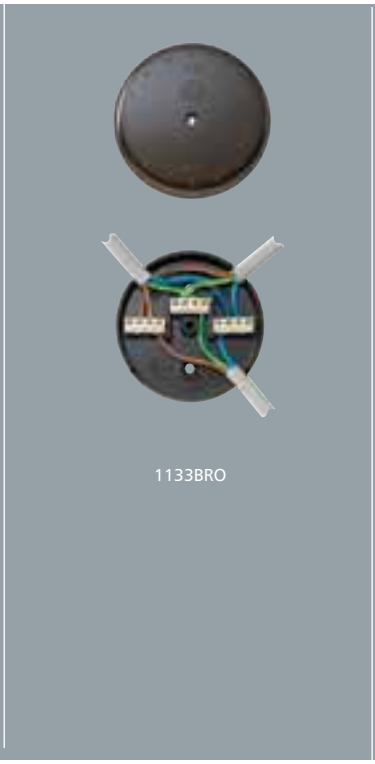
Junction Boxes



1131BRO



1132BRO



1133BRO



1130WHI

1131BRO 10
4 TERMINAL BLOCKS
10A

DIMENSIONS:
Overall Diameter: 81.5mm
Depth with cover: 22.5mm

TERMINAL CAPACITY:
1131: 6 x 1.5mm² conductors
1132: 4 x 4mm² conductors

BS EN 60670-22 (where applicable)

1132BRO 10
3 TERMINAL BLOCKS
30A

DIMENSIONS:
Overall Diameter: 81.5mm
Depth with cover: 22.5mm

TERMINAL CAPACITY:
1131: 6 x 1.5mm² conductors
1132: 4 x 4mm² conductors

BS EN 60670-22 (where applicable)

1133BRO 10
3 TERMINAL BLOCKS
30A

DIMENSIONS:
Overall Diameter: 95mm
Depth with cover: 25mm

TERMINAL CAPACITY:
Each terminal block accepts
up to 4 x 6mm² conductors

BS EN 60670-22 (where applicable)

1130WHI 10
3 TERMINAL
30A

Particularly suitable for taking spurs off un-cut ring circuit conductors.

DIMENSIONS:
86 x 64 x 31mm

TERMINAL CAPACITY:
Each terminal accepts
3 x 4mm² conductors.

CABLE ENTRIES:
Two opposite 'through' entries
are 'open'.

Eight further knockouts
are provided.

BS EN 60670-22 (where applicable)

Terminal Blocks

Service Connector Boxes

Accessories For Boxes

Neon Lamp Assemblies



913BRO



914BRO



1100BLK



1101BLK



3714 3715



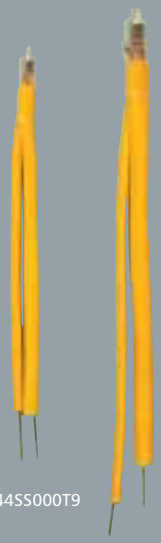
3710



800ZIC



3840ZIC



5144SS000T9 17270SS

913BRO 5
3 WAY

914BRO 5
4 WAY

TERMINAL CAPACITY

913: Each terminal accepts up to 3 x 2.5mm² (solid conductors) or 3 x 4mm² (stranded conductors).

914: Each terminal accepts up to 4 x 1.5mm² conductors.

FIXING CENTRES:
60.3mm for mounting on 'spare' lugs of 4 or 6 lug BS 4662 boxes.

1100BLK 10
5 WAY DOUBLE POLE
100A

1101BLK 10
5 WAY SINGLE POLE
100A

TERMINAL CAPACITY

All 25m²

Where it is necessary to take the outer sheath of a double insulated cable into the box, the cable sizes are restricted to 16mm².

DIMENSIONS (OVERALL)
1100 BLK 65 x 89 x 60mm
1101 BLK 47 x 64 x 41mm

BS 7657: 2010

3714 100
BRASS EARTH
TERMINAL WITH BRACKET

3715 100
BRASS EARTH
TERMINAL
SCREW FIX ANGLED

3709 100
BRASS EARTH
TERMINAL
SCREW FIX STRAIGHT

K3716 100
BRASS EARTH
TERMINAL

3710 100
EXTENSION STUD.
M3.5
Zinc-plated steel.
Overall length 34mm

800ZIC 20
BOX FIXING FLANGE
Use two to mount any flush MK box in a dry-partition wall

3840ZIC 10
CONVERSION BRACKET
Complete with earth terminal.
Converts 25mm deep flush switch boxes with 42mm fixing centres to accommodate plateswitches with 60.3mm fixing centres

5144SS000T9 1
LAMP LEAD AND RESISTOR ASSEMBLY
For Ceiling Switch blocks and 32A DP switches

17270SS 10
LAMP LEAD AND RESISTOR ASSEMBLY
Tag ended neon for use with 45, 50A switches and cooker units

7179PS 10
MALE CONNECTOR
For Switchsockets

Fuse-Links

BS 646:1958
250V 50-60 Hz



K600



K630



K602

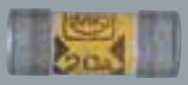


K601

BS 1361:1971
250 V. 50-60Hz



K606



K603



K605



K604

BS 1362:1973
250V 50-60Hz



K610



K612



K609



K608



K607

K600 10
5A RED

K630 10
3A BLACK

K602 10
2A YELLOW

K601 10
1A GREEN

DIMENSIONS:

Overall length
19.1mm +0.8mm -0.4mm

End-cap diameter
5.3mm +0.1mm -0.1mm

End-cap length
4.0mm +0.8mm -0.8mm

K606 10
30A RED

K603 10
20A YELLOW

K605 10
15A BLUE

K604 10
5A WHITE

K606
Overall length
29.0mm +0.4mm -0.4mm
End-cap diameter
12.7mm +0.1mm -0.1mm
End-cap length
8.0mm +0.5mm -0.5mm

K604
Overall length
23.0mm +0.0mm -0.8mm
End-cap diameter
6.35mm +0.1mm -0.1mm
End-cap length
4.8mm +0.5mm -0.5mm

K603, K605
Overall length
26.0mm +0.2mm -0.6mm
End-cap diameter 10.32mm
+0.1mm-0.1mm
End cap length
6.4mm +0.5mm -0.5mm

K610 10
13A BROWN*

K612 10
3A RED*

K609 10
10A BLACK #

K608 10
5A BLACK#

K607 10
2A BLACK#

*These ratings are for use with plugs complying with BS 1363, fused connections units and similar accessories.

#These ratings are for use with fused connection units and similar accessories.

DIMENSIONS:

Overall length
25.4mm +0.8mm -0.4mm

End-cap diameter
6.3mm +0.2mm -0.5mm

End-cap length
5.5mm +0.8mm -0.8mm

Additional Screws

1015MBRS* 100
SCREW 5BA 10mm

1015MNIP* 100
SCREW 5BA 10mm

1045ABRS* 100
SCREW 5BA 18mm TAMPERPROOF

1045ANIP* 100
SCREW 5BA 18mm TAMPERPROOF

11130NIPMA* 100
SCREW M3.0 12mm

11135NIPMA* 100
SCREW M3.5 14mm

11135NIPMB 100
SCREW M3.5 22mm

11135NIPMC 100
SCREW M3.5 24mm

11135BRSME 100
SCREW M3.5 32mm

11135NIPME 100
SCREW M3.5 32mm

11135BRSMF 100
SCREW M3.5 40mm

11135NIPMF 100
SCREW M3.5 40mm

11135BRSMG 100
SCREW M3.5 48mm

11135NIPMG 100
SCREW M3.5 48mm

11135BRSMK 100
SCREW M3.5 29mm

11135NIPMK 100
SCREW M3.5 29mm

11135NIPMN 100
SCREW M3.5 25mm

11140NIPMA 100
SCREW M4.0 20mm

11430BRSMA* 100
SCREW M3.0 12mm TAMPERPROOF

11430NIPMA* 100
SCREW M3.0 12mm TAMPERPROOF

11435BRSME 100
SCREW M3.5 35mm TAMPERPROOF

11435NIPME 100
SCREW M3.5 35mm TAMPERPROOF

11435NIPMJ 100
SCREW M3.5 29mm TAMPERPROOF

645NIP 100
SECRET SCREW
for use with 646, 655 & 647

644ZIC 10
KEY FOR 645NIP

3400ZIC 10
TAMPERPROOF KEY

BRS finish for use with SAG accessories.

NIP finish for use with BRC, ALM, PCR and WHI accessories.

Tamperproof screws include one key per pack.

*For use with old Grid System
** For use with Grid Plus

Additional Edge and Aspect Screws

48370SSPBZT9 100
SCREW M3.0 12mm (2 SCREWS/PKT)

48370SSPBRT9 100
SCREW M3.0 12mm (2 SCREWS/PKT)

48370SSBLKT9 100
SCREW M3.0 12mm (2 SCREWS/PKT)

48370SSNIPT9 100
SCREW M3.0 12mm (2 SCREWS/PKT)

48370SSWHIT9 100
SCREW M3.0 12mm (2 SCREWS/PKT)

48370SSPBRT9 100
SCREW M3.0 12mm (2 SCREWS/PKT)

48370SSPBZT9 100
SCREW M3.0 12mm (2 SCREWS/PKT)

43066SSNIPT9 100
SCREW M3.5 22mm (2 SCREWS/PKT)

43066SSPBRT9 100
SCREW M3.5 22mm (2 SCREWS/PKT)

43066SSWHIT9 100
SCREW M3.5 22mm (2 SCREWS/PKT)

43066SSBLKT9 100
SCREW M3.5 22mm (2 SCREWS/PKT)

43066SSPBZT9 100
SCREW M3.5 22mm (2 SCREWS/PKT)

43352SSNIPT9 100
SCREW M3.5 28mm (2 SCREWS/PKT)

43352SSPBRT9 100
SCREW M3.5 28mm (2 SCREWS/PKT)

43352SSWHIT9 100
SCREW M3.5 28mm (2 SCREWS/PKT)

43352SSBLKT9 100
SCREW M3.5 28mm (2 SCREWS/PKT)

43352SSPBZT9 100
SCREW M3.5 28mm (2 SCREWS/PKT)

Replacement Components

3405ZIC 10
DUAL USE KEY FOR TAMPER PROOF KEY SWITCH AND SECRET SCREW CONNECTION UNITS

6084SLWHI 1
FUSE CARRIERS
for all Clock Connectors supplied with fuse



MEIGAN clean earth facility 2 gang socket outlet, engraved "Medical Equipment Only"

Available on a worldwide basis, the MK Design Service is supported by a dedicated team to ensure the seamless delivery of your chosen products.
To find out more visit **www.mkelectric.co.uk**

Metalclad Plus™



range introduction

All MK products are made to stand up to the wear and tear of everyday use, but in some areas you need them to be even tougher. That's why the Metalclad Plus™ range of surface mounted accessories is ideal for factories, workshops, garages and sheds. Made from heavy gauge steel they're tough and impact resistant and they look good too. There is a wide selection of surface mounted products in the range including switchsockets with outboard rockers and light switches with wide rockers, both very useful when wearing gloves. An RCD protected socket is also available which is essential when operating power tools.

Echo™ is an innovative range of entirely wireless, batteryless and self powered switches, only available from MK Electric and in finishes to complement the Metalclad Plus range. Please see page 31 for details.

features and benefits

Tough and impact resistant

Metalclad Plus™ is ideal for factories, workshops, garages and sheds. White Metalclad is suitable for Schools and Sports Halls.

Comprehensive range

Suits all your needs where hard wearing performance is required.

Frontplates have smoothly chamfered edges

Fits flush with the backbox providing a neat finish.

Total safety

3-pin operated "child resistant shutter system", which is designed to inhibit access to the electricity supply, unless all 3 pins of a standard British 13 Amp plug are in position.

METALLIC POWDER PAINT
Finish is corrosion and scratch resistant

HIGHLY IMPACT RESISTANT

SPECIFICALLY DESIGNED BACK BOXES
Ensure neat and exact fit



DOUBLE POLE SWITCHING

BOXES AVAILABLE WITH OR WITHOUT KNOCKOUTS

3-PIN "CHILD RESISTANT SHUTTER SYSTEM"
Designed to inhibit access to the electricity supply, unless all 3 pins of a standard British 13A plug are in position

STYLISH CURVED DESIGN

Terminal screws are backed out and captive Terminals are upwards facing to make installation easier.

Funnel entrance to terminals enables positive cable connection.



Outboard rocker sockets are ideal for gloved hands.



Clear terminal markings for easy identification.



Switchsocket Outlets

13 AMP SURFACE


K2977ALM


K2977D6ALM


K2946ALM


K2946D6ALM

K2977ALM 5
1 GANG DP WITH DUAL EARTH TERMINALS

K2977D5ALM 1
1 GANG DP WITH DUAL EARTH TERMINALS WITHOUT BOX

K2977D6ALM 1
1 GANG DP WITH RED ROCKER AND DUAL EARTH TERMINALS

K2946ALM 5
2 GANG DP

K2946D5ALM 1
2 GANG DP WITHOUT BOX

K2946D6ALM 1
2 GANG DP WITH RED ROCKERS

Earth terminal fitted in boxes.
DIMENSIONS:
1 gang: 86 x 86 x 51mm
2 gang: 86 x 146 x 51mm
TERMINAL CAPACITY:
2 x 6 mm² stranded (max)
KNOCKOUTS: 1 gang: 6 x 20mm. Two in one side and one in each of the other three sides. One in base
2 gang: 8 x 20mm. Three in top two in bottom sides and one in each end. One in base
SPARE BOXES:
1 gang: K829ALM* K899ALM
2 gang: K830ALM* K897ALM
(*without side knockouts)
All boxes have a base knockout.
Boxes: BS 5733: 2010
Socket: BS 1363 Pt.2: 1995


K3077WHI


K3046WHI

K3077WHI 10
1 GANG DP WITHOUT BOX

K3046WHI 5
2 GANG DP WITHOUT BOX

High integrity earthing
One gang switchsockets, two gang outboard switchsockets and two gang unswitched sockets are fitted with two earth terminals to provide a double earth facility for use when installations require a high integrity protective connection as specified within BS 7671: 2008.

Double pole switching
All switchsockets have double pole switching (neutral makes first, breaks last).

WITH OUTBOARD ROCKERS 13 AMP SURFACE


K2945ALM


K2945D6ALM


K3045WHI

K2945ALM 5
2 GANG DP WITH OUTBOARD ROCKERS AND DUAL EARTH TERMINALS

K2945D5ALM 1
2 GANG DP WITH OUTBOARD ROCKERS AND DUAL EARTH TERMINALS WITHOUT BOX

K2945D6ALM 1
2 GANG DP WITH RED OUTBOARD ROCKERS AND DUAL EARTH TERMINALS

K3045WHI 5
2 GANG DP WITHOUT BOX WITH OUTBOARD ROCKERS AND DUAL EARTH TERMINALS

WITH NEONS 13 AMP SURFACE


K2477ALM


K2477D6ALM


K2446ALM


K2446D6ALM

K2477ALM 5
1 GANG DP WITH NEON AND DUAL EARTH TERMINALS

K2477D6ALM 1
1 GANG DP WITH NEON, RED ROCKER AND DUAL EARTH TERMINALS

K2446ALM 5
2 GANG DP WITH NEONS

K2446D6ALM 1
2 GANG DP WITH NEONS AND RED ROCKERS

13 AMP SOCKET 20 AMP SWITCH KEY OPERATED


K2435ALM


K5252ALM

K2435ALM 5
DP KEY OPERATED SOCKET

K5252ALM 5
20AX DP KEY OPERATED SWITCH

Earth terminal fitted in boxes.
DIMENSIONS:
1 gang: 86 x 86 x 51mm
2 gang: 86 x 146 x 51mm
TERMINAL CAPACITY:
1 x 6 mm² stranded (max)
KNOCKOUTS:
1 gang: 6 x 20mm.
Two in one side and one in each of the other three sides. One in base
2 gang: 8 x 20mm.
Three in top two in bottom sides and one in each end. One in base
SPARE BOXES:
1 gang: K829ALM* K899ALM
2 gang: K830ALM* K897ALM
(*without side knockouts) All boxes have a base knockout.
Boxes: BS 5733: 2010
Socket: BS 1363 Pt.2: 1995
Switch: BS EN 60669-1: 1999

ALL UNITS ARE SUPPLIED WITH BACKBOXES (EXCEPT WHI AND D5 PRODUCTS)

Socket Outlets

RCD PROTECTED 13 AMP SURFACE


K6102ALM


K6302ALM


K6211ALM


K6231ALM

K6102ALM 1
1 GANG
10mA ACTIVE CIRCUIT

K6302ALM 1
1 GANG
30mA ACTIVE CIRCUIT

K6305ALM 1
1 GANG
30mA PASSIVE CIRCUIT

K6211ALM 1
2 GANG
10mA ACTIVE CIRCUIT

K6231ALM 1
2 GANG
30mA ACTIVE CIRCUIT

K6233ALM 1
2 GANG
30mA PASSIVE CIRCUIT

It is important to ensure that the correct control circuit, active or passive, is selected for each application. See page 292 for definition.

Only suitable for supply voltage of 240V a.c., 50Hz.

DIMENSIONS: 86 x 147 x 54mm

KNOCKOUTS: 8 x 20mm.
Three in top side, two in bottom side, one in base and one in each end.

SPARE BOX
K897ALM

BS 7288: 1990

ROUND PIN 13 AMP SURFACE


K2871ALM


K2873ALM

K2871ALM 5
1 GANG
5A DP
SHUTTERED

K2873ALM 5
1 GANG
15A DP
SHUTTERED

Earth terminal fitted in boxes.

DIMENSIONS:
86 x 86 x 51mm

TERMINAL CAPACITY:
5 amp:
2 x 6mm² stranded (max)
15 amp
2 x 6mm² stranded (max)

KNOCKOUTS:
6 x 20mm.
Two in one side and one in each of other three sides. One in Base

Spare Boxes with and without knockouts are available.

All boxes have a base knockout.

BS 546: 1950

NON STANDARD 13 AMP SURFACE


K1247ALM


K1247D6ALM


K1248ALM


K1248D6ALM

K1247ALM 5
1 GANG DP WITH
CLEAN EARTH FACILITY

K1247D6ALM 1
1 GANG DP
WITH RED ROCKER AND
CLEAN EARTH FACILITY

K1248ALM 5
2 GANG DP WITH
CLEAN EARTH FACILITY

K1248D6ALM 1
2 GANG DP
WITH RED ROCKERS AND
CLEAN EARTH FACILITY

These products are provided with facilities for 'clean earth' connection and are suitable for non standard plugs with 'T' shaped earth pin.

Earth terminal fitted in boxes.

DIMENSIONS:
1 gang: 86 x 86 x 51mm
2 gang: 86 x 146 x 51mm

TERMINAL CAPACITY:
2 x 6mm² stranded (max)

KNOCKOUTS:
1 gang 6 x 20mm.
Two in one side and one in each of other three sides. One in base
2 gang 8 x 20mm.
Three in top, two in bottom sides and one in each end. One in base

Spare Boxes with and without knockouts are available.

All boxes have a base knockout

BS 1363 Pt.2: 1995 where relevant

13 AMP SURFACE


K848ALM


K850ALM

K848ALM 5
1 GANG

K850ALM 5
2 GANG
WITH DUAL EARTH
TERMINALS

K850ALM has two earth terminals providing a double earth facility when installations require a high integrity protective connection as specified within BS 7671: 2008.

DIMENSIONS:
1 gang 86 x 86 x 47mm
2 gang 86 x146 x 47mm

TERMINAL CAPACITY:
2 x 6mm² stranded (max)

KNOCKOUTS: 1 gang 6 x 20mm.
Two in one side and one in each of other three sides. One in base

2 gang 8 x 20mm.
Three in top, two in bottom sides and one in each end. One in base

Spare Boxes with and without knockouts are available.

All boxes have a base knockout

BS 1363 Pt.2: 1995

ROUND PIN SURFACE


K841ALM


K842ALM


K843ALM

K841ALM 5
1 GANG
2A
SHUTTERED

K842ALM 5
1 GANG
5A
SHUTTERED

K843ALM 5
1 GANG
15A
SHUTTERED

Earth terminal fitted in box.

DIMENSIONS:
86 x 86 x 47mm

TERMINAL CAPACITY:
2 amp:
3 x 2.5mm² (max)
5 amp:
2 x 6mm² stranded (max)
15 amp
2 x 6mm² stranded (max)

KNOCKOUTS:
6 x 20mm.
Two in one side and one in each of other three sides. One in base

Spare Boxes with and without knockouts are available.

All boxes have a base knockout.

BS 546: 1950

FEATURES AND BENEFITS



When servicing or repairing appliances fuse carriers on connection units can be padlocked for additional safety



A secret key-operated switch helps prevent unauthorised usage



An optional tamperproof screw on the fuse carrier is particularly useful for appliances in public areas



In-line terminals means that cables can be cut to the same length. White printing gives instant terminal identification



A simple but effective cord grip securely holds the cable in connection units



Backboxes come with or without side knockouts. All boxes have a central knockout in the base for added on-site flexibility

Socket Outlets

15 AMP
127V
SURFACE



K2271ALM



K2272ALM

K2271ALM 5
1 GANG
SHUTTERED
(NON UK)

K2272ALM 5
2 GANG
SHUTTERED
(NON UK)

Earth terminal fitted in box.

DIMENSIONS:
1 gang 86 x 86 x 47mm
2 gang 86 x146 x 47mm

KNOCKOUTS:
1 gang 6 x 20mm.
Two in one side and one in each of other three sides. One in base
2 gang 8 x 20mm.
Three in top, two in bottom sides and one in each end. One in base

Spare Boxes with and without knockouts are available.

All boxes have a base knockout.

SASO 2203: 2003

Connection Units

SWITCHED
FUSED
SURFACE



K963KOALM



K942ALM



K962ALM



K962D6ALM

K963KOALM 1
DP WITH SECRET KEY OPERATED SWITCH, NEON AND TAMPERPROOF FUSE CARRIER SCREW

K942ALM 10
DP SWITCHED

K942D5ALM 1
DP SWITCHED WITHOUT BOX

K942KOALM 1
DP SWITCHED WITH TAMPERPROOF FUSE CARRIER SCREW

K962ALM 10
DP SWITCHED WITH NEON

K962D6ALM 1
DP SWITCHED WITH NEON AND RED ROCKER

All connection units are fitted with a 13A fuse (to BS 1362.)

Earth terminal fitted in base of the box.

DIMENSIONS: 86 x 86 x 47mm

TERMINAL CAPACITY:
2 x 6mm² stranded (max)

KNOCKOUTS: 6 x 20mm.
Two in one side and one in each of other three sides, one in base.

Spare Boxes with and without knockouts are available.
All boxes have a base knockout.

BS 1363 Pt.4: 1995



K3042WHI



K3062WHI

K3042WHI 10
DP SWITCHED
WITHOUT BOX

K3062WHI 10
DP SWITCHED WITH NEON
WITHOUT BOX

Switches

UNSWITCHED
FUSED
SURFACE


K932ALM


K972ALM


K972D6ALM


K3072WHI

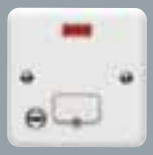

K954ALM


K983ALM


K989ALM


K986ALM


K3054WHI


K3086WHI

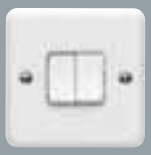
10 AMP
SURFACE


K3591ALM


K3592ALM


K3593ALM


K3091WHI


K3092WHI

K932ALM 10
DP SWITCHED
WITH FLEX OUTLET

K972ALM 10
DP SWITCHED
WITH FLEX OUTLET
AND NEON

K972D6ALM 5
DP SWITCHED
WITH FLEX OUTLET,
NEON AND
RED ROCKER

K3072WHI 10
DP SWITCHED
WITH FLEX OUTLET,
NEON
WITHOUT BOX

K954ALM 10
UNSWITCHED

K954KOALM 1
UNSWITCHED WITH TAMPERPROOF
FUSE CARRIER SCREW

K983ALM 5
UNSWITCHED WITH NEON

K989ALM 5
UNSWITCHED WITH FLEX OUTLET

K989D1ALM 5
UNSWITCHED WITH FLEX OUTLET
AND FITTED WITH 5 AMP FUSE

K986ALM 5
UNSWITCHED WITH FLEX OUTLET
AND NEON

All connection units are fitted with a 13A fuse (to BS 1362.)

Earth terminal fitted in base of the box.

DIMENSIONS:
86 x 86 x 47mm

TERMINAL CAPACITY:
2 x 6mm² stranded (max)

KNOCKOUTS:
6 x 20mm.
Two in one side and one in each of other three sides, one in base.

Spare Boxes with and without knockouts are available.
All boxes have a base knockout.

BS 1363 Pt.4: 1995

K3054WHI 10
UNSWITCHED
WITHOUT BOX

K3086WHI 10
UNSWITCHED WITH
FLEX OUTLET AND NEON
WITHOUT BOX

K3591ALM 5
1 GANG SP
TWO WAY

K3592ALM 5
2 GANG SP
TWO WAY

K3593ALM 5
3 GANG SP
TWO WAY

These switches do NOT have to be derated when used with fluorescent or inductive loads.

An earth terminal is fitted in each box.

DIMENSIONS:
86 x 86 x 47mm

TERMINAL CAPACITY:
1 x 6mm² (max)

KNOCKOUTS:
6 x 20mm.
Two in one side and one in each of other three sides, one in base.

Spare Boxes with and without knockouts are available.

All boxes have a base knockout.

BS EN 60669-1: 1999

K3091WHI 10
1 GANG SP
TWO WAY
WITHOUT BOX

K3092WHI 10
2 GANG SP
TWO WAY
WITHOUT BOX

Switches

10 AMP
WITH WIDE
ROCKERS
SURFACE


K3781ALM


K3782ALM

DP Switches

20 AMP
SURFACE


K5212ALM


K5232ALM


K3012WHI

32 AMP AND
50 AMP
SURFACE


K5240ALM


K5230ALM

Triple Pole

32 AMP AND
10 AMP
SURFACE


K5116ALM


K2857ALM


K4858WHI

Euro Data Frontplates


K181ALM


K182ALM


K184ALM

K3781ALM 5
1 GANG SP
TWO WAY
WITH WIDE ROCKER

K3782ALM 5
2 GANG SP
TWO WAY
WITH WIDE ROCKERS

These switches do NOT have to be derated when used with fluorescent or inductive loads.

An earth terminal is fitted in each box.

DIMENSIONS:
86 x 86 x 47mm

TERMINAL CAPACITY:
1 x 6mm² (max)

KNOCKOUTS:
6 x 20mm.
Two in one side and one in each of other three sides, one in base.

Spare Boxes with and without knockouts are available.

All boxes have a base knockout.

BS EN 60669-1: 1999

K5212ALM 5
DP SWITCH

K5232ALM 5
DP SWITCH
WITH NEON

K5242ALM 5
DP SWITCH
WITH FLEX OUTLET
AND NEON

K3012WHI 10
DP SWITCH
WITHOUT BOX

Earth terminal fitted in base of box.

DIMENSIONS:
86 x 86 x 47mm

TERMINAL CAPACITY:
1 x 6mm² (max)

KNOCKOUTS:
6 x 20mm.
Two in one side and one in each of other three sides, one in base.

Spare Boxes with and without knockouts are available.

All boxes have a base knockout.

BS EN 60669-1: 1999

DP Switches are not recommended for switching large banks of PCs

ALL UNITS ARE SUPPLIED WITH BACKBOXES (EXCEPT WHI AND D5 PRODUCTS)

K5240ALM 1
32A DP SWITCH
WITH NEON

K5230ALM 1
50A DP SWITCH
WITH NEON

Earth terminal fitted in base of box.

DIMENSIONS:
K5240: 86 x 86 x 65mm
K5230: 147 x 86 x 65mm

TERMINAL CAPACITY:
K5240: 1 x 10mm² (max)
K5230: 1 x 10mm² (max)

KNOCKOUTS:
K5240: 6 x 20mm. Two in one side and one in each of other three sides, one in base.
K5230: 4 x 20mm, 4 x 25mm

SPARE BOX:
K5240: K8901ALM
K5230: K8902ALM

All boxes have a base knockout.

BS EN 60669-1: 1999

K5116ALM 1
32A THREE POLE AND N SWITCH
WITH NEON AND
EARTH TERMINAL

K2857ALM 1
10A THREE POLE FAN ISOLATOR
WITH SWITCHLOCK
AND PADLOCK

K2859ALM 1
10A THREE POLE FAN ISOLATOR
WITHOUT SWITCHLOCK

K4858 10
SWITCHLOCK
FOR FAN ISOLATOR

K5116 : 440V max.
AC22, 12kW (16HP) & 415V, 3 phase 32A continuous duty.

Making capacity is 2000A peak

Lockable 'ON' or 'OFF' with MK padlock no K2000

K2857: For local isolation of fans with or without timers for repair or routine.

TERMINAL CAPACITY:
K5116: 1 x 16mm² Conductor
K2857: 1 x 6mm² Conductor

DIMENSIONS: 5116: 147 x 86 x 65
K2857: 86 x 86 x 47

KNOCKOUTS:
K5116: 4 x 20mm², 4 x 25mm²
K2857: 6 x 20mm²

SPARE BOXES: K25116: K8902ALM
K2857: K899ALM, K829ALM

BS EN 60947-3: 1999

K181ALM 10
1 GANG EURO FRONTPLATE
ONE MODULE
APERTURE SIZE 25 X 50MM

K182ALM 5
1 GANG EURO FRONTPLATE
TWO MODULE
APERTURE SIZE 50 X 50MM

K184ALM 5
2 GANG EURO FRONTPLATE
FOUR MODULE
APERTURE SIZE 100 X 50MM

MOUNTING BOXES:
Mounting Box is not supplied with frontplate

Suitable for flush boxes to BS 4662: 2006 and surface boxes to BS 5733: 2010
Refer to appropriate module for minimum box depth.

FIXING CENTRES:
1G; 60.3mm
2G; 120.6mm

STANDARDS
BS 5733: 2010 where applicable

Note: No grid required, modules just clip into place.

Euro Power Modules

Euro Datacom Modules

RJ11/12 | RJ45 CAT 6 | RJ45 CAT 5E

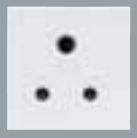

K3182WHI


K3184WHI


K5830WHI


K5831WHI


K5832WHI


K5833WHI


K5834WHI


K5837WHI


K5887WHI


K5887BLK


K5846WHI


K5846sBLK


K5864WHI


K5844WHI


K5845WHI


K5845BLK

K3182WHI 1
1 GANG EURO FRONTPLATE
TWO MODULE
APERTURE SIZE 50 X 50MM

K3184WHI 1
2 GANG EURO FRONTPLATE
FOUR MODULE
APERTURE SIZE 100 X 50MM

Mains operated products and extra low voltage modules must not be installed within the same frontplate. Refer to BS 7671: 2008 for details.

K5830WHI 10
K5830BLK 10
UK 1 GANG EURO 2 MODULE
13A 250V SHUTTERED

K5831WHI 10
K5831BLK 10
GERMAN 2P+E
16A 250V SHUTTERED
EURO 2 MODULE (NON UK)

K5832WHI 10
K5832BLK 10
AMERICAN 2P+E
15A 127V SHUTTERED
EURO 2 MODULE (NON UK)

K5830
MOUNTING BOX: 35mm
46mm (for extra wiring space)
DIMENSIONS: 50 x 50mm
BS 1363: Pt2: 1995

K5831
MOUNTING BOX: 46mm
DIMENSIONS: 50 x 50mm
IEC 60884-1: 2006

K5832
MOUNTING BOX: 35mm
46mm (for extra wiring space)
DIMENSIONS: 50 x 50mm
SASO 2203: 2003

K5833WHI 10
K5833BLK 10
UK 1 GANG EURO 2 MODULE
5A 250V SHUTTERED

K5834WHI 10
K5834BLK 10
FRENCH/BELGIAN 2P+E
16A 250V SHUTTERED
EURO 2 MODULE (NON UK)

K5837WHI 1
K5837BLK 1
USB CHARGING MODULE
EURO 2 MODULE

K5833
MOUNTING BOX: 35mm
46mm (for extra wiring space)
DIMENSIONS: 50 x 50mm
BS 546: 1950

K5834
MOUNTING BOX: 46mm
DIMENSIONS: 50 x 50mm
NF C61-341

K5837
MOUNTING BOX: 35mm
46mm (for extra wiring space)
DIMENSIONS: 50 x 50mm

Features 2 charging sockets each delivering 1A charging current at 5Vdc (total 2A max). Allows charging of portable devices via USB 2.0 type A plug.

IEC 60950-1
IEC 61000-6-1/3

K5887WHI 5
K5887BLK 5
RJ11/12
ONE MODULE 25 X 50MM

Suitable for both RJ11 and RJ12 jacks

RJ11; 4 wire
RJ12; 6 wire

MOUNTING BOXES:
Minimum box depth 25mm

FCC68
EN 41003

K5846WHI 5
K5846BLK 5
RJ45 CAT 6
ONE MODULE 25 X 50MM

K5846sWHI 5
K5846sBLK 5
RJ45 CAT 6 SCREENED
ONE MODULE 25 X 50MM

K5864WHI 5
RJ45 CAT 6 ANGLED
ONE MODULE 25 X 50MM

Cat 6 performance.

Suitable for both 568A and 568B wiring schemes.

MOUNTING BOXES:
Minimum Box Depth 35mm

ISO/IEC 11801
EN 50173
TIA 568
EN 41003

K5844WHI 5
RJ45 CAT 5E ANGLED
ONE MODULE 25 X 50MM

K5845WHI 5
K5845BLK 5
RJ45 CAT 5E
ONE MODULE 25 X 50MM

Enhanced Cat 5 performance. Suitable for both 568A and 568B wiring schemes.

Supplied with cable tie and cable anchors to secure wires in the connectors.

MOUNTING BOXES:
Minimum box depth 25mm standard

ISO/IEC 11801
EN 50173
TIA 568
EN 41003

FOR THE FULL RANGE OF EURO MODULES SEE LOGIC PLUS PAGES 54-57

Euro Datacom Modules

LJU6C Data Frontplates

LJU6C Datacom Modules

TELEPHONE


K5820WHI


K5821WHI


K5821BLK

K5820WHI 5
K5820BLK 5
TELEPHONE MASTER
ONE MODULE 25 X 50MM

K5821WHI 5
K5821BLK 5
TELEPHONE SECONDARY
ONE MODULE 25 X 50MM

MOUNTING BOXES:
Minimum depth 25mm

BS 6312 Pt 2

BNC


K5801WHI

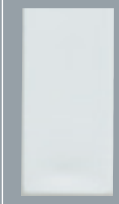
K5801WHI 5
BNC 50Ω
ONE MODULE 25 X 50MM

50 Ohm crimp connector suitable for use with RG58, URM43, URM76 and Beldon 9907 type co-axial cables.

MOUNTING BOXES:
Minimum box depth 25mm

BLANKS


K180WHI


K188WHI


K188BLK


K186WHI


K186BLK

K180WHI 10
TWO MODULE
BLANK 50 X 50MM

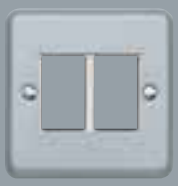
K188WHI 10
K188BLK 10
ONE MODULE
BLANK 25 X 50MM

K186WHI 10
K186BLK 10
HALF MODULE
BLANK 12.5 X 50MM

MOUNTING BOXES:
Minimum depth 16mm

BS 5733: 2010 where applicable

FRONTPLATES


K172ALM

K172ALM 10
1 GANG TWIN
LJU6C FRONTPLATE
TWO MODULE
APERTURE SIZE 22 X 37MM

MOUNTING BOXES:
Suitable for flush boxes to BS 4662: 2006 and surface boxes to BS 5733: 2010

Refer to appropriate module for minimum box depth.

FIXING CENTRES:
1 gang: 60.3mm
2 gang: 120.6mm

BS 5733: 2010 where appropriate

Note: No grid required, modules just clip into place

RJ11/12


K5787WHI

K5787WHI 5
RJ11/12
ONE MODULE

Suitable for both RJ11 and RJ12 jacks.

RJ11: 4 wire
RJ12: 6 wire

MOUNTING BOXES:
Minimum box depth 25mm

FCC68
EN41003

RJ45 CAT 6


K5746WHI


K5746BLK


K5746sWHI


K5746sBLK

K5746WHI 5
K5746BLK 5
RJ45 CAT 6
ONE MODULE

K5746sWHI 5
K5746sBLK 5
RJ45 CAT 6
SCREENED
ONE MODULE

Cat 6 performance.

Suitable for both 568A and 568B wiring schemes.

MOUNTING BOXES:
Minimum Box Depth 35mm

ISO/IEC 11801
EN 50173
TIA 568
EN 41003

FOR THE FULL RANGE OF EURO MODULES SEE LOGIC PLUS PAGES 54-57

MK Modular Data System

RJ45 CAT 5E



K5745WHI



K5745BLK

K5745WHI 5
K5745BLK 5
RJ45 CAT 5E
ONE MODULE

Enhanced Cat 5 performance. Suitable for both 568A and 568B wiring schemes.

MOUNTING BOXES:
Minimum box depth 25mm

ISO/IEC 11801
EN 50173
TIA 568
EN 41003

BLANKS



K170WHI



K170BLK

K170WHI 10
K170BLK 10
ONE MODULE BLANK

MOUNTING BOXES:
Minimum box depth 16mm

BS 5733: 2010 where appropriate

FRONTPLATES



K291ALM



K292ALM



K293ALM



K294ALM

K291ALM 1
1 GANG
ONE MODULE

K292ALM 1
1 GANG
TWO MODULE

K293ALM 1
2 GANG
THREE MODULE

K294ALM 1
2 GANG
FOUR MODULE

BS 5733: 2010 where applicable

BOXES



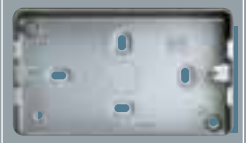
K8891ALM



K8821ALM



K8892ALM



K8822ALM

K8891ALM 10
1 GANG 38mm BOX
6 x 20mm KNOCKOUTS

K8821ALM 10
1 GANG 38mm BOX
WITHOUT KNOCKOUTS

K8901ALM 5
1 GANG 46mm DEEP BOX
6 x 20mm KNOCKOUTS

K8892ALM 5
2 GANG 38mm BOX
8 x 20mm KNOCKOUTS

K8822ALM 5
2 GANG 38mm BOX
WITHOUT KNOCKOUTS

K8902ALM 5
2 GANG 46mm DEEP BOX
4 x 20mm AND 4 x 25mm
KNOCKOUTS

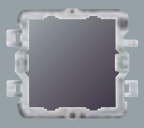
All boxes have a base knockout and feature self-levelling platforms to ensure that the mounting frame is always positioned correctly without the need for adjustment.

BS 5733: 2010 where applicable

MOUNTING FRAMES



K3701



K3702



K3703



K3704

K3701 10
1 GANG
ONE MODULE

K3702 10
1 GANG
TWO MODULE

K3703 10
2 GANG
THREE MODULE

K3704 10
2 GANG
FOUR MODULE

BS 5733: 2010 where applicable

DATA MODULES



K455 WHI



K452WHI



K457WHI



K458WHI



K290WHI

K455WHI 1
RJ45 CATEGORY 5e
DATA SOCKET ONE MODULE

K452WHI 1
TELEPHONE OUTLET
ONE MODULE MASTER

K457WHI 1
TELEPHONE OUTLET
ONE MODULE SECONDARY

K458WHI 1
RJ11 TELEPHONE/DATA
SOCKET ONE MODULE

K290WHI 1
BLANK ONE MODULE

Data/telecom modules are for use with Metalclad Plus frontplates only.

K455 is Category 5e compliant
IEC 11801
BS EN 50173
TIA/EIA 568A
BS 5733: 2010

K452 and K457
are approved under OFTEL approval No. NS/G/23/L/100005 for direct and indirect connections between a termination point of a public telecommunications system and any piece of approved telecommunications apparatus.

BS 6312 Pt.2 where applicable

Spare Boxes



K829ALM



K830ALM



K899ALM



K899WHI



K897ALM



K897WHI

Blank Plates



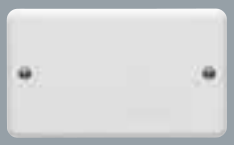
K3390ALM



K3390WHI



K3369ALM



K3369WHI

Grid Plus Frontplates



K3492ALM



K3494ALM



K3502ALM



K3491WHI



K3492WHI



K3493WHI



K3494WHI

K829ALM 5
1 GANG
WITHOUT KNOCKOUTS

K830ALM 5
2 GANG
WITHOUT KNOCKOUTS

K899ALM 10

K899WHI 10
1 GANG
6 X 20mm KNOCKOUTS

All boxes are fitted with a brass earth terminal and a base knockout.

DIMENSIONS:
1 gang: 86 x 86 x 38mm
2 gang: 86 x 147 x 38mm

These boxes are not suitable for mounting Grid Plus modules or modular data/telecom modules.

BS 5733: 2010

K897ALM 5

K897WHI 5
2 GANG
8 X 20mm KNOCKOUTS

K3390ALM 5
K3390WHI 5
1 GANG

K3369ALM 5
K3369WHI 5
2 GANG

DIMENSIONS:
K3390: 86 x 86mm
K3369: 86 x 147mm

FIXING CENTRES:
K3390: 60.3mm
K3369: 120.6mm

BS 5733: 2010

Blank plates supplied without backboxes.

K3491ALM 10
1 MODULE

K3492ALM 10
2 MODULE

K3493ALM 5
3 MODULE

K3494ALM 5
4 MODULE

K3496ALM 1
6 MODULE

K3498ALM 1
8 MODULE

K3499ALM 1
9 MODULE

K3502ALM 1
12 MODULE

K3508ALM 1
18 MODULE

K3514ALM 1
24 MODULE

DIMENSIONS:

1 & 2 module:	86 x 86mm
3 & 4 module:	86 x 146mm
6 & 8 module:	146 x 146mm
9 & 12 module:	146 x 206mm
18 module:	206 x 206mm
24 module:	206 x 266mm

BS 5733: 2010

See Grid Plus page 175 for a complete selection of switching modules.

K3491WHI 10
1 MODULE

K3492WHI 10
2 MODULE

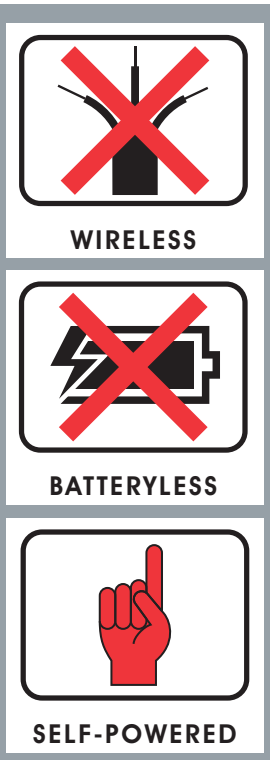
K3493WHI 5
3 MODULE

K3494WHI 5
4 MODULE

Echo™ is an innovative range of entirely wireless, batteryless and self-powered switches, only available from MK Electric.

1 AND 2 CHANNEL TRANSMITTERS FOR Echo™







No wires offers the benefits of almost instant switch installation and total location flexibility, resulting in reduced costs and disruption as well as improved speed and ease of installation – invaluable for areas needing to rearrange space periodically, e.g. commercial offices, or those where the channelling of walls isn't permittable or feasible, such as historic buildings or glass partition walls.

Batteryless

No batteries means low maintenance and low running costs. No need to buy, fit, replace or dispose of batteries, eliminating nuisance and waste for a more sustainable option.

Self-powered

The new Echo™ range works by harvesting tiny amounts of ambient energy which power a switch (Transmitter) to send an RF signal to the Switch Receiver which is connected to the lighting circuit – operating lighting at ranges of up to 30 metres within typical buildings.

For more information on Echo™, please see the Echo™ section page 31

K3786ALM
K3786WHI 1 1
1 CHANNEL SWITCH TRANSMITTER FOR ECHO™

K3787ALM
K3787WHI 1 1
2 CHANNEL SWITCH TRANSMITTER FOR ECHO™

OPERATING FREQUENCY:
868.3 Mhz

IP RATING:
IP2 x D

DIMENSIONS:
86 x 86mm

BS EN 60669-1
BS EN 60669-2-1
ETSI EN 301 489-1 + -3
ETSI EN 300 220-3



range introduction

The Duraplug® range of heavy duty products has become a virtual byword for durability, strength and reliability.

Duraplug® offers a wide range of products including a complete range of safety extension leads featuring rubber covered plugs, extension leads, trailing sockets, lead connectors and cable couplers. All Duraplug® products are made from top quality, high impact resistant materials such as ABS/polycarbonate and rubber.

features and benefits

- **Produced with top quality, high impact resistant materials such as ABS/polycarbonate and rubber**
- **Sockets have visible red nylon shutters**
- **Lead connectors have retaining lugs to prevent accidental disconnection**
- **All internal parts of trailing sockets are retained in the base for ease of wiring**

Heavy Duty Extension Leads

13 AMP

FOUR WAY



EXL135WHI EXL135BLK

EXL135WHI 1
EXL135BLK 1
13A WITH FUSE,
NEON AND 2 METRE CABLE

Fitted with approved PVC insulated cable of appropriate core size for maximum 13A rating and a Duraplug® rubber plug.

The sockets are manufactured in high impact ABS/Polycarbonate.

BS 1363/A: Pt.2:1995

BS 6500:2000 (Table 27) / IEC 227-5

FOUR WAY



EXL136WHI EXL136BLK

EXL136WHI 1
EXL136BLK 1
13A WITH SWITCH,
NEON AND 2 METRE CABLE

Fitted with approved PVC insulated cable of appropriate core size for maximum 13A rating and a Duraplug® rubber plug.

The sockets are manufactured in high impact ABS/Polycarbonate.

BS 1363/A: Pt.2:1995

BS 6500:2000 (Table 27) / IEC 227-5

FOUR WAY



EXL137WHI EXL137BLK

EXL137WHI 1
EXL137BLK 1
13A WITH FUSE,
SWITCH, NEON AND
2 METRE CABLE

Fitted with approved PVC insulated cable of appropriate core size for maximum 13A rating and a Duraplug® rubber plug.

The sockets are manufactured in high impact ABS/Polycarbonate.

BS 1363/A: Pt.2:1995

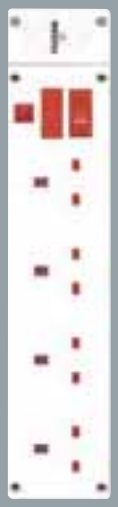
BS 6500:2000 (Table 27) / IEC 227-5

Heavy Duty Portable Socket

13 AMP

FILTERED

FOUR WAY



744WHI

744WHI 1
13A
WITH SWITCH,
NEON AND FUSE

Fitted with a fuse carrier and 13A fuse to BS 1362. Manufactured in high impact ABS/Polycarbonate.

Can also be wall mounted.

DIMENSIONS:
317 x 68 x 31mm

SPECIFICATION:
Max. Power 3.14kW
Response time (Varistor) better than 20ns

BS 1363/A: Pt.2:1995

Heavy Duty Portable Socket

13 AMP

FOUR WAY



FC4134WHI FC4134BLK

FC4134WHI 1
FC4134BLK 1

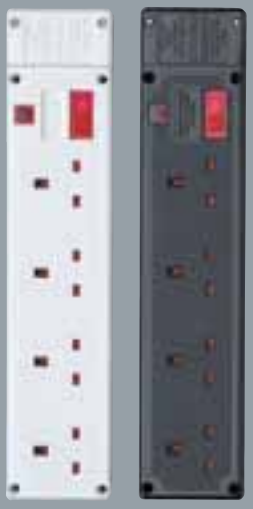
13A
WITH FUSE
AND NEON

Manufactured in high impact ABS/ Polycarbonate incorporating optional wall mounting holes and equal length wire stripping.

DIMENSIONS:
317 x 68 x 31mm

BS 1363/A: Pt.2:1995

FOUR WAY



FC4135WHI FC4135BLK

FC4135WHI 1
FC4135BLK 1

13A
WITH SWITCH
AND NEON

Manufactured in high impact ABS/ Polycarbonate incorporating optional wall mounting holes and equal length wire stripping.

DIMENSIONS:
317 x 68 x 31mm

BS 1363/A: Pt.2:1995

FOUR WAY



FC4136WHI FC4136BLK

FC4136WHI 1
FC4136BLK 1

13A
WITH SWITCH,
FUSE AND NEON

Manufactured in high impact ABS/ Polycarbonate incorporating optional wall mounting holes and equal length wire stripping.

DIMENSIONS:
317 x 68 x 31mm

BS 1363/A: Pt.2:1995

Heavy Duty Trailing Sockets

13 AMP

SINGLE & DOUBLE



FC133WHI



FC133ORG



FC133BLK

FC133WHI 10
FC133BLK 10
FC133ORG 10

13A
SINGLE OUTLET

FC133 and FCT133
Manufactured from tough Polypropylene with rubber cover. All internal component parts are retained in the base for ease of wiring.

BS 1363/A: Pt.2:1995



FCT133WHI



FCT133BLK



FC153BLK

FCT133WHI 10
FCT133BLK 10
FCT133ORG 10

13A
TWIN OUTLET

FC153BLK 10
15A
SINGLE OUTLET
ROUND PIN

FC153
Rubber cover.

BS 546:1950

DIMENSIONS:
FC133: 79 x 62 x 29mm
FCT133: 80 x 125 x 29mm
FC153: 67 x 53 x 33mm

Lead Connectors

Rubber Plugs

Cable Couplers

10 AMP
TWO & THREE PIN

SPARES



LCP102BLK





LCP103BLK



LCP102PBLK



LCP102SBLK



LCP103SBLK



LCP103PBLK



LCP103PWHI



PF133WHI



PF133ORG



P153BLK





CCP53BLK





CCP153BLK

LCP102BLK 10
LCP102ORG 10
TWO PIN 10A
PLUG AND SOCKET

LCP103WHI 10
LCP103BLK 10
THREE PIN 10A
PLUG AND SOCKET

This range of connectors provides a safe and easy method of extending power cables and electrical tools and appliances. With rubber cover and polypropylene inserts with integral cable grips. Retaining lugs prevent accidental disconnection.

Two pin versions are only for use with double insulated Class 2 appliances.

Three pin versions must be used with earthed appliances.

DIMENSIONS:
40 x 25 x 80mm

BS 5733: 2010

Comply with IP44 Ingress Protection rating to BS EN 60529:1992

LCP102PBLK 10
LCP102PORG 10
10A PLUG TWO PIN

LCP102SBLK 10
LCP102SORG 10
10A SOCKET TWO PIN

BS 5733: 2010

Comply with IP44 Ingress Protection rating to BS EN 60529:1992

LCP103PWHI 10
LCP103PBLK 10
10A PLUG THREE PIN

LCP103SWHI 10
LCP103SBLK 10
10A SOCKET THREE PIN

BS 5733: 2010

Comply with IP44 Ingress Protection rating to BS EN 60529:1992

P53BLK 10
5A ROUND PIN

PF133WHI 10
PF133ORG 10
PF133BLK 10
FITTED WITH
13A FUSE

P153BLK 10
15A ROUND PIN

PF133 With rubber cover. Available with alternative fuse ratings to special order only. Approved by ASTA Licence no.470

BS 1363/A Pt.1:1995

P53BLK Manufactured in rubber

P153BLK With rubber cover and ABS/Polycarbonate base.

BS 546:1950

CCP53BLK 1
5A
PLUG & SOCKET

CCP153BLK 1
15A
PLUG & SOCKET

CCP133PBLK 1
SPARE 13A PLUG

These splashproof couplers are a rugged means of connecting cables in industrial and commercial environments. Fitted with heavy duty cable clamps, tapered cable entry and fuse (13A version only).

DIMENSIONS:
Diameter x Length
CCP53: 60 x 173mm
CCP133: 65 x 182mm
CCP153: 68 x 180mm

BS 5733: 2010
(BS 1363 Pin centres for 13A versions)
BS 5733: 2010
(BS 546 Pin centres for 5 and 15A versions)



range introduction

Established range of plugs and adaptors. The established names of Safetyplug™ and Toughplug™ strengthen MK's reputation for high quality products with the accent on safety and quality.

Safetyplugs

Toughplugs

NON STANDARD



646WHI



647CHA



655BLK



646CHA



647WHI



655ORG





647CHA



655D8RED

646WHI 10
646CHA 10
FITTED WITH 13A FUSE

64603WHI 10
FITTED WITH 3A FUSE

645NIP 100
SECRET SCREW FOR SAFETYPLUG AND TOUGHPLUG

644ZIC 10
KEY FOR SECRET SCREW

See page 206 for spare fuse links.

BS 1363 Pt.1: 1995

647WHI 10
647CHA 10
FITTED WITH 13A FUSE

See page 206 for spare fuse links.

For use only with MK non-standard 13A socket outlets.

BS1363 Pt1: 1995 (where relevant)

655WHI 10
FITTED WITH 13A FUSE

65503WHI 10
FITTED WITH 3A FUSE

655BLK 10
655ORG 10
655RED 10
FITTED WITH 13A FUSE

655D8WHI 10
655D8RED 10
MARKED 'HOSPITAL PROPERTY'. FITTED WITH 13A FUSE

See page 206 for spare fuse links.

BS 1363/A Pt.1: 1995

Round Pin Plugs

Plug Adaptors



505WHI



515WHI



641WHI



690WHI



692WHI



696WHI



698PPK

502WHI 10
2A

505WHI 10
5A

515WHI 10
15A
RESILIENT COVER

639WHI 10
2A FUSED

641WHI 10
5A FUSED

643WHI 10
15A
FITTED WITH 5A FUSE

See page 206 for spare fuse links to BS 646.

BS 546: 1950

690WHI 5
13A
WITH 1 X 13A
AND 1 COMBINED 16A UNIVERSAL
AND GERMAN TYPE 2P+E
SOCKET OUTLET
FUSED 13A

BS 1363 Pt.3: 1995

692WHI 5
13A
WITH 3 X 13A SOCKET OUTLETS
FUSED 13A

696WHI 5
13A
WITH 2 X 13A SOCKET OUTLETS
UNFUSED

698PPK 10
13A
WITH 1 X 1A
SHAVER SOCKET OUTLET
FUSED 1A

BS 1363 Pt.3: 1995

MK Electric has always been at the forefront of technical innovation, not least in the IP environment. With three new ranges to choose from, there is a product solution for all your ingress protected installation requirements.

The new Masterseal Plus™ range has been tested to levels well in excess of British Standards. Masterseal Plus™ safeguards users in the harshest of environments, employing a patented gel seal for improved protection.

With a superb rating of IP66, Masterseal Plus™ is dust-tight to any ingress, and water-tight against high-pressure water jets from any direction.

Where a good degree of ingress protection is required, but not to the high specification of IP66-rated products, MK Shield™ is the ideal solution. MK Shield™ is rated to IP56, offering some dust ingress protection and protection against high pressure water jets from any direction. It is ideal for use in smaller commercial projects and domestic applications.

Finally, MK Splashguard™ – rated IP55 – completes MK Electric's portfolio of IP solutions, and is designed for occasional domestic use such as with garden equipment, providing protection to power supplied in damp or dusty environments.









Masterseal Plus™
IP66

MK Shield™
IP56

MK Splashguard™
IP55

	SOLID PROTECTION	LIQUID PROTECTION
Masterseal Plus™ IP66 	**DUST TIGHT.** NO INGRESS OF DUST. COMPLETE PROTECTION AGAINST CONTACT.	**POWERFUL WATER JETS.** WATER PROJECTED IN POWERFUL JETS AGAINST THE ENCLOSURE FROM ANY DIRECTION SHALL HAVE NO HARMFUL EFFECTS.
MK Shield™ IP56 	**DUST PROTECTED.** INGRESS OF DUST IS NOT ENTIRELY PREVENTED, BUT IT MUST NOT ENTER IN SUFFICIENT QUANTITY TO INTERFERE WITH THE SATISFACTORY OPERATION OF THE EQUIPMENT. COMPLETE PROTECTION AGAINST CONTACT.	**POWERFUL WATER JETS.** WATER PROJECTED IN POWERFUL JETS AGAINST THE ENCLOSURE FROM ANY DIRECTION SHALL HAVE NO HARMFUL EFFECTS.
MK Splashguard™ IP55 	**DUST PROTECTED.** INGRESS OF DUST IS NOT ENTIRELY PREVENTED, BUT IT MUST NOT ENTER IN SUFFICIENT QUANTITY TO INTERFERE WITH THE SATISFACTORY OPERATION OF THE EQUIPMENT. COMPLETE PROTECTION AGAINST CONTACT.	**WATER JETS.** WATER PROJECTED BY A NOZZLE AGAINST ENCLOSURE FROM ANY DIRECTION SHALL HAVE NO HARMFUL EFFECTS.



range introduction

Masterseal Plus™ has been specifically developed for use in both outdoor and indoor environments, and where wiring devices and accessories would be at risk from penetration by dust or water. With a rating of IP66, Masterseal Plus™ offers total protection against dust, and is protected against high pressure jets of water from any direction.

Masterseal Plus™ sockets can seal around virtually any standard 13A plug – including moulded plugs – allowing safe connection for any appliance.

An improved catch eases the opening and closing of the lid, whilst ensuring the integrity of the seal. The seal is fixed to the mounting frame of the product, enabling rapid installation, and removing the risk of error when placing a floating gasket.

The Masterseal Plus™ range extends to over 90 product variations as the new enclosures house selected products from the Logic Plus portfolio – thus offering all the benefits of the Logic Plus range within the new Masterseal Plus™ enclosures.

Masterseal Plus™ is perfectly suited to a range of indoor and outdoor applications including factories, laboratories, swimming pools, commercial kitchens, industrial units, warehouses, clean rooms and more.

features and benefits

IP66*

Masterseal Plus™ offers total dust ingress protection, and is protected against high-pressure water jets from any direction.

Robust Construction and Temperature Tolerant

Masterseal Plus™ will not discolour, crack or fade in UV light (unlike many other plastics), and will maintain operation in extremes of heat and cold.

Impact and Environmental Protection

Masterseal Plus™ enclosures are made from recycled polycarbonate, one of the toughest thermoplastics available – incidentally also used in products such as motorcycle helmets. The raw materials are actually waste material collected from other manufacturing plants. This not only diverts material otherwise destined for landfill, but also prevents an equivalent amount of virgin material being produced along with the associated savings in energy, providing a significant reduction in carbon footprints.

Widest Range

The Masterseal Plus™ range extends to over 90 product variants. The new enclosures house products from the Logic Plus range, all enclosures and switches are available in Grey, White and Black.

20 Year Guarantee

Masterseal Plus™ is guaranteed for an industry-leading 20 years. (10 years for electronic products)

*Grid Plus enclosures are IP56

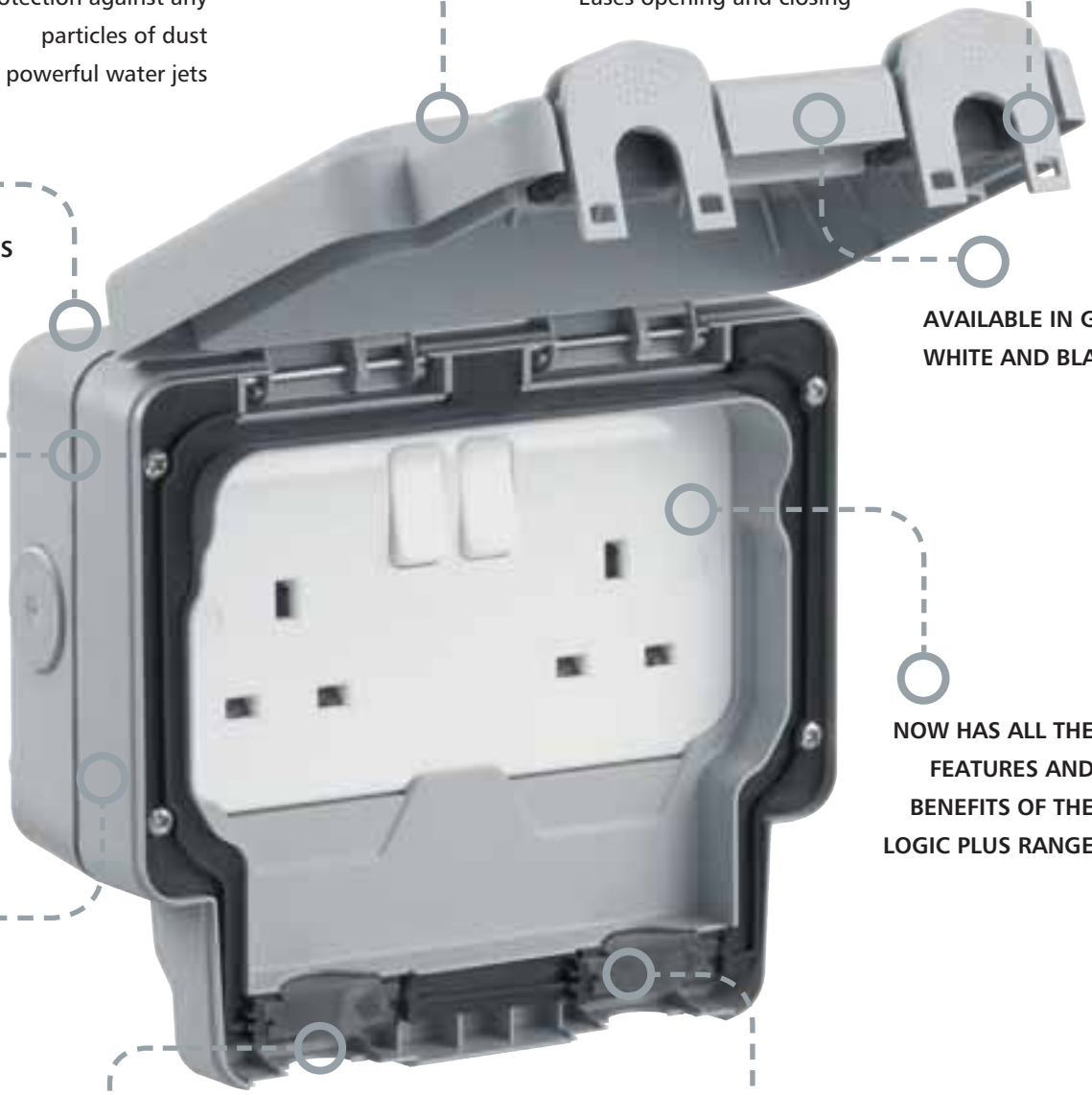
Masterseal Plus™

IP66
Protection against any particles of dust and powerful water jets

IMPROVED CATCH
Eases opening and closing

REAR DRILL HOLES
For easier installation

AVAILABLE IN GREY, WHITE AND BLACK



FIXED GASKET SPEEDS INSTALLATION
and removes risk of error when placing a floating gasket

NOW HAS ALL THE FEATURES AND BENEFITS OF THE LOGIC PLUS RANGE

MANUFACTURED FROM RECYCLED POLYCARBONATE
For impact and environmental protection

SEALED IN USE WITH VIRTUALLY ANY STANDARD 13A PLUG,
including moulded on plugs

PATENTED GEL SEAL
Durable water and dust tight seal for improved protection







Switchsocket Outlets, Timer Socket Outlets, and Key Operated Socket Outlets

13 AMP
IP66


K56486GRY


K56482BLK


K56488GRY

K56486GRY 1
K56486WHI 1
K56486BLK 1

13A DP
1 GANG
SWITCHED

K56482GRY 1
K56482WHI 1
K56482BLK 1

13A DP
2 GANG
SWITCHED

K56488GRY 1
K56488WHI 1
K56488BLK 1

13A DP SWITCHED
2 GANG
NEON
CLEAR COVER

Fixing holes are for No.8 woodscrews (not supplied).

K56486 has 4 x 20mm entries, 1 on top, bottom and each side and is supplied with an earth terminal in the back box.

2 gang backbox has 5 cable entries, 2 on top and 1 centrally on other 3 sides. Supplied with earth terminals in backbox.

DIMENSIONS:
1 gang: 157 x 110 x 89mm
2 gang: 157 x 175 x 89mm

BS 1363 Pt. 2: 1995

IP66 BS EN 60529: 1992


K56485GRY


K56485WHI


K56487GRY

K56485GRY 1
K56485WHI 1
K56485BLK 1

13A SP
1 GANG
WITH ELECTRONIC TIMER MODULE

K56487GRY 1
K56487WHI 1
K56487BLK 1

13A 1 GANG DP
KEY OPERATED SOCKET

Timer Module meets the requirements of IEC 60730-1 and IEC 60730-2-7 Standards

RCD PROTECTED
13 AMP
IP66


K56301GRY


K56231BLK


K56233WHI

K56301GRY 1
K56301WHI 1
K56301BLK 1

1 GANG DP
30 mA RATED TRIPPING CURRENT
ACTIVE CONTROL CIRCUIT

K56231GRY 1
K56231WHI 1
K56231BLK 1

2 GANG SP
30 mA RATED TRIPPING CURRENT
ACTIVE CONTROL CIRCUIT

K56233GRY 1
K56233WHI 1
K56233BLK 1

2 GANG SP
30 mA RATED TRIPPING CURRENT
PASSIVE CONTROL CIRCUIT

RCD protected sockets are pulsating d.c. and a.c. fault current sensitive.

Fixing holes are for No.8 woodscrews (not supplied).

Supplied with an earth terminal in the back box. The Sentrysocket has 5 entries. Suitable for supply voltage of 240V a.c. 50Hz

Standard Shutters.

DIMENSIONS: 157 x 175 x 89mm

BS 7288: 1990

IP66 BS EN 60529: 1992

Socket Outlets

13 AMP
IP66


K56480GRY


K56481WHI


K56481BLK

K56480GRY 1
K56480WHI 1
K56480BLK 1

13A 1 GANG
UNSWITCHED

K56481GRY 1
K56481WHI 1
K56481BLK 1

13A 2 GANG
UNSWITCHED

Fixing holes are for No.8 woodscrews (not supplied).

K56480 has 4 x 20mm entries, 1 on top, bottom and each side and is supplied with an earth terminal in the back box.

BS 1363: Pt2: 1995

IP66 BS EN 60529: 1992

K56481 Backbox has 5 cable entries, 2 on top and 1 centrally on other 3 sides. Supplied with earth terminals in backbox.

DIMENSIONS:
1 gang: 157 x 110 x 89mm
2 gang: 157 x 175 x 89mm

BS 1363 Pt.2: 1995

IP66 BS EN 60529: 1992

16 AMP
IP66


K56483GRY


K56483WHI


K56483BLK

K56483GRY 1
K56483WHI 1
K56483BLK 1

16A
1 GANG
2P+E
UNSWITCHED

(NON UK)

Fixing holes are for No.8 woodscrews (not supplied).

K56483 is for use with plugs having right angled cable exit.

DIMENSIONS:
157 x 110 x 89mm

IEC60884-1: 2006

IP66 BS EN 60529: 1992

Masterseal enclosures are manufactured from polycarbonate. This provides an extremely high level of impact resistance. However some chemicals and synthetic oils can harm polycarbonate.

Refer to Technical Hotline for assistance
+44 (0) 1268 563720

Key Operated Switches

20 AMP
IP66


K56425GRY


K56425WHI


K56425BLK

K56425GRY 1
K56425WHI 1
K56425BLK 1

20A
1 GANG
DP KEY OPERATED SWITCH

Fixing holes are for No.8 woodscrews (not supplied)

K56425 Backbox has 4 x 20mm entries, 1 on top, bottom and each side and is supplied with an earth terminal in the back box.

DIMENSIONS:
160 x 117 x 89mm

BS EN 60669-1: 1999

IP66 BS EN 60529: 1992

Connection Units

13 AMP
IP66


K56410WHI


K56410BLK


K56410GRY

K56410GRY 1
K56410WHI 1
K56410BLK 1

13A DP
1 GANG
SWITCHED, FUSED

Fitted with a 13A fuse link to BS 1362.
Fixing holes are for No.8 woodscrews (not supplied)

Backbox has 4 x 20mm entries, 1 on each edge, and is supplied with an earth terminal in the backbox.

DIMENSIONS:
160 x 117 x 89mm

BS 1363 Pt.4: 1995

IP66 BS EN 60529: 1992

Switches

10 AMP
IP66


K56400GRY


K56401WHI


K56402BLK

K56400GRY 1
K56400WHI 1
K56400BLK 1

10A 1 GANG
SP ONE-WAY

K56401GRY 1
K56401WHI 1
K56401BLK 1

10A 1 GANG
SP TWO-WAY

K56402GRY 1
K56402WHI 1
K56402BLK 1

10A 2 GANG
SP ONE-WAY

Fixing holes are for No.8 woodscrews (not supplied).

Each switch is fitted with a neon which can be wired as a locator.

The enclosure has 4 x 20mm entries, 1 on top, bottom and each side and is supplied with an earth terminal and a loop terminal in the back box.

10 AMP
IP66


K56406GRY


K56407BLK


K56408WHI

K56406GRY 1
K56406WHI 1
K56406BLK 1

10A 1 GANG
DP ONE-WAY

K56407GRY 1
K56407WHI 1
K56407BLK 1

10A 1 GANG
SP TWO-WAY
PUSH TO MAKE OR
PUSH TO BREAK
'BELL'

K56408GRY 1
K56408WHI 1
K56408BLK 1

10A 1 GANG
SP TWO-WAY
PUSH TO MAKE OR
PUSH TO BREAK
'PRESS'

These switches (except push switches) do NOT have to be derated when used with fluorescent or inductive loads.

DIMENSIONS:
95 x 95 x 57mm

BS EN 60669-1: 1999

IP66 to BS EN 60529: 1992

20 AMP
IP66


K56409GRY


K56409WHI


K56409BLK

K56409GRY 1
K56409WHI 1
K56409BLK 1

20A 1 GANG
DP ONE-WAY
'PRESS'

Fixing holes are for No.8 woodscrews (not supplied).

Each switch is fitted with a neon which can be wired as a locator.

The enclosure has 4 x 20mm entries, 1 on top, bottom and each side and is supplied with an earth terminal and a loop terminal in the back box.

These switches (except push switches) do NOT have to be derated when used with fluorescent or inductive loads.

DIMENSIONS:
95 x 95 x 57mm

BS EN 60669-1: 1999

IP66 to BS EN 60529: 1992

Grid Plus Enclosures

IP56


K56414GRY


K56414WHI


K56414BLK

K56414GRY 1
K56414WHI 1
K56414BLK 1

MODULAR GRID PLUS
ENCLOSURE SUPPLIED WITH
1 AND 2 GANG INSERTS*

* NOTE: Installers may select any switch or neon modules, excluding dimmers, from Grid Plus range and configure product to suit installation requirements.

Fixing holes are for No.8 woodscrews (not supplied). Backbox has 4 x 20mm entries, 1 on top, bottom and each side. Supplied with an earth terminal and a loop terminal in the backbox.

DIMENSIONS:
95 x 95 x 80mm

BS EN 60669-1: 1999

IP56 to BS EN 60529: 1992

Switch Enclosures

IP66



K56420GRY



K56421WHI



K56422BLK



K56422GRY

K56420GRY 1
K56420WHI 1
K56420BLK 1

1 GANG FOR USE WITH ANY ONE SWITCH MODULE

K56421GRY 1
K56421WHI 1
K56421BLK 1

1 GANG WITH NEON FOR USE WITH ANY SWITCH AND ANY NEON MODULE

K56422GRY 1
K56422WHI 1
K56422BLK 1

2 GANG FOR USE WITH ANY TWO SWITCH MODULES

Fixing holes are for No.8 woodscrews (not supplied).

Each enclosure is fitted with a neon which should be wired as a locator.

The enclosure has 4 x 20mm entries, 1 on top, bottom and each side and is supplied with an earth terminal and a loop terminal in the back box.

NOTE: These enclosures are for use with the Masterseal Plus™ switch and neon modules.

DIMENSIONS:
95 x 95 x 57mm

IP66 to BS EN 60529: 1992

Switch Modules

10 AMP



56881BLK



56882BLK



56883BLK

56881BLK 10
10A SP
ONE-WAY

56882BLK 10
10A SP
TWO-WAY

56883BLK 10
10A DP
ONE-WAY

For use only with Masterseal Plus™ switch enclosures.

These switches do NOT have to be derated when used with fluorescent or inductive loads.

BS EN 60669-1: 1999

Switch Modules

20 AMP



56891BLK



56892BLK



56893BLK



56896BLK

56891BLK 10
20A SP
ONE-WAY

56892BLK 10
20A SP
TWO-WAY

56893BLK 10
20A
INTERMEDIATE

56896BLK 10
20A DP
ONE-WAY

For use only with Masterseal Plus™ switch enclosures.

These switches do NOT have to be derated when used with fluorescent or inductive loads.

BS EN 60669-1: 1999

Neon Modules



56889RED

56889RED 10
200-250V NEON
RED

BS 5733: 2010

Data/Telecom Enclosures Euro Format

IP66



K56423GRY



K56423WHI



K56423BLK

K56423GRY 1
K56423WHI 1
K56423BLK 1

1 GANG
DATA ENCLOSURE
FOR 2 MODULE EURO OUTLET
HALF MODULE BLANKS SOLD SEPARATELY

2 data modules can be accommodated providing care is used to ensure that the cables are correctly routed through the outlet.

Fixing holes are for No.8 woodscrews (not supplied). Backbox has 4 x 20mm entries, 1 on each edge. Supplied with an earth terminal and a loop terminal in the backbox.

DIMENSIONS:
160 x 117 x 89mm

IP66 to BS EN 60529: 1992

Euro Data Modules

TELECOM



K5820WHI



K5820BLK



K5821WHI



K5821BLK

K5820WHI 5
K5820BLK 5

TELEPHONE MASTER
ONE MODULE

K5821WHI 5
K5821BLK 5

TELEPHONE SECONDARY
ONE MODULE

DIMENSIONS:
25 x 50mm

BS 6312 Pt.2

See Logic Plus page 54 for a full range of Euro modules

Euro Data Modules | Junction Boxes | Flush Mounting Frames | Flush Mounting Bezels | Conduit Entries | Accessories

DATA

30 AMP
IP66


K5844WHI


K5887WHI


K5887BLK


K56506GRY


K56506WHI
(COVER ON)


K56506WHI
(COVER OFF)


K56500GRY


56500WHI


K56501GRY


K56502GRY


56502WHI


K56503GRY


56460WHI

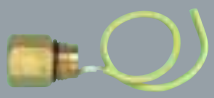

56461WHI

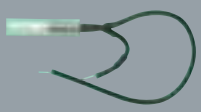

56462WHI


56463WHI


56464WHI


56837BLK


9933


56890GRN


K9944

K5844WHI 5
RJ45 CAT 5e
ANGLED UNSCREENED
ONE MODULE

K5887WHI 5
K5887BLK 5
RJ11/12
ONE MODULE

See Logic Plus pages 54 for a full range of Euro modules

K5844
Enhanced Cat 5e performance. Suitable for both 568A and 568B wiring schemes.

ISO/IEC 11801
EN 50173
TIA 568
EN 41003

K5887
Suitable for both RJ11 and RJ12 jacks
RJ11: 4 wire
RJ12: 6 wire

FCC68
EN 41003

DIMENSIONS:
25 x 50mm

K56506GRY 1
K56506WHI 1
K56506BLK 1
JUNCTION BOX
WITH FOUR
4-WAY TERMINALS

Fixing holes are for No. 8 woodscrews (not supplied).

The enclosure has 4 entries, 1 on top, bottom and both sides.

TERMINAL CAPACITY:
Each terminal block accepts four 2.5mm² cables.

DIMENSIONS:
95 x 95 x 65mm

BS 6220: 1983

IP66 to BS EN 60529

K56500GRY 1
K56500WHI 1
1 GANG
PLASTER/TILE
FLUSH MOUNTING FRAME
WITH PROTECTIVE COVER
FOR USE WITH 160 X
117MM PRODUCTS

56500GRY 1
56500WHI 1
1 GANG
PLASTER/TILE
FLUSH MOUNTING FRAME
WITH PROTECTIVE COVER
FOR USE WITH 95 X 95MM
PRODUCTS

K56501GRY 1
K56501WHI 1
2 GANG
PLASTER/TILE
FLUSH MOUNTING FRAME
WITH PROTECTIVE COVER

The Flush adaptors for plaster and tile can be used with finish depths up to 20mm, by using the spacers provided.Allows flush mounted Masterseal Plus™ products to maintain their IP rating.

Can be used with side entry or back entry enclosures.

DIMENSIONS:
56500: 115 x 115 x 34mm
K56500: 135 X 135 X 34mm
K56501: 135 X 195 X 34mm

K56502GRY 1
K56502WHI 1
1 GANG
FLUSH MOUNTING BEZEL
FOR USE WITH 160 X
117MM PRODUCTS

56502GRY 1
56502WHI 1
1 GANG
FLUSH MOUNTING BEZEL
FOR USE WITH 95 X 95MM
PRODUCTS

K56503GRY 1
K56503WHI 1
2 GANG
FLUSH MOUNTING BEZEL

The Flush adaptors for brick and cavity walls should be used on vertical surfaces where no additional finishing, such as plastering is required.

Allows flush mounted Masterseal Plus™ products to maintain their IP rating.

Can only be used with back entry enclosures.

Supplied with 4 self tapping screws to fix enclosure to mounting bezel.

Clip-on surround hides mounting screws.

DIMENSIONS:
56502: 145 x 145 x 41mm
K56502: 165 x 165 x 41mm
K56503: 165 x 245 x 41mm

56460GRY 5
56460WHI 5
ENTRY BLANK

56461BLK 5
56461WHI 5
PVC CABLE ENTRY
TO PROVIDE DIRECT
ENTRY OF POWER CABLE
TO THE UNIT VIA THE
BOTTOM BOX ENTRY

56462BLK 5
56462WHI 5
20MM PLAIN CONDUIT
ENTRY PUSH FIT ADAPTOR
BETWEEN BACK BOX AND
20MM PLAIN CONDUIT

56463BLK 5
56463WHI 5
20MM THREADED
CONDUIT ENTRY PUSH FIT
ADAPTOR BETWEEN
BACK BOX AND 20MM
THREADED CONDUIT

56464GRY 5
56464WHI 5
BOX COUPLER
FOR GANGING ONE
MASTERSEAL OR
MASTERSEAL PLUS™
BOX NEXT TO ANOTHER

56837BLK 5
REPLACEMENT GEL SEAL
FOR SOCKETS

9933 1
M20 EARTH LEAD
ADAPTOR FOR EARTHING
METAL CONDUIT

56890GRN 5
REPLACEMENT
NEON LOCATOR

K9944 5
FLANGE FOR
PANEL MOUNTING
1 GANG 95 X 95MM
MODULES

Echo™ is an innovative range of entirely wireless, batteryless and self-powered switches, only available from MK Electric.

1 and 2 Channel Transmitter For Echo™

IP66



K55400GRY



K55406WHI



K55406BLK

Enclosure For Small Load Receiver For Echo™

IP66

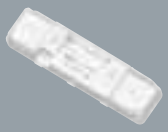


K55000GRY

Switch Receivers For Echo™



K5418R



K5420R

Accessories For Echo™

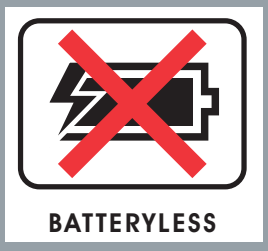


K5417R



K5419R







Wireless

No wires offers the benefits of almost instant switch installation and total location flexibility, resulting in reduced costs and disruption as well as improved speed and ease of installation – invaluable for areas needing to rearrange space periodically, e.g. commercial offices, or those where the channelling of walls isn't permittable or feasible, such as historic buildings or glass partition walls.

Batteryless

No batteries means low maintenance and low running costs. No need to buy, fit, replace or dispose of batteries, eliminating nuisance and waste for a more sustainable option.

Self-powered

The new Echo™ range works by harvesting tiny amounts of ambient energy which power a switch (Transmitter) to send an RF signal to the Switch Receiver which is connected to the lighting circuit – operating lighting at ranges of up to 30 metres within typical buildings.

For the complete Echo™ range, please refer to page 31.

K55400GRY 1
K55400WHI 1
K55400BLK 1
1 CHANNEL TRANSMITTER FOR ECHO™

K55406GRY 1
K55406WHI 1
K55406BLK 1
2 CHANNEL TRANSMITTER FOR ECHO™

K55000GRY 1
K55000WHI 1
K55000BLK 1
ENCLOSURE FOR USE WITH K5418R

K5418R 1
SMALL LOAD SWITCH RECEIVER 400 WATT

K5420R 1
10AX SWITCH RECEIVER/REPEATER

K5417R 1
REMOTE CONTROL

K5419R 1
FIELD STRENGTH INDICATOR

KPAD 1
ADHESIVE PAD (ASPECT AND LOGIC PLUS)

- **No wires**
  - Instant switch installation
  - Location/relocation flexibility
  - Simplifies office 'churn' – less disruption
- **No batteries**
  - Low maintentance
  - Low running costs
  - Less waste, a more sustainable option
  - No nuisance factor
- **Flexibility**
  - No wires, no constraints
  - Suitable for all wall types, including where channelling isn't feasible
  - Ideal for commercial, residential and historic buildings
- **Quality reliability and safety come as standard**
- **10 year guarantee**

MK Shield™



range introduction

MK Shield™ is the ideal solution for both outdoor and indoor environments, where a good degree of ingress protection is required, but not to the high specification of IP66 rated products.

Rated to IP56, MK Shield™ offers some dust ingress protection, whilst protecting against high pressure water jets from any direction.

In addition to its ease of installation, the range is aesthetically pleasing with an unobtrusive, modern and compact design.
MK Shield™ is ideal for use in small to medium-sized commercial projects and domestic applications.

features and benefits

IP56
MK Shield™ offers some dust ingress protection, and is protected against high pressure water jets from any direction.

Selection of Finishes
Available in Grey, White and Clear.

Patented Gel Seal
The patented gel seal offers improved protection, and the push lid catch provides a waterproof seal.

Slim and Compact Design
Unobtrusive and aesthetically pleasing.

10 Year Guarantee

IP56
Protected against high pressure water jets from any direction, some dust ingress protection

SLIM AND COMPACT DESIGN

MK SHIELD™ SOCKETS WILL SEAL AROUND MOST STANDARD 13A PLUGS

10 YEAR GUARANTEE



PUSH LID CATCH PROVIDES A WATERPROOF SEAL WHEN CLOSED

AVAILABLE IN GREY, WHITE AND CLEAR



PATENTED GEL SEAL







Switchsocket Outlets

13 AMP
IP56



K46131GRY



K46131CLR

K46131GRY 1
K46131WHI 1
K46131CLR 1
13A DP
1 GANG
SWITCHED

BS 1363-2
BS EN/IEC 60529

Socket Outlets

13 AMP
IP56



K46031WHI



K46031GRY

K46031GRY 1
K46031WHI 1
13A SP
1 GANG
UNSWITCHED

BS 1363-2
BS EN/IEC 60529

Connection Units

13 AMP
IP56



K46135GRY



K46135CLR

K46135GRY 1
K46135WHI 1
K46135CLR 1
13A
1 GANG
SWITCHED CONNECTION
UNIT WITH FRONT FLEX
OUTLET

BS 1363-4
BS EN/IEC 60529

Switches

10 AMP
IP56



K46101CLR



K46102GRY

K46101GRY 1
K46101WHI 1
K46101CLR 1
10A
1 GANG
SP TWO-WAY

K46102GRY 1
K46102WHI 1
K46102CLR 1
10A
2 GANG
SP TWO-WAY

IEC 60669-1
BS EN/IEC 60529

10 AMP
IP56



K46103WHI



K46111CLR

K46103GRY 1
K46103WHI 1
K46103CLR 1
10A
3 GANG
SP TWO-WAY

K46111GRY 1
K46111WHI 1
K46111CLR 1
10A
1 GANG
SP PUSH SWITCH
'BELL'

IEC 60669-1
BS EN/IEC 60529

20 AMP
IP56



K46206WHI



K46202GRY

K46206GRY 1
K46206WHI 1
K46206CLR 1
20A
1 GANG
SP ONE-WAY
WITH NEON

K46202GRY 1
K46202WHI 1
K46202CLR 1
20A
1 GANG
SP TWO-WAY

IEC 60669-1
BS EN/IEC 60529

All products conform to the relevant National Standards as well as the ingress protection standard for enclosures – BS EN/IEC 60529.
Operating Temperature: - 5° to +40°
Material: UV Stabilised Polycarbonate
Dimensions: 125 X 85 X 80mm



range introduction

MK Splashguard is an IP55 rated range of wiring devices designed for domestic outdoor applications and ideal for use with garden equipment. The range provides safe and reliable protection to power supplies in damp and dusty environments.

The range includes a single switched socket outlet, a switched connection unit, and a single 2-way switch for a complete yet affordable solution to the majority of domestic outdoor power requirements.

features and benefits

IP55

MK Splashguard offers some dust ingress protection, plus protection against low pressure water jets from any direction.

Clear Lid

MK Splashguard is available in white with a clear lid, allowing visible indications of power.

5 Year Guarantee

MK Splashguard™

IP55
Some dust ingress protection, plus protection against low pressure water jets from any direction



CLEAR LID

ROBUST AND EASY TO INSTALL

5 YEAR GUARANTEE







Switchsocket Outlets

13 AMP
IP55



K36101CLR

K36101CLR 1
13A SP
1 GANG
SWITCHED

Connection Units

13 AMP
IP55



K36103CLR

K36103CLR 1
13A
1 GANG
SWITCHED CONNECTION UNIT WITH FRONT FLEX OUTLET

Switches

10 AMP
IP55



K36102CLR

K36102CLR 1
10A
1 GANG
SP TWO-WAY

Tested and complies with IEC 60670 and BS EN 60529/IEC 60529.
Dimensions: 120 X 98 X 80mm

Commando Safetyswitch



range introduction

Commando Safetyswitches are manufactured from Polybutylene Terephthalate (PBT) for maximum impact resistance. The range offers a selection of IP54 and IP65 ratings to cover a variety of indoor and outdoor needs. The units are lockable for added safety and accept auxiliary contacts to increase further the range of applications.

A range of Triple Pole and Neutral switches are also available, manufactured from Polycarbonate (PC).

features and benefits

Impact resistant
PBT and PC enclosures provide remarkable impact resistance

Water resistant
IP54, IP65 and IP66 ratings mean Commando Safetyswitch and Triple Pole and Neutral switches are suitable for outdoor and indoor use

Added safety
Commando Safetyswitches have mechanically interlocked lids meaning the cover is impossible to remove when the switch is in the 'ON' position

Commando Safetyswitches

I.S.O. metric conduit entries for ease of installation.

Neutral and Earth terminals fitted as standard.

PBT enclosure offers remarkable impact resistance.

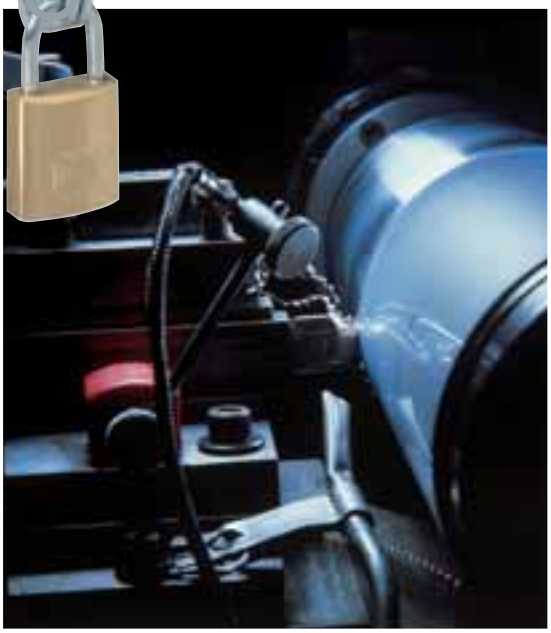
Choice of units splashproof to IP54 and IP65 for use indoors or outdoors.

Direct acting operating handle gives positive indication of the state of the contacts.

63A, 100A and 125A units have mechanically operated lids for additional safety in use. This means the cover is impossible to remove when the switch is in the 'ON' position.

Easy to use shackle allows up to six padlocks to be fitted.





Switch Disconnectors

16 amp (Ith)
3 Pole
IP65

25 amp (Ith)
3 Pole
IP65



K6816 5
K6816YEL 5
UTILISATION CATEGORY
AC23A RATED OPERATIONAL:
CURRENT (**Ie**) 10A
VOLTAGE (Ue) 415V 50/60 Hz
POWER 5.5 KW

K6825 5
K6825YEL 5
UTILISATION CATEGORY
AC23A RATED OPERATIONAL:
CURRENT (**Ie**) 20A
VOLTAGE (Ue) 415V 50/60 Hz
POWER 11 kW

IP RATING
K6816: IP65
K6816YEL: IP65

Supplied with blanking plugs and neutral terminals

TERMINAL CAPACITY:
1.5 - 4mm²

CONDUIT ENTRY:
4 x M20

K6816
AUXILIARY CONTACTS:
List No: 6818 and 6819

Will accept one auxiliary contact.

K6816YEL
Auxiliary contact included.

BS EN 60947-3:1999

IP RATING
K6825: IP65
K6825YEL: IP65

Supplied with blanking plugs and neutral terminals

TERMINAL CAPACITY:
1.5 - 4mm²

CONDUIT ENTRY:
4 x M20

K6825
AUXILIARY CONTACTS:
List No: 6818 and 6819

Will accept one auxiliary contact.

K6825YEL
Auxiliary contact included.

BS EN 60947-3:1999

Switch Disconnectors

25 amp (Ith)
6 Pole
IP65



K6725



K6725YEL

40 amp (Ith)
3 Pole
IP65



K6840



K6840YEL

63 amp (Ith)
3 Pole
IP54 and IP65



6863



6863YEL

63 amp (Ith)
6 Pole
IP54



6763

80 amp (Ith)
3 Pole and 6 Pole
IP54



6800



6700

K6725 5
K6725YEL 5
UTILISATION CATEGORY
AC23A RATED OPERATIONAL:
CURRENT (**Ie**) 20A
VOLTAGE (UE) 415V 50/60 Hz
POWER 11 kW

IP RATING
K6725: IP65
K6725YEL: IP65

Supplied with blanking plugs and neutral terminals

TERMINAL CAPACITY:
1.5 – 4mm²

CONDUIT ENTRY:
4 x M20
2 x 18mm knockouts

K6725
AUXILIARY CONTACTS:
List No: 6818 and 6819

Will accept one auxiliary contact.

K6725YEL
Auxiliary contact included.

BS EN 60947-3:1999

K6840 1
K6840YEL 1
UTILISATION CATEGORY
AC23A RATED OPERATIONAL:
CURRENT (**Ie**) 25A
VOLTAGE (Ue) 415V 50/60 Hz
POWER 15 kW

IP RATING
K6840: IP65
K6840YEL: IP65

Supplied with blanking plugs and neutral terminals

TERMINAL CAPACITY:
1.5 – 10mm²

CONDUIT ENTRY:
4 x M25

K6840
AUXILIARY CONTACTS:
List No: 6818 and 6819

Will accept one auxiliary contact.

K6840YEL
Auxiliary contact included.

BS EN 60947-3:1999

6863 1
6863YEL 1
UTILISATION CATEGORY
AC23A RATED OPERATIONAL:
CURRENT (**Ie**) 45A
VOLTAGE (Ue) 415V 50/60 Hz
POWER 22 kW

IP RATING
6863: IP54
6863YEL: IP65

Supplied with blanking plugs and neutral terminals

TERMINAL CAPACITY:
1.5 – 16mm²

CONDUIT ENTRY:
4 x M32
2 x M16

6863
AUXILIARY CONTACTS:
List No: 6813 or 6814

6863YEL
Auxiliary contact included.

BS EN 60947-3:1999

6763 1
UTILISATION CATEGORY
AC23A RATED OPERATIONAL:
CURRENT (**Ie**) 45A
VOLTAGE (Ue) 415V 50/60 Hz
POWER 22 kW

Supplied with neutral terminals

TERMINAL CAPACITY:
1.5 – 16mm²

CONDUIT ENTRY:
4 x 40.5mm diameter knockouts and 2 x 16.5mm diameter knockouts.

AUXILIARY CONTACTS:
List No: 6813 or 6814

BS EN 60947-3:1999

6800 1
3 POLE
UTILISATION CATEGORY
AC23A RATED OPERATIONAL:
CURRENT (**Ie**) 75A
VOLTAGE (UE) 415V 50/60 Hz
POWER 37 kW

6700 1
6 POLE
UTILISATION CATEGORY
AC23A RATED OPERATIONAL:
CURRENT (**Ie**) 75A
VOLTAGE (Ue) 415V 50/60 Hz
POWER 37 kW

Supplied with neutral terminals

TERMINAL CAPACITY:
1.5 – 35mm²

CONDUIT ENTRY:
6800: 4 x M32
2 x M16
6700: 4 x 40.5mm diameter knockouts and 2 x 16.5mm diameter knockouts.

AUXILIARY CONTACTS:
List No: 6813 or 6814

BS EN 60947-3:1999

125 amp (Ith)

3 Pole
IP54



6812

6812 1
UTILISATION CATEGORY
AC23A RATED OPERATIONAL:
CURRENT (**Ie**) 90A
VOLTAGE (Ue) 415V 50/60 Hz
POWER 45 kW

Supplied with neutral terminal

TERMINAL CAPACITY:
10 – 70mm²

CONDUIT ENTRY:
4 x 40.5mm diameter knockouts and 2 x 16.5mm diameter knockouts.

AUXILIARY CONTACTS:
List No: 6813 or 6814

BS EN 60947-3: 1999

Triple Pole And Neutral Switches

4 Pole
IP66



M4413



M4414

M4413 1
4 POLE
UTILISATION CATEGORY
AC23A RATED OPERATIONAL:
CURRENT (**Ie**) 32A
VOLTAGE (Ue) 240/415V 50/60 Hz
POWER 11 kW

M4414 1
4 POLE
UTILISATION CATEGORY
AC23A RATED OPERATIONAL:
CURRENT (**Ie**) 20A
VOLTAGE (Ue) 240/415V 50/60 Hz
POWER 7.5 KW

TERMINAL CAPACITY:
16mm² (Rigid stranded cable)

CONDUIT ENTRY:
2 x 25mm cable entry top and bottom. Supplied with 2 x 25mm conduit adaptors.
4 x 20mm, 2 x 25mm knockouts for rear cable entry.

IEC 60947-3: 1999

BS EN 60947-3: 1999

2 Pole
IP66



M4417



M4418

M4417 1
2 POLE
UTILISATION CATEGORY
AC23A RATED OPERATIONAL:
CURRENT (**Ie**) 32A
VOLTAGE (Ue) 240V 50/60 Hz
POWER 5.5 kW

M4418 1
2 POLE
UTILISATION CATEGORY
AC23A RATED OPERATIONAL:
CURRENT (**Ie**) 20A
VOLTAGE (Ue) 240V 50/60 Hz
POWER 3.75 kW

M4413, M4414, M4417, M4418 ENCLOSURES ARE POLYCARBONATE

Polycarbonate enclosures provide extremely high levels of impact resistance. Some chemicals and synthetic oils can harm polycarbonate. Call technical hotline for further information.

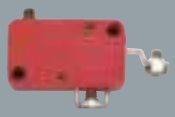
Auxiliary Contacts



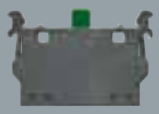
6813



6814



6817



6818



6819

6813 10
16A (Ith) SINGLE POLE NORMALLY OPEN
4A OPERATIONAL CURRENT (**Ie**)

6814 10
16A (Ith) SINGLE POLE NORMALLY CLOSED
4A OPERATIONAL CURRENT (**Ie**)

6817 10
10A (Ith) SINGLE POLE NORMALLY OPEN
1.5A OPERATIONAL CURRENT (**Ie**)

6818 10
10A (Ith) SINGLE POLE NORMALLY OPEN,
6A OPERATIONAL CURRENT (IE)
AC15 @ 230V

6819 10
10A (Ith) SINGLE POLE NORMALLY CLOSED, 6A OPERATIONAL CURRENT (IE)
AC15 @ 230V

Accessories



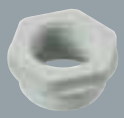
9933



6810



M25M20



M32M25

9933 1
EARTH LEAD ADAPTOR
M20 X 1.5/ M20 X 1.5 THREAD SIZE FOR 16A & 25A SAFETYSWITCHES.

6810 10
SHACKLE FOR UP TO 6 PADLOCKS

M25M20 2
20 & 25mm ADAPTOR

M32M25 2
25 & 32mm ADAPTOR

Commando



range introduction

Commando offers a comprehensive range of industrial plugs, connectors, socket outlets, appliance inlets, Combi and Modular-Combi units.

The Commando range is designed to meet all relevant European and British Standards, whilst offering an excellent choice of ingress protected ratings. The Commando range offers remarkable impact strength by way of its PBT (Polybutylene Terephthalate) or Nylon (Polyamide PA) insulated or aluminium housing*. Outstanding temperature performance and good resistance to most chemicals make it ideal for the most arduous applications. Contact pins and sleeves are of solid brass with stainless steel springs to keep contacts free of dirt and to ensure constant contact pressure.

features and benefits

Reliability

Features like the calibrated contact sleeves with stainless steel springs, brass screws in brass contacts ,and the double earthing screws – all mean that this plug or socket will perform better and longer in difficult conditions

Ergonomic design

All edges and corners are rounded to remove sharp edges. Cable protection is improved. New design offers a better and more comfortable grip for connection / disconnection

Cable protection

The unified seal and cable protector forms a convex dome that prevents the plug from fastening on objects or collecting debris when dragged

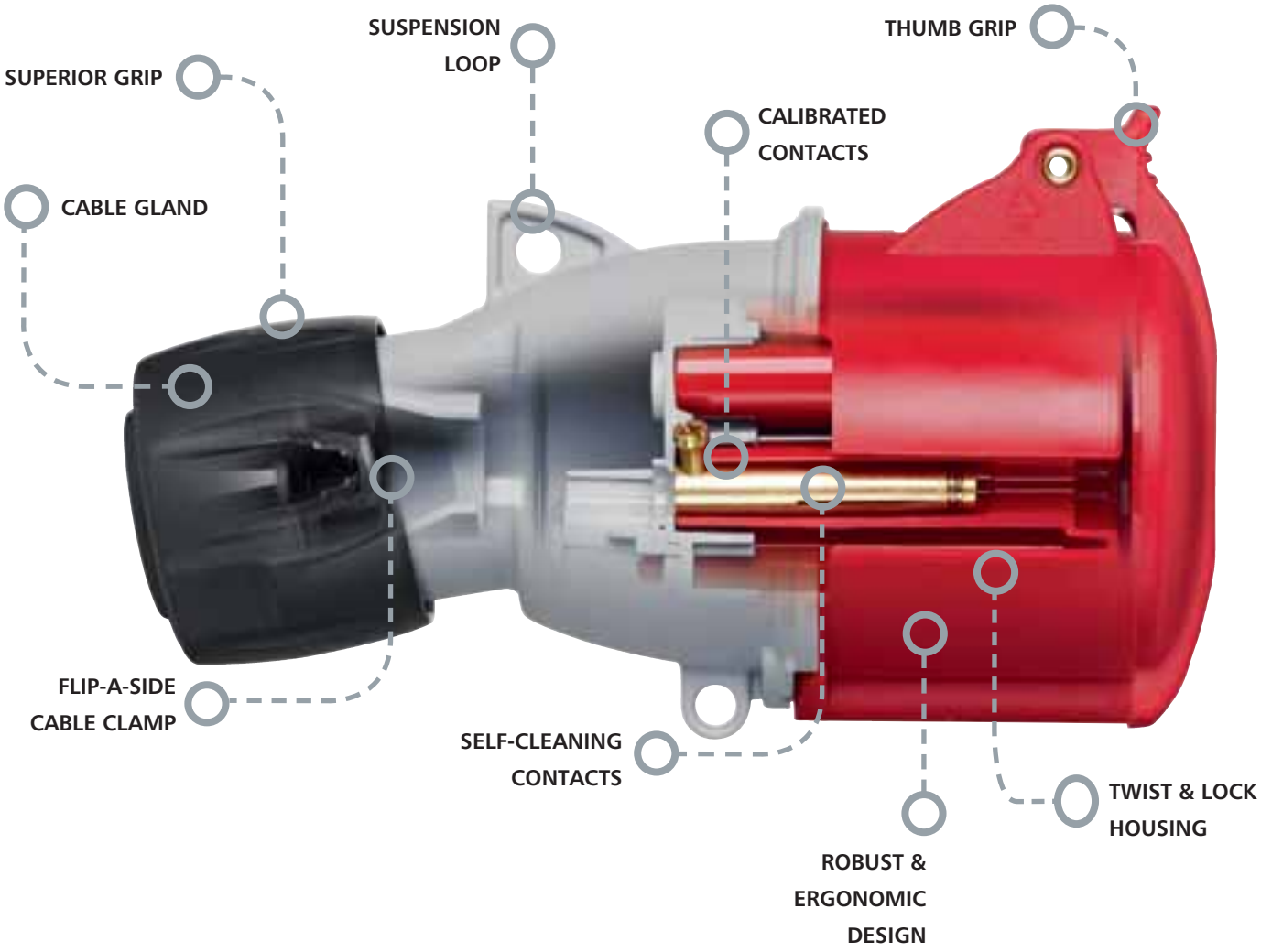
Easy wiring

All screws are backed out and retained. Contact carrier marked front and back for easy and correct wiring. Hinged cable clamp and twin contact earth screws

Outstanding Temperature Performance

Successful operation guaranteed between -25°C and 55°C

* 16A and 32A IP44 plug, connector and socket outlet products have housings manufactured from PA



- **High Quality Materials**

  The Commando range offers remarkable impact strength

  Outstanding temperature performance and good resistance to chemicals make it ideal for the arduous applications

- **Connection Seal**

  Prevent accidental disconnection or theft of equipment

- **Tight and Secure**

  The cable gland has an improved locking mechanism that will apply pressure to the cable for the lifetime of the product.

- **Prolonged Earth Connection**

  The earth connection is specifically designed, so that in the unlikely event of failure of the cable gland and the wires detach from the terminals the earth terminal will be the last to disconnect.

  For extra protection the earth terminal is provided with 2 connection screws

- **Suspension Loop**

  Products can be suspended above the floor, helping to keep the workspace in order.

- **Quick and Easy to use**

- **Clear markings and terminal identification**
- **Clear instructions for cable strip length, tightening torque and opening of the product.**

IP44 SPLASHPROOF 100 - 130V 50 - 60 Hz

Plugs



Amps	Pin. Config-uration	Earth Hour Pos	
16	2P+E	4	**K9000YEL**
16	3P+E	4	**K9005YEL**
16	3P+N+E	4	**K9013YEL**
32	2P+E	4	**K9032YEL**
32	3P+E	4	
32	3P+N+E	4	**K9043YEL**

Fitted with cable entry gland.
BS EN 60309

Connectors



16	2P+E	4	**K9100YEL**
16	3P+E	4	**K9105YEL**
16	3P+N+E	4	**K9113YEL**
32	2P+E	4	**K9132YEL**
32	3P+E	4	**K9135YEL**
32	3P+N+E	4	**K9142YEL**

Fitted with cable entry gland.
BS EN 60309

Socket Outlets

ANGLED

SURFACE



16	2P+E	4	**K9200YEL**
16	3P+E	4	**K9205YEL**
16	3P+N+E	4	**K9213YEL**
32	2P+E	4	**K9232YEL**
32	3P+E	4	**K9235YEL**
32	3P+N+E	4	**K9239YEL**

16A Top conduit (M20) or rear cable entry, complete with blanking plug.
32A Top conduit (M25) or rear cable entry, complete with blanking plug.
BS EN 60309

SURFACE – LOOP IN



16	2P+E	4	**K13200YEL**
32	2P+E	4	**K13232YEL**

Suitable for top entry 2 x Ø25.
Fitted with terminals for Loop In 2 x 10mm².
BS EN 60309

STRAIGHT

PANEL MOUNTING



16	2P+E	4	**K9400YEL**
16	3P+E	4	**K9405YEL**
16	3P+N+E	4	**K9413YEL**
32	2P+E	4	**K9432YEL**

All flanges have the same fixing centres and outside dimensions to assist panel builders.
Minimised flange option available (see page 258).
BS EN 60309

IP67 WATERTIGHT 100 - 130V 50 - 60 Hz

Plugs



Amps	Pin. Config-uration	Earth Hour Pos	
16	2P+E	4	**K9023YEL**
32	2P+E	4	**K9053YEL**
63	2P+E	4	**K9294YEL**

Suitable for flexible cable only. 63A:with external clamp.
BS EN 60309

Connectors



16	2P+E	4	**K9123YEL**
32	2P+E	4	**K9155YEL**
63	2P+E	4	**K9855YEL**

Suitable for flexible cable only. 63A:with external clamp.
BS EN 60309

Socket Outlets

ANGLED

SURFACE



16	2P+E	4	**K9193YEL**
32	2P+E	4	**K9761YEL**

Suitable for top entry 2 x Ø25 or bottom entry 2 x Ø20.
Will accept FL13 flange at top.
BS EN 60309

SURFACE – LOOP IN



16	2P+E	4	**K13023YEL**
32	2P+E	4	**K13053YEL**

Suitable for top entry 2 x Ø25
BS EN 60309

PANEL MOUNTING



16	2P+E	4	**K9802YEL**
32	2P+E	4	**K9865YEL**

All flanges have the same fixing centres and outside dimensions to assist panel builders.
BS EN 60309

IP44 SPLASHPROOF 100 - 130V 50 - 60 Hz 16 Amps 2P+E

Socket Outlets

TWIN

SURFACE



Prewired	Unwired
K13143YEL	**K13043YEL**

Suitable for top entry 2 x Ø25 2 x Ø38
Bottom entry 3 x 47.5mm
BS EN 60309

63A plugs and inlets include pilot pins.
63A connectors and sockets with pilot sleeves are available to special order.
All products are available in minimum order quantity of one except K9000 and K9100 (which have a minimum order quantity of 10).
Photographs feature the most representative products.
Design changes may occur (over different current ratings) from one product to another.

Socket Outlets
ANGLED

PANEL MOUNTING



K9767YEL
K9769YEL

16/32A new range has different fixing centres to old range.

Old range is available for limited period. See technical section for details.

BS EN 60309

Switchsocket Outlets
ANGLED

INTERLOCKED

SURFACE



K9600YEL
K9606YEL
K9632YEL
K9638YEL

Switch can be locked in open or closed position.

BS EN 60309

Aluminium Enclosure

SURFACE



K13600YEL
K13632YEL

Suitable for top entry 2 x Ø25.

Switch can be locked in open position. Or closed position by removing the tab.

BS EN 60309

SURFACE



K9609YEL
K9642YEL

With 25mm knockout at top.

Will also accept FL13 flange (top).

Bottom entry M25.

BS EN 60309

Appliance Inlets
ANGLED

SURFACE



K9700YEL
K9732YEL

16A Top conduit (M20) or rear cable entry, complete with blanking plug.

32A Top conduit (M25) or rear cable entry, complete with blanking plug.

BS EN 60309

Switchsocket Outlets
ANGLED

INTERLOCKED

SURFACE



K9356YEL

With 32mm knockouts top and bottom.

Will also accept FL13 flange (top).

Switch can be locked in open position. In closed position by removing the tab.

BS EN 60309

Switchsocket Outlets

SURFACE



K13623YEL
K13653YEL

Suitable for top entry 2 x Ø25.

Switch can be locked in open position. In closed position by removing the tab.

BS EN 60309

Appliance Inlet Panels



K9780YEL
K9784YEL

BS EN 60309

K9788YEL

BS EN 60309

See page 258 for details of spare or alternative FL type flanges.

IP44 SPLASHPROOF 200 - 250V 50 - 60 Hz

Plugs



Connectors



Socket Outlets

ANGLED

SURFACE



SURFACE-LOOP IN



STRAIGHT PANEL MOUNTING



Amps	Pin. Config-uration	Earth Hour Pos	Plugs	Connectors	Socket Outlets ANGLED SURFACE	Socket Outlets ANGLED SURFACE-LOOP IN	Socket Outlets STRAIGHT PANEL MOUNTING
16	2P+E	6	**K9001BLU**	**K9101BLU**	**K9201BLU**	**K13201BLU**	**K9401BLU**
16	3P+E	9	**K9006BLU**	**K9106BLU**	**K9206BLU**		**K9406BLU**
16	3P+N+E	9	**K9014BLU**	**K9114BLU**	**K9214BLU**		**K9414BLU**
32	2P+E	6	**K9033BLU**	**K9133BLU**	**K9233BLU**	**K13233BLU**	**K9433BLU**
32	3P+E	9	**K9036BLU**	**K9136BLU**	**K9236BLU**		
32	3P+N+E	9	**K9044BLU**	**K9143BLU**	**K9240BLU**		**K9444BLU**
63	2P+E	6	**K9063BLU**	**K9172BLU**	**K9274BLU**		**K9472BLU**
63	3P+E	9	**K9065BLU**	**K9164BLU**	**K9264BLU**		
			16A/32A Fitted with cable entry gland. **63A** Fitted with cable entry gland. Thread size M48. BS EN 60309	**16A/32A** Fitted with cable entry gland. **63A** Fitted with cable entry gland. Thread size M48. BS EN 60309	**16A** Top conduit (M20) or rear cable entry, complete with blanking plug. **32A** Top conduit (M25) or rear cable entry, complete with blanking plug. **63A** Top conduit (M32) or rear cable entry, complete with blanking plug. BS EN 60309	Suitable for top entry 2 x Ø25. Fitted with terminals for Loop In 2 x 10mm². BS EN 60309	**16/32A** All flanges have the same fixing centres and outside dimensions to assist panel builders. Minimised flange option available (see page 258). BS EN 60309

IP67 WATERTIGHT 200 - 250V 50 - 60 Hz

Plugs



Connectors



Socket Outlets

ANGLED

SURFACE



SURFACE – LOOP IN



STRAIGHT PANEL MOUNTING



Amps	Pin. Config-uration	Earth Hour Pos	Plugs	Connectors	Socket Outlets ANGLED SURFACE	Socket Outlets ANGLED SURFACE – LOOP IN	Socket Outlets STRAIGHT PANEL MOUNTING
16	2P+E	6	**K9024BLU**	**K9124BLU**	**K9194BLU**	**K13024BLU**	
32	2P+E	6	**K9054BLU**	**K9156BLU**	**K9762BLU**	**K13054BLU**	
63	2P+E	6	**K9298BLU**	**K9856BLU**	**K9857BLU**		**K9828BLU**
63	3P+E	9					
125	2P+E	6	**K9099BLU**	**K9189BLU**		**K9190BLU**	**K9483BLU**
			Suitable for flexible cable only 63A and 125A. With external clamp. BS EN 60309	Suitable for flexible cable only 63A and 125A. With external clamp. BS EN 60309	Suitable for top entry 2 x Ø25 or bottom entry 2 x Ø20. Will accept FL13 flange at top. BS EN 60309	**16/32A** Suitable for top entry 2 x Ø25 **125A** 2 x 23/47mm knockouts top and bottom. BS EN 60309	

IP44 SPLASHPROOF 200 - 250V 50 - 60 Hz 16 Amps 2P + E

Socket Outlets

ANGLED TWIN

SURFACE

Prewired	Unwired
K13144BLU	**K13044BLU**



Suitable for top entry
2 x Ø25 / 2 x Ø38
Bottom entry 3 x 47.5mm

BS EN 60309

63/125A plugs and inlets include pilot pins.

63A connectors and sockets with pilot sleeves are available to special order.

125A Switchsocket interlocked outlets with pilot sleeves are available to special order.

All products are available in minimum order quantity of one except K9001 and K9101 which have minimum order quantities of 10.

Photographs feature the most representative products. Design changes may occur (over different current ratings) from one product to another.

Socket Outlets
ANGLED
PANEL MOUNTING



K9771BLU
K9772BLU
K9773BLU
K9774BLU
K9776BLU
K9544BLU

16/32A new range has different fixing centres to old range.

Old range is available for limited period. See technical section for details.

BS EN 60309

Switchsocket Outlets
ANGLED
INTERLOCKED
SURFACE



K9601BLU
K9607BLU
K9633BLU
K9639BLU
K9664BLU

Switch can be locked in open or closed position

BS EN 60309

Aluminium Enclosure

Switchsocket Outlets
SURFACE



K13601BLU
K13633BLU

Suitable for top entry 2 x Ø25.

Switch can be locked in open position. Or closed position by removing the tab.

BS EN 60309

Switchsocket Outlets
SURFACE



K9610BLU
K9643BLU
K9306BLU
K9311BLU

16/32A With 25mm knockout at top.
Will also accept FL13 flange (top).
Bottom entry M25.

BS EN 60309

Appliance Inlets
ANGLED
SURFACE



K9701BLU
K9710BLU
K9733BLU
K9740BLU
K9775BLU

16A Top conduit (M20) or rear cable entry, complete with blanking plug.

32A Top conduit (M25) or rear cable entry, complete with blanking plug.

63A Top conduit (M32) or rear cable entry, complete with blanking plug.

BS EN 60309

Socket Outlets
ANGLED

PANEL MOUNTING



K9803BLU
K9866BLU
K9825BLU

16/32A All flanges have the same fixing centres and outside dimensions to assist panel builders.

BS EN 60309

Switchsocket Outlets
ANGLED
INTERLOCKED
SURFACE



K13624BLU
K13654BLU
K9688BLU

16/32A Suitable for top entry
2 x Ø25.

125A 2 x 23/47mm knockouts top and bottom.

Switch can be locked in open position. In closed position by removing the tab.

BS EN 60309

Switchsocket Outlets
SURFACE



K9324BLU
K9369BLU
K9355BLU

16/32A With 29mm knockout at top Will also accept FL13 flange (top).

Bottom entry M25.

63A With 32mm knockouts top and bottom.
Will accept FL13 flange top and bottom.

BS EN 60309

Appliance Inlets
ANGLED

SURFACE



K9883BLU

2 x 23/47mm knockouts top and bottom.

BS EN 60309

SURFACE



K9826BLU

Will accept FL13 flanges top and bottom.

BS EN 60309

Appliance Inlet Panels



K9781BLU
K9785BLU
K9789BLU*
K9792BLU*

*Note: 63 and 125A versions do not include a flange (See page 247 for photograph).

BS EN 60309

See page 258 for details of spare or alternative FL type flanges.

IP44 SPLASHPROOF 380 - 415V 50 - 60 Hz

Plugs



Connectors



Socket Outlets

ANGLED

SURFACE



SURFACE – LOOP IN



STRAIGHT

PANEL MOUNTING



Amps	Pin. Config-uration	Earth Hour Pos	Plugs	Connectors	Socket Outlets ANGLED SURFACE	Socket Outlets SURFACE – LOOP IN	Socket Outlets STRAIGHT PANEL MOUNTING
16	2P+E	9	**K9002RED**	**K9102RED**	**K9202RED**		
16	3P+E	6	**K9007RED**	**K9107RED**	**K9207RED**	**K13207RED**	**K9407RED**
16	3P+N+E	6	**K9015RED**	**K9115RED**	**K9215RED**	**K13215RED**	**K9415RED**
32	3P+E	6	**K9037RED**	**K9137RED**	**K9237RED**	**K13237RED**	**K9437RED**
32	3P+N+E	6	**K9045RED**	**K9144RED**	**K9241RED**	**K13241RED**	**K9445RED**
63	3P+E	6	**K9066RED**	**K9165RED**	**K9265RED**		**K9465RED**
63	3P+N+E	6	**K9071RED**	**K9170RED**	**K9269RED**		**K9470RED**
			16A/32A Fitted with cable entry gland. **63A** Fitted with cable entry gland. Thread size M48.	**16A/32A** Fitted with cable entry gland. **63A** Fitted with cable entry gland. Thread size M48.	**16A** Top conduit (M20) or rear cable entry, complete with blanking plug. **32A** Top conduit (M25) or rear cable entry, complete with blanking plug. **63A** Top conduit (M32) or rear cable entry, complete with blanking plug.	Suitable for top entry 2 x Ø25. Fitted with terminals for Loop In 2 x 10mm².	**16/32A** All flanges have the same fixing centres and outside dimensions to assist panel builders. Minimised flange option available (see page 258).

IP67 WATERTIGHT 380 - 415V 50 - 60 Hz

Plugs



Connectors



Socket Outlets

ANGLED

SURFACE

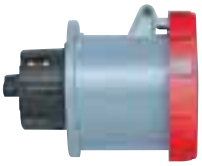


SURFACE – LOOP IN



STRAIGHT

PANEL MOUNTING



Amps	Pin. Config-uration	Earth Hour Pos	Plugs	Connectors	Socket Outlets ANGLED SURFACE	Socket Outlets SURFACE – LOOP IN	Socket Outlets STRAIGHT PANEL MOUNTING
16	3P+E	6	**K9025RED**	**K9125RED**	**K9763RED**	**K13025RED**	
16	3P+N+E	6	**K9026RED**	**K9126RED**	**K9764RED**	**K13026RED**	
32	3P+E	6	**K9055RED**	**K9157RED**	**K9765RED**	**K13055RED**	
32	3P+N+E	6	**K9056RED**	**K9158RED**	**K9766RED**	**K13056RED**	
63	3P+E	6	**K9282RED**	**K9842RED**	**K9858RED**		**K9812RED**
63	3P+N+E	6	**K9292RED**	**K9852RED**	**K9859RED**		**K9822RED**
125	3P+E	6	**K9092RED**	**K9182RED**		**K9191RED**	**K9481RED**
125	3P+N+E	6	**K9097RED**	**K9187RED**		**K9192RED**	**K9482RED**
			Suitable for flexible cable only. 63A and 125A have external clamp.	Suitable for flexible cable only. 63A and 125A have external clamp.	2 x 29/37mm knockouts (top), 1 x Ø29 and 1 x Ø23 knockout (bottom). Will accept FL13 flanges top and bottom.	**16/32A** Fitted with terminals for Loop In. Suitable for top entry 2 x Ø25. **125A** Fitted with terminals for Loop In. 2 x 23/47mm knockouts top and bottom for looping 2 x 10mm².	

63/125A plugs and inlets include pilot pins.
63A connectors and sockets with pilot sleeves are available to special order.
125A Switchsocket interlocked outlets include pilot sleeves are available to special order.
All products are available in minimum order quantity of one.
Photographs feature the most representative products.
Design changes may occur (over different current ratings) from one product to another.

Socket Outlets
ANGLED

PANEL MOUNTING



K9777RED
K9778RED
K9779RED
K9751RED
K9752RED
K9565RED
K9570RED

16/32A new range has different fixing centres to old range.

Old range is available for limited period. See technical section for details.

Switchsocket Outlets
ANGLED
INTERLOCKED

SURFACE



K9602RED
K9608RED
K9634RED
K9640RED
K9665RED
K9670RED

Switch can be locked in open or closed position.

Aluminium Enclosure

SURFACE



K13607RED
K13615RED
K13637RED
K13641RED

Suitable for top entry
2 x Ø25.

Switch can be locked in open position. In closed position by removing the tab.

SURFACE



K9611RED
K9612RED
K9644RED
K9645RED
K9312RED
K9322RED

16/32A
With 25mm knockout at top.
Will also accept FL13 flange top.
Bottom entry M25.

Appliance Inlets
ANGLED

SURFACE



K9706RED
K9711RED
K9736RED
K9741RED
K9768RED

16A Top conduit (M20) or rear cable entry, complete with blanking plug.

32A Top conduit (M25) or rear cable entry, complete with blanking plug.

63A Top conduit (M32) or rear cable entry, complete with blanking plug.

Socket Outlets
ANGLED

PANEL MOUNTING



K9807RED
K9815RED
K9870RED
K9873RED
K9582RED
K9592RED
K9691RED

16/32A All flanges have the same fixing centres and outside dimensions to assist panel builders.

Switchsocket Outlets
ANGLED INTERLOCKED

SURFACE



K13625RED
K13626RED
K13655RED
K13656RED
K9694RED

16/32A Suitable for top entry
2 x Ø25.

125A 2 x 23/47mm knockouts top and bottom.

Switch can be locked in open position. In closed position by removing the tab.

SURFACE



K9327RED
K9330RED
K9359RED
K9362RED
K9342RED
K9352RED
K9884RED

16/32A With 29mm knockout at top will also accept FL13 flange at top. Bottom. Conduit entry M25.
63A
With 32mm knockouts top and bottom. Will accept FL13 flange top and bottom.

Appliance Inlets
ANGLED

SURFACE



2 x 23/47mm knockouts top and bottom.

SURFACE



K9829RED
K9827RED
K9793RED*

1.x M40/M32
2 x M20 top

2 x M40/M32

1 x M20 bottom

Will accept FL13 flanges top and bottom.

Appliance Inlet Panels



K9782RED
K9783RED
K9786RED
K9787RED
K9790RED*
K9791RED*

*Note: 63 and 125A versions do not include a flange (See page 247 for photograph).

See page 258 for details of spare or alternative FL type flanges.

IP44 SPLASHPROOF 440 - 460V 60 Hz

SUITABLE FOR MARINE INSTALLATIONS

Amps	Pin. Config-uration	Earth Hour Pos	Plugs	Connectors	Socket Outlet ANGLED SURFACE	STRAIGHT PANEL MOUNTING	ANGLED PANEL MOUNTING
16	3P+E	11	**K9008RED**	**K9108RED**	**K9208RED**		
16	3P+N+E	11	**K9016RED**	**K9116RED**	**K9216RED**	**K9416RED**	**K9754RED**
32	3P+E	11	**K9038RED**				**K9755RED**
32	3P+N+E	11	**K9046RED**	**K9145RED**	**K9242RED**	**K9446RED**	











Fitted with cable entry gland.

Fitted with cable entry gland.

16A Top conduit (M20) or rear cable entry, complete with blanking plug.
32A Top conduit (M25) or rear cable entry, complete with blanking plug.

All flanges have the same fixing centres and outside dimensions to assist panel builders.
Minimised flange option available (see page 258).

16/32A new range has different fixing centres to old range.

Old range is available for limited period. See technical section for details.

IP44 SPLASHPROOF 440 - 460V 60 Hz

SUITABLE FOR MARINE INSTALLATIONS

Amps	Pin. Config-uration	Earth Hour Pos	Switchsocket Outlets Interlocked SURFACE
16	3P+E	11	**K9603RED**
16	3P+N+E	11	
32	3P+E	11	**K9635RED**
32	3P+N+E	11	**K9641RED**



Switch can be locked in open or closed position. Aluminium Enclosure.

IP67 WATERTIGHT 440 - 460V 60 Hz

SUITABLE FOR MARINE INSTALLATIONS

Amps	Pin. Config-uration	Earth Hour Pos	Plugs	Connectors	Socket Outlets ANGLED SURFACE	Switchsocket Outlets ANGLED INTERLOCKED SURFACE	SURFACE
63	3P+E	11	**K9283RED**				**K9343RED**
63	3P+N+E	11	**K9293RED**	**K9853RED**			**K9353RED**
125	3P+E	11	**K9093RED**	**K9183RED**	**K9195RED**	**K9692RED**	











Suitable for flexible cable only. With external clamp.

Suitable for flexible cable only. With external clamp.

2 x 23/47mm knockouts top and bottom.

2 x 23/47mm knockouts top and bottom.

Switch can be locked in open position. In closed position by removing the tab.

With 32mm knockouts top and bottom.

Will accept FL13 flange top and bottom.

63/125A plugs and inlets include pilot pins.
63A connectors and sockets with pilot sleeves are available to special order
125A Switchsocket interlocked outlets with pilot sleeves are available to special order.

All products are available in minimum order quantity of one.
Photographs feature the most representative products.
Small design changes may occur (over different current ratings) from one product to another.

IP44 SPLASHPROOF 480 - 500V 50 - 60 Hz

Plugs



Connectors



Socket Outlets
ANGLED
SURFACE



Amps	Pin. Config-uration	Earth Hour Pos	Plugs	Connectors	Socket Outlets ANGLED SURFACE
16	3P+E	7	**K9009BLK**	**K9109BLK**	**K9209BLK**
32	3P+E	7	**K9039BLK**	**K9139BLK**	**K9238BLK**

Fitted with cable entry gland.

Fitted with cable entry gland.

16A Top conduit (M20) or rear cable entry, complete with blanking plug.

32A Top conduit (M25) or rear cable entry, complete with blanking plug.

IP44 SPLASHPROOF 480 - 500V 50 - 60 Hz

Switch Socket Outlets
ANGLED
INTERLOCKED
SURFACE



Appliance Inlets
ANGLED

SURFACE



Amps	Pin. Config-uration	Earth Hour Pos	Switch Socket Outlets ANGLED INTERLOCKED SURFACE	Appliance Inlets ANGLED SURFACE
16	3P+E	7		
32	3P+E	7	**K9636BLK**	**K9737BLK**

Switch can be locked in open or closed position.

Aluminium Enclosure

16A Top conduit (M20) or rear cable entry, complete with blanking plug.

32A Top conduit (M25) or rear cable entry, complete with blanking plug.

IP67 WATERTIGHT 480 - 500V 50 - 60 Hz

Plugs



Connectors



Switchsocket Outlets
ANGLED
INTERLOCKED
SURFACE



Amps	Pin. Config-uration	Earth Hour Pos	Plugs	Connectors	Switchsocket Outlets ANGLED INTERLOCKED SURFACE
63	3P+E	7	**K9284BLK**	**K9844BLK**	**K9344BLK**

Suitable for flexible cable only. With external clamp

Suitable for flexible cable only. With external clamp

63A With 32mm knockouts top and bottom. Will accept FL13 flange top and bottom.

63/125A plugs and inlets include pilot pins.
63A connectors and sockets with pilot sleeves are available to special order.
All products are available in a minimum order quantity of one.
Design changes may occur (over different current ratings) from one product to another.

IP44 SPLASHPROOF >50V 100 - 300 Hz

Plugs



Connectors



Socket Outlets

ANGLED
SURFACE



STRAIGHT
PANEL MOUNTING



Amps	Pin. Configuration	Earth Hour Pos	Plugs	Connectors	Socket Outlets ANGLED SURFACE	Socket Outlets STRAIGHT PANEL MOUNTING
16	3P+E	10	**K9010GRN**	**K9110GRN**	**K9210GRN**	**K9410GRN**

Fitted with cable entry gland.

Fitted with cable entry gland.

Top conduit (M20) or rear cable entry, complete with blanking plug.

All flanges have the same fixing centres and outside dimensions to assist panel builders.

Minimised flange option available (see page 258).

IP44 SPLASHPROOF >50V 300 - 500 Hz

Plugs



Connectors



Socket Outlets

ANGLED
SURFACE



STRAIGHT
PANEL MOUNTING



Amps	Pin. Configuration	Earth Hour Pos	Plugs	Connectors	Socket Outlets ANGLED SURFACE	Socket Outlets STRAIGHT PANEL MOUNTING
16	3P+E	2	**K9011GRN**	**K9111GRN**	**K9211GRN**	
16	3P+N+E	2	**K9017GRN**	**K9117GRN**	**K9252GRN**	**K9417GRN**
32	3P+N+E	2	**K9047GRN**	**K9146GRN**	**K9258GRN**	**K9447GRN**

Fitted with cable entry gland.

Fitted with cable entry gland.

16A Top conduit (M20) or rear cable entry, complete with blanking plug.

32A Top conduit (M25) or rear cable entry, complete with blanking plug.

All flanges have the same fixing centres and outside dimensions to assist panel builders.

Minimised flange option available (see page 258).

IP44 SPLASHPROOF >50V >300 - 500 Hz

Switch Socket Outlets

ANGLED
INTERLOCKED
SURFACE



Amps	Pin. Configuration	Earth Hour Pos	Switch Socket Outlets ANGLED INTERLOCKED SURFACE
16	3P+E	2	**K9605GRN**

Switch can be locked in open or closed position. Aluminium Enclosure.

IP44 SPLASHPROOF IS TRAN~ 50 - 60 Hz

Amps	Pin. Config-uration	Earth Hour Pos	Plugs	Connectors	Socket Outlets ANGLED SURFACE	STRAIGHT PANEL MOUNTING	ANGLED PANEL MOUNTING
							
16	2P+E	12	**K9004GRY**	**K9104GRY**	**K9204GRY**	**K9404GRY**	**K9756GRY**
			Fitted with cable entry gland.	Fitted with cable entry gland.	Top conduit (M20) or rear cable entry, complete with blanking plug.	All flanges have the same fixing centres and outside dimensions to assist panel builders. Minimised flange option available (see page 258).	**16/32A** new range has different fixing centres to old range. Old range is available for limited period. See technical section for details.

IP44 SPLASHPROOF >50 - 250V d.c.

Amps	Pin. Config-uration	Earth Hour Pos	Plugs	Connectors	Socket Outlets ANGLED SURFACE	STRAIGHT PANEL MOUNTING
						
16	2P+E	3	**K9003GRY**	**K9103GRY**	**K9203GRY**	**K9403GRY**
			Fitted with cable entry gland.	Fitted with cable entry gland.	Top conduit (M20) or rear cable entry, complete with blanking plug.	All flanges have the same fixing centres and outside dimensions to assist panel builders. Minimised flange option available (see page 258).

All products are available in minimum order quantity of one.

Photographs feature the most representative products. Design changes may occur (over different current ratings) from one product to another.

IP44 SPLASHPROOF 25V 50 - 60 Hz

ELV RANGE











Amps	Pin. Configuration		Plugs	Connectors	Socket Outlets STRAIGHT SURFACE	Socket Outlets ANGLED PANEL MOUNTING	Appliance Inlets SURFACE
16	2P		**K9018VLT**	**K9118VLT**	**K9253VLT**	**K9518VLT**	**K9725VLT**
16	3P		**K9019VLT**	**K9119VLT**	**K9254VLT**	**K9519VLT**	**K9726VLT**

Top conduit or rear cable entry. Supplied with M25 blanking plug/cable entry.

Top conduit or rear cable entry Supplied with M25 blanking plug/cable entry.

IP44 SPLASHPROOF 50V 50 - 60 Hz

ELV RANGE









Amps	Pin. Configuration	Minor Key Pos	Plugs	Connectors	Socket Outlets STRAIGHT SURFACE	Socket Outlets ANGLED PANEL MOUNTING	
16	2P	12	**K9020WHI**	**K9120WHI**	**K9255WHI**	**K9520WHI**	
16	3P	12	**K9021WHI**	**K9121WHI**	**K9256WHI**	**K9521WHI**	

Top conduit or rear cable entry. Supplied with M25 x 1.5 blanking plug/cable entry.

IP44 SPLASHPROOF 25 & 50V d.c.

ELV RANGE









Amps	Pin. Configuration	Minor Key Pos	Plugs	Connectors	Socket Outlets STRAIGHT SURFACE	Socket Outlets ANGLED PANEL MOUNTING	
16	2P	10	**K9022WHI**	**K9122WHI**	**K9257WHI**	**K9522WHI**	

All violet and white products on this page are made of Polyamide

Top conduit or rear cable entry. Supplied with M25 blanking plug/cable entry.

110 - 130V 50 - 60 Hz

Three Way Adaptor

IP44 SPLASHPROOF



Combi Blocks

THREE WAY

IP44 SPLASHPROOF



TWO WAY

IP57 WATERTIGHT



TWO WAY 30mA RCD PROTECTED

IP44 SPLASHPROOF



Amps	Pin. Configuration	Earth Hour Pos	Three Way Adaptor	Combi Blocks THREE WAY	TWO WAY	TWO WAY 30mA RCD PROTECTED
16	2P+E	4	**K9907YEL**	**13503**	**13507**	**13505**
			PBT enclosure One appliance inlet and three socket outlets	Rubber housing	Rubber housing	Rubber housing

200 - 250V 50 - 60 Hz

Three Way Adaptor

IP44 SPLASHPROOF



Combi Blocks

THREE WAY

IP44 SPLASHPROOF



TWO WAY

IP57 WATERTIGHT



TWO WAY 30mA RCD PROTECTED

IP44 SPLASHPROOF

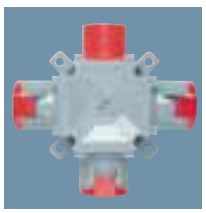


Amps	Pin. Configuration	Earth Hour Pos	Three Way Adaptor	Combi Blocks THREE WAY	TWO WAY	TWO WAY 30mA RCD PROTECTED
16	2P+E	6	**K9908BLU**	**13504**	**13508**	**13506**
			PBT enclosure One appliance inlet and three socket outlets	Rubber housing	Rubber housing	Rubber housing

380 - 415V 50 - 60 Hz

Three Way Adaptor

IP44 SPLASHPROOF



Amps	Pin. Configuration	Earth Hour Pos	Three Way Adaptor
16	3P+E	6	**K9910RED**
16	3P+N+E	6	**K9911RED**
			PBT enclosure One appliance inlet and three socket outlets

Protective Covers For Inlets

Minimised and Alternate Flanges

Spare FL Type Flange Plates Gland Plates And Gaskets

Earth Lead Adaptors And Blanking Plugs



9960BLK



K9996



K9981/2/3



9953GRY



9933



9936

9960BLK 1
FOR 2P+E, 16A

9965BLK 1
FOR ALL 125A (IP67)

9966BLK 1
2P+E, 3P+E, 32A

9967BLK 1
FOR ALL 63A (IP44)

Minimised:

K9996 10
FOR 2P+E, 16A

Alternate:

K9981 10
FOR 2P+E, 16A

K9982 10
FOR 3P+E, 3P+N+E, 16A

K9983 10
FOR 2P+E, 3P+E, 3P+N+E, 32A

9953GRY 1
GLAND PLATE
UNDRILLED FL13

9933 1
M20 X 1.5/ M20 X 1.5 THREAD SIZE USED ON ALL 16A SOCKET OUTLETS AND APPLIANCE INLETS (EXCEPT INTERLOCKED). ALSO USED ON 16A AND 25A SAFETYSWITCHES

9934 5
M25 x 1.5/ M25 x 1.5 THREAD SIZE USED ON ALL 32A SOCKET OUTLETS AND APPLIANCE INLETS (EXCEPT INTERLOCKED)

9936 5
PG21/ M25 X 1.5 THREAD SIZE USED ON 16A & 32A INTERLOCKED SWITCHSOCKET OUTLETS

9937 5
M32 X 1.5/ M32 X 1.5 THREAD SIZE USED ON ALL 63A SOCKET OUTLETS AND APPLIANCE INLETS

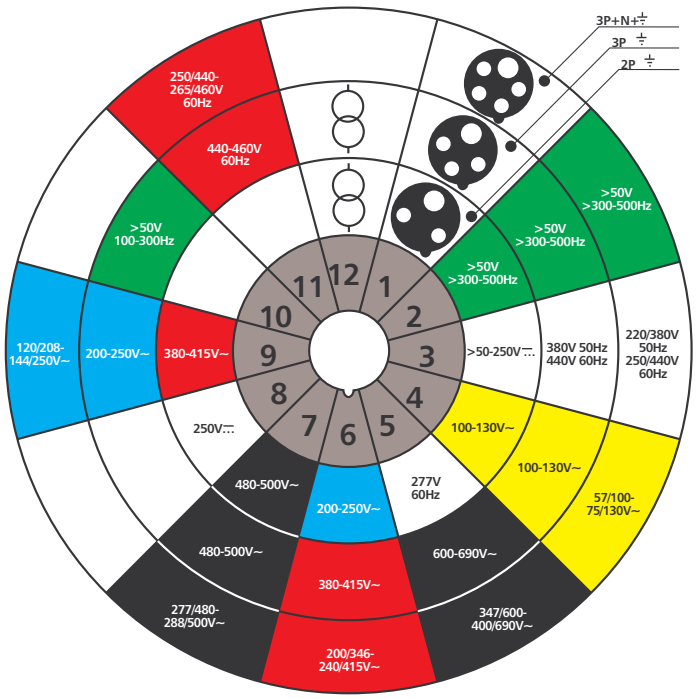
SUITABLE FOR IP44 PANEL SOCKET STRAIGHT OUTLETS

SUITABLE FOR COMMANDO UNITS AND SAFETYSWITCHES

9937 must not be used on installations that are rated above 63A

Commando Industrial Plugs and Sockets





By referring to the chart below, it can be seen that there can be no interchangeability of products as the earth socket tube is placed in a different 'clock' position according to the voltage and frequency. This clock position is determined by looking into a socket-outlet from the front with the key-way at the bottom.

Unless otherwise stated all frequencies are 50-60Hz.

Pilot Contact
Commando accessories provided with pilot contacts, in accordance with IEC.60309: 1997 and BS EN.60309:1998 have pilot pins shorter than other pins in the unit. Connection to suitable control circuitry will provide electrical interlock as the pilot circuit will make last and break first relative to the mains supply.

The pilot contact is positioned centrally in 3P +E and 3P+N+E accessories and diametrically opposite the earthing contact in 2P+E accessories.

Rating Code
The rating code which is found on the rating label of each accessory gives details of rated current, rated (operating) voltage (or range of voltages), rated frequency (if not 50/60Hz) and a symbol to indicate the position of the earth contact.

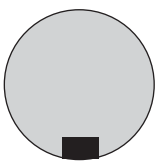
(i) For all products (except extra low voltage) the position given is that of the earth pin when a socket-outlet/connector is viewed from the front with the key-way at the bottom. When viewing a plug/ appliance inlet from the front with the key at the bottom, the position of the earth pin is reversed, ie., a 10 o'clock will appear at 2 o'clock and other positions are relative.

(ii) For extra low voltage products (ie., white and violet) the position given is that of the minor key when a socket-outlet is viewed from the front with the major key at the bottom. When viewing a plug/ appliance inlet from the front with the major key-way at the bottom, the position of the minor key-way is reversed, ie., 10 o'clock will appear as 2 o'clock and other positions are relative.

Voltage	Colour code
25	
50	
100 - 130	
200 - 250	
346 - 460	
500 - 750	
>50, 100 - 500Hz	

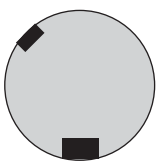
MAJOR AND MINOR KEY POSITIONS FOR ELV SOCKETS

25V ~



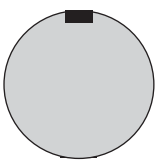
No minor key

25V ⎓ and 50V ⎓



Minor key at 10 o'clock

50V ~



Minor key at 12 o'clock

Key for symbols

a.c.

d.c.

isolating transformer

Commando Combi™



range introduction

Commando Combi units offer RCD protection in hazardous environments. Enclosed in PBT boxes, these units offer protection against high impact and are available in IP44 (Splashproof) or IP67 (Watertight), making Commando Combination units some of the safest products available.

features and benefits

- **High Impact Protection**
- **Available in either IP44 (Splashproof) or IP67 (Watertight) options**
- **Pre-designed, factory built option**



TOUGH AND IMPACT RESISTANT

OPTIONAL RCD PROTECTION

LOCKABLE LID

GOOD CHEMICAL RESISTANCE

IP44 PRE-CONFIGURED SOCKET OUTLETS AVAILABLE

CUSTOM DESIGNED, FACTORY BUILT OPTION AVAILABLE CONTACT TECHNICAL HOTLINE

IP67 waterproof socket and switchsocket outlets



Socket outlet selection includes 16A, 32A and 63A angled socket outlets across all relevant voltages.



IP44 SPLASHPROOF 100 - 130V 50 - 60 Hz

Socket Outlets

SINGLE PRE-WIRED WITH 30mA RCD



Amps	Pin Configuration	Earth Hour Pos	
16	2P+E	4	**K13413YEL**
32	2P+E	4	

Suitable for top entry 2 x 25mm

TWIN PRE-WIRED WITH 30mA RCDs INDIVIDUALLY PROTECTED



K13173YEL

Suitable for top entry 2 x Ø25 / 2 x Ø38 Bottom entry 3 x 47.5mm

TRIPLE PRE-WIRED WITH SINGLE 30mA RCD



K13193YEL

Suitable for top entry 2 x Ø25 / 2 x Ø38 Bottom entry 3 x 47.5mm

ANGLED TWIN SURFACE PRE-WIRED



K13143YEL

Suitable for top entry 2 x Ø25 / 2 x Ø38 Bottom entry 3 x 47.5mm

ANGLED TWIN SURFACE UNWIRED



K13043YEL

Suitable for top entry 2 x Ø25 / 2 x Ø38 Bottom entry 3 x 47.5mm

IP44 SPLASHPROOF 200 - 250V 50 - 60 Hz

Socket Outlets

SINGLE PRE-WIRED WITH 30mA RCD



Amps	Pin. Configuration	Earth Hour Pos	
16	2P+E	6	**K13414BLU**
32	2P+E	6	**K13433BLU**
63	2P+E	6	**K13463BLU***

16/32A Suitable for top entry 2 x 25mm. 63A Suitable for top entry 2 x Ø25/2 x Ø38. Bottom entry 3 x 47.5mm *Not as shown – see K13464 RED photo.

TWIN PRE-WIRED WITH 30mA RCDs INDIVIDUALLY PROTECTED



K13174BLU

K13184BLU

Suitable for top entry 2 x Ø25 / 2 x Ø38 Bottom entry 3 x 47.5mm

TRIPLE PRE-WIRED WITH SINGLE 30mA RCD



K13194BLU

Suitable for top entry 2 x Ø25 / 2 x Ø38 Bottom entry 3 x 47.5mm

ANGLED TWIN SURFACE PRE-WIRED



K13144BLU

Suitable for top entry 2 x Ø25 / 2 x Ø38 Bottom entry 3 x 47.5mm

ANGLED TWIN SURFACE UNWIRED



K13044BLU

Suitable for top entry 2 x Ø25 / 2 x Ø38 Bottom entry 3 x 47.5mm

IP44 SPLASHPROOF 380 - 415V 50 - 60 Hz

Socket Outlets

SINGLE PRE-WIRED WITH 30mA RCD



Amps	Pin Configuration	Earth Hour Pos	
16	3P+E	6	**K13415RED**
16	3P+N+E	6	**K13416RED**
32	3P+E	6	**K13434RED**
32	3P+N+E	6	**K13435RED**
63	3P+E	6	
63	3P+N+E	6	

16/32A Suitable for top entry 2 x 25mm

TWIN PRE-WIRED WITH 30mA RCDs INDIVIDUALLY PROTECTED



K13175RED

K13176RED

K13185RED

K13186RED

Suitable for top entry 2 x Ø25 / 2 x Ø38 Bottom entry 3 x 47.5mm



K13464RED

K13465RED

63A Suitable for top entry. 2 x Ø25/2 x Ø38. Bottom entry 3 x 47.5mm

IP67 WATERTIGHT 100 - 130V 50 - 60 Hz

Switchsocket Outlet
INTERLOCKED
PRE-WIRED WITH
30mA RCD

IP44



Amps	Pin Configuration	Earth Hour Pos	
			K13309YEL
			K13342YEL

Suitable for top entry 2 x Ø25

Socket Outlet
SINGLE
PRE-WIRED WITH
30mA RCD



Amps	Pin Configuration	Earth Hour Pos	
16	2P+E	4	**K13713YEL**
32	2P+E	4	

Suitable for top entry 2 x Ø25

Switchsocket Outlet
INTERLOCKED
PRE-WIRED WITH
30mA RCD



Amps	Pin Configuration	Earth Hour Pos	
			K13346YEL
			K13347YEL

Suitable for top entry 2 x Ø25

IP67 WATERTIGHT 200 - 250V 50 - 60 Hz

Switchsocket Outlet
INTERLOCKED
PRE-WIRED WITH
30mA RCD

IP44



Amps	Pin Configuration	Earth Hour Pos	
			K13310BLU
			K13343BLU

Suitable for top entry 2 x Ø25

Socket Outlet
SINGLE
PRE-WIRED WITH
30mA RCD



Amps	Pin Configuration	Earth Hour Pos	
16	2P+E	6	**K13714BLU**
32	2P+E	6	**K13733BLU**

Suitable for top entry 2 x Ø25

Switchsocket Outlet
INTERLOCKED
PRE-WIRED WITH
30mA RCD



Amps	Pin Configuration	Earth Hour Pos	
			K13348BLU
			K13349BLU

Suitable for top entry 2 x Ø25

IP67 WATERTIGHT 380 - 415V 50 - 60 Hz

Switchsocket Outlets
INTERLOCKED
PRE-WIRED WITH
30mA RCD

IP44



Amps	Pin Configuration	Earth Hour Pos	
			K13311RED
			K13312RED
			K13344RED
			K13345RED

Suitable for top entry 2 x Ø25

Socket Outlets
SINGLE
PRE-WIRED WITH
30mA RCD



Amps	Pin Configuration	Earth Hour Pos	
16	3P+E	6	**K13715RED**
16	3P+N+E	6	**K13716RED**
32	3P+E	6	**K13734RED**
32	3P+N+E	6	**K13735RED**

Suitable for top entry 2 x Ø25

Switchsocket Outlets
INTERLOCKED
PRE-WIRED WITH
30mA RCD



Amps	Pin Configuration	Earth Hour Pos	
			K13350RED
			K13351RED
			K13352RED
			K13353RED

Suitable for top entry 2 x Ø25



For custom built Modular Combi Units see page 264.

Modular Combi™



range introduction

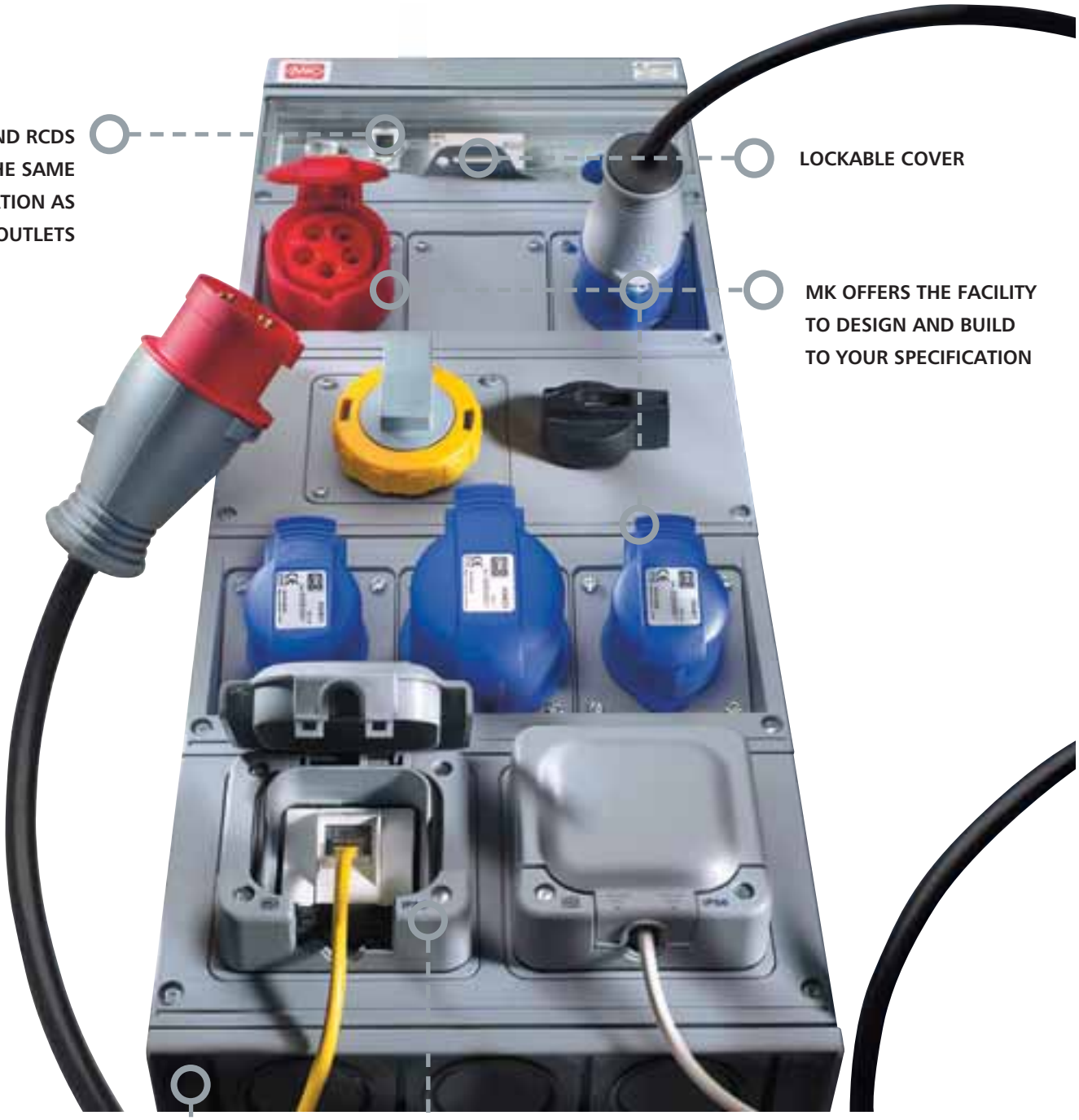
Offering circuit protection and control products as well as data connection in hazardous environments, Modular Combi units are made to order and can be designed for almost any application.

Enclosed in PBT boxes, these units offer protection against high impact and are IP44 (Splashproof), making Commando Combination units some of the safest products available.

features and benefits

- **Compact units replace outlets traditionally scattered around walls**
- **Combination of outlets with MCB and RCD protection**
- **High Impact Protection**
- **Custom options make it possible to design a unit for almost any application**

EXAMPLE CONFIGURATION



Socket Outlet Selection (IP44)

Socket Outlets Up to 3 per Row

Amps	Pin. Configuration	100 - 130V 50 - 60 Hz	Earth Hour Pos	200 - 250V 50 - 60 Hz	Earth Hour Pos	380 - 415V 50 - 60 Hz	Earth Hour Pos	440 - 460V 50 - 60 Hz	Earth Hour Pos	>50 - 250V d.c.	Earth Hour Pos
											
16	2P+E	**K9400YEL**	4	**K9401BLU**	6					**K9403GRY**	3
16	3P+E	**K9405YEL**	4	**K9406BLU**	9	**K9407RED**	6				
16	3P+N+E	**K9413YEL**	4	**K9414BLU**	9	**K9415RED**	6	**K9416RED**	11		
32	2P+E	**K9432YEL**	4	**K9433BLU**	6						
32	3P+E					**K9437RED**	6				
32	3P+N+E			**K9444BLU**	9	**K9445RED**	6	**K9446RED**	11		
63	2P+E			**K9544BLU***	6						
63	3P+E					**K9565RED***	6				
63	3P+N+E					**K9570RED***	6				

*Socket outlet – Angled

DIN Rail Selection

RCDs, MCBs & Contactor Modules

RATING	Switch Disconnector		MCB Single Pole				MCB* Double Pole			
			Type B 6kA	Type C 6kA	Type B 10kA	Type C 10kA	Type D* 10kA	Type B 10kA	Type C 10kA	Type D 10kA
	TWO	FOUR	ONE	ONE	ONE	ONE	ONE	TWO	TWO	TWO
										
16A			**5916s**	**8716s**	**KB116s**	**KC116s**	**KD116s**	**KB216s**	**KC216s**	**KD216s**
20A										
25A										
32A			**5932s**	**8732s**	**KB132s**	**KC132s**	**KD132s**	**KB232s**	**KC232s**	**KD232s**
40A										
63A	**5560s**				**KB163s**	**KC163s**	**KD163s**	**KB263s**	**KC263s**	**KD263s**
80A										
100A	**5500s**									
125A		**K51254s**								

* Available for Modular Combination units only

Switchsocket Outlets – Interlocked

IS TRAN ~ 50 - 60Hz		>50V 100 - 300 Hz		>50V 300 - 500 Hz		100 - 130V 50 - 60 Hz		200 - 250V 50 - 60 Hz		380 - 415V 50 - 60 Hz	
											
	Earth Hour Pos		Earth Hour Pos		Earth Hour Pos		Earth Hour Pos		Earth Hour Pos		Earth Hour Pos
K9404GRY	12					**K9802YEL**	4				
		K9410GRN	10	**K9411GRN**	2					**K9807RED**	6
				K9417GRN	2					**K9815RED**	6
						K9865YEL	4	**K9866BLU**	6		
										K9870RED	6
				K9447GRN	2					**K9873RED**	6

MCB* Triple Pole			RCBO With Solid Neutral	RCD 110V Double Pole		RCD 230V Double Pole		RCD Pulsating DC Fault Current Sensitive	
Type B 10kA	Type C 10kA	Type D 10kA	Type B 6kA 30mA	10mA	30mA	10mA	30mA	10mA	30mA
THREE	THREE	THREE	ONE	TWO	TWO	TWO	TWO	TWO	TWO
									
KB316s	**KC316s**	**KD316s**	**7934s**	**6016s**	**6416s**	**6316s**	**5716s**	**6216s**	**6716s**
KB332s	**KC332s**	**KD332s**	**7936s**		**6032s**		**6730s**		**6630s**
KB363s	**KC363s**	**KD363s**					**5760s**		**5660s**
							5780s		
							7700s		

DIN Rail Selection

RCDs, MCBs & Contactor Modules

RCD 230/400V Four Pole

30mA

Contactors

RATING	FOUR	ONE	TWO	THREE
				
16A				
20A		6220s 6720s*	6420s	
25A	6425s			
32A				
40A	6440s		7240s	7440s
63A	6463s		7263s	7463s
80A				
100A				
125A				

* Manual override

Time Switch Selection

SYNCHRONOUS THREE MODULE	QUARTZ STABILISED THREE MODULE	SYNCHRONOUS ONE MODULE	DIGITAL ONE CHANNEL TWO MODULE	ONE MODULE	DIGITAL TWO CHANNEL TWO MODULE
					
5707s 1 7 DAY DIAL MIN SETTING 3 HOURS	**5807s** 1 7 DAY DIAL MIN SETTING 3 HOURS	**5833s** 1 24 HOUR DIAL MIN SETTING 30 MINUTES	**5731s** 1 24 HOUR/7 DAY DISPLAY MIN SETTING 1 MINUTE	**5733s** 1 24 HOUR DIAL MIN SETTING 1 MINUTE	**5732s** 1 24 HOUR/7 DAY DISPLAY MIN SETTING 1 MINUTE
5724s 1 24 HOUR DIAL MIN SETTING 30 MINUTES	**5824s** 1 24 HOUR DIAL MIN SETTING 30 MINUTEs				

Masterseal Selection

Data/Telecom Enclosure Euro Format

Switches

ENCLOSURES



56423GRY 1
1 GANG
DATA ENCLOSURE
FOR ONE MODULE EURO OUTLET
SUPPLIED WITH 2 X HALF MODULE BLANKS

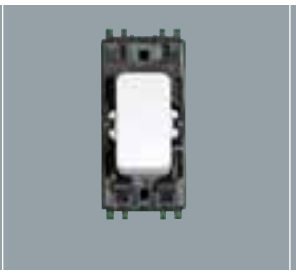


K56420GRY 1
1 GANG
FOR USE WITH ANY ONE SWITCH MODULE

K56421GRY 1
1 GANG WITH NEON
FOR USE WITH ANY SWITCH AND ANY NEON MODULE

K56422GRY 1
2 GANG
FOR USE WITH ANY TWO SWITCH MODULES

SWITCH MODULES



56891BLK 10
20A SP
ONE-WAY

56892BLK 10
20AP SP
TWO-WAY

56893BLK 10
20A
INTERMEDIATE

56896BLK 10
20A DP
ONE-WAY



56881BLK 10
10A SP
ONE-WAY

56882BLK 10
10A SP
TWO-WAY

56883BLK 10
10A DP
ONE-WAY

Note: Ingress protection of Modular Combi is IP44 even when combined with Masterseal outlets and switches, and switchsocket outlets – interlocked.

For the full range of available Euro Modules, please see the Logic Plus section, page 54

SUMMARY GUIDE

Please note that the maximum number of rows (i.e. the maximum height) in an enclosure is 5. Enclosure frontplates can only accept Commando socket.

STEP 1 Choose any type and number of Commando socket outlets

Rating	Pin Config.	SOCKET OUTLETS - STRAIGHT 100-130V	200-250V	380-415V	440-460V d.c.	>50-250V 50-60Hz	IS TRAN 100-300Hz	>50V 300-500Hz	>50V	SOCKET OUTLETS - INTERLOCKED 100-130V	200-250V	380-415V
16A	2P+E	K9400YEL	K9401BLU			K9403GRY	K9404GRY			K9802YEL	K9803BLU	
16A	3P+E	K9405YEL	K9406BLU	K9407RED				K9410GRN	K9411GRN			K9807RED
16A	3P+N+E	K9413YEL	K9414BLU	K9415RED	K9416RED				K9417GRN			K9815RED
32A	2P+E	K9432YEL	K9433BLU							K9865YEL	K9866BLU	
32A	3P+E			K9437RED								K9870RED
32A	3P+N+E		K9444BLU	K9445RED	K9446RED				K9447GRN			K9873RED
63A	2P + E		K9544BLU*									
63A	3P+E			K9565RED*								
63A	3P+N+E			K9570RED*								

*Angled socket outlets

STEP 2 Choose the type of circuit protection for the outlets

Rating	SWITCH DISCONNECTOR 2 POLE	4 POLE	MCB SINGLE POLE 6kA TYPE B	TYPE C	10kA TYPE B	TYPE C	TYPE D	MCB DOUBLE POLE TYPE B	TYPE C	TYPE D	MCB TRIPLE POLE TYPE B	TYPE C	TYPE D
16A			5916s	8716s	KB116s	KC116s	KD116s	KB216s	KC216s	KD216s	KB316s	KC316s	KD316s
25A													
32A			5932s	8732s	KB132s	KC132s	KD132s	KB232s	KC232s	KD232s	KB332s	KC332s	KD332s
40A													
63A	5560s				KB163s	KC163s	KD163s	KB263s	KC263s	KD263s	KB363s	KC363s	KD363s
80A													
100A	5500s												
125A	K5525s	K1254s											

Rating	RCBO One Module SOLID NEUTRAL (30mA) 6kA TYPE B	10kA TYPE B	TYPE C	RCD 110V DOUBLE POLE 10mA	30mA	RCD 230V DOUBLE POLE 10mA	30mA	RCD PULSATING 10mA	30mA	RCD 230/400V FOUR POLE 30mA
16A	7934s	KB8116s	KC8716s	6016s	6416s	6316s	5716s	6216s	6716s	
25A										6425s
32A	7936s	KB8116s	KC8132s		6032s		6730s		6630s	
40A										6440s
63A							5760s			6463s
80A							5780s			
100A							7700s			

STEP 3 Choose the Control Products

RATING	CONTACTORS ONE MODULE	TWO MODULE	THREE MODULE
16A			
20A	6220s 6720s	6420s	
25A			
32A			
40A		7240s	7440s
63A		7263s	7463s

TIME SWITCHES

SYNCHRONOUS THREE MODULE	QUARTZ STABILISED THREE MODULE	SYNCHRONOUS ONE MODULE	DIGITAL ONE CHANNEL TWO MODULE	ONE MODULE	DIGITAL TWO CHANNEL TWO MODULE
5707s	5807s	5833s	5731s	5733s	5732s
5724s	5824s				

STEP 4 Choose any Masterseal Products

MASTERSEAL

SOCKET OUTLETS 13AMP	16AMP	SWITCH ENCLOSURES	SWITCH MODULES 20AMP	10AMP
56480GRY	56483GRY	56420GRY	56891	56881
		56421GRY	56892	56882
		56422GRY	56893	56883
		56423GRY (Data/Telecom)	56896	

Overall Dimensions

Dimensions

HEIGHT		WIDTH
1 Row	228 mm	252mm
2 Row	358mm	252mm
3 Row	488mm	252mm
4 Row	618mm	252mm
5 Row	748mm	252mm

DEPTH (with various products)	
16A SKT OUTLET	139mm
32A SKT OUTLET	148mm
16A INTERLOCK	152mm
32A SKT OUTLET	161mm
63A SKT OUTLET	167mm
MASTERSEAL SKT O/T, FCU & DATA	146mm
MASTERSEAL SWITCH	135mm

STEP 5 Phone the Technical Helpline (01268 563720) for advice or to place your order



range introduction

The Sentry range of Consumer Units from MK Electric has been stylishly designed to blend in with its environment. The curved lines and slim-line appearance mean it won't look out of place when installed in hallways, lounges or kitchens of new properties. The expanded range includes a 21-module unit for larger installations and also a 4-module unit to cater for small one-off installations and extensions to existing ones.

The MK Electric Design Service offers a pre-assembly service for custom built boards with all devices fitted, busbars cut and fitted with devices, live and neutral cables terminated. This service is available across the entire range of Metal, Insulated, Flush and Skeleton units.

features and benefits

Supports 17th Edition Compliance
Full range of products to support compliance with the 17th Edition of the Wiring Regulations including RCBOs and pre-assembled split load boards with a variety of RCD configurations.

Sentry Skeleton Boards for social housing
For use in a Mantel or Clifton type enclosure, a complete offering of blank and pre-configured skeleton units for use in buildings with multi-occupancy dwellings.

MK Electric Design Service for pre-assembled Consumer Units
Save time and money by specifying project requirements through the MK Electric Design Service. Pre-assembled custom built boards, with all devices pre-fitted with busbars and cables are available to suit any installation. Available across the entire range of Metal, Insulated, Flush and Skeleton units.

Flush mounting versions
Flush mounting available for even neater installations.

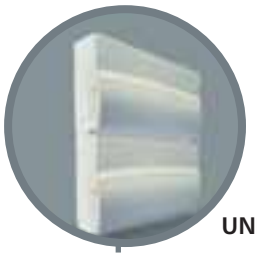
Protective lid
Opaque and downward opening lid conceals protective devices and labelling.

Floating busbar system
Gives maximum installation flexibility.

Broad selection of pre-assembled split load units available
Suits a variety of applications and saves installation time.

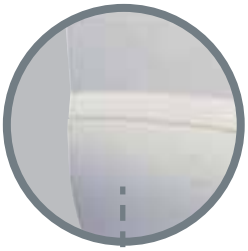
Stacking options
For larger installations dual rail 24, 32 and 42 module units possible in both insulated and metal.

MK Sentry Consumer Unit Features and Benefits

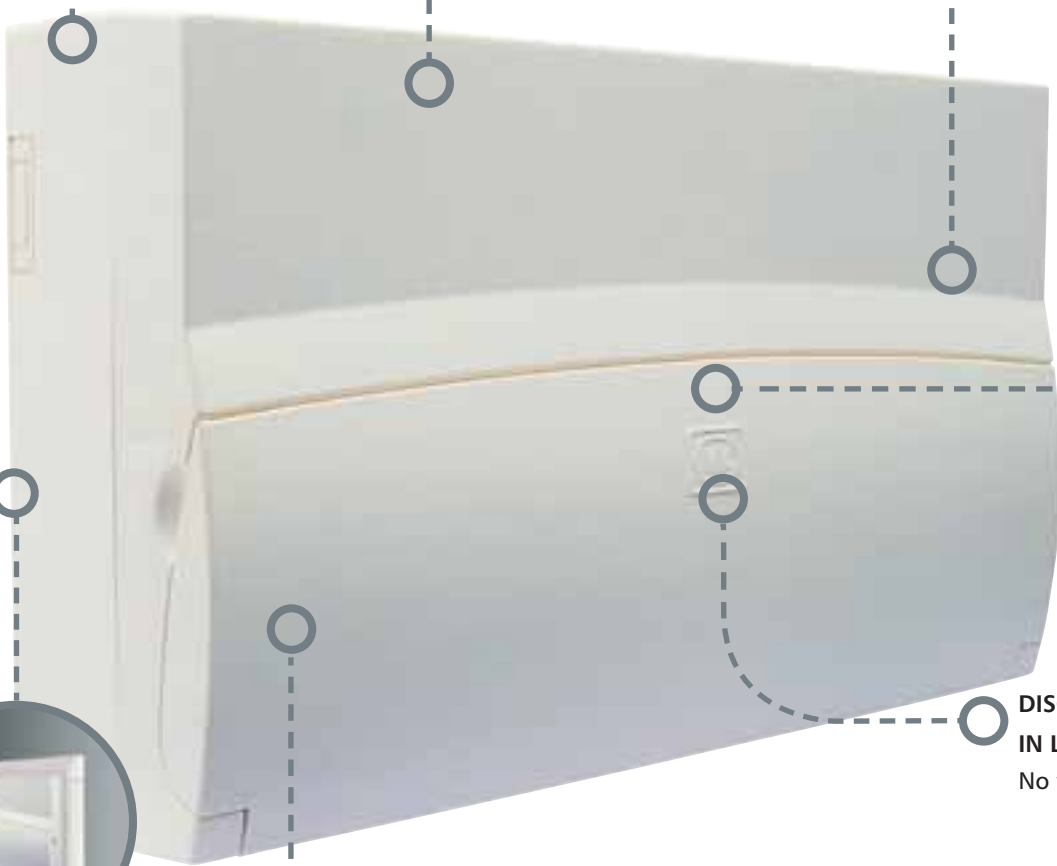


UNITS CAN BE STACKED FOR LARGER INSTALLATIONS

COMPACT SIZE
But wiring space increased where required most



LOW PROFILE AND CURVED DESIGN
Blends unobtrusively into the environment



OPTIONAL LOCKING MECHANISM



DISCREET MOULDED IN LOGO
No visible fixing screws



FLUSH MOUNTABLE OPTIONS
For an even neater installation

OPAQUE AND DOWNWARD OPENING LID
Hides labels and devices

CONSUMER UNIT SELECTION GUIDE

STEP 1 Determine the type of consumer unit configuration required. e.g Split Load, Standard or combination of split load / single RCD or dual RCD. For each Switch Disconnector or RCD to be used allow 2 modular ways.

STEP 2 Determine the number of outgoing circuits required. e.g Cooker, Lighting, Ring Main etc. For each circuit to be protected by an MCB or RCBO allow 1 modular way.

STEP 3 Determine what control products are required. e.g Bell Transformer, Time Delay Switch, contactors, timeswitches etc.

STEP 4 Determine the number of 'spare' modular ways required for future upgrades. For each 'spare' modular way select 1 Sentry blank module – 5544s or K5545sMAG (cover mounted blanks supplied with consumer units. See page 291).

STEP 5 Now add together the total number of modular ways required.

STEP 6 Select from our range of Insulated, Metal, Flush or stacked consumer units (using standard consumer units plus stacking kits). Choose the type and size most appropriate for your requirements.

FLEXIBLE NEUTRAL BAR CONFIGURATION
Enables installer to select a wide combination of protected and unprotected circuits

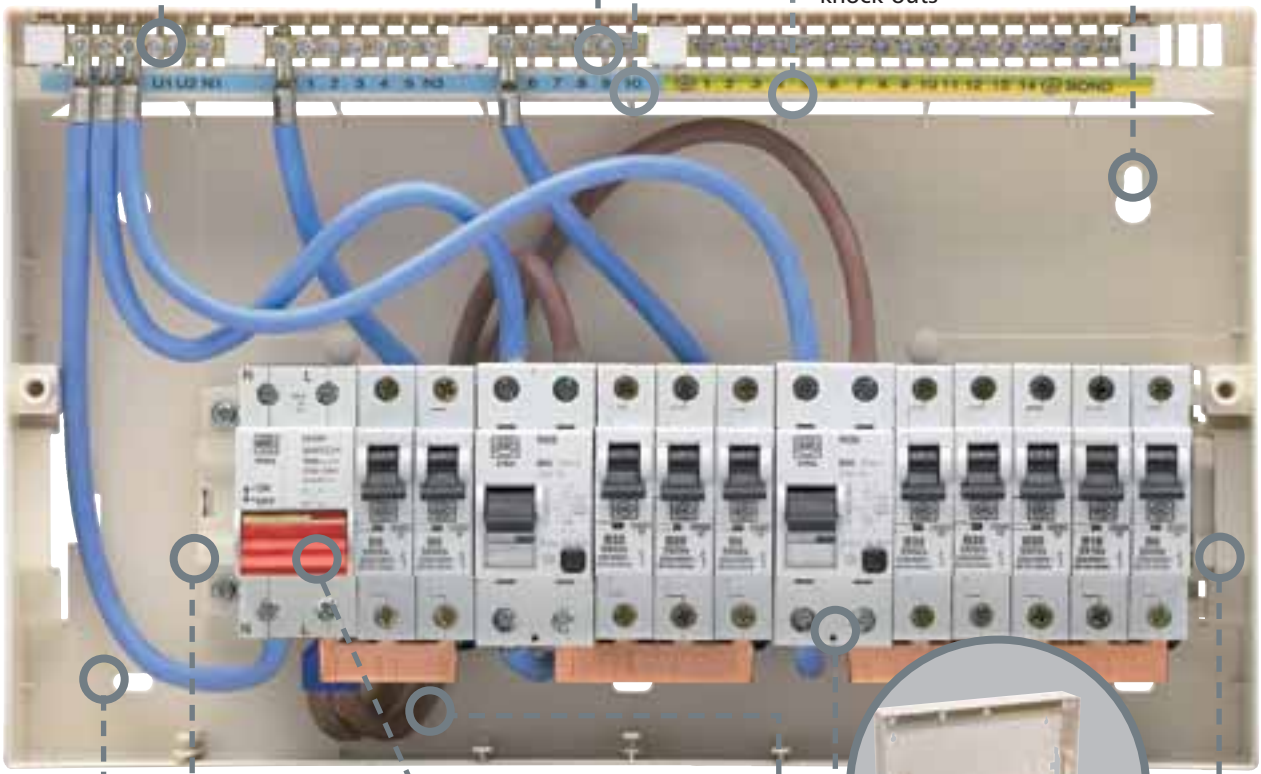


BACKED OUT AND CAPTIVE COMBI-HEAD SCREWS
Allows speedy installation

COLOUR CODED EARTH AND NEUTRAL TERMINAL LOCATED AT TOP OF UNIT FOR EASE OF WIRING



AMPLE 360° KNOCK-OUTS FOR CABLE ROUTING
Open cable entry at rear plus optional rear knock-outs



OFFSET INCOMER
Provides additional wiring space making mains input connections easier

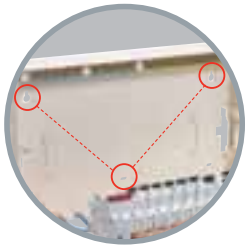


FLOATING BUSBAR SYSTEM
For maximum installation flexibility including acceptance of control modules

EASILY REMOVABLE DIN-RAIL
Improves first fix

AMPLE WIRING SPACE

RAISED DIN-RAIL
For improved cable routing



TRIPOD FIXING HOLES
Allow tripod fixing to cope with uneven surfaces. Hole locations allow access for cordless drills and power drivers

STACKING OPTIONS AVAILABLE
For 12, 16 & 21 Module Units ideal for larger applications, or where space may be limited

The MK Electric Design Service

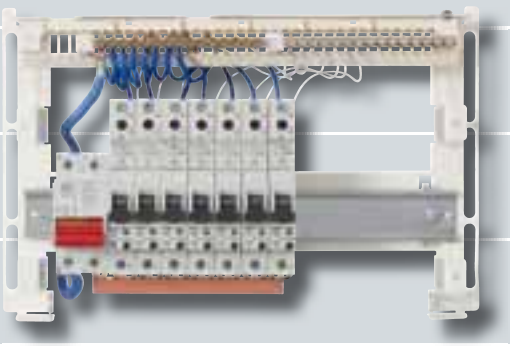
The MK Electric Design Service is perfect for when only a customised solution can meet your requirements, or when fully assembled Consumer Units can be provided for your project to save you installation time.

Our dedicated team can help you to build the best configurations for your project, and then assemble the boards ready for installation. The service is available for all MK Consumer Units – Metalclad, Insulated, Flush and Skeleton. Using standard and non-standard Sentry components we can build and supply fully assembled units to an agreed design. For example, have your split load boards supplied with all the devices pre-fitted with busbars and cables to suit the installation This service is ideal for housing developers, or any application requiring typically more than twenty units.

- Dedicated team on hand to build configuration to meet your needs
- Service is available for all MK Consumer Units and Skeleton Units
- Ideal for housing developments, or any application requiring typically more than 20 units
- Faster installation time on site
- Fast turnaround – 1 working day response time to initial enquiry

To find out more call the MK Electric Technical Services Team on 01268 563720 or visit www.mkelectric.co.uk and follow the links to the Design Service.

STEP 1	Call the MK Electric Technical Services Team on 01268 563720 **or** visit www.mkelectric.co.uk and follow the links to the Design Service
STEP 2	Discuss the details of your project and Circuit Protection requirements with a member of the MK Technical Services Team **or** complete the online enquiry and click send
STEP 3	Within one working day you will have a response to your initial enquiry
STEP 4	Confirm the configurations and quantities
STEP 5	Receive the quote for your order
STEP 6	Place your order with your wholesaler
STEP 7	Your order will be delivered to the wholesaler of your choice. All boards will be fully assembled and ready for installation



MK Sentry Skeleton Unit Features and Benefits

FLEXIBLE NEUTRAL BAR CONFIGURATION
Enables a wide combination of protected and unprotected circuits

SUITABLE FOR USE IN MOST MANTEL AND CLIFTON TYPE ENCLOSURES

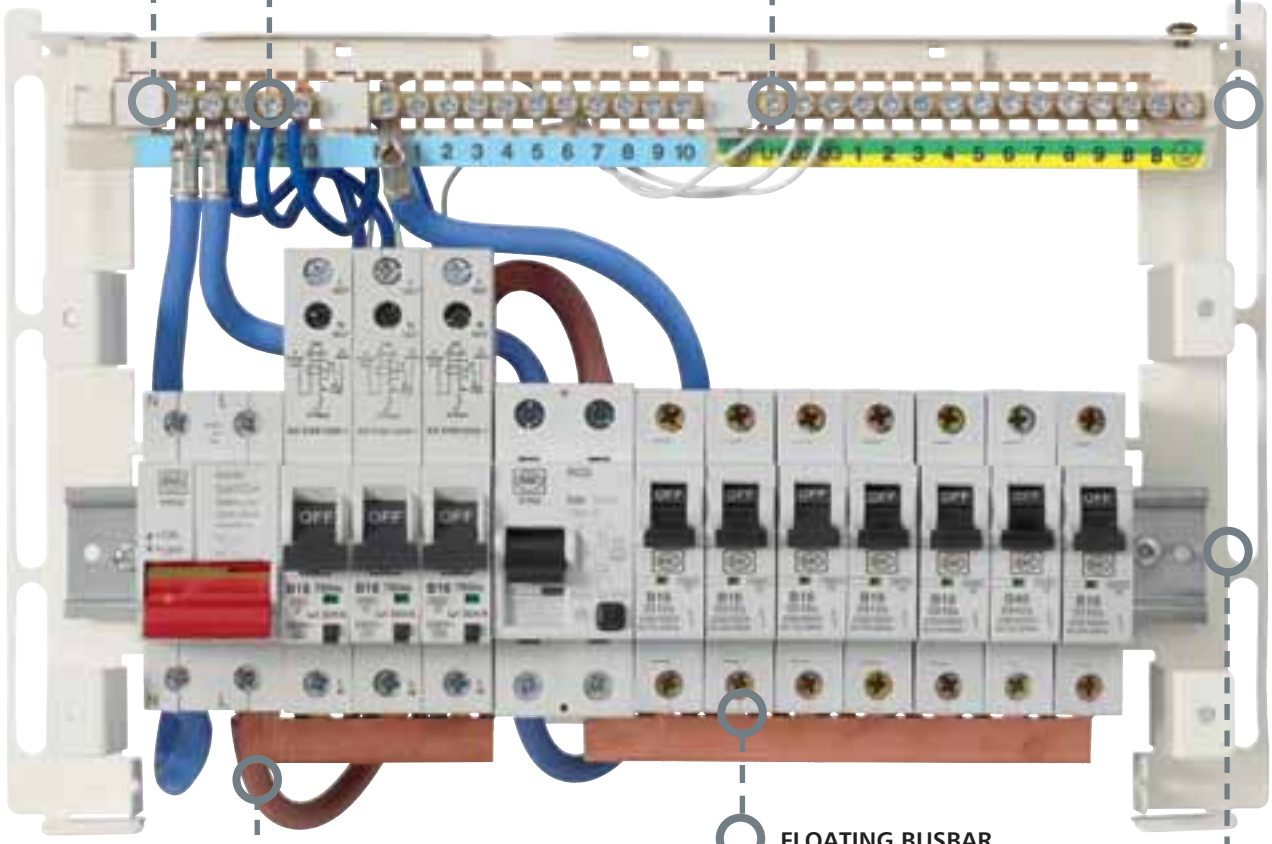




RAISED TERMINAL BAR
Allows easier wiring of devices into the terminals

BACKED OUT AND CAPTIVE COMBI-HEAD SCREWS
Quick and easy to install

ELONGATED FIXING SLOTS
Allows easy positioning of the unit within the enclosure



FLOATING BUSBAR SYSTEM
Busbar can be cut according to devices fitted

EASILY REMOVABLE DIN-RAIL
Improves first fix

AMPLE WIRING SPACE
Quick and easy to install

Selecting the right Consumer Unit for your installation

Sentry Consumer Units are designed to be fully flexible and offer a range of configurations.

Independent Circuit Protection

Boards with Switch Disconnectors and RCBOs give maximum protection and potentially less annoyance to the end user. In the event of fault conditions or nuisance tripping the disconnect will only effect the dedicated circuit.

K5612SMAG



Consumer unit options

Insulated	Metal	Flush	Number of ways in bare board
K5612sMAG	K5512sMAG	K6512sMAG	12
K5616sMAG	K5516sMAG	K6516sMAG	16
K5621sMAG	K5521sMAG	K6521sMAG	21

Typical Enclosure Configuration

SWITCH	RCBO	RCBO	RCBO	RCBO	RCBO	RCBO	RCBO	RCBO	RCBO	RCBO
	Shower	Sockets Upstairs	Sockets Downstairs	Cooker	Outside Sockets	Immersion Heater	Lighting Upstairs	Lighting Downstairs	Burglar Alarm	Smoke Alarm

Split Load Configurations, up to half Independent Circuits

Split load boards with RCDs, MCBs and RCBOs are ideal for protection of key designated circuits, for example upstairs lighting, downstairs lighting, smoke alarms and showers. Configurations shown include a Switch and RCD, with a further 8 and 12 ways respectively.

K5686SMAG17ED



Consumer unit options

Insulated	Metal	Number of ways in bare board
K5682sMAG17ED	K5582sMAG17ED	8
K5686sMAG17ED	K5586sMAG17ED	12
K5681sMAG17ED	K5581sMAG17ED	17

Some Examples of 8 way Configurations

SWITCH	RCBO	RCD		MCB	MCB	MCB	MCB	MCB	MCB	SPARE
SWITCH	RCBO	RCBO	RCD		MCB	MCB	MCB	MCB	MCB	SPARE
SWITCH	RCBO	RCBO	RCBO	RCD		MCB	MCB	MCB	MCB	MCB

Dual RCD Protection, with some independent circuits

Dual RCD boards with MCB's and RCBOs give both general and essential protection. The configurations shown include a Switch and 2 RCDs, with a further 10 and 15 ways respectively.

K5681SMAG17ED



Consumer unit options

Insulated	Metal	Number of ways in bare board
K5666sMAG17ED	K5566sMAG17ED	10
K5686sMAG17ED	K5586sMAG17ED	10
K5681sMAG17ED	K5581sMAG17ED	15
K5683sMAG17ED	K5583sMAG17ED	15

Some Examples of 10 way Configurations

SWITCH	RCBO	RCD	MCB	MCB	MCB	MCB	MCB	RCD	MCB	MCB	MCB	MCB
SWITCH	RCBO	RCBO	RCD	MCB	MCB	MCB	MCB	MCB	RCD	MCB	MCB	MCB
SWITCH	RCD	MCB	MCB	MCB	MCB	MCB	RCD	MCB	MCB	MCB	MCB	MCB

Some Examples of 15 way Configurations

SWITCH	RCBO	RCBO	RCD	MCB	MCB	MCB	MCB	MCB	MCB	MCB	MCB	RCD	MCB	MCB	MCB	MCB	MCB
SWITCH	RCBO	RCD	MCB	MCB	MCB	MCB	MCB	MCB	MCB	MCB	MCB	MCB	RCD	MCB	MCB	MCB	MCB
SWITCH	RCD	MCB	MCB	MCB	MCB	MCB	MCB	MCB	MCB	MCB	MCB	RCD	MCB	MCB	MCB	MCB	MCB

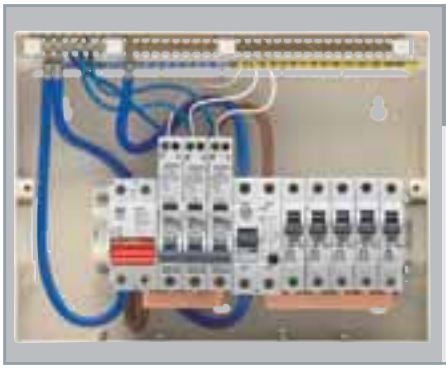
These are some examples of Standard, Neutral and Earth bar configurations. Additional labelling is included in the box to allow for further alternatives

TERMINAL BAR CONFIGURATION										
	Modules Empty	Earth Terminals		Neutral Terminals		Total Ways	Unprotected	RCD1	RCD2	RCD3
		Circuits	Bond	Total	Separate Blocks					
K5604sMAG	4	4	1	4	1	2	2	n/a	n/a	n/a
K5608sMAG	8	8	2	8	1	10	6	n/a	n/a	n/a
K5612sMAG	12	12	3	15	6 + 9	8	3 or 10*	8	n/a	n/a
K5616sMAG	16	14	3	19	6 + 7 + 6	16	2 or 7 or 14*	5	5	n/a
K5621sMAG	21	18	3	27	7 + 7 + 7+ 6	21	2 or 7 or 12 or 18*	5	5	3
K5504sMAG	4	4	1	4	1	2	2	n/a	n/a	n/a
K5508sMAG K6508sMAG	8	8	2	8	1	6	6	n/a	n/a	n/a
K5512sMAG K6512sMAG	12	12	3	15	6 + 9	8	3 or 10*	8	n/a	n/a
K5516sMAG K6516sMAG	16	14	3	19	6 + 7 + 6	16	2 or 7 or 14*	5	5	n/a
K5521sMAG K6521sMAG	21	18	3	27	7 + 7 + 7+ 6	21	2 or 7 or 12 or 18*	5	5	3

* Dependant on RCDs fitted

Note: Additional Terminal labels supplied on main sheet to support alternative terminal configurations

RATING	Switch Disconnector	MCB Single Pole Type B	MCB Single Pole Type C	RCBO with Solid Neutral Type B	Residential 6kA RCD 230V Double Pole			Industrial 10kA RCD 110V Double Pole	
				30mA	30mA	100mA	300mA	10mA	30mA
	TWO	ONE	ONE	ONE	TWO	TWO	TWO	TWO	TWO
									
3A		5903s	8703s						
6A		5906s	8706s	7932s					
10A		5910s	8710s	7933s					
16A		5916s	8716s	7934s	7816s			6016s	6416s
20A		5920s	8720s	7935s					
25A		5925s	8725s						
32A		5932s	8732s	7936s	7832s				6032s
40A		5940s	8740s	7937s	7840s				
45A		5945s		7938s					
50A		5950s	8750s	7939s					
63A	5560s				7860s	7560s	7660s		
80A					7880s	7580s	7680s		6080s
100A	5500s								

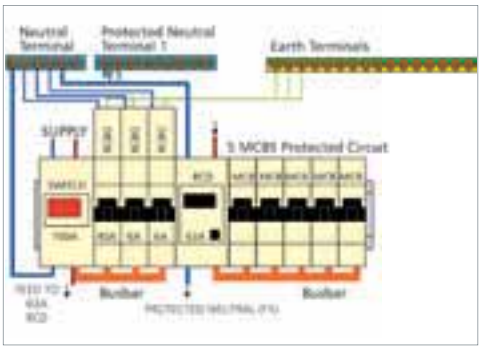


TO BUILD A SPLIT LOAD RCD CONSUMER UNIT WITH RCBOS e.g. 3+5 split-load

Requires:

K5612sMAG	Insulated Consumer Unit, 12 Mod
K5563s	Split Load Cable Kit
5500s	Switch Disconnector
5780s	RCD, 80A 30mA

Select up to 3 RCBOs and 5 MCBs.



Industrial 10kA RCD 230V Double Pole				Industrial 10kA RCD Pulsating DC Fault Current Sensitive		Industrial 10kA RCD Time Delayed 230V Double Pole	Industrial 10kA RCD 230/400V Four Pole			Note: Only suitable as standalone devices, in Sentry four module enclosures and Commando Combi
10mA	30mA	100mA	300mA	10mA	30mA	100mA	30mA	100mA	300mA	
TWO	TWO	TWO	TWO	TWO	TWO	TWO	FOUR	FOUR	FOUR	
										RATING
										3A
										6A
										10A
6316s	5716s			6216s	6716s					16A
										20A
							6425s			25A
	6730s				6630s					32A
	5740s				5640s		6440s	6240s		40A
										45A
										50A
	5760s	6160s	5860s		5660s		6463s	6363s	6263s	63A
	5780s	6180s	5880s			6980s				80A
	7700s	6600s	7800s			6400s				100A

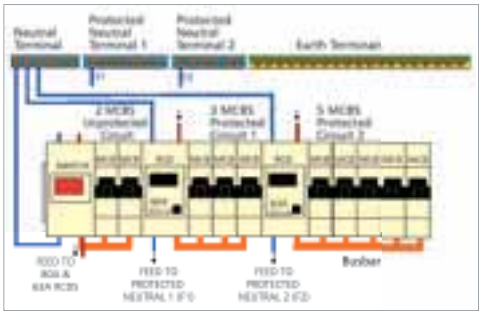


TO BUILD A DUAL RCD CONSUMER UNIT e.g. 2 + 3 + 5 split-load

Requires:

K5616sMAG	Insulated Consumer Unit, 12 Mod
K5568s	Split Load Cable Kit twin RCD arrangement
5500s	Switch Disconnector
5780s	RCD, 80A 30mA
5760s	RCD, 63A 30mA

Select up to 10 MCBs.



Consumer Units

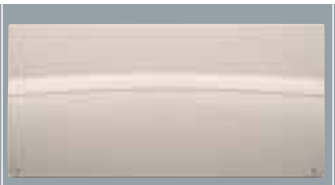
METAL
SURFACE



K5504sMAG



K5512sMAG



K5521sMAG



K5508sMAG



K5516sMAG

K5504sMAG 1
ACCEPTS 4
ONE MODULE PRODUCTS
(1 INTEGRAL NEUTRAL BAR)

K5508sMAG 1
ACCEPTS 8
ONE MODULE PRODUCTS
(1 INTEGRAL NEUTRAL BAR)

All units are magnolia coloured.

All units feature an enclosure box of welded construction finished in a tough coating of polyester epoxy paint containing ample knockouts in top, bottom, side and rear surfaces.

The units have an impact resistant, flame retardant, thermoplastic cover and lid.

Dual rail units are available for the 12, 16 and 21 module units to enable single tariff and split load (up to 80A) using Stacking Kits K6061sMAG, K6062sMAG and K6063s MAG respectively in between the units.

Degree of Protection to BS EN 60529 to IP2X C

Precautions must be taken to maintain the IP rating, e.g. use of cable glands and knockouts

BS EN 60439-3: 1999

K5512sMAG 1
ACCEPTS 12
ONE MODULE PRODUCTS
(2 INTEGRAL NEUTRAL BARS
FITTED WITH LINK)

K5516sMAG 1
ACCEPTS 16
ONE MODULE PRODUCTS
(3 INTEGRAL NEUTRAL BARS
FITTED WITH LINK)

DIMENSIONS:

	WIDTH		HEIGHT		DEPTH
K5504sMAG:	140	x	230	x	110mm
K5508sMAG:	234	x	230	x	110mm
K5512sMAG:	306	x	230	x	110mm
K5516sMAG:	378	x	230	x	110mm
K5521sMAG:	468	x	230	x	110mm

Thickness of all Stacking Kits: 15mm

Main incomer maximum rating
K5604sMAG and K5504sMAG: 63A

All other consumer units: 100A

Cover mounted blanks are supplied with ALL consumer units (2 off x 1 for 4, 8 and 12 module and 2 off x 2 for 16 and 21 module)

K5521sMAG 1
ACCEPTS 21
ONE MODULE PRODUCTS
(4 INTEGRAL NEUTRAL BARS
FITTED WITH LINKS)



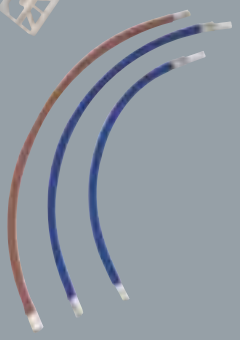
Assembly using a stacking kit

Stacking Kits

FOR METAL AND INSULATED
CONSUMER UNITS



K6063sMAG



K5561s

K6061sMAG 1
SUITABLE FOR USE WITH
12 MODULE UNITS

K6062sMAG 1
SUITABLE FOR USE WITH
16 MODULE UNITS

K6063sMAG 1
SUITABLE FOR USE WITH
21 MODULE UNITS

K5561s 1
CABLE KIT FOR STACKED
SENTRY UNITS

DUAL RAIL UNITS CAN BE CREATED USING 12. 16 AND 21 MODULE UNITS AND THE APPROPRIATE STACKING KIT.

Ideal for large applications or if additional capacity is required or for dual tariff applications.

K6061sMAG, K6062sMAG, K6063sMAG
Enables two consumer units to be stacked (joined together) to form one integral consumer unit. Includes frame nuts, bolts and earth cable (for bonding earth terminal bars together).

Knockout holes in the base and top of consumer units align, allowing cables to pass through easily.

K5561s
Includes 3 cables (2 neutral and 1 live) for use when electronically connecting the upper and lower units of a stacking assembly for either main incomer or split load arrangements.

This kit must be used to ensure compliance with BS EN 60439-3: 1999.

Consumer Units

INSULATED
SURFACE



K5604sMAG



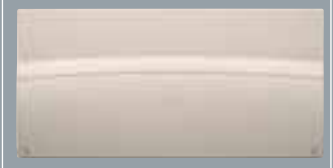
K5608sMAG



K5612sMAG



K5616sMAG



K5621sMAG

METAL
FLUSH



K6508sMAG



K6512sMAG



K6516sMAG



K6521sMAG

K5604sMAG 1

ACCEPTS 4
ONE MODULE PRODUCTS
(1 INTEGRAL NEUTRAL BAR)

K5608sMAG 1

ACCEPTS 8
ONE MODULE PRODUCTS
(1 INTEGRAL NEUTRAL BAR)

All units are magnolia coloured.

All units feature a robust base together with an all over front cover and moulded lid in an impact resistant, flame retardant thermoplastic. Cable entry points are located on top, bottom, side and rear surfaces.

DIMENSIONS:

	WIDTH		HEIGHT		DEPTH
K5604sMAG:	140	x	230	x	110mm
K5608sMAG:	234	x	230	x	110mm
K5612sMAG:	306	x	230	x	110mm
K5616sMAG:	378	x	230	x	110mm
K5621sMAG:	468	x	230	x	110mm

Main incomer maximum rating
K5604sMAG and K5504sMAG: 63A

All other consumer units: 100A

K5612sMAG 1

ACCEPTS 12
ONE MODULE PRODUCTS
(2 INTEGRAL NEUTRAL BARS
FITTED WITH LINK)

K5616sMAG 1

ACCEPTS 16
ONE MODULE PRODUCTS
(3 INTEGRAL NEUTRAL BARS
FITTED WITH LINK)

K5621sMAG 1

ACCEPTS 21
ONE MODULE PRODUCTS
(4 INTEGRAL NEUTRAL BARS
FITTED WITH LINKS)

Degree of protection to BS EN 60529 to IP2XC.

Precautions must be taken to maintain the IP rating, e.g. use of cable glands and knockouts.

BS EN 60439-3: 1999

FACTORY BUILT SERVICE
MK can save you time and money by pre-assembling Consumer units with your required Sentry components

K6508sMAG 1

ACCEPTS 8
ONE MODULE PRODUCTS
(1 INTEGRAL NEUTRAL BAR)

K6512sMAG 1

ACCEPTS 12
ONE MODULE PRODUCTS
(2 INTEGRAL NEUTRAL BARS
FITTED WITH LINK)

All units feature a tough galvanised metal box for insertion into the wall cavity, which can be secured at the rear or panel-mounted using the brackets supplied. The DIN rail embodies a useful alignment adjusting mechanism to make for a speedy installation. The units have an impact resistant, flame retardant, thermoplastic cover, lid and a flush moulded frame is supplied to overlap the exposed cavity to produce a smooth line between unit and wall.

Degree of protection to BS EN 60529 to IP2XC.

Precautions must be taken to maintain the IP rating, e.g. use of cable glands and knockouts.

Cover mounted blanks are supplied with ALL consumer units (2 off x 1 for 4, 8 and 12 module and 2 off x 2 for 16 and 21 module)

K6516sMAG 1

ACCEPTS 16
ONE MODULE PRODUCTS
(3 INTEGRAL NEUTRAL BARS
FITTED WITH LINK)

K6521sMAG 1

ACCEPTS 21
ONE MODULE PRODUCTS
(4 INTEGRAL NEUTRAL BARS
FITTED WITH LINKS)

BS EN 60439-3: 1999

DIMENSIONS:

	WIDTH		HEIGHT		DEPTH
K6508sMAG:	234	x	230	x	106.5mm
K6512sMAG:	306	x	230	x	106.5mm
K6516sMAG:	378	x	230	x	106.5mm
K6521sMAG:	468	x	230	x	106.5mm

Flush frame adds 38mm per side to the unit

WALL CAVITY DIMENSIONS:

	WIDTH		HEIGHT		DEPTH (min)
K6508sMAG:	245	x	235	x	67mm
K6512sMAG:	315	x	235	x	67mm
K6516sMAG:	390	x	235	x	67mm
K6521s:MAG	480	x	235	x	67mm

Depth of flush consumer unit visible on wall: 50mm

Consumer Units

WITH SPLIT-LOAD SINGLE RCD ARRANGEMENTS METAL SURFACE



K5582sMAG



K5586sMAG



K5566sMAG



K5581sMAG

WITH SPLIT-LOAD SINGLE RCD ARRANGEMENTS INSULATED SURFACE



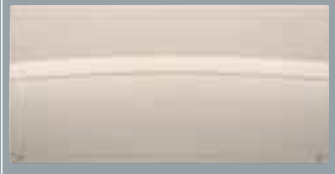
K5682sMAG



K5686sMAG



K5662sMAG



K5681sMAG



K5666sMAG

K5582sMAG 1
100A SWITCH DISCONNECTOR AND 63A 30mA RCD. ACCEPTS A FURTHER 8 ONE MODULE PRODUCTS IN ANY CONFIGURATION OF RCD PROTECTED AND UNPROTECTED CIRCUITS BETWEEN 1/6 AND 6/1

K5566sMAG 1
100A SWITCH DISCONNECTOR AND 63A 30mA RCD. ACCEPTS A FURTHER 12 ONE MODULE PRODUCTS IN ANY CONFIGURATION OF RCD PROTECTED AND UNPROTECTED CIRCUITS BETWEEN 1/8 AND 8/1

All units are magnolia coloured.

All units are pre-fitted with a switch disconnector and RCD together with all necessary split-load cabling. The flexibility of design allows the RCD to be positioned to suit the required configuration of RCD protected and non-protected circuits, subject to the rating of either the switch or RCD not being exceeded. MK recommends the use of RCBOS for non RCD protected circuits to comply with the 17th Edition of the Wiring Regulations.

DIMENSIONS:

	WIDTH		HEIGHT		DEPTH
K5582sMAG:	306	x	230	x	110mm
K5566sMAG:	378	x	230	x	110mm
K5586sMAG:	378	x	230	x	110mm
K5581sMAG:	468	x	230	x	110mm

K5586sMAG 1
100A SWITCH DISCONNECTOR AND 80A 30mA RCD. ACCEPTS A FURTHER 12 ONE MODULE PRODUCTS IN ANY CONFIGURATION OF RCD PROTECTED AND UNPROTECTED CIRCUITS BETWEEN 1/8 AND 8/1

K5581sMAG 1
100A SWITCH DISCONNECTOR AND 80A 30mA RCD. ACCEPTS A FURTHER 17 ONE MODULE PRODUCTS IN ANY CONFIGURATION OF RCD PROTECTED AND UNPROTECTED CIRCUITS BETWEEN 1/14 AND 14/1

Degree of Protection to BS EN 60529 to IP2XC

Precautions must be taken to maintain the IP rating e.g. use of cable glands and knockouts

BS EN 60439-3: 1999

Cover mounted blanks are supplied with ALL consumer units (2 off x 1 for 4, 8 and 12 module and 2 off x 2 for 16 and 21 module)

K5682sMAG 1
100A SWITCH DISCONNECTOR AND 63A 30mA RCD. ACCEPTS A FURTHER 8 ONE MODULE PRODUCTS IN ANY CONFIGURATION OF RCD PROTECTED & UNPROTECTED CIRCUITS BETWEEN 1/6 AND 6/1

K5662sMAG 1
100A SWITCH DISCONNECTOR AND 80A 30mA RCD. ACCEPTS A FURTHER 8 ONE MODULE PRODUCTS IN ANY CONFIGURATION OF RCD PROTECTED & UNPROTECTED CIRCUITS BETWEEN 1/6 AND 6/1

K5666sMAG 1
100A SWITCH DISCONNECTOR AND 63A 30mA RCD. ACCEPTS A FURTHER 12 ONE MODULE PRODUCTS IN ANY CONFIGURATION OF RCD PROTECTED & UNPROTECTED CIRCUITS BETWEEN 1/8 AND 8/1

All units are magnolia coloured.

All units are pre-fitted with a switch disconnector and RCD together with all necessary split load cabling. The flexibility of design allows the RCD to be positioned to suit the required configuration of RCD protected and non-protected circuits, subject to the rating of either the switch or RCD not being exceeded.
MK recommends the use of RCBOS for non RCD protected circuits to comply with the 17th Edition of the Wiring Regulations.

K5686sMAG 1
100A SWITCH DISCONNECTOR AND 80A 30mA RCD. ACCEPTS A FURTHER 12 ONE MODULE PRODUCTS IN ANY CONFIGURATION OF RCD PROTECTED & UNPROTECTED CIRCUITS BETWEEN 1/8 AND 8/1

K5681sMAG 1
100A SWITCH DISCONNECTOR AND 80A 30mA RCD. ACCEPTS A FURTHER 17 ONE MODULE PRODUCTS IN ANY CONFIGURATION OF RCD PROTECTED & UNPROTECTED CIRCUITS BETWEEN 14/1 AND 1/14

DIMENSIONS:

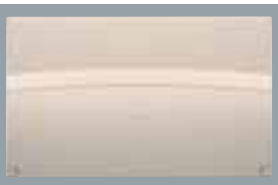
	WIDTH		HEIGHT		DEPTH
K5682sMAG:	306	x	230	x	110mm
K5662sMAG:	306	x	230	x	110mm
K5666sMAG:	378	x	230	x	110mm
K5686sMAG:	378	x	230	x	110mm
K5681sMAG:	468	x	230	x	110mm

Degree of protection to BS EN 60529:1992 IP2XC
Precautions must be taken to maintain the IP rating. eg. correct use of cable glands and knockouts

BS EN 60439-3: 1999

FACTORY BUILT SERVICE
MK can save you time and money by pre-assembling Consumer units with your required Sentry components

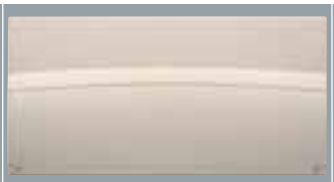
WITH SPLIT LOAD DUAL/TRIPLE RCD ARRANGEMENT METAL SURFACE



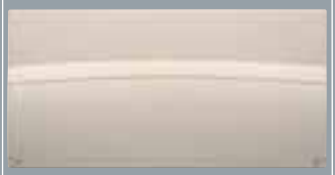
K5566sMAG17ED



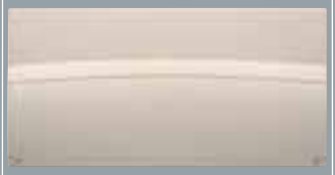
K5586sMAG17ED



K5581sMAG17ED



K5583sMAG17ED



K5584sMAG17ED

K5566sMAG17ED 1
100A SWITCH DISCONNECTOR AND 2 X 63A 30MA RCDS. ACCEPTS A FURTHER 10 ONE MODULE PRODUCTS *

K5586sMAG17ED 1
100A SWITCH DISCONNECTOR 80A AND 63A 30MA RCDS. ACCEPTS A FURTHER 10 ONE MODULE PRODUCTS *

K5581sMAG17ED 1
100A SWITCH DISCONNECTOR, 80A AND 63A 30MA RCDS. ACCEPTS A FURTHER 15 ONE MODULE PRODUCTS *

K5583sMAG17ED 1
100A SWITCH DISCONNECTOR AND 2 X 63A 30MA RCDS. ACCEPTS A FURTHER 15 ONE MODULE PRODUCTS *

K5584sMAG17ED 1
100A SWITCH DISCONNECTOR, 2 X 63A AND ONE 40A 30MA RCDS. ACCEPTS A FURTHER 13 ONE MODULE PRODUCTS *

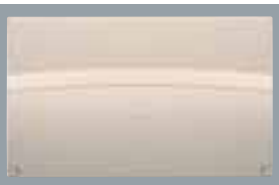
All units are magnolia coloured. All units are pre-fitted with a switch disconnector and either two or three RCDs together with all necessary split-load cabling. All units have the capacity to substitute Protected with Unprotected circuits for use with fridges, freezers, burglar alarms and other critical circuits. MK recommends the use of RCBOS for non RCD protected circuits to comply with the 17th Edition of the Wiring Regulations.

DIMENSIONS:

	WIDTH		HEIGHT		DEPTH
K5566sMAG17ED:	378	x	230	x	110mm
K5586sMAG17ED:	378	x	230	x	110mm
K5581sMAG17ED:	468	x	230	x	110mm
K5583sMAG17ED:	468	x	230	x	110mm
K5584sMAG17ED:	468	x	230	x	110mm
K5687sMAG17ED:	468	x	230	x	110mm

Degree of Protection to BS EN 60529 to IP2XC
Precautions must be taken to maintain the IP rating e.g. use of cable glands and knockouts BS EN 60439-3: 1999

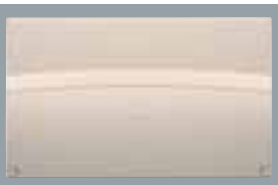
WITH SPLIT LOAD DUAL/TRIPLE RCD ARRANGEMENT INSULATED SURFACE



K5666sMAG17ED



K5686sMAG17ED



K5688sMAG17ED



K5687sMAG17ED

K5666sMAG17ED 1
100A SWITCH DISCONNECTOR AND 2 X 63A 30MA RCDS. ACCEPTS A FURTHER 10 ONE MODULE PRODUCTS *

K5686sMAG17ED 1
100A SWITCH DISCONNECTOR 80A AND 63A 30MA RCDS. ACCEPTS A FURTHER 10 ONE MODULE PRODUCTS *

K5688sMAG17ED 1
100A SWITCH DISCONNECTOR AND 2 X 80A 30MA RCDS. ACCEPTS A FURTHER 10 ONE MODULE PRODUCTS *

K5687sMAG17ED 1
100A SWITCH DISCONNECTOR AND 2 X 80A 30MA RCDS. ACCEPTS A FURTHER 15 ONE MODULE PRODUCTS*

All units are magnolia coloured. All units are pre-fitted with a switch disconnector and either two or three RCDs together with all necessary split-load cabling. All units have the capacity to substitute Protected with Unprotected circuits for use with fridges, freezers, burglar alarms and other critical circuits. MK recommends the use of RCBOS for non RCD protected circuits to comply with the 17th Edition of the Wiring Regulations.

DIMENSIONS:

	WIDTH		HEIGHT		DEPTH
K5666sMAG17ED:	378	x	230	x	110mm
K5686sMAG17ED:	378	x	230	x	110mm
K5688sMAG17ED:	378	x	230	x	110mm
K5681sMAG17ED:	468	x	230	x	110mm
K5687sMAG17ED:	468	x	230	x	110mm
K5683sMAG17ED:	468	x	230	x	110mm
K5684sMAG17ED:	468	x	230	x	110mm

*For potential configurations, please refer to pages 276-277

Consumer Units



K5681sMAG17ED



K5683sMAG17ED



K5684sMAG17ED

K5681sMAG17ED 1
100A SWITCH DISCONNECTOR, 80A AND 63A 30MA RCDS. ACCEPTS A FURTHER 15 ONE MODULE PRODUCTS*

K5683sMAG17ED 1
100A SWITCH DISCONNECTOR AND 2 X 63A 30MA RCDS. ACCEPTS A FURTHER 15 ONE MODULE PRODUCTS*

K5684sMAG17ED 1
100A SWITCH DISCONNECTOR, TWO 63A AND ONE 40A 30MA RCDS. ACCEPTS A FURTHER 13 ONE MODULE PRODUCTS*

*For potential configurations, please refer to pages 276-277

Degree of Protection to
BS EN 60529 to IP2XC
Precautions must be taken to maintain the IP rating e.g. use of cable glands and knockouts
BS EN 60439-3: 1999

DIMENSIONS:

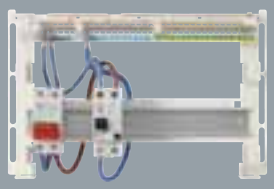
	WIDTH		HEIGHT		DEPTH
K5666sMAG17ED:	378	x	230	x	110mm
K5686sMAG17ED:	378	x	230	x	110mm
K5688sMAG17ED:	378	x	230	x	110mm
K5681sMAG17ED:	468	x	230	x	110mm
K5687sMAG17ED:	468	x	230	x	110mm
K5683sMAG17ED:	468	x	230	x	110mm
K5684sMAG17ED:	468	x	230	x	110mm

Skeleton Units

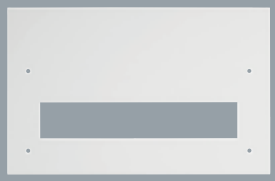
FOR MOUNTING IN A MANTEL/CLIFTON TYPE ENCLOSURE



K6000s



K6001s



Both K6000s and K6001s are supplied with a 2 piece cover

K6000s 1
INCLUDES 1 X 100A SWITCH DISCONNECTOR
ACCEPTS A FURTHER 12 ONE MODULE PRODUCTS IN ANY CONFIGURATION OF RCD PROTECTED AND UNPROTECTED CIRCUITS BETWEEN 2/10 AND 10/2 (NOTE RCDS TAKE TWO SPACES)
1 INTEGRAL NEUTRAL BAR

K6001s 1
INCLUDES 1 X 100A SWITCH DISCONNECTOR AND 1 X 63A 30MA RCD
ACCEPTS A FURTHER 10 ONE MODULE PRODUCTS IN ANY CONFIGURATION OF RCD PROTECTED AND UNPROTECTED CIRCUITS BETWEEN 2/8 AND 8/2 (NOTE RCDS TAKE TWO SPACES)

These units are suitable for use in most Mantel and Clifton type enclosures. Factory assembled units are available for specific installations.

DIMENSIONS WITH COVER:

	WIDTH		HEIGHT		DEPTH
K6000s:	333	x	216	x	65mm
K6001s:	333	x	216	x	65mm

Degree of Protection to
BS EN 60529:1992 IP30

Precautions must be taken to maintain the IP rating, eg. correct use of cable glands and knockouts.

BS EN 60439-3:1999

Garage/Shower Kits

IP65



5702sP1



5702sP2

5702sP1 1
INSULATED 4 MODULE IP65 GARAGE KIT. COMPLETE WITH 40A 30mA RCD AND 2 X MCB (1 X B TYPE 6A, 1 X B TYPE 16A)

5702sP2 1
INSULATED 4 MODULE IP65 SHOWER KIT. COMPLETE WITH 63A 30mA RCD AND 1 X 50A MCB

DIMENSIONS:

	WIDTH		HEIGHT		DEPTH
5702sP1:	123	x	200	x	112mm
5792sP2:	123	x	200	x	112mm

Enclosures

IP65 WEATHERPROOF ENCLOSURE



5702s



5704s

5702s 1
WEATHERPROOF
COMPLETE WITH NEUTRAL AND EARTH TERMINAL BLOCK
ACCEPTS UP TO 4 MODULES

5704s 1
WEATHERPROOF
COMPLETE WITH NEUTRAL AND EARTH TERMINAL BLOCK
ACCEPTS UP TO 8 MODULES

Typical applications for enclosures are house extensions, garages and small workshops. These enclosures will accommodate two or four module Sentry RCDs or a combination of Sentry modules, excluding contactors and RCBOs.

DIMENSIONS:

	WIDTH		HEIGHT		DEPTH
5702S:	123	x	200	x	112mm
5704S:	195	x	200	x	112mm
5502S:	130	x	90	x	90mm
5504S:	188	x	121	x	74mm
5604S:	150	x	110	x	90mm

IP30 ENCLOSURE



5502s



5504s



5604s

5502s 1
INSULATED COMPLETE WITH MOUNTING RAIL, NEUTRAL AND EARTH TERMINALS
TWO MODULE

5504s 1
METAL
WITH MOUNTING RAIL, EARTH TERMINALS AND MOULDED FRONT PLATE
FOUR MODULE

5604s 1
INSULATED
WITH MOUNTING RAIL, TWO INTEGRAL BLANKING PLATES AND TAMPER-PROOFING COMPONENTS
FOUR MODULE

Degree of Protection to
BS EN 60529:1992
5702s: IP65
5704s: IP65
5502s: IP30
5504s: IP30
5604s: IP30

Precautions must be taken to maintain the IP rating, eg. correct use of cable glands and knockouts

IP65 enclosures to EN 60670

Switch Disconnectors Double Pole

TWO MODULE



5500s



5560s

5500s 5
100A 230V

5560s 5
63A 230V

Suitable for installation in Sentry Consumer Units and two or four module enclosures. Accepts direct to busbar or cable-in / cable-out connection. Category of duty: AC22A for switching of resistive and inductive loads.

Positive contact status indication in accordance with 17th Edition IEE Wiring Regulations (537.2.2.2 and 537.3.2.2)

DIMENSIONS:
81 x 36 x 76mm

CABLE CAPACITY:
50mm²

BS EN 60947-3: 1999

MCBs Single Pole

TYPE B ONE MODULE



5903s



5906s



5920s



5940s



5910s



5916s



5945s



5950s

5903s 10
3A 230V

5906s 10
6A 230V

5910s 10
10A 230V

5916s 10
16A 230V

Suitable for installation in Sentry Consumer Units and two or four module enclosures.

Positive contact status indication in accordance with 17th Edition IEE Wiring Regulations (537.2.2.2 and 537.3.2.2)

DIMENSIONS:
83 x 18 x 74mm

CABLE CAPACITY:
3, 6, 10, 16A: 35mm²

Short-circuit breaking capacity: 6KA

BS EN 60898: 2003

5920s 10
20A 230V

5925s 10
25A 230V

5932s 10
32A 230V

5940s 10
40A 230V

5945s 10
45A 230V

5950s 10
50A 230V

Suitable for installation in Sentry Consumer Units and two or four module enclosures.

Positive contact status indication in accordance with 17th Edition IEE Wiring Regulations (537.2.2.2 and 537.3.2.2)

DIMENSIONS:
83 x 18 x 74mm

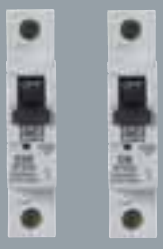
CABLE CAPACITY:
20, 32, 40, 50A : 35mm²

Short-circuit breaking capacity: 6KA

BS EN 60898: 2003

MCB Single Pole

TYPE C
ONE MODULE



8703s 8706s



8720s 8732s



8710s 8716s



8740s 8750s

8703s 10
3A 230V

8706s 10
6A 230V

8710s 10
10A 230V

8716s 10
16A 230V

8720s 10
20A 230V

8725s 10
25A 230V

8732s 10
32A 230V

8740s 10
40A 230V

8750s 10
50A 230V

Suitable for installation in Sentry Consumer Units and two or four module enclosures.

Positive contact status indication in accordance with 17th Edition IEE Wiring Regulations (537.2.2.2 and 537.3.2.2)

DIMENSIONS:
83 x 18 x 74mm

CABLE CAPACITY:
3, 6, 10, 16A: 35mm²

Short-circuit breaking capacity: 6KA

BS EN 60898: 2003

Suitable for installation in Sentry Consumer Units and two or four module enclosures.

Positive contact status indication in accordance with 17th Edition IEE Wiring Regulations (537.2.2.2 and 537.3.2.2)

DIMENSIONS:
83 x 18 x 74mm

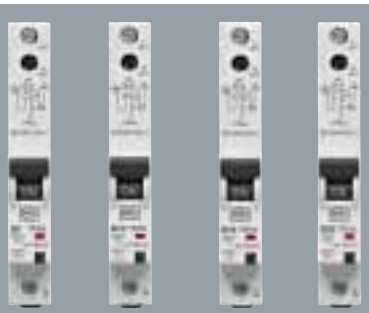
CABLE CAPACITY:
20, 32, 40, 50A : 35mm²

Short-circuit breaking capacity: 6KA

BS EN 60898: 2003

RCBOs With Solid Neutral Single Pole

TYPE B
ONE MODULE



7932s 7933s 7934s 7935s



7936s 7937s 7938s 7939s

7932s 1
6A 230V
30mA
TRIPPING CURRENT

7933s 1
10A 230V
30mA
TRIPPING CURRENT

7934s 1
16A 230V
30mA
TRIPPING CURRENT

7935s 1
20A 230V
30mA TRIPPING CURRENT

7936s 1
32A 230V
30mA TRIPPING CURRENT

7937s 1
40A 230V
30mA TRIPPING CURRENT

7938s 1
45A 230V
30mA TRIPPING CURRENT

7939s 1
50A 230V
30mA TRIPPING CURRENT

Suitable for installation in Sentry Consumer Units.

Positive contact status indication in accordance with 17th Edition IEE Wiring Regulations (537.2.2.2 and 537.3.2.2)

DIMENSIONS:
119 x 18 x 73mm

CABLE CAPACITY:
Live 25mm²,
Neutral 25mm²

Short circuit breaking capacity: 6KA

BS EN 61009-1

BS IEC61009-2-2

Residential 6kA RCD Double Pole

16 AMP
TWO MODULE



7816s

7816s 1
16A 230V
30mA TRIPPING CURRENT

32 AMP
TWO MODULE



7832s

7832s 1
32A 230V
30mA TRIPPING CURRENT

40 AMP
TWO MODULE



7840s

7840s 1
40A 230V
30mA TRIPPING CURRENT



Industrial
10kA
RCDs
Double Pole

63 AMP TWO MODULE	80 AMP TWO MODULE	16 AMP TWO MODULE	32 AMP TWO MODULE	40 AMP TWO MODULE	63 AMP TWO MODULE	80 AMP TWO MODULE	100 AMP TWO MODULE
 7860s	 7880s	 6016s	 6032s	 5740s	 5760s	 6080s	 6600s
 7660s	 7680s	 6316s	 6730s		 5860s	 5880s	 7800s

7860s 1
63A 230V
30mA TRIPPING CURRENT

7560s 1
63A 230V
100mA
TRIPPING CURRENT

7660s 1
63A 230V
300mA TRIPPING CURRENT

7880s 1
80A 230V
30mA TRIPPING CURRENT

7580s 1
80A 230V
100mA TRIPPING CURRENT

7680s 1
80A 230V
300mA TRIPPING CURRENT

6016s 1
16A 110V
10mA TRIPPING CURRENT

6416s 1
16A 110V
30mA TRIPPING CURRENT

6316s 1
16A 230V
10mA TRIPPING CURRENT

5716s 1
16A 230V
30mA TRIPPING CURRENT

6032s 1
32A 110V
30mA TRIPPING CURRENT

6730s 1
32A 230V
30mA TRIPPING CURRENT

5740s 1
40A 230V
30mA TRIPPING CURRENT

5760s 1
63A 230V
30mA TRIPPING CURRENT

6160s 1
63A 230V
100mA TRIPPING CURRENT

5860s 1
63A 230V
300mA TRIPPING CURRENT

6080s 1
80A 110V
30mA TRIPPING CURRENT

5780s 1
80A 230V
30mA TRIPPING CURRENT

6180s 1
80A 230V
100mA TRIPPING CURRENT

5880s 1
80A 230V
300mA TRIPPING CURRENT

7700s 1
100A 230V
30mA TRIPPING CURRENT

6600s 1
100A 230V
100mA TRIPPING CURRENT

7800s 1
100A 230V
300mA TRIPPING CURRENT

Suitable for installation in Sentry Consumer Units and two or four module enclosures.

Positive contact status indication in accordance with 17th Edition IEE Wiring Regulations (537.2.2.2 and 537.3.2.2)

Dimension
85 x 36 x 75mm

CABLE CAPACITY:
50mm²

BS EN 61008: 1995

Industrial 10kA RCDs Pulsating D.C. Fault Current Sensitive Double Pole

TWO MODULE



6216s



6716s



5640s



6630s



5660s

6216s
16A 230V
10mA TRIPPING CURRENT
1

6716s
16A 230V
30mA TRIPPING CURRENT
1

6630s
32A 230V
30mA TRIPPING CURRENT
1

5640s
40A 230V
30mA TRIPPING CURRENT

5660s
63A 230V
30mA TRIPPING CURRENT
1

Suitable for installation in Sentry Consumer Units and two or four module enclosures.

Positive contact status indication in accordance with 17th Edition IEE Wiring Regulations (537.2.2.2 and 537.3.2.2)

DIMENSIONS:
85 x 36 x 75mm

CABLE CAPACITY:
50mm²

BS EN 61008:1995

FACTORY BUILT SERVICE
MK can save you time and money by pre-assembling Consumer units with your required Sentry components

Industrial 10kA RCDs Time Delayed Double Pole

TWO MODULE



6980s



6400s

6980s
80A 230V
100mA TRIPPING CURRENT
TIME DELAYED
1

6400s
100A 230V
100mA TRIPPING CURRENT
TIME DELAYED
1
1

Suitable for installation in Sentry Consumer Units and Four Module enclosures. When used as a mains incomer these units will provide discrimination with downstream instantaneously operating 10mA or 30 mA RCD's. For example, they can be used as main incomers on split load consumer units where it is not desirable, because of the possibility of unwanted tripping, to place all of the circuits on an instantaneous 30mA RCD, but where earth leakage protection is still required for these circuits or where compliance is required to the indirect contact protection requirements of the IEE wiring regulations.

DIMS: 81 x 36 x 76mm

CABLE CAPACITY: 50mm²

BS EN 61008: 1995

NOT TO BE USED FOR PERSONAL PROTECTION AGAINST ELECTRIC SHOCK

Industrial 10kA RCDs Four Pole

25 AMP
FOUR MODULE



6425s

6425s
25A 230/400V
30mA TRIPPING CURRENT
1

Suitable for installation in Sentry four module enclosures and Commando Combi.

Positive contact status indication in accordance with 17th Edition IEE Wiring Regulations (537.2.2.2 and 537.3.2.2)

DIMENSIONS:
85 x 72 x 75mm

CABLE CAPACITY:
50mm²

BS EN 61008:1995

40 AMP
FOUR MODULE



6440s



6240s

6440s
40A 230/400V
30mA TRIPPING CURRENT
1

6240s
40A 230/400V
100mA TRIPPING CURRENT
1

Industrial 10kA RCD Pulsating D.C. Fault Current Sensitive Four Pole

Contactors

63 AMP

FOUR MODULE



6463s



6363s

6463s 1
63A 230/400V
30mA TRIPPING CURRENT

6363s 1
63A 230/400V
100mA TRIPPING CURRENT

6263s 1
63A 230/400V
300mA TRIPPING CURRENT

FOUR MODULE



6640s

6640s 1
40A 230/400V
30mA TRIPPING CURRENT

Suitable for installation in Sentry two or four module enclosures.

Positive contact status indication in accordance with 17th Edition IEE Wiring Regulations (537.2.2.2 and 537.3.2.2)

DIMENSIONS:
85 x 72 x 75mm

CABLE CAPACITY:
50mm²

BS EN 61008: 1995

ONE MODULE



6220s



6720s

6220s 1
20A
DOUBLE POLE

6720s 1
20A
DOUBLE POLE
WITH MANUAL
OVERRIDE

Suitable for installation in Sentry Consumer Units and two or four module enclosures. Automatically switches higher loads than possible with a time switch eg; off peak tariffs.

A manual override enables the temporary setting of the contactor in either the on or off position in addition to normal automatic operation.

When a contactor is mounted alongside an MCB of greater than 10 amp current rating or two contractors are mounted alongside an MCB or side by side, it is necessary to insert a blank module between them (list no.5544s)

TWO MODULE



7240s



7263s

6420s 1
20A
FOUR POLE

7240s 1
40A
DOUBLE POLE

7263s 1
63A
DOUBLE POLE

THREE MODULE



7440s



7463s

7440s 1
40A
FOUR POLE

7463s 1
63A
FOUR POLE

CONTACTOR RATINGS:

List no	6220s 6420s 6720s	7240s 7440s	7263s 7463s
RATED CURRENT Ith	20A	40A	63A
HEATING: Single phase 230V	5.4kW	8.6kW	13.6kW
Three phase 400V	16kW	26kW	41kW
MOTORS: Single phase 230V	1.1kW	2.2kW	4kW
Three phase 400V	4kW	7.5kW	11kW
LIGHTING: Incandescent and Halogen lamps:	2,800W	7,000W	10,000W
Fluorescent Lamps: (Electronic Ballast)	2,000W	4,200W	6,300W
VOLTAGE RATING: (coil)	230V 50Hz	230V 50Hz	230V 50Hz
CABLE CAPACITY:	6mm² rigid	25mm² rigid	25mm² rigid

BS EN 61095

DIMENSIONS:
6220s: 84 x 18 x 66mm 6420s: 84 x 36 x 66mm 6720s: 84 x 18 x 66mm
7240s: 84 x 36 x 66mm 7263s: 84 x 36 x 66mm 7440s: 84 x 54 x 66mm
7463s: 84 x 54 x 66mm (including half module blank)

Bell Transformer

Time Switches

TWO MODULE



5711s

5711s 1

RATING 1A AT 8V PRIMARY
220 – 240V A.C.50Hz

Suitable for installation in Sentry Consumer Units and two or four module enclosures.

Note: When installed in a consumer unit, ensure that output cables inside the enclosures are suitable for a 230V environment, either by sleeving the bell wire to BS 2848 or using 230V cable.

Complete with terminal covers. Also suitable for surface mounting.

DIMENSIONS:
88 x 36 x 67mm

CABLE CAPACITY:
1 x 2.5mm²

EN 61558-2-8

SYNCHRONOUS THREE MODULE



5707s



5724s

5707s 1

7 DAY DIAL
MIN SETTING 3 HOURS

5724s 1

24 HOUR DIAL
MIN SETTING 30 MINUTES

Suitable for DIN rail mounting in Sentry Consumer Units or four module enclosures.

VOLTAGE RATING:
220-240Va.c. 50Hz

CURRENT RATING:
Resistive load 16A
Inductive load 4A
Tungsten lamps 6A (1350W)
Fluorescent lamps 1350W

DIMENSIONS:
85 x 54 x 68mm

CABLE CAPACITY:
2 x 2.5mm² or 4 x 1.5mm²

QUARTZ STABILISED THREE MODULE



5824s

5824s 1

24 HOUR DIAL
MIN SETTING 30 MINUTES

Suitable for DIN rail mounting in Sentry Consumer Units and two or four module enclosures.
Power reserve 150 hours

VOLTAGE RATING:
220-240Va.c. 50-60Hz

CURRENT RATING:
Resistive load 16A
Inductive load 4A
Tungsten lamps 6A (1350W)
Fluorescent lamps 1350W

DIMENSIONS:
85 x 54 x 68mm

CABLE CAPACITY:
2 x 2.5mm² or 4 x 1.5mm²

EN 60730-2-7: 1993

SYNCHRONOUS ONE MODULE



5833s

5833s 1

24 HOUR DIAL
MIN SETTING 30 MINUTES

Suitable for DIN rail mounting in Sentry Consumer Units and two or four module enclosures

VOLTAGE RATING:
240V 50Hz

CURRENT RATING:
Resistive load 16A
Inductive load 4A
Tungsten lamps 6A (1350W)
Fluorescent lamps 1350W

DIMENSIONS:
90 x 18 x 68mm

CABLE CAPACITY:
2 x 2.5mm² or 4 x 1.5mm²

EN 60730-2-7: 1993

DIGITAL ONE CHANNEL TWO MODULE



5731s

5731s 1

24 HOUR/7 DAY DISPLAY
MIN SETTING 1 MINUTE

Pre-programmed with UK time and automatic summer/winter adjustment.

Provides 50 programming selections. Freely selectable day grouping facility. Manual override, winter/summer time adjustment.

Power reserve of 3 years. Suitable for DIN-rail mounting in Sentry Consumer Units and two or four module enclosures.

VOLTAGE RATING:
240V 50/60Hz

CURRENT RATING:
Resistive load 16A
Inductive load 2.5A
Tungsten lamps 5A (1000W)
Fluorescent lamps 1000W

DIMENSIONS:
85 x 36 x 68mm

CABLE CAPACITY:
2 x 2.5mm² or 4 x 1.5mm²

EN 60730-2-7: 1993

DIGITAL ONE CHANNEL ONE MODULE



5733s

5733s 1

24 HOUR DIAL
MIN SETTING 1 MINUTE

Provides 50 programming selections. Freely selectable day grouping facility. Manual override, winter/summer time adjustment, holiday programme and random generator are standard facilities.

Power reserve of 150 hours.

Suitable for DIN rail mounting in Sentry Consumer Units and two or four module enclosures

VOLTAGE RATING:
240V 50/60Hz

CURRENT RATING:
Resistive load 16A
Inductive load 2.5A
Tungsten lamps 5A (1000W)
Fluorescent lamps 1000W

DIMENSIONS:
90 x 18 x 74mm

CABLE CAPACITY:
2 x 2.5mm² or 4 x 1.5mm²

EN 60730-2-7: 1993

DIGITAL TWO CHANNEL TWO MODULE



5732s

5732s 1

24 HOUR/7 DAY DISPLAY
MIN SETTING 1 MINUTE

Pre-programmed with UK time and automatic summer/winter adjustment.

Provides 50 programming selections. Freely selectable day grouping facility. Manual override, winter/summer time adjustment.

Power reserve of 3 years. Suitable for DIN-rail mounting in Sentry Consumer Units and two or four module enclosures.

VOLTAGE RATING:
240V 50/60Hz

CURRENT RATING:
Resistive load 16A
Inductive load 2.5A
Tungsten lamps 5A (1000W)
Fluorescent lamps 1000W

DIMENSIONS:
85 x 36 x 68mm

CABLE CAPACITY:
2 x 2.5mm² or 4 x 1.5mm²

EN 60730-2-7: 1993

Time Delay Switches

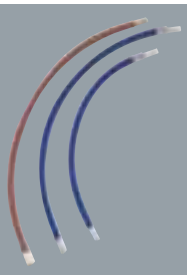
Consumer Unit Cable Kits

Accessories

ONE MODULE



5650s



K5563s



K5565s



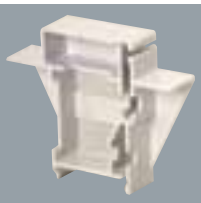
5562s



K8041s



K5593s



5544s



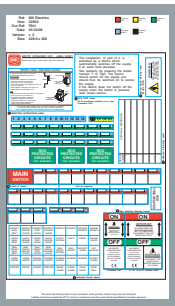
K5545sMAG



K5511s



KAX26s



K5597s



K5599s

5650s 1
DELAY RANGE
1 - 7 MINUTES (APPROX)

Suitable for installation in Sentry Consumer Units and two or four module enclosures. Offers time delay control for complete circuits of either tungsten or fluorescent lighting with any number of standard push switches. It can also be used to control fans in bathrooms without a window. Delay setting can be over-ridden by setting to 'Perm-on' mode, or by fitting a remote overriding switch. Switch has a switching capacity of 16A Resistive loads (upf)

Fluorescent lamps uncompensated

Series compensated 1300W

Parallel compensated 480W

CFLS 100W Max. Maximum of 9 units can be connected

Incandescent lamps 2000W

Neon glow lamp load (locating lamp for Push Switch) 50mA max

VOLTAGE RATING: 230V 50Hz

DIMENSIONS: 84 x 18 x 70mm

CABLE CAPACITY: 1 x 4mm^{2}or 2 x 1.5mm^2

K5563s 5
SPLIT-LOAD KIT
Consists of 3 cables (2 neutral and 1 live) for use when assembling a split load arrangement.

K5565s 5
MULTI-INCOMER KIT
Consists of a blue flexible cable with pre-fitted terminal for the neutral return from switch or RCD to second or third neutral bar.

K5568s 5
17th Edition cable kit for switch and twin RCD arrangement

K5567s 5
A&D cable kit for switch plus triple RCD arrangement

K5563s
For use when assembling split-load arrangement.

K5565s
For use when assembling a consumer unit in a multi-incomer arrangement with separate supply to each incomer.

These kits must be used to ensure compliance with BS EN 60439-3

5562s 1
EXTENSION TERMINAL
For use when assembling a consumer unit as a distribution board. Enables direct connection of cables to the neutral bar. Consists of a 25mm^2 capacity terminal with clamp screw.

K8041s 10
LOCKING DEVICE
For use when locking a Sentry MCB, RCBO, RCD or switch disconnector in either the on or off position.

K5593s 1
BARREL LOCK AND KEY KIT
Suitable for securing 'K' series Sentry Consumer Unit lids.

5544s 5
MCB BLANK – GREY
Designed to fill unused modules in Sentry Consumer Units and small enclosures. DIN-rail mounted.

K5545sMAG 10
COVER MOUNTED BLANK
For filling spaces in the 'K' series Sentry consumer unit cover, where there are unused modules.

K5511s 1
BUSBAR
11 module.

K5590s 1
BUSBAR
20 module.

KAX26s 10
BUSBAR COVER
Suitable for insulating the busbars K5511s and K5590s 20 module.

K5597s 5
CONSUMER UNIT LABELS
Additional printed and blank labels, for identifying devices and circuits on Dual & Triple RCD boards

K5599s 5
CONSUMER UNIT LABELS
Additional printed and blank labels, for identifying devices and circuits on single RCD boards.



range introduction

Sentrysocket provides a high level of protection against electrocution and is available in 4 MK wiring device ranges to suit most applications.

features and benefits

Active Control Circuit

This version of Sentrysocket incorporates a 'RE-SET' mechanism and is mains failure sensitive ie. it will function under all normal conditions expected of an RCD but it will also trip in the event of a power cut or a dramatic reduction in mains voltage. This makes it ideal for use where hazardous situations could occur due to equipment such as rotating machinery and heat developing apparatus becoming suddenly energised after a power cut.

Passive Control Circuit

This version of Sentrysocket incorporates a 'STAY-SET' mechanism and is mains failure proof ie. it will function under all normal conditions expected of an RCD but will not trip in the event of a power cut. This makes it suitable for freezers or use in inaccessible or unmanned locations.

ALL SENTRYSOCKETS ARE PULSATING D.C. AND A.C. FAULT CURRENT SENSITIVE PRODUCTS

RCD Protected Switchsocket Outlets

13 AMP LOGIC PLUS FLUSH


K6300WHI


K6303WHI


K6231WHI


K6233WHI

K6300WHI 1
1 GANG, 30mA RATED, TRIPPING CURRENT, ACTIVE CONTROL CIRCUIT

K6303WHI 1
1 GANG, 30mA RATED, TRIPPING CURRENT, PASSIVE CONTROL CIRCUIT

K6211WHI 1
2 GANG, 10mA RATED, TRIPPING CURRENT, ACTIVE CONTROL CIRCUIT

K6231WHI 1
2 GANG, 30mA RATED, TRIPPING CURRENT, ACTIVE CONTROL CIRCUIT

K6233WHI 1
2 GANG, 30mA RATED, TRIPPING CURRENT, PASSIVE CONTROL CIRCUIT

MOUNTING BOXES:
FLUSH: 886ZIC - 35mm deep
SURFACE: K2140WHI, 30mm deep

These a.c. and pulsating d.c. fault current sensitive products have up to 15mm thick frontplates and are suitable for 35mm deep boxes and supply voltages of 240V a.c., 50Hz.

Boxes must have a minimum depth of 30mm

Refer to Sentrysocket section for more information on active and passive control circuits.

DIMENSIONS: 86 x 146mm
FIXING CENTRES: 120.6mm
BS 7288: 1990

ALBANY PLUS FLUSH


K6301BRC


K6304BRC


K6304BSS

K6301BRC 1
1 GANG
30mA RATED TRIPPING CURRENT
ACTIVE CONTROL CIRCUIT

K6304BRC 1
K6304BSS 1
1 GANG
30mA RATED TRIPPING CURRENT
PASSIVE CONTROL CIRCUIT

MOUNTING BOXES
FLUSH: 886ZIC
Boxes must have a minimum depth of 30mm

SURFACE (BRC)
WITH KNOCKOUTS: K897ALM
WITHOUT KNOCKOUTS: K830ALM

It is important to ensure that the correct control circuit, active or passive, is selected for each application.

Only suitable for supply voltage of 240V a.c., 50Hz.

DIMENSIONS: 86 x 146mm

FIXING CENTRES: 120.6mm

BS 7288: 1990

METALCLAD PLUS SURFACE


K6102ALM


K6302ALM


K6305ALM

K6102ALM 1
1 GANG
10mA RATED TRIPPING CURRENT
ACTIVE CONTROL CIRCUIT

K6302ALM 1
1 GANG
30mA RATED TRIPPING CURRENT
ACTIVE CONTROL CIRCUIT

K6305ALM 1
1 GANG
30mA RATED TRIPPING CURRENT
PASSIVE CONTROL CIRCUIT

It is important to ensure that the correct control circuit, active or passive, is selected for each application.

Suitable for supply voltage of 240V a.c., 50Hz.

DIMENSIONS:
86 x 147 x 54mm

KNOCKOUTS:
8 x 20mm
Three in top side, two in bottom side, one in each end and one in base.

SPARE BOX:
K897ALM

BS 7288: 1990


K6211ALM


K6231ALM


K6233ALM

K6211ALM 1
2 GANG
10mA RATED TRIPPING CURRENT
ACTIVE CONTROL CIRCUIT

K6231ALM 1
2 GANG
30mA RATED TRIPPING CURRENT
ACTIVE CONTROL CIRCUIT

K6233ALM 1
2 GANG
30mA RATED TRIPPING CURRENT
PASSIVE CONTROL CIRCUIT

It is important to ensure that the correct control circuit, active or passive, is selected for each application.

Suitable for supply voltage of 240V a.c., 50Hz.

DIMENSIONS:
86 x 147 x 54mm

KNOCKOUTS:
8 x 20mm
Three in top side, two in bottom side, one in each end and one in base.

SPARE BOX:
K897ALM

BS 7288: 1990

MASTERSEAL PLUS IP66 SURFACE


K56301GRY


K56231BLK


K56231WHI

K56301GRY 1
K56301WHI 1
K56301BLK 1
1 GANG DP
30mA RATED TRIPPING CURRENT
ACTIVE CONTROL CIRCUIT

K56231GRY 1
K56231WHI 1
K56231BLK 1
2 GANG
30mA RATED TRIPPING CURRENT
ACTIVE CONTROL CIRCUIT

K56233GRY 1
K56233WHI 1
K56233BLK 1
2 GANG
30mA RATED TRIPPING CURRENT
PASSIVE CONTROL CIRCUIT

RCD protected sockets are pulsating d.c. and a.c. fault current sensitive.

Fixing holes are for No.8 woodscrews (not supplied).

Supplied with an earth terminal in the back box. The Sentrysocket has 5 entries. Suitable for supply voltage of 240V a.c. 50Hz.

Standard Shutters.

DIMENSIONS:
157 x 175 x 89mm

BS 7288: 1990

IP66 BS EN 60529: 1992

Prestige 3D

Prestige 3D is a family of three compartment trunking from MK Electric, which satisfies the growing demands of cable management installations, as well as providing greater trunking depth to cater for Cat 5e, 6 and 7 structured cabling. Prestige 3D is rich in unique features offering up to 40% faster installation time compared to Prestige Plus, greater cabling capacity and improved aesthetics.



PRESTIGE 3D DADO AND SKIRTING



PRESTIGE 3D ANTIBAC BLUE



PRESTIGE 3D COMPACT



PRESTIGE 3D ALUMINIUM

Prestige 3D Dado and Skirting

Prestige 3D Dado and Skirting offers a comprehensive range of Cat 5e, 6 and 7 compliant full 3 compartment trunking with maximum cable capacity.

Prestige 3D Antibac Blue

Prestige 3D Antibac Blue offers an antibacterial cable management solution for power and data distribution in environments where hygiene is a priority. Prestige 3D Antibac Blue is designed to kill bacteria which can grow on surfaces such as trunking systems. It uses a silver based additive inherent within the PVCu which acts as an effective weapon in fighting harmful bacteria such as MRSA. Independent laboratory tests show kill rate of >99.9% over a 24 hour period for MRSA, and Klebsiella pneumoniae.

Prestige 3D Compact

Prestige 3D Compact is a Dado system which has a smaller footprint and offers a solution where space is restricted such as above radiators and below window sills. Cables are run in the top and bottom compartments allowing the full depth of the centre compartment for termination to devices. The Compact range is a lower price alternative especially if there are low quantities of cable to manage.

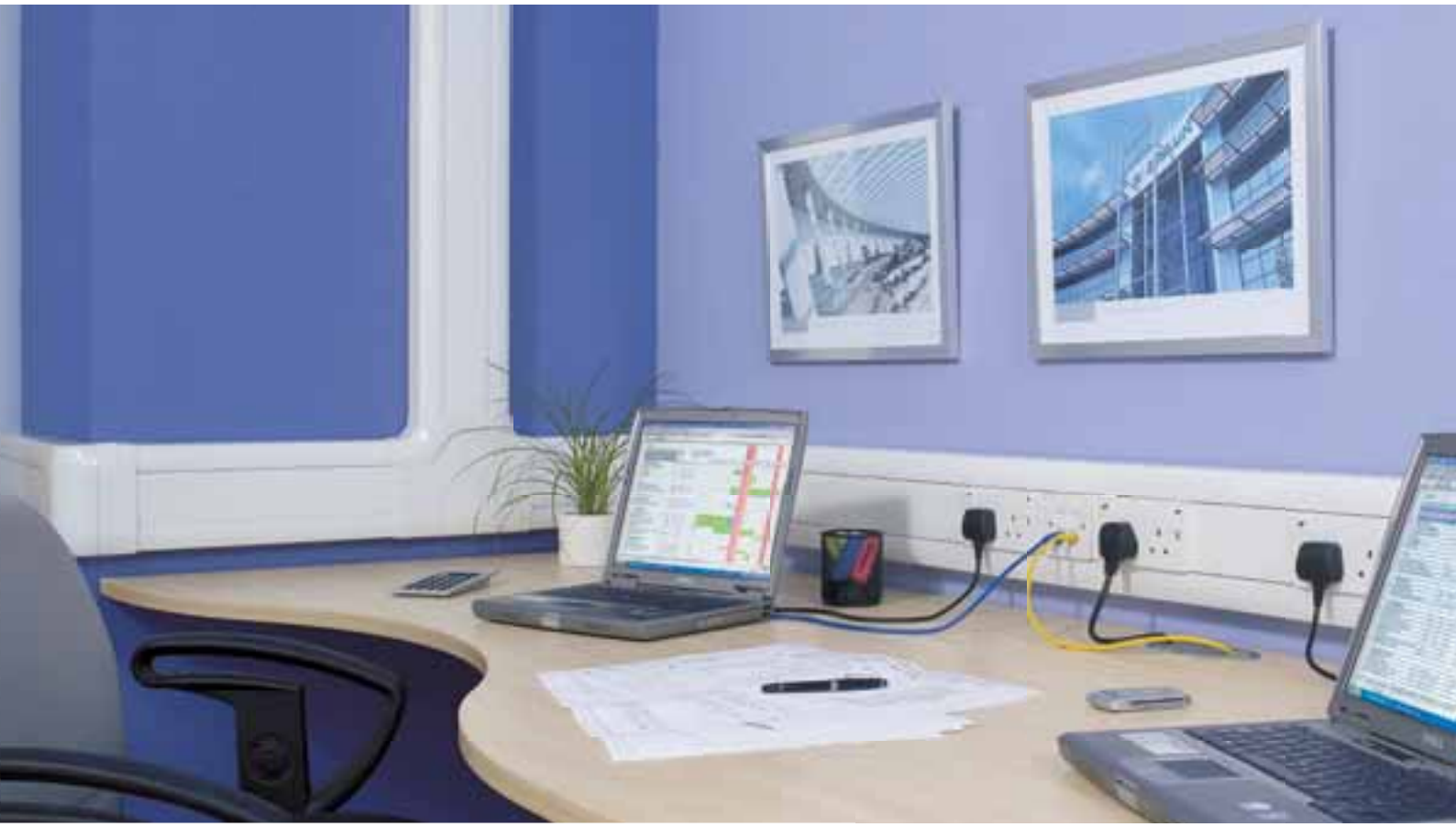
Prestige 3D Aluminium

New to the Prestige 3D family, this 3 compartment Dado and Skirting satisfies the needs of a Cat 5e, 6 and 7 compliant trunking system. With pre-drilled bases and hinged lids this system is suitable for commercial offices, educational facilities and laboratories.

- **Fully Cat 5e, 6 and 7 compliant**
- **Unique design features provide 40%* faster installation time**
- **Patented Data Sweep maximises cable capacity without the need for bulbous corners**
- **Improved aesthetics with single piece covers**
- **All PVC extrusions manufactured from 90% recycled materials****
- **10 Year guarantee**

* Independently verified as 40% faster to install than Prestige Plus

** Based on 2008 consumption



range introduction

Prestige 3D Dado and Skirting offers a comprehensive range of Cat 5e, 6 and 7 compliant compartment trunking with maximum cable capacity.

Prestige 3D meets both the demands for easier and faster installation while maintaining high aesthetics.

features and benefits

- **Faster installation – 40% quicker than Prestige Plus**
- **Cat 5e, 6 and 7 compliant flexible Internal and External Corners, moulded Flat Angles and Tees**
- **Unique 'open box' mounting frames combined with divider knockouts to provide unhindered tool-free cable entry**
- **Innovative External Corner Data Sweep allows continuous cable capacity and maintains the minimum trunking depth**
- **Hinged lid to support cables during installation**
- **Pre-punched bases**
- **Curved outer covers that complement MK Logic Plus accessories**
- **All extrusions manufactured from 90% recycled material***
- **10 Year guarantee**

*** based on 2008 consumption**

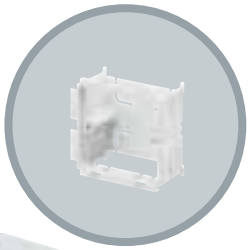


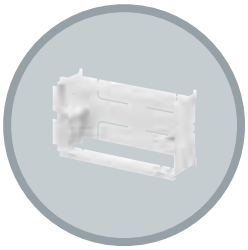
DIVIDER KNOCKOUTS

Wiring is also made easy with 50 x 21mm knockouts at 100mm intervals along compartment dividers, providing instant access to mounting boxes, with no drilling or cutting.

BACK BOXES

The 1 and 2 gang 35mm and 45mm deep back boxes, 3 gang 45mm deep back box and 1 and 2 gang 40mm frames ensure Cat 5e, 6 and 7 compliance and ease of connection to power and data devices. The open top/bottom allows unhindered tool free cable entry, through the trunking compartment divider knockout. The back box can slide to align with appropriate knockout (see technical pages for restrictions on use).





END CAPS

Neatly finishes runs of trunking. (Moulding provides internal location for extra security from optional screw fixing).

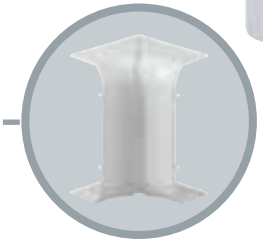






PRE-PUNCHED BASES

Wall fixing is simplified by the inclusion of pre-punched oval holes at 100mm intervals, ensures no drilling is required.



INTERNAL CORNER

Designed to accommodate irregularities in the squareness of the corner with a +/- 5 degrees flexibility range. The centre split gives maximum adjustment. Covers are radiused and compatible with Cat 5e, 6 and 7 data cabling requirements.

PART M

Compliance to Part M building regulations can be achieved using Part M flange, charcoal devices or charcoal straight cover.



SCREW FIXING KIT

Where higher security is required, e.g. schools, all fitting covers can be secured using the Screw Fixing Kit. The Screw Fixing Kit is self-locating on the styling line of the system and has a cover to hide the screw head.

FLAT TEES AND ANGLES

The ingenuity of the patented tee design allows a variety of cable drop permutations. The tee's bridge can be fitted in two positions increasing the versatility of cable runs whilst maintaining the correct segregation and Cat 5e, 6 and 7 compliance. Screw fixing hole locations have a protective shroud to prevent the chafing of cables. Both the Flat Angle and Tee compartment divider walls are curved (Cat 5e, 6 and 7 compliant) to allow data cables to lay in with no loss of capacity. The covers are one piece and clip securely into place, and the base is also a single moulded item, giving more strength than fabrication. Joint covers are not required where the tee/angle meets the trunking as the moulded covers now overlap the junction.

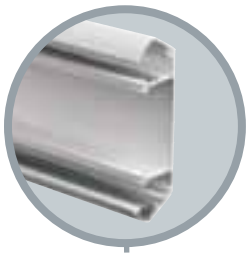


ELECTROMAGNETIC INTERFERENCE

Additional data cable/signal protection is provided by fitting screening divider VP30.

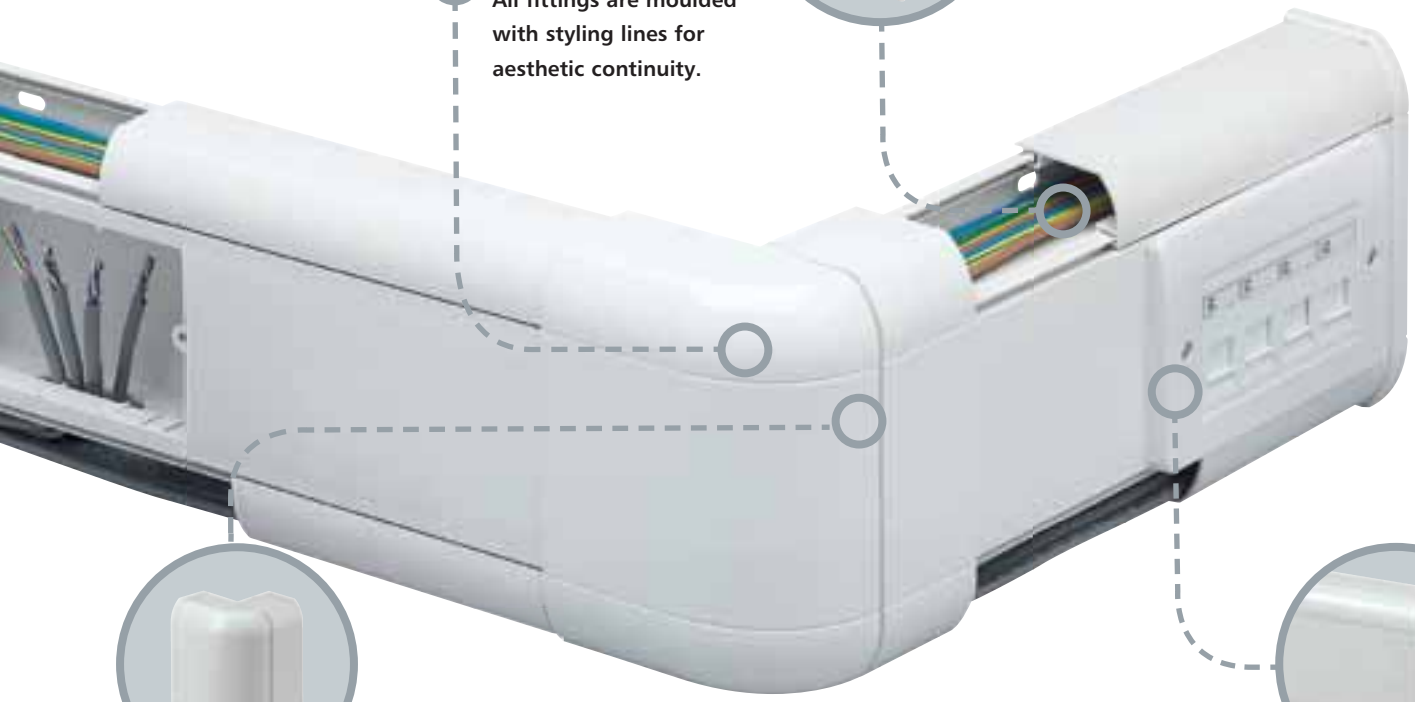
TRUNKING HINGE LIDS

A two stage location gives a hinge effect, enabling cables to be supported by the trunking cover during the installation. Cover design avoids dust traps and makes cleaning easier, and continues the aesthetics of the trunking.



STYLING LINES

All fittings are moulded with styling lines for aesthetic continuity.







EXTERNAL CORNER

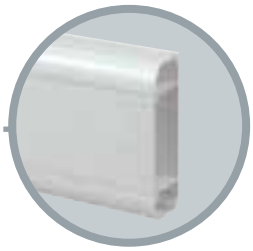
External Corners accommodate +/- 5 degree irregularities in the squareness of a corner. Corners come ready assembled to click into place, and offset side splits hide the effect of the split line for aesthetics.

DATA SWEEP

The unique patented Data Sweep provides Cat 5e, 6 and 7 data cabling compliance, with no loss of capacity and without the need for bulky, protruding corner covers.

CHOICE OF TWO PROFILES

Available in Dado and Skirting profiles to suit most installations. Available in white, charcoal and choice of RAL colours*.

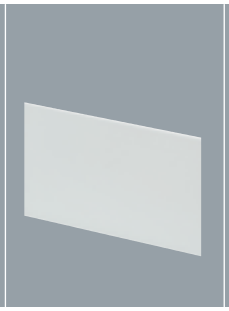
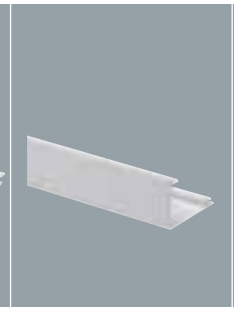
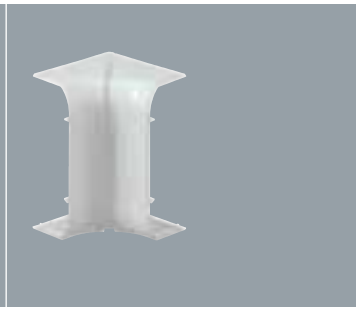


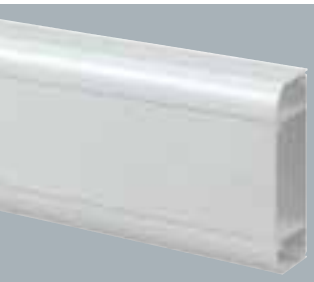


PROFILE LENGTHS

FITTINGS

Component Selector Chart

Main Carrier	Straight Cover	Curved Cover	Square Cover	Flexible Internal Corner
3 METRES 6m	3 METRES 30m	3 METRES 30m	3 METRES 30m	2
				
VP180WHI **VP180CHA**	**VP100WHI** **VP100CHA***	**VP110WHI x2** **VP110CHA x2**		**VP181WHI** **VP181CHA**



DADO
170 x 57mm

Main Carrier	Straight Cover	Curved Cover	Square Cover	Flexible Internal Corner
VP180WHI **VP180CHA**	**VP100WHI** **VP100CHA***	**VP110WHI** **VP110CHA**	**VP115WHI** **VP115CHA**	**VP191WHI** **VP191CHA**

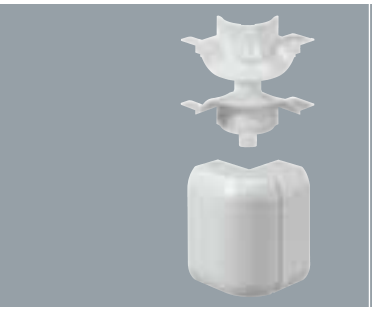


SKIRTING
170 x 57mm

* Use Charcoal lid to help achieve compliance to Part M

Flexible External Corner

CONSISTS OF COVER AND DATA SWEEP 2

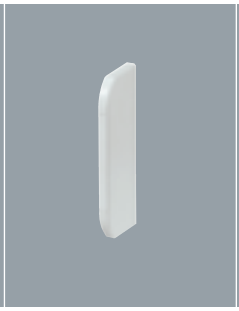


VP182WHI
VP182CHA

VP192WHI
VP192CHA

End Cap

SUPPLIED AS LEFT AND RIGHT-HAND PAIR 1



VP183WHI
VP183CHA

VP193WHI
VP193CHA

Joint Cover

5



VP184WHI
VP184CHA

VP194WHI
VP194CHA

Flat Angle

CONSISTS OF COVER AND CARRIER 1



VP185WHI
VP185CHA

Flat Angle Up
VP195WHI
VP195CHA

Flat Angle Down
VP196WHI**
VP196CHA**

Flat Tee

CONSISTS OF COVER AND CARRIER 1



VP187WHI
VP187CHA

VP197WHI
VP197CHA

Adaptor

SUITABLE FOR 20 AND 25MM CONDUIT AND YT2 AND YT4 MINI-TRUNKING 10



VP188WHI
VP188CHA

VP198WHI
VP198CHA

** These items are fabricated

ACCESSORIES

Socket Spacer



VP129WHI 50
VP129CHA 50
SOCKET SACER 25MM WIDE

Visible width is 9mm after installation.

Part M Flange and Socket Spacer



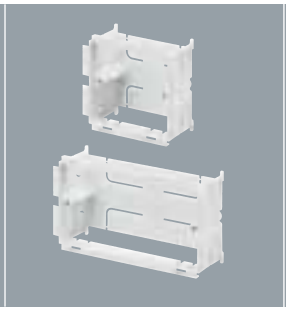
VX40CHA 20
VX40BLU 20
1 GANG MOUNTING FLANGE

VX41CHA 10
VX41BLU 10
2 GANG SOCKET SPACER

Provides colour contrast with wiring device to comply with Part M.

Visible width is 25mm after installation.

Open Back Boxes



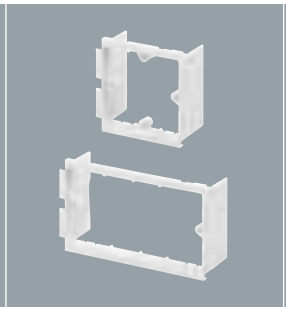
VP121WHI* 25
VP121CHA* 25
VP124WHI** 25
VP124CHA** 25
1 GANG OPEN BACK BOX

VP122WHI* 10
VP122CHA* 10
VP125WHI** 10
VP125CHA** 10
2 GANG OPEN BACK BOX

VP123WHI* 5
VP123CHA* 5
3 GANG OPEN BACK BOX

*45mm deep
**35mm deep

Open Mounting Frames*



VP131WHI 25
VP131CHA 25
1 GANG 40MM OPEN MOUNTING FRAME

VP132WHI 10
VP132CHA 10
2 GANG 40MM OPEN MOUNTING FRAME

1 Gang frame is used in vertical applications.

Wings may be removed for greater wiring space.

*Open mounting frames are only suitable where services running in the centre compartment are the same as that of the accessory.

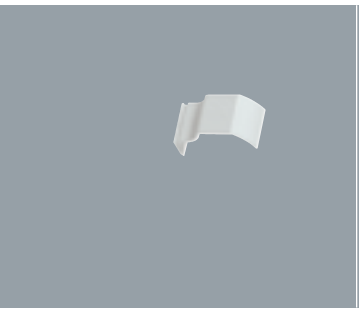
MCB/RCD Housing



VP35WHI 1
MCB/RCD HOUSING WITH COVER (ACCESSORY NOT SUPPLIED)

Mounts directly to central compartment of trunking to accept up to 2 x one module products from the Sentry range of MCBs and RCDs (excluding one module RCBOs).

Cable Retainer



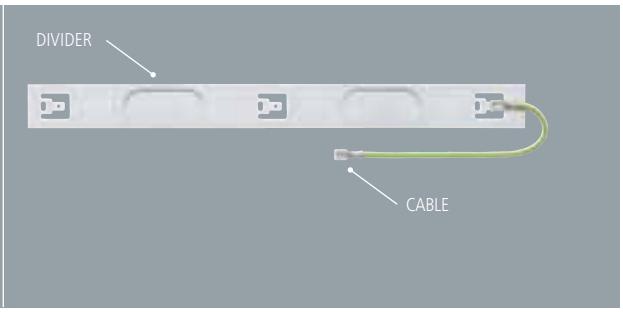
VP105WHI 50
CABLE RETAINER

Screw Fixing Kit



VTS1000 20
SCREW FIXING KIT

Screening Divider



VP30** 15m
1.5M SCREENING DIVIDER

VX31 10
300MM SCREEN CONNECTING CABLE

VX32 10
500MM SCREEN CONNECTING BRAID

VX33 10
500MM SCREEN CONNECTING CABLE

** Cable not included



Prestige 3D Antibac Blue installed with Logic Plus Part M Switchsocket Outlets

range introduction

New from MK Electric, Prestige 3D Antibac Blue offers an antibacterial cable management solution for power and data distribution in environments where hygiene is a priority. With ongoing concern over hospital acquired infections such as MRSA, the demand for antibacterial products continues to rise. Prestige 3D Antibac Blue is designed to kill bacteria which can grow on surfaces such as trunking systems. It uses a silver based additive inherent within the PVCu which acts as an effective weapon in fighting harmful bacteria such as MRSA, and Klebsiella pneumoniae.

MK offer a complete antibacterial solution, by complementing Prestige 3D Antibac Blue with Logic Plus wiring devices, the entire installation will meet the requirements of an antibacterial specification. The trunking and wiring devices are both open to contact, therefore the control of the spread of bacteria and infections can only be effective with a complete solution.

MK's Prestige 3D Antibac Blue range will meet the demands of the Healthcare Trusts, Infection Control Departments or Facilities Managers specifying antibacterial products, as well as providing the fastest installation for Contractors, the range has been independently verified as 40% faster than similar competitor systems to install*.

features and benefits

- **The only manufacturer to offer a complete antibacterial solution**
- **>99.9% kill rate against MRSA, and Klebsiella pneumoniae**
- **Unique patent pending fluorescence under UV light, providing customer confidence**
- **Fully Cat 5e, 6 and 7 compliant**
- **Patented Data Sweep maximises cable capacity**
- **Screw fixing kit available for installations where higher security is required, e.g. public buildings, hospitals, schools**
- **Part M compliance achievable utilising Logic Plus graphite wiring devices, or the Part M Flange or Socket Spacer**
- **Independently verified as 40% faster to install***
- **10 Year guarantee**

* Independently verified as 40% faster to install than Prestige Plus

Prestige 3D Antibac Blue

Reports show 300,000 healthcare associated infections were contracted in the UK in 2008, with an annual investment of £270million in infection control.

- Healthcare associated infections cause 5000 deaths a year, at a cost of £1billion.
- Patients recovering from such infections spend on average 10 extra days in hospital, which costs the NHS three times their original treatment.
- The use of antibacterial products supports the existing infection control initiatives such as hand hygiene and barrier nursing.



PRESTIGE 3D ANTIBAC BLUE INSTALLED WITH MEIGAN SOCKET OUTLETS

How does Prestige 3D Antibac Blue work?

Prestige 3D Antibac Blue is an antibacterial 3 compartment power and data trunking system designed to kill bacteria which can grow on surfaces.

It uses a silver based additive inherent within the PVCu which acts as an effective weapon in fighting bacteria such as MRSA and other harmful bacteria. The silver additive is a bactericide and will therefore kill bacteria instead of just restricting their growth.

As the additive is inherent within the PVCu compound the antibacterial protection runs throughout the products themselves. There is no loss of protection where the trunking lengths are cut on-site or if the trunking surface becomes scuffed or scratched.

The antibacterial additive depends on intimate contact between surfaces of the trunking and the user, so any barriers such as dirt or grime will reduce or negate the antibacterial effect.

Prestige 3D Antibac Blue is not intended to replace standard cleaning regimes. It is an additional protection which can only operate efficiently if the surfaces are kept free of dirt and grime.

The antibacterial additive used in Prestige 3D Antibac Blue is registered with the Environmental Protection Agency (EPA) and compliant with the European Biocidal Products Directive (BPD).

The additive provides effective protection against both gram positive and gram negative bacteria, unlike some other anti-bacterial additives which are only effective against gram positive bacteria.



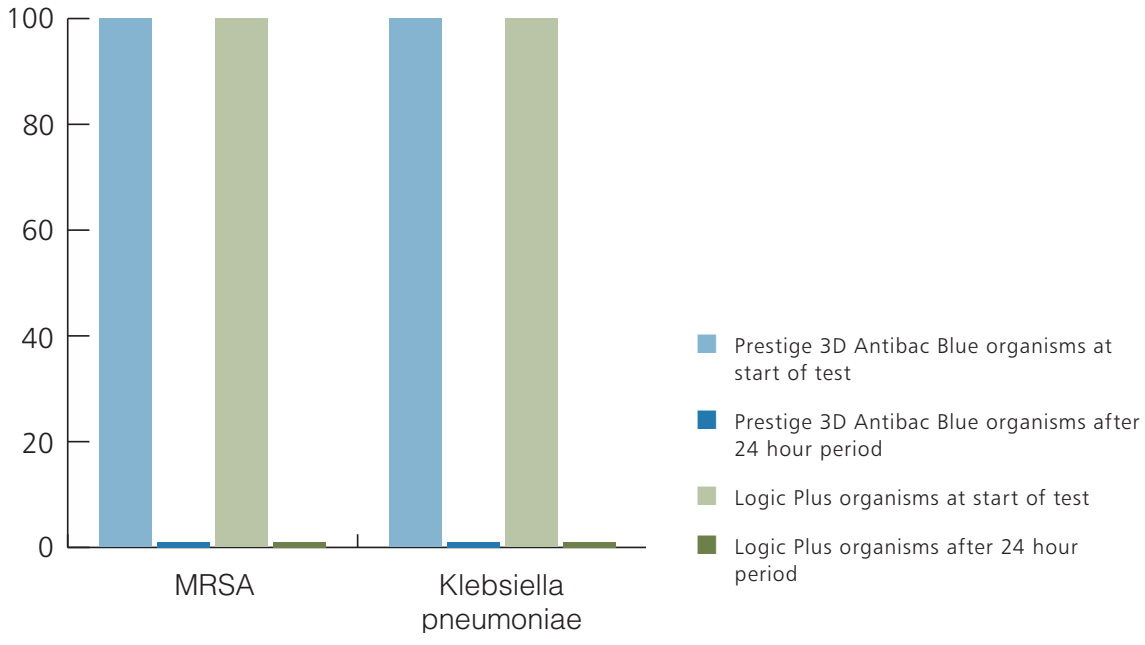
MK Electric have commissioned independent tests to verify the antibacterial properties of Prestige 3D Antibac Blue. The results, collected over a 24 hour period shows results of >99.9% kill rates on the organisms MRSA, and Klebsiella pneumoniae.

MK Electric have also commissioned independent tests to verify the antibacterial properties of Logic Plus. The results, collected over a 24 hour period shows results of 99.9% kill rates on the organism MRSA and 98.9% kill rates on the organism Klebsiella pneumoniae.

	PRESTIGE 3D ANTIBAC BLUE		LOGIC PLUS	
	% Organisms at start of test	% Organisms after 24 hour period	% Organisms at start of test	% Organisms after 24 hour period
MRSA	100	<0.1	100	0.1
Klebsiella pneumoniae	100	<0.1	100	1.1



LOGIC PLUS SWITCHSOCKET OUTLET



Prestige 3D Antibac Blue

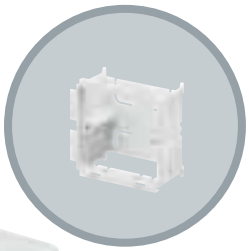


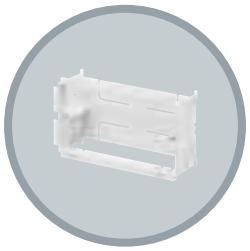
DIVIDER KNOCKOUTS

Wiring is also made easy with 50 x 21mm knockouts at 100mm intervals along compartment dividers, providing instant access to mounting boxes, with no drilling or cutting.

BACK BOXES

The 1 and 2 gang 35mm and 45mm deep back boxes, 3 gang 45mm deep back box and 1 and 2 gang 40mm frames ensure Cat 5e, 6 and 7 compliance and ease of connection to power and data devices. The open top/bottom allows unhindered tool free cable entry, through the trunking compartment divider knockout. The back box can slide to align with appropriate knockout (see technical pages for restrictions on use).





END CAPS

Neatly finishes runs of trunking. (Moulding provides internal location for extra security from optional screw fixing).





INTERNAL CORNER

Designed to accommodate irregularities in the squareness of the corner with a +/- 5 degrees flexibility range. The centre split gives maximum adjustment. Covers are radiused and compatible with Cat 5e, 6 and 7 data cabling requirements.

PRE-PUNCHED BASES

Wall fixing is simplified by the inclusion of pre-punched oval holes at 100mm intervals, ensures no drilling is required.



PART M

Compliance to Part M building regulations can be achieved using Part M flange or charcoal devices.

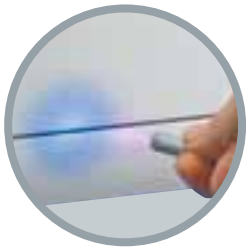


SCREW FIXING KIT

Where higher security is required, e.g. schools, all fitting covers can be secured using the Screw Fixing Kit. The Screw Fixing Kit is self-locating on the styling line of the system and has a cover to hide the screw head.

UNIQUE FLUORESCENCE

For complete customer confidence, Prestige 3D Antibac Blue features a patent pending fluorescent additive which glows bright blue under a UV light, unlike standard PVCu which glows dull purple.



Prestige 3D Antibac Blue



Prestige 3D

FLAT TEES AND ANGLES

The ingenuity of the patented tee design allows a variety of cable drop permutations. The tee's bridge can be fitted in two positions increasing the versatility of cable runs whilst maintaining the correct segregation and Cat 5e, 6 and 7 compliance. Screw fixing hole locations have a protective shroud to prevent the chafing of cables. Both the Flat Angle and Tee compartment divider walls are curved (Cat 5e, 6 and 7 compliant) to allow data cables to lay in with no loss of capacity. The covers are one piece and clip securely into place, and the base is also a single moulded item, giving more strength than fabrication. Joint covers are not required where the tee/angle meets the trunking as the moulded covers now overlap the junction.



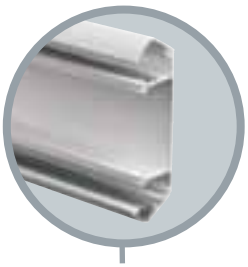


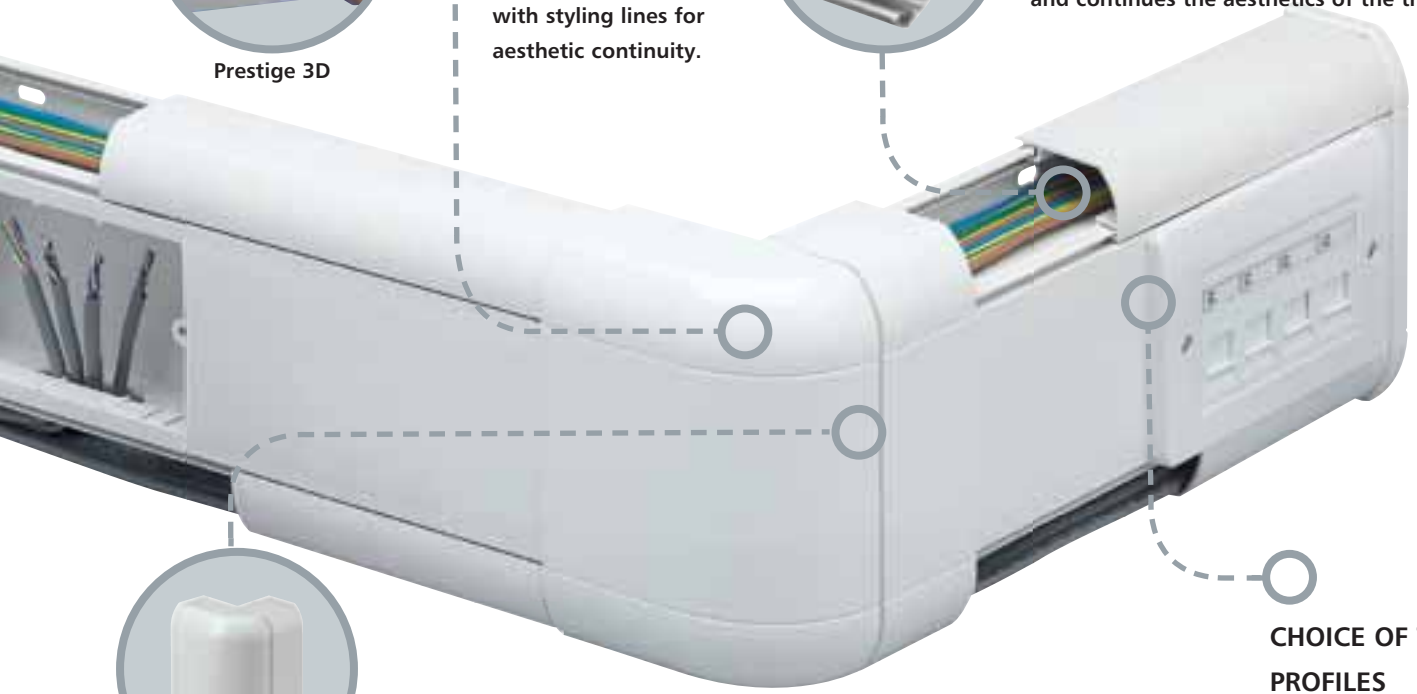
STYLING LINES

All fittings are moulded with styling lines for aesthetic continuity.

TRUNKING HINGE LIDS

A two stage location gives a hinge effect, enabling cables to be supported by the trunking cover during the installation. Cover design avoids dust traps and makes cleaning easier, and continues the aesthetics of the trunking.









EXTERNAL CORNER

External Corners accommodate +/- 5 degree irregularities in the squareness of a corner. Corners come ready assembled to click into place, and offset side splits hide the effect of the split line for aesthetics.

DATA SWEEP

The unique patented Data Sweep provides Cat 5e, 6 and 7 data cabling compliance, with no loss of capacity and without the need for bulky, protruding corner covers.

ELECTROMAGNETIC INTERFERENCE

Additional data cable/ signal protection is provided by fitting screening divider VP30.

CHOICE OF TWO PROFILES

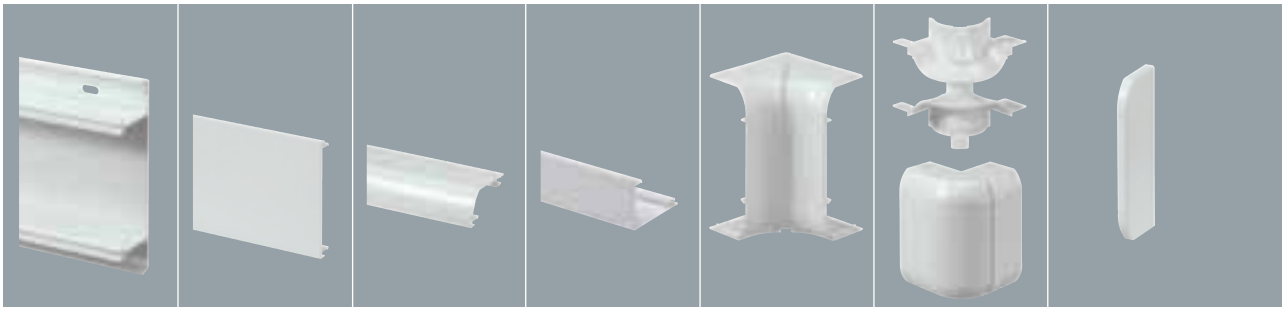
Available in Dado and Skirting profiles to suit most installations.

Prestige 3D Antibac Blue

PROFILE LENGTHS

FITTINGS

Component Selector Chart	Main Carrier*	Straight Cover	Curved Cover	Square Cover	Flexible Internal Corner	Flexible External Corner	End Cap
	3 METRES 6m	3 METRES 30m	3 METRES 30m	3 METRES 30m	2	CONSISTS OF COVER AND DATA SWEEP 2	SUPPLIED AS LEFT AND RIGHT-HAND PAIR 1
 **DADO** 170 x 57mm	**VP180WHI**	**VPAB100WHI**	**VPAB110WHI x2**		**VPAB181WHI**	**VPAB182WHI**	**VPAB183WHI**
 **Skirting** 170 x 57mm	**VP180WHI**	**VPAB100WHI**	**VPAB110WHI**	**VPAB115WHI**	**VPAB191WHI**	**VPAB192WHI**	**VPAB193WHI**

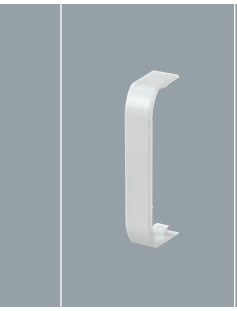


* Carrier components do not require the antibacterial additive as they have no exposure once the installation is complete. As such, the standard main carrier is sufficient, as are standard back boxes, mounting frames and cable retainers. The carrier components of the External Corner, Flat Angle and Flat Tee are also standard PVCu due to no exposure once installation is complete.

ACCESSORIES

Joint Cover

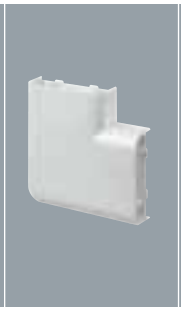
5



VPAB184WHI

Flat Angle

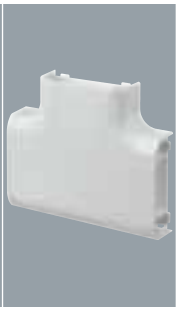
CONSISTS OF COVER AND CARRIER 1



VPAB185WHI

Flat Tee

CONSISTS OF COVER AND CARRIER 1



VPAB187WHI

Flange and Socket Spacer



VXAB40CHA* 20
PART M FLANGE FITTED BOTH SIDES OF A DEVICE

VXAB41CHA* 10
PART M SOCKET SPACER

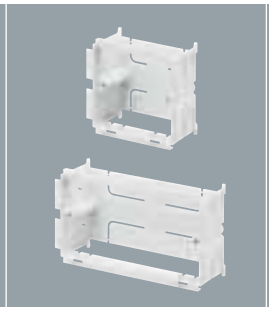
VPAB129WHI** 50
SOCKET SPACER

Provides colour contrast with wiring device to comply with Part M.

* Visible width is 25mm after installation.

** Visible width is 9mm after installation.

Open Back Boxes



VP121WHI* 25
VP124WHI** 25
1 GANG OPEN BACK BOX

VP122WHI* 10
VP125WHI** 10
2 GANG OPEN BACK BOX

VP123WHI* 5
3 GANG OPEN BACK BOX

*45mm deep
**35mm deep

Open Mounting Frames*



VP131WHI 25
1 GANG 40MM OPEN MOUNTING FRAME

VP132WHI 10
2 GANG 40MM OPEN MOUNTING FRAME

1 Gang frame is used in vertical applications.

Wings may be removed for greater wiring space.

*Open mounting frames are only suitable where services running in the centre compartment are the same as that of the accessory.

Flat Angle Up

VPAB195WHI

Flat Angle Down

VPAB196WHI

Flat Tee

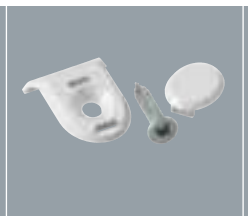
VPAB197WHI

Cable Retainer



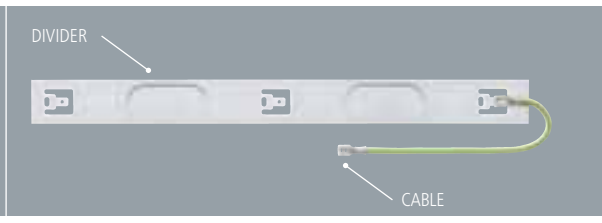
VP105WHI 50
CABLE RETAINER

Screw Fixing Kit



VTSAB1000WHI 20
SCREW FIXING KIT

Screening Divider



VP30** 15m
1.5M SCREENING DIVIDER

VX31 10
300MM SCREEN CONNECTING CABLE

VX32 10
500MM SCREEN CONNECTING BRAID

VX33 10
500MM SCREEN CONNECTING CABLE

**Cable not included



Glasgow Royal Infirmary Gets A Healthy Dose Of Prestige 3D Antibac Blue

Infection control is a major concern in the healthcare sector. To help reduce the risk of spreading infections, bacteria and more, Glasgow Royal Infirmary's Intensive Care Unit installed more than 55 metres of Prestige 3D Antibac Blue during a recent refurbishment — becoming the first hospital in the UK to improve patient and staff safety through antibacterial cabling.

COMPLETE SOLUTION

Only MK Electric offers a complete antibacterial solution that includes both wiring devices and cable management, but the single course for every product was just one of the reasons that the Glasgow Royal Infirmary chose Prestige 3D Antibac Blue. The product is also complete in that it offers effective protection against both gram-positive and gram-negative bacteria rather than just one.

BEYOND HEALTHCARE

Of course, the hospital would not have chosen Prestige 3D Antibac Blue if it wasn't also an outstanding cable management solution above and beyond its health benefits. Like any healthcare facility, Glasgow Royal Infirmary's Intensive Care Unit has a large number of people moving about at any given time. The cable management provided by MK Electric not only ensures proper cabling to all equipment, but also ensures a clean, uncluttered work area for added safety.

For Glasgow Royal Infirmary's Intensive Care Unit, Prestige 3D Antibac Blue is an investment that's sure to have a healthy return.



range introduction

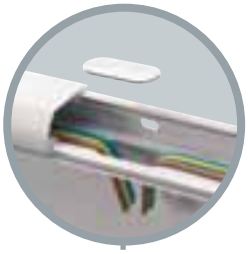
Prestige 3D Compact completes the 3D offering with all the 3D benefits of faster installation, Cat 5e, 6 and 7 compliance and improved aesthetics, but in a smaller footprint & ideal for confined locations. The new concept uses the full trunking depth with a sliding open box (frame) principle to ease power and data connections.

features and benefits

- **Faster installation – 40% quicker than Prestige Plus**
- **Cat 5e, 6 and 7 compliant flexible Internal and External Corners, moulded Flat Angles and Tees**
- **Patented unique 'open box' mounting frames combined with divider knockouts to provide unhindered tool-free cable entry**
- **Innovative patented External Corner Data Sweep allows continuous cable capacity and maintains the Compact minimum trunking depth**
- **Patented hinged lid to support cables during installation**
- **Pre-punched bases**
- **Curved outer covers that complement MK Logic Plus accessories**
- **All extrusions manufactured from 90% recycled material***
- **10 Year guarantee**

* Based on 2008 consumption.

Prestige 3D Compact



DIVIDER KNOCKOUTS

Wiring is also made easy with 50mm x 21mm knockouts at 100mm intervals along compartment dividers, providing instant access to mounting boxes with no drilling or cutting.

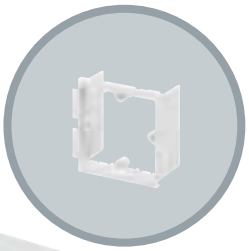
MOUNTING FRAMES

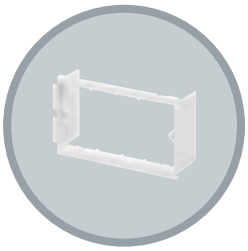
1 gang and 2 gang 'open box' mounting frames use the full trunking depth allowing ease of connection to power and data devices. The open top/bottom allows unhindered tool free cable entry through the trunking compartment divider knockout. The frame can slide to align with appropriate knockout.

END CAPS

Neatly finishes runs of trunking. Moulding provides internal location for extra security from optional screw fixing.



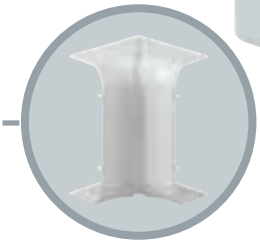






PRE-PUNCHED BASES

Wall fixing is simplified by the inclusion of pre-punched oval holes at 100mm intervals, ensures no drilling is required.



INTERNAL CORNER

Designed to accommodate irregularities in the squareness of the corner with a +/- 5 degree flexibility range. The centre split gives maximum adjustment. Covers are radiused and compatible with Cat 5e, 6 and 7 data cabling requirements.



SCREW FIXING KIT

Where higher security is required, all fitting covers can be secured using the Screw Fixing Kit. The Screw Fixing Kit is self-locating on the styling line of the system and has a cover to hide the screw head.

FLAT TEES AND ANGLES

The ingenuity of the patented tee design allows a variety of cable drop permutations. The tee's bridge can be fitted in two positions increasing the versatility of cable runs whilst maintaining the correct separation and Cat 5e, 6 and 7 compatibility. Screw fixing hole locations have a protective shroud to prevent the chafing of cables. Both the Flat Angle and Tee compartment divider walls are curved (Cat 5e, 6 and 7 compliant) to allow data cables to lay in with no loss of capacity. The covers are one piece and clip securely into place, bases are also single mouldings giving more strength than an equivalent fabrication. Joint covers are not required where the tee/angle meets the trunking as the moulded covers now overlap the junction.

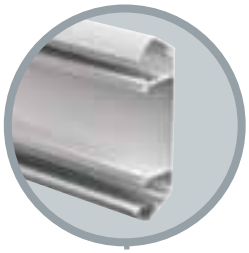


ELECTROMAGNETIC INTERFERENCE

Additional data cable/signal protection is provided by fitting screening divider VCT30.

TRUNKING HINGED LIDS

A patented two stage location gives a hinge effect, enabling cables to be supported by the trunking cover during the installation. Cover design avoids dust traps and makes cleaning easier and continues the aesthetics of the trunking.



STYLING LINES

All fittings are moulded with styling lines for aesthetic continuity.







EXTERNAL CORNER

External Corners accommodate +/- 5 degree irregularities in the squareness of a corner. Corners come ready assembled to click into place and offset side split hides the effect of the split line for aesthetics.

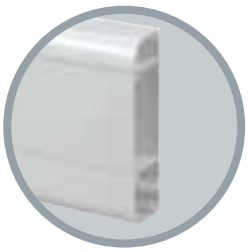
DATA SWEEP

The unique patented Data Sweep provides Cat 5e, 6 and 7 data cabling compliance, with no loss of capacity and without the need for bulky protruding corner covers.

CHOICE OF TWO PROFILES

140 x 45mm and 160 x 45mm choice of profile to suit more confined locations and installation needs around the wall and below the window.



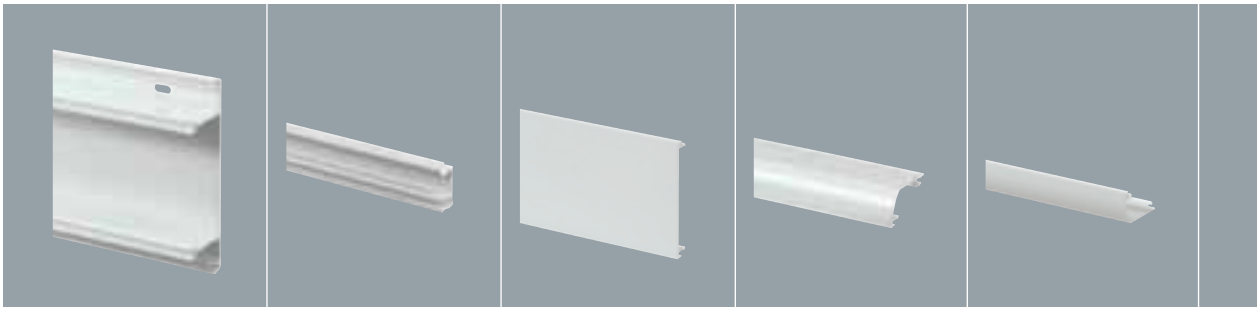


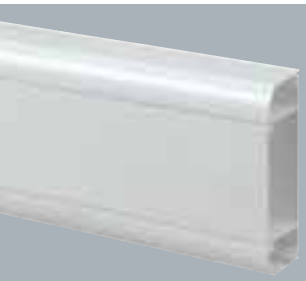
Prestige 3D Compact

PROFILE LENGTHS

Component Selector Chart

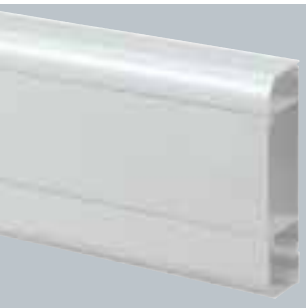
Main Carrier	Extension Carrier	Straight Cover	Curved Cover	Extension Cover
3 METRES 6m	3 METRES 15m	3 METRES 30m	3 METRES 30m	3 METRES 15m





DADO
140 x 45mm

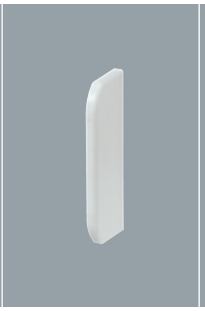
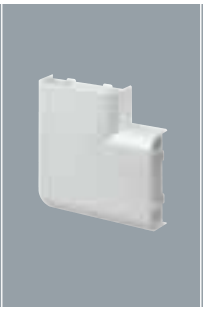
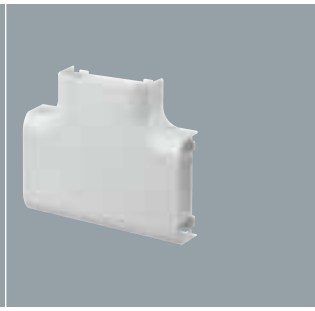
Main Carrier	Extension Carrier	Straight Cover	Curved Cover	Extension Cover
VCT140WHI		VCT100WHI	VCT110WHI X2	



Extended Dado
160 x 45mm

Main Carrier	Extension Carrier	Straight Cover	Curved Cover	Extension Cover
VCT140WHI	VCT160WHI	VCT100WHI	VCT110WHI	VCT120WHI

FITTINGS

Flexible Internal Corner	Flexible External Corner	End Cap	Joint Cover	Flat Angle Up	Flat Angle Down	Flat Tee Up
	CONSISTS OF COVER AND DATA SWEEP	SUPPLIED AS PAIR OF LEFT AND RIGHT-HAND END CAPS		CONSISTS OF COVER AND CARRIER	CONSISTS OF COVER AND CARRIER	CONSISTS OF COVER AND CARRIER
2	2	2	5	2	2	1
						
VCT141WHI	VCT142WHI	VCT143WHI	VCT144WHI	VCT145WHI	VCT145WHI	VCT147WHI UP/DOWN
VCT161WHI	VCT162WHI	VCT163WHI (2X L/R PAIRS)	VCT164WHI	VCT165WHI	VCT166WHI	VCT167WHI

ACCESSORIES

Socket Spacer



VCT25WHI 10
SOCKET SPACER
Visible width is 9mm after installation.

Part M Flange and Socket Spacer



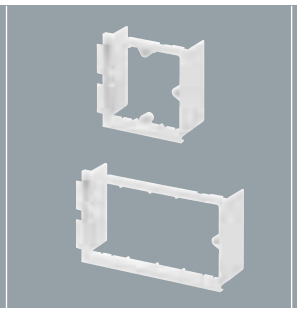
VX40CHA 20
VX40BLU 20
PART M FLANGE FITTED BOTH SIDES OF A DEVICE

VX41CHA 10
VX41BLU 10
PART M SOCKET SPACER

Provides colour contrast with wiring device to comply with Part M.

Visible width is 25mm after installation.

Open Mounting Frames

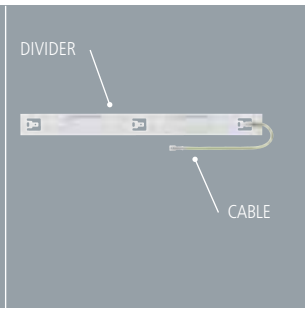


VCT121WHI 25
1 GANG 40MM OPEN MOUNTING FRAME

VCT122WHI 10
2 GANG 40MM OPEN MOUNTING FRAME

Wings may be removed for increased wiring space.

Screening Divider



VCT30* 10
1.5M SCREENING DIVIDER

VX31 10
300MM SCREEN CONNECTING CABLE

VX32 10
500MM SCREEN CONNECTING BRAID

VX33 10
500MM SCREEN CONNECTING CABLE

* Cable not included

Adaptors

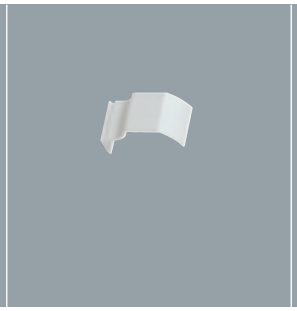
SUITABLE FOR 20 AND 25MM CONDUIT AND YT2 AND YT4 MINI-TRUNKING. CONSISTS OF COVER AND CENTRE COMPARTMENT CABLE BRIDGE



VCT148WHI 10
FOR USE WITH COVER VCT110WHI

VCT168WHI 10
FOR USE WITH COVER VCT120WHI EXTENSION COVER

Cable Retainer



VCT105WHI 50
CABLE RETAINER

Screw Fixing Kit



VTS1000 20
SCREW FIXING KIT

MCB/RCD Housing



VCT35WHI 1
MCB/RCD HOUSING WITH COVER (ACCESSORY NOT SUPPLIED)

Mounts directly to central compartment of trunking to accept up to 2 x one module products from the Sentry range of MCBs and RCDs (excluding one module RCBOs).



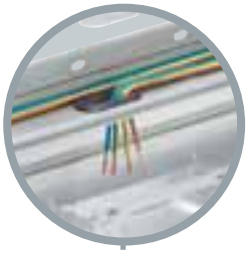
range introduction

New to the Prestige 3D family, this 3 compartment Dado and Skirting Trunking satisfies the needs of a Cat 5e, 6 and 7 compliant trunking system. With pre-drilled bases and hinged lids this system is suitable for commercial offices, educational facilities and laboratories.

Manufactured from precision extruded aluminium, the choice of 2 profiles includes all of the adaptability and suitability that are associated with the Prestige 3D family.

features and benefits

- **Choice of 2 profiles - Dado and skirting**
- **Available in natural anodised aluminium or powder coated white**
- **Fittings available in both PVC and Aluminium**
- **Fully Cat 5e, 6 and 7 compliant**
- **Pre-punched bases**
- **Hinged lid to support cable during installation**
- **Unique ‘open box’ mounting frames combined with divider knockouts to provide unhindered tool-free cable entry**
- **10 Year guarantee**

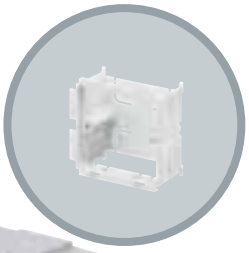


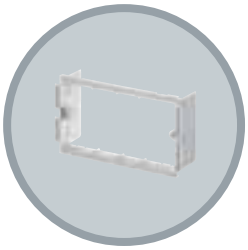
DIVIDER KNOCKOUTS

Wiring is also made easy with 50mm x 21mm knockouts at 100mm intervals along compartment dividers, providing instant access to mounting boxes with no drilling or cutting. Grommets can be used to protect the cables when running through a knockout.

MOUNTING FRAMES

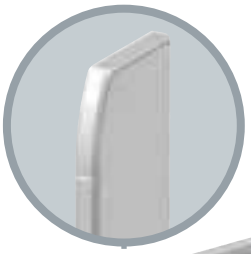
The 1 and 2 gang 35mm and 45mm deep back boxes, 3 gang 45mm deep back box and 1 and 2 gang 40mm frames ensure Cat 5e, 6 and 7 compliance and ease of connection to power and data devices. The open top/bottom allows unhindered tool free cable entry, through the trunking compartment divider knockout. The back box can slide to align with appropriate knockout (see technical pages for restrictions on use).





END CAPS

Neatly finish runs of trunking.





PRE-PUNCHED BASES

Wall fixing is simplified by the inclusion of pre-punched oval holes at 100mm intervals, ensures no drilling is required.



INTERNAL CORNER

Aluminium internal corners have pre-fitted radius inserts which provide bend radii suitable for Cat 5e, 6 and 7 cabling.

FLAT TEES AND ANGLES

These enable the trunking configuration to follow the contours of the installation in a vertical plane. In accordance with the demands of data cable installation, Cat 5e, 6 and 7 Flat Angles and Tees have been factory fitted with 32mm radius inserts.

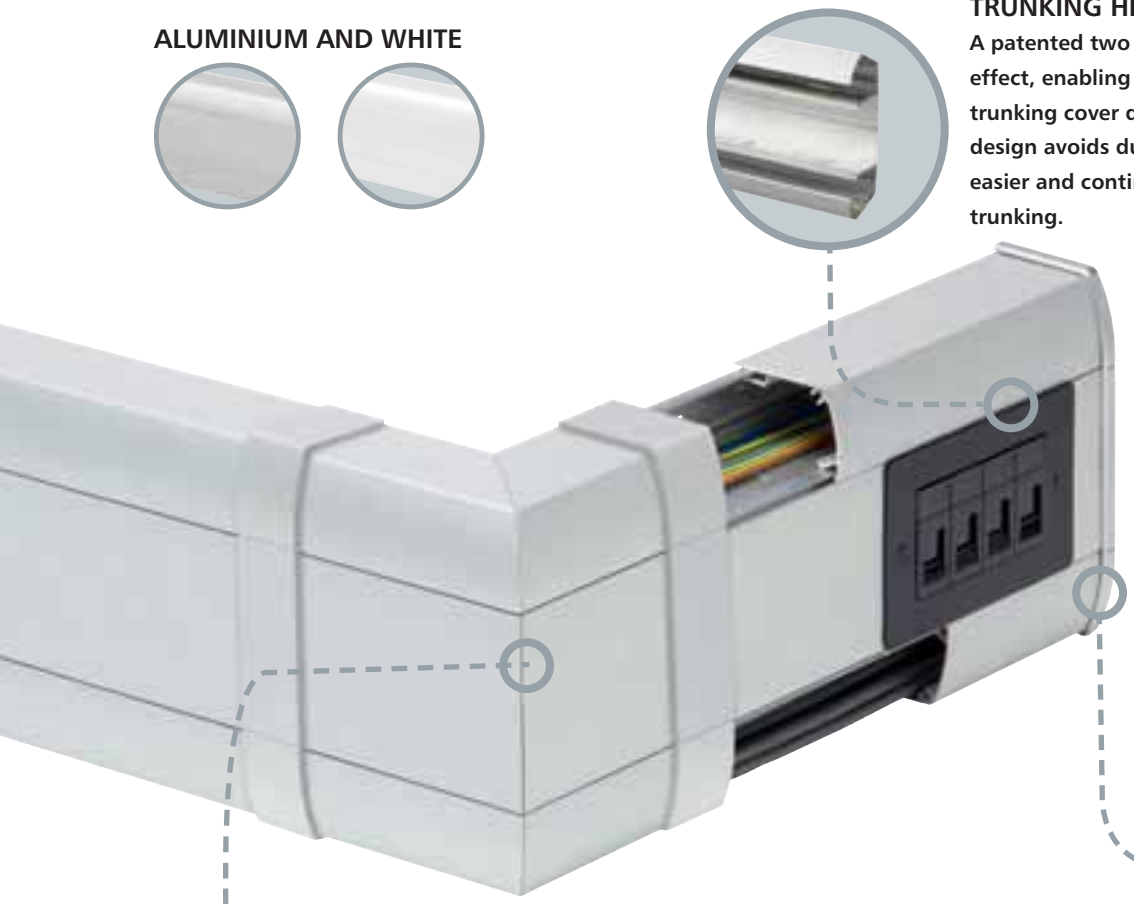


CHOICE OF TWO COLOURS

ALUMINIUM AND WHITE

TRUNKING HINGED LIDS

A patented two stage location gives a hinge effect, enabling cables to be supported by the trunking cover during the installation. Cover design avoids dust traps and makes cleaning easier and continues the aesthetics of the trunking.



DADO



CHOICE OF TWO PROFILES

Available in Dado and Skirting profiles to suit most installations. Available in Aluminium, white and choice of RAL colours.

SKIRTING



EXTERNAL CORNER

External corners include 32mm radius inserts to manage data cables and eliminate potential cable damage.



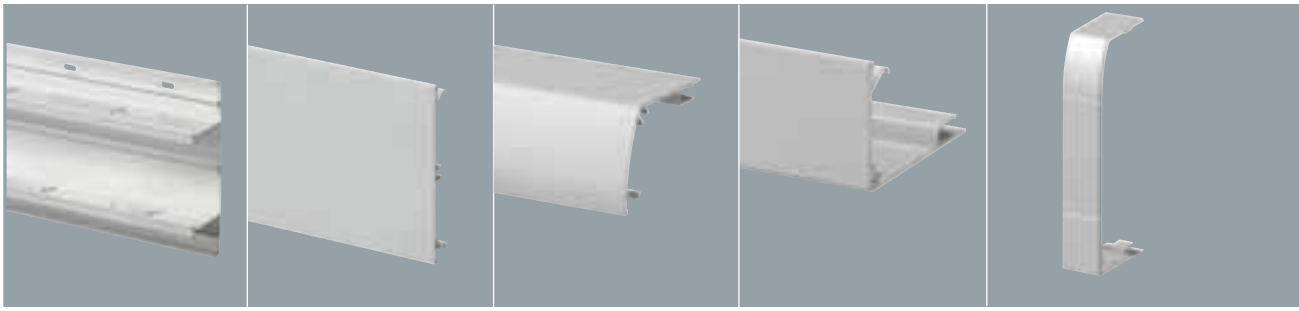
Prestige 3D Aluminium

Component Selector Chart

Main carrier	Straight Cover	Curved Cover	Square Cover	Joint Cover
Base Earth Connectors (VP220 x 2) are required to electrically join lengths				
3 METRE LENGTHS 6m	3 METRE LENGTHS 30m	3 METRE LENGTHS 30m	3 METRE LENGTHS 30m	5

Components are supplied individually for each of the main trunking assemblies.

The Component Selector Chart lists each component required to make up a length of main trunking.





DADO
170 X 57mm

VP180ALM

VP100ALM **VP110ALM** **VP184GRY**

VP100ALMW **VP110ALMW** **VP184WHI**



SKIRTING
170 X 57mm

VP180ALM

VP100ALM **VP110ALM** **VP115ALM** **VP194 GRY**

VP100ALMW **VP110ALMW** **VP115ALMW** **VP194WHI**

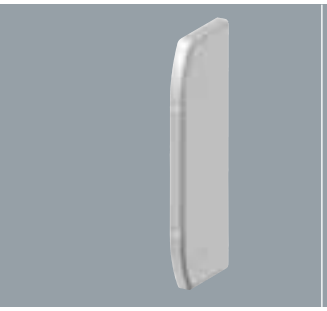
COLOURS:
Natural Anodised Aluminium (ALM), White (ALMW), PVC White (WHI), or Painted PVC Grey (GRY)

Customised colours are available in a choice of over 180 RAL colours. Contact our technical hotline +44 (0)1268 563720

FITTINGS

End Caps Assembly

SUPPLIED AS SET OF RIGHT AND LEFT HAND PAIRS 1



VP202ALM
VP202GRY
VP202ALMW
VP202WHI
VP212ALM
VP212GRY
VP212ALMW
VP212WHI

Internal Corner Assembly

2



VP200ALM
VP181GRY*
VP200ALMW
VP181WHI*
VP210ALM
VP191GRY*
VP210ALMW
VP191WHI*

External Corner Assembly

CONSISTS OF COVER AND CARRIER 2



VP201ALM
VP182GRY*
VP201ALMW
VP182WHI*
VP211ALM
VP192GRY*
VP211ALMW
VP192WHI*

Flat Tee Up

CONSISTS OF COVER AND CARRIER 1



VP205ALM
VP187GRY
VP205ALMW
VP187WHI
VP216ALM
VP197GRY
VP216ALMW
VP197WHI

Flat Angle Up

CONSISTS OF COVER AND CARRIER 1



VP204ALM
VP185GRY
VP204ALMW
VP185WHI
VP214ALM
VP195GRY
VP214ALMW
VP195WHI

Flat Angle Down

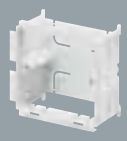
CONSISTS OF COVER AND CARRIER 1



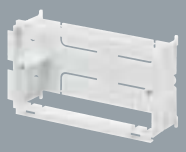
VP215ALM
VP215ALMW

* PVC Flexible Corners

Open Back Boxes



VP121WHI

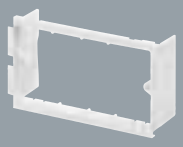


VP122WHI

Open Mounting Frames*



VP131WHI



VP132WHI

MCB/RCD Housing



VP35WHI

Mini Trunking Adaptors

SUITABLE FOR 20 AND 25MM CONDUIT AND YT2 AND YT4 MINI-TRUNKING

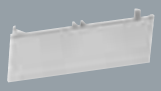


VP189WHI



VP189GRY

Accessories



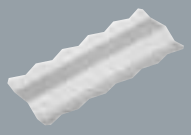
VP129ALM



VP217



VP218



VP220

VP121WHI* 25
VP121CHA* 25
VP124WHI** 25
VP124CHA** 25
1GANGOPENBACKBOX

VP122WHI* 10
VP122CHA* 10
VP125WHI** 10
VP125CHA** 10
2 GANG OPEN BACK BOX

VP123WHI* 5
VP123CHA* 5
3 GANG OPEN BACK BOX

*45mm deep
**35mm deep

VP131WHI 25
VP131CHA 25
1 GANG 40MM
OPEN MOUNTING FRAME

VP132WHI 10
VP132CHA 10
2 GANG 40MM
OPEN MOUNTING FRAME

1 Gang frame is used in vertical applications.

Wings may be removed for greater wiring space.

*Open mounting frames are only suitable where services running in the centre compartment are the same as that of the accessory.

Material: PVCu

VP35WHI 1
MCB/RCD HOUSING WITH COVER (ACCESSORY NOT SUPPLIED)

Mounts directly to central compartment of trunking to accept up to 2 x one module products from the Sentry range of MCBs and RCDs (excluding one module RCBOs).

VP189WHI 10
VP189GRY 10
SUITABLE FOR 20 AND 25MM CONDUIT AND YT2 AND YT4 MINI TRUNKING

VP129ALM 50
VP129ALMW 50
VP217 20
GROMMET
VP218 1
EARTH KIT
VP219 1
EARTH KIT FOR FLAT ANGLE AND FLAT TEE
VP220 20
BASE CARRIER EARTH CONNECTOR

1 pack of VP218 and VP219 contains 20 cable kits

technical hotline +44 (0)1268 563720



Prestige 3D Dado Cable Management installed with Part M Compliant Graphite Logic Plus Socket Outlets with Outboard Rockers, alongside USB Outlets for convenient charging of mobile phones and other portable devices. This system is an ideal specification for a project with high sustainability credentials. Prestige 3D extrusions are manufactured from 90% recycled content* and the whole system is made in the UK. Logic Plus Socket Outlets are also made in the UK offering a much reduced carbon footprint when compared to some imported products.

To find out more visit **www.mkelectric.co.uk**

*Based on 2008 Consumption



Edge 1 gang Freeform Design – brushed stainless steel

Available on a worldwide basis, the MK Design Service is supported by a dedicated team to ensure the seamless delivery of your chosen products.
To find out more visit **www.mkelectric.co.uk**



range introduction

Prestige 2com trunking is designed to meet the needs of current and future data cabling.

Prestige 2com is Cat 5e, 6 and 7 compliant and provides maximum capacity for data cabling.

features and benefits

Cat 6 compliant

50mm radius bends on all corners so cables lie in trunking correctly to avoid any deformation which may result in signal distortion and loss. Complies with and exceeds Cat 5e wiring regulations. Ideal also for future refurbishments using upgraded data cables – Cat 6A/7

Maximises capacity

60mm deep trunking with two equal compartments to maximise data channel cabling

Flexible accessories

Accessories can be mounted on either or both compartments – enables maximum use of wiring space in one compartment

Frames maximise space

Mounting frames for LJU6/Euro data outlets to maximise use of space

Stylish and robust

Single piece end caps, corners and couplers for improved aesthetics and solid construction. Screw fix option for security of corner fittings

Pre-drilled trunking bases

Eliminates the need to measure and drill fixing holes on site thus reducing installation time

All extrusions manufactured from 90% recycled material*

* Based on 2008 consumption.

AESTHETIC PROFILE
Stylish, contoured elegance.

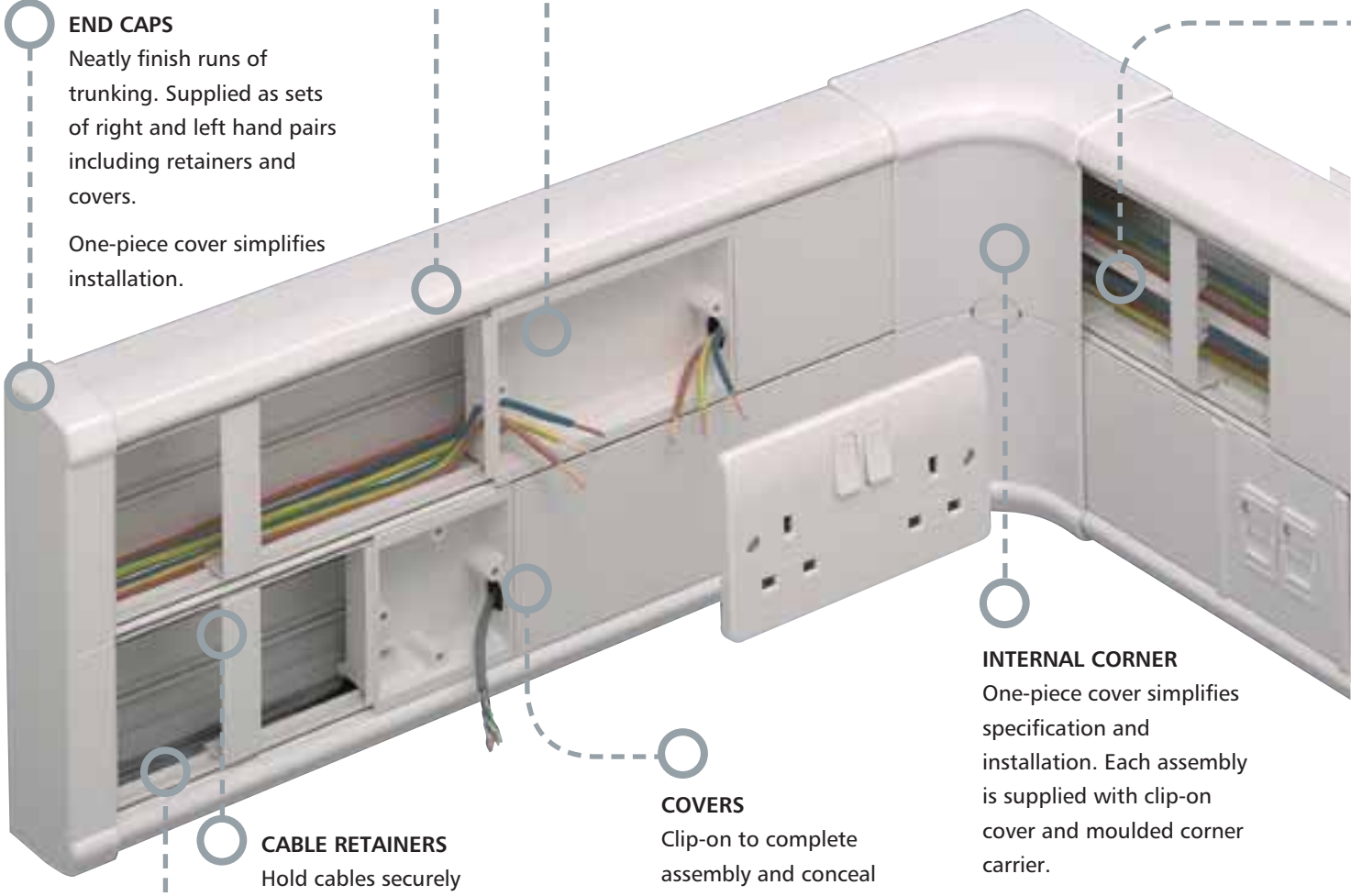
ACCESSORY MOUNTING BOXES AND FRAMES
All boxes have facility to 'knockout' back for greater depth.

35mm boxes for larger cabling size requirements, deep accessories, data and power.

Accessories can be mounted in either or both compartments.

END CAPS
Neatly finish runs of trunking. Supplied as sets of right and left hand pairs including retainers and covers.

One-piece cover simplifies installation.



CABLE RETAINERS
Hold cables securely in place.

COVERS
Clip-on to complete assembly and conceal wiring.

INTERNAL CORNER
One-piece cover simplifies specification and installation. Each assembly is supplied with clip-on cover and moulded corner carrier.

Data bend component with 50mm Radius.

Screw fix option
Unobtrusive screw fixings to maximise security against tampering.

MAIN CARRIER
Pre-drilled at 100mm centres for ease and speed of installation.



EXTERNAL CORNER
One-piece cover component for ease of assembly and styling. Each assembly is supplied with clip-on cover and moulded corner carriers.

Data bend component with 50mm Radius.

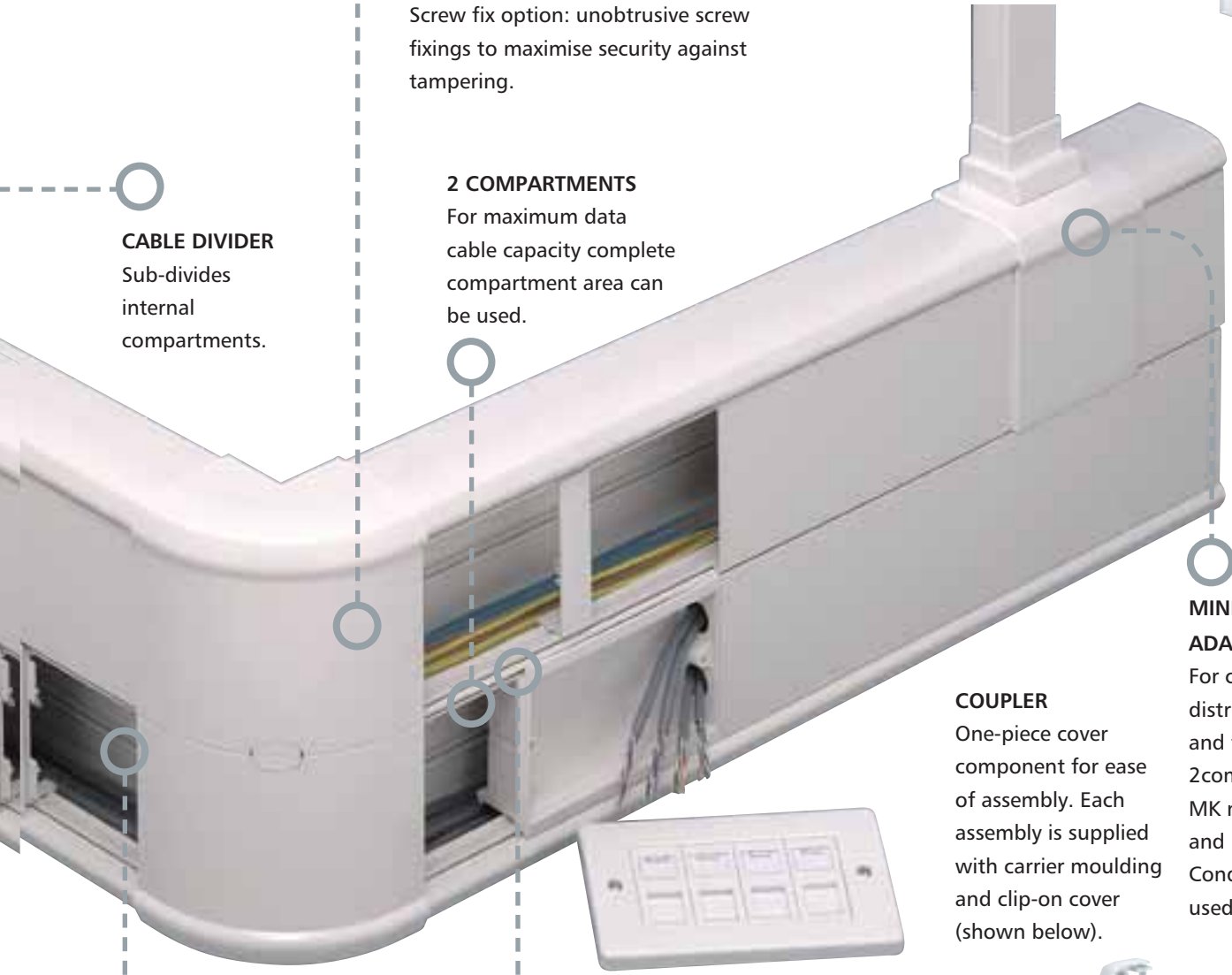
Screw fix option: unobtrusive screw fixings to maximise security against tampering.

FLAT TEES AND ANGLES
These enable the Prestige 2com trunking configuration to follow the contours of the installation in the vertical plane and include 50mm radius inserts to ensure continued data cable protection.



CABLE DIVIDER
Sub-divides internal compartments.

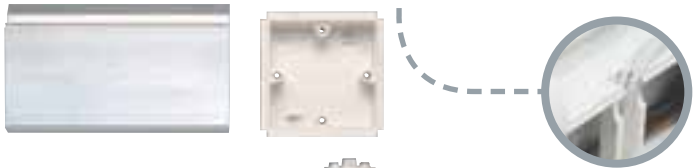
2 COMPARTMENTS
For maximum data cable capacity complete compartment area can be used.



MINI TRUNKING ADAPTORS
For cable distribution to and from Prestige 2com a range of MK mini trunking and Egatube Conduit can be used.

COUPLER
One-piece cover component for ease of assembly. Each assembly is supplied with carrier moulding and clip-on cover (shown below).





EMC SCREENING
Aluminium screening inserts provide an effective screen for computer service cables and can be used in either compartment.



CROSSOVER BRIDGE
Permits cabling to cross from one cable compartment to another within the assembly, whilst maintaining segregation.



Main Carrier

DIMENSIONS
210 X 60MM

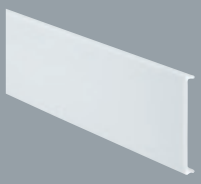


VTS2001WHI 6m
3 METRE LENGTHS

VTS2001D1WHI 4m
2 METRE LENGTHS
FOR (NON UK) MARKETS

NOT SUPPLIED WITH
LID (COVER)

Straight Cover



VTS5WHI 30m
3 METRE LENGTHS

VTS5D1WHI 20m
2 METRE LENGTHS
FOR (NON UK) MARKETS

NOTE each main carrier
requires two straight covers

Coupler Assembly



VTS2005WHI 2

Lid Joint Cover



VTS2010WHI 10
USED TO JOIN 2 COVER
PIECES AT REMOTE POINT
FROM COUPLER

Internal Corner Assembly

CONSISTS OF
COVER AND
CARRIER



VTS2004WHI 1
INCLUDES ADDITIONAL
SCREW FIXING FOR
EXTRA SECURITY
50MM RADIUS BEND

External Corner Assembly

CONSISTS OF
COVER, CARRIER
AND RADIUS
INSERT



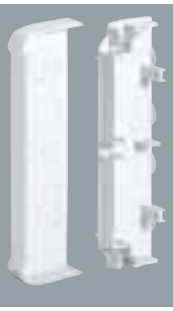
VTS2003WHI 1
INCLUDES ADDITIONAL
SCREW FIXING FOR
EXTRA SECURITY
50MM RADIUS BEND

End Cap Assembly



VTS2006WHI 2
END CAP ASSEMBLY

End Cap Cover and Retainer



VTS2015WHI 1
END CAP RETAINER

VTS2016WHI 1
END CAP COVER

Cable Retainer



VTS2011WHI 10
CABLE RETAINER

Crossover Bridge



VTS2090WHI 10
CROSSOVER BRIDGE

Mini Trunking Adaptor



VTS2081WHI 10
YT1-YT3 MINI TRUNKING
ADAPTOR.
USE APPROPRIATE YEA
ADAPTOR (YEA1-YEA3)
TO CONNECT
MINI TRUNKING

VTS2084WHI 10
YT4 MINI TRUNKING
ADAPTOR

Trunking Adaptor 50 X 50mm



VTS2050WHI 10
50 X 50MM
TRUNKING ADAPTOR

SPARES

Corner Covers

INTERNAL AND EXTERNAL



VTS2030WHI 1
EXTERNAL
CORNER COVER

VTS2040WHI 1
INTERNAL
CORNER COVER

VTS2018WHI 10
VTS2019WHI 10
INTERNAL AND EXTERNAL
SCREW COVERS FOR CORNER PIECES

Corner Carrier

INTERNAL AND EXTERNAL



VTS2007WHI 1
INTERNAL
CORNER CARRIER

VTS2008WHI 1
EXTERNAL
CORNER CARRIER

Radius Insert

EXTERNAL CORNER



VTS2009WHI 1
50MM RADIUS BEND
INSERT FOR DATA CABLES
EXTERNAL CORNER

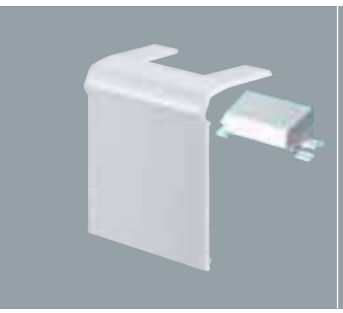
Cable Divider

3 METRE LENGTHS



VTS50WHI 30m
CABLE DIVIDER
3 METRE LENGTHS

Conduit/ Blank Adaptor



VTS2020WHI 10
CONDUITBLANK
ADAPTOR
WITH DRILL LOCATION.
WILL ACCEPT 2025MM
CONDUIT

Socket Spacer



VTS25SWHI 10
ACCESSORY
SOCKET SPACER
TO ESTABLISH THE
MINIMUM DISTANCE
BETWEEN OUTLETS

MCB/RCD Housing



VTSKMH1WHI 1
VTSMHWHI 1
MCBRCD HOUSING
WITH COVER

Mounting Frames



VTS2060WHI 10
2 GANG LIU6CRJ45
SUPPLIED WITH
LID JOINT COVERS

VTS2070WHI 10
2 GANG EURORJ45
SUPPLIED WITH
LID JOINT COVERS

VTS6000WHI 10
1 GANG
ACCESSORY
MOUNTING FRAME

VTS7000WHI 5
2 GANG
ACCESSORY
MOUNTING FRAME

Flat Tee

Flat Angle

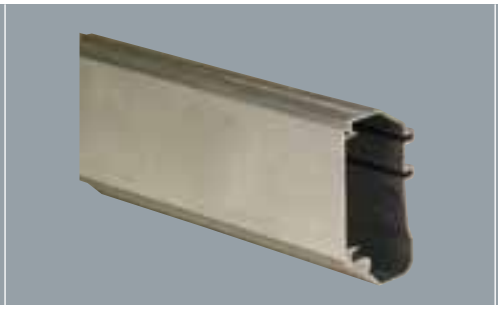
EMC Screening



VTS2014WHI 1
50MM RADIUS BEND



VTS2012WHI 1
50MM RADIUS BEND



VTS2111 6m
SCREENING INSERT

21017SST9 5
SPARE BONDING KIT



VTS2112 1
OUTLET BOX ACCESS SECTION

Accessory Boxes



VTS6035WHI VTS7035WHI VTS8028WHI



VTS2017WHI



VTS4545WHI VTS4545RWHI

VTS6025WHI 25
1 GANG 25MM DEEP

VTS6035WHI 25
1 GANG
35MM DEEP

VTS2017WHI 10
BOX ADAPTOR

VTS7025WHI 10
2 GANG 25MM DEEP

VTS7035WHI 10
2 GANG 35MM DEEP

VTS8028WHI 5
3 GANG
28MM DEEP

VTS8035 10
3 GANG 35MM DEEP

K3716 100
BOX EARTH TERMINAL

VTS4545WHI 10
FLAT ADAPTOR PLATE
(NON UK)
45MM X 45MM APERTURE

VTS4545RWHI 10
RAISED ADAPTOR
PLATE (NON UK)
45MM X 45MM APERTURE



Echo 2 Channel transmitter - Albany Plus brushed chrome

Available on a worldwide basis, the MK Design Service is supported by a dedicated team to ensure the seamless delivery of your chosen products.
To find out more visit **www.mkelectric.co.uk**

Prestige Power Poles

- **Power Poles stand between the floor and ceiling and can be integrated with Interact Underfloor Power as part of a co-ordinated Cable Management system**
- **Particularly suited to raised floors and suspended ceilings, but can also be used with solid floors and ceilings**
- **Secured to the floor by a load plate**
- **A jacking assembly allows adjustment for varying ceiling heights as well as to secure it to the ceiling**
- **An extension bar is required for stability where the height exceeds 3.6 metres**
- **Outlet boxes can be located at virtually any height on the poles, so power and data points, light switches and accessory housings can be positioned quickly and easily at the optimum level for efficient operation**
- **All PVC extrusions manufactured from 90% recycled material***

Prestige Power Posts

- **Power Posts stand neatly on the floor and accept cables from below. They are ideal for raised floors but can also be installed on solid surfaces, fed for example from Cablelink Plus Screeded Floor Systems**
- **Fit unobtrusively under desks, and a single unit will provide up to twelve outlets for any combination of power and data points, light switches and accessory housings**
- **All PVC extrusions manufactured from 90% recycled material***

* Based on 2008 consumption.

Prestige Power Poles

PPA100WHI 1
POWER POLE ASSEMBLY WITH WHITE PAINTED ALUMINIUM BODY, WHITE PVC-U COVER AND 6 OUTLET BOXES

PPA100ALM 1
POWER POLE ASSEMBLY WITH ANODISED ALUMINIUM BODY, WHITE AND CHARCOAL PVC-U COVERS AND 6 OUTLET BOXES





Prestige Power Posts

PPT650WHI 1
POWER POST ASSEMBLY WITH WHITE PAINTED ALUMINIUM BODY, WHITE PVC-U COVER AND 5 OUTLET BOXES

PPT650ALM 1
POWER POST ASSEMBLY WITH ANODISED ALUMINIUM BODY, WHITE AND CHARCOAL PVC-U COVERS AND 5 OUTLET BOXES





Accessories for Poles and Posts



To allow flexibility in matching interior design and colour schemes, the pole and post bodies are available in a white epoxy coated or natural anodised aluminium finish, and the PVCu component covers come in charcoal or white.

The bodies accept a variety of co-ordinated accessories from MK's slim profile Edge and flawless Aspect ranges, to the Logic Plus range, as well as all other MK accessory ranges. A matching MCB/RCD housing unit is available, also in charcoal or white.



PPC20WHI



PPCMHWHI



PPC40WHI



PPK1WHI



PPC50WHI

PPC20WHI 1
OUTLET BOX ASSEMBLY

PPC10WHI 3m
DIVIDING STRIP

PPC40WHI 1
TOP END COLLAR

PPC60WHI 10

PPC60CHA 10
POWER POST END CAP

PPCMHWHI 1

PPCMHCHA 1
MCB/RCD HOUSING
AVAILABLE IN A CHOICE OF TWO COLOURS, WHITE OR CHARCOAL
Accepts up to 4 x one module Sentry products, excluding single module RCBO's, up to a maximum combined rating of 63A (see pages 278-279).
The Housing unit includes fixing kit, Sentry mounting DIN rail and cover moulding.

PPA100LIDWHI 2
SPARE LIDS
3.6M LENGTHS

PPK1WHI 1
EXTENSION BAR
FIXING KIT (0.9 METRE) FOR INSTALLATIONS WHERE THE HEIGHT FROM FLOOR TO SOLID CEILING (OR TO STRUCTURAL CONCRETE WHERE SUSPENDED CEILINGS ARE INSTALLED) EXCEEDS 3.6 METRES.

PPC50WHI 1
END LOAD PLATE

Case Study

www.mkelectric.co.uk



private residence

This UK-based designer was looking to create a home environment with modern and abstract design touches to the fore.

The highly contemporary interiors demanded something out of the ordinary, something unusual but nevertheless striking. MK was commissioned to manufacture working designs based on sketches from the client.

The outcome was a customised range of products – both sockets and switches – that delivered both a uniqueness of design and that essential modern feel.

Available on a worldwide basis, the MK Design Service is supported by a dedicated team to ensure the seamless delivery of your chosen products.
To find out more visit **www.mkelectric.co.uk**





range introduction

Powerlink Plus is a busbar trunking system developed to meet the power and data distribution needs of offices, schools and laboratories.

A comprehensive range of unique flush fitting accessories and gently curved covers combine to create a visually unrivalled installation. The system offers flexibility to easily adapt to future needs for the installer.

features and benefits

Choice of 3 profiles
To suit all your skirting and dado requirements

One-piece corner, couplers and end cap covers
Simplifies installation and improves aesthetics

63A busbar for plug-on accessories and high protective conductor current compliance
Quick and easy installation, eliminating the requirement for hard wiring

Unique flush fitting accessories
Provide an unobtrusive finish

Pre-drilled trunking bases
Eliminates the need to measure and drill fixing holes on site thus reducing installation time

Large data cabling capability in outer compartments
For all your communication and data requirements

EMC Screening
Provides an effective screen for computer service cables

Made from 100% PVCu
Powerlink Plus is both robust and easily workable on site

All extrusions manufactured from 90% recycled material*

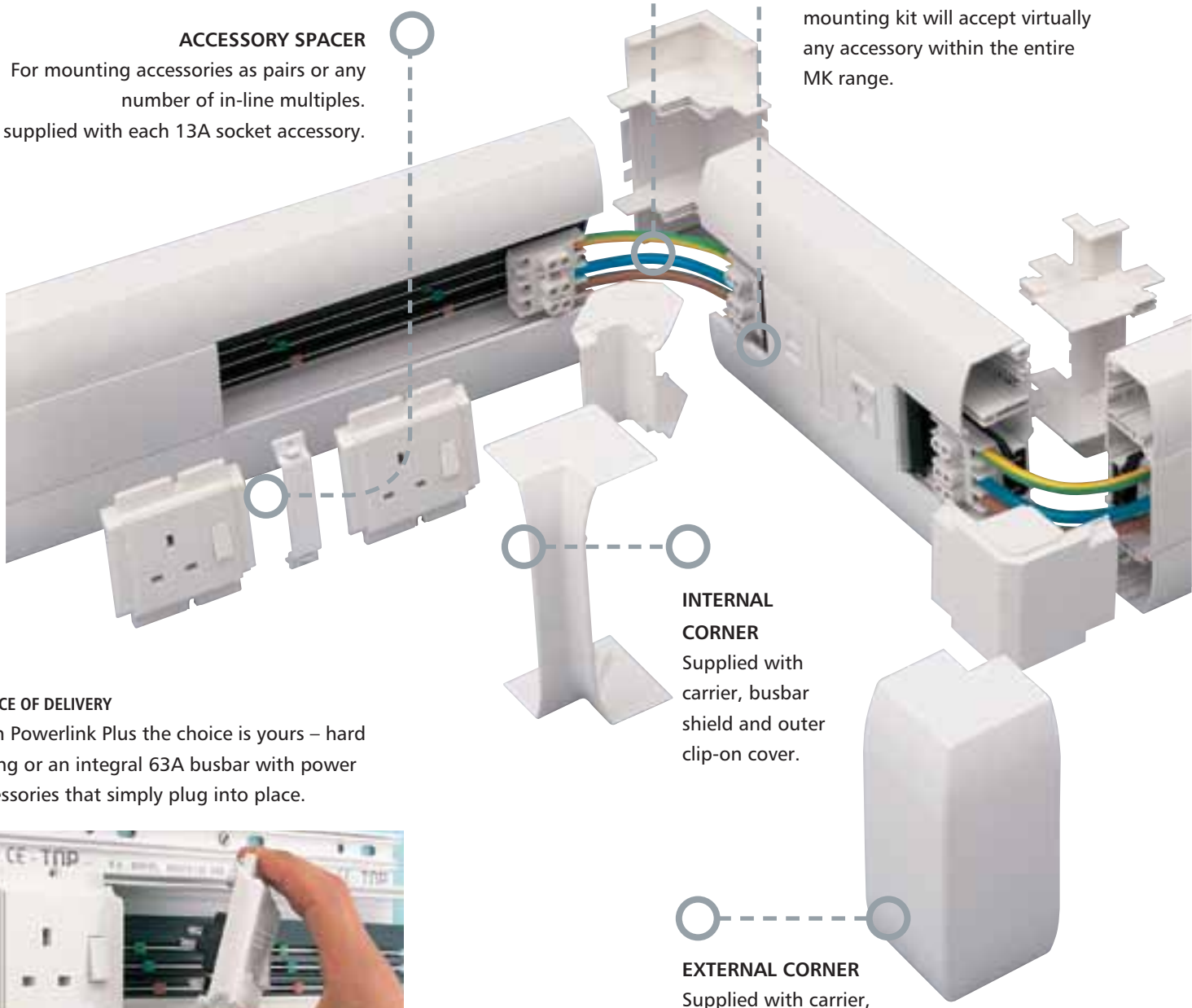
* Based on 2008 consumption.



PRE-WIRED CABLE ASSEMBLY
For electrical connection of busbar around corners.

FLUSH FITTING ACCESSORIES
Powerlink Plus offers a wide selection of flush fitting accessories, including switch sockets, DP switches, connection units and virtually every type of computer and telecom connector. All power accessories are available as plug-on units or with wire-in terminals. If that is not enough, an optional mounting kit will accept virtually any accessory within the entire MK range.

ACCESSORY SPACER
For mounting accessories as pairs or any number of in-line multiples.
One supplied with each 13A socket accessory.



INTERNAL CORNER
Supplied with carrier, busbar shield and outer clip-on cover.

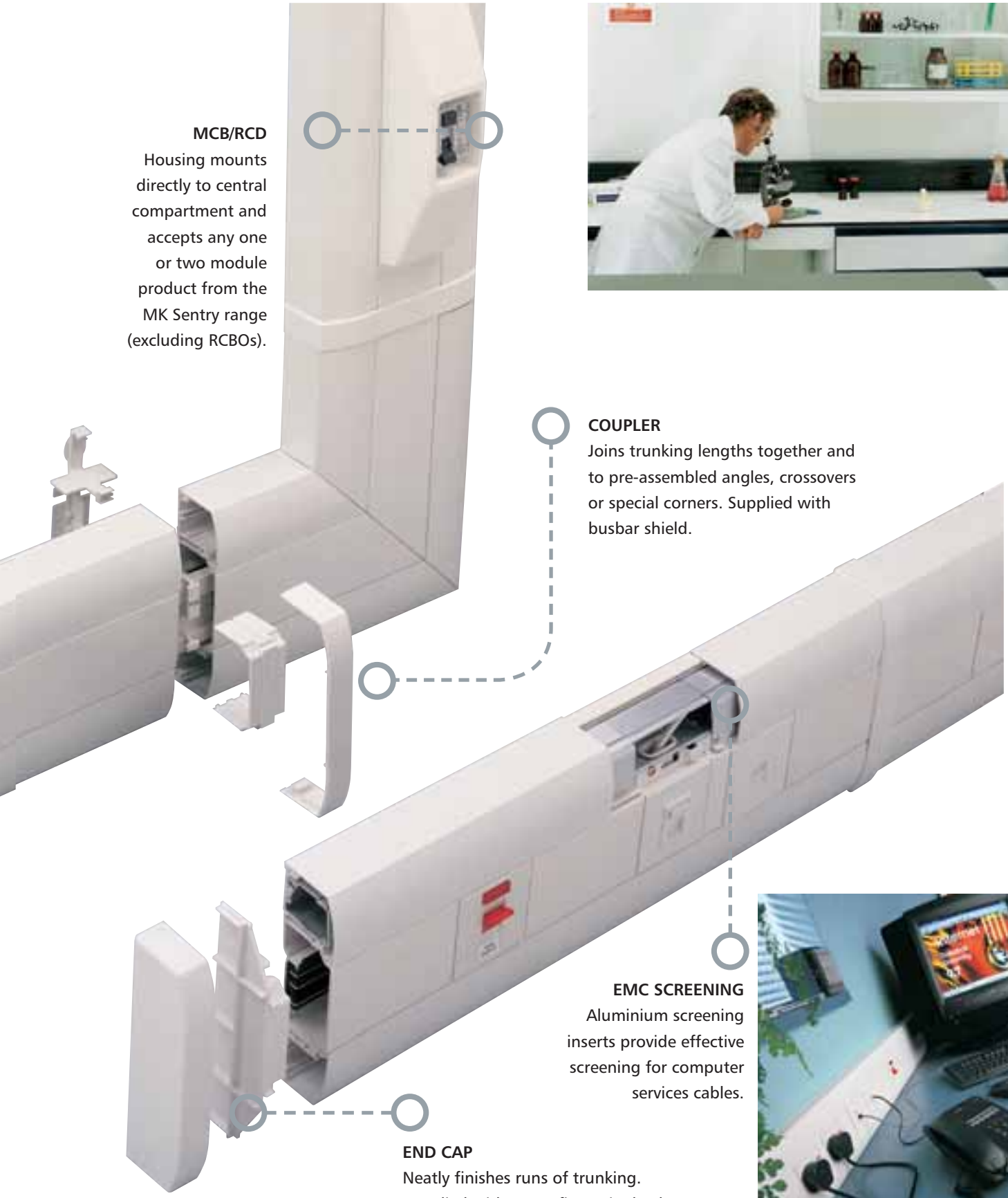
EXTERNAL CORNER
Supplied with carrier, busbar shield and outer clip-on cover.

CHOICE OF DELIVERY
With Powerlink Plus the choice is yours – hard wiring or an integral 63A busbar with power accessories that simply plug into place.



MCB/RCD
Housing mounts directly to central compartment and accepts any one or two module product from the MK Sentry range (excluding RCBOs).

COUPLER
Joins trunking lengths together and to pre-assembled angles, crossovers or special corners. Supplied with busbar shield.



EMC SCREENING
Aluminium screening inserts provide effective screening for computer services cables.



END CAP
Neatly finishes runs of trunking. Supplied with screw fix carrier/busbar shield and clip-on cover.

Component Selector Chart

Standard length: 3 metres
Supplied with covers
Trunking size: 170mm (Height) x 50mm (Depth)
With extension fitted:
212mm (Height) x 50mm (Depth)
Material PVCu
Colour: White and Charcoal

PROFILE LENGTHS

Trunking	Coupler	End Caps
WITH AND WITHOUT 63 AMP BUSBARS	WITH BUSBAR SHIELD	SUPPLIED AS A PAIR







DADO TRUNKING WITH BUSBARS

K1963WHI	3m	K1908WHI	5	K1904WHI	1
K1963CHA	3m	K1908CHA	5	K1904CHA	1



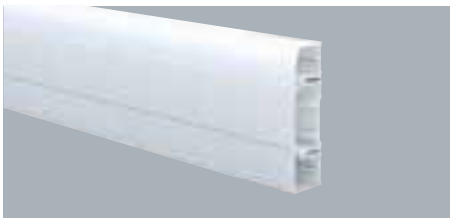
DADO TRUNKING WITHOUT BUSBARS

K1903WHI	3m	K1908WHI	5	K1904WHI	1
K1903CHA	3m	K1908CHA	5	K1904CHA	1



SKIRTING AND DADO TRUNKING WITH BUSBARS

K1962WHI	3m	K1945WHI	5	K1944WHI	1
K1962CHA	3m	K1945CHA	5	K1944CHA	1



SKIRTING AND DADO TRUNKING WITHOUT BUSBARS

K1902WHI	3m	K1945WHI	5	K1944WHI	1
K1902CHA	3m	K1945CHA	5	K1944CHA	1



EXTENSION FOR SKIRTING AND DADO TRUNKING

K1913WHI	6m	K1918WHI	5	K1914WHI	1
K1913CHA	6m	K1918CHA	5	K1914CHA	1

FITTINGS

Internal Corner

WITH BUSBAR SHIELD



K1905WHI	1	
K1905CHA	1	

Requires 1 x 1919 Cable Link Assembly

K1905WHI	1	
K1905CHA	1	

K1911WHI	1	
K1911CHA	1	

Requires 1 x 1919 Cable Link Assembly

K1911WHI	1	
K1911CHA	1	

K1915WHI	1	
K1915CHA	1	

External Corner

WITH BUSBAR SHIELD



K1906WHI	1	
K1906CHA	1	

Requires 1 x 1919 Cable Link Assembly

K1906WHI	1	
K1906CHA	1	

K1912WHI	1	
K1912CHA	1	

Requires 1 x 1919 Cable Link Assembly

K1912WHI	1	
K1912CHA	1	

K1916WHI	1	
K1916CHA	1	

Internal Special Corner

Allows continuous installation around corners other than 90º.
To order, quote List No. and Angle eg. K1966WHI 150º.



K1965WHI	1	
K1965CHA	1	

Requires 2 x K1908 couplers to join to trunking

Requires 1 x 1919 Cable Link Assembly

K1965WHI	1	
K1965CHA	1	

Requires 2 x K1908 couplers to join to trunking

K1961WHI	1	
K1961CHA	1	

Requires 2 x K1945 couplers to join to trunking

Requires 1 x 1919 Cable Link Assembly

K1961WHI	1	
K1961CHA	1	

Requires 2 x K1945 couplers to join to trunking

K1967WHI	1	
K1967CHA	1	

Requires 2 x K1918 couplers to join to trunking

External Special Corner

Allows continuous installation around corners other than 90º.
To order, quote List No. and Angle eg. K1966WHI 150º.



K1966WHI	1	
K1966CHA	1	

Requires 2 x K1908 couplers to join to trunking

Requires 1 x 1919 Cable Link Assembly

K1966WHI	1	
K1966CHA	1	

Requires 2 x K1908 couplers to join to trunking

K1964WHI	1	
K1964CHA	1	

Requires 2 x K1945 couplers to join to trunking

K1968WHI	1	
K1968CHA	1	

Requires 2 x K1918 couplers to join to trunking

Internal 135º Corner



K1965WHI135	1	
K1965CHA135	1	

Requires 2 x K1908 couplers to join to trunking

Requires 1 x 1919 Cable Link Assembly

K1965WHI135	1	
K1965CHA135	1	

Requires 2 x K1908 couplers to join to trunking

K1961WHI135	1	

Requires 2 x K1945 couplers to join to trunking

Requires 1 x 1919 Cable Link Assembly

K1961WHI135	1	
K1961CHA135	1	

Requires 2 x K1945 couplers to join to trunking

K1967WHI135	1	

Requires 2 x K1918 couplers to join to trunking

External 135º Corner



K1966WHI135	1	

Requires 2 x K1908 couplers to join to trunking

Requires 1 x 1919 Cable Link Assembly

K1966WHI135	1	

Requires 2 x K1908 couplers to join to trunking

K1964WHI135	1	
K1964CHA135	1	

Requires 2 x K1945 couplers to join to trunking

Requires 1 x 1919 Cable Link Assembly

K1968WHI135	1	

Requires 2 x K1918 couplers to join to trunking

Flat Angle

Flat Tee

Flat Cross

Cable Retainers









VTS11



VTS12



DADO TRUNKING WITH BUSBARS

K1992WHI	1	K1973WHI	1	K1974WHI	1
K1992CHA	1	K1973CHA	1	K1974CHA	1
UP/DOWN		**UP**			
Requires 1 x 1919 Cable Link Assembly		K1972WHI	1		
		K1972CHA	1		
		DOWN			
		Requires 2 x 1919 Cable Link Assembly			



DADO TRUNKING WITHOUT BUSBARS

K1992WHI	1	K1973WHI	1	K1974WHI	1
K1992CHA	1	K1973CHA	1	K1974CHA	1
UP/DOWN		**UP**			
		K1972WHI	1		
		K1972CHA	1		
		DOWN			



SKIRTING AND DADO TRUNKING WITH BUSBARS

K1957WHI	1
K1957CHA	1
UP	
K1958WHI	1
K1958CHA	1
DOWN	
Requires 1 x 1919 Cable Link Assembly	



SKIRTING AND DADO TRUNKING WITHOUT BUSBARS

K1957WHI	1
K1957CHA	1
UP	
K1958WHI	1
K1958CHA	1
DOWN	



EXTENSION FOR SKIRTING AND DADO TRUNKING

K1994WHI	1
K1994CHA	1
UP	
K1993WHI	1
K1993CHA	1
DOWN	

VTS11WHI 10
CABLE RETAINERS FOR USE WITH EXTENSION TRUNKING

VTS12WHI 10
CABLE RETAINERS FOR USE IN OUTER COMPARTMENTS

SPARES

Cable Entry Section



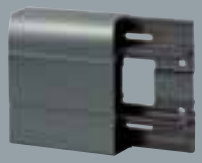
K1920WHI



K1920CHA



K1929WHI



K1929CHA

K1920WHI 1
K1920CHA 1
REAR CABLE ENTRY SECTION DADO TRUNKING

K1929WHI 1
K1929CHA 1
REAR CABLE ENTRY SECTION SKIRTING AND DADO TRUNKING

Predrilled with knockouts in upper and lower compartments and single large aperture in the central compartment.

Supplied complete with covers, central cover fixing screws, and general fixing screw bushes.

TRUNKING SIZE:
152 (Length) x 170 (Height) x 50mm (Depth)

Cable Entry Box

FLUSH



1922ALM

1922ALM 5
CABLE ENTRY BOX FOR USE WITH K1920 AND K1929

Three compartment flush mounted box with adjustable plate.

Included in the pack is a template for positioning on site prior to the trunking being installed.

DIMENSIONS:
133 x 133 x 40mm

KNOCKOUTS:
4 x 20mm
4 x 25mm

MCB/RCD Housing



K1949WHI



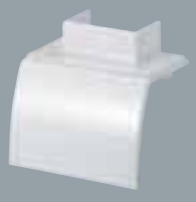
K1949CHA

K1949WHI 1
K1949CHA 1

Mounts directly to the centre compartment to accept up to 2 one module products from the MK Sentry range (except RCBOs).

DIMENSIONS:
220mm (Length) x 100mm (Depth) when mounted on trunking.

Mini Trunking Adaptors



K1926WHI



K1927WHI

K1926WHI 10
YT4MINI TRUNKING ADAPTOR

K1927WHI 10
K1927CHA 10
MINI TRUNKING ADAPTOR FOR USE WITH YEA ADAPTORS FOR YT1, YT2 AND YT3 TRUNKING

Accepts MK Ega Mini Trunking adaptors.

Conduit Adaptors



K1901WHI



K1907WHI

K1901WHI 10
20MM CONDUIT ADAPTOR

K1907WHI 10
25MM CONDUIT ADAPTOR

Covers and Cable Divider

3 METRE LENGTHS



K1932WHI



K1935WHI



1934WHI



K1936WHI

K1932WHI 15m
K1932CHA 15m
OUTER COVER SQUARE SUPPLIED IN 3 METRE LENGTHS

K1935WHI 15m
K1935CHA 15m
OUTER COVER CURVED SUPPLIED IN 3 METRE LENGTHS

1934WHI 15m
1934CHA 15m
CENTRAL COVER STRAIGHT SUPPLIED IN 3 METRE LENGTHS

K1936WHI 15m
K1936CHA 15m
EXTENSION COVER SUPPLIED IN 3 METRE LENGTHS

VTS50WHI 30m
COMPARTMENT DIVIDER SUPPLIED IN 3 METRE LENGTHS

Socket Outlets

Switchsocket Outlets

‘PLUG-ON’ 13 AMP STANDARD



1956WHI



1956CHA

1956WHI 5
1956CHA 5
STANDARD
SOCKET OUTLET

For plugging onto the busbars. Supplied complete with one accessory spacer and fixing screws.

‘PLUG-ON’ 13 AMP STANDARD



1950WHI



1950CHA



1951WHI



1951CHA

1950WHI 5
1950CHA 5
STANDARD SWITCHSOCKET
WITH NEON

1951WHI 5
1951CHA 5
STANDARD SWITCHSOCKET

For plugging onto the busbars. Supplied complete with one accessory spacer and fixing screws.

‘PLUG-ON’ 13 AMP NON STANDARD



1953WHI



1953CHA

1953WHI 5
1953CHA 5
NON STANDARD
SWITCHSOCKET

For plugging onto the busbars. With a ‘T’ shape earth pin aperture and for use only with the non standard 13A Safetyplug, list no. 647. Supplied complete with one accessory spacer and fixing screws.

‘WIRE-IN’ 13 AMP STANDARD



1952WHI



1952CHA

1952WHI 5
1952CHA 5
STANDARD SWITCHSOCKET

Fitted with screw terminals for independent wiring. Supplied complete with one accessory spacer and fixing screws.

‘WIRE-IN’ 13 AMP NON STANDARD



1955WHI



1955CHA

1955WHI 5
1955CHA 5
NON STANDARD
SIDE WIRED SWITCHSOCKET

Fitted with screw terminals for independent wiring. With a ‘T’ shape earth pin aperture and for use only with the non standard 13A Safetyplug, list no. 647. Supplied complete with one accessory spacer and fixing screws.

Connection Units

DP SWITCHED
'PLUG-ON'


1970CHA


1971WHI

1970WHI 5
1970CHA 5
WITH NEON AND
13A FUSE

1971WHI 5
1971CHA 5
WITH NEON
FLEX OUTLET AND
13A FUSE

For feeding from the busbars and controlling remote equipment. Supplied complete with fixing screws.

DP Switches

32 AMP
'PLUG-ON'


1943WHI


1943CHA

1943WHI 5
1943CHA 5
WITH NEON

For plugging onto the busbars. Can be used either as a busbar switch disconnector or for feeding and controlling remote equipment. The switch can accommodate up to 10mm² cables. Supplied complete with fixing screws.

Two Way Switch

20 AMP SP


1942WHI


1942CHA

1942WHI 5
1942CHA 5

Can be used for lighting and remote equipment. It is not connected to the busbars and requires separate cables. Supplied complete with fixing screws.

Telephone Socket Outlets


1980WHI


1980CHA


1995WHI


1995CHA

1980WHI 5
1980CHA 5
MASTER SOCKET

1995WHI 5
1995CHA 5
HANDSET POLARISED
SOCKET OUTLET

1999WHI 5
1999CHA 5
RJ11
TELEPHONE/DATA SOCKET

1980 Supplied complete with enclosure box together with fixing screws, connecting tool, cable tie and fixing screws for mounting on to the dado trunking. A full list of instructions with wiring diagrams is supplied in every pack. Approved for use with telecommunication systems run by BT in accordance with the conditions in the instructions for use.

1995 Supplied complete with enclosure box together with fixing screws, connecting tool, cable tie and fixing screws for mounting on to the dado trunking. Approved for use with telecommunication branch systems in accordance with the conditions in the instructions for use.

Isolated Co-axial Socket Outlets


1981WHI


1981CHA

1981WHI 5
1981CHA 5

Isolated single co-axial outlet for direct connection to single TV or FM co-axial down lead. Supplied complete with enclosure box together with all the necessary fixing screws for mounting on to the dado trunking.

Data Outlets

RJ45


1978WHI


1976CHA


1976WHI


1947CHA

BNC


1985WHI


1985CHA

ELV Blank Plates


1986WHI


1986CHA

Data Outlets

FOR EXTENSION TRUNKING

RJ45


K1941WHI


K1941CHA


K1977WHI


K1977CHA

BNC


K1989WHI


K1989CHA

1978WHI 5
1978CHA 5
RJ45 CATEGORY 5e
COMPUTER/DATA SOCKET

1976WHI 5
1976CHA 5
RJ45/EURO OUTLET
TWO MODULE UNSERVICED

1947WHI 5
1947CHA 5
RJ45/LJU6C OUTLET
TWO MODULE, UNSERVICED

1978 Data socket to Category 5e.

K1976 Euro 50x50mm (accommodates 2 outlets).

K1947 Cut out dimensions LJU6C 22x37mm for each outlet.

1985WHI 5
1985CHA 5
BNC TYPE

Supplied complete with enclosure box together with all necessary fixing screws for mounting on to the trunking.

Crimped connections. Impedance 50Ω.

1986WHI 5
1986CHA 5
ELV BOX AND COVER

Can be punched for use with any ELV accessory that can be mounted over the busbars.

Supplied complete with enclosure box together with fixing screws for mounting on to the trunking.

K1941WHI 5
K1941CHA 5
RJ45/LJU6C
TELEPHONE/DATA OUTLET
(UNSERVICED) TWO MODULE

K1977WHI 5
K1977CHA 5
RJ45/EURO
TELEPHONE/DATA OUTLET
(UNSERVICED) TWO MODULE

Plates for mounting clip in RJ45/ LJU6C and RJ45/Euro data modules.

Accessory modules not supplied.

CUT OUT DIMENSIONS:
K1941 22mm x 37mm for each outlet.
K1977 50X50mm which accommodates 2 outlets.

K1989WHI 5
K1989CHA 5
BNC TYPE

Crimped connections. Impedance 50Ω.

ELV Blank Plates

Flush Accessory Mounting Frames

EMC Screening Inserts

Trunking Accessories and Plug in Cable Terminations (3 Pole)

Trunking Components and Spares

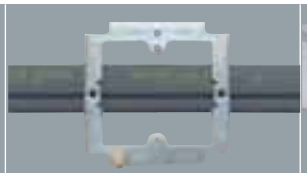
FOR EXTENSION TRUNKING



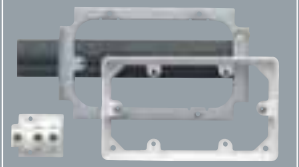
K1987WHI



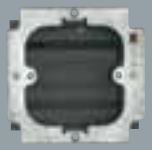
K1987CHA



1928



1946WHI



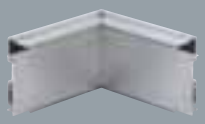
1998



12024SLT9



VTSSX



VTSSXI



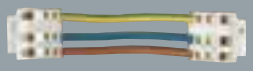
VTSSXE



VTSSO1



K1925WHI



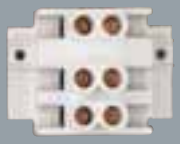
1919



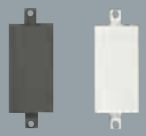
K1937CHA



1923WHI



1924WHI



1909 CHA 1909 WHI



1930 WHI



1933WHI

K1987WHI 5
K1987CHA 5
ELV COVER

Can be punched to accommodate ELV outlets.

1928 10
1 GANG ACCESSORY MOUNTING KIT WITH BUSBAR SHIELD

1946WHI 5
2 GANG ACCESSORY MOUNTING KIT WITH FRAME AND PATTRESS

1998 5
1 GANG MOUNTING FRAME & BOX FOR ELV ACCESSORIES

12024SLT9 10
MOUNTING FRAME FOR 2 GANG ACCESSORY

1928 For fixing standard single gang accessories to the trunking. The accessories can be connected to the busbars by using one of the cable termination components or wired separately. Complete with fixing screws.

1946 For fixing Sentrysockets, Filtered sockets and two gang accessories to the trunking. Supplied with busbar terminations and cover, mounting frame and extension pattress together with fixing screws.

1998 For fixing standard single gang extra low voltage outlets to the trunking. Supplied complete with enclosure box together with all the necessary fixing screws.

VTSS 6m
TRUNKING (LENGTH 3m)

VTSSI 1
INTERNAL CORNER

VTSSE 1
EXTERNAL CORNER

21016SST9 25
SPARE BONDING LINKS

VTSSO1 1
OUTLET BOX ASSEMBLY

VTSSX 6m
EXTENSION TRUNKING 3 METRE LENGTH

VTSSXI 1
INTERNAL CORNER FOR EXTENSION TRUNKING

VTSSXE 1
EXTERNAL CORNER FOR EXTENSION TRUNKING

VTSSXO1 1
OUTLET BOX ASSEMBLY FOR EXTENSION TRUNKING

Screening Inserts can be used as a screen for computer services cables.

Not for use with power cables.

Lengths include earth lead and fixing screws.

VTSS fits top and bottom data compartments only. Box not supplied.

K1925WHI 10
PLUG IN BUSBAR COUPLER

1919 5
CABLE LINK ASSEMBLY

K1937CHA 5
CABLE CROSSING BARRIER

1923WHI 10
10mm² CABLE TERMINATION

1924WHI 10
25mm² CABLE TERMINATION

K1925 To connect lengths of individual busbars together. Rating 63A.

1919 Prewired corner cable link for internal and external corners. Rating 63A.

1937 Suitable for bridging the central compartment, where there are no busbars (Busbars are coupled by cables passing underneath).

1939 To maintain segregation between the wall and the busbars or cables when installing Powerlink around a pillar of less than 125mm.

1923 To connect the busbar to the mains supply or to electrical accessories mounted onto mounting frames. Rating: 50A.

1924 To connect the busbars to the mains supply and for connecting the busbars around corners (two required). Rating: 63A.

1909WHI 10
1909CHA 10
CENTRAL COVER COUPLER

1930WHI 10
ACCESSORY SPACER

1933WHI 3m
BUSBAR SECTION for dado trunking without busbars. Supplied in 3m lengths.

11750PST9 100
COVER SCREWS

11816PS 100
ACCESSORY SCREWS

11817PS 100
CABLE TERMINATION & BUSBAR COVER SCREWS

11827PS 100
FIXING SCREW BUSHES



range introduction

When it comes to providing direct bench top access to low voltage electrical, communications and data services, MK Pinnacle is the flexible and versatile solution.

Styled to the same high standards as the MK Logic Plus range, it features a high quality finish, a curved design and twin segregated compartments. These features mean MK Pinnacle is the bench top solution for laboratories, schools and workshops.

features and benefits

Unique curved appearance
Total physical and visual integration with the MK Logic Plus range

Designed to meet the "Heavy Duty' requirements of BS 4678 Part 4
Offers high levels of mechanical protection and electrical safety

Versatility
MK Pinnacle is versatile. Available in single or double configuration, it can be installed with a choice of two profile heights and fascia angles

Made from 100% PVCu
Pinnacle is robust, easily manipulated on site and non-corrosive

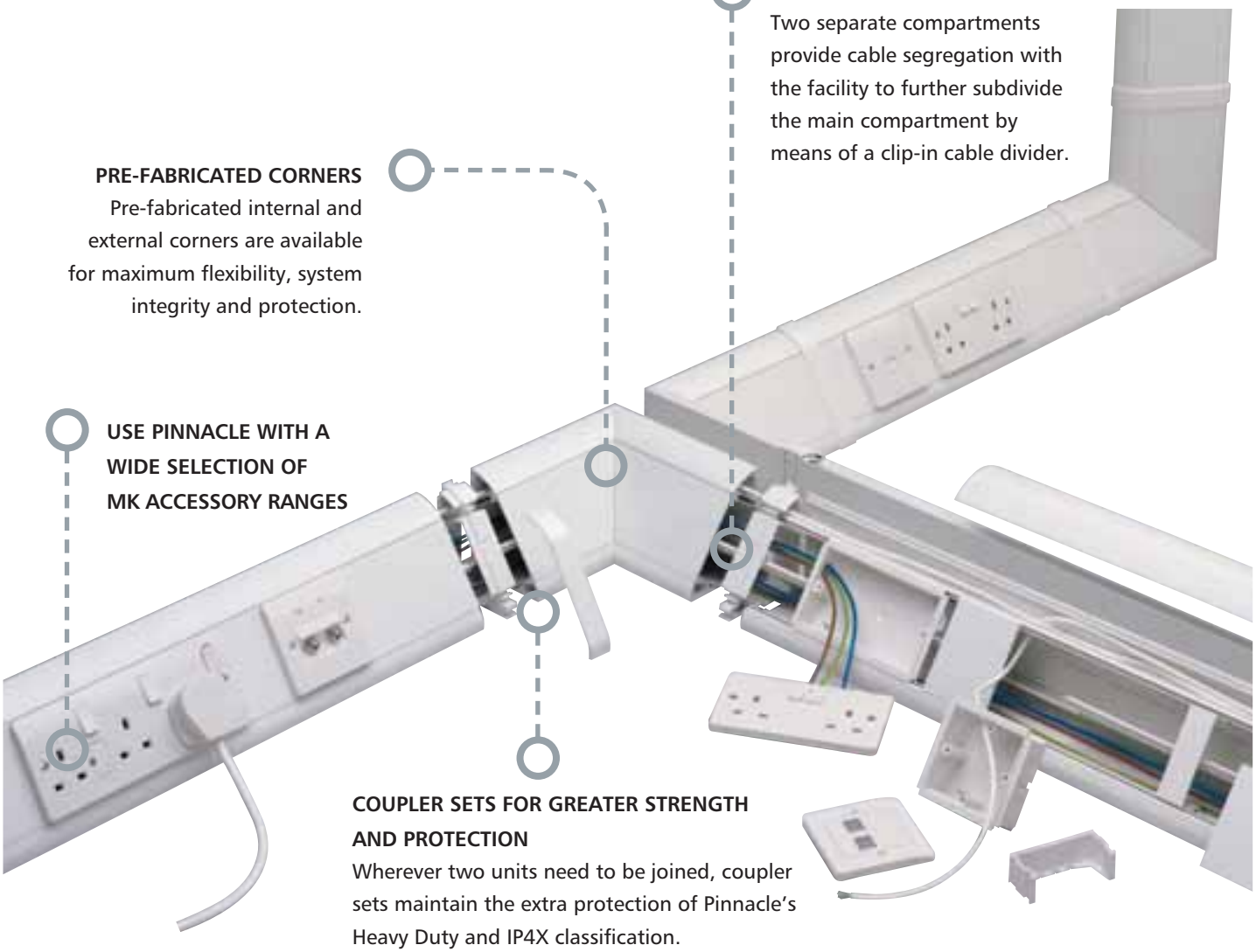
All extrusions manufactured from 90% recycled material*

* Based on 2008 consumption.

CABLE SEGREGATION
Two separate compartments provide cable segregation with the facility to further subdivide the main compartment by means of a clip-in cable divider.

PRE-FABRICATED CORNERS
Pre-fabricated internal and external corners are available for maximum flexibility, system integrity and protection.

USE PINNACLE WITH A WIDE SELECTION OF MK ACCESSORY RANGES



COUPLER SETS FOR GREATER STRENGTH AND PROTECTION
Wherever two units need to be joined, coupler sets maintain the extra protection of Pinnacle's Heavy Duty and IP4X classification.

BENCH UNITS
One gang, two gang, two gang plus one gang and three gang bench units are available as single and two sided assemblies.



VERSATILITY
Available in single or double configuration, Pinnacle can be installed with a choice of two profile heights and fascia angles. The system may be installed horizontally or vertically.



UNDERSHELF
Pinnacle can be installed safely in any orientation, even conveniently tucked away under a shelf, giving easy and discreet access to power and data outlets.



Component Selector Chart

Trunking



Pinnacle trunking is available in a choice of colours, White (WHI) and Special (COL).

The special (COL) offers a choice of over 180 RAL paint colours. Specify your choice when ordering. Minimum Order Quantities apply.



PTS2WHI 4m
PTS2COL 4m
SINGLE TRUNKING 2 METRE LENGTH
SUPPLIED WITH LIDS
90MM HIGH X 105MM WIDE

PTS3WHI 6m
PTS3COL 6m
SINGLE TRUNKING 3 METRE LENGTH
SUPPLIED WITH LIDS
90MM HIGH X 105MM WIDE



PTS2WHI 4m
PTS2COL 4m
SINGLE TRUNKING 2 METRE LENGTH
SUPPLIED WITH LIDS
105MM HIGH X 90MM WIDE

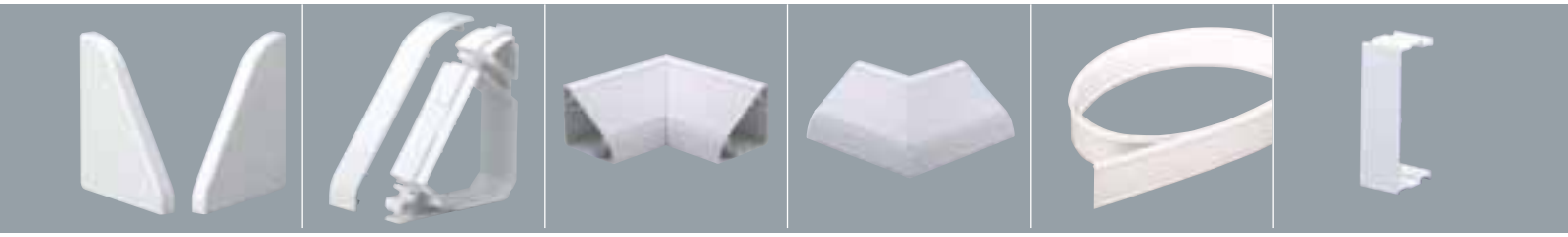
PTS3WHI 6m
PTS3COL 6m
SINGLE TRUNKING 3 METRE LENGTH
SUPPLIED WITH LIDS
105MM HIGH X 90MM WIDE



PTD2WHI 2m
PTD2COL 2m
DOUBLE TRUNKING 2 METRE LENGTH
SUPPLIED WITH LIDS
105MM HIGH X 180MM WIDE

PTD3WHI 3m
PTD3COL 3m
DOUBLE TRUNKING 3 METRE LENGTH
SUPPLIED WITH LIDS
105MM HIGH X 180MM WIDE

End Caps	Coupler Set*	Internal Corner	External Corner	Cable Divider	Cable Retainer
		FABRICATED	FABRICATED	2 METRE LENGTHS	



End Caps		Coupler Set*		Internal Corner		External Corner		Cable Divider		Cable Retainer	
PECSWHI SUPPLIED AS RIGHT AND LEFT HAND PAIR **PECSCOL**	10 10	**PCWHI** CONSISTS OF COUPLER AND JOINT COVER **PCCOL**	10 10	**PICLWHI**	1	**PECLWHI**	1	**PD2WHI**	20m	**VTS11WHI**	10
PECSWHI SUPPLIED AS RIGHT AND LEFT HAND PAIR **PECSCOL**	10 10	**PCWHI** CONSISTS OF COUPLER AND JOINT COVER **PCCOL**	10 10	**PICHWHI**	1	**PECHWHI**	1	**PD2WHI**	20m	**VTS11WHI**	10
PECDWHI SUPPLIED AS RIGHT AND LEFT HAND PAIR **PECDCOL**	5 5	**PCWHI** CONSISTS OF COUPLER AND JOINT COVER **PCCOL**	10 10					**PD2WHI**	20m	**VTS11WHI**	10

*COUPLER SETS TO MAINTAIN HEAVY DUTY AND IP4X CLASSIFICATION BOTH COUPLER AND JOINT COVER MUST BE USED



Bench Units

ONE GANG AND TWO GANG



PBUS1WHI



PBUD1WHI



PBUS2WHI



PBUD2WHI

TWO GANG PLUS ONE GANG



PBUS21WHI



PBUD21WHI

THREE GANG



PBUS3 WHI



PBUD3WHI

PBUS1WHI 1
1 GANG
SINGLE BENCH UNIT WITH
1 GANG ACCESSORY BOX
(VTS6035)

PBUD1WHI 1
PBUD1COL 1
1 GANG
DOUBLE BENCH UNIT WITH
2 X 1 GANG ACCESSORY
BOXES (VTS6035)

Supplied complete with accessory boxes, end caps and pre-cut lids.

DIMENSIONS:

PBUS1:
105mm high
90mm deep
130mm wide

PBUD1:
105mm high
185mm deep
130mm wide

PBUS2WHI 1
2 GANG
SINGLE BENCH UNIT WITH
2 GANG ACCESSORY BOX
(VTS7025)

PBUD2WHI 1
PBUD2COL 1
2 GANG
DOUBLE BENCH UNIT WITH
2 X 2 GANG ACCESSORY
BOXES (VTS7025)

Supplied complete with accessory boxes, end caps and pre-cut lids.

DIMENSIONS:

PBUS2:
105mm high
90mm deep
190mm wide

PBUD2:
105mm high
185mm deep
190mm wide

PBUS21WHI 1
PBUS21COL 1
2 + 1 GANG
SINGLE BENCH UNIT
WITH A 2 GANG (VTS7025)
AND A
1 GANG (VTS6035)
ACCESSORY BOX

Supplied complete with accessory boxes, end caps and pre-cut lids.

DIMENSIONS:

PBUS21:
105mm high
90mm deep
290mm wide

PBUD21WHI 1
2 + 1 GANG
DOUBLE BENCH UNIT
WITH 2 X 2 GANG
(VTS7025)
AND
2 X 1 GANG (VTS6035)
ACCESSORY BOXES

Supplied complete with accessory boxes, end caps and pre-cut lids.

DIMENSIONS:

PBUD21:
105mm high
185mm deep
290mm wide

PBUS3WHI 1
3 GANG
SINGLE BENCH UNIT
WITH 3 GANG
ACCESSORY BOX
(VTS8028)

Supplied complete with accessory boxes, end caps and pre-cut lids.

DIMENSIONS:

PBUS3:
105mm high
90mm deep
250mm wide

PBUD3WHI 1
3 GANG
DOUBLE BENCH UNIT
WITH 2 X 3 GANG
ACCESSORY BOXES
(VTS8028)

Supplied complete with accessory boxes, end caps and pre-cut lids.

DIMENSIONS:

PBUD3:
105mm high
185mm deep
250mm wide

Pinnacle (COL) offers a choice of over 180 RAL paint colours.
Please specify your choice when ordering.

Accessory Boxes

Mounting Frames

Trunking Cover Spares

2 AND 3 METRE LENGTHS



VTS6035WHI



VTS25SWHI



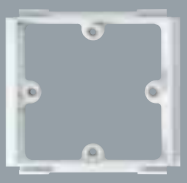
VTS7035WHI



VTS8028 WHI



VTS2060WHI



VTS6000WHI



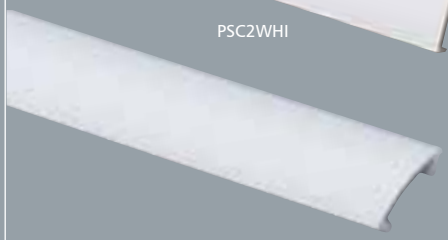
VTS2070WHI



VTS7000 WHI



PSC2WHI



PCCS2WHI



PCCD2WHI

VTS6025WHI 25
1 GANG OUTLET BOX
25MM DEEP
HORIZONTAL AND
VERTICAL MOUNTING

VTS6035WHI 25
1 GANG OUTLET BOX
35MM DEEP
HORIZONTAL AND
VERTICAL MOUNTING

VTS7025WHI 10
2 GANG OUTLET BOX
25MM DEEP

VTS8035 5
3 GANG OUTLET BOX
35MM DEEP

VTS7035WHI 10
2 GANG
OUTLET BOX
35MM DEEP

VTS8028WHI 5
3 GANG
OUTLET BOX
28MM DEEP

VTS25SWHI 10
SOCKET SPACER
TO ESTABLISH THE
MINIMUM DISTANCE
BETWEEN ACCESSORIES

K3716 100
BOX EARTH TERMINAL

VTS2060WHI 10
2 GANG LJU6C/RJ45
SUPPLIED WITH
LID JOINT COVERS

VTS2070WHI 10
2 GANG EURO/RJ45
SUPPLIED WITH
LID JOINT COVERS

VTS6000WHI 10
1 GANG
ACCESSORY MOUNTING
FRAME

VTS7000WHI 5
2 GANG
ACCESSORY MOUNTING
FRAME

PSC2WHI 20m
STRAIGHT COVER

PCCS2WHI 20m
CURVED COVER
FOR SINGLE
TRUNKING (2M)

PSC3WHI 30m
STRAIGHT COVER (3M)

PCCS3WHI 30m
CURVED COVER
FOR SINGLE
TRUNKING (3M)

PCCD2WHI 10m
CURVED COVER
FOR DOUBLE
TRUNKING (2M)

PCCD3WHI 30m
CURVED COVER
FOR DOUBLE
TRUNKING (3M)



VTSKMH1WHI 1
MCB/RCD HOUSING
WITH COVER
(ACCESSORIES NOT
PROVIDED)

Mounts directly to trunking to accept up to 2 x one module products from the Sentry range of MCBs and RCDs (excluding one module RCBOs).



PINNACLEPILLAR
IS A VERSATILE VERTICAL MULTI COMPARTMENT SYSTEM PROVIDING LV POWER, DATA AND TELECOM SERVICES FROM CEILING OR FLOOR VOIDS TO PERIMETER LOCATIONS OR AT DESK HEIGHT FOR PERIMETER WORK STATIONS.

SEE PAGE 350.

Pinnacle Pillars







Pinnacle Pillars are versatile, vertical multi compartment systems providing a means to supply LV power, data and telecom services from ceiling or floor voids to specific perimeter locations.

Manufactured from PVCu, Pinnacle units have been designed to provide a high level of protection and conform to the heavy duty requirements of BS 4678 Part 4 and the IP4X classification of BS EN 60529.

Supplied in either 3 metre or 630mm lengths the units have two permanently segregated compartments with the facility to further subdivide the main compartment by means of a clip-in divider strip.

Units are supplied complete with clip in 35mm deep single gang accessory boxes which will accept most standard single gang power and data wiring devices including MK Logic Plus, Edge, Aspect and Albany Plus product ranges.

All extrusions manufactured from 90% recycled material.*

Warning
Pinnacle Pillars are not designed for free standing and must be installed against a wall or partitioning as per the installation instructions.

PTPS630WHI 1
PINNACLE
SINGLE PILLAR
630MM LENGTH

Pinnacle 630 Single pillar is supplied complete with base, lids, end caps, plus:
0.75m cable divider
2 cable retainers (VTS11)
3 socket spacers (VTS25S)
4 outlet boxes (VTS6035)
Accessories are not supplied See Logic Plus and Aspect.

PTPD630WHI 1
PINNACLE
DOUBLE PILLAR
630MM LENGTH

Pinnacle 630 Double pillar is supplied complete with base, lids, end caps, plus:
1.5m cable divider
4 cable retainers (VTS11)
6 socket spacers (VTS25S)
8 outlet boxes (VTS6035)
Accessories are not supplied See Logic Plus and Aspect.

PTPS3000WHI 1
PINNACLE
SINGLE PILLAR
3 METRE LENGTH

PSC3WHI 30m
SPARE LID
STRAIGHT COVER
3 METRE LENGTH

PCCS3WHI 30m
SPARE LID
CURVED COVER SINGLE
3 METRE LENGTH

Pinnacle 3000 Single pillar is supplied complete with base, lids, end caps, plus:
4m cable divider
6 cable retainers (VTS11)
3 socket spacers (VTS25S)
4 outlet boxes (VTS6035)
Accessories are not supplied See Logic Plus and Aspect.

PTPD3000WHI 1
PINNACLE
DOUBLE PILLAR
3 METRE LENGTH

PCCD3WHI 30m
SPARE LID
CURVED COVER DOUBLE
3 METRE LENGTH

Pinnacle 3000 Double pillar is supplied complete with base, lids, end caps, plus:
6m cable divider
12 cable retainers (VTS11)
6 socket spacers (VTS25S)
8 outlet boxes (VTS6035)
Accessories are not supplied See Logic Plus and Aspect.

* Based on 2008 consumption.

technical hotline +44 (0)1268 563720



grand lisboa hotel, macau

Say it with style. Guests at Macau's latest hotel, the splendid Grand Lisboa Hotel, need only look at the various room switches to appreciate what they do.

The highly polished chrome Aspect switches have been etched with discreet symbols to depict various functions, many of them unique to the hotel. Given a brief to design a range of wiring devices that provided the necessary functionality with a modern, sleek look, MK produced a number of concept switches based on the contemporary Aspect range, applying the polished chrome finish to create a sophisticated and upmarket feel.

MK was also able to supply standard wiring accessories to complement the bespoke range.

Available on a worldwide basis, the MK Design Service is supported by a dedicated team to ensure the seamless delivery of your chosen products.
To find out more visit **www.mkelectric.co.uk**





range introduction

Premier is a modern integrated trunking system which provides the means to distribute power, data and telecom services around buildings.

A wide range of snap fit mouldings, including reducers, make it easy to run continuous lengths of trunking as cable feeders and, where required, to provide dado trunking with the necessary power, data and telecom outlets.

Premier trunking is also compliant with Cat 5e and 6 data cable installation, and the MK Aspect and Logic Plus accessory ranges complement the style and finish of Premier Trunking.

features and benefits

Simple, clean lines
Stylish and unobtrusive finish

Wide range of integrated components
Maximises versatility in application

Clip-on covers provide continuous access for wiring modifications
Easy to assemble and install

Data corners provide 32mm radius compatible with Cat 5e and Cat 6 data cables
Enables data cables to perform to their maximum capabilities (NCT1050 only)

Tapered joints provide complete protection at junctions masking cut ends
Uniform and neat finish to any installation

Made from 100% PVCu
Premier is both robust and easily workable on site

All extrusions manufactured from 90% recycled material*

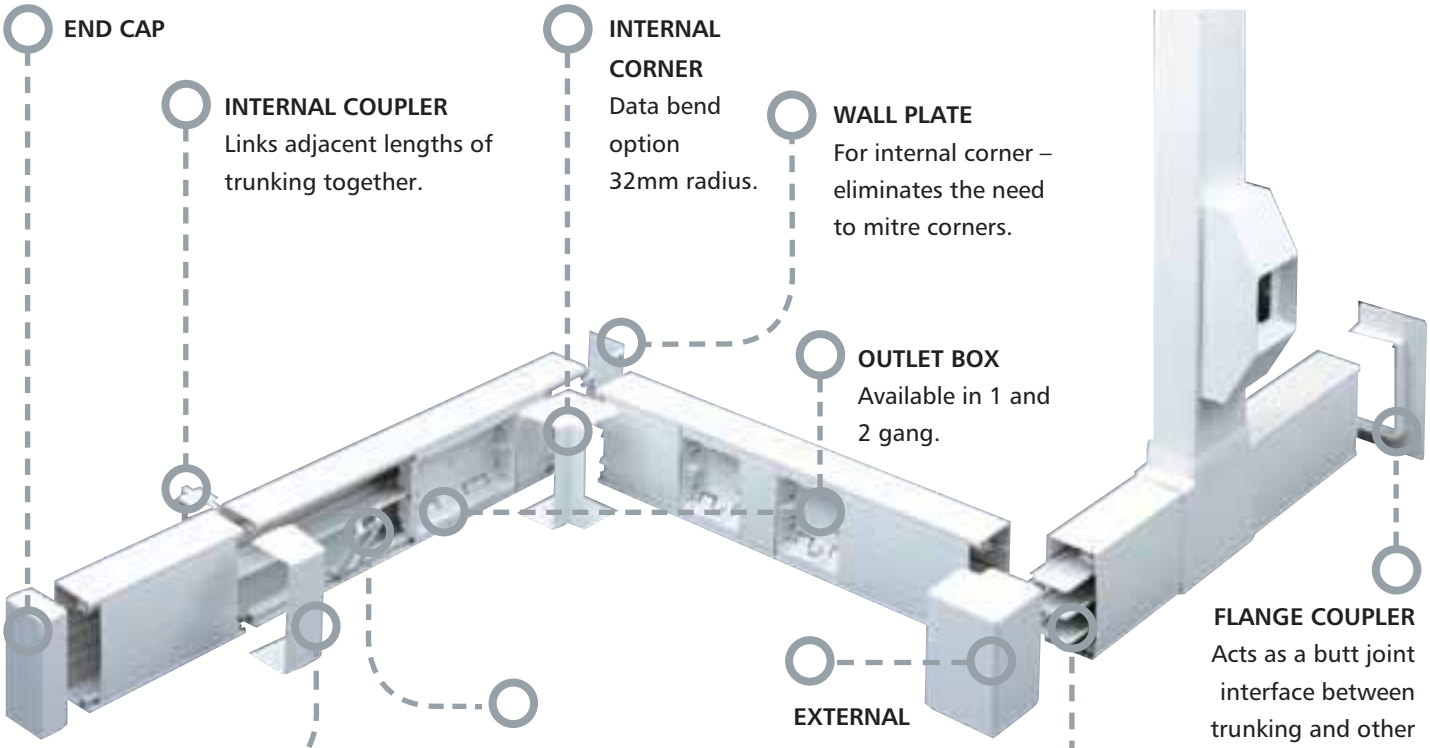
* Based on 2008 consumption.

END CAP

INTERNAL COUPLER
Links adjacent lengths of trunking together.

INTERNAL CORNER
Data bend option 32mm radius.

WALL PLATE
For internal corner – eliminates the need to mitre corners.



OUTLET BOX
Available in 1 and 2 gang.

FLANGE COUPLER
Acts as a butt joint interface between trunking and other electrical equipment.

JOINT COVER
Masks cut ends and junctions between individual lengths of trunking.

CABLE RETAINER
With hinged-open facility to act as a cable tray during installation/retrofit.

EXTERNAL CORNER
Eliminates the need to mitre corners. Data bend option 32mm radius.

CABLE DIVIDERS
For segregation of services.



Components are available in a choice of over 180 RAL paint colours. Specify your choice when ordering.



Reducers are used to connect different sizes of trunking.



Adaptors provide integration with Ega Mini and Communication Trunking for local distribution.



Moulded flat cross available for all distribution trunking.



Trunking

MATERIAL: PVCu
COLOUR: White

	3 METRE LENGTHS		2 METRE LENGTHS		SPARE TRUNKING LID 3 METRE LENGTHS		Internal Coupler MOULDED		Joint Cover MOULDED	
50 x 50mm	NCT5050WHI	12m	NCT5050D1WHI*	12m	NCT50LIDWHI	12m	NCI5050WHI	5	NJC5050WHI	10
75 x 50mm	NCT7550WHI	12m	NCT7550D1*	12m	NCT50LIDWHI	12m	NCI7550WHI	5	NJC7550WHI	10
75 x 75mm	NCT7575WHI	12m	NCT7575D1*	8m	NCT75LIDWHI	12m	NCI7575WHI	5	NJC7575WHI	10
100 x 40mm	NCT1040WHI	12m	NCT1040D1*	8m	NCT100LIDWHI	12m	NCI1040WHI	5	NJC1040WHI	5
100 x 50mm	NCT1050WHI	12m	NCT1050D1*	8m	NCT100LIDWHI	12m	NCI1050WHI	5	NJC1050WHI	5
100 x 100mm	NCT1010WHI	12m	NCT1010D1*	8m	NCT100LIDWHI	12m	NCI1010WHI	5	NJC1010WHI	5

* 2 metre lengths are available for NON UK markets.

External Corner

	MOULDED		WITH DATA CORNER MOULDED		Internal Corner MOULDED		WITH DATA CORNER MOULDED		Flat Angle MOULDED	
50 x 50mm	NAE5050WHI	2			NAI5050WHI	2			NAF5050WHI	2
75 x 50mm	NAE7550WHI	2			NAI7550WHI	2			NAF7550WHI	2
75 x 75mm	NAE7575WHI	2			NAI7575WHI	2			NAF7575WHI	2
100 x 40mm	NAE1040WHI	2			NAI1040WHI	2			NAF1040WHI	2
100 x 50mm	NAE1050WHI	2	NDAE1050WHI	2	NAI1050WHI	2	NDAI1050WHI	2	NAF1050WHI	2
100 x 50mm	NFAE1050WHI*	2			NFAI1050WHI*	2			NFAF1050WHI*	2
100 x 100mm	NAE1010WHI*	1			NAI1010WHI*	1			NAF1010WHI*	1

* Fabricated.

Data corner provides 32mm ($1^1/_4$" or 1.25") radius compatible with Cat 5e and 6 data cables.

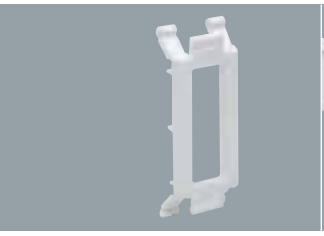
* Fabricated.

Data corner provides 32mm ($1^1/_4$" or 1.25") radius compatible with Cat 5e and 6 data cables.

* Fabricated.

Cable Retainer

MOULDED



NBP50WHI	10
NBP75WHI	10
NBP75WHI	10
NBP100WHI	10
NBP100WHI	10
NBP100WHI	10

Cable Divider

3 METRE LENGTHS



NVS50WHI	36m
NVS50WHI	36m
NVS75WHI	36m
NVS40WHI	36m
NVS50WHI	36m
NVS100WHI	36m

End Cap

UNIVERSAL FOR USE AT EITHER END
MOULDED



NEP5050WHI	5
NEP7550WHI	5
NEP7575WHI	5
NEP1040WHI	5
NEP1050WHI	5
NEP1010WHI	5

Underbox Divider

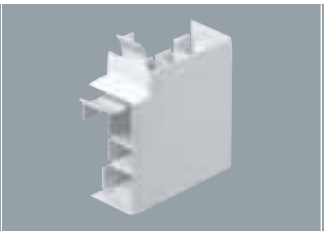
1 GANG 2 GANG
USED TO MAINTAIN CABLE SEGREGATION BEHIND SOCKET OUTLETS



NUB401WHI	10	NUB402WHI	10
NUB501WHI	10	NUB502WHI	10
		NUB1002WHI	10

Flat Tee

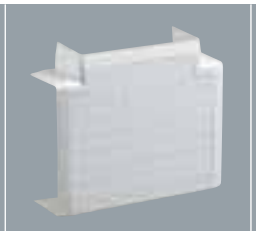
WITH DATA CORNER
MOULDED



NDAF1050WHI	2

Data corner provides 32mm ($1^1/_4$" or 1.25") radius compatible with Cat 5e and 6 data cables.

MOULDED

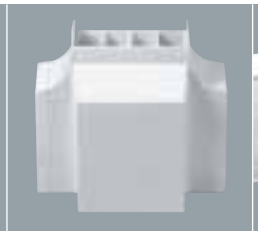


NTF5050WHI	2
NTF7550WHI	2
NTF7575WHI	2
NTF1040WHI	2
NTF1050WHI	2
NFTF1050WHI*	2
NTF1010WHI*	1

* Fabricated.

Double Set

WITH DATA CORNER
MOULDED



NDTF1050WHI	2

Data corner provides 32mm ($1^1/_4$" or 1.25") radius compatible with Cat 5e and 6 data cables.

FABRICATED



NMD5050WHI	2

Internal Tee

FABRICATED



NTI5050WHI	1
NTI7550WHI	1
NTI7575WHI	1
NTI1040WHI	1
NTI1050WHI	1
NTI1010WHI	1

External Tee

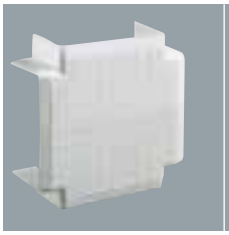
FABRICATED



NTE5050WHI	1
NTE7550WHI	1
NTE7575WHI	1
NTE1040WHI	1
NTE1050WHI	1
NTE1010WHI	1

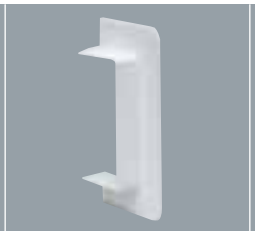
Flat Cross

MOULDED



50 x 50mm	NCU5050WHI	1
75 x 50mm	NCU7550WHI	1
75 x 75mm	NCU7575WHI	1
100 x 40mm	NCU1040WHI	1
100 x 50mm	NCU1050WHI	1
100 x 100mm	NCU1010WHI	1

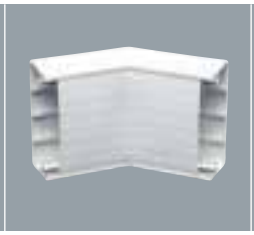
Flange Coupler



50 x 50mm	NFC5050WHI	1
75 x 50mm	NFC7550WHI	1
75 x 75mm	NFC7575WHI	1
100 x 40mm	NFC1040WHI	1
100 x 50mm	NFC1050WHI	1
100 x 100mm	NFC1010WHI	1

Angles

INTERNAL 135° FABRICATED



50 x 50mm	NMI5050WHI	1
75 x 50mm	NMI7550WHI	1
75 x 75mm	NMI7575WHI	1
100 x 40mm	NMI1040WHI	1
100 x 50mm	NMI1050WHI	1
100 x 100mm	NMI1010WHI	1

EXTERNAL 135° FABRICATED



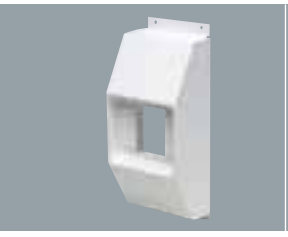
50 x 50mm	NMO5050WHI	1
75 x 50mm	NMO7550WHI	1
75 x 75mm	NMO7575WHI	1
100 x 50mm	NMO1050WHI	1
100 x 100mm	NMO1010WHI	1

FLAT 135° FABRICATED



50 x 50mm	NMT5050WHI	1
75 x 50mm	NMT7550WHI	1
75 x 75mm	NMT7575WHI	1
100 x 40mm	NMT1040WHI	1
100 x 50mm	NMT1050WHI	1
100 x 100mm	NMT1010WHI	1

MCB/RCD Housings



NMH100WHI 1

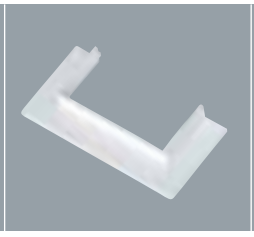


VTSKMH1WHI 1

VTS/KMH includes cover. Accessory not provided.

Mini Trunking Adaptor

FOR YEA AND CMA ADAPTORS



NYT100WHI 10

Partition Wall Cover

FOR TRUNKING 100MM X 40MM



NWC1040WHI 5

Accessory Boxes

ONE GANG 25 & 35MM DEEP FOR 100MM WIDE TRUNKING



VTS6025WHI 25

VTS6035WHI 25

35mm deep boxes are only for use in 100 x 50mm and 100 x 100mm trunking.

TWO GANG 25 & 35MM DEEP FOR 100MM WIDE TRUNKING



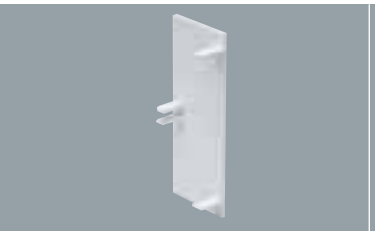
VTS7025WHI 10

VTS7035WHI 10

35mm deep boxes are only for use in 100 x 50mm and 100 x 100mm trunking.

Wall Plates

FOR INTERNAL CORNERS MOULDED



NWP5050WHI	5
NWP7550WHI	5
NWP7575WHI	5
NWP1040WHI	5
NWP1050WHI	5

Reducers

50 X 50MM FABRICATED



NTR21WHI	1
NTR31WHI	1
NTR41WHI	1
NTR61WHI	1

75 X 50MM FABRICATED



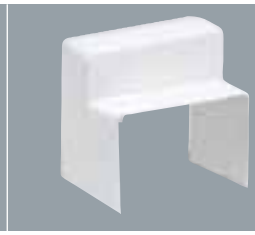
NTR32WHI	1
NTR42WHI	1
NTR62WHI	1

75 X 75MM FABRICATED



NTR63WHI	1

100 X 50MM FABRICATED



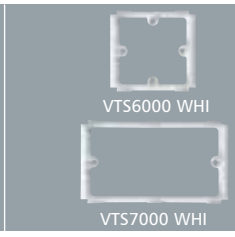
NTR64WHI	1

THREE GANG 28MM & 35MM DEEP FOR 100MM WIDE TRUNKING



VTS8028WHI	5
VTS8035	5
K3716 BOX EARTH TERMINAL	100

Mounting Frames



VTS6000WHI 1 GANG ACCESSORY MOUNTING FRAME	10
VTS7000WHI 2 GANG ACCESSORY MOUNTING FRAME	5

Accessory Spacer



NSP100WHI ACCESSORY SPACER FOR 100MM WIDE TRUNKING	10

Norwich Trunking is a very popular system for use in schools, offices and commercial installations, because of its durability and the facility to retrofit extra sockets and outlets as required.

STANDARD LENGTH: 3 metres
MATERIAL: PVCu
COLOUR: White

- **2 sizes with one or two compartments**
- **Easy to add sockets and outlets once installed**
- **Secure lid fit enables wall or ceiling mounting**
- **Unobtrusive and neat**
- **Easy to assemble and install**
- **Durable and impact resistant to Heavy Classification BS 4678 Part 4**
- **All extrusions manufactured from 90% recycled material***

PROFILE LENGTHS

Single Compartment Trunking

3 METRE LENGTHS



NBT3WHI 12m
100 X 25MM
SINGLE COMPARTMENT

3 METRE LENGTHS



NBT4WHI 12m
100 X 40MM
SINGLE COMPARTMENT

Two Compartment Trunking

3 METRE LENGTHS

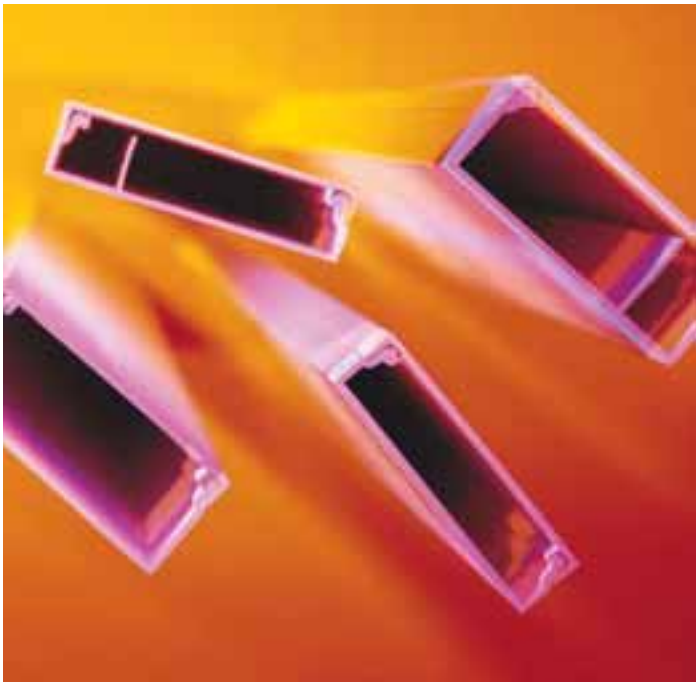


NBT3TCWHI 12m
100 X 25MM
TWO COMPARTMENT

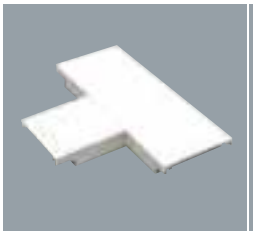
3 METRE LENGTHS



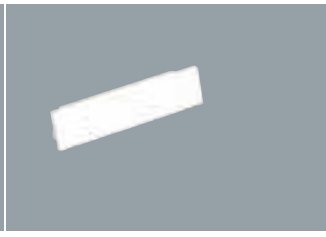
NBT4TCWHI 12m
100 X 40MM
TWO COMPARTMENT



Flat Tees



End Caps



1 com	100 x 25mm	**NTF3WHI**	1	**NEP3WHI**	10
1 com	100 x 40mm	**NTF4WHI**	1	**NEP4WHI**	10
2 com	100 x 25mm	**NTF3TCWHI**	1	**NEP3WHI**	10
2 com	100 x 40mm	**NTF4TCWHI**	1	**NEP4WHI**	10

* Based on 2008 consumption.

FITTINGS

Flat Angle

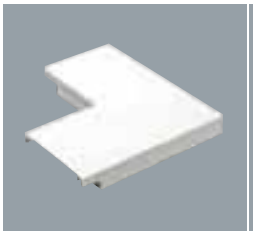
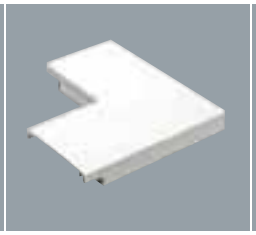
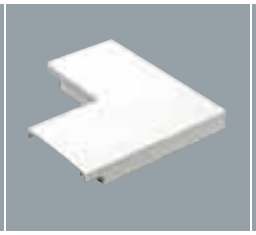
Flat Angle

SMALL COMPARTMENT TO OUTSIDE

SMALL COMPARTMENT TO INSIDE

Internal Corner

External Corner



1 com	100 x 25mm	**NAF3WHI**	1					**NAI3WHI**	1	**NAE3WHI**	1
1 com	100 x 40mm	**NAF4WHI**	1					**NAI4WHI**	1	**NAE4WHI**	1
2 com	100 x 25mm			**NAF3TCWHI**	1	**NAF3TCSIWHI**	1	**NAI3TCWHI**	1	**NAE3TCWHI**	1
2 com	100 x 40mm			**NAF4TCWHI**	1	**NAF4TCSIWHI**	1	**NAI4TCWHI**	1	**NAE4TCWHI**	1

Internal Couplings

Accessory Mounting Frames

1 GANG

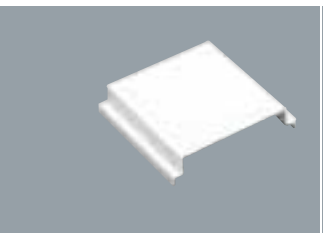
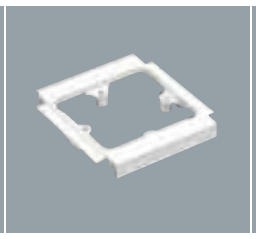
2 GANG

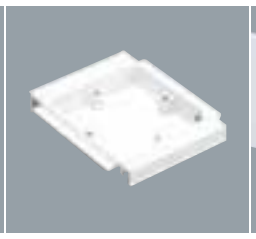
Accessory Mounting Frame with Backbox

1 GANG

Spare Trunking Lid

3 METRE LENGTHS




NCI3WHI	10	**NSO1WHI**	10	**NSO2WHI**	5	**NSO1TWHI**	5	**NBT100LIDWHI**	12m
NCI4WHI	10	**NSO1WHI**	10	**NSO2WHI**	5	**NSO1TWHI**	5	**NBT100LIDWHI**	12m
NCI3WHI	10	**NSO1WHI**	10	**NSO2WHI**	5	**NSO1TWHI**	5	**NBT100LIDWHI**	12m
NCI4WHI	10	**NSO1WHI**	10	**NSO2WHI**	5	**NSO1TWHI**	5	**NBT100LIDWHI**	12m

Ega® Industrial

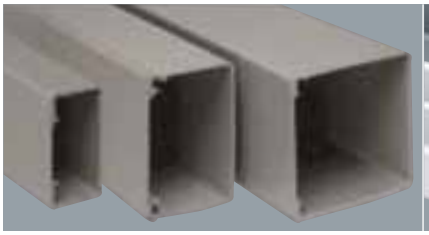


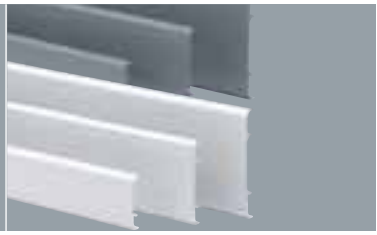
Trunking

3 METRE LENGTHS
TO ORDER, USE
GRY OR WHI
SUFFIX,
E.G. CLT1WHI

Spare Trunking Lid

3 METRE LENGTHS
TO ORDER, USE
GRY OR WHI
SUFFIX,
E.G. CLT1WHI





50 x 50mm	**CLT1**	12m	**CLT50LID**	12m
75 x 50mm	**CLT2**	12m	**CLT75LID**	12m
75 x 75mm	**CLT3**	12m	**CLT75LID**	12m
100 x 50mm	**CLT4**	12m	**CLT100LID**	12m
100 x 75mm	**CLT5**	6m	**CLT100LID**	12m
100 x 100mm	**CLT6**	6m	**CLT100LID**	12m
150 x 75mm	**CLT7**	6m	**CLT150LID**	12m
150 x 100mm	**CLT8**	3m	**CLT150LID**	12m
150 x 150mm	**CLT9**	3m	**CLT150LID**	12m

Ega Heavy Duty Industrial Cable Trunking is used extensively for industrial wiring purposes. It is available in a large variety of sizes and has found wide acceptance throughout the world. Its durability, safety and strength are well proven. All trunkings have a clip-on cover which enables fast, efficient installation.

All extrusions manufactured from 90% recycled material.*

Manufactured in accordance with BS 4678 Part 4.

STANDARD LENGTH: 3 metres
MATERIAL: PVCu
COLOUR: Grey and White

When ordering, use colour suffix GRY or WHI, e.g. FTF1WHI

* **Based on 2008 consumption.**

Flat Tee

MOULDED
GRY OR WHI

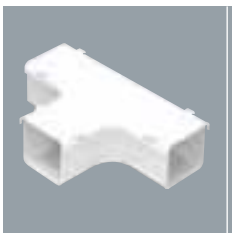
FABRICATED
GRY OR WHI

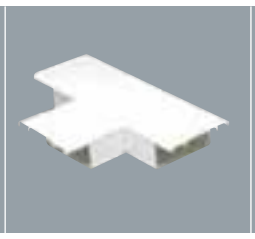
External Tee

FABRICATED
GRY OR WHI

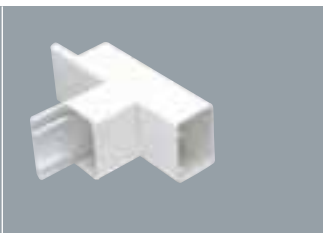
Internal Tee

FABRICATED
GRY OR WHI









50 x 50mm	**FTF1**	1			**FTE1**	1	**FTI1**	1
75 x 50mm	**FTF2**	1				1		1
75 x 75mm	**FTF3**	1			**FTE3**	1	**FTI3**	1
100 x 50mm			**FTF4**	1	**FTE4**	1	**FTI4**	1
100 x 75mm			**FTF5**	1		1		1
100 x 100mm			**FTF6**	1	**FTE6**	1	**FTI6**	1
150 x 75mm			**FTF7**	1		1		1
150 x 100mm			**FTF8**	1		1		1
150 x 150mm			**FTF9**	1		1		1

Flat Cross

MOULDED
GRY OR WHI



FCU1	1
FCU2	1
FCU3	1

FABRICATED
GRY OR WHI



FCU5	1
FCU6	1
FCU9	1

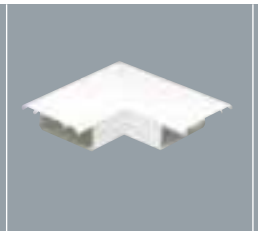
Flat Angle

MOULDED
GRY OR WHI



FAF1	1
FAF2	1
FAF3	1

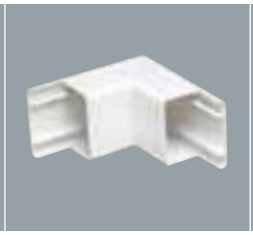
FABRICATED
GRY OR WHI



FAF4	1
FAF5	1
FAF6	1
FAF7	1
FAF8	1
FAF9	1

External Corner

FABRICATED
GRY OR WHI

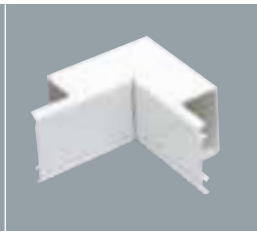


FAE1*	1
FAE2	1
FAE3	1
FAE4	1
FAE5	1
FAE6	1
FAE7	1
FAE8	1
FAE9	1

* Moulded.

Internal Corner

FABRICATED
GRY OR WHI



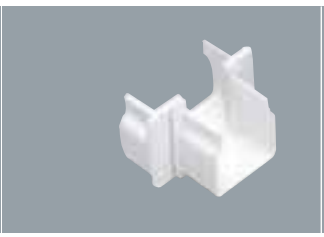
FAI1*	1
FAI2	1
FAI3	1
FAI4	1
FAI5	1
FAI6	1
FAI7	1
FAI8	1
FAI9	1

* Moulded.

Reducers

When selecting reducers the size of the small end must be specified. Be sure to state both trunking sizes.
E.g. TR/2/1

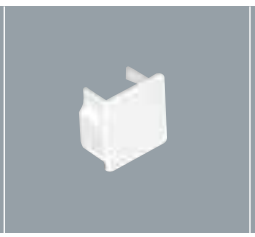
FABRICATED
GRY OR WHI



TR21	1
TR31	1
TR41	1
TR61, TR64	1
TR86	1
TR96	1

End Cap

MOULDED
GRY OR WHI

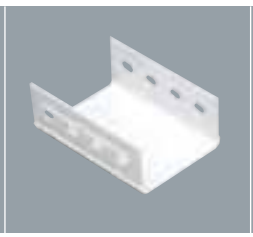


TEP1	10
TEP2	10
TEP3	5
TEP4	5
TEP5	5
TEP6	5
TEP7*	1
TEP8*	1
TEP9*	1

* Fabricated.

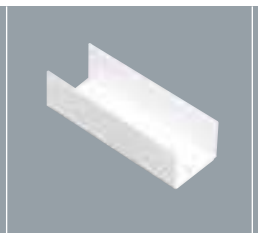
Couplings

EXTERNAL
WITH RIVETS
MOULDED
GRY OR WHI



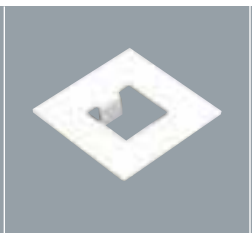
TCE6	5
TCE7*	1
TCE8*	1
TCE9*	1

INTERNAL PLAIN
GRY OR WHI



TCI1	10
TCI2	10
TCI3	5
TCI4	5
TCI5	5
TCI6	5

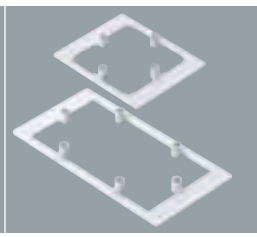
FLANGED
GRY OR WHI



TFC1	5
TFC3	5
TFC4	5
TFC6	1

* Fabricated Couplings must be purchased separately for fabricated fittings. Moulded fittings do not require couplings.

Accessories



EGF5WHI 10
1 GANG
ACCESSORY FRAME

EGF6WHI 10
2 GANG
ACCESSORY FRAME

TPR1GRY 200
PUSH IN RIVETS
GREY PLASTIC
HOLE SIZE 7.2MM

TPR1WHI 200
PUSH IN RIVETS
WHITE PLASTIC
HOLE SIZE 7.2MM

RK1WHI 100
EXPANDING RIVETS
WHITE NYLON
DRILL SIZE 10

Ega® Cornice



Ega Cornice is designed for surface mounting at the wall/ceiling junction as a functional and decorative covering.

It is compatible with Ega Mini Trunking. The smaller, single compartment trunking is ideal for domestic rewires whereas the larger three compartment trunking is best suited to commercial and sheltered housing applications.

- **Two trunking profiles**
- **Wide range of integrated components maximises versatility of application**
- **Neat and unobtrusive**
- **Accessories designed to overlap edge of trunking cover, hiding joint line**
- **Easy to assemble and install**
- **Durable and impact resistant**
- **All extrusions manufactured from 90% recycled material***

* Based on 2008 consumption.

Trunking 40 x 40mm

SINGLE COMPARTMENT
3 METRE LENGTHS



40 x 40mm	**CT1WHI**	30m
90 x 90mm		

Mini Trunking Adaptors

FOR USE WITH YEA ADAPTOR
CA2 SUPPLIED WITH ONE BLANKING PLATE



40 x 40mm	**CA1**	10
90 x 90mm	**CA2**	10

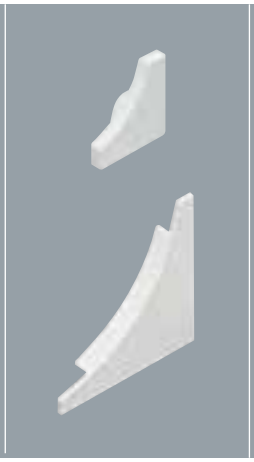
Trunking 90 x 90mm

THREE COMPARTMENT 3 METRE LENGTHS



CT2WHI	12m

End Caps



CEP1WHI	10
CEP2WHI	10

Internal Corners



CIP1WHI	10
CIP2WHI	10

External Corners



CXP1WHI	10
CXP2WHI	10

Cable Retaining Straps



CST1WHI	25
CST2WHI	10

Joint Covers



CJC1WHI	10
CJC2WHI	10

Intersection CT2 to YT2 Mini Trunking

LEFT HAND



CAL22WHI	1

RIGHT HAND



CAR22WHI	1

Intersection CT2 to YT3 Mini Trunking

LEFT HAND



CAL23WHI	1

RIGHT HAND

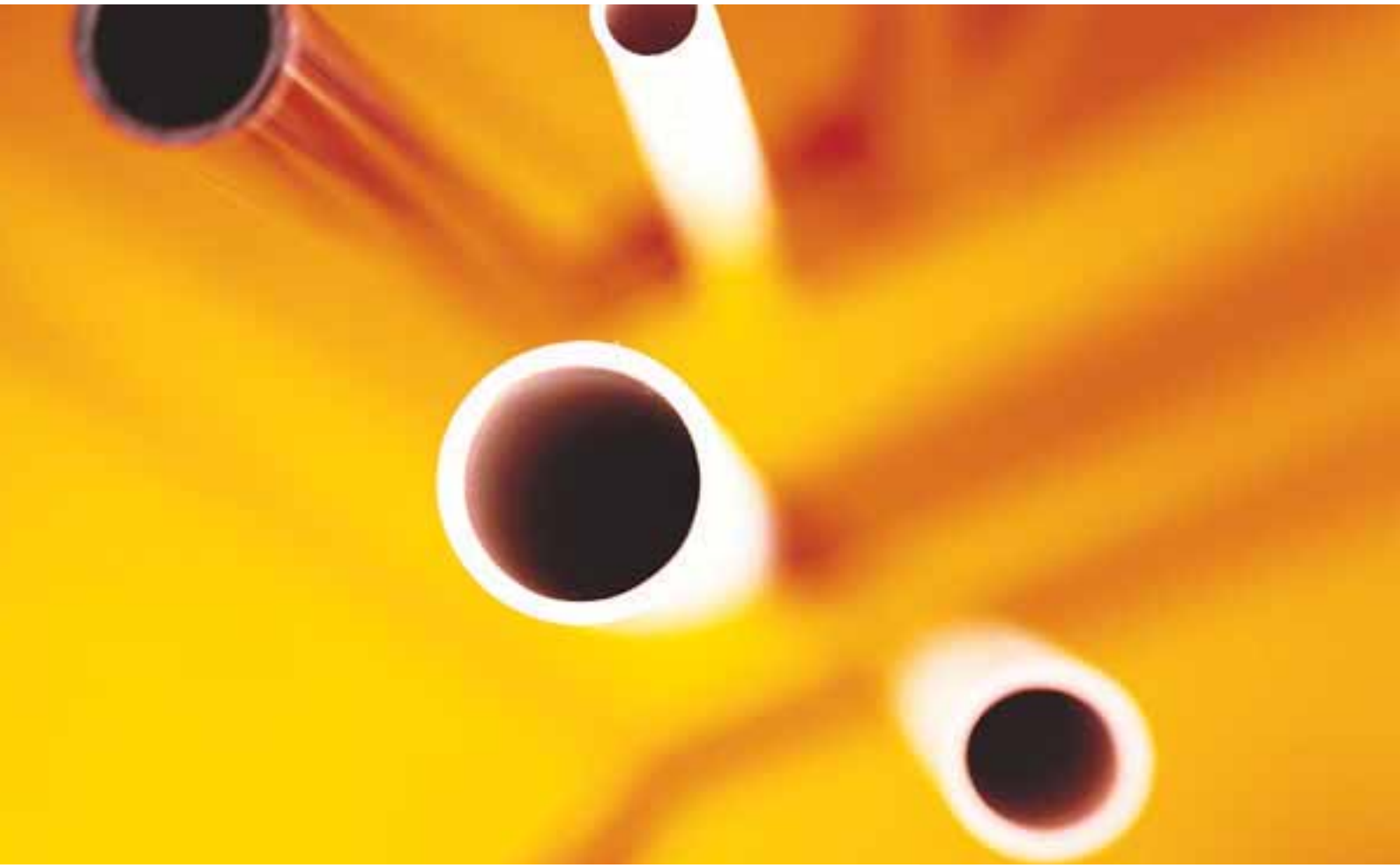


CAR23WHI	1

Intersection



CI1WHI	10



Egatube high impact PVCu conduit offers a cost effective solution for both new building and refurbishment contracts.

The wide range of fittings and ancillary products means that almost any installation can be specified with confidence.

- **Wide range of sections and sizes**
- **Oval, round and corrugated sections are compatible**
- **Simple and fast installation**
- **Very wide range of components maximises versatility of application**
- **Very durable and impact resistant**
- **3 grades of round conduit to suit various site conditions**
- **All extrusions manufactured from 90% recycled material***

* Based on 2008 consumption.

Normal Bends

HEAVY GAUGE FITTED WITH TWO COUPLINGS BLK OR WHI

Where there is a choice of colour state the appropriate suffix with the list number when ordering e.g. HIP2BLK

For 16mm sizes use 20mm fittings with reducers. (Ref. ER1).



16mm		
20mm	**ENB2**	25
25mm	**ENB3**	10
32mm	**ENB4**	5
38mm	**ENB5**	2
50mm	**ENB6**	2

Egatube Round Conduit

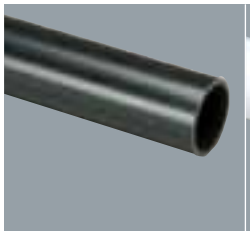
Manufactured in accordance with BS 4607 and BS EN 50085, Parts 1 and 2.

STANDARD LENGTH: 3 metres.

MATERIAL: PVCu

High Impact Conduit Heavy Gauge

3 METRE LENGTHS
BLK OR WHI



High Impact Conduit Light Gauge

3 METRE LENGTHS
WHI ONLY



Heavy Gauge Coupling

BLK OR WHI



Expansion Coupling

BLK OR WHI



Inspection Coupling

BLK OR WHI



	High Impact Conduit Heavy Gauge		High Impact Conduit Light Gauge		Heavy Gauge Coupling		Expansion Coupling		Inspection Coupling	
16mm	HIP1	90m	HLG1WHI	90m	ESC1	50	EEC1BLK	25		
20mm	HIP2	90m	HLG2WHI	90m	ESC2	100	EEC2	100	EIS2	25
25mm	HIP3	90m	HLG3WHI	90m	ESC3	50	EEC3	50	EIS3	25
32mm	HIP4	30m	HLG4WHI	30m	ESC4	50	EEC4	10	*	
38mm	HIP5BLK	30m	HLG5WHI	30m	ESC5	25	EEC5	10	*	
50mm	HIP6BLK	30m	HLG6WHI	30m	ESC6	20	EEC6	10	*	

Wall thickness (nominal mm)

HIP1	1.7	HIP4	2.5
HIP2	1.8	HIP5	2.5
HIP3	1.9	HIP6	3.2

Wall thickness (nominal mm)

HLG1	1.1	HLG4	1.5
HLG2	1.2	HLG5	1.5
HLG3	1.5	HLG6	1.8

* For 32/38/50mm use square junction boxes (ERB page 369).

LIGHT GAUGE COUPLINGS NOT REQUIRED
WHI ONLY

Spacer Bar Saddle

BLK OR WHI



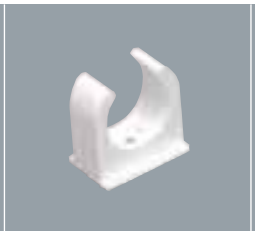
Spring Clip Saddle

BLK OR WHI



Strap Saddle

BLK OR WHI



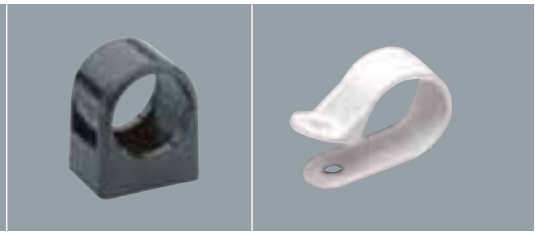
Quickfit Spacer Saddle

BLK OR WHI



Conduit Clip

BLK OR WHI



	Spacer Bar Saddle		Spring Clip Saddle		Strap Saddle		Quickfit Spacer Saddle		Conduit Clip	
LNB1WHI	25	ESB1	50			ES1	100			ECC1	50
LNB2WHI	100	ESB2	100	MEC2	100	ES2	100	EQS2	100	ECC2	50
LNB3WHI	50	ESB3	100	MEC3	50	ES3	100	EQS3	100	ECC3	50
LNB4WHI	50	ESB4	50	MEC4	25	ES4	50			ECC4	50
LNB5WHI	25	ESB5	25			ES5	50			ECC5WHI	50
LNB6WHI	25	ESB6	25			ES6	50				

Inspection Elbow

BLK OR WHI



16mm	
20mm	**EIE2** 25
25mm	
32mm	
38mm	
50mm	

Quick Fit Inspection Elbow

BLK OR WHI



16mm	
20mm	**EQE2** 25
25mm	
32mm	
38mm	
50mm	

Inspection Tee

BLK OR WHI



16mm	
20mm	**EIT2** 25
25mm	**EIT3** 25
32mm	
38mm	
50mm	

Quick Fit Tee

BLK OR WHI



16mm	
20mm	**EQT2** 25
25mm	**EQT3** 25
32mm	
38mm	
50mm	

Inspection Bend

BLK OR WHI



16mm	
20mm	**EIB2** 25
25mm	**EIB3** 25
32mm	
38mm	
50mm	

Compression Gland

*BLK OR WHI
**WITH LOCK RING



16mm	**ECG1BLK**	7–10.5 50
20mm	**ECG2***	7–10.5 100
25mm	**ECG3BLK**	8–13 50
32mm	**ECG4BLK****	18–24.5 50
38mm		
50mm		

Adaptor Male Thread

PLAIN PUSH IN WITH MALE BUSHES
*20MM MALE THREAD WITH 16MM ENTRY
BLK OR WHI



16mm	**EMA1*** 50
20mm	**EMA2** 100
25mm	**EMA3** 50
32mm	**EMA4** 25
38mm	**EMA5** 25
50mm	**EMA6** 10

Adaptor Female Thread

WITH LOCK RINGS
BLK OR WHI



16mm	
20mm	**EFA2** 100
25mm	**EFA3** 50
32mm	**EFA4** 25
38mm	**EFA5** 25
50mm	**EFA6** 10

Clip-in Adaptor

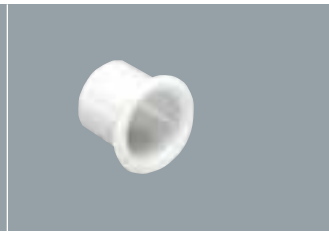
WHI ONLY



16mm	
20mm	**CEA2WHI** 50
25mm	
32mm	
38mm	
50mm	

Bell Mouth Bush

WHI ONLY



16mm	
20mm	**BMB2WHI** 50
25mm	
32mm	
38mm	
50mm	

Quick Fit Inspection Bend

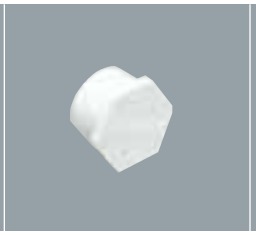
BLK OR WHI



EQB2	25	**EP2**	100	**EP2S**	100	**EHL1GRY**	100		
EQB3	25	**EP3**	100	**EP3S**	100	**EHL2GRY**	100	**ECL2**	100
						EHL3GRY	100	**ECL3**	100
						EHL4GRY	50	**ECL4**	50
						EHL5GRY	25	**ECL5**	25
								ECL6	25

Plug Plain

BLK OR WHI



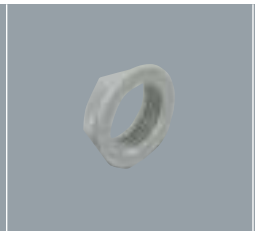
Plug Screwed

BLK OR WHI



Locknut

GRY ONLY



Lockring

BLK OR WHI



Reducer

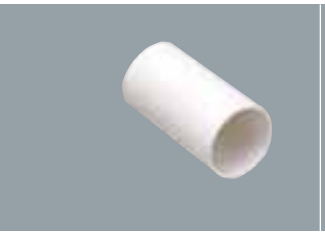
BLK OR WHI



ER1	20 x 16	50	
ER2	25 x 20	50	
ER3	32 x 25	25	
ER5WHI	38 x 32	10	
ER7	50 x 38	10	

Sleeve for Bell Mouth Bush

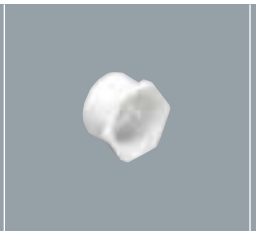
WHI ONLY



BMS2WHI	50		

Male Bush Plain

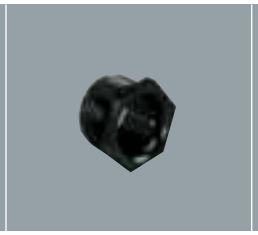
BLK OR WHI



MPB2	100		
MPB3	100		

Male Bush Screwed

BLK ONLY



SMB2BLK	50		
SMB3BLK	50		
SMB4BLK	50		
SMB5BLK	25		
SMB6BLK	25		

Female Bush Screwed

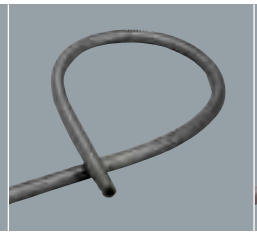
BLK ONLY



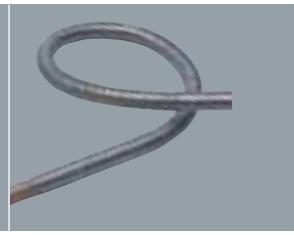
EBF2BLK	100		
EBF3BLK	100		
EBF4BLK	50		
EBF5BLK	50		

Bending Springs

GREEN
HEAVY GAUGE
FOR HIP
AND ESP



RED
LIGHT GAUGE
FOR HLG



ESS2	1	**ELS2**	1
ESS3	1	**ELS3**	1

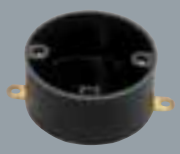
Egatube® Boxes

Circular Boxes

BLK OR WHI



2ECR1



ECR12EL

Terminal Boxes

BLK OR WHI



2ECR2



2ECR7

Through Boxes

BLK OR WHI



2ECR3



2ECR8



2ECR19

Branch Boxes

BLK OR WHI



2ECR17



2ECR18

Angle Boxes

BLK OR WHI



2ECR4



2ECR9

2ECR13
2ECR13ELWHI* 20 20
20mm LOOP-IN

2ECR1
2ECR1ELWHI* 20 20
20mm BACK OUTLET

3ECR1 10
25mm BACK OUTLET

ECR12
ECR12EL* 10 10
NO SPOUT

* Fixed external lugs.

20mm Loop-in boxes have 4 x 20mm knockouts on underside.

2ECR2
2ECR2ELWHI* 20 20
20mm ONE WAY

3ECR2 10
25mm ONE WAY

2ECR7
2ECR7EL* 20 20
20mm ONE WAY AND BACK OUTLET

3ECR7 10
25mm ONE WAY AND BACK OUTLET

* Swivel lug.

2ECR3
2ECR3ELWHI* 20 20
20mm TWO WAY

3ECR3 10
25mm TWO WAY

2ECR8
2ECR8EL* 20 20
20mm TWO WAY AND BACK OUTLET

3ECR8 10
25mm TWO WAY AND BACK OUTLET

* Swivel lug.

2ECR17 20
20mm 'U' TWO WAY

2ECR18 20
20mm 'Y' THREE WAY

2ECR4 20
20mm TWO WAY

3ECR4 10
25mm TWO WAY

2ECR9 20
20mm TWO WAY AND BACK OUTLET

3ECR9 10
25mm TWO WAY AND BACK OUTLET

* Swivel lug.

MATERIAL:
PVCu

LID FIXING CENTRES:
50.8mm

PILLAR THREAD SIZE:
M4 (Brass inserts)

All boxes contain a moulded recess for earth terminal

ALL CIRCULAR BOXES

For 16mm sizes use 20mm fittings with reducers.
(Ref. ER/1)

Some circular boxes are available with extended lugs for the support of heavy loads.

Available in Black or White.
When ordering use colour suffix BLK or WHI.

LOAD SUSPENSION:
Standard circular box: 3kg. @ 60°C max.
Extended Lug Box: 10kg. @ 60°C max.

For enclosed lighting fittings see 'Heat Resistant Box' on page 370 or use 'Steel Insert Clips' on page 371.

Tee Boxes

BLK OR WHI



3ECR5



3ECR10

2ECR5 20
2ECR5EL* 20
20mm THREE WAY

3ECR5 10
25mm THREE WAY

2ECR10 20
20mm THREE WAY AND BACK OUTLET

3ECR10 10
25mm THREE WAY AND BACK OUTLET

* Swivel lug.

Intersection Boxes

BLK OR WHI



3ECR6



3ECR11

2ECR6 20
2ECR6EL* 20
20mm FOUR WAY

3ECR6 10
25mm FOUR WAY

3ECR11 10
25mm FOUR WAY AND BACK OUTLET

* Swivel lug.

Tangent Boxes

BLK OR WHI



3ECR14



3ECR15

2ECR14 20
20mm ANGLE

3ECR14 10
25mm ANGLE

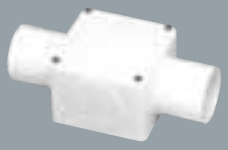
2ECR15 20
20mm TEE

3ECR15 10
25mm TEE

* Swivel lug.

Square Junction Boxes

BLK OR WHI



ERB2



ERB5



ERB7

ERB1 10
32mm THROUGH

ERB2 10
38mm THROUGH

ERB3 2
50mm THROUGH

ERB4 10
32mm ANGLE

ERB5 10
38mm ANGLE

ERB6 2
50mm ANGLE

ERB7 5
32mm TEE

ERB8BLK 5
38mm TEE

Available in Black or White.
When ordering use colour suffix BLK or WHI.

MATERIAL:
PVCu

Square Junction Boxes are designed to enable interconnection and directional changes of 32mm, 38mm and 50mm circular conduits.

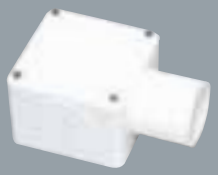
BOX SIZES:
ERB1,2,4,5,7,8,10,11,13,14
75 x 75mm

ERB3,6,9,12,15
100 x 100mm

BLK OR WHI



ERB11WHI



ERB14

ERB9 1
50mm TEE

ERB10 5
32mm FOUR-WAY

ERB11WHI 4
38mm FOUR-WAY

ERB12 1
50mm FOUR-WAY

ERB13 10
32mm TERMINAL

ERB14 10
38mm TERMINAL

ERB15 2
50mm TERMINAL

MATERIAL:
PVCu

LID FIXING CENTRES:
50.8mm

PILLAR THREAD SIZE:
M4 (Brass inserts)

All boxes contain a moulded recess for earth terminal.

ALL CIRCULAR BOXES

For 16mm sizes use 20mm fittings with reducers.
(Ref. ER/1)

Some circular boxes are available with extended lugs for the support of heavy loads.

Available in Black or White.
When ordering use colour suffix BLK or WHI.

LOAD SUSPENSION
Standard circular box:
3kg. @ 60°C max.
Extended Lug Box:
10kg. @ 60°C max.

For enclosed lighting fittings see 'Heat Resistant Box' on page 370 or use 'Steel Insert Clips' on page 371.

Adaptable Boxes

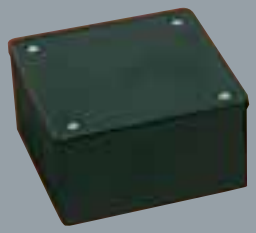
BLK OR WHI



MAB1



MAB2



MAB3

MAB1 5
EXTERNAL SIZE
75 x 75 x 41mm

MAB2 5
EXTERNAL SIZE
75 x 75 x 53mm

MAB3 5
INTERNAL SIZE
100 x 100 x 50mm

MAB4 5
INTERNAL SIZE
100 x 100 x 75mm

Available in Black or White.

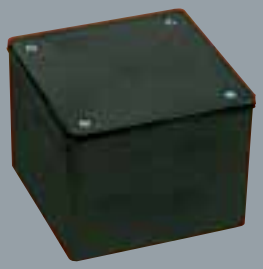
When ordering use colour suffix BLK or WHI.

MATERIAL:
PVCu

Note: Boxes are not IP Rated.

Heat-Resistant Boxes

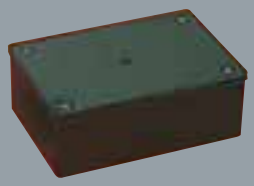
BLK OR WHI



MAB4



MAB5



MAB6

MAB5 5
INTERNAL SIZE
150 x 75 x 50mm

MAB6 5
INTERNAL SIZE
150 x 100 x 50mm

MAB7 2
INTERNAL SIZE
150 x 150 x 75mm

MAB8 2
INTERNAL SIZE
225 x 225 x 75mm

Heat-Resistant Boxes

BLK ONLY



2ECR25

2ECR25BLK 10
20mm FLAT BASED WITH 20mm CUT-OUTS FOR CONDUIT ENTRY

Available in Black only.

MATERIAL:
Noryl/PVCu

LID FIXING CENTRES:
50.8mm

PILLAR THREAD SIZE:
M4 (metal inserts)

LOAD SUSPENSION:
10kg. @ 100°C max.

All Heat Resistant Boxes include keying facility.

Earth Electrode Box

BLK ONLY



EEB1

EEB1BLK 5
75 x 75 x 70mm

Available in Black only.

MATERIAL:
PVCu

The Egatube Earth Electrode Box is to protect the connection to an earth electrode.

Circular Lids Gaskets and Screws

BLK OR WHI



EL1



EL2



EL3

EL1 100
LIDS 66mm DIA

EL2 50
OVERLAPPING LIDS
85mm DIA

EL3 50
RUBBER GASKETS
66mm DIA

M4X10SS 100
SCREWS FOR CIRCULAR BOXES

EL1/EL2
Available in Black or White.

When ordering use colour suffix BLK or WHI.

EL3 is available in Black only.

MATERIAL:
EL/1 and EL/2: PVCu
EL/3: Rubber

LID FIXING CENTRES:
50.8mm

Extension Rings

BLK OR WHI



EER3



EER6



EER7

EER3 25
NOM DEPTH 12.5mm

EER5 25
NOM DEPTH 19mm

EER6 25
NOM DEPTH 25mm

EER7 25
NOM DEPTH 32mm

EER8 25
NOM DEPTH 38mm

EER9 25
NOM DEPTH 50mm

Available in Black or White.

When ordering use colour suffix BLK or WHI.

MATERIAL:
PVCu

FIXING CENTRES:
50.8mm

To suit circular conduit boxes.

EER6-EER9 are fitted with slots to suit Steel Insert Clips.

Pendant Dome Cover

BLK OR WHI



EDC1

EDC1 25
PENDANT DOME COVER

Available in Black or White.

When ordering use colour suffix BLK or WHI.

FIXING CENTRES:
50.8mm

To suit circular conduit boxes.
20mm conduit female thread only.

Accessories



SIC



BET1



BET2

SIC 100
STEEL INSERT CLIP

BET1 50
BRASS EARTHING TERMINALS
5 AMP

BET2 50
BRASS EARTHING TERMINALS
15 AMP

Steel Insert Clip
Fits most Egatube circular boxes through base knock-outs. Provides additional support for heavy pendants.

Tapped M4

Note: Must be fitted before installation of box.

Brass Earthing Terminals
Fits standard circular boxes and switch/socket boxes.

Supplied complete with screws.

Sundries



EWPLUS

EWPLUS 1
EGAWELD PLUS
0.25 LITRE

Egaweld Plus is a specially prepared waterproof vinyl solvent cement for making watertight joints between PVC conduit, trunking and fittings.

COSSH information is available on the MK website:
www.mkelectric.co.uk



ECT1



DRA10

ECT1 1
EGASNIP CUTTING TOOL

DRA10 1
NYLON DRAW TAPE
10m LENGTH

DRA20 1
NYLON DRAW TAPE
20m LENGTH

Egasnip is a cutting tool which enables conduit, up to 32mm in diameter, and mini trunking, up to 40mm x 25mm, to be cut easily and precisely giving a clean finish with no swarf.

Single handed operation.
Two types of anvil.
Replaceable blade (List No. BLADE).
Accurate mitre capability.

Nylon Draw Tapes
An eyelet is fitted.

Egatube® Accessory Boxes

Round Corner Accessory Boxes

16mm PLASTER DEPTH FLUSH



ESU61WHI

ESU61WHI 25
1 GANG
ONE FIXED PILLAR AND ONE ADJUSTABLE LUG

KNOCKOUTS:
One 16mm oval and one 20mm oval

MATERIAL:
PVCu

DIMENSIONS:
1 gang: 73 x 73mm

FIXING CENTRES:
1 gang: 60.3mm

BS 4662 and BS 5733 where applicable.

25mm FLUSH



ESU9MLWHI



ESU92MLWHI

ESU9MLWHI 25
1 GANG
ADJUSTABLE LUGS

ESU92MLWHI 10
2 GANG
ADJUSTABLE LUGS

KNOCKOUTS:
1 gang:
Six 20mm round
2 gang:
Seven 20mm round and one 25mm oval

MATERIAL:
PVCu

DIMENSIONS:
1 gang: 73 x 73mm
2 gang: 73 x 134mm

FIXING CENTRES:
1 gang: 60.3mm
2 gang: 120.6mm

BS 4662 and BS 5733 where applicable.

35mm FLUSH



ESU8MLWHI



ESU82MLWHI

ESU81WHI 25
1 GANG
FIXED LUGS

ESU8MLWHI 25
1 GANG
ADJUSTABLE LUGS

ESU82MLWHI 10
2 GANG
ADJUSTABLE LUGS

KNOCKOUTS:
1 gang:
Eight 20mm round
2 gang:
Nine 20mm round and one 25mm oval

MATERIAL:
PVCu

DIMENSIONS:
1 gang: 73 x 73mm
2 gang: 73 x 134mm

FIXING CENTRES:
1 gang: 60.3mm
2 gang: 120.6mm

BS 4662 and BS 5733 where applicable.

25mm SURFACE



ESU241WHI



ESU242WHI

ESU241WHI 25
1 GANG

ESU242WHI 10
2 GANG

KNOCKOUTS:
1 gang:
One 20mm round and one mini trunking entry
2 gang:
One 20mm round and three mini trunking entries

MATERIAL:
PVCu

DIMENSIONS:
1 gang: 86 x 86mm
2 gang: 86 x 146mm

FIXING CENTRES:
1 gang: 60.3mm
2 gang: 120.6mm

BS 4662 and BS 5733 where applicable.

Square Corner Accessory Boxes

25mm SURFACE



ESU261WHI



ESU262WHI

ESU261WHI 25
1 GANG

ESU262WHI 10
2 GANG

KNOCKOUTS:
ESU261:
One 20mm round
ESU262;
One 20mm round

MATERIAL:
PVCu

DIMENSIONS:
1 gang: 86 x 86mm
2 gang: 86 x 146mm

FIXING CENTRES:
1 gang: 60.3mm
2 gang: 120.6mm

BS 4662 and BS 5733 where applicable.

32mm SURFACE



ESU281WHI



ESU282WHI

ESU281WHI 25
1 GANG

ESU282WHI 10
2 GANG

KNOCKOUTS:
1 gang:
One 20mm round
2 gang:
One 20mm round and one mini trunking entry

MATERIAL:
PVCu

DIMENSIONS:
1 gang: 86 x 86mm
2 gang: 86 x 146mm

FIXING CENTRES:
1 gang: 60.3mm
2 gang: 120.6mm

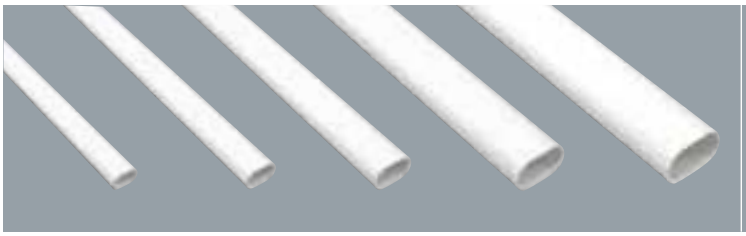
BS 4662 and BS 5733 where applicable.

Oval Conduit

Coupling

Oval to Round Adaptor

3 METRE LENGTHS







Manufactured in accordance with BS 4607 Part 5.

STANDARD LENGTH:
3 metres

MATERIAL:
PVCu

COLOUR:
White

All extrusions manufactured from 90% recycled material.*

* based on 2008 consumption.

13mm	**EOC1WHI**	150m				
16mm	**EOC2WHI**	150m				
20mm	**EOC3WHI**	150m	**CO3WHI**	50	**OA3WHI**	50
25mm	**EOC4WHI**	150m	**CO4WHI**	50		
25mm	**EOC5WHI**	150m				

Bellmouth Bush

Saddle

External Spring Clip Oval







16mm			**OS2WHI**	100	**XC2WHI**	100
20mm	**BOB3WHI**	50	**OS3WHI**	100	**XC3WHI**	100
25mm			**OS4WHI**	100	**XC4WHI**	100

Egaflex

Corrugated PVCu Conduit

Adaptor Nylon

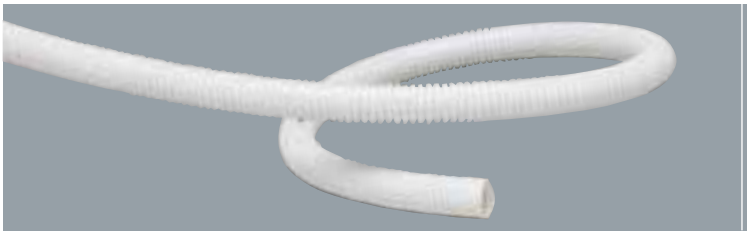
The Egaflex PVCu conduit range is a corrugated flexible system which can be used for the connection of vibrating equipment or to provide tight bends for interconnecting conduits. The range can be surface mounted or cast-in concrete and can also be used with standard conduit fittings.

Manufactured in accordance with:
BS EN 61386-1
BS EN 61386-22

MATERIAL:
PVCu

COLOUR:
White

STANDARD LENGTH:
50 metres coil.





16mm	**EF1WHI**	50m	**Coil**	**FAB1WHI**	50
20mm	**EF2WHI**	50m	**Coil**	**FAB2WHI**	50
25mm	**EF3WHI**	50m	**Coil**	**FAB3WHI**	50

Rectangular Channelling

2 METRE LENGTHS

WALL THICKNESS:
0.9mm

MATERIAL:
PVCu

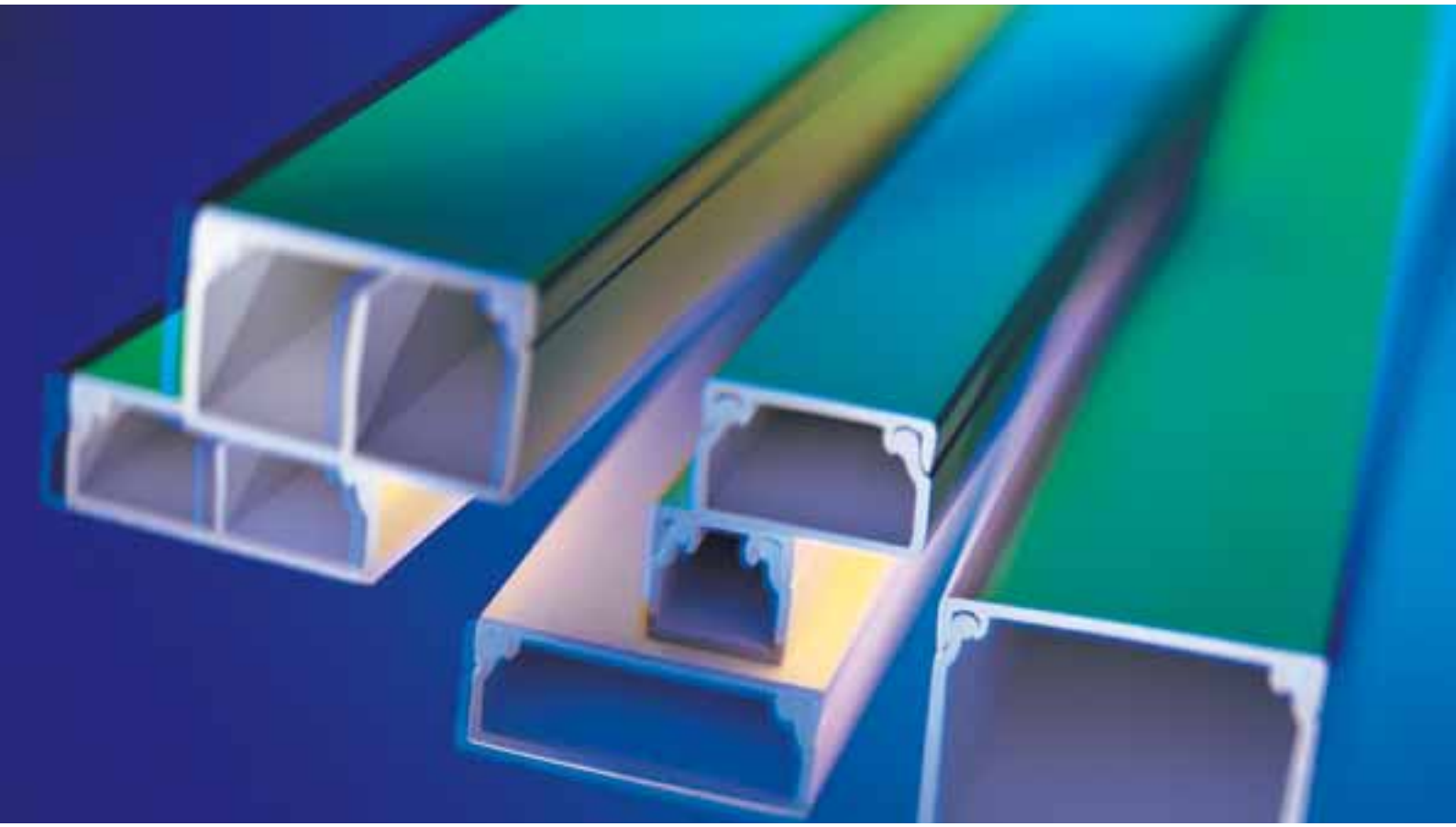
COLOUR:
White

STANDARD LENGTH:
2 metres

Other lengths can be supplied against quantity orders.



12mm	(8mm depth approx)	**REC1WHI**	150m
25mm	(8mm depth approx)	**REC2WHI**	150m
38mm	(9.5mm depth approx)	**REC3WHI**	150m



range introduction

Ega Mini Trunking consists of a range of sizes of extruded PVCu sections for the containment of electrical and data cabling for surface wiring.

The products are ideally suited for refurbishment programmes as well as new installation projects, both in the domestic and commercial sectors.

Speedfix Mini Trunking is complete with an acrylic foam adhesive for fast location of power circuits and secure containment of low voltage wiring.

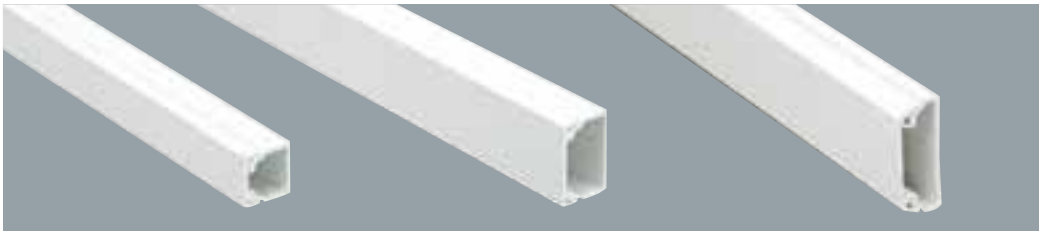
features and benefits

- **Wide range of trunking profiles**
- **Wide range of integrated components maximises versatility of application**
- **Easy to assemble and install**
- **Durable and impact resistant**
- **Speedfix options allow fast installation**
- **All extrusions manufactured from 90% recycled material***

* Based on 2008 consumption.

Mini Trunking

Manufactured in accordance with BS EN 50085 Part 1.
STANDARD LENGTH: 3 metres
Available in 2 metre lengths for NON UK Markets.
MATERIAL: PVC-U



	3 METRE LENGTHS			2 METRE LENGTHS (FOR NON UK MARKETS)	
16 x 16mm	**YT1WHI**	90m		**YT1D1WHI**	60m
25 x 16mm	**YT2WHI**	90m	**YT2CHA** 30m	**YT2D1WHI**	60m
32 x 12.5mm	**YT200WHI**	30m		**YT200D1WHI**	32m
40 x 16mm	**YT3WHI**	45m		**YT3D1WHI**	32m
40 x 25mm	**YT4WHI**	45m	**YT4CHA** 30m	**YT4D1WHI**	32m
40 x 40mm	**YT5WHI**	45m		**YT5D1WHI**	32m
50 x 25mm	**YT6WHI**	30m		**YT6D1WHI**	32m
50 x 32mm	**YT7WHI**	30m		**YT7D1WHI**	32m
50 x 50mm	**YT8WHI**	12m			

Speedfix Mini Trunking

Twin Compartment Trunking

Manufactured in accordance with BS EN 50085 Part 1.
STANDARD LENGTH: 3 metres
Available in 2 metre lengths for NON UK Markets.
MATERIAL: PVC-U
Self Adhesive Tape should not be relied upon for permanent fixing of the Speedfix range. A permanent means (such as screws) should also be used.



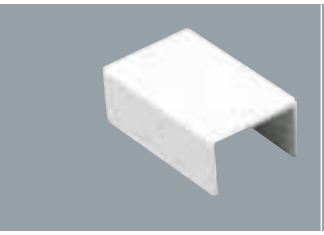




	3 METRE LENGTHS		2 METRE LENGTHS		3 METRE LENGTHS	
16 x 16mm	**SPF1WHI**	60m	**SPF1D1WHI**	60m		
25 x 16mm	**SPF2WHI**	30m	**SPF2D1WHI**	60m		
32 x 12.5mm						
40 x 16mm	**SPF3WHI**	30m	**SPF3D1WHI**	32m	**ZT3WHI**	30m
40 x 25mm	**SPF4WHI**	30m			**ZT4WHI**	30m
40 x 40mm						
50 x 25mm						
50 x 32mm						
50 x 50mm						

Coupling

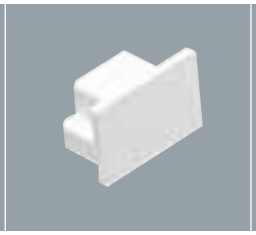
MOULDED



YC1WHI	20
YC2WHI or CHA	20
YC200WHI	20
YC3WHI	10
YC4WHI	10
YC5WHI	10
YC8WHI	10

End Cap

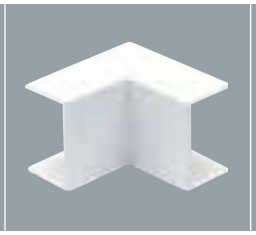
MOULDED



YEP1WHI	20
YEP2WHI or CHA	20
YEP200WHI	20
YEP3WHI	20
YEP4WHI or CHA	20
YEP5WHI	20
YEP6WHI	10
YEP7WHI	10
YEP8WHI	10

Internal Corner

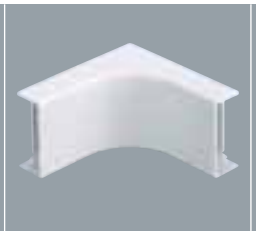
MOULDED



YAI1WHI	20
YAI2WHI or CHA	20
YAI200WHI	20
YAI3WHI	5
YAI4WHI or CHA	5
YAI5WHI	5
YAI6WHI	5
YAI7WHI (fabricated)	5
YAI8WHI	5

Internal Data Corner

MOULDED



YDAI3WHI	10

External Corner

MOULDED



YAE1WHI	20
YAE2WHI or CHA	20
YAE200WHI	20
YAE3WHI	5
YAE4WHI or CHA	5
YAE5WHI	5
YAE6WHI	5
YAE7WHI (fabricated)	5
YAE8WHI	5

External Data Corner

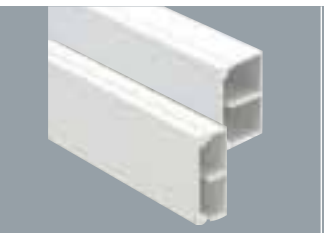
MOULDED



YDAE3WHI	5

Flat Angle

2 METRE LENGTHS



ZT4D1WHI	32m

MOULDED



YAF1WHI	20
YAF2WHI or CHA	20
YAF200WHI	20
YAF3WHI	5
YAF4WHI or CHA	5
YAF5WHI	5
YAF6WHI	5
YAF7WHI (fabricated)	5
YAF8WHI	5

Flat Data Angle

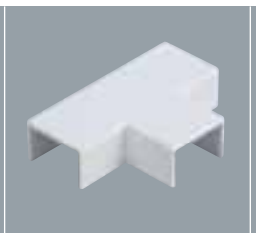
MOULDED



YDAF3WHI	10

Flat Tee

MOULDED



YTF1WHI	20
YTF22WHI or CHA	20
YTF200WHI	20
YTF3WHI	5
YTF4WHI or CHA	5
YTF5WHI	5
YTF6WHI	5
YTF7WHI (fabricated)	1
YTF8WHI	1

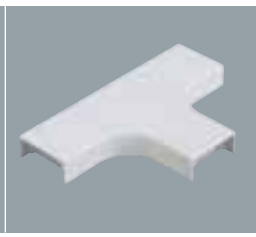
Flat Tee vertical aperture sizes: YTF21WHI 16 x 16mm YTF42WHI 25 x 16mm

Flat Data Tee

MOULDED



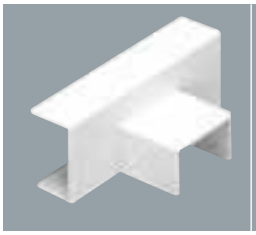
YTF21WHI	20
YTF42WHI or CHA	5



YDTF3WHI	10

Side Tee

MOULDED



16 x 16mm	
25 x 16mm	**YST21WHI** 10
32 x 12.5mm	
40 x 16mm	

Side Tee

MOULDED

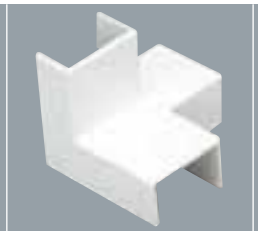


16 x 16mm	
25 x 16mm	**YST22WHI** 10
32 x 12.5mm	
40 x 16mm	

Side Tees (perpendicular)
Aperture Sizes
YST21WHI: 16 x 16mm
YST22WHI: 25 x 16mm

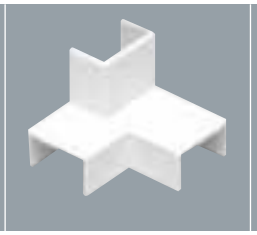
Intersection 3 Way Left Hand

MOULDED



16 x 16mm	
25 x 16mm	**YAL2WHI** 10
32 x 12.5mm	**YAL200WHI** 10
40 x 16mm	

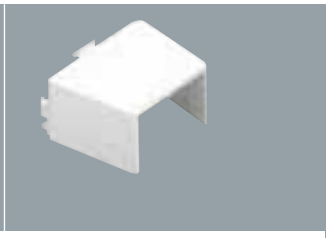
Intersection 3 Way Right Hand



16 x 16mm	
25 x 16mm	**YAR2WHI** 10
32 x 12.5mm	**YAR200WHI** 10
40 x 16mm	

Adaptors

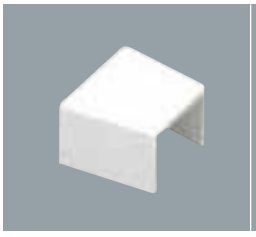
FOR USE WITH MINI TRUNKING BOXES
MOULDED



16 x 16mm	**YEA1WHI** 25
25 x 16mm	**YEA2WHI or CHA** 25
32 x 12.5mm	**YEA200WHI** 25
40 x 16mm	**YEA3WHI** 25

Adaptors

MOULDED

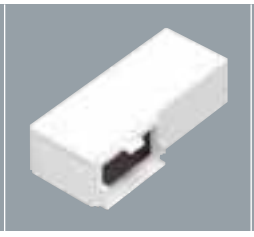


16 x 16mm	**UEA1WHI** 25
25 x 16mm	**UEA2WHI** 25
32 x 12.5mm	
40 x 16mm	**UEA3WHI** 25

UEA Adaptors
are for fixing with adhesive. They are particularly useful when spurring off from a larger trunking section.

Adaptors Side Mounting

FOR USE WITH MINI TRUNKING BOXES
MOULDED



16 x 16mm	**YSA1WHI** 10
25 x 16mm	**YSA2WHI** 10
32 x 12.5mm	**YSA200WHI** 10
40 x 16mm	**YSA3WHI** 5

YSA Adaptors
are for use with Ega Mini Trunking Boxes (page 379) and incorporate removable end caps for right and left hand mounting.

Adaptors YT/1 Square to 20mm Round

MOULDED



16 x 16mm	**YTO12WHI** 10
25 x 16mm	
32 x 12.5mm	
40 x 16mm	

Circular Boxes

MOULDED



16 x 16mm	**YCR1ELWHI** 10
25 x 16mm	**YCR1ELWHI** 10
32 x 12.5mm	**YCR2001EL** 10
40 x 16mm	**YCR1ELWHI** 10

MOULDED



16 x 16mm	
25 x 16mm	
32 x 12.5mm	**YCR2002EL** 10
40 x 16mm	

Circular Boxes accept standard ceiling roses, pull switches and plug-in lighting fittings. The base incorporates an earth terminal facility (order terminal separately, see page 370).

LID FIXING CENTRES: 50.8mm
PILLAR THREAD SIZE: M4 (Metal inserts)
LOAD SUSPENSION: 5kg @ 60°C max.

YCR2001EL is a One Way box
YCR2002EL is a Through box

Round Corner Accessory Boxes

SURFACE


ESU231WHI


ESU2311WHI


ESU2323WHI


ESU3511WHI


ESU3523WHI

ESU231WHI 25
1 GANG 25MM
ONE ENTRY
CENTRE (TOP)

ESU2311WHI 25
1 GANG 25MM
ONE ENTRY (SIDE)

ESU2323WHI 10
2 GANG 25MM
THREE ENTRIES
(TOP & BOTH SIDES)

ESU3511WHI 25
1 GANG 32MM
ONE ENTRY
CENTRE (TOP)

ESU3523WHI 10
2 GANG 32MM
THREE ENTRIES.
(TOP, BOTTOM & SIDE)

Square Corner Accessory Boxes

SURFACE


ESU2211WHI


ESU2512WHI


ESU2523WHI

ESU2211WHI 25
1 GANG 25MM
ONE ENTRY (SIDE)

ESU2512WHI 25
1 GANG 25MM
TWO ENTRIES
(TOP & BOTTOM)

ESU2223WHI 10
2 GANG 25MM
THREE ENTRIES
(TOP & BOTH SIDES)

ESU2523WHI 10
2 GANG 25MM
THREE ENTRIES
(TOP & BOTTOM)

SURFACE


ESU2713WHI


ESU2721WHI


ESU4423WHI

ESU2713WHI 10
1 GANG 32MM
THREE ENTRIES
(TOP & BOTTOM)

ESU2721WHI 10
2 GANG 32MM
ONE ENTRY
CENTRE (TOP)

ESU4423WHI 5
2 GANG 41MM
THREE ENTRIES
(TOP & BOTH SIDES)

Ega Round and Square Corner boxes are for use in conjunction with mini trunking adaptors, reference:
YEA- straight entry and
YSA- side entry.

MATERIAL:
PVC-U

DIMENSIONS:
1 gang: 86 x 86mm
2 gang: 86 x 146mm

FIXING CENTRES:
1 gang: 60.3mm
2 gang: 120.6mm

BS 4662 and BS 5733 where applicable.

SIDE MOUNTING
SURFACE


ESU32140WHI


ESU32225WHI

ESU32125WHI 10
1 GANG TO FIT 25 x 16mm
TRUNKING. TWO ENTRIES

ESU32140WHI 10
1 GANG TO FIT 40 x 16mm
TRUNKING. TWO ENTRIES

ESU32225WHI 10
2 GANG TO FIT 25 x 16mm
TRUNKING. TWO ENTRIES

ESU32240WHI 10
2 GANG TO FIT 40 x 16mm
TRUNKING. TWO ENTRIES

Side mounting boxes do not require adaptors and can be used with 25mm x 16mm and 40 x 16mm mini trunking.

MATERIAL:
PVC-U

DIMENSIONS:
1 gang: 86* x 86mm
2 gang: 86* x 146mm

* excluding plinth

FIXING CENTRES:
1 gang: 60.3mm
2 gang: 120.6mm

BS 4662 and BS 5733 where applicable.

Egaline Wall Box Assemblies

FOR AMERICAN ACCESSORIES


ESUUSB17WHI


ESUUSB19WHI


ESUUSB22WHI


ESUUSB53WHI

ESUUSB17WHI 5
1 GANG
38MM DEPTH
FOUR ENTRIES (NON UK)

ESUUSB19WHI 5
1 GANG
45MM DEPTH
FOUR ENTRIES (NON UK)

ESUUSB22WHI 5
1 GANG
51MM DEPTH
FOUR ENTRIES (NON UK)

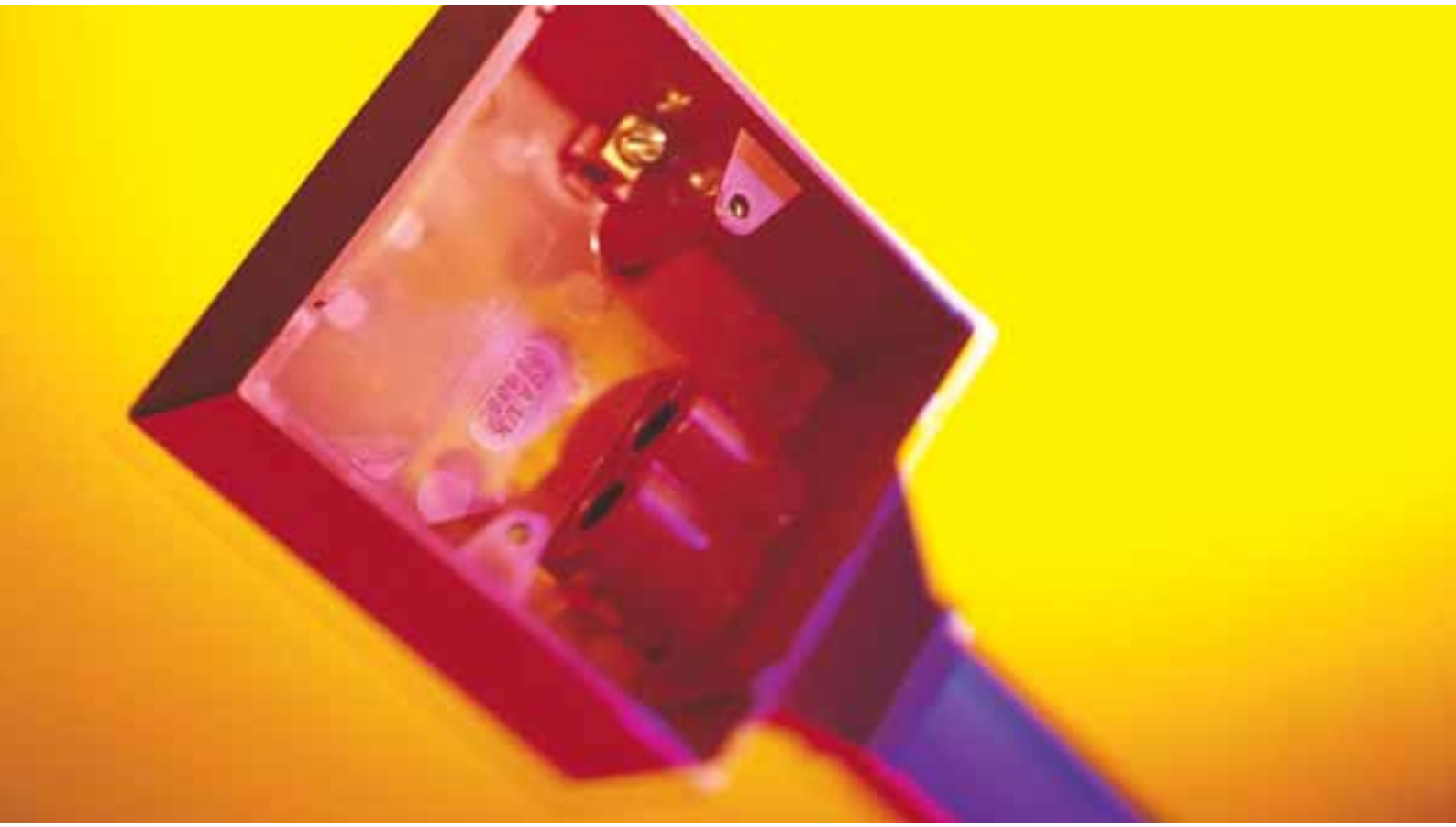
ESUUSB53WHI 5
2 GANG
DEEP BOX
FOUR ENTRIES (NON UK)

Egaline Wall Box assemblies are for use in conjunction with Mini Trunking Spout adaptors reference:
YEA-straight entry and
YSA-side entry.

MATERIAL:
PVC-U

DIMENSIONS:
1 gang: 124 x 79mm

Red Alert™



range introduction

Based on MK's well proven Ega Mini Trunking System, Red Alert brings all of the benefits in reducing the installation time on call points, computer and power supply switches, water heaters, boiler switches, emergency stops, panic alarms, smoke detectors, sounders and warning lights.

Manufactured in PVCu, the Red Alert Mini Trunking System meets the growing specification requirement for alarm circuit identification. In addition it affords extra mechanical protection to cables, dramatically improves the overall appearance of Mineral Insulated surface wiring and further serves, where necessary, to highlight the locations of manual call points.

features and benefits

- **Red Alert profile for alarm circuits**
- **Unobtrusive and neat**
- **Easy to assemble and install**
- **Durable and impact resistant**
- **All extrusions manufactured from 90% recycled material***

* Based on 2008 consumption.

EASILY CUT TO REQUIRED LENGTH

CLIP ON COMPONENTS FOR EASY INSTALLATION

DOUBLE LID CLIP CREATES STRONG RIGID STRUCTURE

NO WALL CHASING

FEWER CABLE CLIPS

MULTIPLE WIRING FACILITY

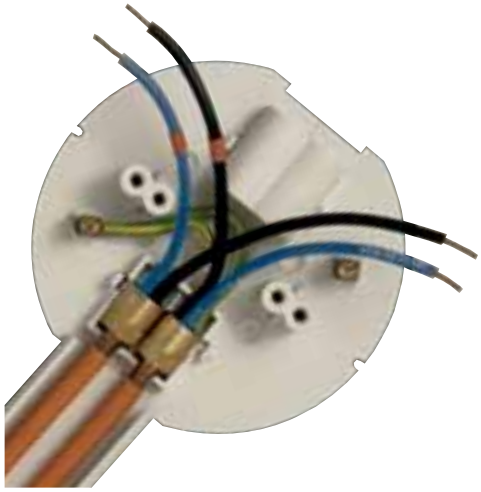
NO NEED FOR CABLE GLANDS AND SHROUDS

UNIQUE POT CLAMPS

MANUFACTURED FROM NON CONDUCTIVE CORROSIVE RESISTANT MATERIAL

ALL BOXES FITTED WITH EARTH TERMINAL

FIXING PILLARS WITH THREADED BRASS INSERTS





Trunking

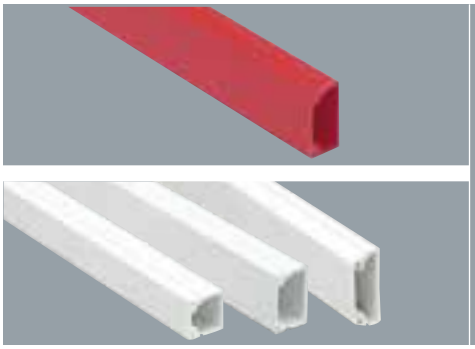
Coupling

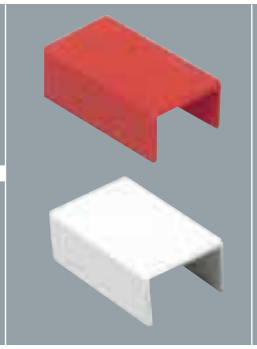
End Cap

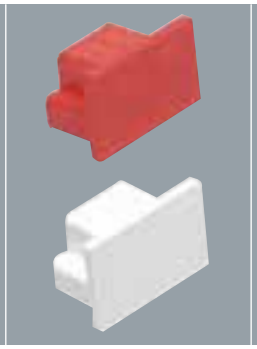
Flat Angle

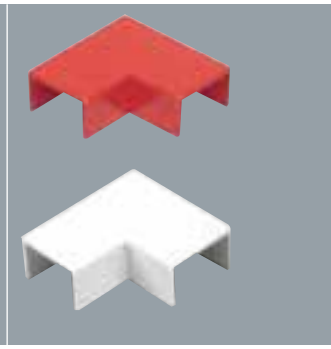
3 METRE LENGTHS

RED TRUNKING AND FITTINGS ARE ONLY AVAILABLE IN THE 25 x 16MM PROFILE









16 x 16mm	**YT1WHI**	90m	**YC1WHI**	20	**YEP1WHI**	20	**YAF1WHI**	20
25 x 16mm	**YT2RED**	30m	**YC2RED**	20	**YEP2RED**	20	**YAF2RED**	20
	YT2WHI	90m	**YC2WHI**	20	**YEP2WHI**	20	**YAF2WHI**	20
32 x 12.5mm	**YT200WHI**	30m	**YC200WHI**	20	**YEP200WHI**	20	**YAF200WHI**	20
40 x 16mm	**YT3WHI**	45m	**YC3WHI**	10	**YEP3WHI**	20	**YAF3WHI**	5

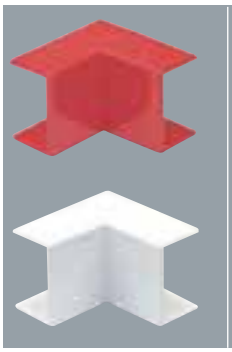
Internal Corner

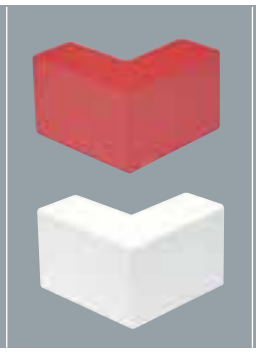
External Corner

Side Tee

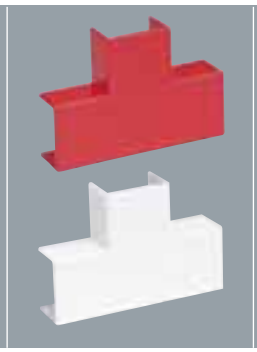
Flat Tee

Adaptors









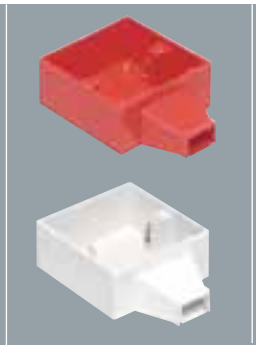


16 x 16mm	**YAI1WHI**	20	**YAE1WHI**	20			**YTF1WHI**	20	**YEA1WHI**	25
					YST21WHI	10	**YTF21WHI**	20		
25 x 16mm	**YAI2RED**	20	**YAE2RED**	20	**YST22RED**	10	**YTF22RED**	20	**YEA2RED**	25
	YAI2WHI	20	**YAE2WHI**	20	**YST22WHI**	10	**YTF22WHI**	20	**YEA2WHI**	25
32 x 12.5mm	**YAI200WHI**	20	**YAE200WHI**	20			**YTF200WHI**	20	**YEA200WHI**	25
40 x 16mm	**YAI3WHI**	5	**YAE3WHI**	5			**YTF3WHI**	5	**YEA3WHI**	25

Aperture sizes
YST21WHI: 16 x 16mm
YST22: 25 x 16mm

Aperture sizes
YTF21WHI: 16 x 16mm
YTF22: 25 x 16mm

Boxes

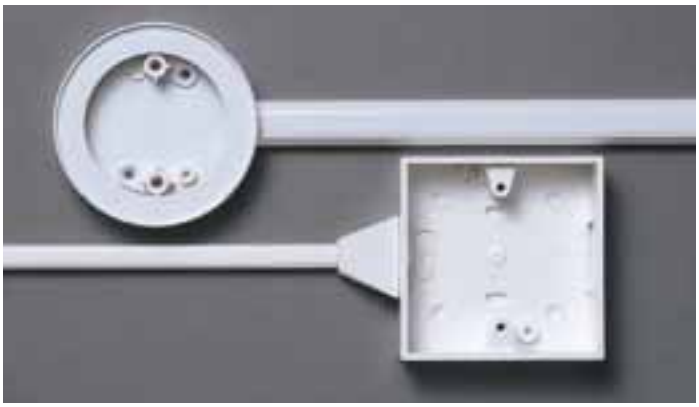
MI ACCESSORY BOX (1 ENTRY)	MI ACCESSORY BOX (2 ENTRY)	STANDARD ACCESSORY BOX (1 ENTRY)	STANDARD ACCESSORY BOX (2 ENTRY)	CIRCULAR ACCESSORY BOX (1/2 ENTRY)
				
ESU501RED 5	**ESU502RED** 5	**ESU503RED** 5	**ESU504RED** 5	**YCR502RED** 5
ESU501WHI 5	**ESU502WHI** 5	**ESU503WHI** 5	**ESU504WHI** 5	**YCR502WHI** 5

SQUARE ACCESSORY BOXES
ACCESSORY FIXING CENTRES: 60.3mm
EXTERNAL DIMENSIONS: 86 x 86 x 38mm
PILLAR THREAD SIZE: M3.5

CIRCULAR ACCESSORY BOXES
ACCESSORY FIXING CENTRES: 50.8mm and 70.0mm
EXTERNAL DIMENSIONS: 134mm diameter
PILLAR THREAD SIZE: M4
LOAD SUSPENSION: 3kg at 60°C max







Ega Communication trunking is a series of unobtrusive low profile PVCu trunkings designed to contain the smaller diameter cables used for telecommunication and signal purposes. There are three sizes available and the systems are complete with fittings to enable them to be used in conjunction with the mini trunking boxes.

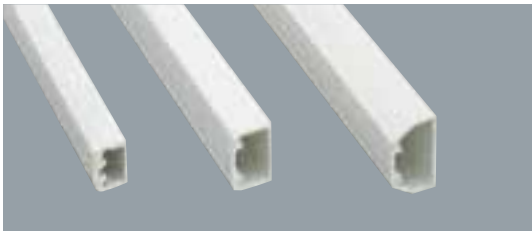
All extrusions manufactured from 90% recycled material.*

* Based on 2008 consumption.

Communication Trunking

3 METRE LENGTHS

2 METRE LENGTHS (NON UK)



11 x 8mm	**CMT1WHI**	60m	**CMT1D1WHI**	60m
16 x 10mm	**CMT3WHI**	60m		
20 x 12.5mm	**CMT4WHI**	60m		

STANDARD LENGTH: 3 metres

2 metre lengths are available for Non UK Markets.

MATERIAL: PVCu
COLOUR: White

Available in 2 metre lengths for non UK markets.

Speedfix™ Trunking

3 METRE LENGTHS

2 METRE LENGTHS (NON UK)

Spout Adaptor

Circular Box

ONE ENTRY

Circular Box Through

TWO ENTRY

Self adhesive tape should not be relied upon for permanent fixing of the Speedfix range. Additional fixing means (such as screws) should be used.









11 x 8mm	**SMT1WHI**	60m	**SMT1D1WHI**	60m	**CMA1WHI**	25		
16 x 10mm	**SMT3WHI**	60m	**SMT3D1WHI**	60m	**CMA3WHI**	25		
20 x 12.5mm	**SMT4WHI**	60m	**SMT4D1WHI**	60m	**CMA4WHI**	25	**YCR1001ELWHI** 10	**YCR1002ELWHI** 10

Available in 2 metre lengths for non UK markets.

Spout adaptors are for use with switch and socket boxes.

Circular boxes accept standard ceiling roses and pull switches. The base incorporates earth terminal facility (order terminal separately, see page 370).

LID FIXING CENTRES: 50.8mm

PILLAR THREAD SIZE: M4 (Metal inserts)

LOAD SUSPENSION: 5kg @ 60°C max

technical hotline +44 (0)1268 563720



Edge enhanced combination plate in Brushed Stainless Steel

Available on a worldwide basis, the MK Design Service is supported by a dedicated team to ensure the seamless delivery of your chosen products.
To find out more visit **www.mkelectric.co.uk**

Range	Technical Data
Wiring Devices	
MK Astral, advanced lighting system A versatile and intelligent system incorporating Zensys RF communications technology	388-416
Echo Wireless, batteryless, self-powered switch technology	417-422
White	
Logic Plus Widest selection of wiring devices in one range	423-456
Sensors A range of energy saving and lighting management products	457-467
Heating Controls A range of temperature control products for domestic heating applications	468-474
Ceiling Accessories Lampholders, pendant sets and ceiling switches	475-477
Link Plug-in connection and distribution system for lighting	478-479
Clearshave Plus Shaverlights and luminaires for bathrooms	480-481
Decorative	
Aspect Range of slimline, flawless profile devices	423-456, 482-483
Edge Function and style with very slim profile frontplate	423-456, 482, 484-487
Alloy A range of wiring devices with modern styling and finishes	423-456, 482
Albany Plus Satin Gold and Brushed Chrome devices	423-456, 482

Range	Technical Data
Modular	
Grid Plus Modular switching and monitoring system	488-493
Lighting Controls	
High Power Dimmer Range of dimmers to control large lighting loads	494-496
Boxes and Ancillary Products	
Boxes Wide selection of surface and flush mounted, metal and PVC boxes	N/A
Ancillary Products A selection of miscellaneous wiring devices	N/A
Surface	
Metalclad Plus Tough, impact resistant surface mounted devices	423-456
Portable Power	
Duraplug Durable, strong and reliable accessories	498-500
Plugs and Adaptors High quality plugs and adaptors	501
Ingress Protected	
Masterseal Plus Award winning range of weatherproof wiring devices	502-513
MK Shield Ingress protected wiring devices for domestic or small commercial applications	514-515
Commando Safetyswitch Impact resistant switches for indoors or outdoors	516-517
Commando Plugs and Sockets Comprehensive selection of industrial plugs and connectors	518-532
Commando Combination Units RCD protection with high impact PBT units	533-534
Commando Modular Combi Factory built modular system for industrial and service applications	535-536

Programming Overview

The MK Astral™ lighting control system provides flexible control of lighting to create the right ambience for any occasion. You can control lights individually or as a group, instantly setting the mood or scene, or turn all the lights in a home off with the touch of one button.

There are just four easy steps to building your MK Astral™ system.

step 1 **Selection**
Select your system's primary controller

step 2 **Inclusion**
Add all devices to the system

step 3 **Replication**
Copy the routing table to all controllers

step 4 **Association**
Create groups and scenes

step 1 Select primary controller



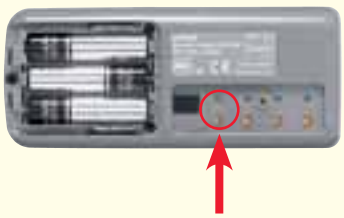
Every network must have a Primary Controller; this is used to add all devices into the system.

We recommend the Primary Controller to be a Remote Control, though it can also be a Battery Controller.

step 2 Inclusion

All devices must be included into the Primary Controller.

On the Primary Controller press **Inc** until the indicator turns **yellow** – Inclusion Mode.



Holding the Primary Controller within two metres of the device being added, press any button on the front of that device; the **Inc** indicator on the Primary Controller will flash **green** three times. This should now be repeated for all new devices to be added into the system.

Once all devices have been added, press **Inc** once again on the Primary Controller until the LED extinguishes. The Primary Controller now leaves Inclusion Mode.



step 3 Replication





The information held within the Primary Controller must be replicated to all other controllers; this step is only undertaken if you have further controllers in your system.

On the Primary Controller press **Exc** and **Asc** until the indicators turns **yellow** – Replication Transmit Mode.

Hold the Primary Controller within two metres of the secondary controller. Press **Inc** and **Asc** on the secondary controller until the indicators turn **yellow** – Replication Receive Mode.

Whilst the routing table is copied the indicators flash **yellow** and then extinguish – the Controllers now leave Replication Mode.

This should now be repeated for all Controllers in the system.

step 4 Association (detailed for a Remote Control)



The devices included within the system can now be set up within groups and scenes.

On the Remote Control press **Asc** until the indicator turns **yellow** – Association Mode.

Select the desired button for the group or scene that you wish to control, the button will illuminate blue.



Hold the Remote Control within two metres of the device being added and set the light level of that particular device to how you wish it to be in the group or scene the Status and **Asc** indicators will flash **green**.

This light level adjustment should now be repeated for all devices in that group or scene.

Once the group or scene is complete press **Asc** until the LED extinguishes and the Remote Control will leave Association Mode.

This should now be repeated for all groups or scenes you wish to configure.

MK Astral™ is a registered trademark of Novar ED&S Limited

Lighting Compatibility

Lamp type	Compatible with MK Astral™ switches
Incandescent	
GLS, Tungsten Filament, Reflector lamps	✔
Tungsten Halogen Tube	✔
LED lighting	✔ N
Compact Fluorescent	
Non dimmable	✔ N
Dimmable	✔ N (switching only)
Fluorescent Tube	
With conventional ferro-magnetic ballast (Non dimmable)	✔ N
With HF electronic ballasts (Non dimmable)	✔ N
With HF electronic ballasts (Dimmable)	✔ N (switching only)
Mains GU10	
Tungsten Filament	✔
CFL based	✔ N
LED based	✔ N
12V ELV Tungsten Halogen	
With non-dimmable wire-wound ferro-magnetic transformers	✔
With dimmable wire-wound ferro-magnetic transformers	✔
With non-dimmable electronic transformers	✔
With dimmable electronic transformers	✔

N Neutral connection or Low Energy Lighting Adaptor may be required

Note: Some compact fluorescents lamps will operate correctly without the need for a Neutral connection. However, due to the wide variety of lamps available and the varying ballast technology used within these lamps a Neutral connection is always recommended to ensure operate with most makes compact fluorescent lamps.

MK Astral™ Advanced Lighting Control dims a variety of lamps including GLS, Tungsten Filament, Reflector Lamps, Tungsten HalogenTubes and 12V ELV with dimmable Wirewound and Electronic Transformers. For further details on dimming compatibility please visit www.mkelectric.co.uk

MK Astral™ is a registered trademark of Novar ED&S Limited

Remote control



LRC14U	Remote Control, 868.4MHz, UK/UAE
LRC14S	Remote Control, 868.4MHz, Singapore
LRC14M	Remote Control, 868.1MHz, Malaysia
LRC14H	Remote Control, 919.8MHz, Hong Kong
LRC14I	Remote Control, 865.2MHz, India

Accessories:	
LRC130	Alternative printed Group/ Scene buttons

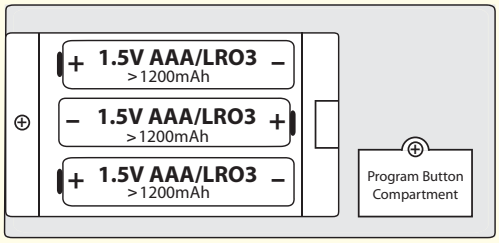
Features and Benefits

- Fully portable - can be used from any location in the system
- Can be the system Primary Controller
- Up to 75m RF range (open field)
- Can control up to 64 devices in total
- Can control up to four groups and four scenes
- Battery-powered
- Low battery indicator Long battery life, up to two years (under normal operating conditions)
- System ALL OFF control Supplied with wall and wall box mounting brackets, batteries and all fixings
- Alternative pre-printed group and scene buttons available to customise the keypad

Installation

Slide off battery cover and fit batteries as shown below:

Do not fit old and new batteries or batteries of different types. Not suitable for NiMH or NiCd rechargeable batteries.



Operation

1) Select group or scene

2) While selected group/ scene button is illuminated use centre rocker to control.

- Short press on top: Group-On / Set-scene
- Long press on top: Dim-up
- Long press on bottom: Dim-down
- Short press on bottom: OFF

System ALL-OFF: press  **for 2s**

Command Status Indications

Flash red 1 time Device not included in the network

Flash green 3 times Command received by all target switches and dimmers

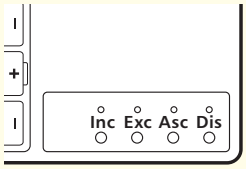
Flash red 3 times: At least 1 target device has not confirmed receipt of the command.

Flash yellow 5 times Low battery

Program Buttons and Functions

Program buttons:

Located on rear of product in program compartment.



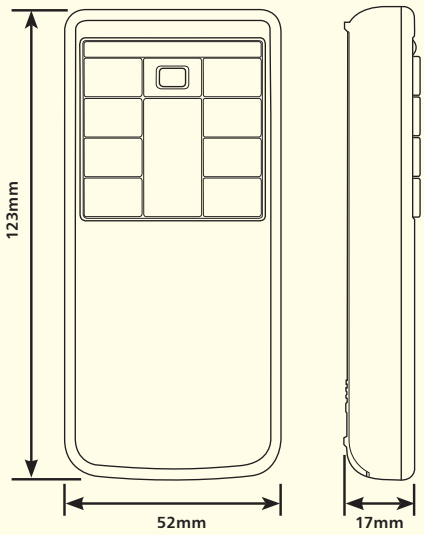
Program functions:

Include	Replicate transmit
Exclude	Replicate receive
Associate	Duplicate transmit
Disassociate	Duplicate receive
Delete group/scene	Network rediscovery
Controller ID	Update request to SUC/SIS
NVM reset	

Power Supply	
Power Source	Battery
Rated voltage	4.5V
Batteries	3 x 1.5V AAA / LR03
Battery Type	Alkaline *Note: Not suitable for NiMH or NiCd rechargeable* batteries
Battery Capacity	1200mA or greater
Typical battery life	Up to 2 years. **Note:** Based on normal operation of 12 events per day and ambient temperature of 20-25˚C. Additional operation or programming use and lower temperatures will reduce life
Low battery signal	Status indicator flashes yellow 5 times after operation

RF Performance	
RF operating frequency	
LRC14U	868.4MHz for use in UK, Ireland, UAE
LRC14S	868.4MHz for use in Singapore
LRC14M	868.1MHz for use in Malaysia
LRC14H	919.8MHz for use in Hong Kong
LRC14I	865.2MHz for use in India
RF Specification	
RF range	Up to 75m (open field)
Modulation	FM
Radiated power	<1mW

Mechanical and Environmental	
Dimensions	
123(h) x 52(w) x 17(d)mm	
Weights	
85g (excluding batteries)	
Temperature and Humidity	
Operating	0˚C to +45˚C
Storage	-20˚C to +60˚C
Humidity	95% (non condensing)



Certification and Approvals	
Certification	
CE marked	Yes
EU Directives	LVD, EMC and R&TTE
LVD	(BS) EN 60950-1 (MS) IEC 60950-1
EMC	(BS) EN 61000-6-1 / 3 (MS) IEC 61000-6-1 / 3 ETSI EN 301489-1 / 2
R&TTE	ETSI EN 300220-1 / 2
Local Regional and Other Approvals	
UK, Ireland	None required
UAE	TRA
Singapore	IDA
Malaysia	CMST
Hong Kong	None required
India	None required
Zensys	Z-Wave® compliant and interoperable

Zensys

Z-Wave® device type

- Basic class: Portable controller
- Generic class: Remote switch
- Specific class: Portable remote controller

Z-Wave® command classes

- All switch, (C)
- Association, (C)
- Basic, (C)
- Battery, (S)
- Indicator, (S)
- Manufacturer specific, (S/C)
- Multi-channel, (C)
- Multi-channel association, (S)
- Multi-level switch, (C)
- Version, (S)
- Wake Up, (S)

Where: S = Supported, C = controlled

Note: Please refer to www.mkelectric.co.uk for the latest data and information

Associations

Control modes:	Can be configured for group or scene control
No of groups/scenes:	4 groups and 4 scenes
No of Associations:	64

Note: The device can support associations to up to 64 other devices in total. Each group/scene may be associated to a maximum of 64 end points from the 64 devices.

Association Command class support

It is not possible to create or remove associations on the remote control using another controller. Associations can only be created or removed using the Remote Control's devices own internal Associate and Disassociate modes.

Inclusion

To activate device's Inclusion Mode press Inc for 2s, (only if device is the primary controller).

To include device into another system press any operation button.

Exclusion

To activate device's Exclusion Mode press Exc for 2s,

(only if device is the primary controller).

To exclude device from a system press Exc button twice in 1s.

Association

To activate device's association mode press Asc for 2s.

To create associations using another controller press normal

operation button/rocker of required channel.

Disassociation

To activate device's disassociation mode press Dis for 2s.

To remove associations using another controller press normal operation button/rocker of required channel.

Replicate transmit

To activate device's replicate transmit mode press Exc and Asc buttons for 2s, (only if device is the primary controller).

Replicate receive

To activate device's replicate receive mode press Inc and Asc buttons for 2s, (only if device is a secondary controller).

Duplicate transmit

To activate device's duplicate transmit mode press Exc and Dis buttons for 2s, (Astral™ products only).

Duplicate receive

To activate device's duplicate receive mode press Inc and Dis buttons for 2s, (Astral™ products only).

SUC/SIS updates

Periodic and routine update will be requested every 36 operations

- To initiate a manual wake-up and update request press Dis

Note: Only available if SUC/SIS in network.

Wake Up Command Class Support: A wake up period setting of 0x000000 seconds only is supported. i.e. The device will contact the specified device whenever we wake up under the above conditions.

Response to indicator request:

On receipt of an indicator request command from another Z-Wave® device each group/scene button will illuminate blue for 1s in a continuous sequence for 30s.

Z-Wave® programming power

This product is supplied preset to Low Power Configuration Mode.

Low power range: 2 - 5m.

Z-Wave® compatibility

MK Astral™ products are tested and certified as Z-Wave® compliant and are designed to work with other manufacturers Z-wave® compliant and interoperable products. Z-Wave® products of other types and applications can be added to the system and will act as repeaters if they support this functionality. This enables the system to grow and expand to other application areas as your needs develop.

LIB1, LIB2 Battery Controller





LIB1U	1 Gang Battery Controller, 868.4MHz, UK/UAE
LIB2U	2 Gang Battery Controller, 868.4MHz, UK/UAE
LIB1S	1 Gang Battery Controller, 868.4MHz, Singapore
LIB2S	2 Gang Battery Controller, 868.4MHz, Singapore
LIB1M	1 Gang Battery Controller, 868.1MHz, Malaysia
LIB2M	2 Gang Battery Controller, 868.1MHz, Malaysia
LIB1H	1 Gang Battery Controller, 919.8MHz, Hong Kong
LIB2H	2 Gang Battery Controller, 919.8MHz, Hong Kong
LIB1I	1 Gang Battery Controller, 865.2MHz, India
LIB2I	2 Gang Battery C ontroller, 865.2MHz, India

Compatible with Astral™ dimmer fascias (supplied separately)

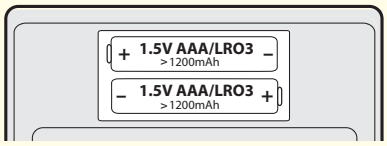
	LDF21	1 Gang Metal Dimmer Fascia		LDF11	1 Gang Plastic Dimmer Fascia
	LDF22	2 Gang Metal Dimmer Fascia		LDF12	2 Gang Plastic Dimmer Fascia

Features and Benefits

- 1 and 2 Gang versions available
- Fully portable - can be used from any location in the system
- Can be the systems primary controller
- Can control either a group or scene
- Up to 75m RF range (open field)
- Can control to up to 64 devices in total
- Maximum of 64 devices per control channel
- Battery powered
- Low battery indicator
- Long battery life, up to two years (under normal operating conditions)
- System ALL OFF control
- Astral™ holiday mode control
- Supplied with wall and wall box mounting brackets, batteries and all fixings
- Use Astral™ dimmer fascia

Installation

Unclip battery cover and fit batteries as shown below



Do not fit old and new batteries or batteries of different types.

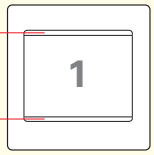
Not suitable for NiMH or NiCd rechargeable batteries.

Operation

Normal Operation

Short press ON/SET SCENE
Long press DIM UP

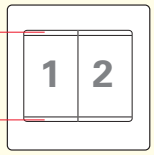
Short press OFF
Long press DIM DOWN



Default Functionality

System ALL-OFF
Long press

Holiday mode
ON Long press
OFF Short press



Only available if no associations are created on Channel 1

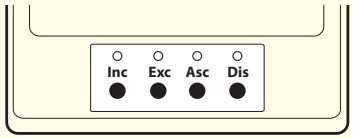
Command Status Indications

Flash red 1 time	Device not included in the network
Flash green 3 times	Command received by all target switches and dimmers
Flash red 3 times:	At least 1 target device has not confirmed receipt of the command
Flash yellow 5 times	Low battery

Program Buttons and Functions

Program buttons

Located on rear of product in program compartment



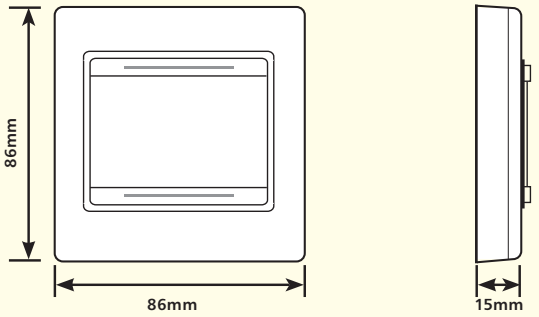
Program functions

Include	NVM reset
Exclude	Replicate transmit
Associate	Replicate receive
Disassociate	Duplicate transmit
Delete group/scene	Duplicate receive
Group/Scene control select	Network rediscovery
Controller ID	Update request to SUC/SIS

Power Supply	
Power Source	Battery
Rated voltage	3.0V
Batteries	2 x 1.5V AAA / LR03
Battery Type	Alkaline *Note: Not suitable for NiMH or NiCd rechargeable* batteries
Battery Capacity	1200mA or greater
Typical battery life	Up to 2 years. **Note:** Based on normal operation of 12 events per day and ambient temperature of 20-25°C. Additional operation or programming use and lower temperatures will reduce life
Low battery signal	Status indicator flashes yellow 5 times after operation

RF Performance	
RF operating frequency	
LIB1U, LIB2U	868.4MHz for use in UK, Ireland, UAE
LIB1S, LIB2S	868.4MHz for use in Singapore
LIB1M, LIB2M	868.1MHz for use in Malaysia
LIB1H, LIB2H	919.8MHz for use in Hong Kong
LIB1I, LIB2I	865.2MHz for use in India
RF Specification	
RF range	Up to 75m (open field)
Modulation	FM
Radiated power	<1mW

Mechanical and Environmental	
Dimensions	
with metal fascia	86(h) x 86(w) x 15(d)mm
with plastic fascia	86(h) x 86(w) x 17.5(d)mm
Weights	
1 Gang Controller batteries)	62g (excluding batteries)
2 Gang Controller	64g (excluding batteries)
Metal Fascia	54g
Plastic Fascia	30g
Temperature and Humidity	
Operating	0°C to +45°C
Storage	-20°C to +60°C
Humidity	95% (non condensing)



*Shown with metal fascia installed; with plastic fascia installed, product is 15mm thick

Certification and Approvals	
Certification	
CE marked	Yes
EU Directives	LVD, EMC and R&TTE
LVD	(BS) EN 60950-1 (MS) IEC 60950-1
EMC	(BS) EN 61000-6-1 / 3 (MS) IEC 61000-6-1 / 3 ETSI EN 301489-1 / 2
R&TTE	ETSI EN 300220-1 / 2
Local Regional and Other Approvals	
UK, Ireland	None required
UAE	TRA
Singapore	IDA
Malaysia	CMST
Hong Kong	None required
India	None required
Zensys	Z-Wave® compliant and interoperable

Zensys

Z-Wave® device type

- Basic class: Portable controller
- Generic class: Remote switch
- Specific class: Portable remote controller

Z-Wave® command classes

- All switch, (C)
- Association, (C)
- Basic, (C)
- Battery, (S)
- Indicator, (S)
- Manufacturer specific, (S/C)
- Multi-channel, (C)
- Multi-channel association, (S)
- Multi-level switch, (C)
- Version, (S)
- Wake Up, (S)

Where: S = Supported, C = controlled

Associations

Control modes: Can be configured for group or scene control

No of groups/scenes: One per channel

No of Associations: 64

Note: The device can support associations to up to 64 other devices in total. Each group/scene may be associated to a maximum of 64 end points from the 64 devices.

Inclusion

To activate device's Inclusion Mode press Inc for 2s, (only if device is the primary controller).

To include device into another system press any operation button.

Exclusion

To activate device's Exclusion Mode press Exc for 2s, (only if device is the primary controller).

To exclude device from a system press Exc button twice in 1s.

Association

To activate device's association mode press Asc for 2s.

To create associations using another controller press normal operation button/rocker of required channel.

Disassociation

To activate device's disassociation mode press Dis for 2s

To remove associations using another controller press normal operation button/rocker of required channel.

Replicate transmit

To activate device's replicate transmit mode press Exc and Asc buttons for 2s, (only if device is the primary controller).

Replicate receive

To activate device's replicate receive mode press Inc and Asc buttons for 2s, (only if device is a secondary controller).

Duplicate transmit

To activate device's duplicate transmit mode press Exc and Dis buttons for 2s, (Astral™ products only).

Duplicate receive

To activate device's duplicate receive mode press Inc and Dis buttons for 2s, (Astral™ products only).

SUC/SIS updates

Periodic and routine update will be requested every

- 24 operations on 1 Gang Products
- 36 operations on 2 Gang Products
- To initiate a manual wake-up and update request press Dis

Note: Only available if SUC/SIS in network.

Wake Up Command Class Support: A wake up period setting of 0x000000 seconds only is supported. i.e. The device will contact the specified device whenever we wake up under the above conditions.

Response to indicator request

On receipt of an indicator request command from another Z-Wave® device each channel status indicator will illuminate green for 1s in a continuous sequence for 30s.

Z-Wave® programming power

This product is supplied preset to Low Power Configuration Mode.

Low power range: 2 - 5m.

Z-Wave® compatibility

MK Astral™ products are tested and certified as Z-Wave® compliant and are designed to work with other manufacturers Z-wave® compliant and interoperable products. Z-Wave® products of other types and applications can be added to the system and will act as repeaters if they support this functionality. This enables the system to grow and expand to other application areas as your needs develop.

Note: Please refer to www.mkelectric.co.uk for the latest data and information

LIM1, LIM2 Mains Controller



LIM1U LIM2U	1 Gang Mains Controller, 868.4MHz, UK/UAE 2 Gang Mains Controller, 868.4MHz, UK/UAE
LIM1S LIM2S	1 Gang Mains Controller, 868.4MHz, Singapore 2 Gang Mains Controller, 868.4MHz, Singapore
LIM1M LIM2M	1 Gang Mains Controller, 868.1MHz, Malaysia 2 Gang Mains Controller, 868.1MHz, Malaysia
LIM1H LIM2H	1 Gang Mains Controller, 919.8MHz, Hong Kong 2 Gang Mains Controller, 919.8MHz, Hong Kong
LIM1I LIM2I	1 Gang Mains Controller, 865.2MHz, India 2 Gang Mains Controller, 865.2MHz, India

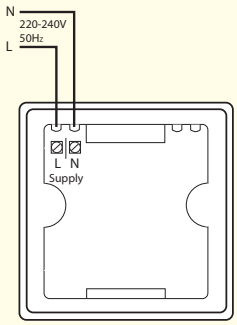
Compatible with Astral™ dimmer fascias (supplied separately)

	LDF21	1 Gang Metal Dimmer Fascia		LDF11	1 Gang Plastic Dimmer Fascia
	LDF22	2 Gang Metal Dimmer Fascia		LDF12	2 Gang Plastic Dimmer Fascia

Features and Benefits

- 1 and 2 Gang versions available
- Can control either a group or scene
- Up to 75m RF range (open field)
- Can control to up to 64 devices in total
- Maximum of 64 devices per control channel
- System ALL OFF control
- Astral™ holiday mode control
- Use Astral™ dimmer fascia

Installation



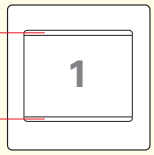
IMPORTANT
The mains supply must be protected by a 10A class B or C MCB

Operation

Normal Operation

Short press ON/SET SCENE
Long press DIM UP

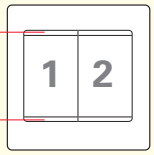
Short press OFF
Long press DIM DOWN



Default Functionality

System ALL-OFF
Long press

Holiday mode
ON Long press
OFF Short press



Only available if no associations are created on Channel 1

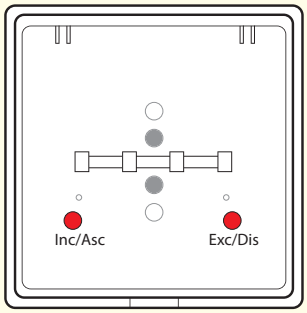
Command Status Indications

Flash red 1 time	Device not included in the network
Flash green 3 times	Command received by all target switches and dimmers
Flash red 3 times:	At least 1 target device has not confirmed receipt of the command
Low Blue	Night locator (Visible only in low light level conditions.)

Program Buttons and Functions

Program buttons

Located on front of module beneath fascia



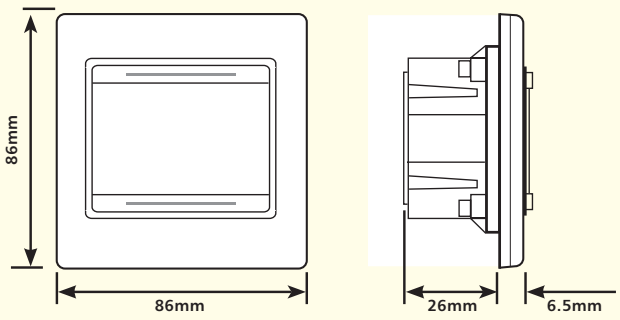
Program functions

Replicate receive	Controller ID
Group/Scene control select	NVM reset
Delete group/scene	Update request to SUC/SIS

Power Supply	
Power Source	Mains
Rated voltage	220 - 240Vac / 50Hz
Power Consumption	<1W in standby

RF Performance	
RF operating frequency	
LIM1U, LIM2U	868.4MHz for use in UK, Ireland, UAE
LIM1S, LIM2S	868.4MHz for use in Singapore
LIM1M, LIM2M	868.1MHz for use in Malaysia
LIM1H, LIM2H	919.8MHz for use in Hong Kong
LIM1I, LIM2I	865.2MHz for use in India
RF Specification	
RF range	Up to 75m (open field)
Modulation	FM
Radiated power	<1mW

Mechanical and Environmental	
Dimensions	
with metal fascia	86(h) x 86(w) x 32(d)mm
with plastic fascia	86(h) x 86(w) x 34.5(d)mm
Wall box depth	35mm (min)
Weights	
1 Gang Controller	75g
2 Gang Controller	76g
Metal Fascia	54g
Plastic Fascia	30g
Temperature and Humidity	
Operating	0°C to +45°C
Storage	-20°C to +60°C
Humidity	95% (non condensing)



* Shown with metal Fascia. Plastic Fascia is 7.5 mm thick

Certification and Approvals	
Certification	
CE marked	Yes
EU Directives	LVD, EMC and R&TTE
LVD	(BS) EN 60950-1 (MS) IEC 60950-1
EMC	(BS) EN 61000-6-1 / 3 (MS) IEC 61000-6-1 / 3 ETSI EN 301489-1 / 2
R&TTE	ETSI EN 300220-1 / 2
Local Regional and Other Approvals	
UK, Ireland	None required
UAE	TRA
Singapore	IDA
Malaysia	CMST
Hong Kong	None required
India	None required
Zensys	Z-Wave® compliant and interoperable

Zensys

Z-Wave® device type

- Basic class: Static controller
- Generic class: Remote switch
- Specific class: Not Used

Z-Wave® command classes

- All switch, (C)
- Association, (C)
- Basic, (C)
- Indicator, (S)
- Manufacturer specific, (S/C)
- Multi-channel, (C)
- Multi-channel association, (S)
- Multi-level switch, (C)
- Version, (S)

Where: S = Supported, C = controlled

Associations

Control modes: Can be configured for group or scene control

No of groups/scenes: One per channel

No of Associations: 64

Note: The device can support associations to up to 64 other devices in total. Each group/scene may be associated to a maximum of 64 end points from the 64 devices.

Inclusion

To include device into another system press any operation button.

Exclusion

To exclude device from a system press Exc button twice in 1s.

Association

To create associations using another controller press normal operation button/rocker of required channel.

Disassociation

To remove associations using another controller press normal operation button/rocker of required channel.

Replicate transmit

To activate device's replicate receive mode press Inc and Asc buttons for 2s, (only if device is a secondary controller).

SUC/SIS updates

Periodic and routine update will be requested every

- 24 operations on 1 Gang Products
- 36 operations on 2 Gang Products
- To initiate a manual wake-up and update request press Exc/Dis

Note: Only available if SUC/SIS in network.

Wake Up Command Class Support: A wake up period setting of 0x000000 seconds only is supported. i.e. The device will contact the specified device whenever we wake up under the above conditions.

Response to indicator request

On receipt of an indicator request command from another Z-Wave® device each channel status indicator will illuminate green for 1s in a continuous sequence for 30s.

Z-Wave® compatibility

MK Astral™ products are tested and certified as Z-Wave® compliant and are designed to work with other manufacturers Z-wave® compliant and interoperable products. Z-Wave® products of other types and applications can be added to the system and will act as repeaters if they support this functionality. This enables the system to grow and expand to other application areas as your needs develop.

Note: Please refer to www.mkelectric.co.uk for the latest data and information

LSM11, LSM12 10AX Switches





LSM11U LSM12U	1 Gang 10AX Switch, 868.4MHz, UK/UAE 2 Gang 10AX Switch, 868.4MHz, UK/UAE
LSM11S LSM12S	1 Gang 10AX Switch, 868.4MHz, Singapore 2 Gang 10AX Switch, 868.4MHz, Singapore
LSM11M LSM12M	1 Gang 10AX Switch, 868.1MHz, Malaysia 2 Gang 10AX Switch, 868.1MHz, Malaysia
LSM11H LSM12H	1 Gang 10AX Switch, 919.8MHz, Hong Kong 2 Gang 10AX Switch, 919.8MHz, Hong Kong
LSM11I LSM12I	1 Gang 10AX Switch, 865.2MHz, India 2 Gang 10AX Sw itch, 865.2MHz, India

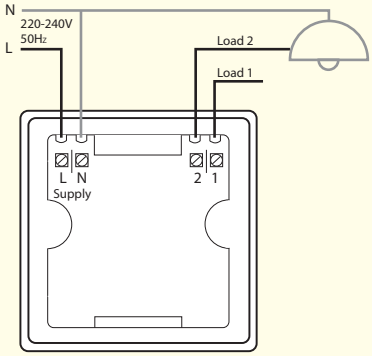
Compatible with Astral™ switch fascias (supplied separately)

	LSF21	1 Gang Metal Switch Fascia		LSF11	1 Gang Plastic Switch Fascia
	LSF22	2 Gang Metal Switch Fascia		LSF12	2 Gang Plastic Switch Fascia

Features and Benefits

- 1 and 2 Gang versions available
- Up to 75m RF range (open field)
- Can only control a group
- Can control to up to 5 devices in total
- Maximum of 5 devices per control channel
- Mains-powered
- Astral™ holiday mode occupation simulation
- Use Astral™ switch fascias

Installation



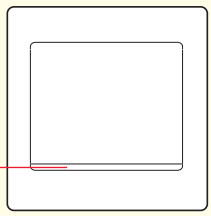
IMPORTANT
The mains supply must be protected by a 10A class B or C MCB

Neutral connection or Low Energy Lighting Adaptor may be required for following load types:

- Fluorescent tubes
- Compact fluorescent energy saving lamps
- ELV tungsten halogen lamps with electronic transformers

Operation

Normal Operation



press ON
press OFF

Command Status Indications

Flash red 1 time	Device not included in the network
Flash green 3 times	Command received by all target switches and dimmers
Flash red 3 times:	At least 1 target device has not confirmed receipt of the command
High level blue	Load ON
Low Blue	Night locator (Visible only in low light level conditions.)

Command Status Indications

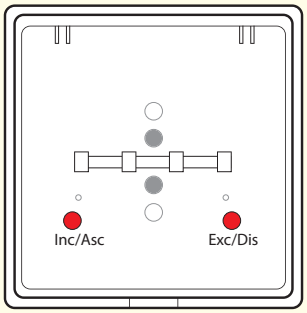
Red flash every 3s — Load switched OFF due to detection of overload or short circuit condition on load side of switch

Alternating High/Low: blue every second — Holiday mode active

Program Buttons and Functions

Program buttons

Located on front of module beneath fascia



Program functions

Delete group/scene

Update request to SUC/SIS

NVM reset

Power Supply	
Power Source	Mains
Rated voltage	220 - 240Vac / 50Hz
Power Consumption	<1W in standby

Load Specification

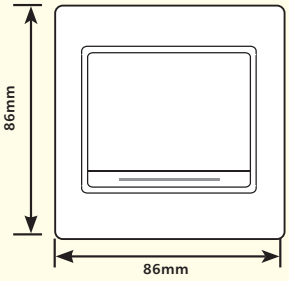
Suitable for use with the following load types and maximum load ratings only.

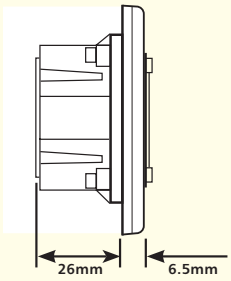
- GLS / Tungsten filament — 25 - 2400W
- Tungsten halogen — 25 - 2000W
- ELV Tungsten halogen ferro-magnetic or electronic transformers * — 25 - 1500VA
- Fluorescent tubes with ferro-magnetic * ballast and power factor correction — 25 - 1800W
- Maximum load capacitance — 140µF
- Fluorescent tubes with electronic ballast * (eg 30 x 18W tubes/ballasts) — 18 - 540W
- Compact fluorescent (low energy) lamps * — 25 - 750W

* requires Neutral connection to switch or Low Energy Lighting Adaptor.

RF Performance	
RF operating frequency	
LSM1U, LSM2U	868.4MHz for use in UK, Ireland, UAE
LSM1S, LSM2S	868.4MHz for use in Singapore
LSM1M, LSM2M	868.1MHz for use in Malaysia
LSM1H, LSM2H	919.8MHz for use in Hong Kong
LSM1I, LSM2I	865.2MHz for use in India
RF Specification	
RF range	Up to 75m (open field)
Modulation	FM
Radiated power	<1mW

Mechanical and Environmental	
Dimensions	
With metal fascia	86(h) x 86(w) x 32(d)mm
With plastic fascia	86(h) x 86(w) x 34.5(d)mm
Wall box depth	35mm (min)
Weights	
1 Gang Switch	100g
2 Gang Switch	115g
Metal Fascia	54g
Plastic Fascia	30g
Temperature and Humidity	
Operating	0°C to +45°C
Storage	-20°C to +60°C
Humidity	95% (non condensing)





* Shown with metal Fascia. Plastic Fascia is 7.5 mm thick

Certification and Approvals	
Certification	
CE marked	Yes
EU Directives	LVD, EMC and R&TTE
LVD	(BS) EN 60669-2-1 (MS) IEC 60669-2-1 SS227-2-1
EMC	(BS) EN 61000-6-1 / 3 (MS) IEC 61000-6-1 / 3 ETSI EN 301489-1 / 2
R&TTE	ETSI EN 300220-1 / 2
Local Regional and Other Approvals	
UK, Ireland	None required
UAE	TRA
Singapore	IDA
Malaysia	CMST
Hong Kong	None required
India	None required
Zensys	Z-Wave® compliant and interoperable

Zensys

Z-Wave® device type

- Basic class: Routing Slave
- Generic class: Binary Switch
- Specific class: Binary Power Switch

2 Gang Products

- Basic class: Routing Slave
- Generic class: End point 1: Binary Switch channel 1
End point 2: Binary Switch channel 2
- Specific class: End point 1: Binary Power Switch channel 1
End point 2: Binary Power Switch channel 2

Z-Wave® command classes

- All switch, (S)
- Basic, (S/C)
- Binary switch, (S)
- Indicator, (S)
- Manufacturer specific, (S/C)
- Multi-channel, (S/C)
- Multi-channel association, (S)
- Node Naming & Location, (S)
- Version, (S)

Where: S = Supported, C = controlled

Associations

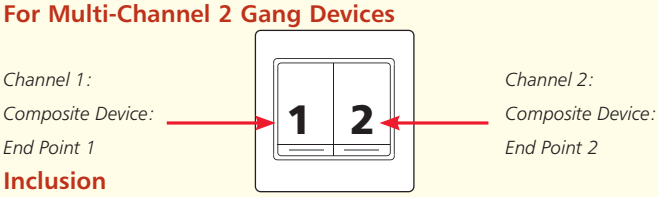
Control modes: Can be configured for group control only

No of groups/scenes: One per channel

No of Associations: 5

Note: The device can support associations to up to 5 other devices in total. Each channel may be associated to a maximum of 5 end points from the 5 devices.

For Multi-Channel 2 Gang Devices



Inclusion

To include device into another system press any operation button.

Exclusion

To exclude device from a system press Exc button twice in 1s.

Association

To create associations using another controller press normal operation button/rocker of required channel.

Disassociation

To remove associations using another controller press normal operation button/rocker of required channel.

SUC/SIS updates

Periodic and routine update will be requested every

- 24 operations on 1 Gang Products
- 36 operations on 2 Gang Products
- To initiate a manual wake-up and update request press Exc/Dis

Note: Only available if SUC/SIS in network.

Response to indicator request

On receipt of an indicator request command from another Z-Wave® device each channel status indicator will illuminate green for 1s in a continuous sequence for 30s.

Z-Wave® compatibility

MK Astral™ products are tested and certified as Z-Wave® compliant and are designed to work with other manufacturers Z-wave® compliant and interoperable products. Z-Wave® products of other types and applications can be added to the system and will act as repeaters if they support this functionality. This enables the system to grow and expand to other application areas as your needs develop.

Note: Please refer to www.mkelectric.co.uk for the latest data and information

LDM31, LDM32, LDM61 300W/600W Dimmers



LDM31U	1 Gang 300W Dimmer, 868.4MHz, UK/UAE
LDM32U	2 Gang 300W Dimmer, 868.4MHz, UK/UAE
LDM61U	1 Gang 600W Dimmer, 868.4MHz, UK/UAE
LDM31S	1 Gang 300W Dimmer, 868.4MHz, Singapore
LDM32S	2 Gang 300W Dimmer, 868.4MHz, Singapore
LDM61S	1 Gang 600W Dimmer, 868.4MHz, Singapore
LDM31M	1 Gang 300W Dimmer, 868.1MHz, Malaysia
LDM32M	2 Gang 300W Dimmer, 868.1MHz, Malaysia
LDM61M	1 Gang 600W Dimmer, 868.1MHz, Malaysia
LDM31H	1 Gang 300W Dimmer, 919.8MHz, Hong Kong
LDM32H	2 Gang 300W Dimmer, 919.8MHz, Hong Kong
LDM61H	1 Gang 600W Dimmer, 919.8MHz, Hong Kong
LDM31I	1 Gang 300W Dimmer, 865.2MHz, India
LDM32I	2 Gang 300W Dimmer, 865.2MHz, India
LDM61I	1 Gang 600W Dim mer, 865.2MHz, India

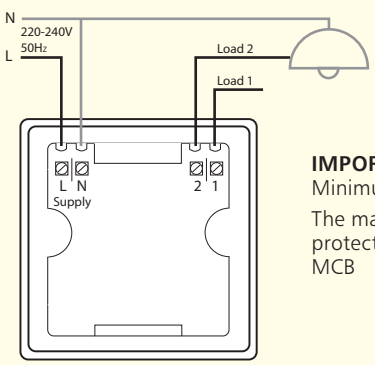
Compatible with Astral™ dimmer fascias (supplied separately)

	LDF21	1 Gang Metal Dimmer Fascia		LDF11	1 Gang Plastic Dimmer Fascia
	LDF22	2 Gang Metal Dimmer Fascia		LDF12	2 Gang Plastic Dimmer Fascia

Features and Benefits

- 1 and 2 Gang versions available
- Up to 75m RF range (open field)
- Can control either a group or scene
- Can control to up to 5 devices in total
- Maximum of 5 devices per control channel
- Mains-powered
- Astral™ holiday mode occupation simulation
- Use Astral™ dimmer fascias

Installation

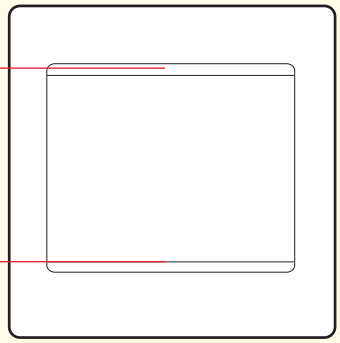


IMPORTANT
Minimum wall box depth: 35mm

The mains supply must be protected by a 10A class B or C MCB

Operation

Normal Operation



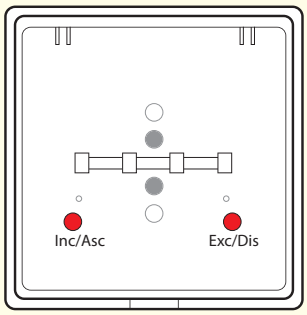
Command Status Indications

Flash red 1 time	Device not included in the network
Flash green 3 times	Command received by all target switches and dimmers
Flash red 3 times:	At least 1 target device has not confirmed receipt of the command
High level blue	Load ON
Low Blue	Night locator (Visible only in low light level conditions.)
Red flash every 3s	Load switched OFF due to detection of overload or short circuit condition on load side of switch
Alternating High/Low: blue every second	Holiday mode active

Program Buttons and Functions

Program buttons

Located on front of module beneath fascia



Program functions

Group/Scene control select

Delete group/scene

NVM reset

Update request to SUC/SIS

Power Supply	
Power Source	Mains
Rated voltage	220 - 240Vac / 50Hz
Power Consumption	<1W in standby

Load Specification

Suitable for use with the following load types and maximum load ratings only.

	1G 300W Dimmer	1G 600W Dimmer	2G 300W Dimmer
GLS Tungsten filament Tungsten halogen	25-300W	25-600W	25-300W per channel
12V ELV Tungsten halogen with wirewound or electronic transformers	35-300VA	35-600VA	35-300VA per channel

Not suitable for any other load type.

Do not use different types of lamps on the same circuit.

Remember to allow for the inefficiency and losses in the transformer when calculating dimmer loading, (e.g. a 50VA transformer will look like more than 60VA to the dimmer if it is 80% efficient).

Notes on using ELECTRONIC TRANSFORMERS:

To minimise the risk of flicker associated with using electronic transformers at low dimming levels please take note of the following installation points:

- Always follow the loading instructions for the transformer and load the transformer to a minimum of 70% of its rating
- Always use transformers from the same manufacturer and of the same type and size on each load circuit
- Load each transformer equally
- Do not use both electronic and wire-wound transformers on the same load circuit

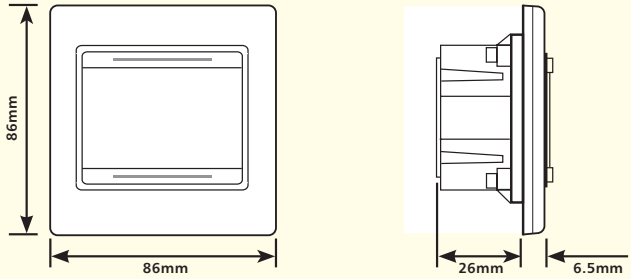
Notes on using MAGNETIC TRANSFORMERS:

- Always use transformers of a similar rating to the load connected to it
- Always follow the loading instructions for the transformer and load the transformer to at least 50% of its rating
- Remember to allow for the losses of the transformer

  (A 100VA transformer will actually load the dimmer with approx120VA (or more) depending on the transformer.)

RF Performance	
RF operating frequency	
LDM31U, LDM32U, LDM61U	868.4MHz for use in UK, Ireland, UAE
LDM31S, LDM32S, LDM61S	868.4MHz for use in Singapore
LDM31M, LDM32M, LDM61M	868.1MHz for use in Malaysia
LDM31H, LDM32H, LDM61H	919.8MHz for use in Hong Kong
LDM31I, LDM32I, LDM61I	865.2MHz for use in India
RF Specification	
RF range	Up to 75m (open field)
Modulation	FM
Radiated power	<1mW

Mechanical and Environmental	
Dimensions	
With metal fascia	86(h) x 86(w) x 32(d)mm
With plastic fascia	86(h) x 86(w) x 34.5(d)mm
Wall box depth	35mm (min)
Weights	
1 Gang Switch	100g
2 Gang Switch	103g
Metal Fascia	54g
Plastic Fascia	30g
Temperature and Humidity	
Operating	0°C to +45°C
Storage	-20°C to +60°C
Humidity	95% (non condensing)



* Shown with metal Fascia. Plastic Fascia is 7.5 mm thick

Certification and Approvals	
Certification	
CE marked	Yes
EU Directives	LVD, EMC and R&TTE
LVD	(BS) EN 60669-2-1 (MS) IEC 60669-2-1 SS227-2-1
EMC	(BS) EN 61000-6-1 / 3 (MS) IEC 61000-6-1 / 3 ETSI EN 301489-1 / 2
R&TTE	ETSI EN 300220-1 / 2
Local Regional and Other Approvals	
UK, Ireland	None required
UAE	TRA
Singapore	IDA
Malaysia	CMST
Hong Kong	None required
India	None required
Zensys	Z-Wave® compliant and interoperable

Zensys

Z-Wave® device type

- Basic class: Routing Slave
- Generic class: Multi-Level Switch
- Specific class: Multi-Level Power Switch

2 Gang Products

- Basic class: Routing Slave
- Generic class: End point 1: Multi-Level channel 1
End point 2: Multi-Level channel 2
- Specific class: End point 1: Multi-Level Power Switch channel 1
End point 2: Multi-Level Power Switch channel 2

Z-Wave® command classes

- All switch, (S)
- Basic, (S/C)
- Binary switch, (S)
- Indicator, (S)
- Manufacturer specific, (S/C)
- Multi-channel, (S/C)
- Multi-channel association, (S)
- Node Naming & Location, (S)
- Version, (S)

Where: S = Supported, C = controlled

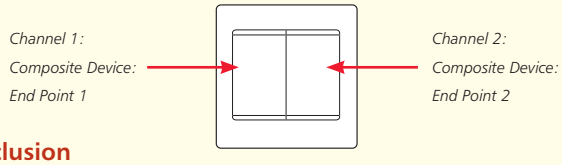
Associations

Control modes:	Can be configured for group control only
No of groups/scenes:	One per channel
No of Associations:	5

Note: The device can support associations to up to 5 other devices in total.

Each channel may be associated to a maximum of 5 end points from the 5 devices.

For Multi-Channel 2 Gang Devices



Inclusion

To include device into another system press any operation button.

Exclusion

To exclude device from a system press Exc button twice in 1s.

Association

To create associations using another controller press normal operation button/rocker of required channel.

Disassociation

To remove associations using another controller press normal operation button/rocker of required channel.

SUC/SIS updates

Periodic and routine update will be requested every

- 24 operations on 1 Gang Products
- 36 operations on 2 Gang Products
- To initiate a manual wake-up and update request press Exc/Dis

Note: Only available if SUC/SIS in network.

Response to indicator request

On receipt of an indicator request command from another Z-Wave® device each channel status indicator will illuminate green for 1s in a continuous sequence for 30s.

Z-Wave® compatibility

MK Astral™ products are tested and certified as Z-Wave® compliant and are designed to work with other manufacturers Z-wave® compliant and interoperable products. Z-Wave® products of other types and applications can be added to the system and will act as repeaters if they support this functionality. This enables the system to grow and expand to other application areas as your needs develop.

Note: Please refer to www.mkelectric.co.uk for the latest data and information

LPIR1 SP103 PIR Detectors



LPIR1U	SP103 PIR Detector, 868.4MHz, UK/UAE
LPIR1S	SP103 PIR Detector, 868.4MHz, Singapore
LPIR1M	SP103 PIR Detector, 868.1MHz, Malaysia
LPIR1H	SP103 PIR Detector, 919.8MHz, Hong Kong

Note: other regions not available.

Features and Benefits

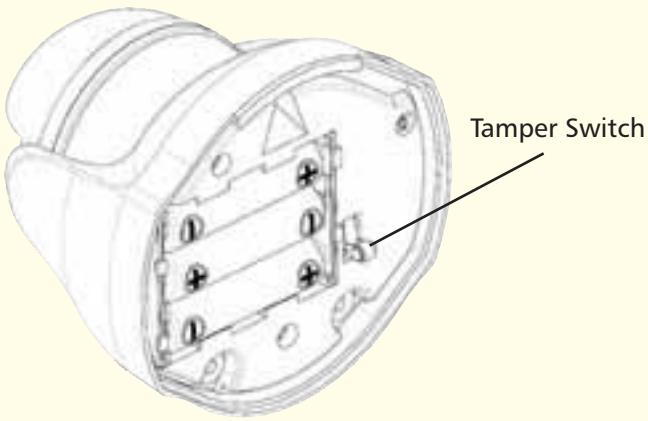
- Up to 50m RF range (open field)
- Can control a group of up to 5 devices
- 12m Range detection with 100° field of view
- Adjustable time on period
- Battery-powered
- Low battery indicator
- Supplied with batteries and wall fixings
- For indoor use only

Installation

Slide off battery cover and fit batteries as shown below

Do not mix old and new batteries or batteries of different types.

Not suitable for NiMH or NiCd rechargeable batteries.



Operation and Detection

Normal Operation

Operation Mode	24 hour
Time-On period	5 seconds - 12 minutes

Movement Detection

Range	6 - 12m
Field of View	100°

Command Status Indications

Movement Indicator

will not flash on movement detection unless the battery is low or the battery cover is removed.

Note: During normal operation there is no indication of command success/failure on the product as with other MK astra™ products.

Program Buttons and Functions

Program buttons

Tamper switch lever behind battery cover

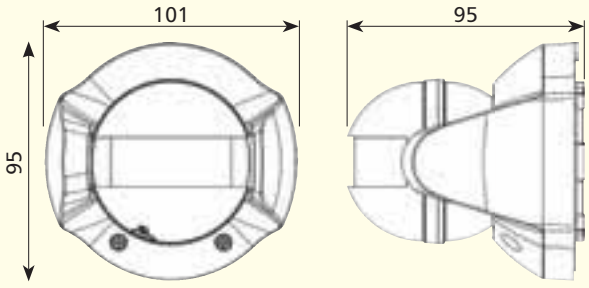
Program functions

Not applicable

Power Supply	
Power Source	Battery
Rated voltage	4.5V
Batteries	3 x 1.5V AAA / LR03
Battery Type	Alkaline *Note: Not suitable for NiMH or NiCd rechargeable batteries*
Battery Capacity	1200mA or greater
Typical battery life	Up to 1 year *Note: Based on normal operation of 8 events per day and ambient temperature of 20-25˚C. Additional operation and lower temperatures will reduce life*
Low battery signal	LED behind the lens flashes after movement is detected

RF Performance	
RF operating frequency	
LPIR1U	868.4MHz for use in UK, Ireland, UAE
LPIR1S	868.4MHz for use in Singapore
LPIR1M	868.1MHz for use in Malaysia
LPIR1H	919.8MHz for use in Hong Kong
RF Specification	
RF range	Up to 50m (open field)
Modulation	FM
Radiated power	<1mW

Mechanical and Environmental	
Dimensions	
95(h) x 95(w) x 101(d)mm	
Weights	
185g (excluding batteries)	
Temperature and Humidity	
Operating	0˚C to +45˚C
Storage	-20˚C to +60˚C
Humidity	95% (non condensing)



Certification and Approvals	
Certification	
CE marked	Yes
EU Directives	LVD, EMC and R&TTE
LVD	IEC 60950-1
EMC	ETSI EN 301489-1 / 3
R&TTE	ETSI EN 300220-1 / 2
Local Regional and Other Approvals	
UK, Ireland	None required
UAE	TRA
Singapore	IDA
Malaysia	CMST
Hong Kong	None required
Zensys	Z-Wave® compliant and interoperable

Zensys

Z-Wave® device type

- Basic class: Routing Slave
- Generic class: Binary Sensor
- Specific class: Routing Binary Sensor

Z-Wave® command classes

- Association, (S)
- Battery, (S)
- Basic, (C)
- Binary sensor, (S)
- Configuration, (S)
- Manufacturer specific, (S)
- Version, (S)
- Wake Up

Where: S = Supported, C = controlled

Associations

Control modes: Can control a group only

No of groups: One

No of Associations: 5

Note: Associations cannot be made to Channel 2 of MK Astral™ 2 Gang switches and dimmers.

Note: Only one PIR can be used per group.

Inclusion
To include the device in a system press the TAMPER switch under the back cover.

Exclusion
To exclude the device from a system press the TAMPER switch under the back cover.

Association
To create associations using a controller press the TAMPER switch under the back cover.

Disassociation
To remove associations using a controller press the TAMPER switch under the back cover.

SUC/SIS updates
Periodic and routine update will be requested every 4 hours.

Note: Only available if SUC/SIS in network.

Z-Wave® compatibility
MK Astral™ products are tested and certified as Z-Wave® compliant and are designed to work with other manufacturers Z-wave® compliant and interoperable products. Z-Wave® products of other types and applications can be added to the system and will act as repeaters if they support this functionality. This enables the system to grow and expand to other application areas as your needs develop.

Note: Please refer to www.mkelectric.co.uk for the latest data and information

LDBC1 DBMZ DC Blind Controllers



LDBC1U	DBMZ DC Blind Controller, 868.4MHz, UK/UAE
LDBC1S	DBMZ DC Blind Controller, 868.4MHz, Singapore
LDBC1M	DBMZ DC Blind Controller, 868.1MHz, Malaysia
LDBC1H	DBMZ DC Blind Controller, 919.8MHz, Hong Kong
LDBC1I	DBMZ DC Blind Controller, 865.2MHz, India

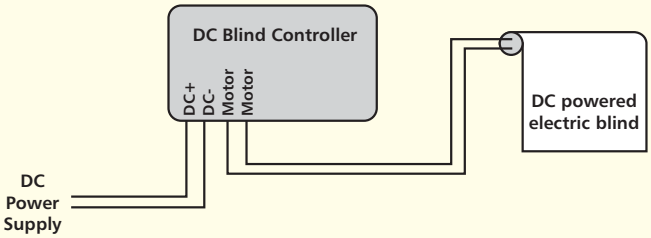
Features and Benefits

Single channel controller for use with DC powered motorised blinds.

Note: Motor supplied with blind and not supplied by MK.

- Up to 50m RF range (open field)
- On board control of blind
- Self calibrating during use
- DC Powered

Installation



Important

Upper and Lower end stops of blind must be set and locked before calibration, (see blind instructions).

Operation and Detection

Using on board buttons

- Press OPEN to raise the blind
- Press CLOSE to lower the blind
- Press either button to stop the blind at its current position

From another MK Astral™ Controller

- Press On/Dim-up to raise the blind
- Press Off/Dim-down to lower the blind
- To set the blind to an intermediate position - hold the dim-up/down button down and release to stop when the blind is in position

Command Status Indications

Motor Status LED

Red:	Calibration required
Green:	Calibration activated and in progress

Zensys Status LED

Green flash:	Receipt of valid Z-Wave® command
Red flash:	Error

Note: During normal operation there is no indication of command success/failure on the product as with other MK Astral™ products.

Program Buttons and Functions

Program buttons

LEARN button on side of unit

Program functions

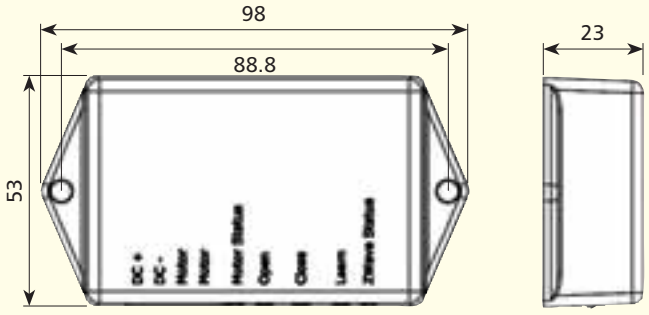
Calibration

Reversal of motor direction control

Power Supply	
Power Source	DC
Rated voltage	8 - 30V
Rated load current:	5A
Power Consumption	<1W in standby

RF Performance	
RF operating frequency	
LDBC1U	868.4MHz for use in UK, Ireland, UAE
LDBC1S	868.4MHz for use in Singapore
LDBC1M	868.1MHz for use in Malaysia
LDBC1H	919.8MHz for use in Hong Kong
LDBC1I	865.2MHz for use in India
RF Specification	
RF range	Up to 50m (open field)
Modulation	FM
Radiated power	<1mW

Mechanical and Environmental	
Dimensions	
53(h) x 98(w) x 23(d)mm	
Weights	
65g	
Temperature and Humidity	
Operating	0˚C to +45˚C
Storage	-20˚C to +60˚C
Humidity	95% (non condensing)



Certification and Approvals	
Certification	
CE marked	Yes
EU Directives	LVD, EMC and R&TTE
LVD	EN 60335-1 EN 60335-97
EMC	EN 61326 IEC 61000-6-1 IEC 61000-3-2 IEC 61000-3-3 ETSI EN 300683
R&TTE	ETSI EN 300220
Local Regional and Other Approvals	
UK, Ireland	None required
UAE	TRA
Singapore	IDA
Malaysia	CMST
Hong Kong	None required
India	None required
Zensys	Z-Wave® compliant and interoperable

Zensys

Z-Wave® device type

- Basic class: Routing Slave
- Generic class: Multi-Level Switch
- Specific class: Multi-Position Motor

Z-Wave® command classes

- All Switch, (S)
- Basic, (C)
- Configuration, (S)
- Version, (S)
- Multi Level Switch, (S)
- Scene Activation, (S)
- Scene Actuator Configuration, (S)
- Manufacturer specific, (S)

Where: S = Supported, C = controlled

Inclusion

To include the device from a system press the LEARN button.

Exclusion

To exclude the device from a system press the LEARN button.

Association

To create associations using a controller press the LEARN button.

Disassociation

To remove associations using a controller press the LEARN button.

Configuration Command Class

Parameter 1: Device calibration status

Read:	0	device not calibrated
	1	device calibrated
Write:	0	no action
	1	start calibration process

Parameter 2: Motor Direction Setting

Read:	0	normal
	1	reversed
Write:	0	set to normal and start calibration
	1	set to reverse and start calibration

Z-Wave® compatibility

MK Astral™ products are tested and certified as Z-Wave® compliant and are designed to work with other manufacturers Z-wave® compliant and interoperable products. Z-Wave® products of other types and applications can be added to the system and will act as repeaters if they support this functionality. This enables the system to grow and expand to other application areas as your needs develop.

Note: Please refer to www.mkelectric.co.uk for the latest data and information

LPTSM1 AN148 Plug-Through Switch



LPTSM1U	AN148 Plug-Through Switch Module, 868.4MHz, UK/UAE
LPTSM1S	AN148 Plug-Through Switch Module, 868.4MHz, Singapore
LPTSM1M	AN148 Plug-Through Switch Module, 868.1MHz, Malaysia
LPTSM1H	AN148 Plug-Through Switch Module, 919.8MHz, Hong Kong

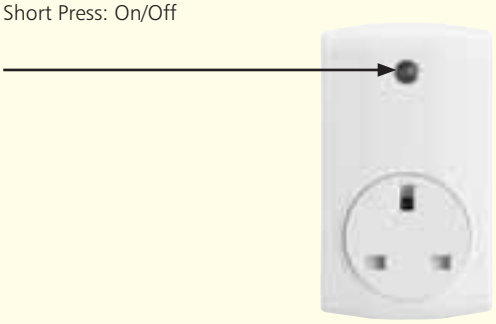
Features and Benefits

- Allows control of plug in stand and table lamps
- Load status indicator
- Mains powered
- Internal fuse protection against overload or short circuit
- Low standby power consumption
- Up to 30m RF range (open field)
- Responds to system All_Off commands

Note: This product does not participate in MK Astral™ Holiday mode

Operation

Short Press: On/Off



Command Status Indications

Red Load ON

10 Red flashes Switch module controlled by LPIR1 SP103

PIR and tamper switch activated.

Note: Load flashes at same time.

Program Buttons and Functions

Program buttons

Normal operation button on front of module

Program functions

Not applicable

Power Supply	
Power Source	Mains
Rated voltage	220 - 240Vac / 50Hz
Power Consumption	<1.2W in standby

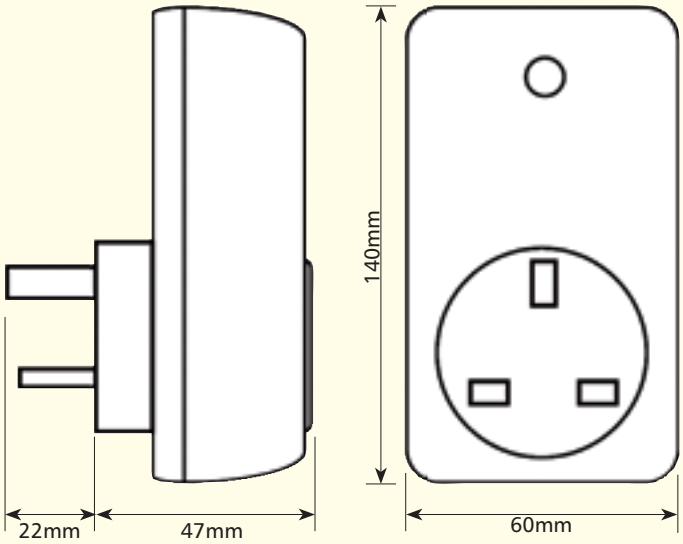
Load Specification:

Suitable for use with the following load types and load ratings.

GLS / Incandescent, Tungsten Filament	25 - 600W
Mains Tungsten Halogen	25 - 600W

RF Performance	
RF operating frequency	
LPTSM1U	868.4MHz for use in UK, Ireland, UAE
LPTSM1S	868.4MHz for use in Singapore
LPTSM1M	868.1MHz for use in Malaysia
LPTSM1H	919.8MHz for use in Hong Kong
RF Specification	
RF range	Up to 30m (open field)
Modulation	FM
Radiated power	<1mW

Mechanical and Environmental	
Dimensions	
104(h) x 60(w) x 47(d)mm (excluding plug pins)	
Weights	
145g	
Temperature and Humidity	
Operating	0˚C to +45˚C
Storage	-20˚C to +60˚C
Humidity	95% (non condensing)



Certification and Approvals	
Certification	
CE marked	Yes
EU Directives	LVD, EMC and R&TTE
LVD	IEC 61058-1 BS 1363
EMC	ETSI EN 301489-1 / 3
R&TTE	ETSI EN 300220-1 / 2
Local Regional and Other Approvals	
UK, Ireland	None required
UAE	TRA
Singapore	IDA
Malaysia	CMST
Hong Kong	None required
Zensys	Z-Wave® compliant and interoperable

Zensys

Z-Wave® device type

- Basic class: Slave
- Generic class: Binary Switch
- Specific class: Binary Power Switch

Z-Wave® command classes

- Alarm, (S)
- All Switch, (S)
- Basic, (S)
- Binary switch, (S)
- Manufacturer specific, (S)
- Protection, (S)
- Version, (S)

Where: S = Supported, C = controlled

Associations

The product cannot control other Z-Wave® devices.

Inclusion

To include the device in a system press the OPERATION BUTTON on the front of the module.

Exclusion

To exclude the device from a system press the OPERATION BUTTON on the front of the module.

Association

To create associations using a controller press the TAMPER OPERATION BUTTON on the front of the module.

Disassociation

To remove associations using a controller press the OPERATION BUTTON on the front of the module.

Protection Command Class Parameters

Allows local control of the lamp at the module to be disabled.

Setting	Description
0	Local operation possible
2	Local operation disabled - module can only be controlled remotely

Alarm Command Class Parameters

On receipt of an Alarm Report, (Alarm Type 0x01 and Level 0x11), the indicator and load will flash on and off for 10s.

SUC/SIS updates

Network updates from SUC/SIS devices are not required or applicable to slave devices.

Z-Wave® compatibility

MK Astral™ products are tested and certified as Z-Wave® compliant and are designed to work with other manufacturers Z-wave® compliant and interoperable products. Z-Wave® products of other types and applications can be added to the system and will act as repeaters if they support this functionality. This enables the system to grow and expand to other application areas as your needs develop.

Note: Please refer to www.mkelectric.co.uk for the latest data and information

LPTDM1 AD131 Plug-Through Dimmer



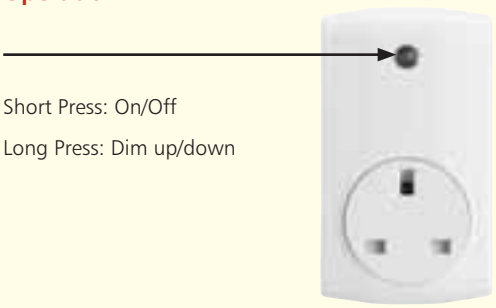
LPTDM1U	AD131 Plug-Through Dimmer Module, 868.4MHz, UK/UAE
LPTDM1S	AD131 Plug-Through Dimmer Module, 868.4MHz, Singapore
LPTDM1M	AD131 Plug-Through Dimmer Module, 868.1MHz, Malaysia
LPTDM1H	AD131 Plug-Through Dimmer Module, 919.8MHz, Hong Kong

Features and Benefits

- Allows control of plug in stand and table lamps
- Load status indicator
- Mains powered
- Internal fuse protection against overload or short circuit
- Low standby power consumption
- Up to 30m RF range (open field)
- Responds to system All_Off commands

Note: This product does not participate in MK Astral™ Holiday mode

Operation



Short Press: On/Off

Long Press: Dim up/down

Command Status Indications

Red	Load ON
10 Red flashes	Switch module controlled by LPIR1 SP103 PIR and tamper switch activated.
	Note: Load flashes at same time.

Program Buttons and Functions

Program buttons

Normal operation button on front of module

Program functions

Not applicable

Power Supply	
Power Source	Mains
Rated voltage	220 - 240Vac / 50Hz
Power Consumption	<1.2W in standby

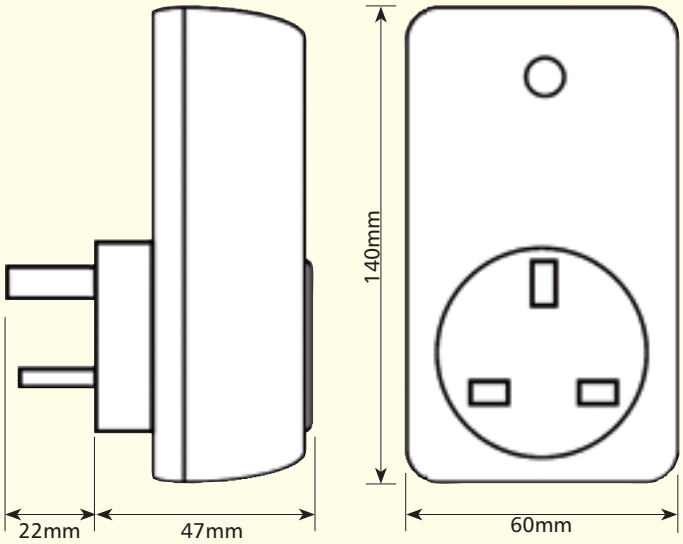
Load Specification:

Suitable for use with the following load types and load ratings.

GLS / Incandescent, Tungsten Filament	25 - 400W
Mains Tungsten Halogen	25 - 400W

RF Performance	
RF operating frequency	
LPTDM1U	868.4MHz for use in UK, Ireland, UAE
LPTDM1S	868.4MHz for use in Singapore
LPTDM1M	868.1MHz for use in Malaysia
LPTDM1H	919.8MHz for use in Hong Kong
RF Specification	
RF range	Up to 30m (open field)
Modulation	FM
Radiated power	<1mW

Mechanical and Environmental	
Dimensions	
104(h) x 60(w) x 47(d)mm (excluding plug pins)	
Weights	
150g	
Temperature and Humidity	
Operating	0˚C to +45˚C
Storage	-20˚C to +60˚C
Humidity	95% (non condensing)



Certification and Approvals	
Certification	
CE marked	Yes
EU Directives	LVD, EMC and R&TTE
LVD	IEC 61058-1 BS 1363
EMC	ETSI EN 301489-1 / 3
R&TTE	ETSI EN 300220-1 / 2
Local Regional and Other Approvals	
UK, Ireland	None required
UAE	TRA
Singapore	IDA
Malaysia	CMST, ST
Hong Kong	None required
Zensys	Z-Wave® compliant and interoperable

Zensys

Z-Wave® device type

- Basic class: Slave
- Generic class: Multilevel Switch
- Specific class: Multilevel Power Switch

Z-Wave® command classes

- Alarm, (S)
- All Switch, (S)
- Basic, (S)
- Multilevel switch, (S)
- Manufacturer specific, (S)
- Protection, (S)
- Version, (S)

Where: S = Supported, C = controlled

Associations

The product cannot control other Z-Wave® devices.

Inclusion

To include the device in a system press the OPERATION BUTTON on the front of the module.

Exclusion

To exclude the device from a system press the OPERATION BUTTON on the front of the module.

Association

To create associations using a controller press the TAMPER OPERATION BUTTON on the front of the module.

Disassociation

To remove associations using a controller press the OPERATION BUTTON on the front of the module.

Protection Command Class Parameters

Allows local control of the lamp at the module to be disabled.

Setting	Description
0	Local operation possible
2	Local operation disabled - module can only be controlled remotely

Alarm Command Class Parameters

On receipt of an Alarm Report, (Alarm Type 0x01 and Level 0x11), the indicator and load will flash on and off for 10s. SUC/SIS updates

SUC/SIS updates

Network updates from SUC/SIS devices are not required or applicable to slave devices.

Z-Wave® compatibility

MK Astral™ products are tested and certified as Z-Wave® compliant and are designed to work with other manufacturers Z-wave® compliant and interoperable products. Z-Wave® products of other types and applications can be added to the system and will act as repeaters if they support this functionality. This enables the system to grow and expand to other application areas as your needs develop.

Note: Please refer to www.mkelectric.co.uk for the latest data and information

Transmitters, Receivers and Accessories

Features

- Wireless and Batteryless – using RF technology with ranges up to 300metres in ideal conditions
- Available in all MK wiring device aesthetics
- Quick and easy to install with no need for cabling from the switch to the lighting circuit
- Robust Metalclad Plus and Masterseal available
- 400w and 10AX receiver/repeaters available to cover most installation needs
- Switch Receivers are capable of switching all lighting types

Description

Echo™ is an innovative range of entirely wireless, batteryless and self powered switches, only available from MK Electric.

Wireless – allows for instant switch installation and location flexibility, reducing disruption and cost.

Batteryless – low maintenance and low running costs makes echo a very versatile and sustainable option.

Self Powered – using innovative technology to 'harvest' energy.

Echo™ Installer Guide

1. INTRODUCTION

The MK Echo™ range of products are different from all other products in MK's Wiring Devices portfolio in so far as the "switches" are RF transmitters which communicate with Switch Receivers. It is the Switch Receivers that actually switch the mains power.

Echo™ Transmitters send an RF signal at 868.3 MHz. The unique feature of these products is that the signal transmission is made without the need for mains power, or batteries.

Compared to installing hard-wired systems, wireless systems are much simpler and provide the flexibility to relocate or add to a system.

A symbol is visible on all Switch Receivers to indicate the position of the antenna. Although not always possible, the best reception will always be achieved if the front face of the Transmitter is directly facing the surface of the Switch Receiver on which the antenna symbol is shown.

Based on the physical principle of the propagation of radio waves, certain basic conditions should be observed. The following simple recommendations are provided to ensure successful installation and reliable operation of a robust radio network.

NOTE: A FIELD STRENGTH TEST MEASUREMENT SHOULD BE CARRIED OUT PRIOR TO EACH INSTALLATION TO ENSURE COMPLETE RELIABILITY.

2. PRINCIPLES OF RADIO SIGNALS IN BUILDINGS

As stated in the introduction, Echo™ Transmitters send wireless transmissions to the echo™ Switch Receivers. The receiver checks the incoming signal for accuracy and uses the data to control outputs. Radio signals are electromagnetic waves; hence the signal becomes weaker the further it travels.

Please note that RF signals also decrease in strength when they pass through certain materials between the transmitted signal and the receiver.

While radio waves can penetrate a wall, they are dampened more than on a direct line-of-sight path. A few examples of different types of wall and the realistic typical reduction in signal strength that can be seen are:

MATERIAL	ATTENUATION
Wood, plaster, uncoated glass, with no metal content	0 – 10%
Brick, pressed board	5 – 35%
Ferro-concrete	10 – 90%
Metal, aluminium lining	90 – 100%

In practice, this means that the material used in a building must be taken into consideration during any assessment for radio coverage.

Here are some typical guideline figures when using Logic Plus style Transmitters with plastic frontplates:

Line-of-sight connections:	typically 30m range in corridors, or up to 100m in halls
Plasterboard walls / dry wood:	typically 30m range, through 5 walls
Brick walls / aerated concrete:	typically 20m range, through 3 walls
Ferro-concrete walls / ceilings:	typically 10m range, through 1 ceiling

All other Transmitters in the range that have metal frontplates, do of course cause a reduction in the signal strength and therefore the transmission distance. Generally, the line of site distance in a hall is reduced from 100m described above for Logic Plus, down to 30m.

Echo™ is a registered trademark of Novar ED&S Limited

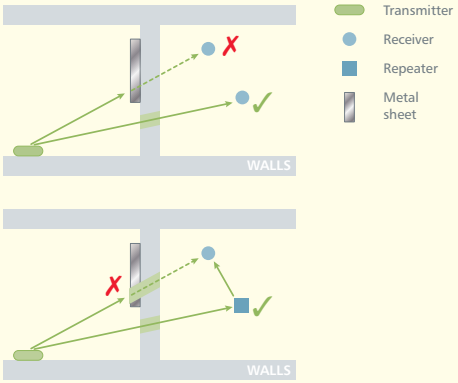
3. SCREENING

Objects made of metal, such as wall reinforcements, the metal foil often used in certain forms of insulation, or metallised heat protected glass, reflect electromagnetic waves and thus create what is known as a radio shadow and thereby a reduction in transmission distance.

The main factors decreasing coverage include:

- A Transmitter mounted on metal surfaces (typically 30% loss of range).
- Transmitters with metal frontplates (typically 60% loss of range).
- Hollow lightweight walls filled with insulating wool on metal foil.
- Inserted ceilings with panels made of metal or carbon fibre.
- Lead glass or glass with metallised coating, steel furniture.

Please note: Fire-safety walls, elevator shafts, staircases and supply areas should be considered as screening.



Simple example of a possible screening problem.

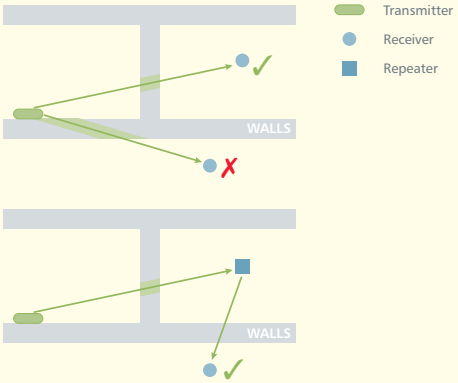
Depending on the material used to build the walls and assuming the distance between the transmitters and receivers are within specification, the illustrations above show a typical screening problem.

For the best range performance a minimum distance of 10mm to 20mm should be allowed from the whole length of the antenna to any conductive objects, which effectively means the area surrounding the Switch Receiver module.

Avoid screening by repositioning the Transmitter and / or Switch Receiver away from the screening objects (radio shadow), or if this is not possible, by using a Repeater.

4. PENETRATION ANGLE

The angle at which the transmitted signal hits the wall is very important. The effective wall thickness – and with it the signal attenuation – varies according to this angle. Signals should be transmitted as directly as possible through the wall. Wall niches should be avoided.

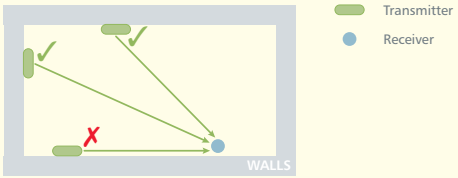


Avoid an unfavourable penetration angle by repositioning the Transmitter and / or Receiver, or by using a Repeater.

Do not position a Switch Receiver behind a Transmitter. In this position the signal strength is greatly reduced, even if there is no wall in-between.

5. ANTENNA INSTALLATION

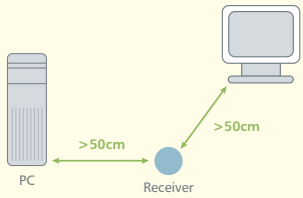
Switch Receivers should not be installed on the same wall as the Transmitter. When positioned near a wall, the radio waves are likely to be subject to interfering dispersions or reflections.



In a similar manner to the comment in the previous section, positioning transmitters and receivers along the same wall will mean the signal strength is greatly reduced.

6. DISTANCE BETWEEN SWITCH RECEIVERS AND A SOURCE OF INTERFERENCE

The distance between Switch Receivers and other transmitters (e.g. GSM / DECT / wireless LAN) or high-frequency sources of interference (computers, audio and video equipment) should be at least 500mm. However, Echo Transmitters can be installed next to any other high-frequency transmitter without a problem.



7. USE OF REPEATERS

In the case of poor reception, it may be helpful to use a Repeater.

The Echo Repeater (K5414R) does not require any configuration (e.g. programming) and will become operational simply by connecting it to the mains supply. The new 10AX Switch Receiver/Repeater (K5420R) is also a repeater when not programmed with any switches. The various possibilities of use are shown by the illustrations in sections 3. SCREENING and 4. PENETRATION ANGLE.

A Repeater has similar requirements in being positioned as a Switch Receiver, i.e. it too has an antenna and needs to receive the signal from the Transmitter and be within range of the Switch Receiver with which it is intended to communicate.

While planning, it may be worth considering retrofitting the system with a Repeater.

Only one repeater is intended for use in any single installation. Using more than one repeater is counterproductive (higher cost, cross-signal interference, etc).

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8. FIELD STRENGTH INDICATOR

The K5419R is a mobile Field Strength Indicator enabling the installer to determine the ideal mounting positions for Transmitters and Receivers. Furthermore, faulty connections of devices already installed can be checked. The unit shows the field intensities of radio signals received and any interfering radio signals in the 868MHz range.

Using the Field Strength Indicator allows the installer to review the strength of received signals at the proposed receiver locations – to ensure reliable operation you should aim to have consistent GREEN or AMBER signals on the indicator.

The meaning of the four LEDs at the top section of the Field Strength Indicator, are as follows:

- The right hand AMBER LED is headed "Telegram Valid". This signifies that an 868MHz signal has been detected.
- The left hand RED LED signifies that the signal strength is insufficient for a good installation. This LED will be illuminated immediately when the Power button is switched on.
- The AMBER "Class A" LED signifies that the installation will be good. The only proviso to this is that the Switch Receiver is not to be recessed in the wall or have any further potential screening situated around it, which could further increase signal attenuation.
- GREEN, the "Class B" LED, ensures an excellent installation, even if there is a little further screening caused, for instance by mounting it below a wall surface, assuming this is not in a metal box.

To get the best results, always hold the Transmitter exactly where it is intended to be installed and place the Field Strength Indicator exactly where the Receiver will be installed.

When the Transmitter is operated and the GREEN LED is illuminated, this signals that the receiving field force possesses sufficient power reserve for a reliable installation. There will be generous provision for subsequently changing conditions of the surroundings (i.e. additional screening caused by lightweight walls, shadowing by people etc.).

If the signal received is AMBER, repeat the test three times. If three AMBERS or a mixture of AMBER and GREEN are received, the installation will be good. The only proviso to this is that the Receiver is not to be recessed in the wall or further screened in any way, which in itself would increase any signal attenuation.

If just the RED LED is illuminated, this indicates that the present intended installation is not acceptable.

If the signal is not good enough in the initial layout, consider rearranging the position of the Switch Receiver to see if the signal strength can be improved.

How to use the Field Strength Indicator:

Person 1 operates the Transmitter and generates the radio signal by pressing the switch. Person 2 checks the field strength received on the display of the device and thus determines the ideal position.

Alternatively, if conducting the investigation alone, press the "1 min." button on the Field Strength Indicator, then from the moment of pressing the Transmitter, you have that long to return to the indicator to determine the suitability of the proposed installation.



Field Strength Indicator K5419R

The Field Strength Indicator can be used for on-site determination of the ideal mounting position of the Transmitter and for identification of an interfering radio signal.

Even after careful planning, the Field Strength Indicator should be used to verify proper reception at the Switch Receiver position during installation.

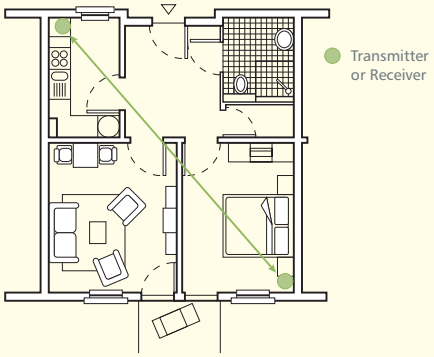
9. PLANNING INFORMATION FOR RESIDENTIAL BUILDINGS

For applications restricted to one or two rooms, e.g. when retrofitting a switch, the direct transmission range will normally be adequate. For applications "throughout" a building, the following differentiations must be made:

Flats, terraced houses and single-family houses of up to 400sqm.

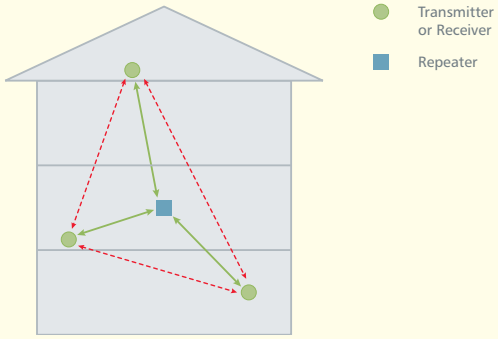
- Larger residential units with 3 rooms or more (living room and bedrooms) should be fitted with a Repeater. The Repeater should be centrally placed (e.g. in the centre of the middle floor).

Small residential unit (up to 3 walls and 1 ceiling)



Bedsit or up to 2 floors in a townhouse: the direct transmission range is usually adequate.

Multi-room flat and one-family house (more than 3 walls, more than 1 ceiling)



To ensure radio coverage in a larger residential unit, it is generally advisable to install a central Repeater.

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10. TROUBLESHOOTING

The foregoing information on selecting the ideal place of installation for Transmitters and Switch Receivers has been provided to ensure a smooth operation of the devices. If, however, you still experience problems, please refer first to the following table for troubleshooting:

FAULT	POSSIBLE CAUSE	CHECKING AND POTENTIAL REMEDY
No transmission received	Transmitter fails to transmit	**Close to the Transmitter (distance of around 20-50cm), the Field Strength Indicator does not receive a transmission signal:** Activate the Transmitter, the GREEN LED fails to illuminate. Result – The Transmitter appears to be faulty. Replace the Transmitter.
	Transmitter installed outside the receiver range	**Near the receiver (distance of around 20 - 50cm), the Field Strength Indicator does not receive a transmission signal:** Activate the Transmitter, the GREEN and AMBER LEDs fail to illuminate. Result – Reposition Transmitter or Switch Receiver and follow the information on coverage and installation. Possible need for a Repeater to be added.
	Transmitter was removed (or maybe exchanged)	Always remember to delete the Transmitter from the Switch Receiver's memory before removing it, and/or always add any new transmitter to the Switch Receiver's memory.
	Receiver does not receive	**Close to the Switch Receiver the Field Strength Indicator demonstrates good reception of the transmitted signal:** Activate the Transmitter; the GREEN or AMBER LED of the Field Strength Indicator is illuminated. Result – Check the receiver is functioning and replace the Switch Receiver if necessary.
	Transmitter not programmed (or wrong Transmitter programmed)	Re-programme the Transmitter into the Switch Receiver.
	Some form of jamming is present	The GREEN Class A or AMBER Class B LEDs of the Field Strength Indicator are illuminated consistently: but the "Telegram Valid" LED is not illuminated. Result – There is some form of "jamming" occurring. Find and remove the source of jamming.
	High-frequency jamming near receiver	Move cause of jamming (telephone, PC etc.) at least 50cm away from the Switch Receiver.
Transmission only intermittently received	Receiver is placed at the limit of the transmitter's range	**When placed near the Switch Receiver (at a distance of around 20-50cm) the Field Strength Indicator does not receive a proper transmission signal:** When a Transmitter is operated, neither the GREEN nor AMBER classification LEDs of the Field Strength Indicator are illuminated, but the AMBER "Telegram Valid" LED is illuminated. Result – Poor reception, consider repositioning either the Transmitter or Switch Receiver, or alternatively use a Repeater.
	Occasional change in environmental conditions (cupboard, door, plants, people, interferes with transmission signal)	Check the distance from high-frequency sources of interference, should be at least 50cm. Alternatively, the Switch Receiver has been placed at the limit of the Transmitter's range.
	The position of the transmitter changes occasionally (e.g. transmitter fitted to a mobile object)	Ensure any movement does not cause the Transmitter to move outside the reception range.
	Some form of jamming is present	The GREEN or AMBER classification LEDs are illuminated only intermittently, but the AMBER "Telegram Valid" LED remains off (no valid echo™ transmission). Result – remove the cause of the jamming.

11. DISCLAIMER

The information provided in this document describes typical features of the Echo™ system and should not be misunderstood as specifying operating characteristics. No liability is assumed for errors and / or omissions. We reserve the right to make changes without prior notice.

To find out more, visit: **www.mkelectric.co.uk**

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Transmitters

Standards and approvals

BS EN 60669-1, BS EN 60669-2-1,
ETSI EN301 489-1 & -3, ETSI EN61000-6-2,
ETSI EN300 220-3

Technical specification

Physical
Operating temperature:
-5°C to + 40°C

Operating frequency:
868.3 MHz

IP rating:
IP2XD

Max. Installation altitude:
2000 meters





Dimensions

Transmitters: 86mm x 86mm

Fixing centres: 60.3mm

Mounting Transmitters

- All Transmitters can be mounted to any 1-gang back box.
- All can be mounted directly to the wall surface – screws supplied.
- All can be mounted to back boxes – screws supplied.
- Logic Plus and Aspect type Transmitters can also be mounted using supplied adhesive pads

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Switch Receivers and Repeater

Standards and approvals

BS EN 60669-1, BS EN 60669-2-1,
ETSI EN301 489-1 & -3, ETSI EN61000-6-2,
ETSI EN300 220-3

Technical specification

ELECTRICAL

K5418R
Voltage rating:
250V a.c. 50Hz

Current ratings:
This is a small load switch receiver that can be used typically for 400W resistive loads and 360W inductive.

Terminals:
Terminal screw size: M2.6
Rated terminal screw torque: 0.4 Nm

Terminal capacity:
Single wire (solid): 1.5 mm^2
Stranded wire (flex.): 1.0 mm^2
Stranded wire with ferrules: 0.75 mm^2

K5420R (When used as a receiver)
Voltage rating:
250V a.c. 50Hz

Current ratings:
10AX – No de-rating when used on standard magnetic ballast fluorescent loads.

Terminals:
Terminal screw size M3
Rated terminal screw torque: 0.5 Nm

Terminal capacity:
4 x 1mm^2
3 x 1.5mm^2
2 x 2.5mm^2

PHYSICAL
Operating temperature:
-5°C to + 40°C

IP rating:
IP2XD

Max. Installation altitude:
2000 meters



K5418R



K5414R



K5420R

K5420R

The 10AX Receiver/Repeater can function both as a 1 level repeater and as a 10AX Switch Receiver.

K5414R

The Repeater does not pass current, but all other details are the same as the 10AX Switch Receiver/ Repeater K5420R.

Dimensions

10AX Switch Receiver/Repeater – K5420R

Length: 175.5mm

Width: 50.3mm

Height: 33.25mm

1 Level Repeater - K5414R

Length: 175.5mm

Width: 50.3mm

Height: 33.25mm

Small Load Switch Receiver – K5418R

Length: 47.4mm

Width: 34.6mm

Height: 28.8mm

For complete technical information on all Echo™ products, please visit www.mkelectric.co.uk

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Installation general information

Socket outlets, switches and other MK wiring accessories can be wall or bench mounted. Do not use a trailing lead for sockets and connection units or mount any devices where they may be subject to excessive moisture or dampness.

Cable management

Socket outlets, switches and other MK wiring accessories can be mounted in a variety of MK trunking systems.

13A Switchsocket Outlets

Standards and approvals

13A socket outlets comply with

BS 1363 Part 2: 1995.

Replacement fuses to the 3 gang socket outlets (Logic Plus Only) comply with BS 1362: 1973.





Technical specification

Electrical

Voltage rating:
250V a.c.

Current rating:
13A per socket outlet
(except 3 gang which is 13 amp in total)

Terminal capacity:
Live, neutral & earth

3 x 2.5mm^2
3 x 4mm^2
2 x 6mm^2 (standard)

(Dual earth terminals on list Nos.
K781, K2657, K2737, K2746, K2757, all standard Edge and Aspect sockets, K733, K2958, K2458, K2947, K2947D6, K850, K2977, K2477, K3045, K3077, K2945, K2945D6 and K5357)

Physical

Ambient operating temperature:
-5°C to +40°C (not to exceed an average of more than 25°C in any 24 hour period)

IP rating:
IP2XD

Max. installation altitude:
2000 metres

Description

A range of socket outlets designed for ease of installation and having all the advantageous design features of the MK range of wiring devices. The 2 gang sockets with outboard rockers (available in Logic Plus and Albany Plus) are of particular value for use by the infirm and partially sighted whilst the same feature in Metalclad Plus is ideal for use with gloved hands.

Non-standard clean earth sockets are for use on installations where restricted access is required and will only accept a 647WHI 13A non-standard plug with T-shaped earth pin. The sockets have two independent earth terminals so that they can also be used for 'clean earth' installations. The K2746CE and K2947CE also have two independent earth terminals for 'clean earth' installations.

A variety of sockets (see Technical Specification) are fitted with two earth terminals on a common busbar to provide a double earth facility for use when installations require a high integrity protective connection as specified within BS 7671: 2008. These should be referred to for guidance.

The products can be quickly installed as replacement for existing 13 amp sockets or in a new installation.

Fuse carriers (Logic Plus 3 gang switchsocket only)
The fuse carrier is opened by a fast-acting, screwdriver-operated, worm-drive screw for ease of replacement.

For a full range of corresponding products, see pages 44-46 in the product selector.



13A Switchsocket Outlets

Features

- Moulded 'on' indicator flash on plastic switches will not rub off – totally safe
- Matching Metal rocker Switches (Edge, Aspect and Alloy only)
- Optional neon indicators in the switch rockers with 175° visibility in the horizontal and vertical planes
- 3 pin operated safety shutter
- Printed terminal markings on grey rear mouldings for clearer identification
- Top access, angled terminals make wiring easier and quicker
- 3mm minimum switch contact gap
- Double pole switching
- Choice of inboard or outboard positioned rockers
- Additional electrical safety from DP Switch, neutral 'make first', 'break last' feature
- Switch contacts with silver contacts on both surfaces for good continuity
- Only one size of screwdriver required for installation
- Selection of products incorporating dual earth terminals for high integrity earthing
- Backed out and captive terminal screws
- 'Clean earth' sockets available
- Non-standard 'clean earth' sockets available

Installation

1 gang switchsocket – view from rear

Top-facing, angled, backed-out terminals make wiring easier and quicker.



Sentrysocket

Compliance with EC Directives, Standards and approvals

All Sentrysockets comply with the following EC Directives and are CE marked:

Low Voltage Directive
Electromagnetic Compatibility Directive (89/336/EEC)

Sentrysocket RCD Single Sockets comply with the requirements of the following standards:

BS 7288: 1990
BS EN 50082-1: 1998

Sentrysocket RCD Double Socket also complies with the requirements of BS EN 61543: 1996 and BS EN 55014-1

Technical specification

Electrical

Rated Voltage:
240V a.c.

Current rating:
13A resistive

Rated tripping current
30mA and 10mA versions

Terminal capacity:
3 x 4mm^2 for 1 gang
2 x 4mm^2 for 2 gang

Physical

Ambient operating temperature:
-5°C to +40°C

IP rating:
IP2XD

Max. installation altitude:
2000 metres

Sentrysockets are only suitable for use in TN-S system where the Supply Neutral Connection is connected to the Supply Earth.

They are not suitable for connection across two lines of a 127V line to Neutral Voltage System.





Description

Sentrysocket provides a high level of protection against electrocution and gives further protection when used with appliances vulnerable to insulation damage, particularly when they are in damp environments or outdoors. These Sentrysocket units are not suitable for mounting in damp environments or outdoors.

Sentrysocket, incorporating an RCD, is part of a complete range of fixed and portable wiring devices and circuit protection devices suitable for use in domestic, commercial and light industrial applications.

Active control circuits
Incorporate a 'Re-set' mechanism and are mains failure sensitive, i.e. they will function under all the normal conditions expected of an RCD, but will also trip in the event of a power cut or a sudden, dramatic reduction in mains voltage. This makes them ideal for use where it would be hazardous for equipment to suddenly energise after return of mains power, such as use with rotating machinery and heat developing apparatus.

Passive control circuits
Incorporate a 'Stay-set' mechanism and is mains failure proof, i.e. it will function under all the normal conditions expected of an RCD and will not trip in the event of a power cut. This makes it suitable for use with freezers or in inaccessible or unmanned locations.

Features

- Suitable for most residential, commercial and light industrial applications
- Active and passive control circuit applications
- Comply fully with current Wiring Regulations
- Double pole switching
- Flexible and versatile in use
- Ideal for use with equipment subject to wet weather or high humidity
- Part of a complete range of MK circuit protection devices
- They are a.c. and pulsating d.c. sensitive for residual current

Sentrysocket

Installation

Flush mounting steel wall box
It should be noted that some of the conduit entries may be restricted, depending upon their positions and the depth of box used.

Socket Testing:

Single Socket Testing
After installation, turn the mains electricity supply on.

To test that the Sentrysocket is functioning correctly:

1. Ensure that no appliance is connected to the Sentrysocket. **Switch Sentrysocket on**: The switch should remain closed and the red flag will appear in the window. If the switch fails to remain closed, check that the Supply L and N connections are not reversed or the Supply N connection is not open circuit. If the Sentrysocket is correctly connected and still trips after being switched on, the Sentrysocket is faulty and should not be used
2. If the Sentrysocket stays on, **press the test button**: The switch will open and the white flag will appear In the window. If the Sentrysocket does not trip and there is mains voltage present at the socket outlet, Sentrysocket is faulty and should not be used.
3. **Switch Sentrysocket on**: Connect an RCD tester and ensure that the Sentrysocket trips within the specified time:

   ≤ 200 ms AT RATED TRIP CURRENT

   ≤ 40 ms AT 5 x RATED TRIP CURRENT

   If the Sentrysocket does not trip within the specified times then the product is faulty and should not be used (If more than one RCD is in series then there is no guarantee as to which device will trip first).
4. **Reset all tripped RCD's including the Sentrysocket.**
5. **Switch off the mains supply switch disconnector**. On mains failure, a Sentrysocket with Active Control Circuit will trip, whilst a Sentrysocket with Passive Control Circuit will not trip. If the Active Control device does not trip, it is faulty and should not be used – see note below. If no faults have been found then installation testing has been completed successfully.

Note: If a fault is identified at any stage of installation testing procedure do not use Sentrysocket, and contact your local electrician, or your local MK stockist.

Double Socket Testing
After installation, turn the mains electricity supply on.

To test that the Sentrysocket is functioning correctly follow the steps 1 to 4 below:

1. Ensure that no appliance is connected to the Sentrysocket.
2. **Reset** – Press the button marked R (for Reset) – the contact status indicator should show red, indicating that the socket outlets are now live (if the switches are in the ON positions).
3. **Test** – Press the TEST button marked T (for Test), the product should trip with the contact status indicator showing black. In this state the socket outlets are disconnected from the supply.
4. **Reset** – Press the button marked R again, the contact status indicator should show red.
5. Connect an RCD Tester to either socket outlet and ensure that the Sentrysocket trips with the specified times below:

   ≤ 200 ms AT RATED TRIP CURRENT

   ≤ 40 ms AT 5 x RATED TRIP CURRENT
6. Reset the Sentrysocket as in step 2 above.
7. Switch off the Mains Supply Switch Disconnector.
8. A Sentrysocket with Active Control Circuit should trip while a Sentrysocket with Passive Control Circuit should not trip.

If all the operations in steps 2 to 8 above give correct results, the Sentrysocket RCD socket outlet is safe to use.

If the procedures in steps 2 to 8 above are not completed correctly, do not use the Sentrysocket product and seek professional advice or contact the MK Technical Sales and Service department on +44 (0)1268 563720.

Filtered Switchsocket Outlets (Logic Plus and Albany Plus)

Standards and approvals

Filtered socket outlets comply with BS 5733: 2010





Technical specification

Electrical

Current rating:
13A maximum total for 2 sockets

Voltage rating:
250V a.c. 50Hz

Earth leakage:
0.5 mA

Suppression:
150 kHz – 30 MHz (transients)

Maximum energy absorption:
140 Joules L – N
140 Joules L – E

Terminal capacity:
2 x 6mm^2
3 x 4mm^2
3 x 2.5mm^2
3 x 1.5mm^2

Physical

Operating temperature:
-5°C to +40°C (not to exceed an average of more than 25°C in any 24 hour period)

Thermal overload:
The K1826 and K2826 filter socket incorporates a thermal overload device in the RFI filter section. Overload current causes temperature rise, resulting in automatic 'trip out'. The overload device will re-set as the temperature falls.

IP rating:
IP2XD

Max. installation altitude:
2000 metres

Description

A range of sockets in the Logic Plus and Albany Plus styles, designed to combat interference to or data losses on sensitive electrical products and systems due to mains borne voltage spikes and RFI.

Such systems include:

- Computer or microprocessor based equipment
- Telecommunications systems
- Electronic measurement equipment
- Cash registers
- Audio visual and hi-fi equipment

These products can be quickly installed as replacements for existing twin 13 amp sockets or in a new installation.

Fitted with two earth terminals to provide a double earth facility for use when installations require a high integrity protective connection as specified within BS 7671: 2008.

Filter cassettes
Filter cassettes are supplied with sockets and have an LED which shows green under normal conditions but will turn red or extinguish when a replacement cassette (K1800WHI) is required. An alarm will also beep at 5 second intervals to indicate replacement necessity. It can be de-activated if required.

Features

- Moulded 'on' indicator flash on switches will not rub off – totally safe
- 3 pin operated safety shutter
- Printed terminal markings on grey rear mouldings for clearer identification
- Reduces risk of damage to equipment and down time
- Reduces risk of data loss
- 2 way filtering – into appliance and back into mains supply
- Double pole switches
- Dual earth terminals for high integrity earthing
- Clearly visible LED on filter cassette, changes from green to red when replacement required
- Simple replacement of cassettes
- 10 year guarantee (except filter cassette)
- 3mm minimum switch contact gap
- Backed out and captive terminal screws

Filtered Switchsocket Outlets

Product features

Ensure that the connecting pins protruding from the bottom of the replacement Filter Cassette are not damaged or bent before installation. If in doubt, contact MK Technical Sales Service Department on +44 (0)1268 563720.

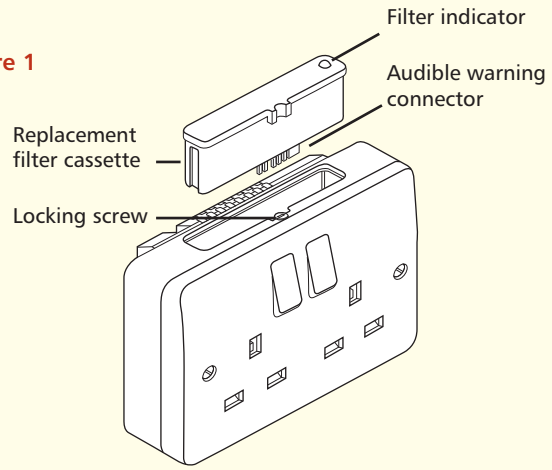
1. The MK Filtered Switchsocket, in common with many other filters uses Voltage Dependant Resistors for spike suppression purposes. The performance of these devices will eventually degrade with use to a level where they will no longer provide adequate protection.

   When this occurs the spike filer performance of the MK Filtered Switchsocket outlet can be restored by replacing the filter cassette.

   When the filter cassette needs replacing, the green indicator on the Replacement Filer Cassette will glow red or go out, an audible beep every five seconds may also be heard.

   Note: As with all filters, these Filter Sockets will reduce the magnitude of RFI and spikes and consequently their ability to interfere with connected equipment. They will not completely remove the interference from the supply.

Figure 1



Installation

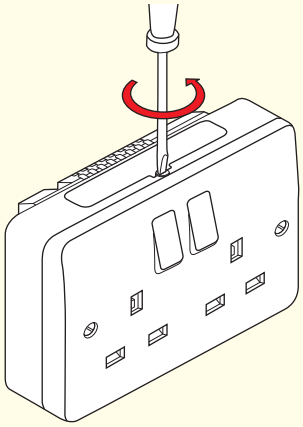
Replaceable Spike Filter Cassette
Note: To ensure a safe installation;

- this product should be installed by a competent person.
- it is important that all connections are made as instructed.

1. The filter cassette can be removed and replaced without switching off the mains or removing any plugs from the filter socket.
2. Remove the filter cassette by turning the jacking screw anti-clockwise to partially eject it (see Figure 2), and then gently pulling the cassette upwards, (see Figure 2a).
3. **Only fit the MK Replacement Filter Cassette (K1800WHI).**

   Unpack the new filer cassette and check that the pins along the bottom edge are not bent or broken. If these pins are damaged, do not fit the replacement cassette. The audible sound indicating that the filter cassette needs replacing, is optional. It may be prevented by removing the small connector on the two end pins, (see Figure 2b), before fitting it into the socket.

Figure 2



4. Fit the new filter cassette by carefully sliding it into the aperture and gently pushing it down while turning the screw clockwise until the filter cassette is flush with the surface. Do not turn the screw any further as this will cause distortion of the plastic mouldings.

   Product and packaging can safely be disposed of via standard refuse facilities at the end of its useful life.

Figure 2a

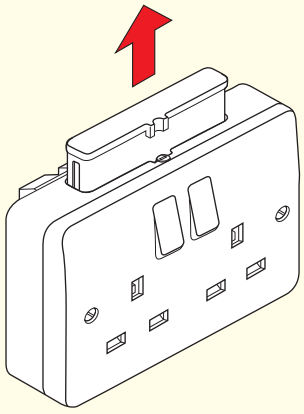
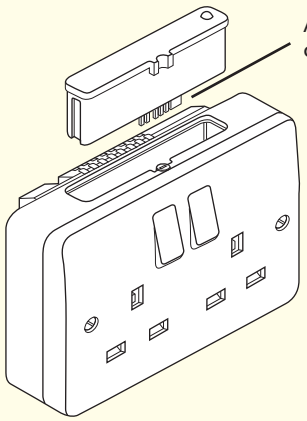


Figure 2b



Round Pin Socket Outlets

Standards and approvals

Round pin socket outlets comply with BS 546: 1950.

Technical specification

Electrical

Voltage rating:
250V a.c.

Terminal capacities:
2 amp sockets:
7 x 1mm²
4 x 1.5mm²
2 x 2.5mm²
1 x 4mm²

5 amp sockets:
3 x 2.5mm²
2 x 4mm²
2 x 6mm² (stranded)

15 amp sockets:
3 x 2.5mm²
3 x 4mm²
2 x 6mm² (stranded)

Physical

Ambient operating temperature:
-5°C to +40°C (not to exceed an average of more than 25°C in any 24 hour period)

IP rating:
IP2XD

Max. installation altitude:
2000 metres





Description

A range of round pin socket outlets designed for ease of installation and having all the advantages and design features of the MK range of wiring devices. These products can be quickly installed as replacements for existing socket outlets or in new installations.

Features

- Top access terminals make wiring easier and quicker
- Integral ON indicator on plastic switches will not rub off – totally safe
- Switch contact gap, 3mm minimum
- Double pole switching
- Terminal screws backed out
- Additional electrical safety from neutral "make first", "break last" feature on switched sockets
- Switch contacts with silver contact points on both surfaces for good continuity
- 5A and 15A sockets contain a 3 pin operated safety shutter
- White terminal markings on grey rear mouldings for clearer identification
- 2A socket (Earth Pin Operated) Shuttered

Non UK Socket Outlets

Standards and approvals

15A American sockets comply with SASO 2203: 2003

16A Universal sockets comply with BS 5733: 2010

16A 2P+E German sockets comply with IEC 60884-1: 2006

Technical specification

Electrical

15A American

Voltage rating:
127V a.c.

Current rating:
15A

Terminal capacity:
Live, neutral & earth
3 x 2.5mm²
2 x 4mm²
1 x 6mm² (stranded)

Max. installation altitude:
2000 metres

16A 2P+E German Socket

Voltage rating:
250V a.c.

Current rating:
16A

Terminal capacity:
Live, neutral & earth
4 x 1.5mm²
2 x 2.5mm²
1 x 4mm²

Physical

Ambient operating temperature:
-5°C to +40°C
(not to exceed an average of more than 25°C in any 24 hour period)

IP rating:
IP2XD

Max. installation altitude:
2000 metres

15A AMERICAN (Logic Plus*)





BOX TYPES			
Flush	**Flush (for extra wiring space)**		**Surface**
1 gang	861ZIC	866ZIC	K2140WHI
2 gang	862ZIC	886ZIC	K2142WHI

16A 2P+E GERMAN (Logic Plus*)





BOX TYPES		
Flush	**Surface**	
1 gang	866ZIC	K2031WHI
2 gang	886ZIC	K2172WHI

Note: 16A 2P+E German Outlet: These products are **NOT** suitable for 25mm deep boxes.

* 15A American Sockets and 16A 2P+E German Sockets are also available in a modular format for MK decorative wiring device ranges.

Three Pole Fan Isolators

Standards and approvals

Comply with BS EN 60947: 1992

Technical specification

Electrical

Voltage rating:
250V a.c. 50Hz

Current rating:
10 amps

Terminal capacity:
4 x 1mm²
4 x 1.5mm²
3 x 2.5mm²
2 x 4mm²
1 x 6mm²

Contact gap:
4mm switch contact gap

Classifications

Method of operation: Stored energy operation

Suitability for isolation: Suitable for isolation

Ratings

Utilisation category:	AC23B
Rated operational voltage (Ue)	250V
Conventional free air thermal current (Ith)	10A
Rated frequency	50Hz
Rated making capacity	100A rms
Rated breaking capacity	80A rms
Rated conditional short-circuit current	6000A rms

(with supply side protective device GEC NIT 16 BS88: part 2: 1988 16A 550VAC utilisation category gG 80KA breaking capacity fuse links.)

Physical

Operating temperature:
-5°C to +40°C

IP rating:
IP4X

Max. installation altitude:
2000 metres

Features

- Switchlock list no. K4858 is available to allow the isolator to be locked in the disconnected position to facilitate fan maintenance



Description

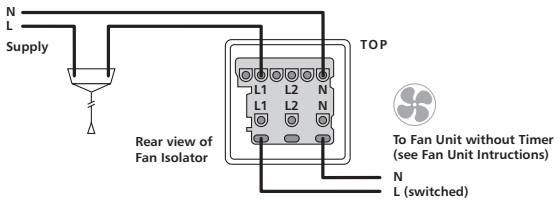
The MK Three Pole Fan Isolator provides a safe and simple method of isolating mechanical fan units and is particularly useful in bathrooms, toilets, storerooms and basements where there is little or no natural light.

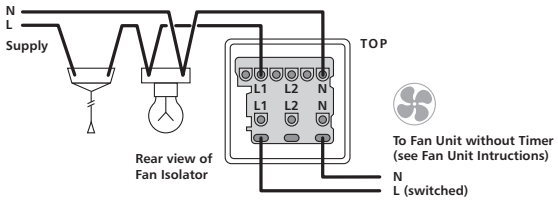
For example, timer controlled fans are often linked into the lighting circuit for energy saving and convenience. In such an installation there is often a need for the lighting circuit to remain live to provide light whilst the fan unit is externally isolated so that routine maintenance and repairs can be carried out in complete safety.

The fan isolator can be used as a double pole or triple pole isolator. In addition it includes a clear on/off indicator and the frontplate features a fan isolator symbol for easy circuit identification.

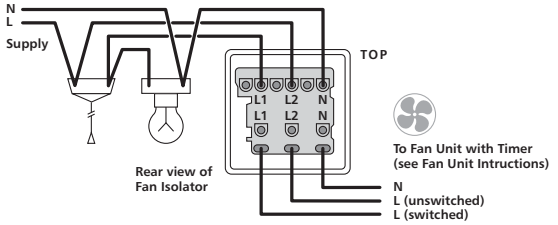
Wiring diagrams

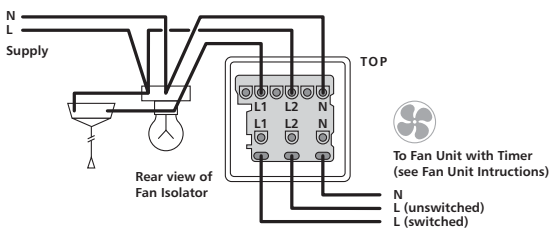
Two pole switching for fan units without timers





Three pole switching for fan units incorporating timers





Shaver Socket Outlets (Logic Plus)

Standards and approvals

Shaver socket outlets comply with BS 4573: 1970 and IEC 884-1: 1994.

Plug pin apertures, and engagement face dimensions comply with BS 4573: 1970.

Technical specification

Electrical

Voltage rating:
200-250V a.c. Input

Maximum load:
200 mA (internal thermister trip current)

Terminal capacities:
Each terminal will accommodate
1 x 4mm², or 2 x 2.5mm², 3 x 1.5 solid conductors

Physical

Ambient operating temperature:
-5°C to +40°C

IP rating:
IP2XD

Max. installation altitude:
2000 metres



Description

Designed for ease of installation and having many of the advantageous features of the Logic Plus range.

The shaver socket outlet accommodates the following plugs:

British 5mm dia pins on 16.6mm pitch (230V socket) to BS 4573: 1970.

European 4mm dia pins on 17 to 19mm pitch (230V socket) to IEC 83: 1975 Standard C5.

Australian 6.5 x 1.6 flat blades each set at 30° to the vertical on a nominal pitch of 13.7mm (230V socket).

AS C112: 1964.

The fuse carrier is captive and opened by a fast acting, screwdriver operated worm drive screw for ease of replacement.

Features

- Top access terminals make wiring quicker and easier
- Only one size of screwdriver required for installation
- Terminal screws supplied 'backed out' and held captive within the terminal moulding
- White printed terminal markings on grey rear mouldings for clearer identification
- Front plate fixing screws retained on rear case moulding

Installation

This shaver socket **must not** be used in bathrooms and washrooms. Non-isolated, fused, shaver socket outlets must never be installed in any location subject to splashes, condensation or damp conditions.

For installation in any other room where a wash basin or shower cubicle is installed then refer to the current IEE wiring regulations.

Shaver/Toothbrush Supply Units

Standards and approvals

Shaver/Toothbrush supply units comply with BS 61558-2-5: 1998

Accommodates plugs as follows:

- British 5mm dia pins on 16.6mm pitch (230V socket) to BS 4573: 1970.
- European 4mm dia pins on 17 to 19mm pitch (230V socket) to IEC 83: 1975 Standard C5.
- Australian 6.5 x 1.6 flat blades each set at 30° to the vertical on a nominal pitch of 13.7mm (230V socket) AS C112: 1964.
- American 6.6 x 1.6 flat horizontal blades on 12.7mm pitch (115V socket) to ANSI C73.10.

Features

- Bottom access terminal screws make wiring quicker and easier
- Automatic primary supply switching on insertion of plug
- Choice of 230V or 115V output socket positions
- Safety interlocked shutters to prevent insertion of two plugs simultaneously
- Only one size of screwdriver required for installation
- Terminal screws supplied 'backed out' and held captive within the terminal moulding
- Printed terminal markings on grey rear mouldings for clearer identification
- Front plate fixing screws retained on rear case moulding
- Integral over current device to protect transformer
- Suitable for use with electric toothbrush chargers.

Installation

Shaver/Toothbrush supply unit should be wall mounted.

Wiring

An installation instruction leaflet is available. List no. 44994 PL.



Description

Designed for ease of installation and having many of the advantageous design features of the MK range of wiring devices.

May be used in bathrooms and washrooms – must only be installed in accordance with BS 7671: 2008.

Technical specification

Electrical

Voltage rating:
K701: 230V a.c. Input (will operate at 220-250V a.c.)
K706: 127V a.c. Input (will operate at 110-130V a.c.)
230V or 115V nominal outputs

Current rating:
K701: 200mA max.
(internal thermister trip current)
K706: 400mA max.
(internal thermister trip current)

Maximum load:
20VA
No load voltage < 275V

Terminal capacities:
Each terminal will accommodate 1 x 4mm^2 or 2 x 2.5mm^2 solid conductors*

Physical

Ambient operating temperature:
-5°C to +40°C

IP rating:
IP41 (In Zone 2 if fixed where direct spray from showers is unlikely)

Max. installation altitude:
2000 metres

*The design of this unit means that on no load the transformer output is allowed to be as high as 275V. This means that rechargeable shavers and toothbrushes intended for use on the continent may be damaged by the inrush current created by this higher voltage. Rechargeable shavers and toothbrushes with a wide range of input voltage should be recharged at 115V. Shavers and toothbrushes manufactured for the UK are designed to be used with a transformer unit. Loads in excess of 20VA may cause the solid state overload to operate before shaving is completed. This is to protect the transformer.

Connection Units, 20A Switches and Flex Outlets

Standards and approvals

All Logic Plus Connection Units comply with BS 1363 Part 4: 1995.

The 20A DP switch complies with BS EN 60669-1: 1999

The flex outlet plate complies with BS 5733: 2010.

Fuses are to BS 1362.





Technical specification

Electrical

Voltage rating:
250V a.c.

Current rating:
Connection units – 13 amp
DP switches – 20 amp
Flex outlets – 20 amp

Terminal capacity:

Supply terminal: 2 x 6mm² stranded
2 x 4mm²
3 x 2.5mm²

Load terminals: 2 x 6mm² stranded
2 x 4mm²
3 x 2.5mm²

Cord Grip capacity:

Connection units: min: 2 core, 0.5mm
max: 3 core, 1.5mm

20 amp DP
switches & flex outlet plate
min: 3 core, 1.5mm
max: 3 core, 2.5mm

Physical

Ambient operating temperature:
-5°C to +40°C
(not to exceed an average of more than 25°C in any 24 hour period)

IP rating:
With flex outlet: IP2XD
Without flex outlet: IP4X

Max. installation altitude:
2000 metres

Description

A range of 13A fused connection units and 20A DP switches designed for the connection of refrigerators, water heaters, central heating boilers and other fixed appliances.

The ranges are designed for ease of installation and have the advantageous design features of the MK range of wiring devices.

Neon indicators

Products are available with Neon indicators included in the rockers of the switched connection units. In the case of unswitched units, they can be located centrally and uppermost on the face plate. Neon indicators are integrally wired into the product and do not require separate connection when installing. The design gives 175° visibility in the horizontal and vertical planes.

Fuse carriers

These are captive and are opened by a fast acting, screwdriver operated worm drive for ease of replacement. A tamper-proof version is also available.

Fuse carriers can be locked open using a padlock, List No. K2000.

Flex outlets

Bottom outlet types are supplied with blanking plug allowing use where the bottom outlet is not required. Spare blanking plugs are available.

The products are equipped with very strong, push-fit nylon cord grips making installation safe, quick and easy.

Flex outlet plate

An unfused flex outlet with cord grip and 3 pairs of terminals.

Installation

Wiring

Products must be installed in accordance with current IEE Regulations.

Changing Fuses

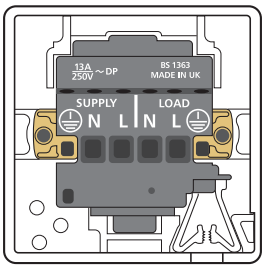
1. Unscrew the fuse carrier screw to partially eject the carrier.
2. Carefully lever the carrier out further to remove the fuse. Note: The carrier does not come fully out.
3. Always replace with a BS 1362 type fuse (as used in 13A plugs) of the correct rating.
4. Consistent fuse blowing could mean a faulty appliance. If in doubt, consult a qualified electrician.
5. Push carrier back until engaging with jacking screw. Screw the carrier down until flush with surface of the plate. Do not over tighten the screw.

Connection Units, 20A Switches and Flex Outlets

Features

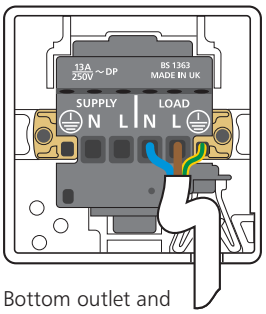
- Optional indicators in the switch rockers with 175° visibility in the horizontal and vertical planes
- Worm-drive operated fuse carriers for additional security (tamper-proof version available)
- Fuse carrier lockable in open position
- All supply and load cables can be cut and stripped to the same length
- Integrally wired Neon indicators save installation time
- Push-fit cord grips, for safer, quicker installation
- Angled, top mounted terminal screws simplify wiring
- Moulded 'on' indicator flash on switches cannot rub off – totally safe
- Captive fuse carrier
- Additional electrical safety from DP Switch, neutral 'make first', 'break last' feature
- Secure cable and flexible cord connection
- All terminal and fixing screws operated by one-size (4mm) screwdriver
- Backed out and captive terminal screws

Note: These switches are not recommended for switching large banks of PCs



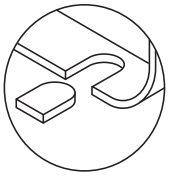


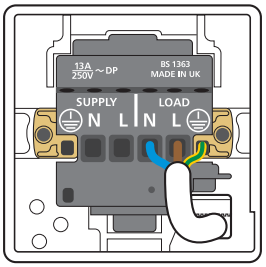
Supply and load cable cords cut and stripped to same length



Bottom outlet and cord grip

Blanking plug for bottom outlet

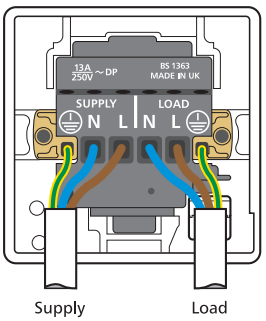




Front outlet cord grip



Lockable fuse carrier



Supply Load

Supply and non flexible load cables



K1090WHI

PLEASE NOTE THAT THE TERMINAL LAYOUT OF THE FLEX OUTLET, K1090, IS DIFFERENT TO THE OTHER SHOWN ABOVE.

20A Lockable Fire Alarm Isolator Switch



Description

The isolators comply with BS 60669-2-4: 2005

The Isolator is intended for use with building Alarm Systems that are required to comply with BS 5839 Part 1.

BS 5839 Part 1 states;

Clause 25.2c "To facilitate local isolation during maintenance, suitable means should be provided for double pole isolation of the low voltage supply circuit that serves the power supply and control equipment."

Clause 29.2e. "Means should be provided for double pole isolation of the mains supply to all parts of the system; the isolation facilities should be suitably sited, in the vicinity of the equipment served, for use by maintenance technicians without the need for access to remote parts of the building. It should be possible to lock the facilities in both the normal and isolate positions to prevent unauthorized use."

Features

- The built in lock ensures power cannot be provided without the key being operated, making it safe to carry out maintenance to Fire Alarms
- Printed terminal markings on grey rear of the switch moulding for clearer identification
- Double Pole switching
- Only one size of screwdriver required for installation

Technical specification

Electrical

Voltage rating:
240V a.c.

Current rating:
20 amp

Terminal capacity:

Live, Neutral & Earth	3 x 2.5mm^2
	3 x 4mm^2
	2 x 6mm^2

Physical

Ambient operating temperature:
-5°C to +40°C
(not to exceed an average of more than 25°C in any 24 hour period)

IP rating:
With flex outlet: IP2XD
Without flex outlet: IP4X

Max. installation altitude:
2000 metres

IP rating:

IP2XD

Max. Installation altitude 2000 metres

Note: The lock fitted to these isolators is universal for all MK 20A Isolators in the range.

However, the keys are different to those used on all other MK Key Operated Switched Products, for added security.

High Current Switches and Cooker Control Units

Standards and approvals

All DP switches in the range conform to BS EN 60669-1: 1999

All Cooker Control Units in the range conform to BS 4177: 1992.

Cooker Connection Unit conforms to BS 5733: 2010







Technical specification

Electrical

Voltage rating:
250V a.c.

Current:
32A Switch
45A Cooker Control Unit
45A Cooker Connection Unit
50A Switch (Resistive Load)

Switch:
3mm contact gap
Double pole operation –
except socket switch on Cooker Control Units

Terminal capacity, 50A Switches, Cooker Control Units, and Cooker Connection Units:
4 x 4mm^2
3 x 6mm^2
1 x 10mm^2
1 x 16mm^2

Terminal capacity, 32A Switch:
3 x 2.5mm^2
2 x 4mm^2
1 x 6mm^2

Physical

Ambient operating temperature:
-5°C to +40°C
(not to exceed an average of more than 25°C in any 24 hour period)

IP rating:
IP2XD (K5061, K5060, K5041, K5040, K5001, K5011)
IP4X (K5105, K5215, K5205, K5215CK, K5215SH, K5230, K5011)

Max. installation altitude:
2000 metres

Description

A range of switches and cooker control units suitable for the switching of all domestic, commercial and industrial appliances where higher current ratings are required, i.e. cookers, heaters, units etc. Metal units are particularly suitable for refurbishment projects.

Features

- Positive switch action
- Positive double pole switching
- Toggle action switches
- Metal front plates available
- Replaceable neon indicators
- Wide product choice

Note: These switches are not recommended for switching large banks of PCs

Plateswitches

Standards and approvals

All MK plateswitches comply with
BS EN 60669-1: 1999

Technical specification

Electrical

Voltage rating:
250V a.c. 50Hz

Current rating:
10 amps – no derating when used on fluorescent or inductive loads

20 amps – no derating when used on fluorescent or inductive loads

Terminal capacity:
All products except K4870/71/72
4 x 1mm²
4 x 1.5mm²
3 x 2.5mm²
2 x 4mm²
1 x 6mm²

For products K4870/71/72
4 x 1mm²
4 x 1.5mm²
2 x 2.5mm²
1 x 4mm²

Contact gap:
3mm switch contact gap

Physical

Operating temperature:
-5°C to +40°C

IP rating:
IP2XD

Max. installation altitude:
2000 metres

Operational testing (all plateswitches): tested to 100,000 operations for mechanical life tested to 40,000 operations at 10 amp rating tested to 10,000 operations at 20 amp rating







Description

MK plateswitches are designed to blend in with the decor, whilst complementing a wide range of other MK wiring devices. They are designed for easy installation in plasterdepth boxes and are suitable for controlling lighting circuits in domestic, commercial and industrial applications.

Neon locator
A textured, polycarbonate moulding allowing the glow of the neon to be seen at almost any angle. Designed to complement the Logic Plus 1, 2, or 3 gang plateswitches.

It is easy to install in existing locations. For 3 gang applications using a 25mm deep box simplifies wiring.

Features

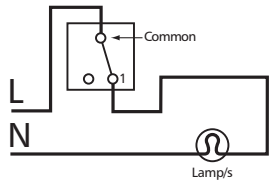
- Two way switches can be wired as one or two way
- All products clearly printed with BS Nos., ratings, etc
- Matching Grid switches available in10 or 20A ratings
- 3mm switch contact gap
- Positive switch action
- Top access, backed out and captive terminal screws (except Logic Plus list numbers K4870, K4871 and K4872)
- Neon locator available making switch easy to find in darkened rooms



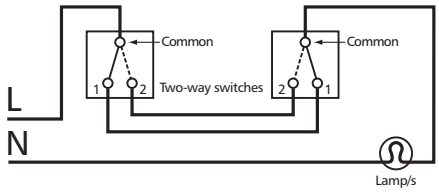
Plateswitches

Wiring Diagrams

One-way switching

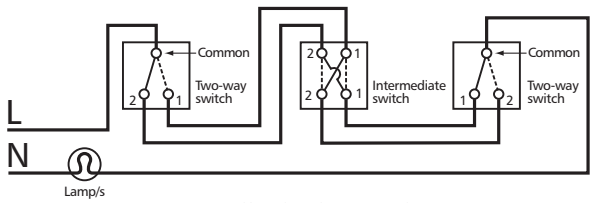


Two-way switching – 2 wire control



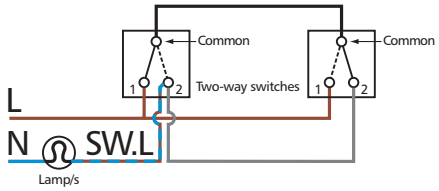
Dotted lines show alternative switch positions

Two-way switching plus intermediate switching – 2 wire control



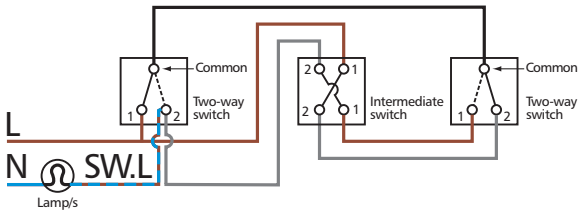
Dotted lines show alternative switch positions

Two-way switching – 3 wire control



Dotted lines show alternative switch positions

Two-way switching plus intermediate switching – 3 wire control



Dotted lines show alternative switch positions

N.B. Terminal positions may alter. The above diagrams are to show wiring layout.

Dimmer Switches

Standards and approvals

All CE marked MK dimmer switches comply with the EC Low Voltage Directive: 73/23/EEC, Electromagnetic Compatibility Directive 89/336/EEC

They also comply with BS EN 60669-2-1 and BS EN 55015

*Non-UK dimmer switches see note below



Technical specification

Electrical

Mains Supply Voltage:
230V a.c. (Nominal)
220V a.c. (Nominal, Non-UK)

Mains Supply Voltage Range:
216V a.c. to 253V a.c.
200V a.c. to 250V a.c

Mains Supply Frequency:
50Hz ±3Hz
60Hz ±3Hz

Type of Loads:

Standard Dimmers:
Fused GLS Tungsten Filament lamps only to BS EN60064: 1996 and BS EN60432-1: 2000, rated at 230/240V

Intelligent Dimmers:
Fused GLS Tungsten Filament lamps to BS EN60064: 1996 and BS EN60432-1,2 rated at 230/240V. Dimmable wire wound or electronic Low Voltage Transformers of good quality. Can also be used with good quality mains voltage halogen lamps incorporating GU10 bases. Please check with lamp manufacturer to determine suitability.

Note: Transformer must be suitable for dimming using phase delay (leading edge) and NOT only phase cut (trailing edge) type of dimmers.

Warning: Standard and Intelligent dimmer switches are not suitable for use with Fluorescent Lamps or Energy Saving Lamps.

CFL lamp dimmers:
Dimmable compact fluorescent lamps rated at 220/240V.

Physical

Operating temperature:
0°C to +40°C

IP rating:
IP2XD

Max. installation altitude:
2000 metres

Description

MK dimmer switches can fall into one of four categories:
1) Standard Dimmer Switches
2) Intelligent Dimmer Switches
3) Non-UK Dimmer Switches
4) CFL lamp dimmer switches

Standard Dimmer Switches
Dimmer Switches belonging to this category employ simpler electronic circuitry and the CE marked products make use of thermal switches to conform to the very stringent requirements of the Standard BS EN 60669-2-1, for overload protection. They are only suitable for use with normal tungsten filament lamps with internal fuses, conforming to BS EN 60064: 1996 and BS EN 60432-1 Standards and do not have any added features, e.g. soft start, ability to control dimmable transformers for low voltage, etc.

Standard Dimmer Switches are not suitable for use with transformers for Low Voltage Lighting or Fluorescent Loads, including Energy Saving Lamps.

Intelligent Dimmer Switches
Dimmer Switches belonging to this category, employ the latest, state of the art, micro-controller based electronic circuitry and use current sensing to compute the load conditions. These products show progressive reaction to overload conditions, depending on the extent of overload as shown in the table below. List numbers belonging to this category are identified by the suffix letters LV, e.g. K1501 WHI LV. All MK Intelligent Dimmer Switches employ one pole change over switches to facilitate two way switching.

MK Intelligent Dimmer Switches are not suitable for use with Fluorescent Loads, including Energy Saving Lamps.

***Non-UK Dimmer Switches**
Dimmer switches belonging to this category only conform to the relevant parts of BS EN 66069-2-1, without conforming to BS EN 55015. Loads suitable for use with standard dimmer switches above are also suitable for use with this category of dimmer switch.

CFL Lamp dimmer switches
Dimmer switches belonging to this category employ the latest, state of the art, micro-controller based electronic circuitry used in other intelligent dimmer switches. In addition they utilise control software to improve performance and life of dimmable compact fluorescent lamps.

Only one Dimmer Switch can be used in a two-way switching circuit.

Dimmer Switches

Features

Intelligent Dimmer Switches incorporate the following advanced features

- Suitable for dimming Low Voltage Halogen lamps via good quality, fully dimmable electronic or wire-wound transformers
- Can be used with good quality mains voltage halogen lamps incorporating GU10 bases. Please check with lamp manufacturer to determine suitability
- Load current sensing:
  These dimmers continuously monitor the load current to help protect against overheating in wire wound transformers and to prevent overloading of the dimmer for long term reliability.
- Soft Start, which gradually increases the light output from the load over 1 to 3 seconds after switch on. The Soft Start feature is also particularly beneficial when used to dim Mains Voltage Tungsten Halogen lamps which inherently have a very high inrush current at switch on

Standard Dimmer Switches

- Suitable only for use with fused GLS Tungsten Filament lamps to BS EN 60064 and BS EN 60432-1
- One way dimmer switches incorporate manual soft start
- Incorporate thermal switches for protection against overload

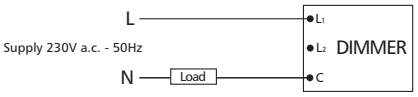
CFL Lamp dimmer switches

- Suitable only for use with compact fluorescent lamps designed specifically for dimming.
- Load current sensing:
  These dimmers continuously monitor the load current to help prevent overloading of the dimmer for long term reliability.
- Full brightness start to increase lamp life, the dimmer will reduce the light level to the level set within 2 - 3 seconds.
- Total connected load must not be less than the minimum power load rating of 11W.
- A maximum of 4 lamps only must be connected to each dimmer switch.

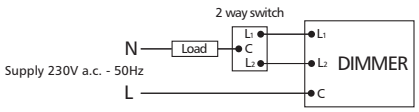
60-500W CIRCUIT	40-300W CIRCUIT	COMMENTS
Overload management: 60-500W nominal 60-625W function without dimming > 625-750W dim to 68V±8V r.m.s. > 750W switch off	**Overload management:** 40-300W nominal 40-375W function without dimming > 375-500W dim to 68V±8V r.m.s. > 500W switch off	This is the min. controlled voltage

INTELLIGENT DIMMER SWITCHES		
	Rating	**Max No. of Transformers (total rating of all transformers must not exceed maximum VA rating of dimmer)**
1 gang single dimmer	40-300W (LV and mains voltage halogen rating 40-240W/VA)	4
1 gang double dimmer	2 x 40-300W (LV and mains voltage halogen rating 2 x 40-240W/VA)	4 per dimmer
1 gang single dimmer	60-500W (LV and mains voltage halogen 60-400W/VA)	5

One-way switching



Two-way switching
(only one dimmer can be used)



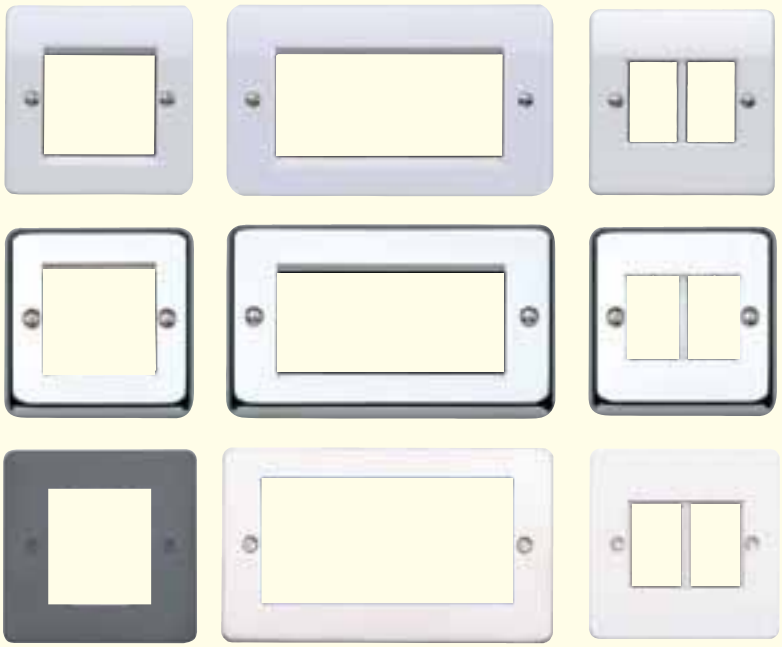
Wires must be connected to the correct dimmer terminals.
DO NOT connect earth to dimmer.

Please note the dimmer may be substituted for any of the Two-Way switches shown on page 53

Euro and LJU6C Data Frontplates

Standards and approvals

BS 5733: 2010



Description

Frontplates used for mounting snapfit Modules.

Features

- 1G, 2G and 3G Euro frontplates
- 1G LJU6C Frontplate
- Accept industry standard (Euro) and LJU6C snapfit modules
- 1G Euro frontplate accepts 2 Euro modules, (50 x 50mm aperture)
- 2G Euro frontplate accepts 4 Euro modules, (100 x 50mm aperture)
- 3G Euro frontplate accepts 6 Euro Modules, (150x50mm aperture)
- 1G LJU6C frontplate accepts two LJU6C modules (27 x 37mm aperture)
- 1/2 module (12.5 x 50mm) blank available for Euro frontplates

Power Modules

Standards and approvals

K5830: BS 1363 Part 2: 1995

K5831: IEC 60884-1: 2006

K5832: SASO 2203: 2003

K5833: BS 546: 1950

K5834: French National Standard NF C 61-314

Description

A range of euro modules designed to provide a variety of power options.

Technical specification

13A UK

Electrical

Voltage rating:
250V a.c.

Current rating:
13A

Terminal capacity:
Live, neutral & earth
3 x 2.5mm²
3 x 4mm²
2 x 6mm² (stranded)

Physical

Ambient operating temperature:
-5°C to +40°C
(not to exceed an average of more than 25°C in any 24 hour period)

IP rating:
IP2XD

Max. installation altitude:
2000 metres

5A UK

Electrical

Voltage rating:
250V a.c.

Current rating:
5A

Terminal capacity:
Live, neutral & earth
3 x 2.5mm²
2 x 4mm²
2 x 6mm² (stranded)

Physical

Ambient operating temperature:
-5°C to +40°C
(not to exceed an average of more than 25°C in any 24 hour period)

IP rating:
IP2XD

Max. installation altitude:
2000 metres

16A German

Electrical

Voltage rating:
250V a.c.

Current rating:
16A

Terminal capacity:
Live, neutral & earth
4 x 1.5mm²
2 x 2.5mm²
1 x 4mm²

Physical

Ambient operating temperature:
-5°C to +40°C
(not to exceed an average of more than 25°C in any 24 hour period)

IP rating:
IP2XD

Max. installation altitude:
2000 metres

16A French/Belgian

Electrical

Voltage rating:
250V a.c.

Current rating:
16A

Terminal capacity:
Live, neutral & earth
3 x 2.5mm²
2 x 4mm²
1 x 6mm²

Physical

Ambient operating temperature:
-5°C to +40°C
(not to exceed an average of more than 25°C in any 24 hour period)

IP rating:
IP2XD

Max. installation altitude:
2000 metres

15A American

Electrical

Voltage rating:
127V a.c.

Current rating:
15A

Terminal capacity:
Live, neutral & earth
3 x 2.5mm²
2 x 4mm²
1 x 6mm² (stranded)

Physical

Ambient operating temperature:
-5°C to +40°C
(not to exceed an average of more than 25°C in any 24 hour period)

IP rating:
IP2XD

Max. installation altitude:
2000 metres

1A USB Charging Module

Electrical

Input
Voltage rating:
220-240V a.c.
Frequency : 50Hz
Rated Current: 0.6A
Terminal Capacity:
Live & neutral
1 x 2.5mm²

Output
Voltage rating:
2 x 5V d.c.
Max current:
1A per socket
Charging sockets: USB 2.0 type A

Physical

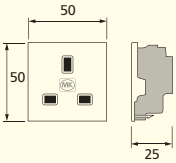
Ambient operating temperature:
0°C to +40°C

IP rating:
IP2XD

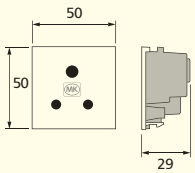
Max. installation altitude:
2000 metres

Dimensions (mm)

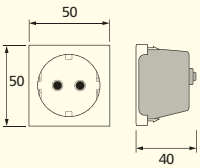
13A UK



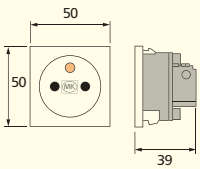
5A UK



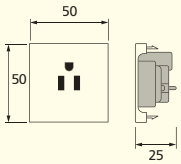
16A German



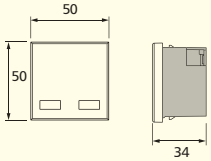
16A French/ Belgian



15A American



1A USB Charging Module



K5830

BOX TYPES
Minimum
35mm
Extra wiring space
46mm

K5833

BOX TYPES
Minimum
35mm
Extra wiring space
46mm

K5831

BOX TYPES
Minimum
46mm

K5834

BOX TYPES
Minimum
46mm

K5832

BOX TYPES
Minimum
35mm
Extra wiring space
46mm

K5837

MK EURO FRONT PLATE THICKNESS	BOX TYPES
> 7mm	Min 35mm
< 7mm	Min 46mm

RJ45 Data Outlets

Standards and approvals

ISO/IEC 11801
EN 50173
TIA 568
EN 41003



Description

Suitable for use in all LJU6C, Euro and MK Modular frontplates, available in the Logic Plus range, Cat 5e and Cat 6 modules suitable for use in structured cabling distribution systems.

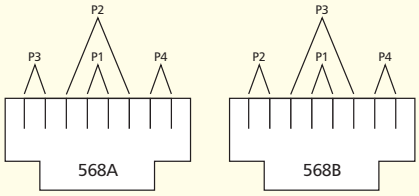
Installation

- Maximum cable length 90m.
- Cable bend radii, 40mm during installation, 20mm after installation.
- Maximum pull force 8.7kg.
- Do not over tighten cable ties.
- Do not unwind the twists in the wire pairs by more than 13mm max.

Installation details and wiring diagram illustrations

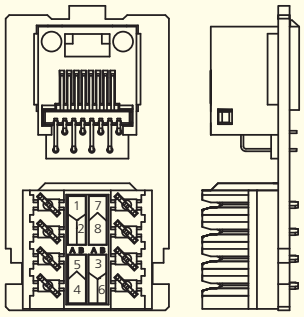
TIA WIRING SCHEME COLOUR CODES:

Pin No.	568A	568B
1	WHITE / green	WHITE / orange
2	GREEN / white	ORANGE / white
3	WHITE / orange	WHITE/ green
4	BLUE / white	BLUE / white
5	WHITE / blue	WHITE / blue
6	ORANGE / white	GREEN / white
7	WHITE / brown	WHITE / brown
8	BROWN / white	BROWN / white

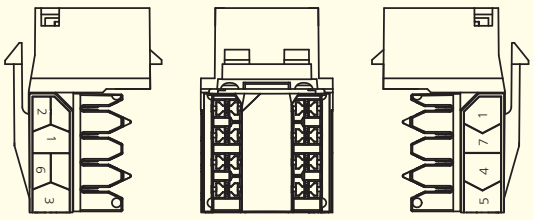


Pair 1 – BLUE/white & WHITE/blue
Pair 2 – ORANGE/white & WHITE/orange
Pair 3 – GREEN/white & WHITE/green
Pair 4 – BROWN/white & WHITE/brown

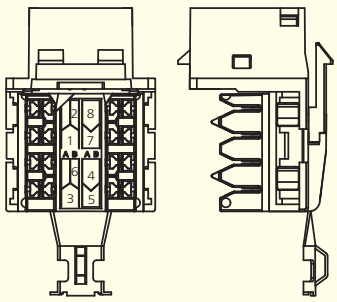
Euro and LJU6C modules are to be wired as follows



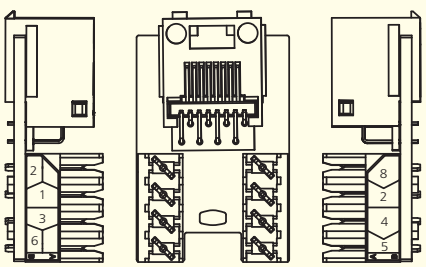
RJ45 Cat.5e Euro K5845



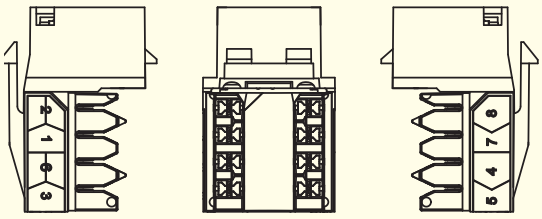
RJ45 Cat.5e Euro - Angled K5844



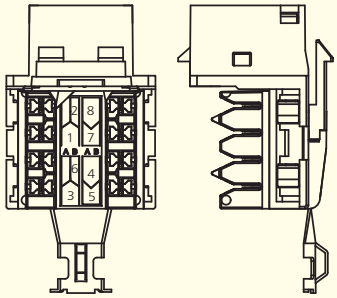
RJ45 Cat.6 Screened
K5746S - LJU6C, K5846S - Euro



RJ45 Cat.5e LJU6C K5745



RJ45 Cat.6 Euro - Angled K5746 - LJU6C
K5846 - Euro, K5864 - Euro Angled



RJ45 Cat.5e Screened
K5845S - Euro

Telephone, RJ11/12, BNC Data and Blank Modules

Standards and approvals

Telephone sockets K5820 and K5821 comply with the following:

BS 6312: 2.2

Data sockets K5801, BS 5733: 2010 (where applicable).

K5887 complies with FCC68 and EN 41003.



Technical specification

Electrical

Cable types:
Telephone: CW1311, CW1293, CW1308, CW1316

No. of cables per termination:
Telephone: 2
RJ11/12: 1

BNC
50 Ohms impedance cable – RG58, RG141, URM43
Belden 9907

Frequency range:
BNC connector: 0 to 4GHz

Impedance:
BNC Connector: 50. nominal

Termination type:
Telephone module – IDC
BNC module – Crimped connection

Physical

Temperature range:
Ambient air –20°C to +60°C

IP rating:
IP2XD – K5820, K5821, K5801 and K5787.
IP4X – K180, K188, K186 and K170

Max. installation altitude:
2000 metres

Description

A range of telephone, data and blank modules to fit Euro and LJ6UC front plates. BNC Euro modules with a 50Ohm crimp connector suitable for use with RG58, URM43, URM76 and Beldon 9907 type co-axial cables are also available.

Installation (Telephone socket modules)

Product performance, systems compatibility
Master Sockets: For use as the first socket outlet on a direct exchange. They contain the required surge protector (for line protection against electrical surges) and ringing capacitor.

Secondary Sockets: for use as extension sockets when connected on the same line as a Master Socket.

Installation tools required IDC Connectors (telephone & RJ45 outlets)
MK insertion tool List No. 400NAT.
Wire pull-out force: 10.5 Newtons when installed correctly.

Wiring regulation restrictions
Domestic Installations: The total REN (Ring Equivalent Number) value of all telephone equipment connected on a line must not exceed 4.

Features

- Meet all relevant BS, OFTEL and cabling standards
- Interchangeable modules clip into frontplates
- Front fixing facilitates easy exchange of modules
- Part of a complete range of products for telephone and data processing requirements

Telephone sockets

- 100% tested before delivery
- Quick, simple and reliable IDC connectors
- Can be specified for all applications

Data sockets

- Latest specification for high performance systems
- Made to stringent quality assurance procedures
- Wide range of data connectors available

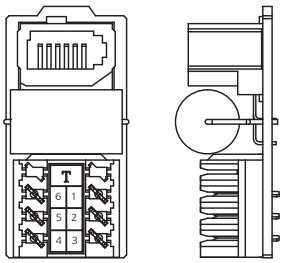
For information on TV Satellite and FM Modules see pages 451-453

Telephone, RJ11/12, BNC Data and Blank Modules

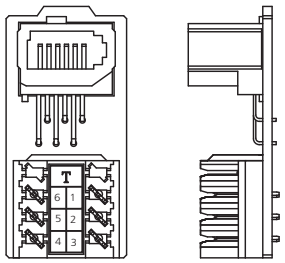
Telephone Wiring Scheme

1 GREEN / white
2 BLUE / white
3 ORANGE / white
4 WHITE / orange
5 WHITE / blue
6 WHITE / green

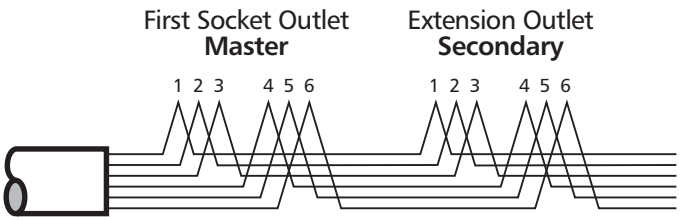
Note: Main wire colour is shown in capitals



K5820



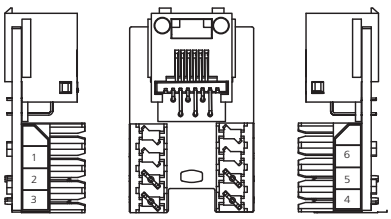
K5821



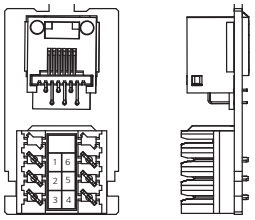
RJ11/12 Wiring Scheme

PIN NO.	STRIPPED COLOUR WIRE	SOLID COLOUR WIRE
1	WHITE / green	WHITE
2	WHITE / orange	BLACK
3	BLUE / white	RED
4	WHITE / blue	GREEN
5	ORANGE / white	YELLOW
6	GREEN / white	BLUE

Note: Main wire colour is shown in capitals



K5787



K5887

MK Modular Datacoms (Logic Plus)

Standards and approvals

Logic Plus Telephone and Data sockets comply with the following:

Telephone sockets K420 and K421

BS 6312: 2.2, OFTEL Approval NS/G/23/L/100005

Data sockets K190 to K194, K501

BS 5733: 2010 (where applicable)

Data sockets K545

Cat 5e performance to EIA/TIA TSB568, BS EN 50173, IEC11801

Technical specification

Electrical

Cable types:

Telephone CW1311, CW1293, CW1308, CW1316

RJ45: 20 to 26 AWG, 100 ohm Cat 5e UPT cable

No. of cables per termination (Telephone & RJ45):

Telephone: 2
RJ45: 1

Physical

Temperature range:
Ambient air -20°C to +60°C

IP rating:
IP2XD

Max. installation altitude:
2000 metres



Description

A unique modular system in the distinctive Logic Plus style comprising a range of socket modules for Data and Telephone use, with 4 matching frontplates capable of accepting combinations of interchangeable modules. The 'clip-in' design provides a high degree of versatility, making the system ideal for use in all commercial and industrial applications.

Features

- Meet all relevant BS, OFTEL and cabling standards
- Interchangeable modules clip into frontplates
- Front fixing facilitates easy exchange of modules
- Part of a range of products for telephone and data processing requirements

Telephone sockets and frontplates

- Quick, simple and reliable IDC connectors
- Can be specified for all applications
- Fit in plaster depth boxes

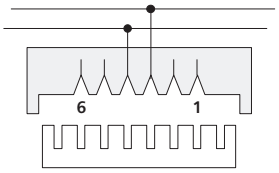
Data sockets and frontplates

- Cat 5e specification performance
- Made to stringent quality assurance procedures

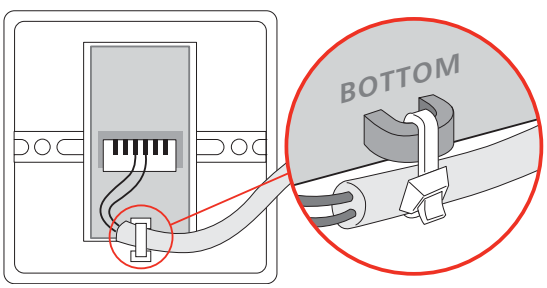
RJ11 Wiring Scheme

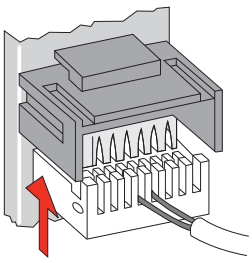
PIN NO.	STRIPPED COLOUR WIRE	SOLID COLOUR WIRE
1	WHITE / green	WHITE
2	WHITE / orange	BLACK
3	BLUE / white	RED
4	WHITE / blue	GREEN
5	ORANGE / white	YELLOW
6	GREEN / white	BLUE

Note: Main wire colour is shown in capitals



Rear View of Terminal Connection Block





MK Modular Datacoms (Logic Plus)

Installation (Data sockets)

RJ45 modules
In order to maintain Category 5e performance, install cabling in accordance EIA/TIA or ISO General Cabling Standards.

Installation (Telephone socket modules)

Product performance, systems compatibility
Master Sockets: For use as the first socket outlet on a direct exchange. They contain the required surge protector (for line protection against electrical surges) and ringing capacitor.

Secondary Sockets: for use as extension sockets when connected on the same line as a Master Socket.

Installation tools required IDC Connectors (telephone & RJ45 outlets)
MK insertion tool List No. 400NAT.

Wire pull-out force: 10.5 Newtons when installed correctly.

Wiring regulation restrictions
Domestic Installations: The total REN (Ring Equivalent Number) value of all telephone equipment connected on a line must not exceed 4.

Industrial and commercial installations: MK telephone sockets are suitable in all situations after the PBX/PABX has been installed by a recognised installer. For key systems and other 'special' systems, the manufacturer's instructions should be referred to.

Safety information
None of the above products should be installed into the same fixing or mounting boxes as mains rated equipment or cable.

Cable management

Logic Plus Modular Data and Telephone Sockets can be mounted in a variety of MK trunking systems.

MK Modular Datacoms (Decorative)

Standards and approvals

MK Telephone and Data sockets comply with the following:

Telephone sockets K452 and K457

BS 6312: 2.2, OFTEL Approval NS/G/23/L/100005

Data sockets K290 to K452, K458

BS 5733: 2010 (where applicable)

Data sockets K455

Cat 5e performance to EIA/TIA TSB568, BS EN 50173, IEC11801

Technical specification

Electrical

Cable types:

Telephone CW1311, CW1293, CW1308, CW1316

RJ45: 20 to 26 AWG, 100 ohm Cat 5e UPT cable

No. of cables per termination (Telephone &RJ45):

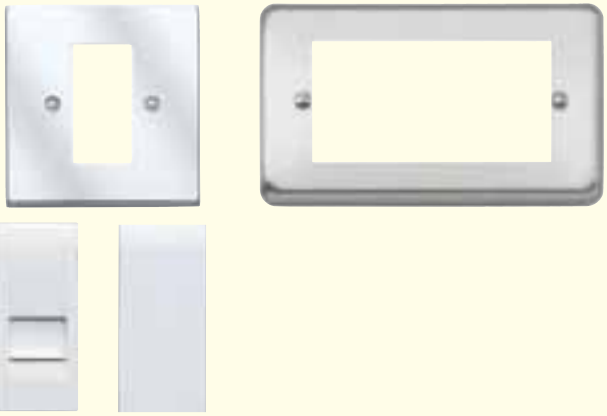
Telephone:	2
RJ45:	1

Physical

Temperature range:
Ambient air -20°C to +60°C

IP rating:
IP2XD

Max. installation altitude:
2000 metres



Description

A unique modular system in the Alloy and Albany Plus styles comprising a range of socket modules for data and telephone use with frontplates capable of accepting combinations of interchangeable modules. Modules clip into mounting frames which, when attached to frontplates, provide a high degree of versatility, making the system ideal for use in all commercial and industrial applications.

Features

- Meet all relevant BS, OFTEL and cabling standards
- Part of a range of products for telephone and data processing requirements
- Interchangeable modules clip into grid frame which attaches to frontplate

Telephone sockets and frontplates

- Quick, simple and reliable IDC connectors
- Can be specified for all applications

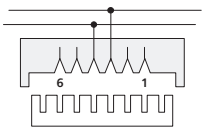
Data sockets and frontplates

- Cat 5e specification performance
- Made to stringent quality assurance procedures

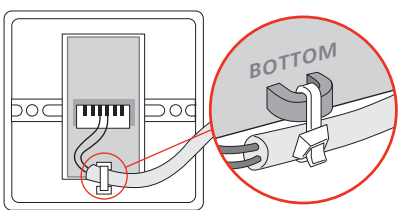
RJ11 Wiring Scheme

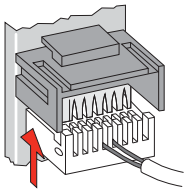
PIN NO.	STRIPPED COLOUR WIRE	SOLID COLOUR WIRE
1	WHITE / green	WHITE
2	WHITE / orange	BLACK
3	BLUE / white	RED
4	WHITE / blue	GREEN
5	ORANGE / white	YELLOW
6	GREEN / white	BLUE

Note: Main wire colour is shown in capitals



Rear View of Terminal Connection Block





MK Modular Datacoms (Decorative)

Installation (Data sockets)

RJ45 modules
In order to maintain Category 5e performance, install cabling in accordance EIA/TIA or ISO General Cabling Standards.

Installation (Telephone socket modules)

Product performance, systems compatibility
Master Sockets: For use as the first socket outlet on a direct exchange. They contain the required surge protector (for line protection against electrical surges) and ringing capacitor.

Secondary Sockets: for use as extension sockets when connected on the same line as a Master Socket.

Installation tools required IDC Connectors (telephone & RJ45 outlets)
MK insertion tool List No. 400NAT.
Wire pull-out force: 10.5 Newtons when installed correctly.

Wiring regulation restrictions
Domestic Installations: The total REN (Ring Equivalent Number) value of all telephone equipment connected on a line must not exceed 4.

Industrial and commercial installations: MK telephone sockets are suitable in all situations after the PBX/PABX has been installed by a recognised installer. For key systems and other 'special' systems, the manufacturer's instructions should be referred to.

Safety information
None of the above products should be installed into the same fixing or mounting boxes as mains rated equipment or cable.

Cable management

MK Modular Data and Telephone Sockets can be mounted in a variety of MK trunking systems.

Telephone, TV/FM and Satellite Socket Outlets

Standards and approvals

Telephone and TV sockets comply with the following:

Telephone sockets K422 and K427

BS 6312: 2.2, BS 5733: 2010 (where applicable) and OFTEL Approval NS/G/23/L/100005.

K4817: BS 5733: 2010 (where applicable) and FCC68.

TV sockets

BS 3041 Part 2: 1977 / IEC 169-2: 1977, BS 5733: 2010 (where applicable) and IEC65, Cls 10.1, 10.3.

Satellite TV sockets

BS 5733: 2010 (where applicable).

Technical specification

Electrical

Telephone sockets, cable specification:
CW1311, CW1293, CW1308, CW1316
No. of cables per termination: 2

Re-usability:
>9 reterminations (should not be reterminated with smaller diameter wire)

TV sockets:
Cable specification: CT100 or equivalent
Any standard low-loss TV co-axial cable:
Outside 4-8mm diameter,
inner conductor 0.5-2mm diameter

Insertion loss:
Insertion loss data available on request

'F' Type satellite socket (K3525), cable specification:
Co-axial cable: inner core diameter – 0.5-1.2mm

RJ11 (K4817), Cable specification:
Capable of taking 0.08 to 0.65mm^2 solid or stranded cable

Physical

Ambient air:
-20°C to +60°C

IP rating:
IP2XD

Max. installation altitude:
2000 metres







Description

A part of the very wide range of products to meet the latest technical requirements and the standards applicable to modern technology in the installation of telephone and television equipment. The master and secondary telephone sockets K422 and K427 comply with relevant OFTEL approvals for direct and indirect connections between a termination point of a public telecommunications system and any piece of approved telecommunications apparatus. For applications requiring twin or dual telephone outlets, refer to the Modular Data section, pages 54-57.

Telephone and TV sockets fit into plaster depth boxes (except for RJ11).

The F-type Satellite Socket may be used for connection of CATV, MATV and satellite TV installations.

Features

- Single screw termination on TV outlets
- Protected, fully enclosed PCBs
- Meet all relevant BS requirements
- Quick, simple and reliable terminal connection
- IDC connectors on telephone outlets
- Part of a complete range of products for telephone, television and data processing requirements
- Angled connector on TV outlets
- Sockets fit in plaster depth boxes (except K4817)

Telephone, TV/FM and Satellite Socket Outlets

Installation (Telephone sockets)

Product performance, systems compatibility

Master Sockets: for use as the first socket outlet on a direct exchange or PABX line. They contain surge protector (for line protection against electrical surges) and ringing capacitor.

Secondary Sockets: For use as extension sockets when connected on the same line as a Master Socket.

Installation tools required

MK IDC insertion tool List No. 400NAT (not supplied with product).

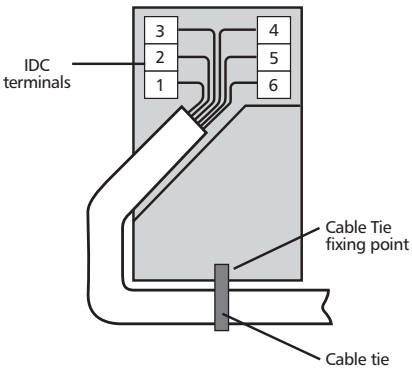
Wiring regulation restrictions

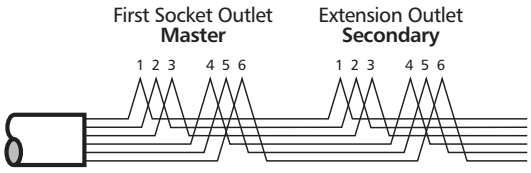
Domestic installations: Any number of MK sockets may be installed thereafter, with a total REN (Ring Equivalent Number) value of all telephone equipment connected on a line not exceeding 4.

Telephone Wiring Scheme

1 GREEN / white
2 BLUE / white
3 ORANGE / white
4 WHITE / orange
5 WHITE / blue
6 WHITE / green

Note: Main wire colour is shown in capitals





Digital TV and Telephone Outlets (Logic Plus and Modular Datacoms)

Installation (TV sockets)

Product performance, systems compatibility

Isolated Outlets are intended for use where safety isolation (rated at 2000V ac) is required to provide protection against faults occurring within any mains powered product used on different parts of the distribution system. They are not suitable for use in systems where DC signals are passed through the socket, (e.g. where masthead/headend equipment is controlled by receiver/decoder equipment).

Diplexer Outlets are used in distribution systems where both TV and FM band signals are combined on a single aerial downlead. The filtering in the diplexer separates the appropriate signals and feeds them through to the relevant output connection port.

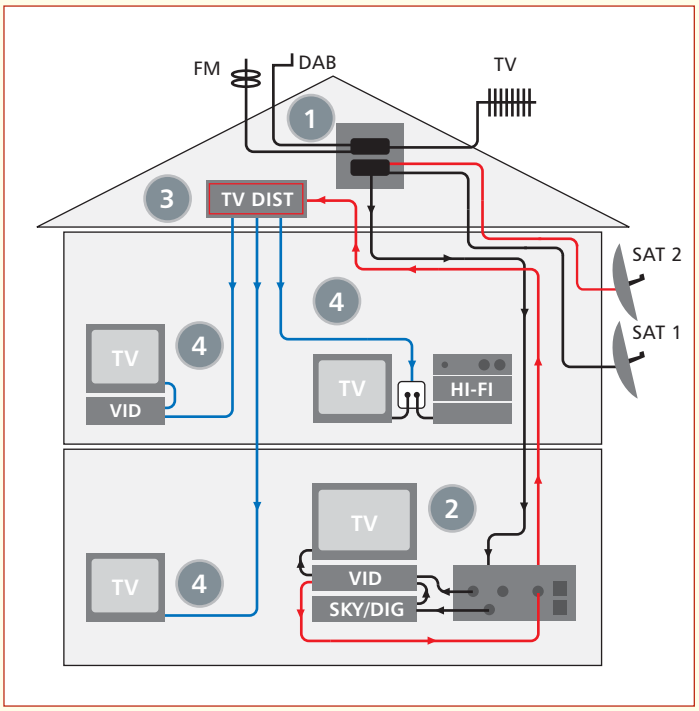
Cable Routing and Use of Cable Clamp

Sharp bends in the cable must be avoided during installation. The single TV/FM socket is fitted with a cable clamp that can be fixed on either side of the termination position to facilitate this.

When tightening the screening braid clamps ensure that the cable is firmly gripped and that the inner insulation is not squashed flat beyond a slight oval shape.

Safety Information

TV outlets or modules must not be installed in the same enclosure as equipment rated in excess of 50V, (e.g. mains rated 13A sockets or switches).



Method of installation of TV and FM aerial connection by using MK co-axial socket outlet and only one downlead.

Conventional distribution system for TV and FM signals using a single aerial downlead.

1. The signals from the TV and FM aerials and the satellite dish are combined together using two products. The first combines the TV and FM signals and the second adds the Sky signal to the TV/FM signal and provides a DC control path to power the LNB unit on the satellite dish. (These products are not supplied by MK).

   The single aerial down lead feeds into the triplexer (black lines in wiring diagram).

2. The separated satellite signal is then fed to the decoder. The decoded satellite signal is then fed into the VCR along with the TV signal from the Triplexer. The output signal from the VCR then feeds into the TV and also back to the single outlet and onto the distribution amplifier (black lines in wiring diagram).

3. The single cable back-feed then feeds back to the input of a multi way distribution amplifier, (typically located in the loft or garage) (red lines in wiring diagram).

4. Each individual output from the distribution amplifier is then fed to the individual rooms in the house to a standard TV (single or diplexer) outlet to which the TV/VCR and/or Hi-Fi can be connected (blue lines in wiring diagram).

Digital TV, Radio and Telephone Outlets

Standards and approvals

All Logic Plus TV Outlets comply with BS 5733 and BS EN 50083 where applicable.

Also IEC 169-2, BS EN 60169-24 and BS 6312 Part 2

Modular products are Euro compatible.

Technical specification

Single Outlets

TV/FM IEC Male or Female	DC-950MHz
SATF-Type	DC-1.75GHz

Diplexer and Triplexer products

TV

Diplexer:	5-65MHz 470-862MHz
Triplexer:	5-65MHz 470-862MHz

FM

Diplexer:	87.5-108MHz
Triplexer:	87.5-108MHz

SAT

Diplexer:	n/a
Triplexer:	950-2300MHz

TV/FM/DAB/SAT products for digital radio

TV

Diplexer:	5-65MHz 470-862MHz
Triplexer:	5-65MHz 470-862MHz

FM/DAB

Diplexer:	87.5-230MHz
Triplexer:	87.5-230MHz

SAT or SAT1

Diplexer:	n/a
Triplexer:	950-2300MHz

SAT2

Diplexer:	n/a
Triplexer:	5-2300MHz

Cable management

Logic Plus TV outlets can be mounted in a variety of MK trunking systems.







Description

There are two ranges of diplexer and triplexer products, an established range suitable for VHF TV, and a range suitable for digital radio (DAB).

Diplexer modules are for connecting to a single co-axial aerial down lead carrying combined TV and FM signals. The filtering in the diplexer splits out the appropriate signal and feeds it to the relevant output connection. A DC control path is provided in the TV signal path through the diplexer.

Triplexer modules are for connecting to a single co-axial aerial down lead carrying combined TV, FM and SAT signals. The filtering in the triplexer splits out the appropriate signal and feeds it to the relevant output connection. A DC control path is provided in the SAT signal path through the triplexer.

The quad outlet contains a triplexer together with a separate satellite output, for use with Sky+, or more complex installations.

Telephone secondary outlets are provided on some products for connection of telephone or for interactive TV applications.

Features

- Non Isolated
- Fully screened
- Earth terminal provided on TV modules
- Selected products with BT secondary outlets for interactive TV applications
- Selected products with supplementary TV outlet for back-feed for further distribution

BOX TYPES

Flush	Flush (for Extra wiring space)		Surface Insulated	Surface Metal
1 gang	861ZIC	866ZIC	K2140WHI	K2211ALM/K2213ALM
2 gang	862ZIC	886ZIC	K2142WHI	K2212ALM/K2214ALM

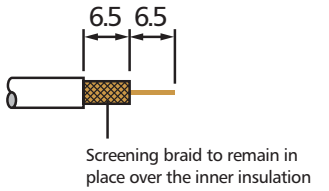
Minimum recommended box depth 32mm
Note: Edge/Insignia mounted modular products require 45mm box

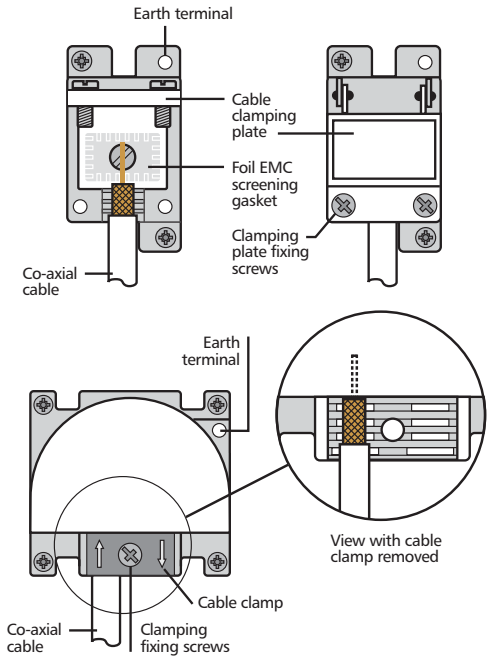
Digital TV/FM and Telephone Outlets (Logic Plus and Modular Datacoms)

Installation

- When installing the TV co-axial cable ensure that all cable bends are smooth so that the inner insulation is not crushed or squashed, otherwise the TV signal quality may be affected.
- Not suitable for loop-in loop-out installations.
- Use CT100 cable (or equivalent).

TV Co-axial cable stripping details





Telephone Outlet Connection

Carefully strip 50mm of the telephone cable outer sheath to expose the inner insulated conductors. Using the insertion tool supplied, (MK List no. 400NAT) carefully push each lead into the appropriate IDC terminals according to the wiring colour code stated in the telephone Wiring Scheme diagram.

Pins 1 and 6 are frequently unused, 4 wire cable may be used in these installations.

If an existing installation uses a different wiring colour code system, this should be retained on any new or extended installation.

Additional secondary extension outlets should be wired in parallel with the existing installation via the IDC terminals, (i.e. pin 1 to pin1, pin 2 to pin 2, etc).

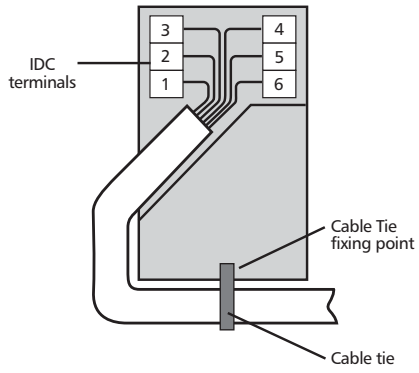
In the event that the earth terminal is required to be used, the installer must ensure that a suitable earth conductor is present to connect to the earth terminal. (In the case of 2G products both TV modules should be earthed).

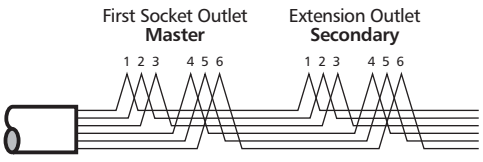
In the event that the earth terminal is required to be used, the installer must ensure that a suitable earth conductor is present to connect to the earth terminal. (In the case of 2G products both TV modules should be earthed).

Telephone Wiring Scheme

1 GREEN / white
2 BLUE / white
3 ORANGE / white
4 WHITE / orange
5 WHITE / blue
6 WHITE / green

Note: Main wire colour is shown in capitals





Logic Plus Combination Plates 2/4-gang Stacked Combination Plate

4 Gang Plate Description

The 4-gang Stacked Combination Plate carries 2x 2-gang 13A DP switched sockets, plus a Quad TV, FM/DAB, Satellite outlet, single TV (IEC Female) and an additional Telephone socket.

Additionally, there is a 4-module Euro area capable of accommodating any additional telephone or media products from the Euro modular range.



Quad TV, FM/DAB, Satellite outlet & additional TV Socket
As used on K3566 WHI

BT Telephone Socket
As used on K3566 WHI

4-module Euro Housing
This portion of the plate accepts up to 4 x 50mm high by 25mm wide Euro modules. (100mm x 50mm aperture)

Technical specification

Frontplate

The frontplate complies with the mechanical strength requirements of BS 5733 2010.

Switched socket specification

Compliant to BS 1363 Part 2: 1995

Electrical

Voltage rating 250V a.c.

Current rating 13 Amp per socket outlet

Terminal capacity

Live, Neutral & Earth
3 x 2.5mm²
3 x 4mm²
2 x 6mm² (standard)

Physical

Ambient operating temperature:

-5°C to +40°C (not to exceed an average of more than 25°C in any 24 hour period)

IP rating:

IP2XD

Max. installation altitude 2000 metres

Note

- Pre-configured back boxes available shall be used with these plates. These are 853ZIC, which is 35mm deep, and for greater wiring space 854ZIC, which is 47mm deep
- These back boxes should always be used to ensure alignment of the fixing screws is correct and proper segmentation between mains and low voltage products is maintained
- Mains operated products and extra low voltage modules must not be installed within the same front plate aperture. Refers to BS 7671 IEE Wiring regulations for detail
- When removing the fixing screws and front plate from an installation to gain access to low voltage modules, please be aware that there will also be access to the mains supply

2 Gang Plate Description

The 2-gang Stacked Combination Plate carries a 2-gang 13A DP switched sockets and an additional 4-module Euro area capable of accommodating any additional telephone or media products from the Euro modular range.

Technical specification

Frontplate

The frontplate complies with the mechanical strength requirements of BS 5733 2010.

Switched socket specification

Compliant to BS 1363 Part 2: 1995

Electrical

Voltage rating 250V a.c.

Current rating 13 Amp per socket outlet

Terminal capacity

Live, Neutral & Earth
3 x 2.5mm²
3 x 4mm²
2 x 6mm² (standard)

Physical

Ambient operating temperature:

-5°C to +40°C (not to exceed an average of more than 25°C in any 24 hour period)

IP rating:

IP2XD

Max. installation altitude 2000 metres

Note

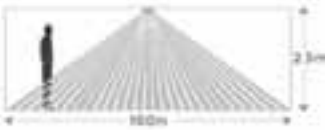
- Pre-configured back boxes available shall be used with these plates. These are 857ZIC, which is 35mm deep, and for greater wiring space 858ZIC, which is 47mm deep
- These back boxes should always be used to ensure alignment of the fixing screws is correct and proper segmentation between mains and low voltage products is maintained
- Mains operated products and extra low voltage modules must not be installed within the same front plate aperture. Refers to BS 7671 IEE Wiring regulations for detail
- When removing the fixing screws and front plate from an installation to gain access to low voltage modules, please be aware that there will also be access to the mains supply

Simple Fit PIRs

Technical specification

Maximum recommended mounting height:
1.8m to 3m

Range:
Cone-shaped detection pattern,
5m radius at 2.5m mounting height



Operating voltage:
AC220~240V/50Hz

Recommended circuit protection:
16A

Maximum load:
6A or 1500W fluorescent/incadescent lightling load capacity

Photocell:
Approx. 30~200 Lux

Off delay:
5sec - 40min

Colour:
White

Material:
Flame retardant PC

IP rating:
IP20

K5015
Depth required behind ceiling:
100mm

Weight:
105g excluding cable

K5016
Weight:
105g approx



K5015



K5016

Description

MK Simple Fit Sensors offer cost effective presence detection for lighting control in small to medium areas. This one-box solution is easy to install and commission, and requires no additional parts.

The following versions are available:

- Flush mounted K5015 - Spring Clips enable ease of installation in plasterboard ceilings
- Surface Mounted K5016 - Screw and Plug Fixings can be mounted direct to the ceiling or on to a square pattress box (K2160 WHI)

Features

Advanced presence detection by passive infrared (PIR) technology

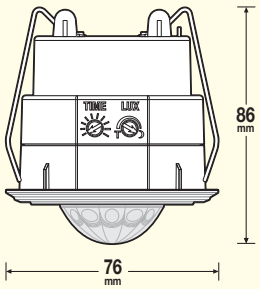
Passive photocell holds lights off when area becomes occupied in bright ambient conditions

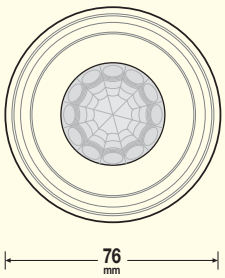
Off delay in minutes following the last observed movement after which lights switch off

Detection pattern and approx range in metres at floor level for 2.5m mounting height (detection pattern is cone shaped).

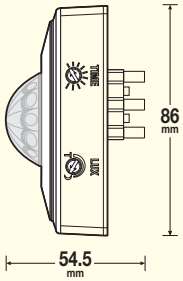
Dimensions

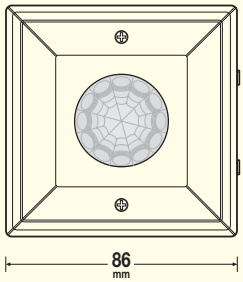
K5015





K5016



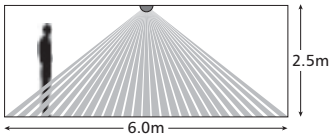


Standard PIRs

Technical specification

Maximum recommended mounting height:
3.0m

Range:
Cone-shaped detection pattern,
diameter (at floor level) = 2.4 x mounting height



Operating voltage:
230V 50Hz

Recommended circuit protection:
10 Amps

Maximum load:
6 Amps resistive or fluorescent

Photocell:
Adjustable 50-5000 lux

Off delay:
20 minutes (fixed) and a 10 second Walk Test Mode
(need K4050 or K4053 to put it in a Walk test mode)

Colour:
White

Material:
Flame retardant PC/ABS

IP rating:
K4010: IP4X
K4011: IP3X

K4010
Depth required behind ceiling:
125mm

Weight:
Flush – 70g excluding cable

Surface – 200g approx

K4011
Weight:
200g approx



K4010



K4011

Description

Standard PIRs are part of a comprehensive range of presence detection systems designed to control any type of lighting load, particularly modular luminaires.

They provide simple, cost-effective presence detection for lighting control in small areas.

The following versions are available:

- Slimline flush K4010
- Surface mounted K4011

Features

Advanced presence detection by passive infrared (PIR) technology

Passive photocell holds lights off when area becomes occupied in bright ambient conditions

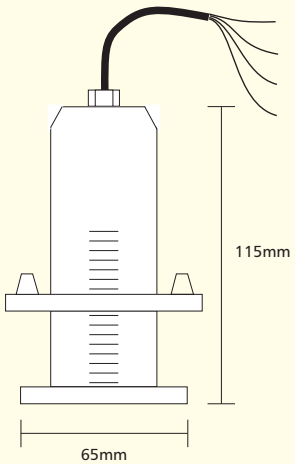
Off delay in minutes following the last observed movement after which lights switch off

Detection pattern and approx range in metres at floor level for 2.5m mounting height (detection pattern is cone shaped).

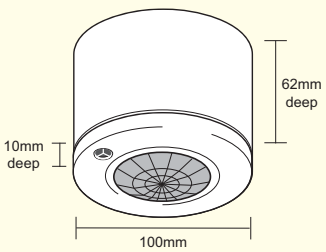
Hand-held Controllers (K4051 and K4052) provide local user override

Dimensions

K4010 – flush detector



K4011 – surface detector

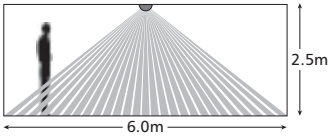


Superior PIRs

Technical specification

Maximum recommended mounting height:
3.0m

Range:
Cone-shaped detection pattern,
diameter (at floor level) = 2.4 x mounting height



Off delay:
1 minute – 96 hours (5-35 mins via K4050) and
10 second Walk Test Mode. (Off Delay 1 & 2 on K4017 and K4018 are independently adjustable.)

Photocell:
Adjustable 50-5000 lux

Operating voltage:
230V 50Hz

Recommended circuit protection:
10 Amps

Maximum load:
6 Amps per output (not exceeding 10A in total) only in dual circuit option

Colour:
White

Material:
Flame retardant PC/ABS

Weight:
Flush – 70g excluding cable
Surface – 200g approx

IP rating:
K4015: IP4X
K4016: IP3X

Description

Superior PIRs are part of a comprehensive range of presence detection systems designed to control modular luminaires with high frequency ballasts, and other lighting loads.

They offer high-performance, programmable presence detection for lighting control in offices and open-plan workstations. Available in flush and surface mount versions with single or dual circuit options.



K4015

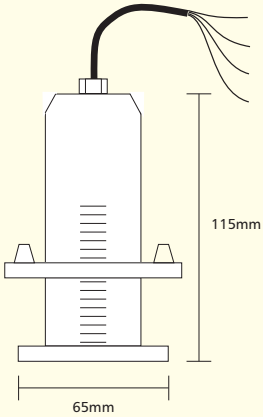


K4016

Features

- Presence detection is by passive infrared, effectively enhanced to improve sensitivity to small movements
- Passive photocell holds lights off in bright ambient conditions. Active photocell has the capability to switch lights off in occupied areas
- Off delay in minutes following the last observed movement after which the lights switch off (1 minute to 96 hours via K4053)
- Detection pattern and approx range in metres at floor level for 2.5m mounting height (detection pattern is cone shaped).
- Dual-circuit option (1 x volt-free, 1 x switched-live output: K4017 & K4018 only). Switched-live influenced by photocell, volt-free output by presence detection only. Independent time delays can be programmed via K4050 or K4053
- Hand-held Controllers (K4051 and K4052) provide local user override
- Remote programming via K4050 or K4053 ensures changes can be easily accommodated (Note that not all options are available when using HP10)
- Washroom mode. If no movement is detected in a 24-hour period, detector can be programmed to switch the load on for the duration of the off delay. With suitable valve unit can be used as urinal control

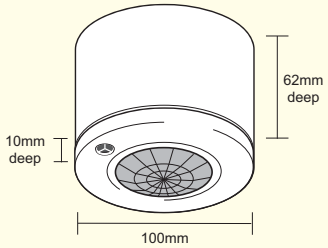
Dimensions



Brown – Live In
Black – Live Out
Blue – Neutral
Green/Yellow – Earth
(no internal connection)

Suitable for flush mounting in a suspended ceiling tile, maximum 54mm thick and with a minimum clearance of 125mm between front surface of tile and hard ceiling behind.

Cut a 50mm diameter (K4054 plasterboard fixing kit) circular hole in the ceiling tile, feed the flying lead and detector through and secure into position with the locking ring.



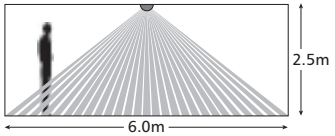
The housing may be secured to a hard surface or a BESA box. The detector fits into the housing with a simple bayonet action.

Superior PIRs for DSI

Technical specification

Maximum recommended mounting height:
3.0m

Range:
Cone-shaped detection pattern,
diameter (at floor level) = 2.4 x mounting height



Photocell:
Regulating

Operating voltage:
230V 50Hz

Recommended circuit protection:
10 Amps

Capacity:
K4019 – 9 ballasts
K4020 – 25 ballasts

Output:
Digital DSI

Colour:
White

Material:
Flame retardant PC/ABS

Weight:
Flush – 70g excluding cable
Surface – 200g approx

IP rating:
K4019: IP4X
K4020: IP3X

Description

Superior Self Regulating PIRs offer high performance, programmable presence detection for lighting control for work stations and offices. It is designed to control groups of luminaires by regulating DSI type ballasts.



K4019

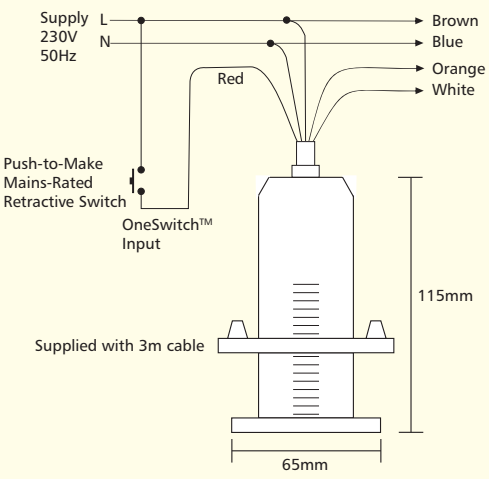


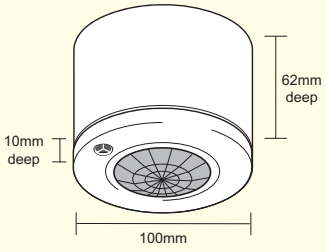
K4020

Features

- Presence detection is by passive infrared, effectively enhanced to improve sensitivity to small movements
- Regulating photocell ensures a minimum maintained light level, taking account of the contribution from adjacent luminaires and daylight
- Incorporates simple scene-setting - up to six scenes can be set via user remote
- Off delay in minutes following the last observed movement after which the lights switch off (1 minute to 96 hours via K4053)
- Detection pattern and approx range in metres at floor level for 2.5m mounting height (detection pattern is cone shaped)
- Hand-held Controllers (K4051 and K4052) provide local user override
- Remote programming via K4050 or K4053 ensures changes can be easily accommodated
- OneSwitch™ Dimming. Manual input to adjust light level or turn luminaires on or off

Dimensions



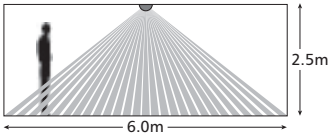


Battenfit Sensors

Technical specification

Maximum recommended mounting height:
5.0m

Range:
Cone-shaped detection pattern,
diameter (at floor level) = 2.4 x mounting height



Off delay:
1 minute – 96 hours (5-35 mins via K4050) and
10 second Walk Test Mode. (Off Delay 1 & 2 on K4017 and K4018 are independently adjustable.)

Photocell:
Adjustable 50-5000 lux

Operating voltage:
230V 50Hz

Recommended circuit protection:
10 Amps

Maximum load:
2A for K4041 and K4042
25 ballast for K4043 and K4044

Colour:
White

Material:
Flame retardant PC/ABS

Weight:
100g

IP rating:
4X



K4041, K4042, K4043, K4044

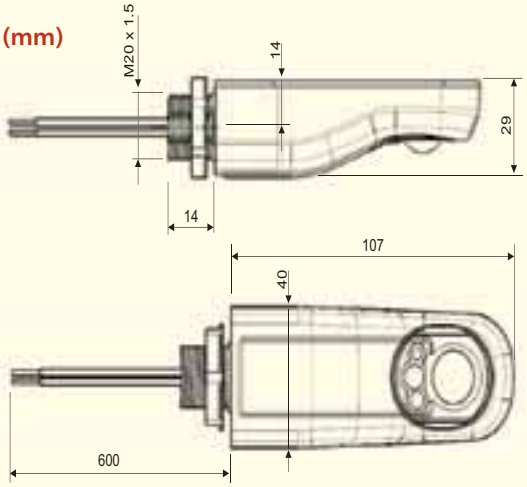
Features

- Advanced presence detection by passive infrared (PIR) technology
- Off delay in hours following the last observed movement after which lights switch off. Up to 96 hours with K4053. (K4042, K4043 and K4044 only) Fixed 20 minutes off delay with K4051
- Passive photocell holds lights off in bright ambient conditions. Active photocell has the capability to switch lights off in occupied areas (K4042 only)
- Regulating photocell adjusts luminaire output to maintain constant light levels (K4043 and K4044 only)
- Detection pattern and range in meters under normal operating conditions
- One Switch Dimming. Manual input to adjust light level or turn luminaires on or off (K4043 and K4044 only)
- Hand-held Controllers (K4051 and K4052) provide local user override
- Infrared programming enables easy commissioning and re-commissioning
- Dual circuit option (switching or digital dimming) available (K4043 and K4044 only)
- Scene setting – lights switch on to a pre-programmed scene when area becomes occupied (K4043 and K4044 only)

Description

A range of simple to fit batten-mounted sensors which can deliver energy savings of up to 50%. The BattenFit sensor is a simple-to-fit control solution for batten style luminaires.

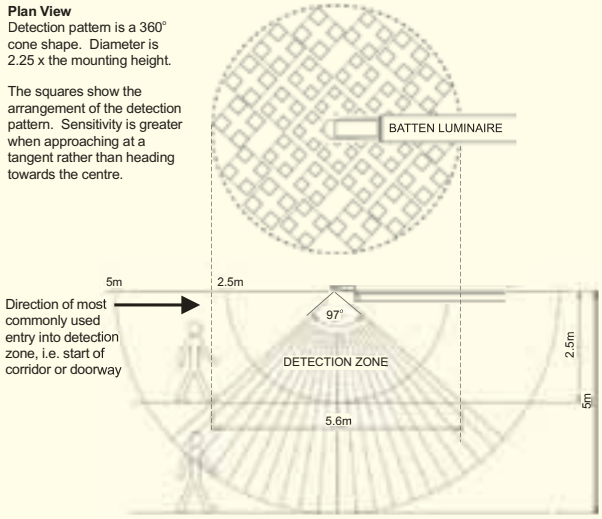
Dimensions (mm)



Detection Profile

Plan View
Detection pattern is a 360° cone shape. Diameter is 2.25 x the mounting height.

The squares show the arrangement of the detection pattern. Sensitivity is greater when approaching at a tangent rather than heading towards the centre.



Digital Sensors – Ceiling Mounted

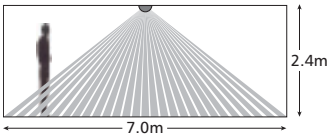


K4025

Technical specification

Maximum recommended mounting height:
3.0m

Range:
Approx 7m dia at 2.4m ceiling height



Off delay:
5-60 minutes – adjustable

Photocell:
Adjustable 50-5000 lux

Operating voltage:
230V 50Hz

Recommended circuit protection:
10 Amps

Maximum load (VOLT-FREE):
6 Amps

Maximum load (DSI):
25 ballasts

Colour:
White

Material:
Flame retardant PC/ABS

Weight:
300g

IP rating:
IP3X

Features

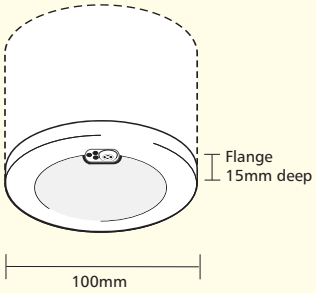
- Active presence detection by microwave technology
- Regulating photocell actively monitors ambient light levels and adjusts the light output accordingly (dimmable control gear only)
- Incorporates simple scene-setting - up to six scenes can be set via user remote
- Off delay in minutes following the last observed movement after which the lights switch off (1 minute to 96 hours via K4053)
- Detection pattern and range in metres under normal operating conditions
- Dual circuit control. Digital output always influenced by photocell, relay output can be influenced by photocell if configured
- Hand-held Controllers (K4051 and K4052) provide local user override
- Remote programming with the K4053 ensures changes can be easily accommodated
- OneSwitch™ Dimming. Manual input to adjust light level or turn luminaires on or off

Description

Digital sensors are part of a comprehensive range of presence detection systems designed to control modular luminaires with DSI, high frequency ballasts and other lighting loads.

They offer superior-performance programmable presence detection for lighting control in offices and open-plan workstations. They use microwave presence detection technology which enables the range to be adjusted to ensure a tailored detection pattern to suit any application and is available for flush and surface mounting with single or dual-circuit option.

Dimensions



Digital sensors utilise microwave radar to monitor a space for movement. This involves transmitting a very low power microwave signal and examining the reflected signal for frequency variations called “doppler shifts”. The microwave system is extremely sensitive to small body movements and provides effective presence detection in rooms up to 20m x 20m.

Please note that this extreme sensitivity makes it essential that the detector be installed on a rigid surface that will not itself be subject to movement or vibration.

Please note also that microwave technology is not recommended for applications where there are large areas of metal, e.g. metal ceiling or floor tiles, as unpredictable sensitivity may result.

Digital Sensors – Corner Mounted

Technical specification

Maximum recommended mounting height:
3.5m

Range:
Adjustable up to 20m

Off delay:
10 seconds to 20 minutes

Photocell:
Adjustable 50-5000 lux

Operating voltage:
230V 50Hz

Colour:
White

Material:
Flame retardant PC/ABS

Weight:
250g

IP rating:
43 when ceiling mounted
4X when wall mounted



K4033



K4032

Features

- Active presence detection by microwave technology
- Passive photocell holds lights off in bright ambient conditions
- Off delay in minutes following the last observed movement after which the lights switch off
- Detection pattern and range in metres under normal operating conditions
- Hand-held Controller (K4051) provide local user override

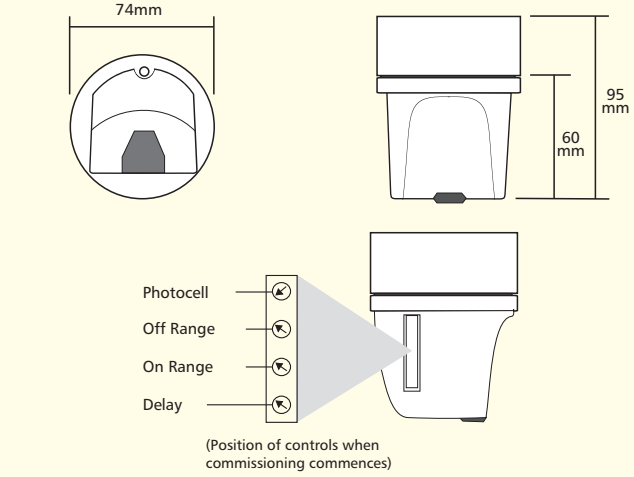
Description

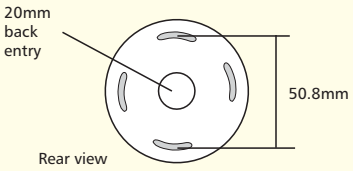
Digital corner mounted sensors are high performance, directional presence detector with built-in photocell for use in almost any internal space. It was conceived to bridge the gap between the Standard Series LightSpot and the Long Range equipment. It is ideal for larger classrooms, conference rooms, longer storage aisles etc. It is a self-contained unit, making installation very simple and straightforward.

They utilise microwave technology and are capable of effective presence detection in rooms of up to 20m x 20m.

The units are self-contained, featuring a movement detector, photocell and 10 Amp (load switching) element in one, easily deployed housing. The detectors may be surface or semi-flush mounted.

Dimensions





K4032 – Surface version

The back-box can be secured directly to a hard surface or to a conduit stop end box.

K4033 – Semi-flush version

Use a hole saw to drill a 76mm hole into the ceiling tile. The flush ring is designed to clamp the tile between its two halves.

Ultrasonic Sensors

Technical specification

Operating voltage:
230V 50Hz

Maximum recommended mounting height:
5 metres

Switch capacity:
10 Amps – Incandescent lamps: 1500W max (230V)

Terminal capacity:
2 x 1.5mm or 1 x 2.5mm

Weight:
148g

Time delay:
5, 10 or 15 mins

Power-up condition:
select ON or OFF

Detector range:
adjustable

On/Off Ranges::
adjustable

Ultrasonic frequency:
40kHz

Photocell:
adjustable 50 to 5000 lux

Description

Ultrasonic sensors are general purpose, fully automatic, directional presence detectors with photocell. They save energy by switching off lights in unoccupied areas and by holding lights off in occupied areas which have adequate natural light. They use a specially developed ultrasonic radar to monitor the controlled space for movement. This radar is sensitive enough to respond to even very small movements thus ensuring that lights are sustained whenever the controlled space is occupied. If no movement has been detected for a pre-selected period, the sensors switch the lights off until the next visitor is detected.

The sensors control feature a movement detector, photocell and 10 Amp load switching element in one easily deployed housing. The technology has been refined and improved over many years of efficient, reliable service in a wide range of industrial and commercial environments. The latest designs use state-of-the-art miniaturisation to pack the features into a small, attractive yet rugged enclosure which gives full field-of-view adjustment. Detectors are available for surface or semi-flush mounting.



K4030



K4031

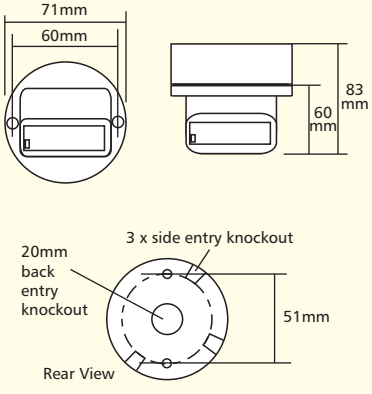
Features

- Active presence detection by ultrasonic technology
- Passive photocell holds lights off in bright ambient conditions
- 5-15 Off delay in minutes following the last observed movement after which the lights switch off
- 6m 13m Detection pattern and range in metres under normal operating conditions

Dimensions

K4030 – Surface version

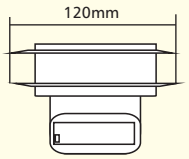
The back-box can be secured directly to a hard surface or to a conduit stop end box.



K4030 – Semi Flush version

Use a hole saw to drill a 76mm hole into the ceiling tile. The flush ring is designed to clamp the tile between its two halves.

Flush Plate & Clamp (K4078)
For simple flush mounting of detector to suspended ceilings.
Max clamping distance – 25mm



A sensor will fit to its own backplate or to a standard 25mm switch sinking box.

Ultrasonic sensors utilise ultrasonic radar to monitor a space for movement. This involves transmitting an ultrasound signal and examining the reflected signal for frequency variations called “doppler shifts”. The transmitted signal is more quickly dissipated in open space and squeezed out by constraining walls and ceilings. The range of the detector also depends upon the type of movement being observed: for example, walking activity can be observed at a greater distance than the slight hand or body movement to be expected from a person working at a desk. Note that detectors can see behind themselves slightly so must be inset in a storage aisle or corridor application.

Long Range Detectors

Technical specification

CONTROL UNITS (K4039/K4040)
Operating voltage:
230v 50 hz

Switch:
10 amp x 230v (volt-free)

Incandescent lamps:
1500w max (at 230v)

Terminals:
1 x 6mm or 2 x 2.5mm

Weight:
850g approx

Power supply:
Transformer isolated 12V

Semi-automatic:
Using low voltage switch

Segregation:
None

Time-out:
0-16 minutes per channel
K4039 - 1channel
K4040 - 2channels

Power-up condition:
Select on or off

Photocell:
Remote operation

Dimensions:
175 x 125 x 75 mm

K4036 – SURFACE DETECTOR
Voltage:
12V dc

Frequency:
10.7GHz low power microwave

Weight:
800g approx

On/Off Range:
Adjustable

Construction:
Zinc & polycarbonate

IP rating:
IP4X

Max mounting height:
6m

Flush fixing (K4035 only):
To 2-gang sinking box



K4036
(K4039/K4040 required)



K4035
(K4039/K4040 required)

Description

Long Range Detectors are high performance presence detection system for use in almost any internal space. It was conceived to bring effective energy-saving control to large areas such as warehouses, sports halls, workshops, hangars, classrooms etc. The system offers many outstanding features and user options, making it the natural choice for large and prestigious situations. Long Range LightSpot is designed to the highest quality standards and performance criteria to ensure efficient and trouble-free operation in the most exacting locations.

Long Range Detectors comprise of 230-volt control units with single or dual volt-free output relays, rated to switch any type of load up to 10 amps.

Features

Active presence detection by microwave technology

Passive photocell holds lights off in bright ambient conditions (Requires K4106). Active photocell has the capability to switch lights off in occupied areas

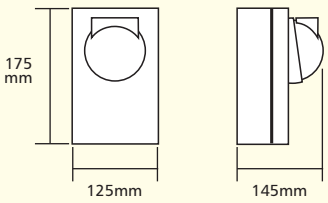
Off delay in minutes following the last observed movement after which the lights switch off

Detection pattern and range in metres under normal operating conditions

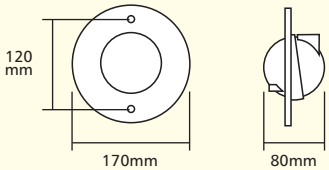
Dual circuit control. Relay 2 (K4040 model only) always influenced by photocell, relay 1 output can be influenced by photocell if configured

Dimensions

K4036 – surface detector



K4035 – flush detector



Universal Photocell

Technical specification

Operating voltage:
230V 50Hz

Power consumption:
<10W

Volt-free contact:
6 Amps max. Any type of lighting load

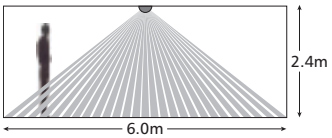
Ambient temperature range:
0 to +40ºC

Ballast control type:
Single master; no other masters to be connected

Ballast control capacity:
25 Max (1-10V, DSI, DALI Ballasts – ballast type selected via K4053)

Photocell sensitivity:
0 to 5000 Lux (with a 20% reflective workplane)

Recommended mounting eight:
2.4m



Maximum mounting height:
6.0m

Material:
Flame Retardant PC/ABS

IP rating:
IP3X

Weight:
350g

Description

The K4045 is a high performance regulating and switching photocell for DSI, DALI, Analogue 1-10V and non-regulating ballasts.

It can be used with all common types of control gear in almost any environment where lights would be left on unnecessarily when there is sufficient daylight.

The K4045 observes the controlled space, not just daylight, and takes account of all light contributions.

Photocell operation is extremely user-friendly: lights will not be switched on or off until the Passing Cloud Time delay has elapsed thus removing the possibility of nuisance switching.

The K4045 offers more advanced features and operational parameters than an ordinary, simple photocell. Consequently, it requires careful and considered commissioning and is aimed at higher specification projects.

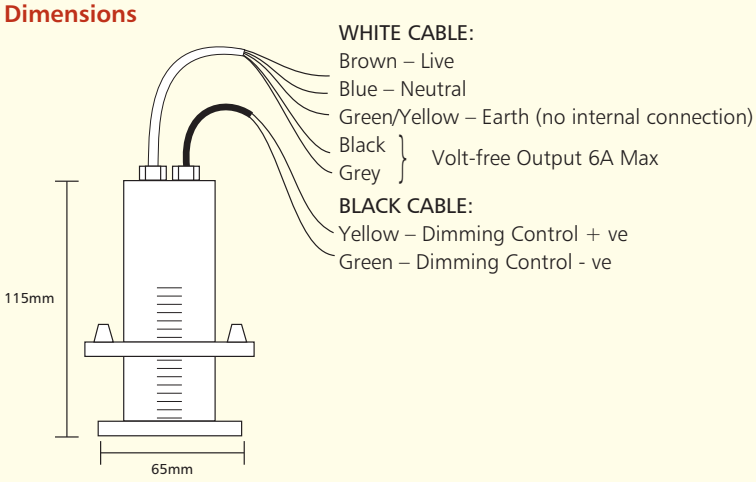


K4045

Features

- Regulating photocell ensures a minimum maintained light level, taking account of the contribution from adjacent luminaires and daylight
- Hand-held Controllers (K4051 and K4052) provide local user override
- Remote programming via K4050 or K4053 ensures changes can be easily accommodated
- Incorporates simple scene-setting - up to six scenes can be set via user remote
- Passing cloud timer – prevents nuisance switching when light levels fluctuate rapidly, can be set from 5-60 minutes

Dimensions



Accessories



K4050





K4051 K4052



K4053

K4050 – Hand-held Programmer

Technical specification

Battery type:
6V dc (2 x CR 2032 cells)

Typical battery life:
3 years

Dimensions:
75 x 58 x 18mm (L x W x D)

Weight:
50g

Description

The K4050 is a simple-to-use, low-cost programming tool for use with MK's range of stand-alone lighting control products.

Features

Parameters, such as time delay and semi-automatic/fully automatic operation, are chosen via an array of 12 dil switches, the status of which is then programmed into the MK detector.

Most programmable parameters are catered for although not all options are available for programming on some products (see K4053 below).

Specification

The K4050 can also be used to set the regulating light level in conjunction with a suitable lux meter on supported products via a simple UP/DOWN/STORE command.

All detectors (except Standard PIRs, Digital Corner Mounted and Long Range) are programmable via the K4050 although not all the programmable parameters are supported by all detectors. Please check individual Technical Data Sheets for details.

K4051 & K4052 – Hand-held Controllers

Technical specification

Battery type:
3V dc (2 x AAA alkaline cells)

Typical battery life:
1 year

Dimensions:
120 x 56 x 22mm (L x W x D)

Weight:
115g

Operating range:
2.5m

K4051

The K4051 provides the same functions as the K4052 along with the ability to set and recall up to six different lighting 'scenes'. Supplied with wall bracket. See Technical Data Sheets on individual detectors to check compatibility.

K4052

This remote control offers the user temporary on/off override and light level adjustment. Supplied with wall bracket. See Technical Data Sheets on individual detectors to check compatibility.

K4053 – Digital Programmer

Technical specification

Battery type:
4.5V dc (3 x AAA alkaline cells)

Display:
128 x 64 monochrome dot matrix LCD

Dimensions:
150 x 85 x 35mm (L x W x D)

Weight:
228g

Description

The K4053 Digital Programmer can be used with all K4050-compatible products; it offers a full range of programmable parameters and also a "Download" facility.

Room Thermostat

Standards and approvals

Complies with BS EN 60730-1, BS EN 60730-2-7,
BS EN 55014-1, BS EN 55014-2
Conforms to 73/23/EEC, (93/68/EEC) & 89/336/EEC (93/68/EEC & 92/31/EEC).

Technical specification

Voltage Rating:
230V AC 50Hz

Switch Rating:
Terminal 3 – 10A resistive, 3A inductive
Terminal 4 – 6A resistive, 2A inductive

Switch Type:
Single pole, double throw (SPDT)

Temperature Setting Range:
10 to 30°C

Thermal Differential:
0.5-1-0°C (at a heat ramp of 3°C per hour with heat anticipator connected)

Installation

A room thermostat must be located in a position with good air circulation at average ambient temperature, preferably on an inside wall about 1.2 to 1.5m from the floor.

The thermostat must not be positioned in draughts, above a radiator or where it will be subject to localised heat gains from direct sunlight, water pipes or appliances.

To obtain close temperature control the heat anticipator must be operational. This is achieved by wiring the unit as shown on the wiring diagram.

There are two knockouts on the top of the cover and one knockout on each side for surface wiring. When mini-trunking is used it must be fitted firmly against the thermostat cover so that there is no gap between the cover and trunking.



Description

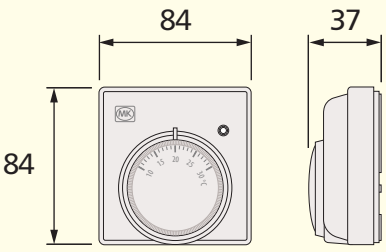
The KT6360BWHI is a mains voltage room thermostat designed to give automatic temperature control of domestic wet central heating systems. It can be used to directly switch a circulating pump or boiler, or to operate spring return and motor open/motor close zone valves. The KT6360BWHI can switch electrical heating loads up to 10A.

The KT6360BWHI thermostat can also be used for cooling applications.

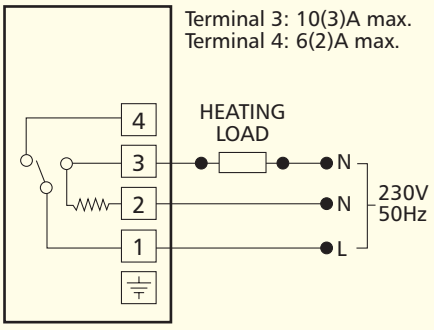
Features

- Dual diaphragm temperature sensing element
- Suitable for surface or switch box mounting
- Heat anticipator for close temperature control
- Indicator neon, illuminates on a call for heat
- Change-over contact switching
- Double insulated
- Earth wire parking terminal
- RFI suppression
- Large setting dial

Dimensions



Wiring



N.B.1. Switching contacts are shown in the normally open position – i.e. no heat demand.

2. Typical heating loads: Motorised zone valve, pump, boiler.

Electronic Timeswitch

Standards and approvals

Complies with BS EN 60730-1, BS EN 60730-2-7,
BS EN 55014-1, BS EN 55014-2
Conforms to 73/23/EEC, (93/68/EEC) & 89/336/EEC (93/68/EEC & 92/31/EEC).

Technical specification

Switch Type:
Single pole, double throw (SPDT)

Switch Rating:
3(3)A

Timing Accuracy:
±1 min/month

Timing Resolution:
Time of Day 1 minute
Programme Times 10 minutes

Ambient Operating Temperature:
0-50°C

Power Reserve:
Minimum 4 days

Weight:
330g approx (including wall plate)

Earthing:
Double Insulated

Battery Back-Up:
Integral battery with built-in charging circuit

Options

KST6100CWHI 7 Day Single Channel timeswitch with up to three ON/OFF periods a day.

KST6100AWHI 24 Hour Single Channel time-switch with up to two ON/OFF periods a day.

Installation

KST6100CWHI and KST6100AWHI can be either surface or flush switch box mounted, for both of which fixing screws are supplied. The wiring sub-base has holes to suit single switch boxes and breakouts for surface and channelled wiring and mini-trunking.

When wiring is completed the plug-in module is fitted onto the sub-base and secured by tightening the retaining screws.

For a full range of corresponding products, see pages 65-66 in the product selector.



Description

KST6100CWHI is a 7 day single channel timeswitch that gives great flexibility offering up to three on/off switchings per day, additionally, each day could be programmed differently. Ideal for combi installations when the user has different heating needs from day to day or as a zone control on larger systems.

Transfer of programming information from one day to the next is simplified by the provision of a copy button.

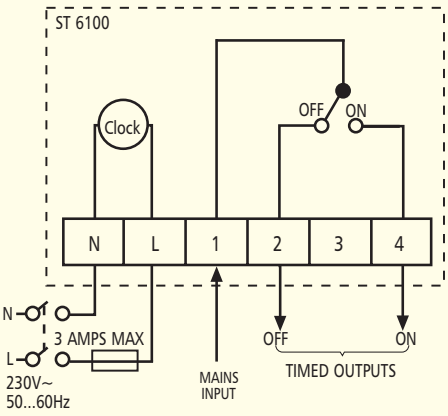
KST6100AWHI is a 24 hour timeswitch with two on/off switching times per day. This unit can be used for combi boilers, added zones or any application where small electrical loads need switching.

A hinged cover conceals the programming buttons when not in use, leaving only the two override buttons exposed. The front cover also carries abbreviated user instructions on the inside for permanent ready reference.

Features

- Built-in battery back-up
- Built-in start-up programme
- Clear digital display
- Ease of operation
- Temporary or permanent over-ride facilities
- 12-hour time display with am/pm indication
- Simple change to 24 hour clock display
- Programme indicator lights
- Double insulated
- Extra hour facility for one, two or three hour boost or programme extension
- Earth wire parking terminal

Wiring

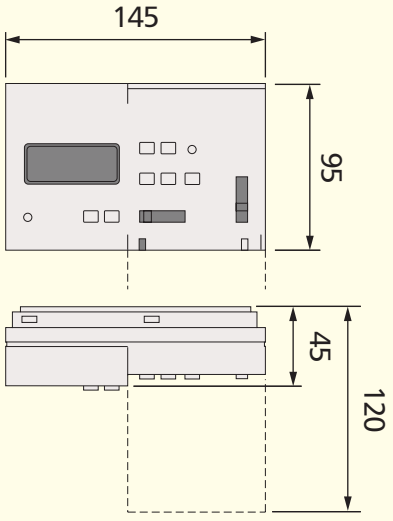


Notes

1. Suitable for potential free mains voltage switching.

2. If normal mains voltage is required link terminal L and 1.

Dimensions



Minimum clearance

Above wall plate	40mm
Below wall plate	100mm
Left/right of wall plate	10mm

Electronic Programmer

Standards and approvals

Complies with BS EN 60730-1, BS EN 60730-2-7,
BS EN 55014-1, BS EN 55014-2
Conforms to 73/23/EEC, (93/68/EEC) & 89/336/EEC (93/68/EEC & 92/31/EEC).

Technical specification

Switch Type:
Single pole, double throw (SPDT)

Switch Rating:
3(3)A

Timing Accuracy:
±1 min/month

Timing Resolution:
Time of Day 1 minute
Programme Times 10 minutes

Ambient Operating Temperature:
0-50°C

Power Reserve:
Minimum 4 days

Weight:
330g approx (including wall plate)

Earthing:
Double Insulated

Battery Back-Up:
Integral battery with built-in charging circuit

Options

KST6400AWHI 24 hour full programmer with independent time control for heating and hot water.

Installation

The KST6400AWHI can be either surface or flush switch box mounted, for which fixing screws are supplied. The wiring sub-base has holes to suit single switch boxes and breakouts for surface wiring and mini-trunking.

When wiring is completed the plug-in module is fitted onto the sub-base and secured by tightening the retaining screws.



Description

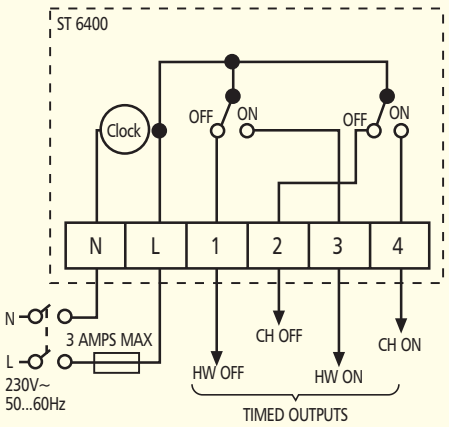
The KST6400AWHI is a fully featured electronic programmer offering 24 hour programming with up to two ON/OFF periods per day, which can be set independently for heating and hot water.

A hinged cover conceals the programming buttons when not in use, leaving only the four override buttons exposed. The front cover also carries abbreviated user instructions on the inside for permanent ready reference.

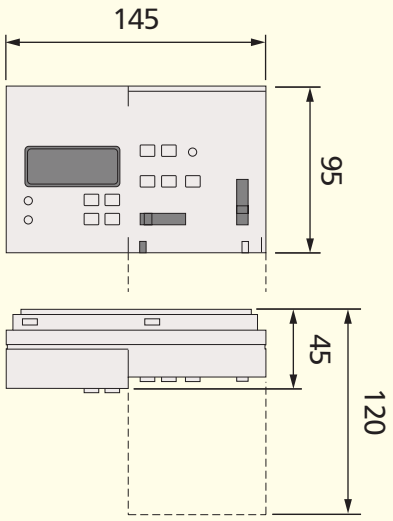
Features

- Independent time control of heating and hot water
- Up to three ON/OFF periods a day
- Built-in start-up programme
- Clear digital display
- Ease of operation
- Temporary or permanent over-ride facilities
- 12 hour time display with am/pm indication
- Simple change to 24 hour clock display
- Programme indicator lights
- Double insulated
- Extra hour facility for one, two or three hour boost or programme extension
- Earth wire parking terminal

Wiring



Dimensions



Programmable Thermostat

Standards and approvals

Complies with BS EN 60730-1, BS EN 60730-2-7,
BS EN 55014-1, BS EN 55014-2
Conforms to 73/23/EEC, (93/68/EEC) & 89/336/EEC (93/68/EEC & 92/31/EEC).

Technical specification

Switch Type:
Single Pole, double throw (SPDT)

Electric Rating:
230V~, 50…60Hz, 0.1A to 5A resistive
0.1A to 2A inductive (0.6pf)
24V~, 50…60Hz, 0.5A to 5A resistive
0.5A to A inductive (0.6pf)



Description

The KCMR701AWHI thermostat is designed to provide automatic time and temperature control of domestic heating systems.

It can be used as part of a system in conjunction with combi-boilers, oil-burners and gas fired boilers, circulation pumps, thermal actuators, zone valves and electric heat systems (<5A).

The KCMR701AWHI is designed with the installer in mind and includes a moulded back-plate with trunking guides and wiring breakouts to make installation quick and easy.

The unit is ideal for consumers who want reliable precise temperature control from a modern looking, simple to program and easy to use product.

Features

- Attractive slim, modern styling
- 24 hour heating program
- Up to 4 daily independent time and temperature level changes
- Room Temperature Enquiry
- EEPROM memory holds the user program indefinitely
- OFF mode has an integral frost protection setting at minimum 5ºC (installer adjustable) so that pipes in the house will never freeze in winter
- Battery powered by 2 x AA size (LR6) alkaline cells
- Minimum battery life of 2 years with low battery warning indicator
- Surface or wall box mounting options, with trunking guides and wiring breakouts to simplify installation
- No installer links or special installer switches on the back of the unit mean no adjustment is required for combi-boilers and most domestic central heating systems

Programmable Thermostat

Installation

Location

The KCMR701AWHI thermostat is the control element of the heating system and, therefore, MUST be located in a position with good air circulation, at average room temperature and on an inside wall, 1.5 metres above the floor level. Do not position the KCMR701AWHI thermostat near sources of heat (radiators, hot air vents, TV or lights), near doors or windows, or in direct sunlight.

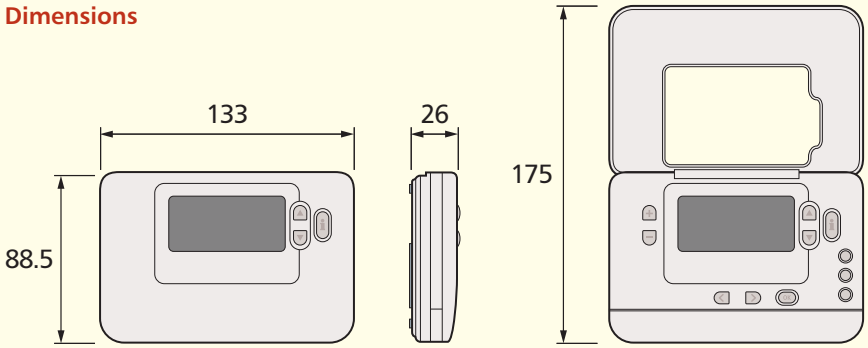
Mounting

The KCMR701AWHI thermostat can be mounted directly on the wall surface or on to an electrical wall box.

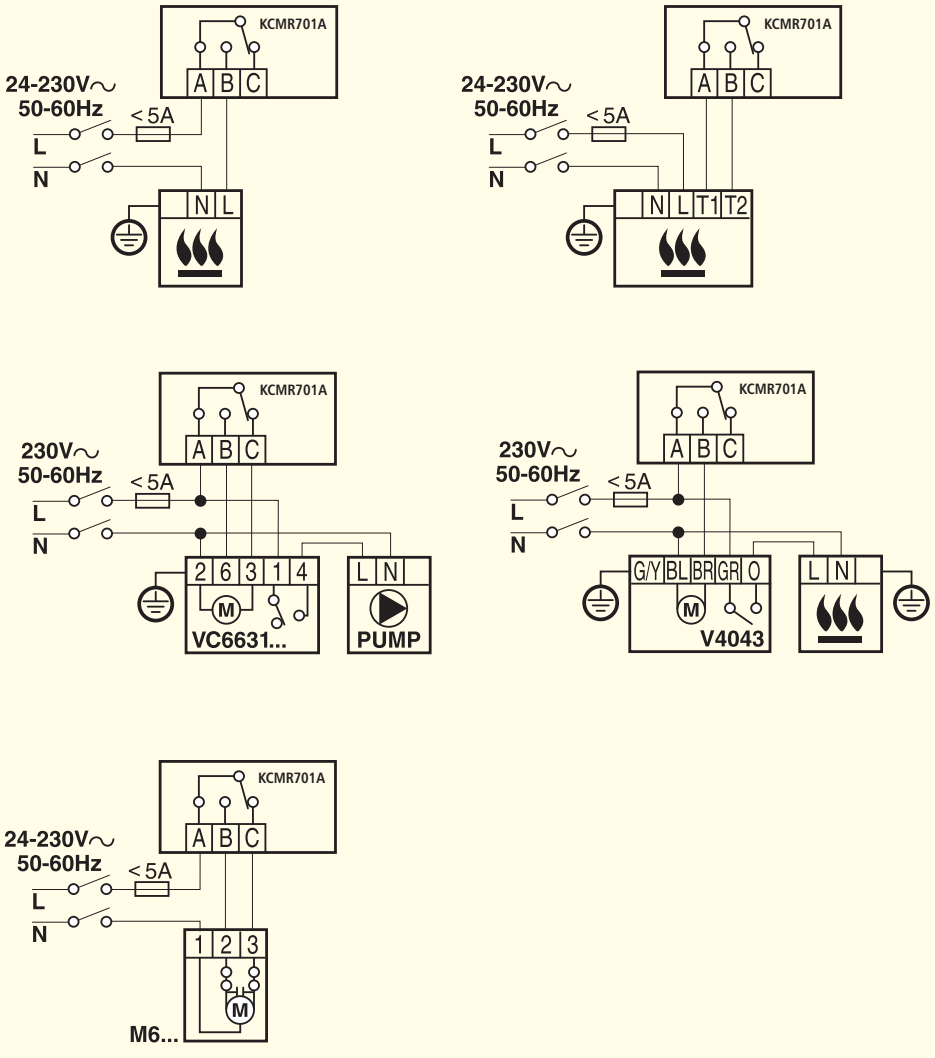
Wiring

The KCMR701AWHI thermostat is designed for fixed wiring only and must be installed in accordance with the latest I.E.E. regulations. Ensure the wiring connection to the supply is via a fuse rated at no more than 5 amps and a Class "A" switch (having contact separation of at least 3 mm in all poles).

Dimensions



Wiring



Programmable Thermostat

Standards and approvals

Complies with BS EN 60730-1, BS EN 60730-2-7,
BS EN 55014-1, BS EN 55014-2
Conforms to 73/23/EEC, (93/68/EEC) & 89/336/EEC (93/68/EEC & 92/31/EEC).

Technical specification

Switch Type:
Single Pole, double throw (SPDT)

Electric Rating:
230V~, 50…60Hz, 0.1A to 5A resistive
0.1A to 2A inductive (0.6pf)
24V~, 50…60Hz, 0.5A to 5A resistive
0.5A to A inductive (0.6pf)



Description

The KCMR707AWHI thermostat is designed to provide automatic time and temperature control of domestic heating systems.

It can be used as part of a system in conjunction with combi- boilers, oil-burners and gas fired boilers, circulation pumps, thermal actuators, zone valves and electric heat systems (<5A).

The KCMR707AWHI is designed with the installer in mind and includes a moulded back-plate with trunking guides and wiring breakouts to make installation quick and easy.

The unit is ideal for consumers who want reliable precise temperature control from a modern looking, simple to program and easy to use product.

Features

- Attractive slim, modern styling
- 7 day heating program
- Up to 4 daily independent time and temperature level changes
- Room Temperature Enquiry
- EEPROM memory holds the user program indefinitely
- OFF mode has an integral frost protection setting at minimum 5ºC (installer adjustable) so that pipes in the house will never freeze in winter
- Battery powered by 2 x AA size (LR6) alkaline cells
- Minimum battery life of 2 years with low battery warning indicator
- Surface or wall box mounting options, with trunking guides and wiring breakouts to simplify installation
- No installer links or special installer switches on the back of the unit mean no adjustment is required for combi-boilers and most domestic central heating systems

Programmable Thermostat

Installation

Location

The KCMR707AWHI thermostat is the control element of the heating system and, therefore, MUST be located in a position with good air circulation, at average room temperature and on an inside wall, 1.5 metres above the floor level. Do not position the KCMR707AWHI thermostat near sources of heat (radiators, hot air vents, TV or lights), near doors or windows, or in direct sunlight.

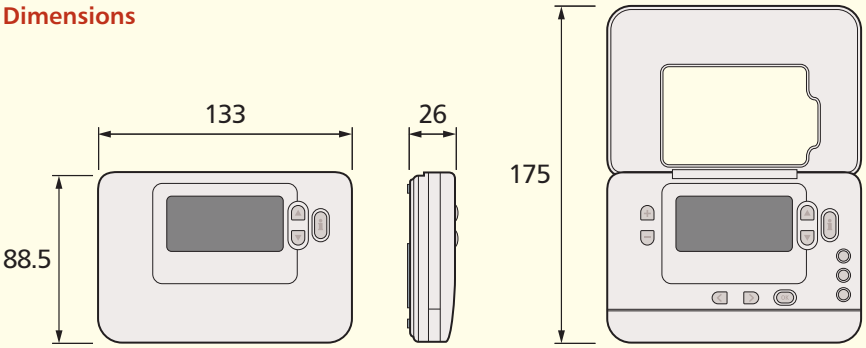
Mounting

The KCMR707AWHI thermostat can be mounted directly on the wall surface or on to an electrical wall box.

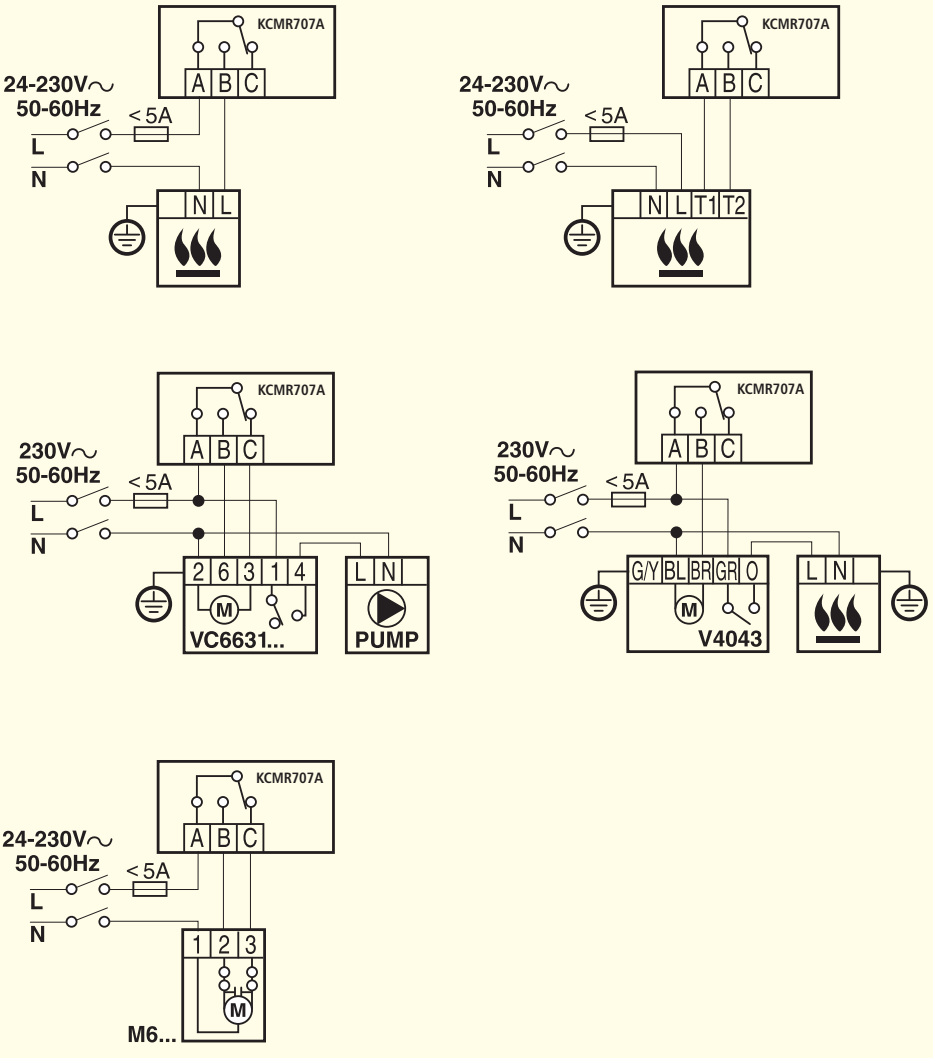
Wiring

The KCMR707AWHI thermostat is designed for fixed wiring only and must be installed in accordance with the latest I.E.E. regulations. Ensure the wiring connection to the supply is via a fuse rated at no more than 5 amps and a Class "A" switch (having contact separation of at least 3 mm in all poles).

Dimensions



Wiring



Ceiling Switches

Standards and approvals

3164WHI fully complies with the 16th Edition Wiring Regulations (BS 7671: 2008 with respect to safety isolation for maintenance purpose. Conforms to BS EN 60669-1: 1999

3190WHI, 3191WHI, 3192WHI, 3131WHI, 2051WHI, 2056WHI, conform to BS EN 60669-1: 1999

3151WHI conforms to BS EN 60669-1: 1999

Technical specification

Electrical

Voltage rating:
250V a.c.

Maximum rating:
See range details

Note: Switches do not have to be derated when used with resistive or fluorescent loads

Terminal capacity:

3131, 3190, 3191, 3192:
4 x 1.0mm²
3 x 1.5mm²

3151,
4 x 2.5mm²
2 x 4.0mm²
1 x 6mm²

3164,
4 x 4mm²
3 x 6mm²
1 x 10mm²
1 x 16mm²

2051/2056, Earth Terminal
6 x 1mm²
4 x 1.5mm²
2 x 2.5mm²
1 x 4mm²
1 x 6mm²

Physical

Ambient operating temperature:
–5°C to +40°C
(the average value over 24 hrs not exceeding 25°C)

IP rating:
IP3X

Max. installation altitude:
2000 metres

Installation

MK ceiling accessories are safe for use in all normal lighting applications. Do not mount them where they may be subjected to excessive moisture or dampness.

Wiring

Products must be installed in accordance with BS 7671: 2008.

For a full range of corresponding products, see pages 67-70 in the product selector.



Description

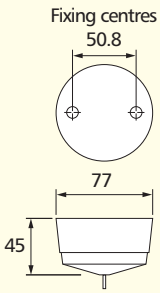
A range of 6 and 16 amp ceiling switch options plus a 50 amp DP flush mounted ceiling switch.

Features

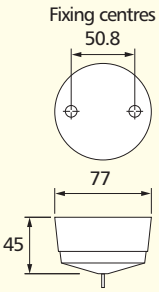
- Mounting blocks have an earth terminal rivetted into their bases
- 3190RCWHI has a retractive (momentary) switch action and can be wired as either pull to make or pull to break
- 3190RCWHI has a red pull cord
- Ceiling switches with standard white cords are 1.5m minimum length, and with standard red cords are 2m minimum length
- Ceiling switches with white cords **and bangles** are 2m minimum length, and with red cords **and bangles** are 3m minimum length
- 3164WHI is fitted with mechanical OFF indicator
- 3164 has a full 3 mm contact gap when off
- 3164 may be surface mounted

Dimensions (mm)

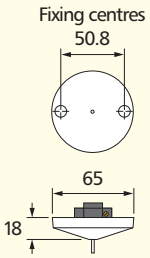
3191WHI/3192WHI



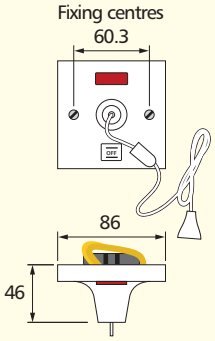
3190RCWHI



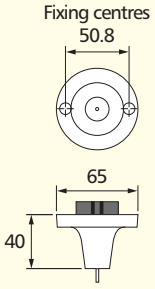
3131WHI



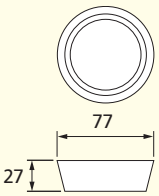
3164WHI



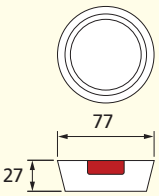
3151WHI



2051WHI



2056WHI



Ceiling Roses and Pendants

Standards and approvals

Heat resistant lampholders comply with BS EN 61184: 1997 T2

All ShockGuard lampholders comply with BS 7895: 1997 and BS EN 61184: 1997 T2

Ceiling roses comply with BS 67: 1987

Pendant sets are supplied with heat resisting PVC insulated and sheathed flexible 0.75 two core circular cable complying with BS 6500: 2000 (Table 29)

Technical specification

Electrical

Lampholders and batten lampholders

Voltage rating:
250V a.c.

Maximum rating:
150 watts

Terminal capacity:
Live, neutral & earth
3 x 1.0mm²
2 x 1.5mm²

Ceiling roses & base of pre-wired batten lampholders

Voltage rating:
250V a.c.

Maximum rating:
6 amps

Terminal capacity:
Live, neutral & earth
4 x 1.0mm²
3 x 1.5mm²
1 x 2.5mm²

Physical

Ambient operating temperature:
–5°C to +40°C

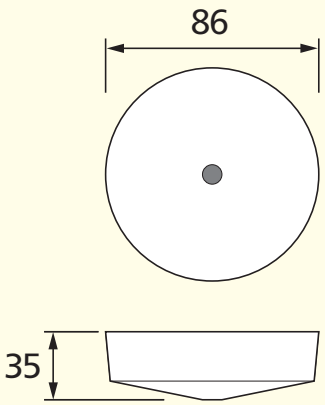
IP rating:
IP4X

Max. installation altitude:
2000 metres



Ceiling Rose

Dimensions (mm)



Description

The range includes ShockGuard™ SG type lampholders, pendant sets, batten lampholders and ceiling roses.

Features

ShockGuard™

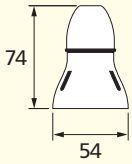
- Automatically shields the contacts as soon as the lamp is removed
- The contacts remain shielded until a new lamp is slotted into place
- While there is no lamp in place there is no danger of electrocution

Ceiling roses

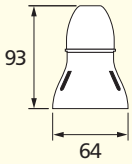
- Clear base and pre-cut aperture for ease of installation
- Clear markings
- Terminal layout allows cables to be cut to even length
- Earth terminal point used for easier cable access
- Halo available to give professional finish on damaged ceilings
  (for use with ceiling roses and pendant sets only)

Lampholders and Shockguard type Lampholders

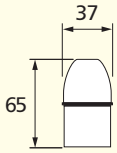
Dimensions (mm)

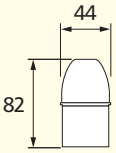
Standard Lampholder with protective skirt

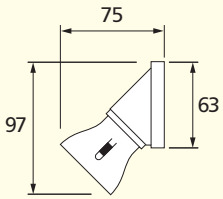
SG Type Lampholder with protective skirt

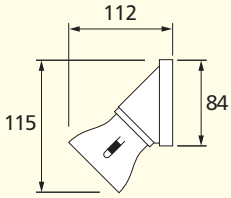
Standard Lampholder

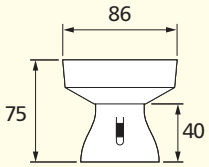
SG Type Lampholder

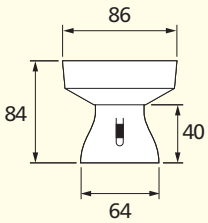
Standard Angled Batten Lampholder

SG Type Angled Batten Lampholder

Standard Batten Lampholder

SG Type Batten Lampholder

Heat Resistance

Two levels of heat resistance are nominated for lampholders but at different maximum working temperatures and the products must be identified by a different marking code.

Heat resistance	Max working temp
T2	Lamp cap temp 210°C marked BS 7895 and BSEN 61184 T2

Lamp wattage rating

All MK lampholders comply with category T2 BS EN 61184. It is important to ensure that the wattage rating of the lamp used is not higher than that for which the particular shade or luminaire is designed. The maximum rating in watts is marked on all shades and luminaries that comply with the requirements of BS 4533: Part 101.

Weight of fittings

Ceiling roses and pendant sets are suitable for fittings of up to 3 kg. Heavier fittings must be installed using independent support, e.g. ceiling hook.

Angled batten lampholders

Can be mounted direct to the wall. The surface mounting patress (1179 WHI) may be used if more wiring space is required.

Straight batten lampholders

Can be screwed direct to the ceiling but it must be ensured that it is fastened to a wooden joist. Integral Ceiling Rose included.

Ceiling roses and pendant sets

Flush mounting to circular conduit boxes in accordance with BS 4568: Part 2.

Installation

MK ceiling accessories are safe for use in all normal lighting applications. Do not mount them where they may be subjected to excessive moisture or dampness.

Wiring

Products must be installed in accordance with BS 7671: 2008.

3 and 4 Pin Accessories/Pre-Wired

Standards and approvals

BS 6972 & BS 5733

Heat resisting three core circular cable BS 6972 & BS 5733 to BS 6500:2000 (Table 29)

Low smoke zero halogen three core circular cable

Technical specification

Electrical

Voltage rating:
250V a.c. 50Hz

Current rating:
6 Amp

Terminal Capacity (Accessories)
Phase, neutral, earth & 'loop in' terminals will each accept:

K3230, K4230 – 1 x 0.75 or 1 x 1.00mm conductors

K3220, K3212, K3240, K4220, K4214 and K4240 – 5 x 0.75, 5 x 1.00, 4 x 1.50, 3 x 2.50 or 2 x 4.00mm² conductors

Physical

Static Suspension load:
5kg max

Ambient operating temperature:
–5°C to +40°C
(not to exceed an average of more than 25°C in any 24 hour period)

IP rating:
IP2XD

Max. installation altitude:
2000 metres





Description

A connection and distribution system that brings convenience and versatility to lighting installations. The range consists of a modular plug and socket interface which provides electrical connection in one easy click-in action. Luminaries can be plugged in without isolating the circuit. All live contacts are inaccessible and the earthing connection is made before any other.

Wired products incorporate either heat resisting (WHR) or low smoke zero halogen (LSF) insulated and sheathed flexible 0.75mm four core circular cable.

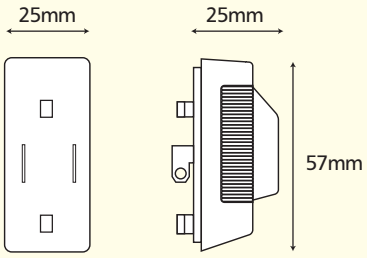
Features

- Live contacts are inaccessible
- Earth Contact – first to make, last to break
- Mechanical and Electrical Connection in one 'click-in' action
- Strong load grips support up to 5kg

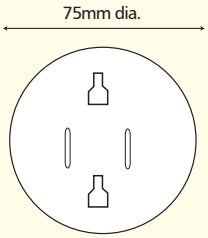
For a full range of corresponding products, see pages 72-76 in the product selector.

MOUNTING BOXES			
	Surface	Flush (dryline)	Flush (solid)
K3220/K3240	K3220/K4220/K4240WHI	N/A	N/A
K4214	K2160WHI	QFB1WHI	861ZIC

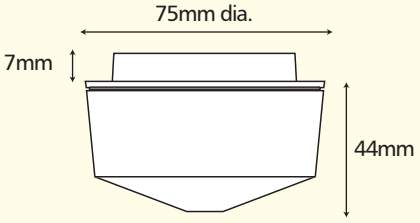
Dimensions



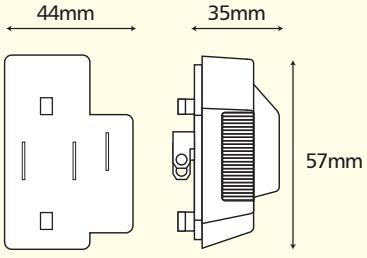
K3230, K3232, K3233



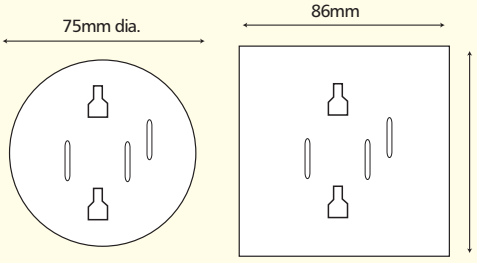
K3220



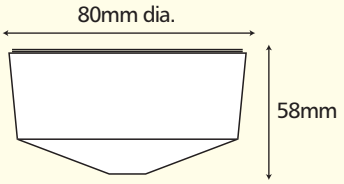
K3240, K3242, 3243
K4240, K4242, 3443



K4230, K4232, K4233



K4220 K4214



K3241

Distribution Boxes

Standards and approvals

BS 5733

Technical specification

Electrical

Current rating:
6 amps

Terminal Capacity:
3 x 6mm rated at 16 amps

Physical

Conduit entries with snap fit blanks;
20 and 25mm in top, bottom and back faces.
Outlets to be wired as 1 or 2 blanks

Ambient operating temperature:
–5°C to +40°C
(not to exceed an average of more than 25°C in any 24 hour period)

IP rating:
IP2XD

Max. installation altitude:
2000 metres

Features

- Fixing of distribution box to lighting trunking made easy through choice of cable entry points
- Distribution box can be suspended on drop rods or fitted to the wall or ceiling



K4210 pictured

Description

Distribution boxes consisting of an extruded aluminium body with VO rated plastic terminal housing. Both 3 and 4 pin plugs can be used with the distribution box 4 pin socket outlets.

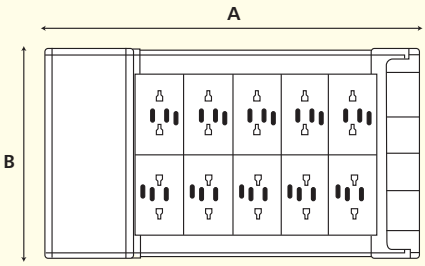
Installation

Provision for screw (No. 8) fix to walls or trunking and slots for Caddy Clips* on top, bottom and back faces. Conduit entries with snap fit blanks; 20 and 25mm in top, bottom and back faces. Outlets can be wired as 1 or 2 banks.

*Caddy Clip is a registered trade mark of Erico Europa (UK) Ltd. Reading.

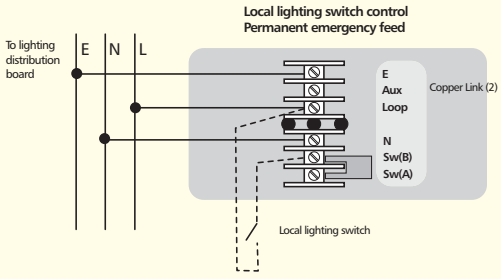
For a full range of corresponding products, see pages 72-76 in the product selector.

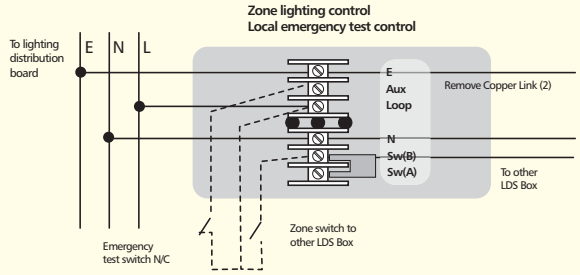
Dimensions (mm)

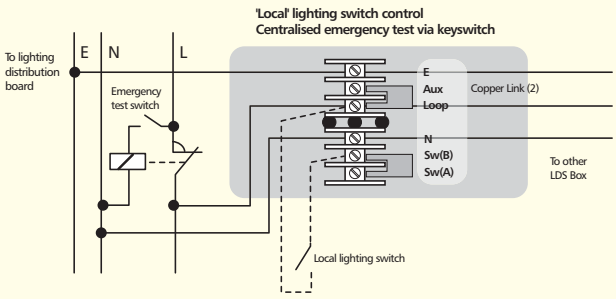


DIMENSIONS (MM)		
	A	B
K4204	237	222
K4208	400	222
K4210	465	222
Note: K4210 pictured		

Wiring Diagrams







Clearshave

Standards and approvals

All Clearshave Plus products comply with
BS EN 60598-2-1: 1989
Clearshave shaver/toothbrush lights comply with
BS EN 61558-2-5: 1989



Technical specification

Electrical

Voltage rating:
240V a.c., 50Hz

Transformer:
20VA at 230V or 115V

Wattage:
11W to 60W

IP Rating:
IP2XD For Luminaire
IP41 For Shaver/toothbrush Socket Outlet

Physical

Ambient operating temperature:
–5°C to +40°C
(not to exceed an average of more than 25°C in any 24 hour period)

Max. installation altitude:
2000 metres

Luminaire switch rating 1 AMP

Features

General

- Enclosure and diffuser moulded from impact resistant polycarbonate thermoplastic
- Luminaire is pull cord operated
- Luminaire may be wired with 2-way switching
- Clearly marked terminal block. Each terminal has capacity for 1 X 1.5mm² rigid conductor
- Normal mounting position is horizontal on a vertical surface
- Provision for surface cable entry using 15mm x 15mm trunking adaptor provided (Except 708WHI)

Shaver/Toothbrush Socket Outlet

- Automatic primary supply switching on insertion of plug
- Choice of 230V or 115V output socket positions
- Safety interlocked shutters to prevent insertion of two plugs simultaneously
- Currant Rating: 200mA max.
- Maximum load: 20VA

Installation

The Clearshave range may be mounted horizontally or vertically on a flat, vertical surface. Provision is made in the centre of the backplate for mounting on a round box to BS 4607 or BS 4568, or on a single gang box to BS 4662 of 16mm depth.

Description

Tungsten and fluorescent lamps make the Clearshave range the obvious choice for bathroom and washroom areas. Units are available with or without a shaver/toothbrush socket and can be vertically or horizontally mounted.

A standard pull cord controls lighting and two way switching allows units to be linked to a lightswitch or another Clearshave.

Shaver/toothbrush outlet

The shaver/toothbrush outlet is automatically switched on by insertion of a shaver/toothbrush plug and is protected against overload. In the event of an overload, the unit will reset a few minutes after the shaver/toothbrush is unplugged.

The shaver/toothbrush outlet may be used without the light being switched on.

For a full range of corresponding products, see pages 77-79 in the product selector.

Thermal Switch

All fluorescent lamps have a thermal switch fitted in series with the ballast, which disconnects the supply to the lamp should a fault occur within the ballast circuit.

DIMENSIONS (mm)

List No.	Overall Length (mm)	Overall Height (mm)	Overall Depth from wall (mm)
K708WHI	448	100	82.5
K808WHI	448	100	82.5
K711WHI	605	100	82.5
K712WHI	758	100	82.5
K811WHI	605	100	82.5
K812WHI	758	100	82.5
K818WHI	448	100	82.5

Replacement Lamps

K708WHI
Tungsten white tube, with double end cap connection, 284mm long, 26mm diameter

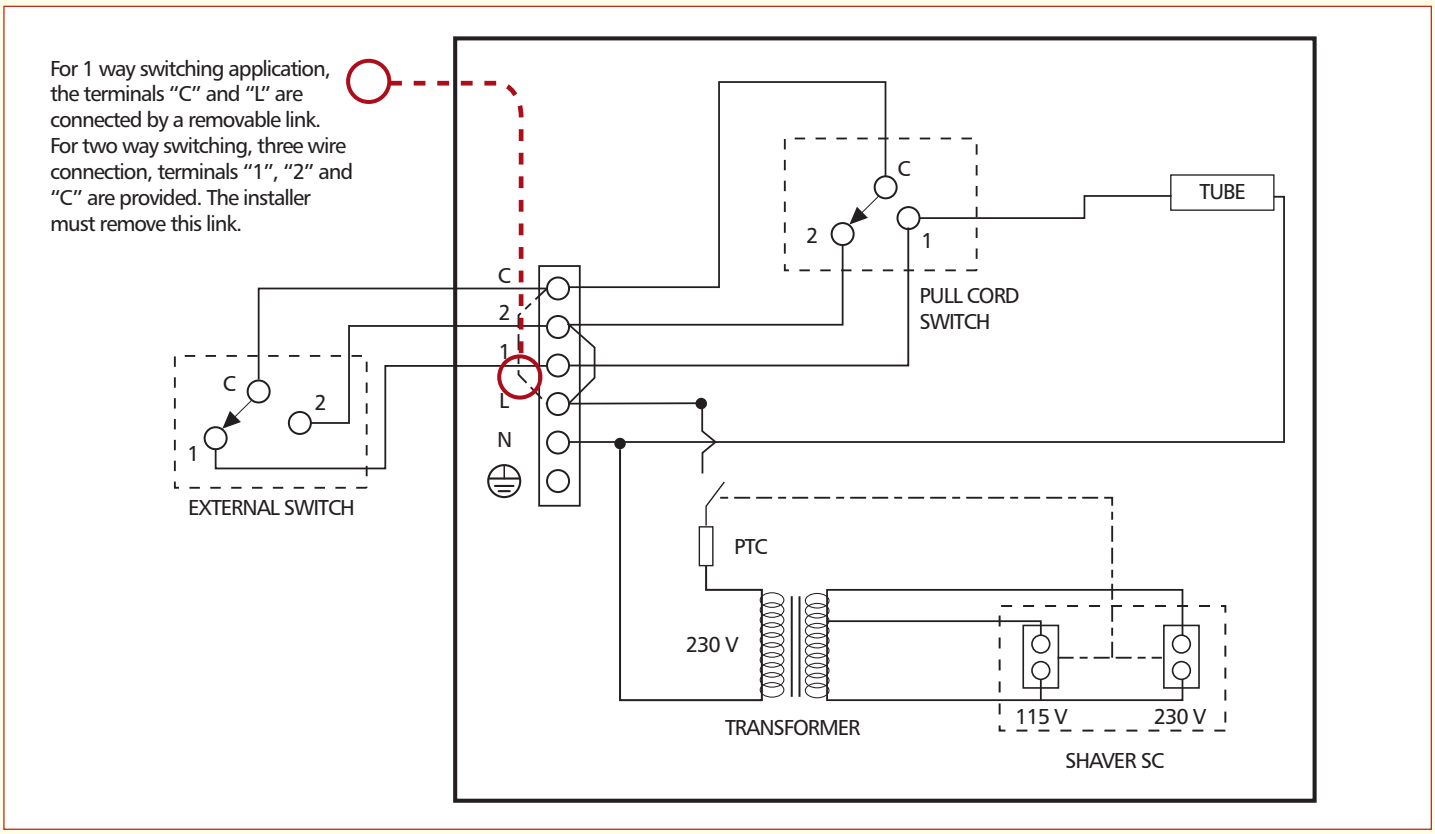
K808WHI and K818WHI
11W single ended compact fluorescent tube (CFL), single turn, colour warm white, two pin type G23 connection, 225mm long, 10mm diameter

K711WHI and K811WHI
15W double ended fluorescent tube, colour warm white, bi-pin connection, 450mm long, 26mm diameter

K712WHI and K812WHI
18W double ended fluorescent tube, colour warm white, bi-pin connection, 600mm long, 26mm diameter

Clearshave

CONNECTION DIAGRAMS



Earthing: All Metal Frontplate Products

To comply with IEE regulations: the metal front plate must be earthed. All earth terminals provided must be connected to the protective earth conductor.

Telephone Secondary and Data Sockets

To provide customers with a high level of flexibility the voice and data decorative wiring devices are available in modular formats.

For example to produce a Telephone Secondary Socket the following items are required:

Range	Products Required	
Albany Plus	K181	K5821WHI
Aspect	K24181	K5821WHI
Edge	K14181	K5821WHI
Alloy	K181	K5821WHI

Or

Range	Products Required		
Albany Plus	K182	K5821WHI	2 x K186WHI
Aspect	K24182	K5821WHI	2 x K186WHI
Edge	K14182	K5821WHI	2 x K186WHI
Alloy	K182	K5821WHI	2 x K186WHI

Installation

The MK 'Aspect' range of products consists of the main product complete with its support frame and clipping medium, plus a separate frontplate. The product is mounted to the wall, after wiring, and the frontplate clipped onto the frame.

1. The frontplate is supplied loose to aid installation.

2. Make sure not to crush or deform the spring steel clips situated along one edge of the product support frame.

3. A gasket is also supplied with each product, which may prove useful on uneven walls. See note 5 below.

4. Using the gasket with all switches and the German socket, will ensure full compliance with the appropriate standards.

5. Both standards set out to guarantee full engagement of the frontplate on uneven surfaces, even when there is a mismatch of as much as 1mm between the distance the main body of the product is from the wall and that of the frontplate.

6. Where no gasket is used, if thick wallpapers are cut such that they fit around the support frame and therefore remain under the edge of the frontplate, full plate engagement with the clips may be restricted.

Note when installing Aspect do not over tighten screws, so as to prevent damage or distortion to the product or support frame.

Frontplate Removal

1. Turn off the power supply.

2. Carefully slide a screwdriver between the ramp on the main body of the product and the notch in the lower right hand edge of the plate.

3. On uneven walls, make sure the screwdriver does not go between the spring steel ramp and the wall, or damage to the wall and/or product could result.

4. Carefully slide the blade upwards and then gently lift the handle away from the wall, which will lever the plate away from the first clip. See Fig.4.

5. With the first clip released, support the plate with one hand and continue to move the blade to the left under.

Data products in euromounting frames

Products operating at extra low voltage levels (<50V) must not be mounted in the same euro enclosures as equipment rated in excess of 50V (e.g. mains socket).

Cleaning Frontplates

In order to protect the quality surface finish of the front plate, periodic cleaning should only consist of polishing with a dry lint free soft cloth.

For a full range of corresponding products, see pages 82-109 in the product selector.

Frontplate Installation

Figure 1a

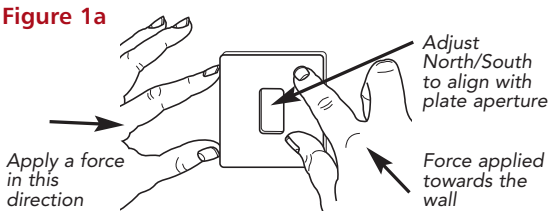
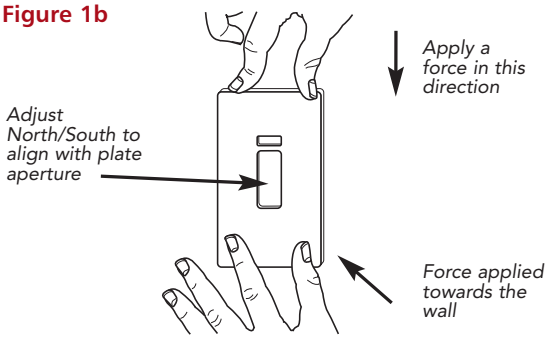


Figure 1b



3

Frontplate Removal

Figure 2

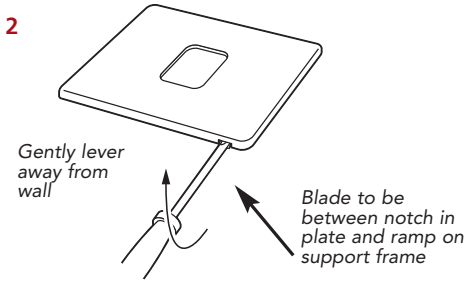


Figure 3

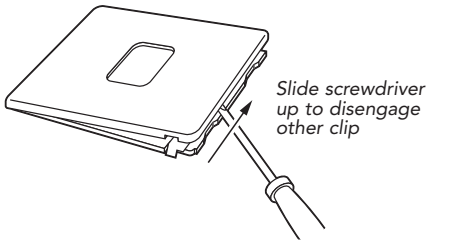


Figure 4

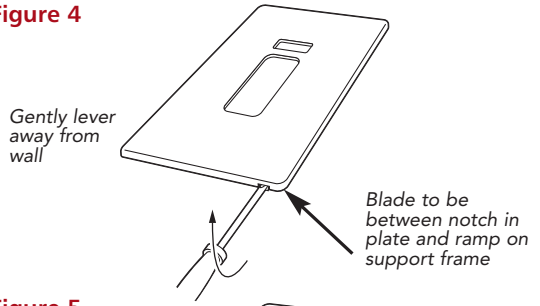
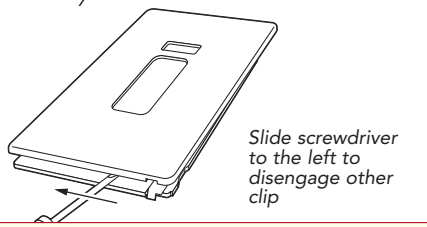


Figure 5



Edge Technical: General information

Mounting Boxes

Due to the slimline design MK Edge accessories require deeper back boxes than standard. They are designed to fit into folded metal boxes that comply with BS 4662. To ensure products can be correctly installed, the box must always be installed flush or sub flush to the surface to a maximum depth of 6mm.

The recommended depth of boxes for the different types of wiring accessories are as follows:

MOUNTING BOXES	
Product Depth	**Box**
Socket Outlets	35mm
Lockable Socket	47mm
Lockable Switch	47mm
German style 2 pole + E Socket Outlet mounted in Euro Frame	47mm
Connection Units	47mm
Plateswitches	35mm
Grid System Switches*	35mm
Dimmer Switches	35mm
Telephone, Television and Data Outlets	35mm
Cooker Control and 50A Switches	47mm
Shaver Supply Units	47mm
32A Triple Pole and Neutral Switch	List no. 5268ALM

***Note**: If Grid system accessories are to be fitted and the installation requires the attachment of conduit via nuts inside the mounting box, then it is recommended that a box depth of 47mm is used.

Fixing Screws

The surface head of Edge fixing screws is treated and compliment the finish of the frontplate. To prevent damage to the fixing screw extreme care is required. It is recommended that a screwdriver with a maximum blade of 3.5mm is used.

For a full range of corresponding products, see pages 110-145 in the product selector.

Lockable Switchsocket Outlet

Standards and approvals

All Edge 13A socket outlets comply with BS 1363: Part 2:1995.

Technical specification

Electrical

Voltage rating:
250V a.c.

Current rating:
13A

Terminal capacity:
Live, neutral & earth
3 x 2.5mm^2
2 x 4mm^2
1 x 6mm^2 (stranded)
(Dual earth terminals)

Physical

Ambient operating temperature:
–5°C to +40°C
(not to exceed an average of more than 25°C in any 2 hour period)

IP rating:
IP2XD

Max. installation altitude:
2000 metres



Description

The lockable 13 amp socket is designed for ease of installation and has all the design features of the Edge range. The built-in lock ensures that power cannot be provided without key operation making it ideal for communal areas such as hotel lobbies. The key can be removed from the lock in the on or off position leaving the socket with or without power supply.

The product can be quickly installed as replacement for existing 2 gang 13 amp sockets or in a new installation (assuming suitable 47mm deep mounting box is in position).

Note: The lock fitted to each socket is universal.

Installation

Edge socket outlets can be wall or bench mounted. Do not mount or use as a trailing socket or where they may be subject to excessive moisture or dampness.

Features

- Built in lock ensures power cannot be provided without key operation
- Printed terminal markings on grey rear mouldings for clearer identification
- Double pole switching
- Only one size of screwdriver required for installation
- Dual earth terminals for high integrity earthing

Combination Plate

Standards and approvals

All Edge 13A socket outlets comply with BS 1363: Part 2:1995.

Technical specification

Electrical

Voltage rating:
250V a.c.

Current rating:
13A per socket outlet

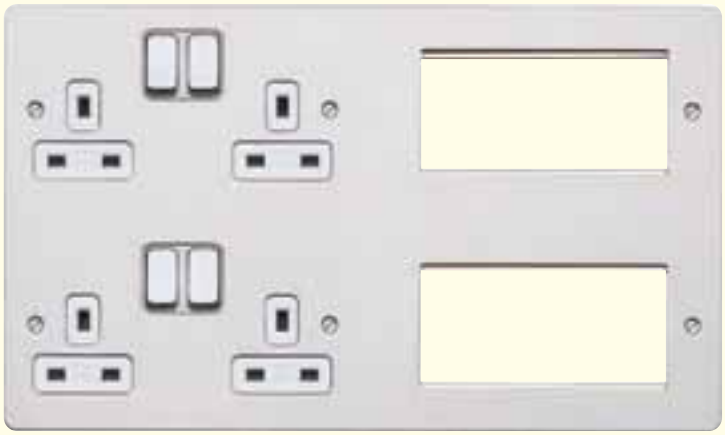
Terminal capacity:
Live, neutral & earth
3 x 2.5mm^2
3 x 4mm^2
2 x 6mm^2 (stranded)
(Dual earth terminals on all standard sockets)

Physical

Ambient operating temperature:
–5°C to +40°C
(not to exceed an average of more than 25°C in any 24 hour period)

IP rating:
IP2XD

Max. installation altitude:
2000 metres



Description

A range of combination plates designed for ease of installation and having all the advantageous design features of the Edge range.

These combination socket outlets provide interior designers and installers with a stylish and practical wiring device solution. The K14100 combination socket outlet allows for the inclusion of up to eight Euro one-gang modules, which could include datacoms, telecoms, plus TV and Satellite modules.

Alternatively, Euro Power Modules i.e. German, French/Belgium and American socket outlets may be used.

Note:

- Pre-configured back boxes (K14201, K14101 & K14206 35mm and K14202, K14102 and K14207 47mm) are available for use with the combination plates. These back boxes should always be used to ensure alignment of the fixing screws is correct and proper segregation between mains and extra low voltage products is maintained.
- Mains operated products and extra low voltage modules must not be installed within the same frontplate aperture. Refer to BS 7671: 2008 for details.
- When removing the fixing screws and front plate from an installation to gain access to low voltage modules, please be aware that there will also be access to the mains supply.

All pre-fitted sockets come complete and are fitted with two earth terminals on a common busbar to provide a double earth facility for use when installations require a high integrity protective connection as specified within BS 7671, IEE Wiring Regulations.



Combination plates allow the use of a variety of power and data modules making them ideal for hotels.

Combination Plate

Features

- Metal-capped rockers designed to match the chosen front plate finish
- 3 pin operated safety shutter
- Printed terminal markings on grey rear mouldings for clearer identification
- Top access, angled terminals make wiring easier and quicker
- 3mm minimum switch contact gap
- Double pole switching
- Additional electrical safety from neutral 'make first', 'break last' feature
- Switch contacts with silver contacts on both surfaces for good continuity
- Dual earth terminals on pre-fitted sockets are for high integrity earthing.
- Backed out and captive terminal screws on pre-fitted sockets
- Pre-configured backboxes to ensure alignment of the fixing screws is correct and proper segregation between circuits is maintained to comply with BS 7671: 2008 17th Edition wiring regulations



1 gang switchsocket – view from rear

Top-facing, angled, backed-out terminals make wiring easier and quicker.

Installation

Edge socket outlets can be wall or bench mounted. Do not mount or use as a trailing socket or where they may be subject to excessive moisture or dampness.

Modular Switching System

Standards and approvals

Switch modules

BS EN 60669-1: 1999

Indicator units

BS 5733:2010

Dimmer switches

Dimmers comply with IEC 669-2-1, BS EN 55015

Accessory modules

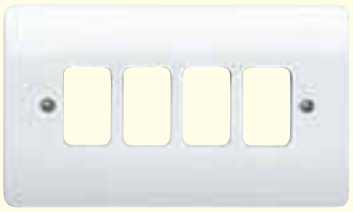
Single non-isolated, TV/FM socket outlet, BS 3041 Part 2: 1977

Universal Socket

BS 5733:2010

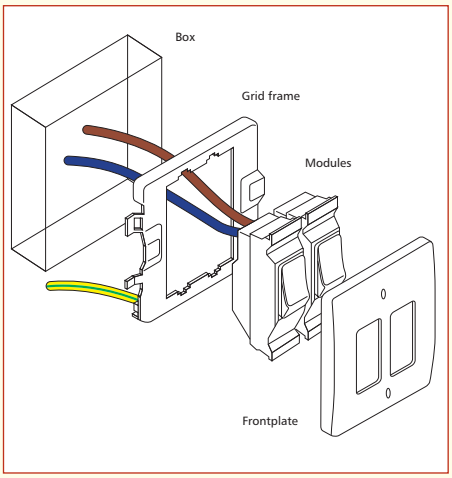
Features

- Grid modules clip fit to frame without special tools
- Modules can be removed/replaced when grid frame is fixed in position
- Grid Plus frontplates available to match all MK wiring device ranges
- All products are 100% tested before delivery
- Options of neon/filament indicators label in rocker or printed rockers
- Wide variety of switch modules rated at 10 or 20 amps
- Single or double dimmer modules available
- Vast range of grid plates and modules from one source
- High quality grid frame
- Grid frame earth terminal has 16mm² cable capacity
- Backed out and captive terminal screws
- Plated grid frame prevents corrosion
- Up to 12 gang Logic Plus grid frontplates and up to 24 gang in decorative metal finish frontplates
- Top access terminal screws



Description

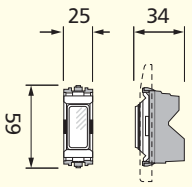
Grid Plus is a comprehensive modular switching and monitoring system ideal for a variety of applications within the commercial, public and domestic sectors.



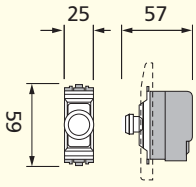
Grid Plus cover plates have the advantageous design features of the MK wiring device ranges and the interchangeable modules also feature many of the wiring and installation benefits common to the MK wiring device ranges.

The system is extremely easy to assemble (see illustration) and modules can be individually changed without re-wiring of complete assembly by removal of frontplate and simply clipping in or out as required. For further installation details see 'Installation' overleaf.

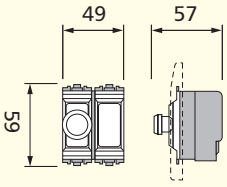
Module Dimensions (mm)



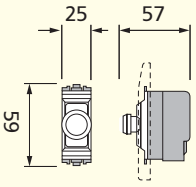
24/240V buzzer units



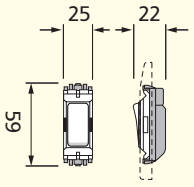
Single dimmer module



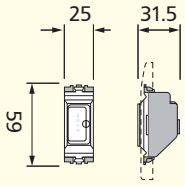
Double dimmer module



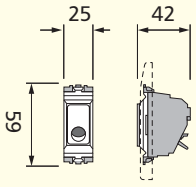
Fluorescent dimmer module



All switch and indicator modules



Fuse unit



Cord unit

Multiple dimmer installation load ratings When installing more than one dimmer in multi-gang plates, the power rating must be reduced to allow for heat generation.

For a full range of corresponding products, see pages 175-193 in the product selector.

Modular Switching System

FRONTPLATE DIMENSIONS					
Range	**Modules**	**A**	**B**	**C**	**D**
Logic Plus	1,2,3,4,6,8,12	86	146	206	N/A
Aspect	1,2,3,4,6,8	86	146	N/A	N/A
Edge	1,2,3,4,6,8,9,12,18,24	86	146	206	267
Albany Plus	1,2,3,4,6,8,9,12,18,24	86	146	206	267
Metal Clad	1,2,3,4,6,8,9,12,18,24	86	146	206	267

Technical specification

Electrical

Switches

Voltage rating:
250V a.c., 50 Hz

Current rating:
10 or 20 amps – no derating when used on fluorescent or inductive loads.

Load type:
No restriction

Terminal capacity:
4 x 1mm², 4 x 1.5mm², 4 x 1mm², 3 x 2.5mm², 2 x 4mm², 1 x 6mm²

Indicator Units

Voltage rating:
24V indicators - min. 21V, max. 36V
240V indicators - min. 200V, max 250V

Terminal capacity:
as switches

Buzzer Unit

Voltage rating:
240V
24V

Terminal capacity:
as switches

Fuse Unit

Voltage rating:
250V

Current rating:
13 amps

Terminal capacity:
2 x 4mm²

Cord Outlet

Voltage rating:
250V

Current rating:
16 amps

Terminal capacity
Supply: 2 x 4mm²
Load: 1 x 1.5mm² multi-strand

Dimmers

Voltage rating:
230V a.c., 50Hz

Load rating:
For single dimmer installations:
K4500 min. 40W/VA, max. 400W/320 VA
K4501 min. 40W/VA, max. 220W/180 VA
For multiple dimmer installation see Load Adjustment table, page 491

Load types:
K4500, K4501 tungsten filament (GLS) lamps
Low voltage lighting electronic or wire-wound transformers

Soft start:
Raises from low to control knob setting in 1-3 secs, (increases lamp life significantly)

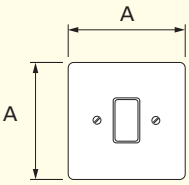
Terminal capacity
1 x 2.5mm², 2 x 1.5mm²

Universal Socket

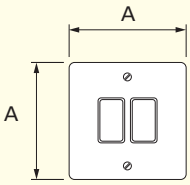
Voltage rating
125/250V

Current rating:
16 amps

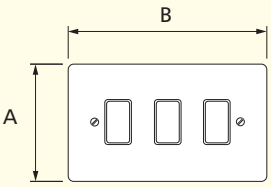
Terminal capacity
2 x 6mm² (stranded)
3 x 4mm² 3 x 2.5mm²



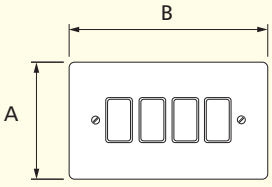
1 module



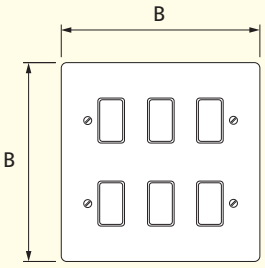
2 module



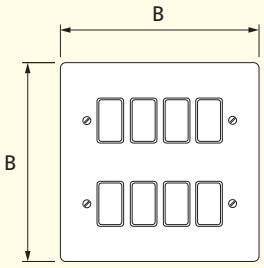
3 module



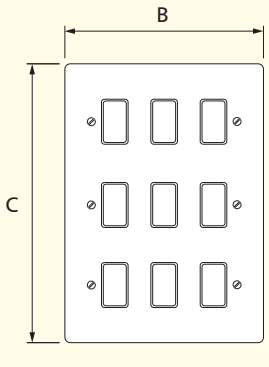
4 module



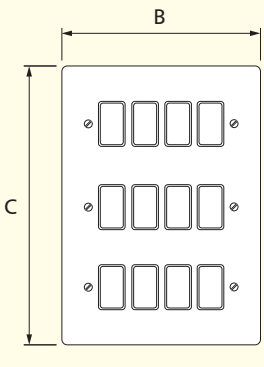
6 module



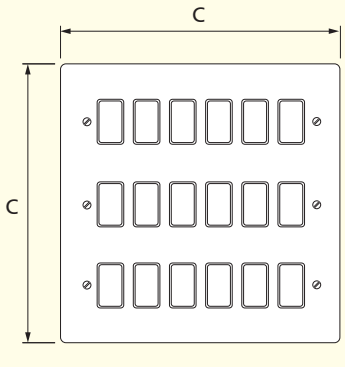
8 module



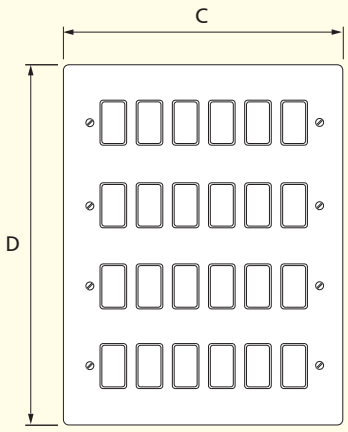
9 module



12 module



18 module



24 module

Modular Switching System

Standards and approvals

Switch modules

BS EN 60669-1: 1999

Indicator units

BS 5733:2010

Dimmer switches

Dimmers comply with BS EN 60669-2-1, BS EN 55015

Accessory modules

Single non-isolated, TV/FM socket outlet, BS 3041 Part 2: 1977

Technical specification

Physical (all products)

Operating temperature:
–5°C to +40°C

IP rating:
IP4X

Max. installation altitude:
2000 metres

Installation

General

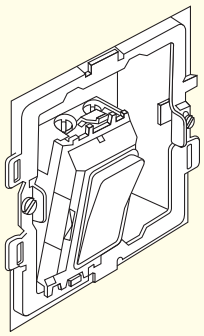
Cut cables to length and make earth connections to grid. Earth: bond Grid Frame to metal mounting box. Grid frames are screwed to back box, modules wired as appropriate and simply clipped into grid frame by hand. No tools are necessary. The front plate is screw fixed to the grid frame to finish the assembly.

To remove or change modules, simply remove front plate. Individual modules fit perfectly into the frontplate in flush fitting installations.

Grid mounting

An integral design feature automatically ensures that the modules fit perfectly into the frontplate in flush fitting installations.

Some manual adjustment may be required for surface mounted applications.

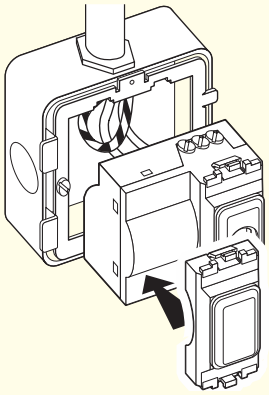


1. Locate bottom tab of module in base of grid.
2. Module pushes into place at top with a 'click.
3. To remove module, press tab at top and lever forward.

Dimmers

The two module size dimmer can be fitted to any grid mounting frame over 1 gang. The supplied blank module can be placed at the required pitch to fill in the second position on the grid.

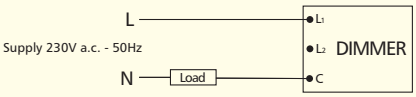
To avoid overheating when using more than one dimmer in the same Grid Plus Enclosure it is recommended that the dimmers are preferentially mounted on the bottom row on 6, 8, 9, 12, 18 and 24 Gang Enclosures, before mounting on any other rows and its load adjusted in accordance with the information provided in the Load Adjustment Table 1 at the bottom of the next page.



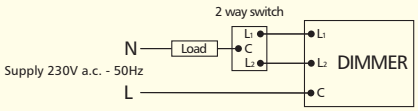
Typical mounting arrangement

Dimmer wiring diagram

One-way switching



Two-way switching
(only one dimmer can be used)



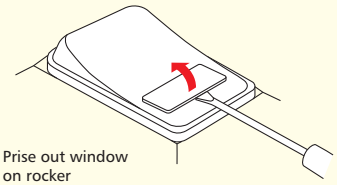
Wires must be connected to the correct Dimmer terminals. Supply Earth must only be connected to the installation metalwork and not to any of the terminals on the dimmer module.

Rocker window labels

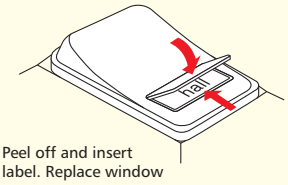
The following labels are available for insertion into window rockers.

air conditioner	water heater	dish washer	store
bedroom	dining area	kitchen	lounge
pool	lights	bar	conference room
office	reception	bell	push
front	middle	bottom	rear
back	top	landing	hall
porch	toilets	ladies	gents
exterior			

The simple installation process is shown below.



Prise out window on rocker



Peel off and insert label. Replace window

Spare labels and windows are available.

TV/FM socket outlets

The TV outlet must not be mounted in the same enclosure as mains exceeding 50V.

TABLE 1 – LOAD ADJUSTMENT FOR GRID PLUS DIMMERS									
Frontplate Size, Number of Gangs	**2**	**3**	**4**	**6**	**8**	**9**	**12**	**18**	**24**
Max Power/Load per Row – Tungsten GLS Lamps – W	400	480	480	480	480	480	480	720	720
Max Power/Load per Row – Mains Tungsten Halogen Lamps or Low Voltage Transformers – W or VA	320	380	380	380	380	380	380	580	580
Max Power/Load for Total Plate – Tungsten GLS Lamps – W	400	480	480	740	740	940	940	1440	1440
Max Power/Load for Total Plate – Mains Tungsten Halogen Lamps or Low Voltage Transformers – W or VA	320	380	380	600	600	750	750	1155	1155

Printed Modules

A wide range of pre-printed switches are also available. See pages 175-193 for details.

Grid Plus Dimmer Switches

Standards and approvals

All Grid Plus dimmer switches comply with the EC Low Voltage Directive: 73/23/EEC, Electromagnetic Compatibility Directive 89/336/EEC.

They also comply with BS EN 60669-2-1 and BS EN 55015.

Technical specification

Electrical

Mains Supply Voltage:
230V a.c. (Nominal)

Mains Supply Voltage Range:
216V a.c. to 253V a.c.

Mains Supply Frequency:
50Hz

Type of Loads:

Intelligent Dimmers:
Fused GLS Tungsten Filament lamps to BS EN 60064: 1996 and BS EN 60432-1,2 rated at 230/240V. Dimmable wire wound or electronic Low Voltage Transformers of good quality. Can also be used with good quality mains voltage halogen lamps incorporating GU10 bases. Please check with lamp manufacturer to determine suitability.

Note: Transformer must be suitable for dimming using phase delay (not phase cut) type of dimmers.

Warning: These dimmer switches are not suitable for use with Fluorescent Lamps or Energy Saving Lamps.

Physical

Operating temperature:
0°C to +40°C

IP rating:
IP4X

Max. installation altitude:
2000 metres

Cable Management

Grid Plus dimmer switches can be mounted in a variety of MK trunking systems.



Description

Intelligent Dimmer Switches

Dimmer Switches belonging to this category employ the latest, state of the art, micro-controller base electronic circuity and use current sensing to compute the load conditions. These products show progressive reaction to Over-load conditions, depending on the extent of Over-load – see Table 1. List numbers belonging to this category are identified by the suffix letters LV, e.g. K4501 WHI LV. These Dimmer Switches employ one pole change over switches to facilitate two way switching.

MK Grid Plus Dimmer Switches are not suitable for use with Fluorescent Loads, including Energy Saving Lamps.

Features

MK Grid Plus Dimmer Switches incorporate the following advanced features

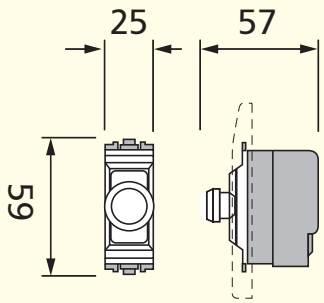
- Suitable for dimming Low Voltage Halogen lamps via suitable, fully dimmable electronic or wire-wound transformers. See Table 2 for the number of transformers allowed to be used with each dimmer
- Can be used with good quality mains voltage halogen lamps incorporating GU10 bases. Please check with lamp manufacturer to determine suitability
- Unidirectional current sensing. While being used with wire-wound transformers for low voltage lighting, these dimmer switches continuously monitor the drive conditions to the transformers, which require essentially, bi-directional a.c. supply at their input terminals. If, due to some fault condition, the supply to the wire-wound transformer is detected to be unidirectional, which could result in over-heating and/or damaging the transformer, the dimmer switches' circuitry automatically stops supplying the transformer after a few cycles of detected unidirectional supply
- Soft Start, which gradually increases the light output from the load over 1 to 3 seconds after switch on. The Soft Start feature is also particularly beneficial when used to dim Mains Voltage Tungsten Halogen lamps which have inherent very high inrush current at switch on

Grid Plus Dimmer Switches

TABLE 2 – OVERLOAD REACTION		
40-400W CIRCUIT	**40-300W CIRCUIT**	**COMMENTS**
Overload management: 40-400W nominal 40-500W function without dimming > 500-700W dim to 68V±8V r.m.s. > 700W switch off	**Overload management:** 40-220W nominal 40-275W function without dimming > 275-375W dim to 68V±8V r.m.s. > 375W switch off	This is the minimum controlled voltage

Dimensions

1 gang



2 gang

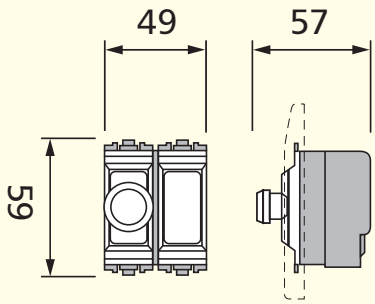


TABLE 2 – GRID PLUS INTELLIGENT DIMMER SWITCHES		
Rating	**Max No. of Transformers**	
1 module dimmer switch	40-220W (LV rating 40-180VA)	3
2 module dimmer switch	40-400W (LV rating 40-320VA)	5

Do not connect more than the maximum number of transformers stated for each dimmer.
Grid Plus dimmer switch ratings are for each dimmer when installed singly.

In multiple installations, each dimmer switch must be de-rated – see Table 1 under 'Modular Switching System' section.

Fluorescent Dimmer

MK Fluorescent dimmers are low voltage controllers that require only a single two-core wire connection to 1-10V controllable ballast inputs. The dimmer operates by applying a variable resistance to the ballast 1-10V control input.

We recommend using a separate on/off switch to isolate the luminaire(s) in use.

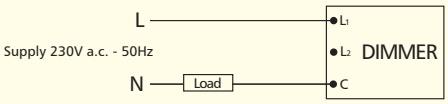
Features

Preset adjust to set minimum light level. Preset adjust for use with multiple dimmable ballasts.

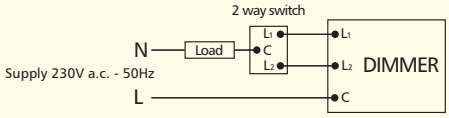
Up to four ballasts can be connected to one dimmer.

Wiring Diagrams

One-way switching

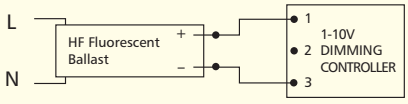


Two-way switching
(only one dimmer can be used)



Wires must be connected to the correct dimmer terminals.
DO NOT connect earth to dimmer.

Fluorescent dimmer



Wires must be connected to the correct dimmer terminals.
DO NOT connect earth to dimmer.

Standards and approvals

All High power dimmer modules comply with EN 60669-2-1

Technical specification

Electrical

Mains supply:
220-240V / 50Hz
220V / 60 Hz

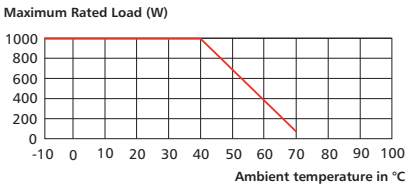
Type of Loads: Fused GLS Tungsten filament lamps. Dimmable wirewound or electronic low voltage transformers of good quality. Inductive loads (i.e. conventional wire-wound transformers, etc.) must not be connected to the trailing edge dimmers.

Warning: These dimmer modules are not suitable for use with fluorescent lamps or energy saving lamps.

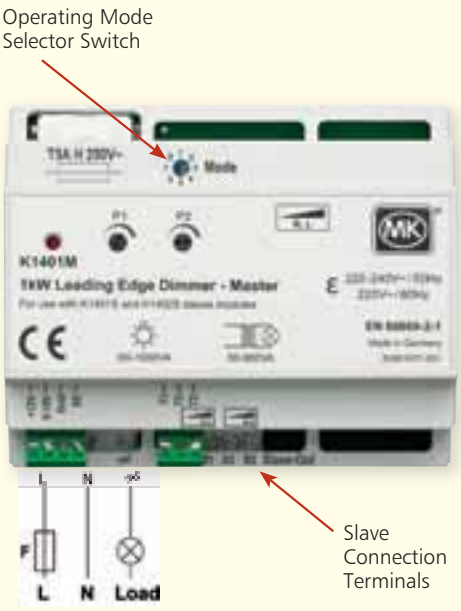
Physical

Operating Temperature: -5 to +40 °C

Reduction of the dimmer power:
If this product is used in an ambient temperature exceeding 40°C, the maximum allowable load will need to be reduced according to the table below. This will prevent the internal thermal protection in the product from activating and switching the load off.



Connection Diagram



Description

These dimmer modules are designed for mounting into distribution and consumer units containing 35mm Din rail according to EN50022. All master and slave dimmers must be connected to the same supply phase. Key points to observe during installation:

- The mains supply to the dimmer(s) must be protected by a suitable fuse or MCB rated no greater than 16A
- Do not exceed maximum control line length of 100m and do not run slave control lines parallel to mains and network cables.
- Always observe the transformers recommended loading guidelines.
- Load transformers at or close to their full rated capacity. Do not connect a small load to a larger transformers, (e.g. a 35W lamp on a 600VA transformer)
- Ensure that slaves are wired to the correct control terminals and that the polarity is observed

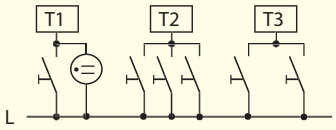
Note: The outputs of the K1402M and K1402S trailing edge dimmers may be connected in parallel to drive a single load greater than 1kW/900VA.

Control Wiring for operating Modes 1-6 (K1400) and Modes 1-7 (K1401/K1402)

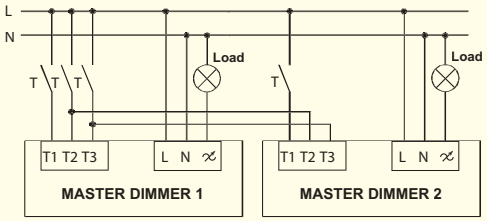
Control switches T1-3 should be push-to-make momentary contact switches.

Up to 10 operating switches may be wired in parallel with Neon indicators being allowed on control line T1 only.

Example1: Multiple control buttons:



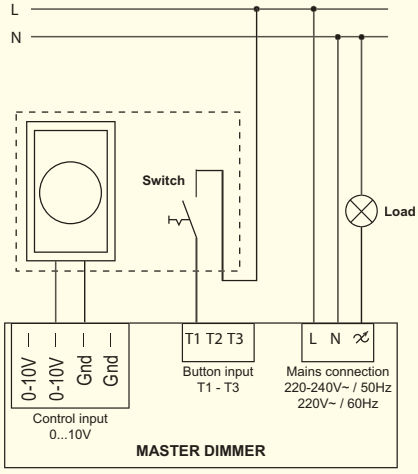
Example 2: Wiring for Multiple Master Dimmers with common Central-ON and Central-OFF



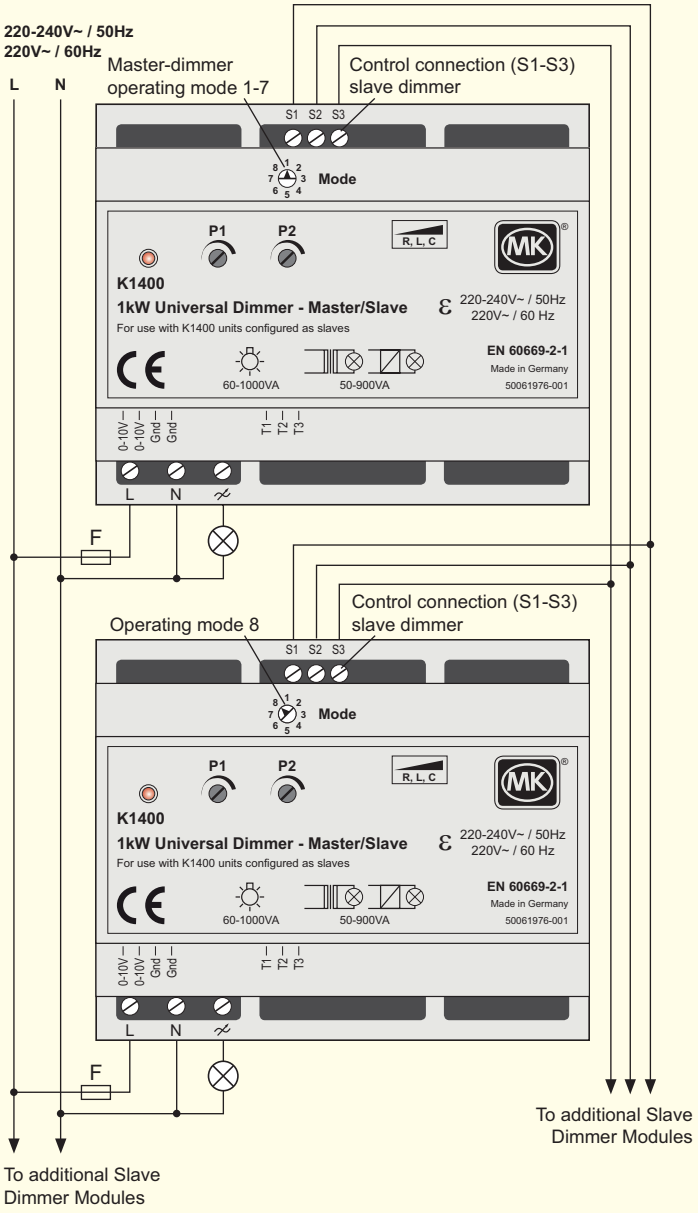
T1 = Separate Dimming control for each master
T2 = Central-ON for both master dimmers
T3 = Central-OFF for both master dimmers

Control Wiring for operating Mode 7 (K1400) and Mode 8 (K1401/K1402)

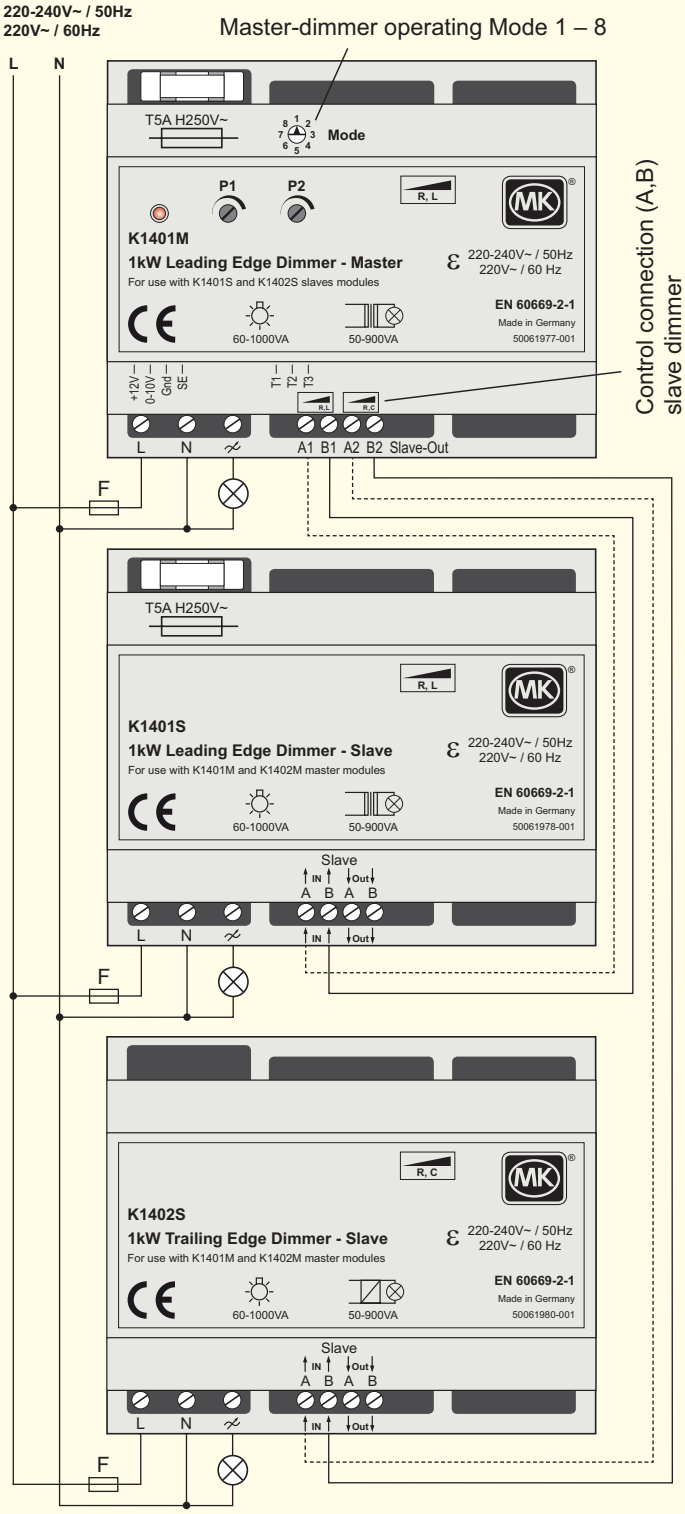
Control switches T1 should be a standard single pole light switch with dimming via the rotary 0/1-10V potentiometer connected between 0-10V and Gnd on the Master dimmer.



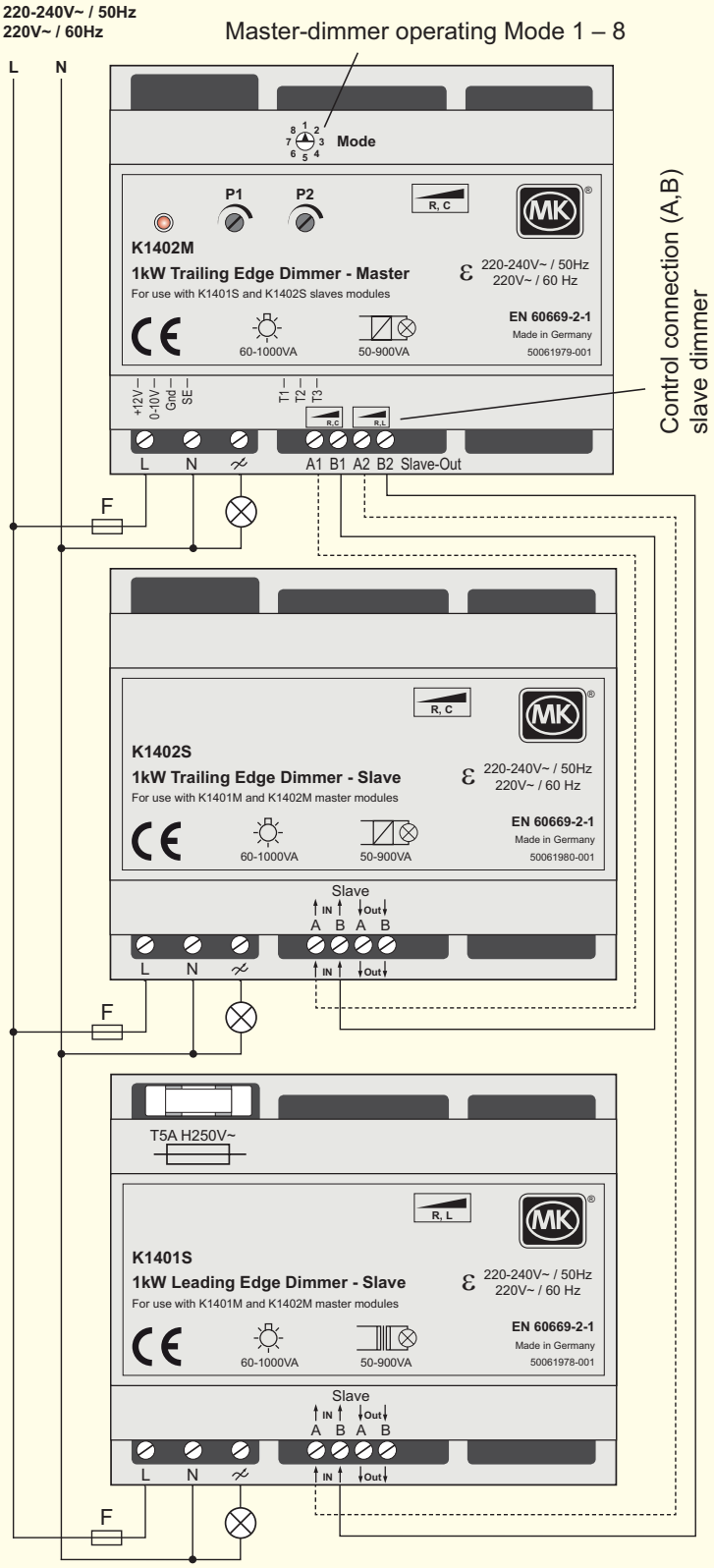
K1400M



K1401M



K1402M


220-240V~ / 50Hz
220V~ / 60Hz
Master-dimmer operating Mode 1 – 8
L
N
Mode
P1
P2
R, C
K1402M
1kW Trailing Edge Dimmer - Master
For use with K1401S and K1402S slaves modules
220-240V~ / 50Hz
220V~ / 60 Hz
EN 60669-2-1
Made in Germany
50061979-001
60-1000VA
50-900VA
+12V
0-10V
Gnd
SE
T1
T2
T3
R,C
R,L
L
N
A1 B1 A2 B2 Slave-Out
Control connection (A,B)
slave dimmer
F
K1402S
1kW Trailing Edge Dimmer - Slave
For use with K1401M and K1402M master modules
50061980-001
Slave
IN
Out
A B A B
T5A H250V~
K1401S
1kW Leading Edge Dimmer - Slave
For use with K1401M and K1402M master modules
50061978-001

technical hotline +44 (0)1268 563720



Edge single dimmer in gold plated bespoke finish

Available on a worldwide basis, the MK Design Service is supported by a dedicated team to ensure the seamless delivery of your chosen products.
To find out more visit **www.mkelectric.co.uk**

Plugs and Adaptors

Standards and approvals

All 13 amp Duraplug rubber plugs conform to BS 1363/A Part 1: 1995. The plugs are third party approved and licensed by ASTA.

Round pin plugs comply with BS546: 1950.

Technical specification

Terminal/cable size

List No.	Maximum cable size Outer diameter of cable (mm)	Conductor C.S.A. (mm^2)
PF133	11.0	1.5
P53	9.4	0.75
P153	11.0	1.5



Description

13 amp plugs

All Duraplug 13 amp plugs can be used on ring and radial circuits and are available with 13 amp fuses.

Duraplug standard 13 amp plugs are supplied with 13 amp fuses; however, alternative fuse ratings are available to special order.

Round pin plugs

Available unfused at 5 and 15 amp.

For a full range of corresponding products, see pages 220-223 in the product selector.

Lead Connectors, Extension Leads, Portable Sockets and Cable Couplers

Standards and approvals

2 pin Duraplug lead connectors comply with BS 5733: 2010.

3 pin Duraplug lead connectors comply with BS 5733: 2010.

All 13A Duraplug trailing socket outlets comply with BS 1363/A Part 2: 1995.

15A Round pin Duraplug trailing socket outlets comply with BS 5733: 2010 and BS 546 for plug pin aperture and engagement face dimensions.

All 13A Duraplug portable socket outlets comply with BS 1363/A Part 2: 1995.

Cable Couplers comply with BS 5733:2010. (BS 1363 pin centres for 13A, BS 546 pin centres for 5A and 15A).

Replacement fuses where fitted are to BS 1362.

Cables to BS 6500: 2000 (Table 27).

Technical specification

Electrical

Voltage rating:
250V a.c.

Current rating:
As 'Product range' table

Terminal capacities:
Lead connector – 1.0mm² conductor
Trailing/Portable socket – 1.5mm² conductor

Max. cable capacity:
Lead connector – LCP102: 2-core insulated cable with 1.0mm² conductors, LCP103: 3-core insulated cable with 1.0mm² conductors. 11mm overall diameter
Trailing/Portable sockets – 3-core insulated cable with 1.5mm² conductors, 11mm overall diameter

Physical

Ambient operating temperature:
–5°C to +40°C

Max. installation altitude:
2000 metres





Description

A range of tough, rewirable lead connectors for use with extension leads for domestic, garden and light workshop applications. Two pin lead connectors are only for use with double insulated class 2 appliances. Three pin lead connectors must be used with earthed appliances.

Filtered socket only

Protects electronic equipment by filtering mains borne interference such as Voltage spikes. This product complies with the LV (72/23/EEC) directive.

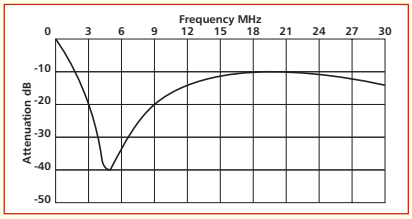
Filtered Response Characteristics

Mains filter rated at 250v RMS and 0.15μF

Varistar (Transient Voltage Suppressor) has a more constant voltage 275v ac

Clamping voltage @ 40A: 665v

Milliwatt constant: 800



Installation

Duraplug products should not be allowed to lie in excessively damp areas, e.g. wet grass, puddles etc.

Care must be taken to avoid contact with petroleum spirits.

For added safety trailing sockets should be used in conjunction with a residual current device (RCD).

Features

Lead connectors

- Manufactured with a thermoplastic elastomer cover and polypropylene inserts
- Integral cable grips
- Retaining lugs to prevent accidental disconnection

Trailing sockets

- Manufactured from tough ABS/ Polycarbonate with rubber cover. FC153 is all-rubber construction
- All internal component parts are retained in the base for ease of wiring
- Visible red nylon shutters

Portable sockets

- Manufactured from high impact resistant ABS/Polycarbonate
- Equal length wire stripping for ease of wiring
- Visible red nylon shutters
- Optional wall mounting holes

For a full range of corresponding products, see pages 220-223 in the product selector.

Extension Leads

TECHNICAL DATA GUIDE					
Product Code	**Socket Outlets**	**Cable Length Cable**	**Cable Specification**	**Plug Type**	**Plug Fuse Rating**
EXL135WHI	13A 4-gang socket with fuse and neon, manufactured from high impact resistant ABS/Polycarbonate thermoplastic. BS1363A: Part 2: 1995. Colour white.	2	1.25mm² <HAR> 3-core PVC insulated cable to BS 6500: 2000: Table 27/IEC227-5. Colour white.	Duraplug Rubber cover type PF133. Colour white.	13
EXL135BLK	13A 4-gang socket with fuse and neon, manufactured from high impact resistant ABS/Polycarbonate thermoplastic. BS1363A: Part 2: 1995. Colour black.	2	1.25mm² <HAR> 3-core PVC insulated cable to BS 6500: 2000: Table 27/IEC227-5. Colour black.	Duraplug Rubber cover type PF133. Colour black.	13
EXL136WHI	13A 4-gang socket with switch and neon, manufactured from high impact resistant ABS/Polycarbonate thermoplastic. BS1363A: Part 2: 1995. Colour white.	2	1.25mm² <HAR> 3-core PVC insulated cable to BS 6500: 2000: Table 27/IEC227-5. Colour white.	Duraplug Rubber cover type PF133. Colour white.	13
EXL136BLK	13A 4-gang socket with switch and neon, manufactured from high impact resistant ABS/Polycarbonate thermoplastic. BS1363A: Part 2: 1995. Colour black.	2	1.25mm² <HAR> 3-core PVC insulated cable to BS 6500: 2000: Table 27/IEC227-5. Colour black.	Duraplug Rubber cover type PF133. Colour black.	13
EXL137WHI	13A 4-gang socket with fuse, switch and neon, manufactured from high impact resistant ABS/Polycarbonate thermoplastic. BS1363A: Part 2: 1995. Colour white.	2	1.25mm² <HAR> 3-core PVC insulated cable to BS 6500: 2000: Table 27/IEC227-5. Colour white.	Duraplug Rubber cover type PF133. Colour white.	13
EXL137BLK	13A 4-gang socket with fuse, switch and neon, manufactured from high impact resistant ABS/Polycarbonate thermoplastic. BS1363A: Part 2: 1995. Colour black.	2	1.25mm² <HAR> 3-core PVC insulated cable to BS 6500: 2000: Table 27/IEC227-5. Colour black.	Duraplug Rubber cover type PF133. Colour black.	13

Plugs and Adaptors

Standards and approvals

All 13 amp standard Safetyplugs conform to BS 1363 Part 1: 1995. All 13 amp Toughplugs conform to BS 1363/A Part 1: 1995. All the above plugs are third party approved and licensed by ASTA.

Round pin plugs comply with BS 546.

Non-standard Safetyplugs comply with BS 1363 Part 1: 1995 where applicable.



Technical specification

Terminal/cable size

List No.	Maximum cable size Outer diameter of cable (mm)	Conductor C.S.A. (mm^2)
646	11.0	1.5
647	11.0	1.5
655	11.0	1.5
502	8.7	0.5
505	9.4	0.75
515	11.0	1.5
639	8.7	0.5
641	9.4	0.75
643	11.0	1.5

Description

13 amp plugs

All MK standard 13 amp plugs can be used on ring and radial circuits and are available with 13 amp fuses or 3 amp fuses.

Round pin plugs

Available unfused at 2, 5 and 15 amp. They can also be supplied fused, the 15 amp fitted with a 5 amp fuse. The British Standard does not allow the 15 amp plug to be fused higher than 5 amp. The 15 amp plug is normally used on a radial system which is protected by a 20 amp protective device.

Non standard safetyplug

Not third party approved as the earth pin is 'T' shaped, although the pin configuration conforms to BS 1363 pin centres. This plug is designed specifically for use with MK Non Standard Sockets, e.g. K1257WHI – Logic Plus 1 gang 13 amp Switched, Non Standard Socket outlet.

Adaptors

Both the 13 amp two way adaptor and the shaver adaptor are designed to BS 1363: Part 3: 1995. The two way adaptor is unfused and has two shuttered 13 amp socket outlets. The unique feature of the shaver adaptor is the raised wall on the socket face which restricts the size of plug which can be inserted to the typical shaver plug.



For a full range of corresponding products, see pages 224-225 in the product selector.

Polycarbonate Chemical Resistance Table

Key:

▲ Resistant

● Limited resistance

■ Not resistant

REAGENT	CONCENTRATION	RESISTANCE
Acetic Acid, aqueous	40	■
Acetic acid, aqueous	5	▲
Acetone		■
Ammonia, aqueous	10	■
Benzene		■
Beverages, alcoholic		▲
Bitumen		Not tested
Bleaching lye, aqueous		■
Boric Acid	10	▲
Butanol		■
Butter		●
Butyric acid		■
Calcium chloride, aqueous	10	▲
Carbon tetrachloride		■
Chlorine gas		●
Chlorine, aqueous solution		■
Chloroform		■
Citric acid, aqueous	10	▲
Coconut oil		▲
Diesel fuel		●
Edible fats		▲
Edible oils		▲
Ethanol	96	▲
Ethylene acetate		■
Ethylene ether		■
Formaldehyde, aqueous	30	▲
Formic acid, aqueous	40	●
Freon, liquid		▲
Frigen, liquid		▲
Fruit juices		▲
Fuel oil (heating)		●
Gas liquor		Not tested
Glycerine		▲
Glycol		▲
Glysantine, aqueous	40	Not tested
Hexane		▲
Hydrochloric acid, aqueous	2	■
Hydrofluoric acid, aqueous	40	▲
Hydrogen peroxide, aqueous	10	▲
Ink		▲
Iodine tincture, alcoholic		■

REAGENT	CONCENTRATION	RESISTANCE
Kerosene		■
Latic acid, aqueous	10	▲
Lavender oil		Not tested
Linseed oil		Not tested
Machine oils		▲
Mercury		▲
Methanol		■
Methylene chloride		■
Milk		▲
Mineral oils		▲
Nitric acid, aqueous	2	▲
Oleic acid		▲
Ozone		▲
Paraffin oil		▲
Peppermint oil		Not tested
Perfumes		■
Petrol (gasoline)		●
Phenol, aqueous		■
Phosphoric acid, aqueous	10	■
Potassium hydroxide solution, aqueous	5	■
Potassium hydroxide solution, aqueous	50	■
Rose oil		●
Salt solution, household, aqueous	10	▲
Silicon oils		▲
Soap solution, aqueous		▲
Soda solution, aqueous	10	▲
Sodium hydroxide solution, aqueous	10	■
Sodium, aqueous	10	Not tested
Sulphur		▲
Sulphuric acid, aqueous	10	▲
Tallow		▲
Tar		▲
Tetrachloroethene		■
Toluene		■
Trichlorethane		■
Vaseline		▲
Water		▲
Water, hot (80°C)		●
Wax, melted		Not tested
Xylene		■

13 Amp Socket Outlets

Standards and approvals

Socket outlets comply with BS 1363 Part 2: 1995.

All products allow compliance with BS 7671: 2008 when correctly installed.

Technical specification

Electrical

Voltage rating:
250V a.c.

Current rating:
13A per socket outlet

Terminal capacity:
Live, neutral & earth
3 x 2.5mm²
3 x 4mm²
2 x 6mm² (standard)

Physical

Ambient operating temperature:
0°C to +40°C

IP rating:
IP66

Max. installation altitude:
2000 metres



Description

A range of socket outlets specifically designed for use outdoors or in areas heavily exposed to dust and/or splashing water. Constructed from extremely robust polycarbonate, the range is sealed to IP66 against dust, water and is impact resistant and will completely protect virtually any 13 amp plug* including moulded plugs, allowing safe connection to any appliance.

*When in doubt, please use an MK 13A plug or Duraplug.

Boxes

Rear entry back boxes are supplied for surface mounted situations or flush mounting when used with Flush Mounting Bezels (K56502, 1 gang / K56503, 2 gang). These boxes must also be used if cable or conduit enters the enclosure from the rear.

IP66 Protection

Each digit in the IP (Ingress Protection) rating denotes resistance to dust and water. The Masterseal Plus IP66 rating breakdown is as follows:

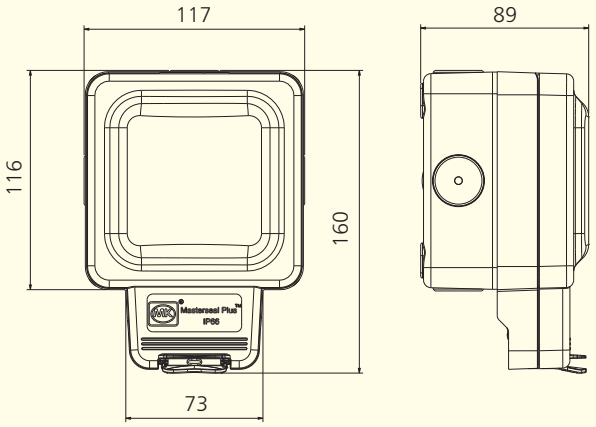
IP66		
Ingress protection	Solid protection: Dust tight No ingress of dust, complete protection against contact	Liquid Protection: Powerful jets of water against the enclosure from any direction shall have no harmful effects

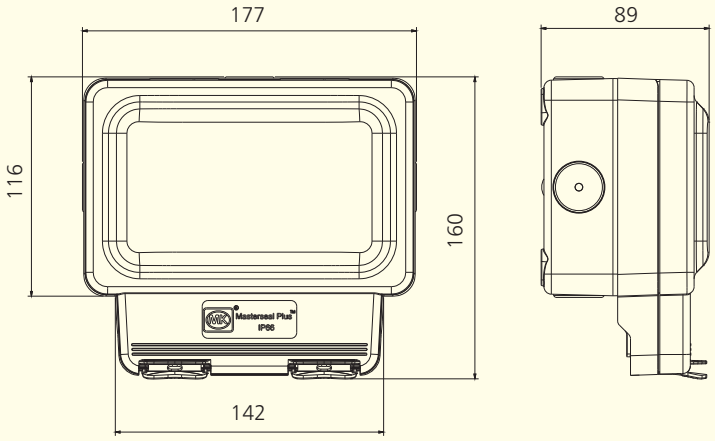
Features

- IP66 protected to BS EN60529: 1992
- Ideal for gardens, workshops, industry, commercial, public areas, farm buildings, ponds, pools etc
- Easy to install: fixed gasket, captive backed out terminal screws, clearly marked top access angled terminals, push fit knockouts and conduit entries, rear drill holes
- Patented gel seal provides durable water and dust tight seal for improved protection
- Sealed when in use with virtually any standard 13 AMP plug, including those with moulded plug tops
- Improved catch eases opening and closing during use
- Manufactured from recycled polycarbonate for impact protection and environmental protection
- 3 pin operated safety shutter on socket outlets
- 3mm minimum switch contact gap
- Additional electrical safety from neutral 'make first, break last' feature
- Moulded 'on' indicator flash on switches will not rub off
- Printed terminal markings on grey rear mouldings for clearer identification
- Double pole switching
- Switch contacts with silver contacts on both surface for good continuity
- Products are available in grey, black and white

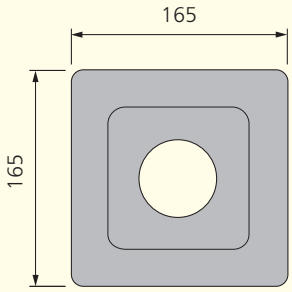
Dimensions (mm)

1 gang / 2 gang with fixing dimensions

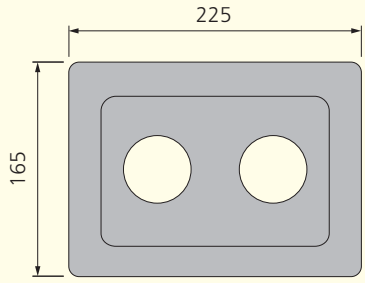




Flush Mounting Bezels

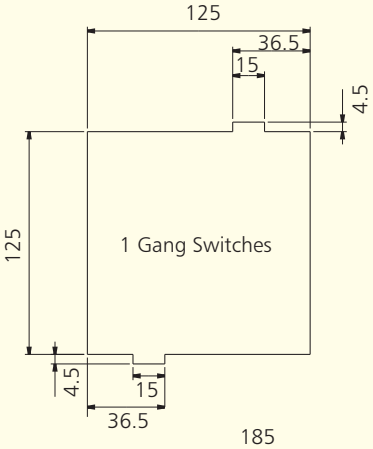


K56502

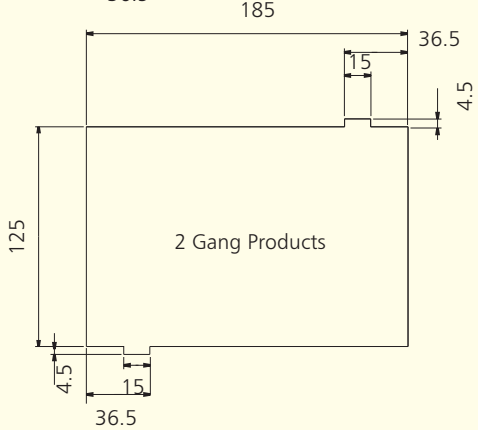


K56503

Flush Mounting Bezel Cut-outs



Depth of hole should be 40mm



Timer Socket Outlet



Standards and approvals

Socket outlet complies with BS 1363 Part 2: 1995.

Enclosure conforms to BS EN 60529 IP66

Timer module complies with IEC 60730-1
IEC 60730-2-7, EN 55014 -1: 2000, EN 55022,
EN 61000-3-2, EN 61000-4-2, EN 61000-4-4,
EN 61000-4-5, EN 61000-4-6, EN 61000-4-11

Technical specification

Electrical

Supply Voltage	230V a.c.
Supply frequency	50Hz
Current rating for socket outlet	(RESISTIVE) 13A

Terminal capacity

Supply Line, Neutral and Earth	3 x 2.5mm² 3 x 4 mm² 2 x 6 mm²

Physical

Ambient operating temperature range: 0°C to +40°C
IP rating: IP66
Max. installation altitude: 2000 metres

Features

- Single 13A rated socket outlet switched via the Single Pole timer module
- Weekly Electronic Timer
- 24 hour clock
- Multi-function Liquid Crystal Display (LCD)
- 6 ON/OFF programmes per day
- Individual day selection as well as 4 block day selections
- Supplied with a LOOP terminal in the back box, which has 5 entries for cables
- Override button to switch the load ON/OFF directly, bypassing the timer
- Patented gel seal provides durable water and dust tight seal for improved protection
- Sealed when in use with virtually any standard 13 AMP plug, including those with moulded plug tops
- Improved catch eases opening and closing during use
- Manufactured from recycled polycarbonate for impact protection and environmental protection
- 3 pin operated safety shutter on socket outlets
- Products are available in grey, black and white

Description

This socket outlet, switched by a single pole timer module is specifically designed for use outdoors or in areas heavily exposed to dust and/or splashing water. Constructed from extremely robust polycarbonate, the product is sealed to IP66 against dust and water, and is impact resistant. The product ensures a very high degree of protection for virtually any 13A plug* to BS 1363, allowing safe connection to electrical appliances, which can be switched on and off at pre-determined times.

Timer module

The product employs an electronic timer module, which switches the Supply Line to the socket outlet, via a single pole relay. 6 ON/OFF cycles per day can be programmed via the buttons on the face of the timer module. Days in the week can be set individually or set to repeat in 4 separate blocks as follows:

1. Monday to Friday
2. Saturday and Sunday
3. Monday to Saturday
4. Monday to Sunday

An Override button is available to switch the load ON/OFF directly, bypassing the timer.

Boxes

Rear entry back box is supplied for surface mounted situations or flush mounting when used with Flush Mounting Bezel (K56503). These boxes must also be used if cable or conduit enters the enclosure from the rear.

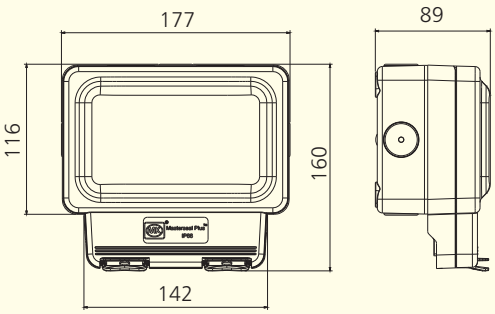
IP66 Protection

Each digit in the IP (Ingress Protection) rating denotes resistance to dust and water. The Masterseal Plus IP66 rating breakdown is as follows:

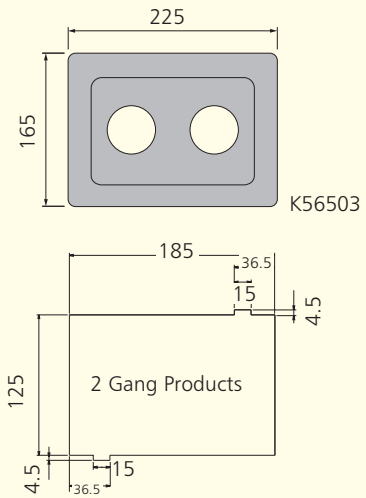
* When in doubt, please use an MK 13A plug

IP66		
Ingress protection	Solid protection: Dust tight No ingress of dust, complete protection against contact	Liquid Protection: Powerful jets of water against the enclosure from any direction shall have no harmful effects

Dimensions (mm)



Flush Mounting Bezel



Sentrysocket

Compliance with EC Directives, Standards and approvals

All Sentrysockets comply with the following EC Directives and are CE marked:
Low Voltage Directive Electromagnetic Compatibility Directive (89/336/EEC)

Sentrysocket RCD Single Sockets also comply with the requirements of the following standards:
BS 7288: 1990
BS EN 50082-1: 1992

Sentrysocket RCD Double Sockets also comply with the requirements of the following standards:
BS 7288: 1990
BS EN 61543: 1996



Technical specification

Electrical

Rated Voltage:
240V a.c.

Current rating:
13A resistive

Rated tripping current:
30mA

Terminal capacity:
3 x 4mm^2

Physical

Ambient operating temperature:
0°C to +40°C

IP rating:
IP66

Max. installation altitude:
2000 metres

Features

- Suitable for most residential, commercial and light industrial applications
- Active and passive control circuit applications
- Comply fully with current Wiring Regulations if installed correctly
- Double pole switching
- Flexible and versatile in use
- Ideal for use with equipment subject to wet weather or high humidity
- They are a.c. and pulsating d.c. fault current sensitive

Description

Sentrysocket provides a high level of protection for portable equipment when used in damp environments or outdoors.

Active control circuits

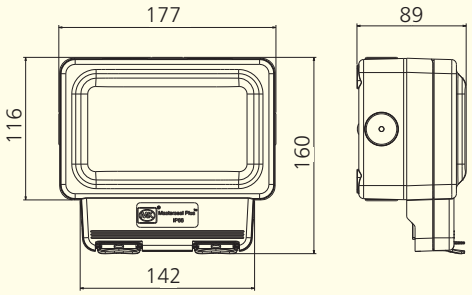
Incorporate a 'Re-set' mechanism and are mains failure sensitive, ie they will function under all the normal conditions expected of an RCD, but will also trip in the event of a power cut or a sudden, dramatic reduction in mains voltage. This makes them ideal for use where it would be hazardous for equipment to suddenly energise after return of mains power, such as use with rotating machinery and heat developing apparatus.

Passive control circuit

Incorporates a 'Stay-set' mechanism and is mains failure proof, ie it will function under all the normal conditions expected of an RCD and will not trip in the event of a power cut. This makes it suitable for use with freezers or in inaccessible or unmanned locations.

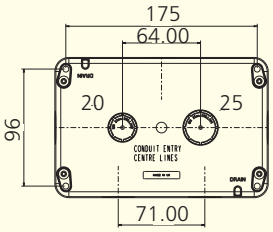
Dimensions (mm)

Single and double Sentrysockets are identical in size and shape. The following dimensions apply



Masterseal Plus Sentrysocket is suitable for surface mounting only.

Fixing Dimensions



16A 2P+E Socket Outlet (Non UK)

Standards and approvals

Complies with IEC 60884-1: 2006

Technical specification

Electrical

Voltage rating:
250V a.c.

Current rating:
16A

Terminal capacity:
Live, neutral & earth
4 x 1.5mm²
2 x 2.5mm²
1 x 4mm²

Physical

Ambient operating temperature:
0°C to +40°C
(not to exceed an average of more than 25°C in any 24 hour period)

IP rating:
IP66

Max. installation altitude:
2000 metres

IP66		
Ingress protection	Solid protection: Dust tight No ingress of dust, complete protection against contact	Liquid Protection: Powerful jets of water against the enclosure from any direction shall have no harmful effects

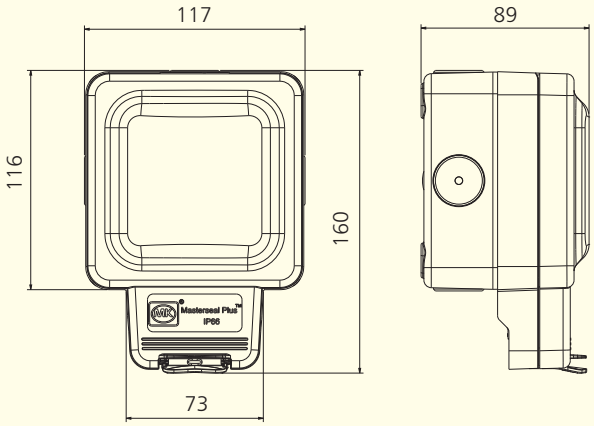
Features

- IP66 protected to BS EN60529: 1992
- Patented gel seal provides durable water and dust tight seal for improved protection
- Sealed when in use with virtually any plug with a right-angled cable exit, including those with moulded plug tops
- Improved catch eases opening and closing during use
- Manufactured from recycled polycarbonate for impact protection and environmental protection
- Products are available in grey, black and white

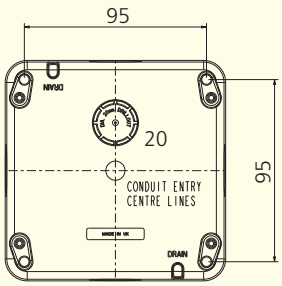


Masterseal 16A 2P + E German socket outlet is suitable for surface mounting only.

Dimensions (mm)



Fixing dimensions



Connection Units

Standards and approvals

All Masterseal Plus Connection Units comply with BS 1363 Part 4: 1995. All units are fitted with a 13A fuse link to BS 1362.

Technical specification

Electrical

Voltage rating:
250V a.c.

Current rating:
Connection units – 13 amp

Terminal capacity:

Supply terminal: 2 x 6mm² stranded
3 x 4mm²
3 x 2.5mm²
3 x 1.5mm²

Load terminals: 1 x 1.5mm²

Physical

Ambient operating temperature:
–5°C to +40°C (not to exceed an average of more than 25°C in any 24 hour period)

IP rating:
IP66

Max. installation altitude:
2000 metres

Features

- IP66 protected to BS EN60529: 1992
- Ideal for gardens, workshops, industry, commercial, public areas, farm buildings, ponds, pools etc
- Easy to install: fixed gasket, captive backed out terminal screws, clearly marked top access angled terminals, push fit knockouts and conduit entries, rear drill holes
- Patented gel seal provides durable water and dust tight seal for improved protection
- Improved catch eases opening and closing during use
- Manufactured from recycled polycarbonate for impact protection and environmental protection
- Screw fitted fuse carrier
- Fuse carrier lockable in open position
- Captive fuse carrier
- 3mm minimum switch contact gap
- Double pole switching
- Moulded 'on' indicator flash on switches will not rub off



Description

Masterseal Plus connection units are specifically designed for use outdoors or in areas heavily exposed to dust and/or splashing water. Constructed from extremely robust polycarbonate, the range is sealed to IP66 against dust, water and is impact resistant and will completely protect and provide a safe connection to any appliance.

IP66 Protection

Each digit in the IP (Ingress Protection code) rating denotes resistance to dust and water. The Masterseal IP66 rating breakdown as is follows:

Impact Resistance

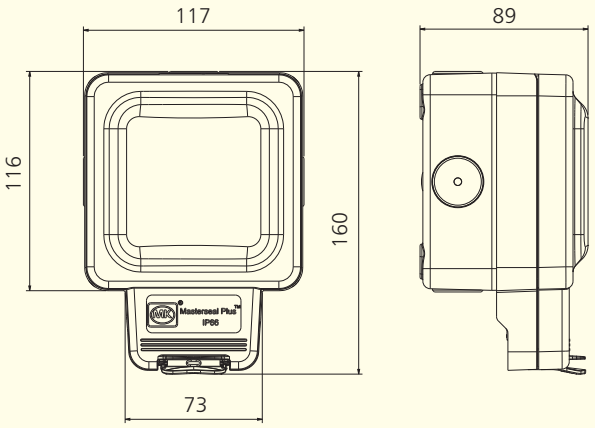
IP66		
Ingress protection	Solid protection: Dust tight No ingress of dust, complete protection against contact	Liquid Protection: Powerful jets of water against the enclosure from any direction shall have no harmful effects

All Masterseal Plus products have an impact resistance equivalent to a 500g object falling from a height of 40cm.

Boxes

Rear entry back boxes are supplied for 'tamper proof' surface mounted situations or flush mounting when used with Flush Mounting Bezels (K56502). These boxes must also be used if cable or conduit enters the enclosure from the rear.

Dimensions (mm)



Installation

Masterseal Plus connection units can be wall or bench mounted. Do not use on a trailing lead.

Switches

Standards and approvals

Switches and enclosures comply with BS EN 60669-1: 1999 and are IP66 for BS EN 60529: 1992.

20A Switch modules comply with BS EN 60669-1: 1999.

10A Switch modules comply with BS EN 60669-1: 1999.

All products comply with or allow compliance with BS 7671: 2008.

Technical specification

Electrical

Voltage rating:
250V a.c., 50 Hz

Current rating:
10 or 20 amps – no derating when used on fluorescent or inductive loads.

Load type:
No resistriction

Physical

Ambient operating temperature:
0°C to +40°C

IP rating:
IP66
(Grid Plus enclosures are IP56)

Max. installation altitude:
2000 metres

Features

- IP66 protected to BS EN60529: 1992
- Ideal for gardens, workshops, industry, commercial, public areas, farm buildings, ponds, pools etc
- Easy to install: fixed gasket, captive backed out terminal screws, clearly marked top access angled terminals, push fit knockouts and conduit entries, rear drill holes
- Improved catch eases opening and closing during use
- Manufactured from recycled polycarbonate for impact protection and environmental protection
- Large, easy to use rocker switches
- Wide range of switch modules and accessories make Masterseal versatile
- Switch modules snap into position





Description

A range of switches and enclosures specifically designed for use outdoors or in areas heavily exposed to dust and/or splashing water. Constructed from extremely robust poly-carbonate, the range is sealed to IP66 against dust, water and is impact resistant. Masterseal is easy to install and the large rocker switches and clip in modules make it easy to use, even when wearing heavy gloves.

IP66 Protection*

Each digit in the IP (Ingress Protection) rating denotes resistance to dust and water. The Masterseal IP66 rating breakdown is as follows:

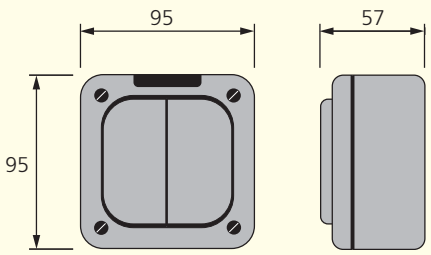
IP66		
Ingress protection	Solid protection: Dust tight No ingress of dust, complete protection against contact	Liquid Protection: Powerful jets of water against the enclosure from any direction shall have no harmful effects

Boxes

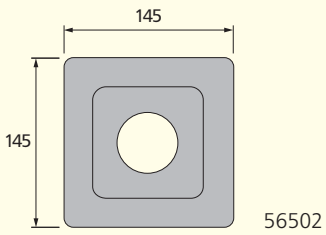
Rear entry back boxes are supplied for surface mounted situations or flush mounting when used with Flush Mounting Bezels (56502). These boxes must also be used if cable or conduit enters the enclosure from the rear.

* Grid Plus enclosures are IP56

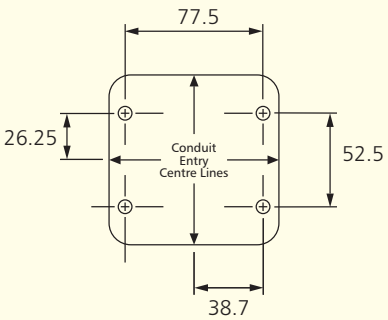
Dimensions (mm)



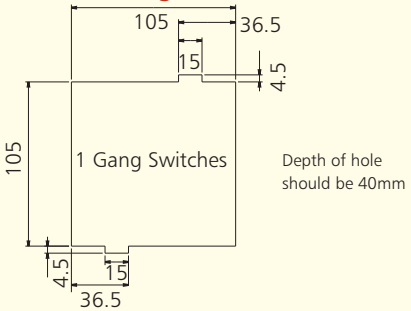
Flush Mounting Bezel



Fixing dimensions



Flush Mounting Frame



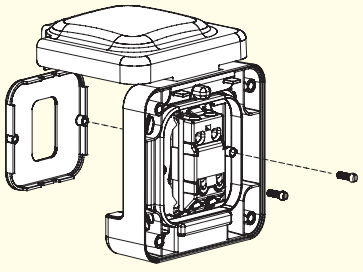
Grid Plus Enclosures



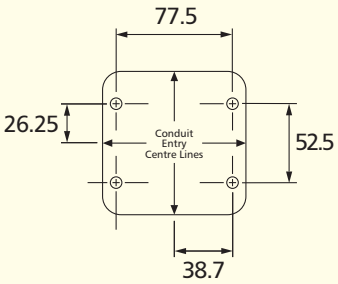
Customer Configurable Grid – K56414

1. Up to two wiring device modules may be selected from the MK Grid Plus modular range and fitted to the configurable grid enclosure.
2. If a TV outlet is to be fitted in combination with a mains voltage device, then it is essential that the cabling and modules are isolated from each other.
3. Grid modules are assembled into the front face of the front plate and clip firmly into position.
4. Two bezel mouldings are supplied. Select the appropriate bezel depending on whether one or two modules are fitted, locate in position and secure with the two screws provided as shown in Figure 1.

Figure 1



Fixing dimensions



Euro Enclosure and Telephone and Data Modules

Standards and approvals

Telephone sockets K5820 and K5821 comply with the following: BS 6312: 2.2, OFTEL Approval NS/G/23/L/100005.

K5844/K5845/K5845s comply with:
ISO/IEC 11801, EN 50173, TIA 568, and EN 41003.

K5887 complies with FCC68 and EN 41003.

Technical specification

Installation tools required IDC Connectors (telephone & RJ45 outlets)

Electrical

Cable types:
Telephone: CW1311, CW1293, CW1308, CW1316

No. of cables per termination:
Telephone: 2
RJ11/12: 1
RJ45: 1

Termination type: IDC

Physical

Temperature range:
Ambient air 0°C to +40°C

IP rating: IP66 (enclosure)

Max. installation altitude: 2000 metres

Features

- IP66 data and telecoms protection
- Meet all relevant BS, OFTEL and cabling standards
- Interchangeable modules clip into enclosure
- Can be specified for all applications

MODULE DIMENSIONS (mm)
25 x 50

IP66		
Ingress protection	Solid protection: Dust tight No ingress of dust, complete protection against contact	Liquid Protection: Powerful jets of water against the enclosure from any direction shall have no harmful effects





Description

A range of Euro telephone, data and blank modules and weatherproof enclosure. Enclosure accommodates 2 modules providing care is used to ensure that the cables are correctly routed through the outlet.

Installation (Telephone socket modules)

Product performance, systems compatibility

Master Sockets: For use as the first socket outlet on a direct exchange. They contain the required surge protector (for line protection against electrical surges) and ringing capacitor.

Secondary Sockets: for use as extension sockets when connected on the same line as a Master Socket.

Installation tools required IDC Connectors (telephone & RJ45 outlets)

MK insertion tool List No. 400NAT.
Wire pull-out force: 10.5 Newtons when installed correctly.

Wiring regulation restrictions

Domestic Installations: The total REN (Ring Equivalent Number) value of all telephone equipment connected on a line must not exceed 4.

FOR EURO MODULE WIRING DIAGRAMS, PLEASE REFER TO WIRING DEVICES TECHNICAL SECTION, Pages 444-446

Installation

Notes:

1. The enclosure is made from polycarbonate which is a highly durable material, and ideal for most environments. However, if installing in areas where creosote, some chemicals, synthetic oils and harsh cleaners are used, seek advice from MK Technical Sales Service Department.

2. The enclosure must be mounted on a flat, vertical surface that is free from grease, dirt and loose material.

3. If the conduit cable entry is from the top or sides the lower drain hole in the mounting box must be drilled out using a 5mm diameter drill bit. This will allow any condensation formed in the conduit system to drain out of the unit.

Note: opening the drain hole will reduce the IP rating; therefore ensure that jetted water is not directed at the unit.

4. The drain hole should not be drilled out if the enclosure is to be installed in an excessively dusty environment. If the drain hole is not drilled out, only the bottom cable entry must be used.

5. If conduit is used for bottom cable entry, a 5 mm diameter drain hole needs to be drilled in the lowest point of the conduit run.

6. If wiring directly to the enclosure without conduit and the installation is outdoors, ensure that a cable specified for outside use is used.

7. Please note; the colour codes used for rigid cabling in the UK since April 2004 and in all other areas of the EU, are as follows;

BROWN = terminals marked 'L'

BLUE = terminals marked 'N'

GREEN / YELLOW = terminals marked ' ⏚ '.

The colour codes used prior to April 2004 were;

RED = terminals marked 'L'

BLACK = terminals marked 'N'

GREEN / YELLOW = terminals marked ' ⏚ '.

8. PVC Cable Entry (see Service Items) must only be used at the bottom cable entry of the enclosure.

Instructions:

CAUTION

Do not allow paint or wood preservative to come into contact with the product. The product can be safely mounted on painted surfaces or surfaces treated with wood preservative when the paint or wood preservative is completely dry.

1. Read the safety instructions.

2. Mark the position of the fixing holes for the mounting box.

3. Drill holes and fit wall plugs suitable for a No. 8 wood screw.

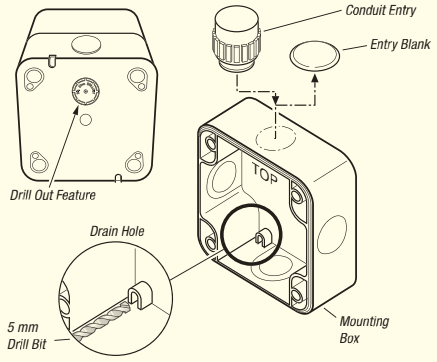
4. Prior to fitting the mounting box to the wall, drill out the drain hole if required (see Installation Note 3). File out the complete drain hole profile. Take care not to damage the small internal wall.

5. Carefully remove the cable entry blanks, or drill out the rear cable entry, as required and fit conduit entry (see Service Items).

6. Secure the mounting box to wall with four No. 8 wood screws. Position drain hole at bottom left hand corner.

7. Align and install conduit or cable entry as required.

8. Seal the conduit and conduit entry with a non setting conduit sealant such as Egaweld™ Plus. Refer to Figure 4.



9. For instructions on how to wire the front plate of telephone and data products see the instruction leaflets supplied with the appropriate module.

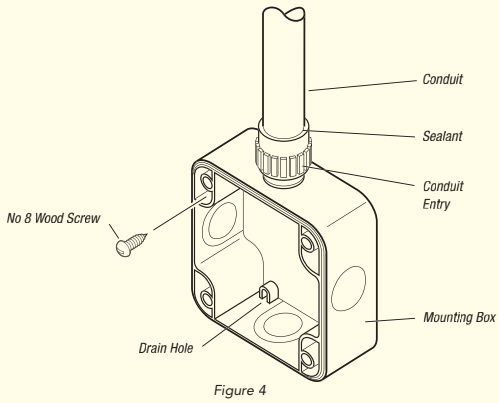


Figure 4

10. Before wiring and fitting the front plate, position the seal on the front plate. Ensure the holes are aligned and seal is aligned with the ribs on the mounting box and the cables are threaded through the seal and screws are fully tightened.

11. Wire and fit the front plate. Ensure the seal is correctly located and the cables are not trapped or pinched.

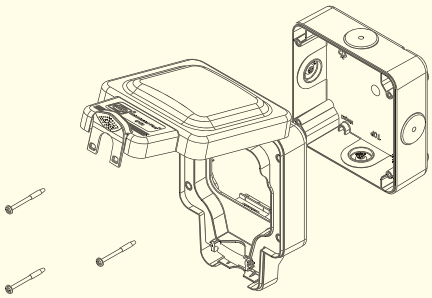


Figure 5

WHEN INSTALLING CONNECTION UNITS USING THE FRONT FLEXIBLE

CABLE CLAMP

1. Strip back the outer sheath on the appliance flexible LOAD cable and trim wires to 55mm in length. Do not trim the insulation on the three individual cables for the moment.

2. When using cables of 10mm or more in diameter, it is necessary to prestress the cable clamp before attempting to load the cable.

3. To pre-stress the clamp insert a flat bladed screwdriver into the cord grip as shown in fig. 6a and flex the clamping jaw open until it touches the grey base moulding fig. 6b. Then remove the screwdriver.

IMPORTANT: The clamp must not be re-used for cables below 6mm diameter after pre-stressing.

4. Cables below 10mm diameter do not need the cable clamp pre-stressed and the installation from this point is the same for all products.

5. To assist pushing the load cable through the front of the product, ease the clamping jaw pressure by holding the product securely in one hand and pushing the tab firmly with your thumb in the direction shown in fig. 7a.

6. Continue pushing the cable through the clamp until the outer sheath reaches the cable stops. See fig. 7b. The jaws must clamp on the outer sheath.

7. Carefully strip back the insulation on all three cables to expose 10mm of the conductor.

8. Ensure all conductors are connected to the appropriate terminals.

Terminal screws must be securely tightened. Pull on each cable to ensure that the terminal screw has securely fixed the conductor.
Notes:

Testing:

Test the completed installation in accordance with the latest edition of the IEE wiring regulations (BS 7671).

Service and Maintenance:

CLEANING

1. The exterior of the product must only be cleaned with a solution of mild detergent (e.g. washing up liquid) and warm water.

CABLE SEAL CAPSULE REPLACEMENT

1. Note the orientation of the cable seal capsules in the lid and front plate.

2. Carefully remove the two cable seal capsules with a flat bladed screwdriver and discard. Refer to Figure 8.

3. Install the new cable seal capsules orientated as noted on removal.

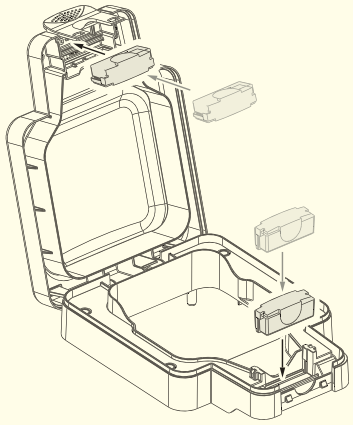


Figure 8

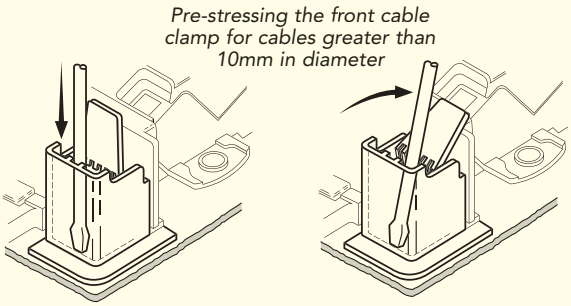


Figure 6a

Figure 6b

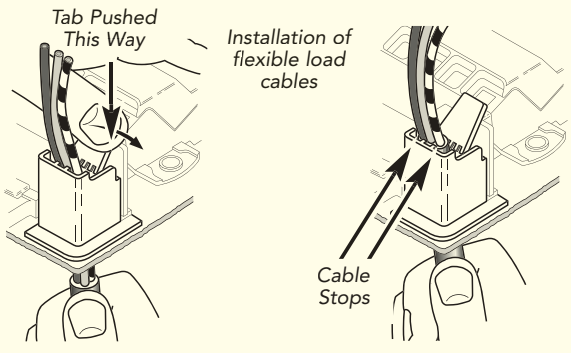


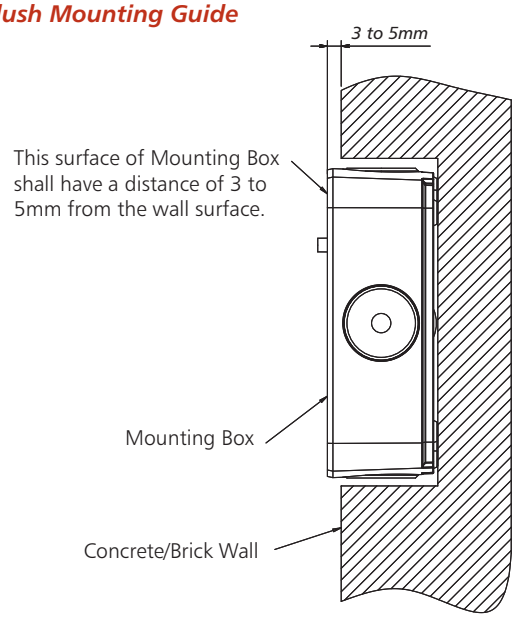
Figure 7a

Figure 7b

Features

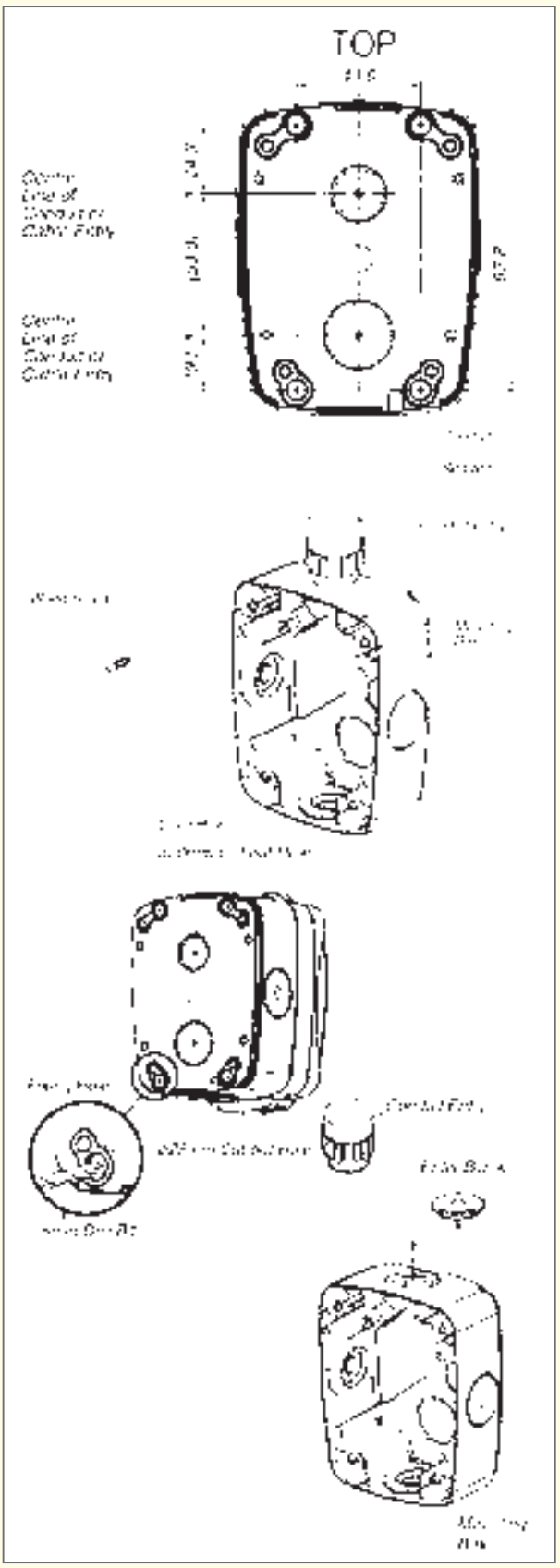
- Surface mounted and flush mounted products and associated service items are available.
- If flush mounting is intended, the conduit cable entry shall be installed from the rear of the mounting box.

Flush Mounting Guide



- Suitable for indoor and outdoor use wherever dirt and moisture protection is required. All products accept MK push in conduit and cable entries.
- The use of Polycarbonate for the housing of the products created a robust range of switches and socket outlets.
- Provided all enclosure lids are closed and the products are correctly installed, the MK Shield™ range offers an international protection code of IP56 when the products are in or out of use.
- Only plugs that have cable entry from a side edge will allow the lid to close correctly.
- All products conform to their relevant National standard as well as the standard for enclosures BSEN/IEC60529. 13AMP Sockets conform to BS1363 : Part 2, connection units to BS1363:Part 4 and switches to IEC60669-1.

Installation Guide



Service Items

List No.	Description	D x H mm
56460	Entry Blank	26.9 dia x 5.25
56461	PVC Cable Entry	26.9 dia x 10.15
56462	20mm Plain Conduit Entry	26.9 dia x 28
56463	20mm Threaded Conduit Entry	26.9 dia x 28
56464	Box Coupler	26.9 dia x 16.5
9933	M20 Earth Lead Adaptor	

Safety Instructions

Switch off and isolate the mains supply before carrying out installation of the MK Shield™ product.

1. This product should be installed by a competent person (eg. a qualified electrician).

2. It is essential that all connections are made as instructed, such that cables are not stressed and terminals are fully tightened.

3. Do not operate with damp hands or whilst it is raining.

4. For the enclosure of a socket-outlet, ensure the cable to the appliance is positioned so as to pass through the gel seal before closing the lid, thereby preventing accidental damage to the cable. The gel seal may stain the cable sleeve, this does not cause harm to the cable.

The box seal is attached on the front plate. Ensure the holes are aligned and the slot in the seal is aligned with the ribs on the mounting box.

Wire and fit the front plate. Ensure the seal is correctly located and no cables are trapped.

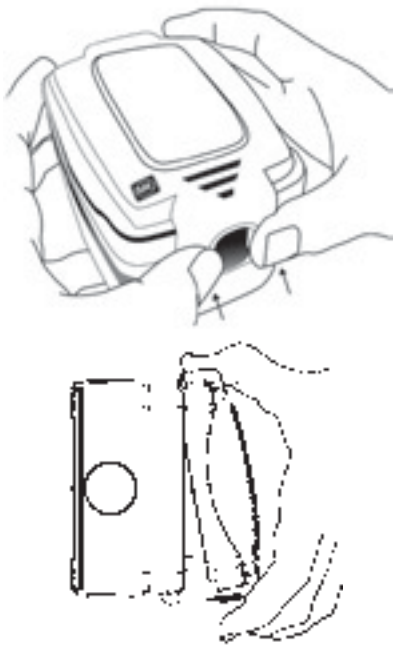
Specification

This product complies with the following standard.

General	BS 5733
13A Socket-outlet	BS 1363-2
Connection Unit	BS 1363-4
Switch	IEC 60669-1
Environmental Protection	BSEN/IEC60529
Operating Temperature	0^0C to +40^0C
Material	Polycarbonate UV stabilised

User Guide

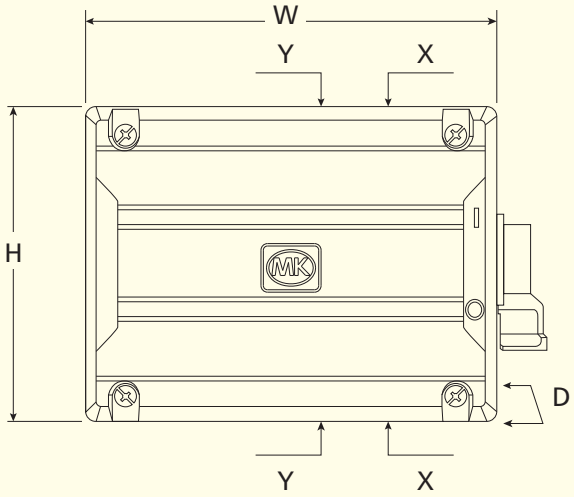
Method to release Lid Latch



The full IP56 rating is only achieved when the lid is clipped in the closed position.

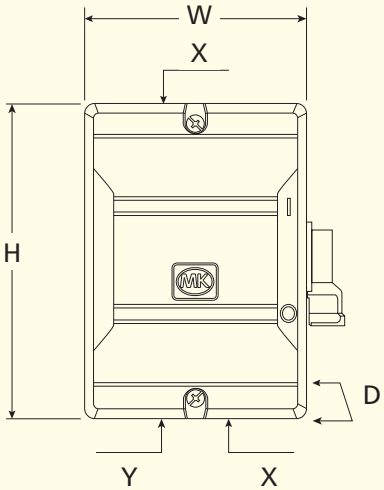
IP	5	6
Ingress protection	Dustproof to sawdust, dust and other small particles	Waterproof to strong jets of water, from any direction

K6725



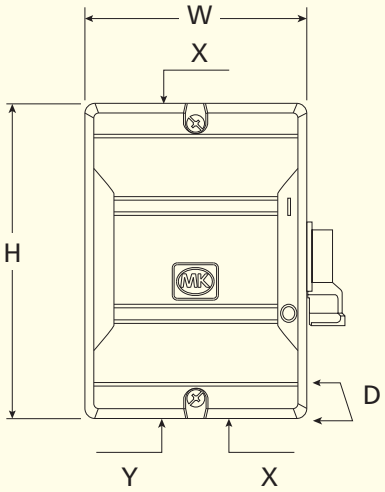
List Number	Ithe (A)	Ie (AC23A)	Rated Operational Power (KW)	Terminal Capacity (mm²)	No of Poles	Max. number of additional auxiliary contacts	Additional Auxillary Contact (NO) List Number (Not Supplied)	Additional Auxillary Contact (NC) List Number (Not Supplied)	Degree of Ingress Protection	Enclosure Size (mm)			Cable Entry		Fixing Dimensions (mm)		
										W	H	D	X	Y	A	B	G
K6725	25	20	11	1.5-4	6 (2xL1, 2xL2 & 2xL3)	2	6818	6819	IP65	190	130	65	2 x Ø25	1 x Ø16	124	90	5
K6725YEL	25	20	11	1.5-4	7 (2xL1, 2xL2, 2xL3 & AUX)	2	6818	6819	IP65	190	130	65	2 x Ø25	1 x Ø16	124	90	5

K6816



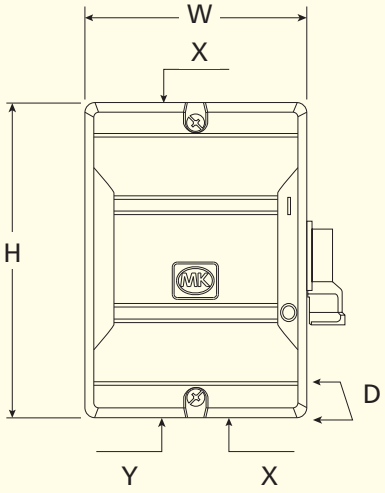
List Number	Ithe (A)	Ie (AC23A)	Rated Operational Power (KW)	Terminal Capacity (mm²)	No of Poles	Max. number of additional auxiliary contacts	Additional Auxillary Contact (NO) List Number (Not Supplied)	Additional Auxillary Contact (NC) List Number (Not Supplied)	Degree of Ingress Protection	Enclosure Size (mm)			Cable Entry		Fixing Dimensions (mm)		
										W	H	D	X	Y	A	B	G
K6816	16	10	7.5	1.5-4	3 (L1, L2, & L3)	1	6818	6819	IP65	111	130	60	2xM25	-	64	90	5
K6816YEL	16	10	7.5	1.5-4	3 (L1, L2, L3 & AUX)	1	6818	6819	IP65	111	130	60	2xM25	-	64	90	5

K6825



List Number	Ithe (A)	Ie (AC23A)	Rated Operational Power (KW)	Terminal Capacity (mm²)	No of Poles	Max. number of additional auxiliary contacts	Additional Auxillary Contact (NO) List Number (Not Supplied)	Additional Auxillary Contact (NC) List Number (Not Supplied)	Degree of Ingress Protection	Enclosure Size (mm)			Cable Entry		Fixing Dimensions (mm)		
										W	H	D	X	Y	A	B	G
K6825	25	20	11	1.5-4	3 (L1, L2, & L3)	1	6818	6819	IP65	111	130	60	2xM25	-	64	90	5
K6825YEL	25	20	11	1.5-4	3 (L1, L2, L3 & AUX)	1	6818	6819	IP65	111	130	60	2xM25	-	64	90	5

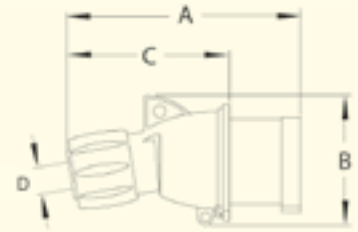
K6840



List Number	Ithe (A)	Ie (AC23A)	Rated Operational Power (KW)	Terminal Capacity (mm²)	No of Poles	Max. number of additional auxiliary contacts	Additional Auxillary Contact (NO) List Number (Not Supplied)	Additional Auxillary Contact (NC) List Number (Not Supplied)	Degree of Ingress Protection	Enclosure Size (mm)			Cable Entry		Fixing Dimensions (mm)		
										W	H	D	X	Y	A	B	G
K6840	40	25	11	1.5-10	3 (L1, L2, & L3	1	6818	6819	IP65	138	165	68	2xM32	2xM16	90	127	5
K6840YEL	40	25	11	1.5-10	3 (L1, L2, L3 & AUX	1	6818	6819	IP65	138	168	68	2xM32	2xM16	90	127	5

Plugs 16 and 32 Amp

IP44 SPLASHPROOF



Amps	Pin. Config-uration	100-130V 50-60Hz List No	200-250V 50-60Hz List No	380-415V 50-60Hz List No	440-460V 50-60Hz List No	480-500V 50-60Hz List No	Cable Diameter D mm min	Cable Diameter D mm max	Terminal Capacity* mm²	Dimensions in mm A	B	C
1	2P+E	**K9000YEL** 4	**K9001BLU** 6	**K9002RED** 9			8.2	13	1 - 2.5	115	63	78
16	3P+E	**K9005YEL** 4	**K9006BLU** 9	**K9007RED** 6	**K9008RED** 11	**K9009BLK** 7	8.9	17	1 - 2.5	140	72	103
16	3P+N+E	**K9013YEL** 4	**K9014BLU** 9	**K9015RED** 6	**K9016RED** 11		10.1	17	1 - 2.5	140	76	103
32	2P+E	**K9032YEL** 4	**K9033BLU** 6				11.7	21.5	2.5 - 6	156	83	110
32	3P+E		**K9036BLU** 9	**K9037RED** 6	**K9038RED** 11	**K9039BLK** 7	11.7	21.5	2.5 - 6	156	83	110
32	3P+N+E	**K9043YEL** 4	**K9044BLU** 9	**K9045RED** 6	**K9046RED** 11		14.2	21.5	2.5 - 6	156	88	110

Amps	Pin. Config-uration	>50V 100-300Hz List No	>50V 300-500Hz List No	IS TRAN 50-60Hz List No	>50-250V d.c. List No		Cable Diameter D mm min	Cable Diameter D mm max	Terminal Capacity* mm²	Dimensions in mm A	B	C
16	2P+E			**K9004GRY** 12	**K9003GRY** 3		8.2	13	1 - 2.5	115	63	78
16	3P+E	**K9010GRN** 10	**K9011GRN** 2				8.9	17	1 - 2.5	140	72	103
16	3P+N+E		**K9017GRN** 2				10.1	17	1 - 2.5	140	76	103
32	3P+N+E		**K9047GRN** 2				14.2	21.5	2.5 - 6	156	88	110

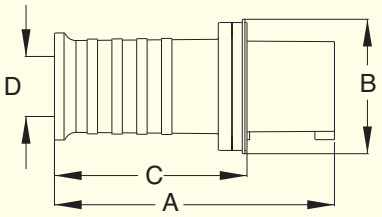
Earth Hour Position

*Flexible conductors

Plugs 63 Amp

FITTED WITH CABLE ENTRY GLAND THREAD SIZE M48

IP44 SPLASHPROOF



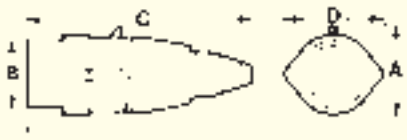
Amps	Pin. Config-uration	200-250V 50-60Hz List No	380-415V 50-60Hz List No	Cable Diameter D mm min	Cable Diameter D mm max	Terminal Capacity* mm²	Dimensions in mm A	B	C
63	2P+E	**K9063 BLU** 6		16.5	35	4 - 16	215	103	148
63	3P+E	**K9065 BLU** 9	**K9066 RED** 6	16.5	35	4 - 16	215	103	148
63	3P+N+E		**K9071 RED** 6	16.5	35	4 - 16	215	103	148

Earth Hour Position

*flexible conductors

Plugs ELV

IP44 SPLASHPROOF



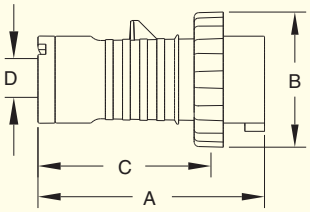
Amps	Pin. Config-uration	25V 50-60Hz List No	50V 50-60Hz List No	25 & 50V 50-60Hz List No	Cable Diameter mm min	Cable Diameter mm max	Terminal Capacity* mm²	Dimensions in mm A	B	C	D
16	2P	**K9018VLT**	**K9020WHI** 12	**K9022WHI** 10	7	24	4 - 10 and 2 x 6mm²	55	42	145	62
16	3P	**K9019VLT**	**K9021WHI** 12		7	24	4 - 10 and 2 x 6mm²	55	42	145	62

Minor Key Hour Position

*flexible conductors

Plugs 16 and 32 Amp

IP67 WATERTIGHT



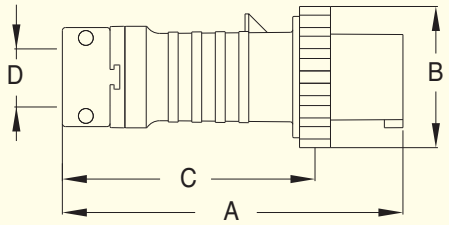
Amps	Pin. Config-uration	100-130V 50-60Hz List No	200-250V 50-60Hz List No	380-415V 50-60Hz List No	Cable Dia. D mm min	Cable Dia. D mm max	Terminal Capacity* mm²	Terminal Dimensions in mm A	B	C
16	2P+E	**K9023YEL** 4	**K9024BLU** 6		8.2	13	1 - 2.5	128	71	94
16	3P+E			**K9025RED** 6	8.9	17	1 - 2.5	144	79	111
16	3P+N+E			**K9026RED** 6	10.1	17	1 - 2.5	146	87	112
32	2P+E	**K9053YEL** 4	**K9054BLU** 6		11.7	21.5	2.5 - 6	147	94	105
32	3P+E			**K9055RED** 6	11.7	21.5	2.5 - 6	147	94	105
32	3P+N+E			**K9056RED** 6	14.2	21.5	2.5 - 6	161	101	119

Earth Hour Position

*flexible conductors

Plugs 63 and 125 Amp

IP67 WATERTIGHT



Amps	Pin. Config-uration	100-130V 50-60Hz List No	200-250V 50-60Hz List No	380-415V 50-60Hz List No	440-460V 50-60Hz List No	480-500V 50-60Hz List No	Cable Dia. D mm min	Cable Dia. D mm max	Terminal Capacity* mm²	Dimensions in mm A	B	C
63	2P+E	**K9294YEL** 4	**K9298BLU** 6				14	41	4 - 16	275	114	213
63	3P+E			**K9282RED** 6	**K9283RED** 11	**K9284BLK** 7	16.5	41	4 - 16	275	114	213
63	3P+N+E			**K9292RED** 6	**K9293RED** 11		16.5	41	4 - 16	275	114	213
125	2P+E		**K9099BLU** 6				24	48	16 - 50	313	130	242
125	3P+E			**K9092RED** 6	**K9093RED** 11		24	48	16 - 50	313	130	242
125	3P+N+E			**K9097RED** 6			24	48	16 - 50	313	130	242

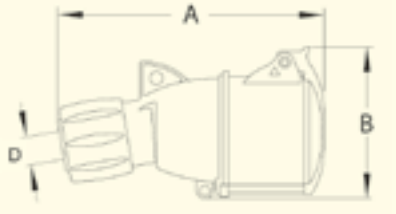
Earth Hour Position

*flexible conductors

For a full range of corresponding products, see pages 244-259 in the product selector.

Connectors 16 and 32 Amp

IP44 SPLASHPROOF



Amps	Pin. Config-uration	100-130V 50-60Hz List No	200-250V 50-60Hz List No	380-415V 50-60Hz List No	440-460V 50-60Hz List No	480-500V 50-60Hz List No	Cable Dia. D mm min	Cable Dia. D mm max	Terminal Capacity* mm²	Dimensions in mm A	Dimensions in mm B
16	2P+E	**K9100YEL** 4	**K9101BLU** 6	**K9102RED** 9			8.2	13	1 - 2.5	124	75
16	3P+E	**K9105YEL** 4	**K9106BLU** 9	**K9107RED** 6	**K9108RED** 11	**K9109BLK** 7	8.9	17	1 - 2.5	150	85
16	3P+N+E	**K9113YEL** 4	**K9114BLU** 9	**K9115RED** 6	**K9116RED** 11		10.1	17	1 - 2.5	152	89
32	2P+E	**K9132YEL** 4	**K9133BLU** 6				11.7	21.5	2.5 - 6	171	93
32	3P+E	**K9135YEL** 4	**K9136BLU** 9	**K9137RED** 6		**K9139BLK** 7	11.7	21.5	2.5 - 6	171	93
32	3P+N+E	K9142YEL 4	**K9143BLU** 9	**K9144RED** 6	**K9145RED** 11		14.2	21.5	2.5 - 6	171	99

Amps	Pin. Config-uration	>50V 100-300Hz List No	>50V 300-500Hz List No	IS TRAN 50-60Hz List No	>50-250V d.c. List No		Cable Dia. D mm min	Cable Dia. D mm max	Terminal Capacity* mm²	Dimensions in mm A	Dimensions in mm B
16	2P+E			**K9104GRY** 12	**K9103GRY** 3		8.2	13	1 - 2.5	124	75
16	3P+E	**K9110GRN** 10	**K9111GRN** 2				8.9	17	1 - 2.5	150	85
16	3P+N+E		**K9117GRN** 2				10.1	17	1 - 2.5	152	89
32	3P+N+E		**K9146GRN** 2				14.2	21.5	2.5 - 6	171	99

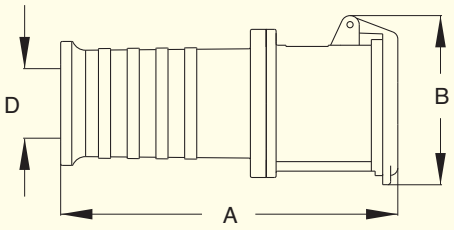
Earth Hour Position

*flexible conductors

Connectors 63 Amp

FITTED WITH CABLE ENTRY GLAND THREAD SIZE M48

IP44 SPLASHPROOF



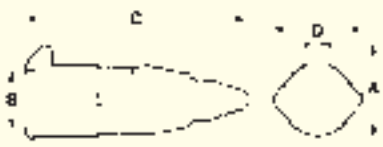
Amps	Pin. Config-uration	200-250V 50-60Hz List No	380-415V 50-60Hz List No	Cable Dia. D mm min	Cable Dia. D mm max	Terminal Capacity* mm²	Dimensions in mm A	Dimensions in mm B
63	2P+E	**K9172BLU** 6		16.5	35	4 - 16	224	112
63	3P+E	**K9164BLU** 9	**K9165RED** 6	16.5	35	4 - 16	224	112
63	3P+N+E		**K9170RED** 6	16.5	35	4 - 16	224	112

Earth Hour Position

*flexible conductors

Connectors ELV

IP44 SPLASHPROOF



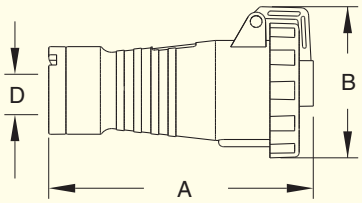
Amps	Pin. Config-uration	25V 50-60Hz List No	50V 50-60Hz List No	25 & 50V 50-60Hz List No	Cable Diameter mm min	Cable Diameter mm max	Terminal Capacity* mm²	Dimensions in mm A	B	C	D
16	2P	**K9118VLT**	**K9120WHI** 12	**K9122WHI** 10	7	24	4 - 10 and 2 x 6mm²	67	43	158	62
16	3P	**K9119VLT**	**K9121WHI** 12		7	24	4 - 10 and 2 x 6mm²	67	43	158	62

Minor Key Hour Position

*flexible conductors

Connectors 16 and 32 Amp

IP67 WATERTIGHT



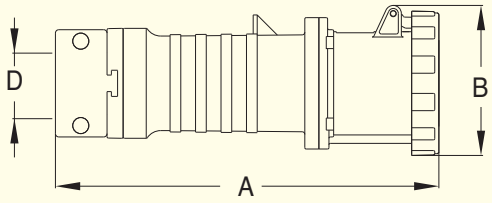
Amps	Pin. Config-uration	100-130V 50-60Hz List No	200-250V 50-60Hz List No	380-415V 50-60Hz List No	Cable Dia. D mm		Terminal Capacity* mm²	Dimensions in mm	
					min	max		A	B
16	2P+E	**K9123YEL** 4	**K9124BLU** 6		8.2	13	1 - 2.5	151	80
16	3P+E			**K9125RED** 6	8.9	17	1 - 2.5	168	88
16	3P+N+E			**K9126RED** 6	10.1	21.5	1 - 2.5	170	97
32	2P+E	**K9155YEL** 4	**K9156BLU** 6		11.7	21.5	2.5 - 6	177	102
32	3P+E			**K9157RED** 6	11.7	21.5	2.5 - 6	177	102
32	3P+N+E			**K9158RED** 6	14.2	21.5	2.5 - 6	182	109

Earth Hour Position

*flexible conductors

Connectors 63 and 125 Amp

IP67 WATERTIGHT



Amps	Pin. Config-uration	100-130V 50-60Hz List No	200-250V 50-60Hz List No	380-415V 50-60Hz List No	440-460V 50-60Hz List No	480-500V 50-60Hz List No	Cable Dia. D mm		Terminal Capacity* mm²	Dimensions in mm	
							min	max		A	B
63	2P+E	**K9855YEL** 4	**K9856BLU** 6				14	41	4 - 16	286	111
63	3P+E			**K9842RED** 6		**K9844BLK** 7	16.5	41	4 - 16	286	111
63	3P+N+E			**K9852RED** 6	**K9853RED** 11		16.5	41	4 - 16	286	111
125	2P+E		**K9189BLU** 6				24	48	16 - 50	325	122
125	3P+E			**K9182RED** 6	**K9183RED** 11		24	48	16 - 50	325	122
125	3P+N+E			**K9187RED** 6			24	48	16 - 50	325	122

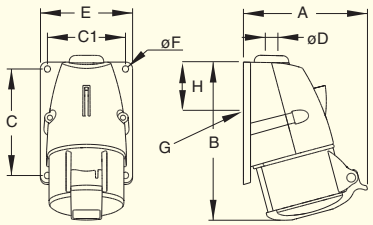
Earth Hour Position

*flexible conductors

Socket Outlets
Angled Surface Mounting
16 and 32 Amp

TOP CONDUIT OR REAR CABLE ENTRY, COMPLETE WITH BLANKING PLUG

IP44 SPLASHPROOF



Amps	Pin. Config-uration	100-130V 50-60Hz List No	200-250V 50-60Hz List No	380-415V 50-60Hz List No	440-460V 50-60Hz List No	480-500V 50-60Hz List No	Terminal Capacity* mm²	Dimensions in mm							Top Conduit Entry	Rear Entry
								A	B	C	C1	E	F	H	D	G
16	2P+E	**K9200YEL** 4	**K9201BLU** 6	**K9202RED** 9			1.5 - 4	91	117	75	54	66	5.5	30	M 20	Ø23
16	3P+E	**K9205YEL** 4	**K9206BLU** 9	**K9207RED** 6	**K9208RED** 11	**K9209BLK** 7	1.5 - 4	100	132	91	67	79	5.5	30	M 20	Ø23
16	3P+N+E	**K9213YEL** 4	**K9214BLU** 9	**K9215RED** 6	**K9216RED** 11		1.5 - 4	104	134	91	67	79	5.5	30	M 20	Ø23
32	2P+E	**K9232YEL** 4	**K9233BLU** 6				2.5 - 10	118	163	111	72	85	5.5	33	M 25	Ø29
32	3P+E	**K9235YEL** 4	**K9236BLU** 9	**K9237RED** 6		**K9238BLK** 7	2.5 - 10	116	163	111	72	85	5.5	33	M 25	Ø29
32	3P+N+E	**K9239YEL** 4	**K9240BLU** 9	**K9241RED** 6	**K9242RED** 11		2.5 - 10	121	164	111	72	85	5.5	33	M 25	Ø29

Amps	Pin. Config-uration	>50V 100-300Hz List No	>50V 300-500Hz List No	IS TRAN 50-60Hz List No	>50-250V d.c. List No		Terminal Capacity* mm²	Dimensions in mm							Top Conduit Entry	Rear Entry
								A	B	C	C1	E	F	H	D	G
16	2P+E			**K9204GRY** 12	**K9203GRY** 3		1.5 - 4	91	117	75	54	66	5.5	30	M 20	Ø23
16	3P+E	**K9210GRN** 10	**K9211GRN** 2				1.5 - 4	100	132	91	67	79	5.5	30	M 20	Ø23
16	3P+N+E		**K9252GRN** 2				1.5 - 4	104	134	91	67	79	5.5	30	M 20	Ø23
32	3P+N+E		**K9258GRN** 2				2.5 - 10	121	164	111	72	85	5.5	33	M 25	Ø29

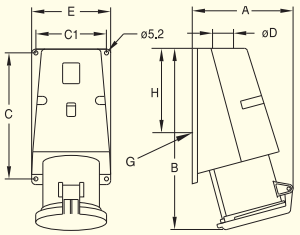
Earth Hour Position

*Solid or Stranded conductors

Socket Outlets
Angled Surface Mounting
63 Amp

TOP CONDUIT OR REAR CABLE ENTRY, COMPLETE WITH BLANKING PLUG

IP44 SPLASHPROOF



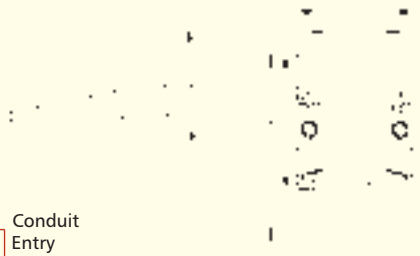
Amps	Pin. Config-uration	200-250V 50-60Hz List No	380-415V 50-60Hz List No	Terminal Capacity* mm²	Dimensions in mm						Conduit Entry	Rear Entry
					A	B	C	C1	E	H	D	G
63	2P+E	**K9274BLU** 6		4 - 16	136	254	170	95	107	67	M32	Ø35
63	3P+E	**K9264BLU** 9	**K9265RED** 6	4 - 16	136	254	170	95	107	67	M32	Ø35
63	3P+N+E		**K9269RED** 6	4 - 16	136	254	170	95	107	67	M32	Ø35

Earth Hour Positio

*Solid or Stranded conductors

Socket Outlets
Angled Surface Mounting Elv

IP44 SPLASHPROOF



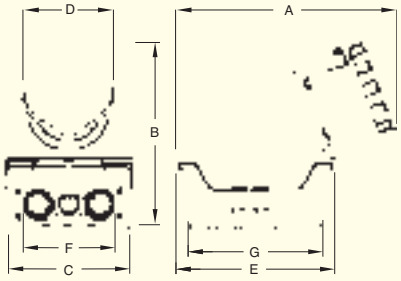
Amps	Pin. Config-uration	25V 50-60Hz List No	50V 50-60Hz List No	25 & 50V 50-60Hz List No	Terminal Capacity* mm²	Dimensions in mm					Conduit Entry
						A	B	C	D	F	
16	2P	**K9253VLT**	**K9255WHI** 12	**K9257WHI** 10	4 - 10 and 2 x 6mm²	81	113	80	70	55	M25
16	3P	**K9254VLT**	**K9256WHI** 12		4 - 10 and 2 x 6mm²	81	113	80	70	55	M25

Minor Key Hour Position

*Solid or Stranded conductors

Socket Outlets
Angled Surface Mounting
63 Amp

IP67 WATERTIGHT



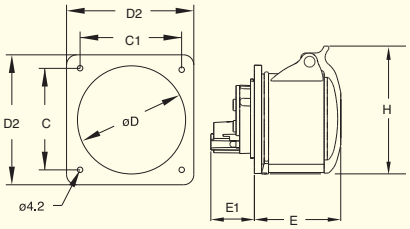
Amps	Pin. Config-uration	200-250V 50-60Hz List No	380-415V 50-60Hz List No	Terminal Capacity* mm²	Dimensions in mm				Fixing Centres	
					A	B	C	E	F	G
63	2P+E	**K9857BLU** 6		6 - 25	255	185	150	158	129	124
63	3P+E		**K9858RED** 6	6 - 25	255	185	150	158	129	124
63	3P+N+E		**K9859RED** 6	6 - 25	255	185	150	158	129	124

Earth Hour Position *Solid or Stranded conductors

Socket Outlets
Straight Panel Mounting
16 and 32 Amp

ALL FLANGES HAVE THE SAME FIXING CENTRES AND OUTSIDE DIMENSIONS TO ASSIST PANEL BUILDING. SEE BELOW FOR MINIMISED FLANGE OPTION.

IP44 SPLASHPROOF



Amps	Pin. Config-uration	100-130V 50-60Hz List No	200-250V 50-60Hz List No	380-415V 50-60Hz List No	440-460V 50-60Hz List No	Terminal Capacity* mm²	Dimensions in mm						
							C	C1	D	D2	E	E1	H
16	2P+E	**K9400YEL** 4	**K9401BLU** 6			1.5 - 4	60-61	60-61	49	75	56	29	79
16	3P+E	**K9405YEL** 4	**K9406BLU** 9	**K9407RED** 6		1.5 - 4	60-61	60-61	59	75	58	30	87
16	3P+N+E	**K9413YEL** 4	**K9414BLU** 9	**K9415RED** 6	**K9416RED** 11	1.5 - 4	60-61	60-61	59	75	60	31	89
32	2P+E	**K9432YEL** 4	**K9433BLU** 6			2.5 - 10	60-61	60-61	66	75	70	34	93
32	3P+E			**K9437RED** 6		2.5 - 10	60-61	60-61	66	75	70	34	93
32	3P+N+E		**K9444BLU** 9	**K9445RED** 6	**K9446RED** 11	2.5 - 10	60-61	60-61	66	75	70	34	93

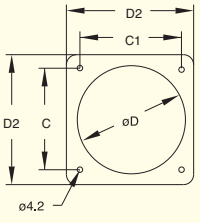
Amps	Pin. Config-uration	>50V 100-300Hz List No	>50V 300-500Hz List No	IS TRAN 50-60Hz List No	>50-250V d.c. List No	Terminal Capacity* mm²	Dimensions in mm						
							C	C1	D	D2	E	E1	H
16	2P+E			**K9404GRY** 12	**K9403GRY** 3	1.5 - 4	60-61	60-61	49	75	56	29	79
16	3P+E	**K9410GRN** 10				1.5 - 4	60-61	60-61	59	75	58	30	87
16	3P+N+E		**K9417GRN** 2			1.5 - 4	60-61	60-61	59	75	60	31	89
32	3P+N+E		**K9447GRN** 2			2.5 - 10	60-61	60-61	66	75	70	34	93

Earth Hour Position *Solid or Stranded conductors

Minimised Flange
For Straight Panel Mounting 16 Amp Outlets

NOTE: FIXING CENTRES COMPATIBLE WITH NON K SERIES PRODUCT

IP44 SPLASHPROOF

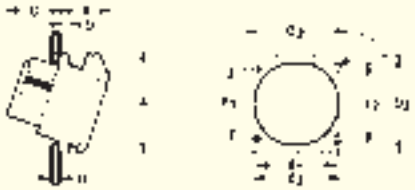


Amps	Pin. Configuration	List No	Dimensions in mm			
			C	C1	D	D2
16	2P+E	**K9996**	44-47	44-47	49	56

Minimised flange can be used to replace flange supplied with straight panel mounted outlets. To be ordered as additional part.

Socket Outlets
Angled Panel Mounting ELV

IP44 SPLASHPROOF



Amps	Pin. Config-uration	25V 50-60Hz List No	50V 50-60Hz List No	25 & 50V 50-60Hz List No	Terminal Capacity* mm²	Dimensions in mm										
						A	B	C	D	E1	E2	F1	F2	G max	D2	D3
16	2P	**K9518VLT**	**K9520WHI** 12	**K9522WHI** 10	4 - 10 and 2 x 6mm²	68	34	36	6	47	52	53	50	7	62	68
16	3P	**K9519VLT**	**K9521WHI** 12		4 - 10 and 2 x 6mm²	68	34	36	6	47	52	53	50	7	62	68

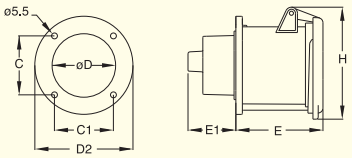
Minor Key Hour Position

*Solid or Stranded conductors

Socket Outlets
Straight Panel Mounting
63 Amp

IP44 SPLASHPROOF

Amps	Pin. Config-uration	200-250V 50-60Hz List No	380-415V 50-60Hz List No	Terminal Capacity* mm²	Dimensions in mm						
					C	C1	D	D2	E	E1	H
63	2P+E	**K9472BLU** 6		4 - 16	61	61	70	98	89	48	112
63	3P+E		**K9465RED** 6	4 - 16	61	61	70	98	89	48	112
63	3P+N+E		**K9470RED** 6	4 - 16	61	61	70	98	89	48	112



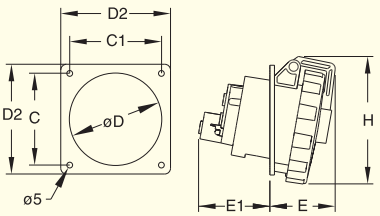
Earth Hour Position

*Solid or Stranded conductors

Socket Outlets
Angled Panel Mounting
16 and 32 Amp

IP67 WATERTIGHT

Amps	Pin. Config-uration	100-130V 50-60Hz List No	200-250V 50-60Hz List No	380-415V 50-60Hz List No	Terminal Capacity* mm²	Dimensions in mm						
						C	C1	D	D2	E	E1	H
16	2P+E	**K9802YEL** 4	**K9803BLU** 6		1 - 2.5	79.5	79.5	83	95	45	57	95
16	3P+E			**K9807RED** 6	1 - 2.5	79.5	79.5	83	95	45	57	95
16	3P+N+E			**K9815RED** 6	1 - 2.5	79.5	79.5	83	95	47	57	99
32	2P+E	**K9865YEL** 4	**K9866BLU** 6		2.5 - 6	79.5	79.5	83	95	56	61	104
32	3P+E			**K9870RED** 6	2.5 - 6	79.5	79.5	83	95	56	61	104
32	3P+N+E			**K9873RED** 6	2.5 - 6	79.5	79.5	83	95	56	62	111



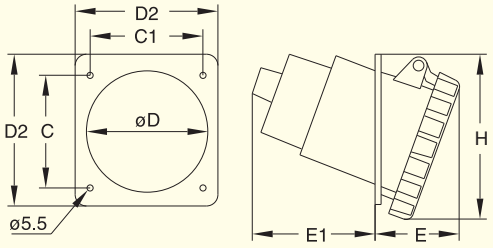
Earth Hour Position

*Solid or Stranded conductors

Socket Outlets
Angled Panel Mounting
63 Amp

IP67 WATERTIGHT

Amps	Pin. Config-uration	200-250V 50-60Hz List No	380-415V 50-60Hz List No	Terminal Capacity* mm²	Dimensions in mm						
					C	C1	D	D2	E	E1	H
63	2P+E	**K9825BLU** 6		6 - 25	84	80	78	104	61	86	115
63	3P+E		**K9582RED** 6	6 - 25	84	80	78	104	61	86	115
63	3P+N+E		**K9592RED** 6	6 - 25	84	80	78	104	61	86	115



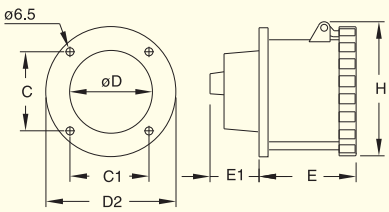
Earth Hour Position

*Solid or Stranded conductors

Socket Outlets
Straight Panel Mounting
63 and 125 Amp

IP67 WATERTIGHT

Amps	Pin. Config-uration	200-250V 50-60Hz List No	380-415V 50-60Hz List No	Terminal Capacity* mm²	Dimensions in mm						
					C	C1	D	D2	E	E1	H
63	2P+E	**K9828BLU** 6		6 - 25	61	61	70	98	89	48	111
63	3P+E		**K9812RED** 6	6 - 25	61	61	70	98	89	48	111
63	3P+N+E		**K9822RED** 6	6 - 25	61	61	70	98	89	48	111
125	2P+E	**K9483BLU** 6		25 - 70	71	71	88	115	100	58	122
125	3P+E		**K9481RED** 6	25 - 70	71	71	88	115	100	58	122
125	3P+N+E		**K9482RED** 6	25 - 70	71	71	88	115	100	58	122



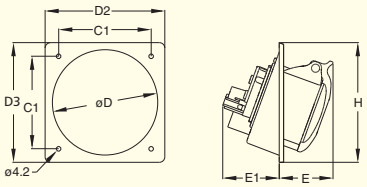
Earth Hour Position

*Solid or Stranded conductors

Socket Outlets
Angled Panel Mounting
16 and 32 Amp (NEW RANGE)

IP44 SPLASHPROOF

IP44 Outlet Angled Panel Mounted can only be installed recessed
Note: Fixing centres differ from old range



Amps	Pin. Config-uration	100-130V 50-60Hz List No	200-250V 50-60Hz List No	380-415V 50-60Hz List No	440-460V 50-60Hz List No	Terminal Capacity* mm²	Dimensions in mm							
							C	C1	D	D2	D3	E	E1	H
16	2P+E	**K9767YEL** 4	**K9771BLU** 6	**K9777RED** 9		1.5 - 4	55	55	63	70	78	53	42	76
16	3P+E		**K9772BLU** 9	**K9778RED** 6		1.5 - 4	66	66	78	83	89	53	46	85
16	3P+N+E		**K9773BLU** 9	**K9779RED** 6	**K9754RED** 11	1.5 - 4	66	66	78	83	89	55	48	89
32	2P+E	**K9769YEL** 4	**K9774BLU** 6			2.5 - 10	75	75	87	93	99	61	52	98
32	3P+E			**K9751RED** 6	**K9755RED** 11	2.5 - 10	75	75	87	93	99	61	52	98
32	3P+N+E		**K9776BLU** 9	**K9752RED** 6		2.5 - 10	75	75	87	93	99	64	52	101

Amps	Pin. Config-uration	>50V 100-300Hz List No	>50V 300-500Hz List No	IS TRAN 50-60Hz List No	>50-250V d.c. List No	Terminal Capacity* mm²	Dimensions in mm							
							C	C1	D	D2	D3	E	E1	H
16	2P+E			**K9756GRY** 12		1.5 - 4	55	55	63	70	78	53	42	76
16	3P+E					1.5 - 4	66	66	78	83	89	53	46	85

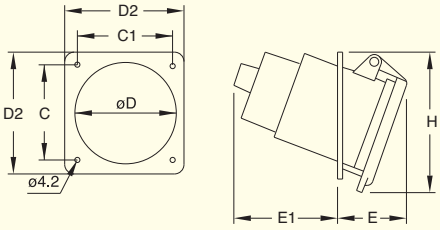
Earth Hour Position

*Solid or Stranded conductors

Socket Outlets
Angled Panel Mounting
63 Amp

IP44 SPLASHPROOF

Amps	Pin. Config-uration	220-250V 50-60Hz List No	380-415V 50-60Hz List No	Terminal Capacity* mm²	Dimensions in mm						
					C	C1	D	D2	E	E1	H
63	2P+E	**K9544BLU** 6		6 - 25	84	80	92	104	62	95	111
63	3P+E		**K9565RED** 6	6 - 25	84	80	92	104	62	95	111
63	3P+N+E		**K9570RED** 6	6 - 25	84	80	92	104	62	95	111



Earth Hour Position

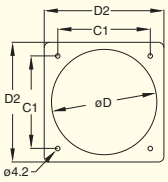
*Solid or Stranded conductors

Alternate Flange for Socket Outlets Angled Panel Mounting 16 and 32 Amp

Note: Fixing centres not compatible with new product range

IP44 SPLASHPROOF

Amps	Pin. Configuration	List No	Dimensions in mm			
			C	C1	D	D2
16	2P+E	**K9981**	85	85	46	110
16	3P+E, 3P+N+E	**K9982**	85	85	59	110
32	2P+E, 3P+E, 3P+N+E	**K9983**	85	85	64	110



Switchsocket Outlets Interlocked Angled Surface Mounting 16, 32 and 63 Amp Aluminium Alloy

SWITCH CAN BE LOCKED IN OPEN OR CLOSED POSITION

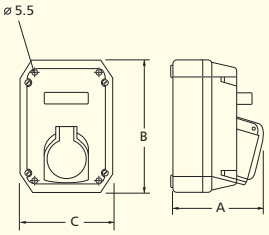
IP44 SPLASHPROOF

ALUMINIUM ALLOY ENCLOSURE.

16 amp and 32 amp
Will accept auxiliary contact eg. 6813 and 6814
M32/M25 conduit entry, with mounting for FL9 flange plate

63 amp
M40 conduit entry with mounting for FL 13 flange plate

Switch Utilisation Category AC 22A



Amps	Pin. Config-uration	100-130V 50-60Hz List No	200-250V 50-60Hz List No	380-415V 50-60Hz List No	440-460V 50-60Hz List No	480-500V 50-60Hz List No	>50V >300-500Hz List No	Terminal Capacity* mm²	Dimensions in mm			Fixing Centres
									A	B	C	
16	3P+E	**K9600YEL** 4	**K9601BLU** 9	**K9602RED** 6	**K9603RED** 11		**K9605GRN** 2	1.5 - 10	125	198	135	91.5 x 165
16	3P+N+E	**K9606YEL** 4	**K9607BLU** 9	**K9608RED** 6				1.5 - 10	125	198	135	91.5 x 165
32	3P+E	**K9632YEL** 4	**K9633BLU** 9	**K9634RED** 6	**K9635RED** 11	**K9636BLK** 7		1.5 - 10	135	198	135	91.5 x 165
32	3P+N+E	**K9638YEL** 4	**K9639BLU** 9	**K9640RED** 6	**K9641RED** 11			1.5 - 10	135	198	135	91.5 x 165
63	3P+E		**K9664BLU** 9	**K9665RED** 6				6 - 25	183	228	165	91.5 x 201
63	3P+N+E			**K9670RED** 6				6 - 25	183	228	165	91.5 x 201

Earth Hour Position

*Solid or Stranded conductors

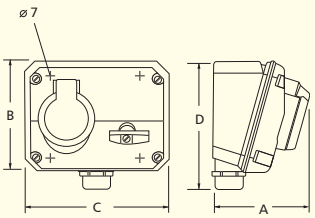
Switchsocket Outlets Interlocked Angled Conduit Entry Surface Mounting 16, 32 and 63 Amp

IP44 SPLASHPROOF

16 amp and 32 amp
With 29mm knockout at top. Will accept FL13 flange.
Bottom entry M25.

63 amp
FL13 flange entry at top.
Supplied with cover plate and gland plate.

Switch Utilisation Category AC 22A



Amps	Pin. Config-uration	100-130V 50-60Hz List No	200-250V 50-60Hz List No	380-415V 50-60Hz List No	Terminal Capacity* mm²	Dimensions in mm			Fixing Centres	Conduit Entry
						A	B	C		
16	2P+E	**K9609YEL** 4	**K9610BLU** 6		1.5 - 10	116	129	168	125 x 91	M25
16	3P+E			**K9611RED** 6	1.5 - 10	116	129	168	125 x 91	M25
16	3P+N+E			**K9612RED** 6	1.5 - 10	116	129	168	125 x 91	M25
32	2P+E	**K9642YEL** 4	**K9643BLU** 6		1.5 - 10	126	129	168	125 x 91	M25
32	3P+E			**K9644RED** 6	1.5 - 10	126	129	168	125 x 91	M25
32	3P+N+E			**K9645RED** 6	1.5 - 10	126	129	168	125 x 91	M25
63	2P+E		**K9306BLU** 6		6 - 25	168	168	206	152 x 132	2 x 32mm
63	3P+E		**K9311BLU** 9	**K9312RED** 6	6 - 25	168	168	206	152 x 132	2 x 32mm
63	3P+N +E			**K9322RED** 6	6 - 25	168	168	206	152 x 132	2 x 32mm

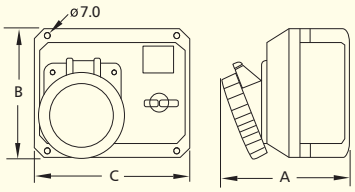
Earth Hour Position

*Solid or Stranded conductors

Switchsocket Outlets Interlocked Angled Surface Mounting 16, 32 and 63 Amp

IP67 WATERTIGHT

16 amp and 32 amp
With 25mm dia. knockout at top. Will accept FL13 flange.
Bottom entry M25.
63 amp
With 32mm knockouts top and bottom. Will accept FL13 flange top and bottom.
Switch can be locked in open position or closed position.
Switch Utilisation Category AC 22A



Amps	Pin. Config-uration	100-130V 50-60Hz List No	200-250V 50-60Hz List No	380-415V 50-60Hz List No	440-460V 50-60Hz List No	480-500V 50-60Hz List No	Terminal Capacity* mm²	Dimensions in mm A	B	C	Fixing Centres	Conduit Entry
16	2P+E		**K9324BLU** 6				1.5 - 10	126	129	168	125 x 91	M25
16	3P+E			**K9327RED** 6			1.5 - 10	126	129	168	125 x 91	M25
16	3P+N+E			**K9330RED** 6			1.5 - 10	126	129	168	125 x 91	M25
32	2P+E		**K9369BLU** 6				1.5 - 10	136	129	168	125 x 91	M25
32	3P+E			**K9359RED** 6			1.5 - 10	136	129	168	125 x 91	M25
32	3P+N+E			**K9362RED** 6			1.5 - 10	136	129	168	125 x 91	M25
63	2P+E	**K9356YEL** 4	**K9355BLU** 6				6 - 25	182	168	206	152 x 132	2 x 32mm
63	3P+E			**K9342RED** 6	**K9343RED** 11	**K9344BLK** 6	6 - 25	182	168	206	152 x 132	2 x 32mm
63	3P+N+E			**K9352RED** 6	**K9353RED** 11		6 - 25	182	168	206	152 x 132	2 x 32mm

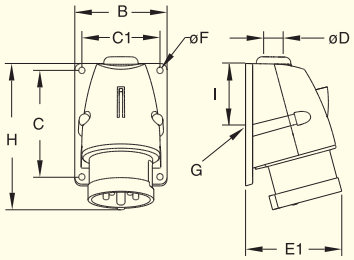
Earth Hour Position

*Solid or Stranded conductors

Splashproof Appliance Inlets Angled Surface Mounting 16 and 32 Amp

TOP CONDUIT OR REAR CABLE ENTRY, COMPLETE WITH BLANKING PLUG

IP44 SPLASHPROOF



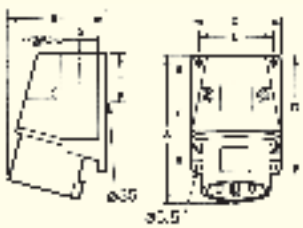
Amps	Pin. Config-uration	100-130V 50-60Hz List No	200-250V 50-60Hz List No	380-415V 50-60Hz List No	480-500V 50-60Hz List No	Cable Diameter min	max	Terminal Capacity* mm²	Dimensions in mm B	C	C1	E1	F	H	I	Top Conduit Entry D	Rear Entry G
16	2P+E	**K9700YEL** 4	**K9701BLU** 6			8.2	14	1.5 - 10	66	75	54	72	5.5	110	30	M20	Ø23
16	3P+E			**K9706RED** 6		8.9	16.5	1.5 - 10	79	91	67	78	5.5	124	30	M20	Ø23
16	3P+N+E		**K9710BLU** 9	**K9711RED** 6		10.1	16.5	1.5 - 10	79	91	67	81	5.5	125	30	M20	Ø23
32	2P+E	**K9732YEL** 4	**K9733BLU** 6			11.7	19.5	1.5 - 10	85	111	72	94	5.5	153	33	M25	Ø29
32	3P+E			**K9736RED** 6	**K9737BLK** 7	11.7	19.5	1.5 - 10	85	111	72	94	5.5	153	33	M25	Ø29
32	3P+N+E		**K9740BLU** 9	**K9741RED** 6		11.7	19.5	1.5 - 10	85	111	72	96	5.5	154	33	M25	Ø29

Earth Hour Position

*Solid or Stranded conductors

Appliance Inlets Angled Surface Mounting 63Amp

IP44 SPLASHPROOF



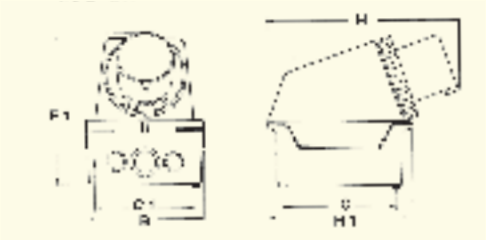
Amps	Pin. Config-uration	200-250V 50-60Hz List No	380-415V 50-60Hz List No	Cable Diameter min	max	Terminal Capacity* mm²	Dimensions in mm A	B	C	D	E	F	G	H	Conduit Entry	Rear Entry
63	2P+E	**K9775BLU** 6		14	30	6 - 25	225	117	106	M32	95	170	182	67	M32	Ø35
63	3P+N+E		**K9768RED** 6	16.5	30	6 - 25	225	117	106	M32	95	170	182	67	M32	Ø35

Earth Hour Position

*Solid or Stranded conductors

Appliance Inlets
Angled Surface Mounting
63 Amp

IP67 WATERTIGHT

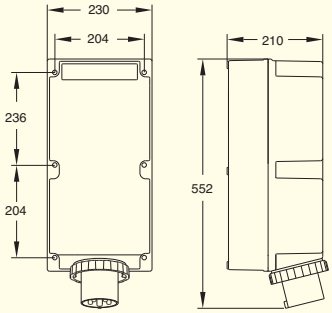


Amps	Pin Config-uration	200-250V 50-60Hz List No	380-415V 50-60Hz List No	Terminal Capacity* mm²	Dimensions in mm						Conduit Entry
					B	C	C1	E1	H	H1	
63	2P+E	**K9826BLU** 6		6 - 25	150	124	129	205	250	186	1 x M40/M32 and 2 x M20 top 2 x M40/M32 and 1 x M20 bottom Will accept FL13 Flange top and bottom
63	3P+E		**K9829RED** 6	6 - 25	150	124	129	205	250	186	
63	3P+N+E		**K9827RED** 6	6 - 25	150	124	129	205	250	186	

Earth Hour Position *Solid or Stranded conductors

Appliance Inlets
Surface Mounting
125 Amp

IP67 WATERTIGHT



Amps	Pin. Config-uration	200-250V 50-60Hz List No	380-415V 50-60Hz List No	Terminal Capacity* mm²	Conduit Entry
125	2P+E	**K9883BLU** 6		16 - 70	2 x 23/47mm top and bottom
125	3P+N+E		**K9884RED** 6	16 - 70	2 x 23/47mm top and bottom

Earth Hour Position *Solid or Stranded conductors

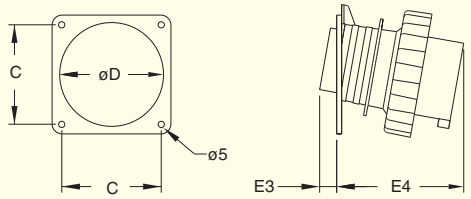
Appliance Inlets
Panel Mounting
16, 32, 63 and 125 Amp

IP67 WATERTIGHT

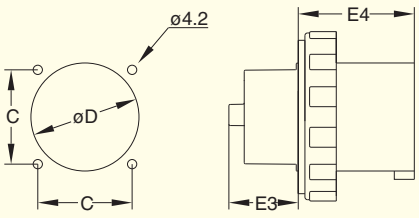
Amps	Pin. Config-uration	100-130V 50-60Hz List No	200-250V 50-60Hz List No	380-415V 50-60Hz List No	Terminal Capacity* mm²	Dimensions in mm			
						C	D	E3	E4
16	2P+E	**K9780YEL** 4	**K9781BLU** 6		1.5 - 4	79.5	83	10	47
16	3P+E			**K9782RED** 6	1.5 - 4	79.5	83	10	53
16	3P+N+E			**K9783RED** 6	1.5 - 4	79.5	83	10	59
32	2P+E	**K9784YEL** 4	**K9785BLU** 6		2.5 - 10	79.5	83	12	60
32	3P+E			**K9786RED** 6	2.5 - 10	79.5	83	12	60
32	3P+N+E			**K9787RED** 6	2.5 - 10	79.5	83	12	67
63	2P+E	**K9788YEL** 4	**K9789BLU** 6		6 - 25	61	70	50	80
63	3P+E			**K9790RED** 6	6 - 25	61	70	50	80
63	3P+N+E			**K9791RED** 6	6 - 25	61	70	50	80
125	2P+E		**K9792BLU** 6		16 - 70	71	81	56	89
125	3P+N+E			**K9793RED** 6	16 - 70	71	81	56	89

Earth Hour Position *Solid or Stranded conductors

16 AND 32 AMP



63 AND 125 AMP



Appliance Inlets
Surface Mounting ELV

IP44 SPLASHPROOF

Amps	Pin. Config-uration	25V 50-60Hz List No	Terminal Capacity* mm² (flexible conductors)	Dimensions in mm						Conduit Entry
				A	B	C	D	E	F	
16	2P	**K9725VLT**	4 - 10 and 2 x 6mm²	100	66	70	20	55	80	M25
16	3P	**K9726VLT**	4 - 10 and 2 x 6mm²	100	66	70	20	55	80	M25

*Solid or Stranded conductors

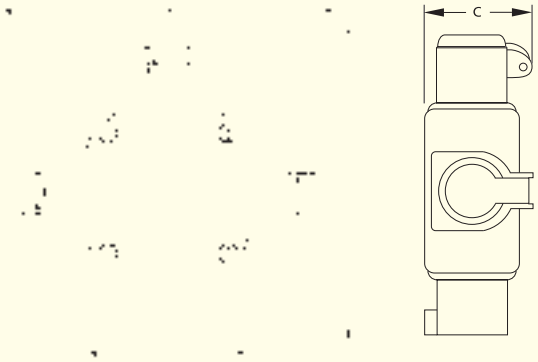


Three Way Adaptor
16 Amp

IP44 SPLASHPROOF

Amps	Pin. Config-uration	100-130V 50-60Hz List No	200-250V 50-60Hz List No	380-415V 50-60Hz List No	Dimensions in mm			
					A	B	C	D
16	2P+E	**K9907YEL** 4	**K9908BLU** 6		198	189	74	99
16	3P+E			**K9910RED** 6	202	190	81	99
16	3P+N+E			**K9911RED** 6	205	192	85	99

Earth Hour Position



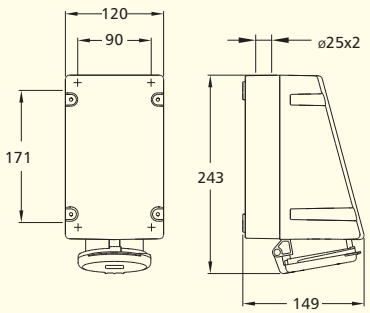
Socket Outlets
Loop in Surface Mounting
16 and 32 Amp

IP44 SPLASHPROOF

Amps	Pin. Config-uration	100-130V 50-60Hz List No	200-250V 50-60Hz List No	380-415V 50-60Hz List No	Cable Entry Knockouts	Terminal Capacity* mm²	Fixing Centres mm
16	2P+E	**K13200YEL** 4	**K13201BLU** 6		2 x Ø25 top	2 x (1.5-10)	90 x 170
16	3P+E			**K13207RED** 6	2 x Ø25 top	2 x (1.5-10)	90 x 170
16	3P+N+E			**K13215RED** 6	2 x Ø25 top	2 x (1.5-10)	90 x 170
32	2P+E	**K13232YEL** 4	**K13233BLU** 6		2 x Ø25 top	2 x (2.5-10)	90 x 170
32	3P+E			**K13237RED** 6	2 x Ø25 top	2 x (2.5-10)	90 x 170
32	3P+N+E			**K13241RED** 6	2 x Ø25 top	2 x (2.5-10)	90 x 170

Earth Hour Position

*Solid or Stranded conductors



Switchsocket Outlets Interlocked Surface Mounting 16 and 32 Amp

(SUITABLE FOR TOP ENTRY)

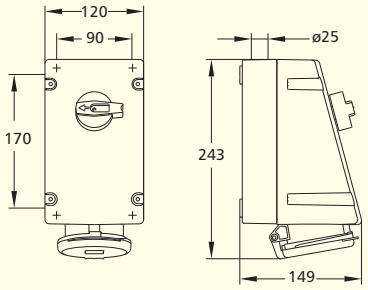
IP44 SPLASHPROOF

Switch Utilisation Category AC 22A
Will accept auxiliary contacts **6813 and 6814**
Switch can be locked in open or closed position.

Amps	Pin. Config-uration	100-130V 50-60Hz List No	200-250V 50-60Hz List No	380-415V 50-60Hz List No	Cable Entry Knockouts	Terminal Capacity* mm²	Fixing Centres mm
16	2P+E	**K13600YEL** 4	**K13601BLU** 6		2 x Ø25 top	1.5 - 4	90 x 170
16	3P+E			**K13607RED** 6	2 x Ø25 top	1.5 - 4	90 x 170
16	3P+N+E			**K13615RED** 6	2 x Ø25 top	1.5 - 4	90 x 170
32	2P+E	**K13632YEL** 4	**K13633BLU** 6		2 x Ø25 top	2.5 - 10	90 x 170
32	3P+E			**K13637RED** 6	2 x Ø25 top	2.5 - 10	90 x 170
32	3P+N+E			**K13641RED** 6	2 x Ø25 top	2.5 - 10	90 x 170

Earth Hour Position

*Solid or Stranded conductors



Switchsocket Outlets Interlocked Surface Mounting 16 and 32 Amp

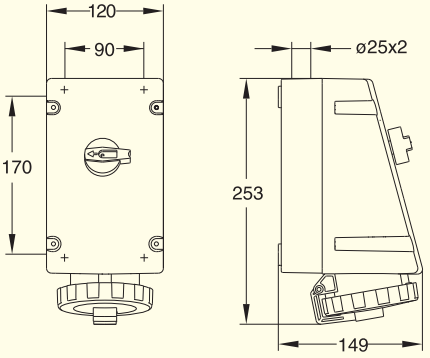
IP67 WATERTIGHT

Switch Utilisation Category AC 22A
Will accept auxiliary contacts **6813 and 6814**
Switch can be locked in open or closed position.

Amps	Pin. Config-uration	100-130V 50-60Hz List No	200-250V 50-60Hz List No	380-415V 50-60Hz List No	Cable Entry Knockouts	Terminal Capacity* mm²	Fixing Centres mm
16	2P+E	**K13623YEL** 4	**K13624BLU** 6		2 x Ø25 top	1.5 - 4	90 x 170
16	3P+E			**K13625RED** 6	2 x Ø25 top	1.5 - 4	90 x 170
16	3P+N+E			**K13626RED** 6	2 x Ø25 top	1.5 - 4	90 x 170
32	2P+E	**K13653YEL** 4	**K13654BLU** 6		2 x Ø25 top	2.5 - 10	90 x 170
32	3P+E			**K13655RED** 6	2 x Ø25 top	2.5 - 10	90 x 170
32	3P+N+E			**K13656RED** 6	2 x Ø25 top	2.5 - 10	90 x 170

Earth Hour Position

*Solid or Stranded conductors



Switchsocket Outlets Interlocked Surface Mounting 125 Amp

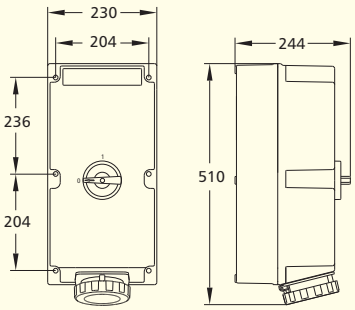
IP67 WATERTIGHT

Switch Utilisation Category AC 22A
Will accept auxiliary contacts **6813 and 6814**
Switch can be locked in open or closed position.

Amps	Pin. Config-uration	200-250V 50-60Hz List No	380-415V 50-60Hz List No	440-460V 60Hz List No	Cable Entry Knockouts	Terminal Capacity* mm²
125	2P+E	**K9688BLU** 6			2 x 23/47mm top and bottom	16 - 70
125	3P+E		**K9691RED** 6	**K9692RED** 11	2 x 23/47mm top and bottom	16 - 70
125	3P+N+E		**K9694RED** 6		2 x 23/47mm top and bottom	16 - 70

Earth Hour Position

*Solid or Stranded Conductors



Socket Outlets
Surface Mounting
16 and 32 Amp

SUITABLE FOR TOP ENTRY

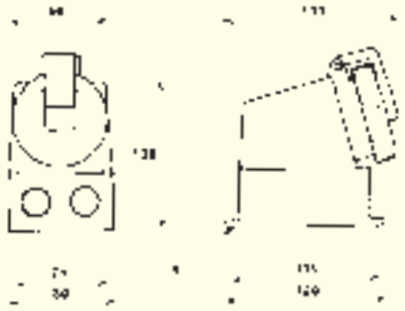
IP67 WATERTIGHT

STANDARD VERSION (see Dimensions A)

Amps	Pin. Config-uration	100-130V 50-60Hz List No	220-250V 50-60Hz List No	380-415V 50-60Hz List No	Terminal Capacity* mm²	Cable Entry Knockouts top	Cable Entry Knockouts bottom	Fixing Centres mm
16	2P+E	**K9193YEL** 4	**K9194BLU** 6		1 - 2.5	2 x Ø25	2 x Ø20	71 x 111
16	3P+E			**K9763RED** 6	1 - 2.5	2 x Ø25	2 x Ø20	71 x 111
16	3P+N+E			**K9764RED** 6	1 - 2.5	2 x Ø25	2 x Ø20	71 x 111
32	2P+E	**K9761YEL** 4	**K9762BLU** 6		2.5 - 6	2 x Ø25	2 x Ø20	71 x 111
32	3P+E			**K9765RED** 6	2.5 - 6	2 x Ø25	2 x Ø20	71 x 111
32	3P+N+E			**K9766RED** 6	2.5 - 6	2 x Ø25	2 x Ø20	71 x 111

Earth Hour Position

*Solid or Stranded conductors



Dimensions A

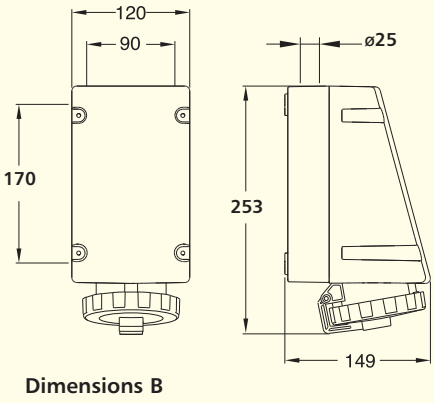
LOOP IN VERSIONS (see Dimensions B)

Fitted with terminals for Loop In

Amps	Pin. Config-uration	100-130V 50-60Hz List No	220-250V 50-60Hz List No	380-415V 50-60Hz List No	Terminal Capacity* mm²	Cable Entry Knockouts	Fixing Centres mm
16	2P+E	**K13023YEL** 4	**K13024BLU** 6		2 x (1.5-10)	2 x Ø25 top	90 x 170
16	3P+E			**K13025RED** 6	2 x (1.5-10)	2 x Ø25 top	90 x 170
16	3P+N+E			**K13026RED** 6	2 x (1.5-10)	2 x Ø25 top	90 x 170
32	2P+E	**K13053YEL** 4	**K13054BLU** 6		2 x (2.5-10)	2 x Ø25 top	90 x 170
32	3P+E			**K13055RED** 6	2 x (2.5-10)	2 x Ø25 top	90 x 170
32	3P+N+E			**K13056RED** 6	2 x (2.5-10)	2 x Ø25 top	90 x 170

Earth Hour Position

*Solid or Stranded conductors



Dimensions B

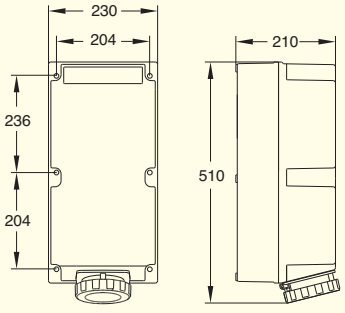
Socket Outlets
Loop in Surface Mounting
125 Amp

IP67 WATERTIGHT

Amps	Pin. Config-uration	200-250V 50-60Hz List No	380-415V 50-60Hz List No	440-460V 60Hz List No	Cable Entry Knockouts	Terminal Capacity* mm²
125	2P+E	**K9190BLU** 6			2 x 23/47mm top & bottom	2 x (16 - 70)
125	3P+E		**K9191RED** 6	**K9195RED** 11	2 x 23/47mm top & bottom	2 x (16 - 70)
125	3P+N+E		**K9192RED** 6		2 x 23/47mm top & bottom	2 x (16 - 70)

Earth Hour Position

*Solid or Solid Stranded conductors



Combi Blocks
Three Way
16 Amp

IP44 SPLASHPROOF

Amps	Pin. Config-uration	100-130V 50-60Hz List No		200-250V 50-60Hz List No		Terminal Capacity* mm²	Cable Diameter min	Cable Diameter max	Dimensions in mm A	B	C	D	E	F	H
16	2P+E	**13503**	4	**13504**	6	1 - 2.5	7	24	360	49	115	30	55	407	172

Earth Hour Position

*Solid or Stranded conductors

Combi Blocks
Two Way
16 Amp

IP57 WATERTIGHT

Amps	Pin. Config-uration	100-130V 50-60Hz List No		200-250V 50-60Hz List No		Terminal Capacity* mm²	Cable Diameter min	Cable Diameter max	Dimensions in mm A	B	C	D	E	F	H
16	2P+E	**13507**	4	**13508**	6	1 - 2.5	7	24	360	49	115	30	55	407	158

Earth Hour Position

*Solid or Stranded conductors

Combi Blocks
Two Way 30mA RCD Protected
16 Amp

IP44 SPLASHPROOF

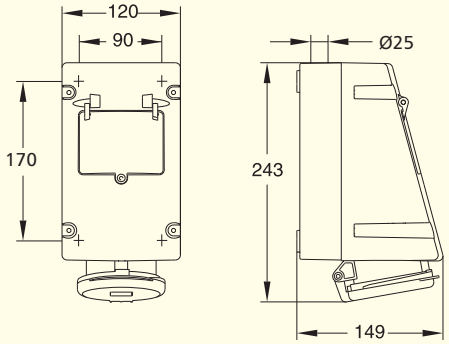
Amps	Pin. Config-uration	100-130V 50-60Hz List No		200-250V 50-60Hz List No		Terminal Capacity* mm²	Cable Diameter min	Cable Diameter max	Dimensions in mm A	B	C	D	E	F	H
16	2P+E	**13505**	4	**13506**	6	1 - 2.5	7	24	360	49	115	30	55	407	158

Earth Hour Position

*Solid or Stranded conductors

Socket Outlets
Single Pre-wired with 30mA RCD
16 and 32 Amp

IP44 SPLASHPROOF



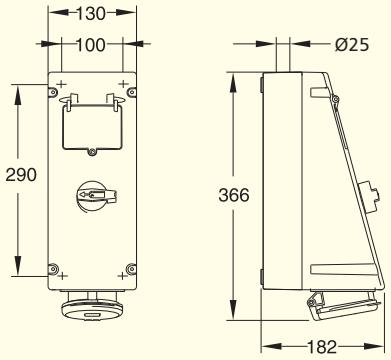
Amps	Pin. Config-uration	100-130V 50-60Hz List No		200-250V 50-60Hz List No		380-415V 50-60Hz List No		RCD Terminal Capacity* mm² min	RCD Terminal Capacity* mm² max	Earth Terminal Capacity* mm² min	Earth Terminal Capacity* mm² max	Cable Entry Knockouts	
16	2P+E	**K13413YEL**	4	**K13414BLU**	6			1.5	35	2.5	25	2 x Ø25	top
16	3P+E					**K13415RED**	6	1.5	35	2.5	25	2 x Ø25	top
16	3P+N+E					**K13416RED**	6	1.5	35	2.5	25	2 x Ø25	top
32	2P+E			**K13433BLU**	6			2.5	35	2.5	25	2 x Ø25	top
32	3P+E					**K13434RED**	6	2.5	35	2.5	25	2 x Ø25	top
32	3P+N+E					**K13435RED**	6	2.5	35	2.5	25	2 x Ø25	top

Earth Hour Position

*Solid or Stranded conductors

Switchsocket Outlets
Interlocked Pre-wired with 30mA RCD
16 and 32 Amp

IP44 SPLASHPROOF



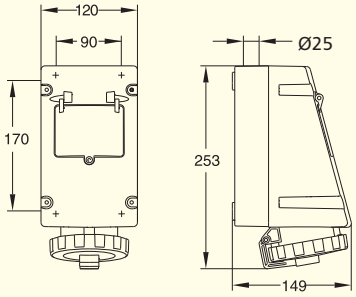
Amps	Pin. Config-uration	100-130V 50-60Hz List No		200-250V 50-60Hz List No		380-415V 50-60Hz List No		RCD Terminal Capacity* mm² min	RCD Terminal Capacity* mm² max	Earth Terminal Capacity* mm² min	Earth Terminal Capacity* mm² max	Cable Entry Knockouts	
16	2P+E	**K13309YEL**	4	**K13310BLU**	6			1.5	35	2.5	25	2 x Ø25	top
16	3P+E					**K13311RED**	6	1.5	35	2.5	25	2 x Ø25	top
16	3P+N+E					**K13312RED**	6	1.5	35	2.5	25	2 x Ø25	top
32	2P+E	**K13342YEL**	4	**K13343BLU**	6			2.5	35	2.5	25	2 x Ø25	top
32	3P+E					**K13344RED**	6	2.5	35	2.5	25	2 x Ø25	top
32	3P+N+E					**K13345RED**	6	2.5	35	2.5	25	2 x Ø25	top

Earth Hour Position

*Solid or Stranded conductors

Socket Outlets
Single Pre-wired with 30mA RCD
16 and 32 Amp

IP67 WATERTIGHT



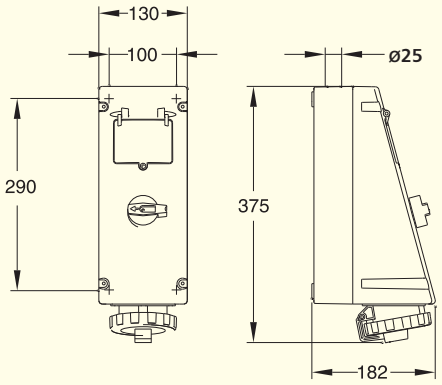
Amps	Pin. Config-uration	100-130V 50-60Hz List No		200-250V 50-60Hz List No		380-415V 50-60Hz List No		RCD Terminal Capacity* mm²		Earth Terminal Capacity mm²		Cable Entry Knockouts	
								min	max	min	max		
16	2P+E	**K13713YEL**	4	**K13714BLU**	6			1.5	35	2.5	25	2 x Ø25	top
16	3P+E					**K13715RED**	6	1.5	35	2.5	25	2 x Ø25	top
16	3P+N+E					**K13716RED**	6	1.5	35	2.5	25	2 x Ø25	top
32	2P+E			**K13733BLU**	6			2.5	35	2.5	25	2 x Ø25	top
32	3P+E					**K13734RED**	6	2.5	35	2.5	25	2 x Ø25	top
32	3P+N+E					**K13735RED**	6	2.5	35	2.5	25	2 x Ø25	top

Earth Hour Position

*Solid or Stranded conductors

Switchsocket Outlets
Interlocked Pre-wired with 30mA RCD
16 and 32 Amp

IP67 WATERTIGHT



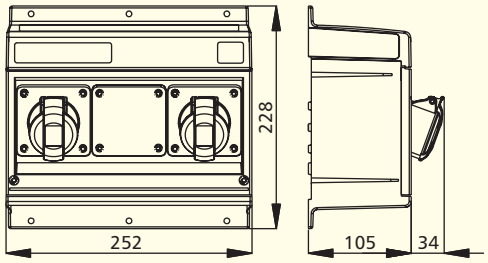
Amps	Pin. Config-uration	100-130V 50-60Hz List No		200-250V 50-60Hz List No		380-415V 50-60Hz List No		RCD Terminal Capacity* mm²		Earth Terminal Capacity mm²		Cable Entry Knockouts		Fixing Centres
								min	max	min	max			
16	2P+E	**K13346YEL**	6	**K13348BLU**	6			1.5	35	2.5	25	2 x Ø25	top	100 x 290
16	3P+E					**K13350RED**	6	1.5	35	2.5	25	2 x Ø25	top	100 x 290
16	3P+N+E					**K13351RED**	6	1.5	35	2.5	25	2 x Ø25	top	100 x 290
32	2P+E	**K13347YEL**	6	**K13349BLU**	6			2.5	35	2.5	25	2 x Ø25	top	100 x 290
32	3P+E					**K13352RED**	6	2.5	35	2.5	25	2 x Ø25	top	100 x 290
32	3P+N+E					**K13353RED**	6	2.5	35	2.5	25	2 x Ø25	top	100 x 290

Earth Hour Position

*Solid or Stranded conductors

Modular Combi Units
Twin Surface Socket Outlet
16 and 32 Amp

IP44 SPLASHPROOF



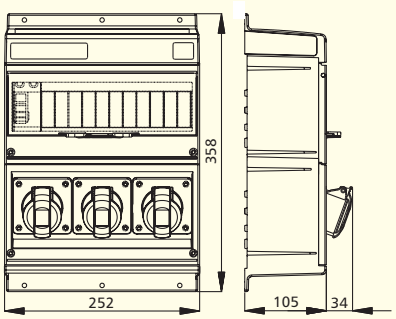
Amps	Pin. Config-uration	100-130V 50-60Hz List No		200-250V 50-60Hz List No			Terminal Capacity* mm² min	max	Cable Entry Knockouts Top	Bottom
16	2P+E	**K13143YEL**	4	**K13144BLU**	6	**PREWIRED**	1.5	6	2 x Ø25 + 2 x Ø38	3 x Ø47.5
16	2P+E	**K13043YEL**	4	**K13044BLU**	6	**UNWIRED**	1.5	6	2 x Ø25 + 2 x Ø38	3 x Ø47.5

Earth Hour Position

*Solid or Stranded conductors

Modular Combi Units
Triple Surface Socket Outlet
with Single 30mA RCD Protection
16 Amp

IP44 SPLASHPROOF



Amps	Pin. Config-uration	100-130V 50-60Hz List No		200-250V 50-60Hz List No		RCD Terminal Capacity* mm² min	max	Earth Terminal Capacity* mm² min	max	Cable Entry Knockouts Top	Bottom
16	2P+E	**K13193YEL**	4	**K13194BLU**	6	1.5	35	2.5	25	2 x Ø25 + 2 x Ø38	3 x Ø47.5

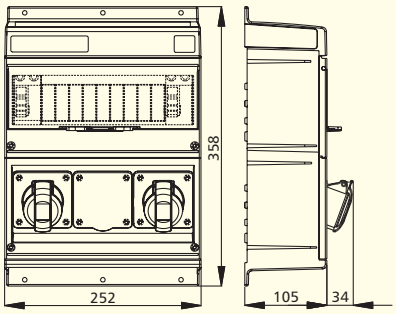
Earth Hour Position

*Solid or Stranded conductors

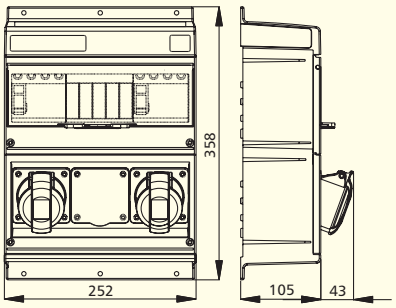
Modular Combi Units
Twin Surface Socket Outlet with Individual 30mA RCD Protection
16 and 32 Amp

IP44 SPLASHPROOF

with 16A outlets (2P+E)



with 16A (3P+E, 3P+N+E) and 32A outlets (2P+E, 3P+E, 3P+N+E)



Amps	Pin. Config-uration	100-130V 50-60Hz List No		200-250V 50-60Hz List No		380-415V 50-60Hz List No		RCD Terminal Capacity* mm²		Earth Terminal Capacity* mm²		Cable Entry Knockouts	
								min	max	min	max	Top	Bottom
16	2P+E	**K13173YEL**	4	**K13174BLU**	6			1.5	35	2.5	25	2 x Ø25 + 2 x Ø38	3 x Ø47.5
16	3P+E					**K13175RED**	6	1.5	35	2.5	25	2 x Ø25 + 2 x Ø38	3 x Ø47.5
16	3P+N+E					**K13176RED**	6	1.5	35	2.5	25	2 x Ø25 + 2 x Ø38	3 x Ø47.5
32	2P+E			**K13184BLU**	6			2.5	35	2.5	25	2 x Ø25 + 2 x Ø38	3 x Ø47.5
32	3P+E					**K13185RED**	6	2.5	35	2.5	25	2 x Ø25 + 2 x Ø38	3 x Ø47.5
32	3P+N+E					**K13186RED**	6	2.5	35	2.5	25	2 x Ø25 + 2 x Ø38	3 x Ø47.5

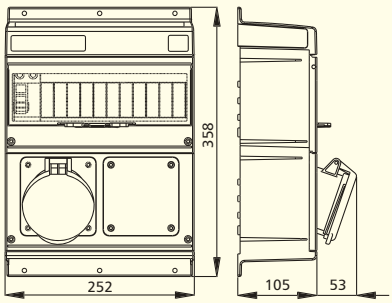
Earth Hour Position

*Solid or Stranded conductors

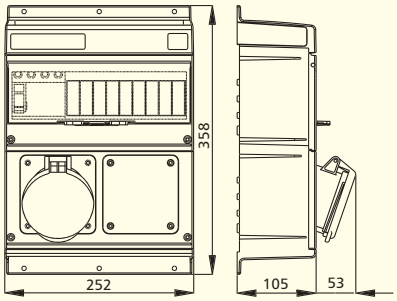
Socket Outlets
Single Pre-wired with 30mA RCD
63 Amp

IP44 SPLASHPROOF

with 2P+E outlets



with 3P+E and 3P+N+E outlets



Amps	Pin. Config-uration	200-250V 50-60Hz List No		380-415V 50-60Hz List No		RCD Terminal Capacity* mm²		Earth Terminal Capacity* mm²		Cable Entry Knockouts	
						min	max	min	max	Top	Bottom
63	2P+E	**K13463BLU**	6			6	35	2.5	25	2 x Ø25 + 2 x Ø38	3 x Ø47.5
63	3P+E			**K13464RED**	6	6	35	2.5	25	2 x Ø25 + 2 xØ38	3 x Ø47.5
63	3P+N+E			**K13465RED**	6	6	35	2.5	25	2 x Ø25 + 2 x Ø38	3 x Ø47.5

Earth Hour Position

*Solid or Stranded conductors

Range Technical Data

Circuit Protection

Sentry
Consumer units and a wide variety of modular protection and control products 538-566

Sentrysocket
RCD protected switchsockets with active and passive control circuits 568-569

Consumer Units and Enclosures

Standards and approvals

All Sentry consumer units are designed to fully comply with the requirements of BS EN 60439-3.

Weatherproof enclosures are designed to fully comply with the 17th Edition IEE Wiring Regulations (537.2.2.1 and 537.3.2.2).

Technical specification

Electrical

Maximum current rating:
All Sentry consumer units have a maximum rating of 100A except K5504s, K5604s, which are rated at 63A

Terminal capacity: 16mm² earth and neutral

Rated frequency: 50Hz

Rated operational voltage:
Consumer unit: 220-250V
2 module enclosure: 220-250V
4 module enclosure: 220-415V

Rated insulation voltage:
Consumer unit: 300V
2 module enclosure: 300V
4 module enclosure: 660V

Short circuit withstand:
16kA rms (based on the use of a BS 1361 Type 2 fuse of rating not exceeding 100A)

Earthing system:
Suitable for use with TN-S, TN-C-S and TT systems

Split load
Split load units are supplied with a pre-fitted switch, RCD and suitable cables.

The following versions are offered:

	Main Incomer	RCD
K5682s	100A Switch	63A
K5662s	100A Switch	80A
K5666s	100A Switch	63A
K5686s	100A Switch	80A
K5681s	100A Switch	80A
K5582s	100A Switch	63A
K5566s	100A Switch	63A
K5586s	100A Switch	80A
K5581s	100A Switch	80A

For a full range of corresponding products, see pages 271-291 in the product selector.





Description

Specific consumer unit configurations have been designed to provide flexible solutions in meeting the requirements of the 17th Edition with regards to RCD protection for circuits, cables and socket outlets. MK Sentry Consumer Units, available in insulated and metal versions, allow for protected and unprotected ways with the circuits being split across up to 3 RCDs, whilst the labelling sheet allows for full identification of all circuits.

Sentry consumer units and enclosures are available in various surface metal, surface insulated and flush metal types, designed on a modular basis, with 2 to 21 module enclosures in the range, to accommodate a wide variety of MK modular protection and control products. In addition 24, 32, 42 module surface metal and insulated dual rail consumer units can be assembled using a suitable stacking kit.

Surface insulated units provide an all insulated housing. Metal units provide a housing with facility for earthing the metal box.

The enclosures are provided with ample wiring space and cable entry points. The lids can be locked with a barrel lock & key (accessory K5593s).

Colours / finishes

All insulated and metal consumer units have a textured magnolia cover and lid. The surface metal consumer unit bases are in magnolia (powder coated paint). The flush bases are of galvanized steel. All 2 and 4 module and weatherproof enclosures are available in light grey.

Certain models are provided with a pre-assembled split load arrangement with switch and up to 3 RCDs. The range is complemented by a versatile selection of small, two and four module enclosures suitable for housing RCDs or other combinations of Sentry products. A 2 module enclosure K5592s is suitable for housing the one module RCBO.

All Sentry Consumer Units have neutral and earth terminal bars with 16mm² capacity for solid stranded copper cables.

For enquiries where large number of similarly designed consumer units i.e. specified. MK can provide complete pre-assembled factory built units, subject to certain conditions. For further information please contact the MK Electric Technical Services Department (01268 563274).

Features

- Attractive styling
- Modular design
- Suitable for most residential, commercial and light industrial applications
- Single, dual and triple RCD consumer units available for 17th Edition compliance
- Fully comply with British and European Harmonised Standards
- Available as an empty enclosure or pre-fitted with switch disconnector and up to 3 RCDs
- Factory built options available



Technical specification

Electrical (weatherproof enclosures only)

Maximum current rating:

5702s	2 pole devices	up to 100A
5704s	4 pole devices	up to 63A

Note:
5702s – Can accept up to 4 module ways with removal of moulded blanks.
5704s – Can accept up to 8 module ways with removal of moulded blanks.

Terminal capacity:
5702s: 4 x 6mm² earth and neutral
5704s: 2 x 6mm² and 6 x 4mm² earth and neutral.

Rated operational voltage: 220-415V

Rated insulation voltage: 660V

Technical specification

Physical

Ambient operating temperature:

–5°C to +40°C (not to exceed an average of more than +35°C in any 24 hour period)

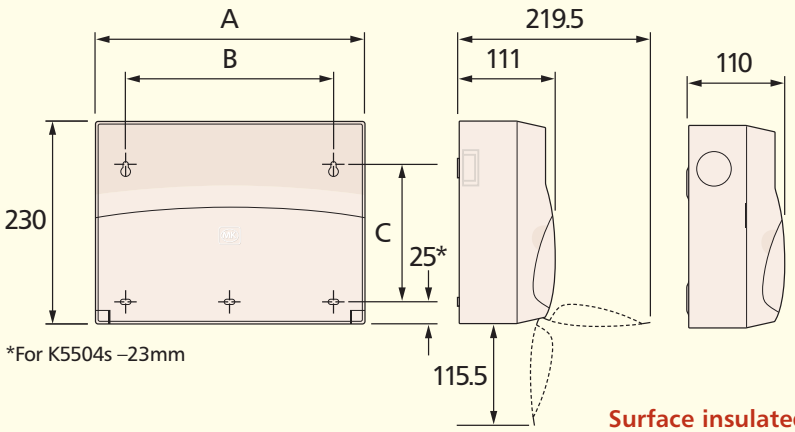
IP ratings: (see also 'Service Conditions', below)

Consumer unit	IP2XC
2 module enclosure 5502s:	IP3X
2 module enclosure 5702s:	IP65
2 module enclosure K5592s:	IP30
4 module enclosure 5504s:	IP3X
4 module enclosure 5604s:	IP3X
4 module enclosure 5704s:	IP65
Max. installation altitude:	2000m

Dimensions (mm)

Note: Knockout details on following page

Consumer unit



Surface insulated K5604s to K5686s

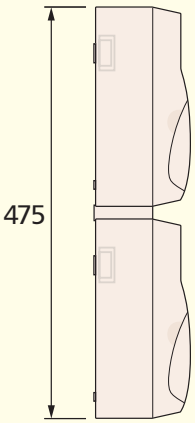
Unit	Modules	Dimensions		
		A	B	C
Surface Insulated	4	140	70	156
	8	234	164	156
	12	306	236	156
	16	378	308	156
	21	468	398	156
Surface Metal	4	140	75	151
	8	234	168	147
	12	306	240	147
	16	378	308	147
	21	468	400	147

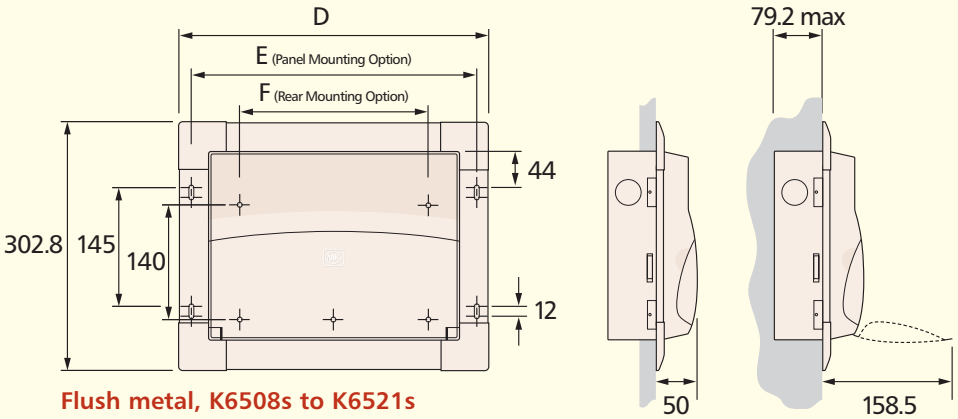
Unit	Modules	Dimensions		
		E	F	D
Flush Metal	8	307	276	160
	12	379	348	230
	16	451	420	300
	21	541	510	390

Stacked assemblies K5504s to K5586s

Dual Rail (Insulated or Metal) using stacking kits K6061s, K6062s and K6063s.

See page 280 for details.





Flush metal, K6508s to K6521s

Flush-mount cavity dimensions, K6508s to K6521s			
	Height	Width	Depth*
8 module	236-246	242-252	69-79
12 module	236-246	314-324	69-79
16 module	236-246	386-396	69-79
21 module	236-246	476-486	69-79

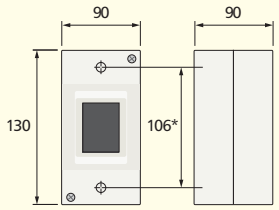
*Depth does not apply if panel-mounted

Flush metal K6508s to K6521s Panel mounted

Flush metal K6508s to K6521s Rear mounted

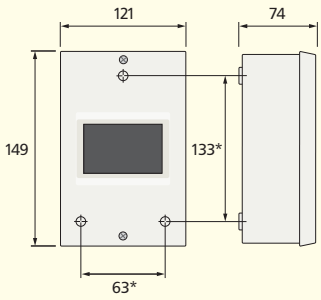
Dimensions (mm)

Two module enclosures



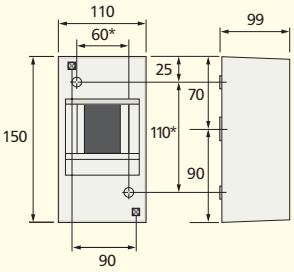
5502s

Four module enclosures



5504s

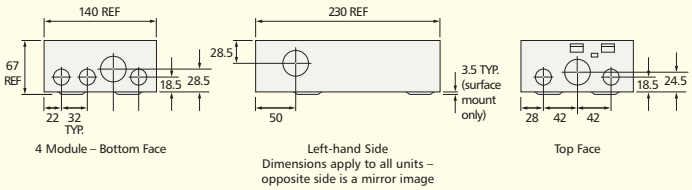
*Fixing centre for mounting

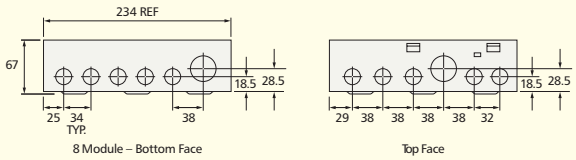


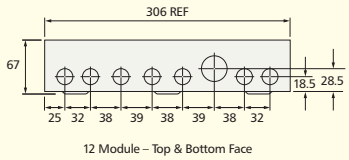
5604s

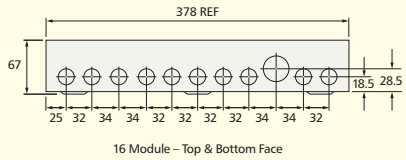
Dimensions (mm)

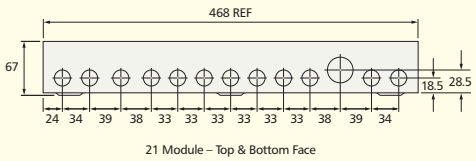
Knockout details for Surface and Flush-Mount Sentry Ranges



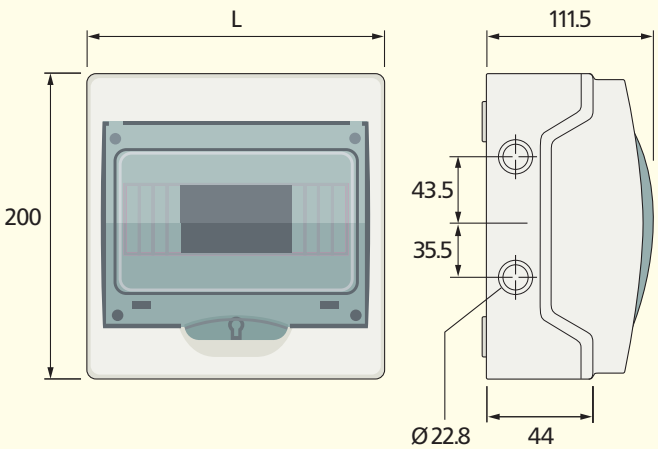








IP65 enclosures



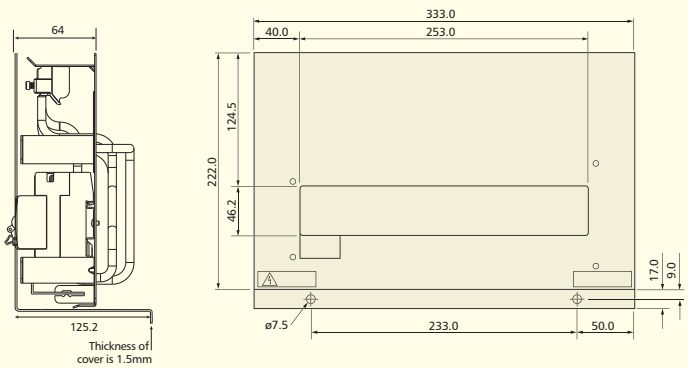
5702s L = 123

5704s L = 195

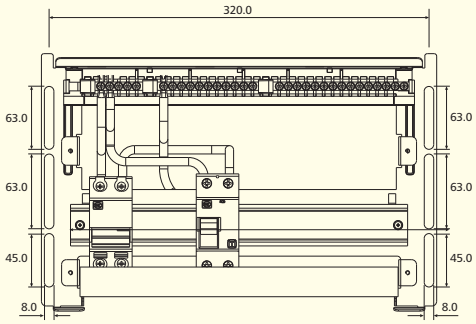
Unit	Top Face	Bottom Face	Sides
4 module	2 x 20mm 1 x 32mm	3 x 20mm 1 x 32mm	1 x 32mm per side
8 module	5 x 20mm 1 x 32mm	5 x 20mm 1 x 32mm	1 x 32mm per side
12 module	7 x 20mm 1 x 32mm	7 x 20mm 1 x 32mm	1 x 32mm per side
16 module	10 x 20mm 1 x 32mm	10 x 20mm 1 x 32mm	1 x 32mm per side
21 module	12 x 20mm 1 x 32mm	12 x 20mm 1 x 32mm	1 x 32mm per side

Dimensions (mm)

Skeleton units



Front



Front with plate removed

Installation

Consumer units

The Consumer units are provided with internal busbar shields or covers.

Front covers have lockable lid (using barrel lock & key accessory K5593s), which masks the front cover retaining screw. Removal of the front cover for internal access requires the use of tools.

Cover mounted blanks are provided with each Sentry Consumer unit to fill unused ways.

4,8 and 12 module – 1 off x 2
16 and 21 module – 2 off x 2

If additional unused ways are required, the DIN rail mounted blank 5544s or cover mounted blank K5544s must be used to complete the installation.

Skeleton Units

The Skeleton unit is a spine backplate assembly designed to fit the majority of Mantel / Clifton enclosures, as used in Local Authority housing.

The Skeleton unit is provided with an internal busbar shield.

Removal of the front cover for internal access requires the use of tools.

If any unused ways are required the DIN rail mounted blank 5544s must be used to complete the installation.

Two / four module enclosures

Front covers require tools to enable removal and gain internal access.

5604s has provision for tamper-proofing.

If there are any unused ways required the DIN rail mounted blank 5544s must be used to complete the installation. 5604s, 5702s, 5704s are provided with moulded blanks.

Service conditions

Wiring of these products must comply with current IEE regulations.

Consumer units and two and four module enclosures are intended for indoor use in dry conditions and are not suitable for locations where high humidity and/or high temperatures may be experienced.

It is important that during installation of any Sentry enclosure, steps are taken to ensure that the IP rating is maintained, e.g. correct use of cable glands and knockouts / cutouts.

Testing

Site assembled consumer units using MK components comply fully with BS EN 60439-3 so do not require further site testing other than normal routine installation tests.

Split load and multi-incomer arrangements

Such assemblies must utilise the relevant Sentry kit in order to comply with BS EN 60439-3 and to avoid the need for additional testing.

Stacking kits

Accessory kits (stacking frame, fittings and earth cable) can be used to produce stacked dual rail units in the insulated and surface metal ranges for the 12, 16 and 21 module units.

K6061s – for 12 module units to create 24 module dual rail consumer unit.
K6062s – for 16 module units to create 32 module dual rail consumer unit.
K6063s – for 21 module units to create 42 module dual rail consumer unit.

Weatherproof enclosures

The weatherproof enclosures may be used for outdoor applications up to the level of the IP65 rating.

The cable entry position on the top and bottom of the enclosure is at the discretion of the installer and can be achieved with suitable tools. Knockouts/ cutouts are provided for side entry.

Precautions must be taken to maintain the IP rating, e.g. correct use of cable glands and knockouts. The caps provided must be used to cover the mounting screws.

Note: IP65 rating only achieved with lid in the closed position. These enclosures will not accept the one module RCBOs.

Switch Disconnectors

Standards and approvals

Sentry switch disconnectors are designed to fully comply with the requirements of BS EN 60947-3.

They all feature positive contact status indication in accordance with the 17th Edition IEE Wiring Regulations (537.2.2.1 and 537.3.2.2).

Technical specification

Electrical

Category of duty:	AC22A
Load type capability:	Both resistive and inductive
Operating voltage:	240V a.c.
Operating frequency:	50Hz

	5560s	5500s
Rated operational current Ie	63A	100A
Rated duty	Uninterrupted	Uninterrupted
Rated making capacity I	189A rms	300 rms
Rated breaking capacity Ic	189A rms	300 rms
Rated short time withstand current Icw	2kA rms for 1 sec	2kA rms for 1 sec
Rated short circuit making capacity Icm	3kA peak	3kA peak
Rated conditional short circuit current	6kA rms prospective	6kA rms prospective

Physical

Ambient operating temperature:
–5°C to +40°C

IP rating:
Front face IP3X, screw IP2X

Max installation altitude:
2000 metres

Rating specification

Switch disconnector	Rating
5500s	100A
5560s	63A



Description

The Sentry range offers a choice of switch disconnector rated at either 100A or 63A.

The operating dolly is capable of being locked in either the ON or OFF position. When locked in the ON position it will no longer operate as an isolator. Positive indication of the opening of the contacts is only given when the green stripe can be seen on the dolly.

The terminals are of a tunnel design and offer a generous cable capacity of 50mm² for solid stranded conductors and 35mm² for flexible conductors, on both current ratings.

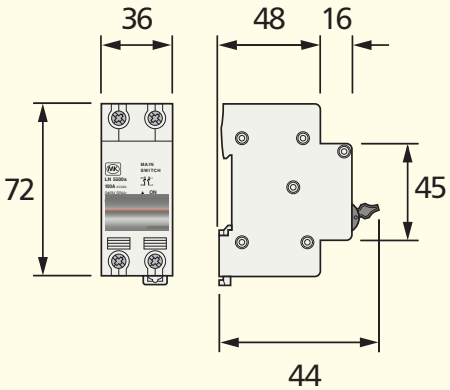
Category of duty

The Sentry switch disconnector is capable of switching both resistive and inductive loads and has a category of duty of AC22A.

Features

- Meet BS EN and IEE Wiring Regulation requirements
- Choice of current ratings
- Tunnel design terminals for ease of wiring
- Generous cable capacity
- Lockable operating dolly
- Make first, break last on neutral

Dimensions (mm)



Installation

The Sentry switch disconnector is designed to accept both cable-in/cable-out and direct-to-busbar connections.

The terminal screws are touch-proof to IP2X, captive and feature combination heads.

Miniature Circuit Breakers (MCBs)

Standards and approvals

Sentry MCBs are designed to fully comply with the relevant requirements of BS EN 60898: 2003.

They all feature positive contact status indication in accordance with the 17th Edition IEE Wiring Regulations (537.2.2.1 and 537.3.2.2).

Technical specification

Electrical

Voltage rating:
230V/400V a.c.

Operating frequency:
50Hz

Rated short circuit capacity Icn:
6000A

Service short circuit capacity Ics:
6000A

When backed up by a BS 1361, 100A fuse, then the breaking capacity of the MCB is increased to 16,000A.

Energy limiting class: 3

Physical

Ambient operating temperature:
–5°C to +40°C

Calibration temperature:
+30°C

IP rating:
Front face IP4X, screw IP2X

Terminal capacity:
35mm²

Tightening torque:
3Nm Max.

Max. installation altitude:
2000 metres



OFF ON

Description

Sentry MCBs are of the thermo-magnetic, current limiting type and are available with either Type B or Type C operating characteristics.

The operating dolly may be locked in either the ON or OFF position without affecting the ability of the trip mechanism to operate. The contacts themselves are manufactured from carefully chosen materials, selected specifically for their low electrical resistance and low propensity to weld under fault conditions.

Positive contact status indication

When the green indicator is visible, then a contact gap of 4mm has been achieved. Sentry MCBs may therefore be used as single pole isolating switches where appropriate.

Terminals

The Sentry MCB features tunnel terminals of 35mm² capacity on all ratings. Each terminal has a protective shutter to prevent cable being installed incorrectly. The terminal screws are touch proof to IP2X, captive and feature combination heads.

Modes of operation

The mechanism of the Sentry MCB has been carefully designed and engineered using thermal and magnetic elements to detect overcurrents due to both overload and fault currents. The MCB will operate and interrupt the supply to prevent damage to the installation.

The thermal component is a carefully calibrated, thermally operated bi-metal element.

Larger overloads and fault current situations are dealt with using the magnetic tripping mode of the MCB. This acts very quickly, overriding the thermal operation.

BS EN 60898 requires the tripping to occur within 100 milliseconds and the design of the Sentry MCB allows fault currents of up to 6000A (M6) to be safely interrupted well within this time scale.

Miniature Circuit Breakers (MCBs)

Description (continued)

Operating characteristics

TYPE B

The magnetic operating limits are between 3 and 5 times the current rating of the MCB. Under these conditions the mechanism of a 10A MCB will operate between 30A and 50A in an overcurrent situation.

TYPE C

In the case of Type C MCBs, the magnetic operating limits are between 5 and 10 times the current rating of the MCB. Under these conditions the mechanism of a 10A MCB will operate between 50A and 100A in an overcurrent situation.

Type C devices are capable of supplying the majority of inductive and capacitive loads such as motors, transformers and tungsten or fluorescent lighting.

Time/Current and Energy let through characteristics of Sentry MCBs are shown graphically on the Time current characteristics chart (See separate document).

TYPE D

The Type D MCB is suitable for applications involving equipment generating very high inrush currents, e.g. x-ray equipment, transmitters and computer power supplies. The magnetic operating limits are between 10 and 50 times the current rating of the MCB. **(For Modular Combi use only)**

Rating specification

Type B Single pole	Rating
5903s	3A
5906s	6A
5910s	10A
5916s	16A
5920s	20A
5925s	25A
5932s	32A
5940s	40A
5945s	45A
5950s	50A
Type C Single pole	**Rating**
8703s	3A
8706s	6A
8710s	10A
8716s	16A
8720s	20A
8725s	25A
8732s	32A
8740s	40A
8750s	50A

Features

- Meet BS EN and IEE Wiring Regulation requirements
- 'Trip-free' mechanism
- Positive contact status indicator
- Tunnel type, touch-proof, captive terminals
- Generous terminal capacity
- Can be used as single pole isolating switch
- Protective shutter

Installation

Selection of the most suitable MCB should take into account the following considerations:

1. Operating voltage and frequencies

It is possible to use the Sentry MCB on other voltages than 230/400V a.c. 50Hz, but it should be noted that this takes the MCB outside the scope of BS EN 60898.

2. Type of load

RESISTIVE

No derating is required in the case of resistive loads.

INDUCTIVE

In the case of inductive loads from direct-on-line motors, the surge on energisation can produce up to 5 times full load current, which may be present for several seconds. It is therefore recommended that Type C MCBs are used for such circuits.

When using assisted start motors, the usually quoted figures are 2.5 times the full load current, for periods generally longer than those for direct-on-line starters. It is thus important to establish the degree of inrush current in order to select a suitable MCB. In all instances, reference should be made to both the motor manufacturer's curves and MK's circuit breaker curves in order to select the compatible miniature circuit breaker.

CAPACITIVE

Surges on energisation, for example with discharge lighting, may well reach 25 times the rated current of the device, but only for very short duration. Type B devices will often be adequate, but for more specialised circuits, a Type C may be required. The lighting fitting manufacturer's recommendations should be observed.

Miniature Circuit Breakers (MCBs)

3. Fault breaking capacity

All Sentry MCBs have a short circuit breaking capacity of 6,000A (M6).

For applications where the prospective fault current is in excess of this, a BS 1361, 100A (maximum) fuse should be used upstream of the MCB to provide a system breaking capacity of 16,000A (in accordance with BS EN 60439-3).

4. Discrimination

A Sentry MCB consumer unit will normally be supplied via an HRC fuse. The HRC in such instances will be the major device and remain unaffected by any fault current which causes the MCB to operate.

The level of fault current up to which this can be assured is determined by comparing the I^2t characteristics of the two devices. Discrimination will theoretically occur up to the level at which the value of the total operating I^2t of the MCB is below the minimum pre-arcing I^2t of the fuse, although in practice, discrimination will be achieved at higher levels than this.

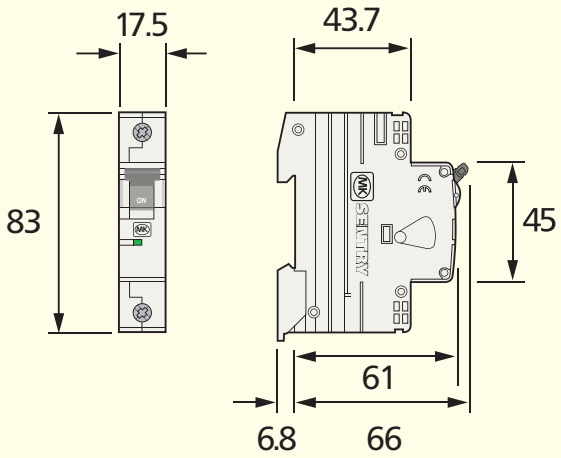
5. Cable protection

The current carrying capacity of the cable should always exceed the current rating of the MCB to prevent damage.

However, should this not be the case, a further calculation may show that the MCB can still interrupt the current in a sufficiently short time to prevent overheating of the cable insulation. Although this will prevent mechanical damage to the cables, further overload protection should be provided by a separate device, e.g. a motor overload relay.

In case of doubt please contact the MK Technical Sales and Service Department.

Dimensions (mm)

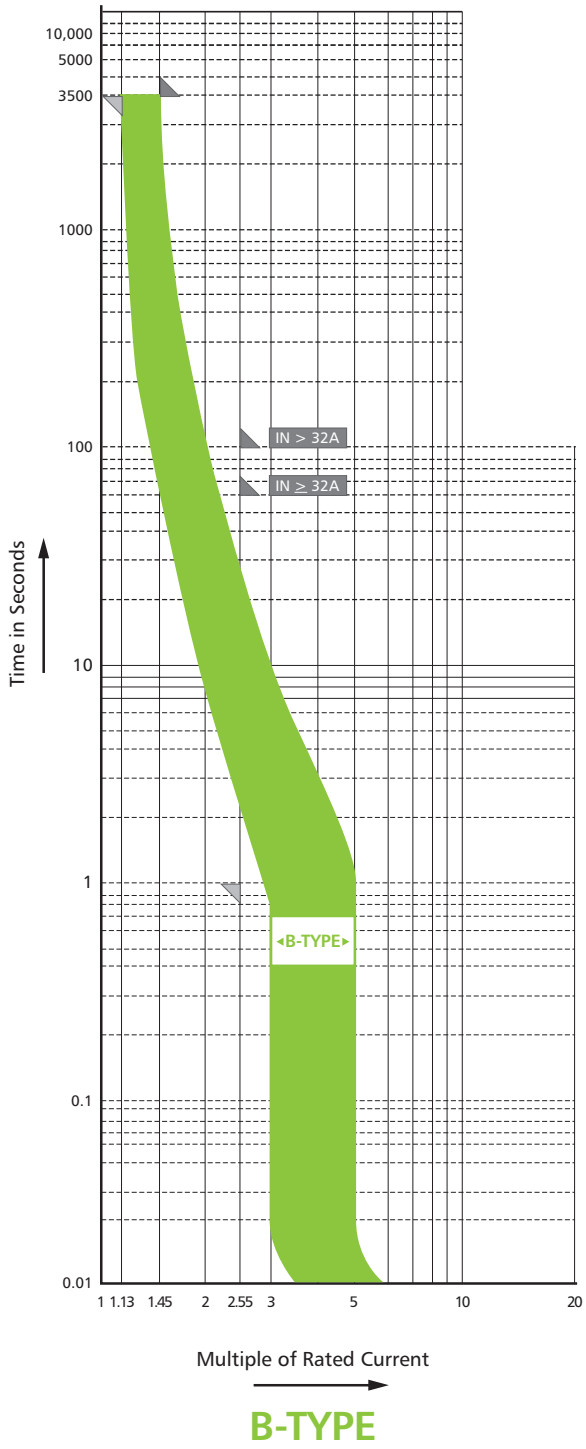


Tripping Characteristics Curve

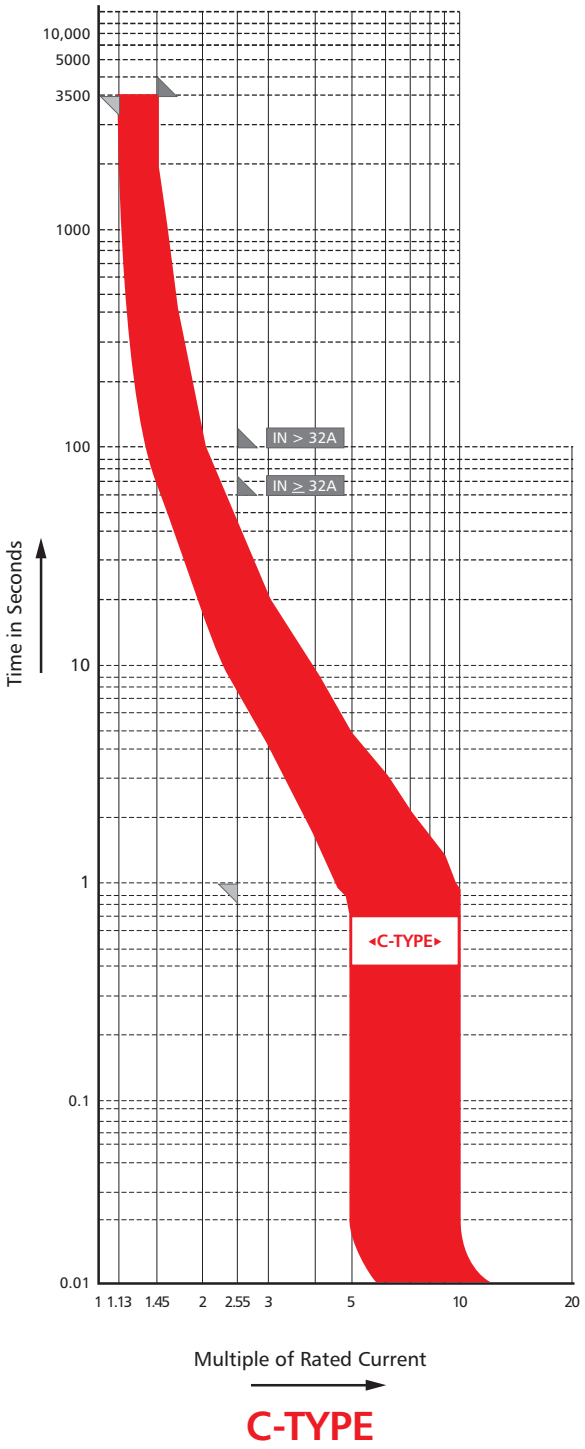
Limit specified in BS EN 60898 1: 2003
In: Rated Current
B TYPE:3A to 50A
C TYPE: 3A to 50A
Reference calbi. temp. 30°C

Lower Limit as per Standard

Upper Limit as per Standard

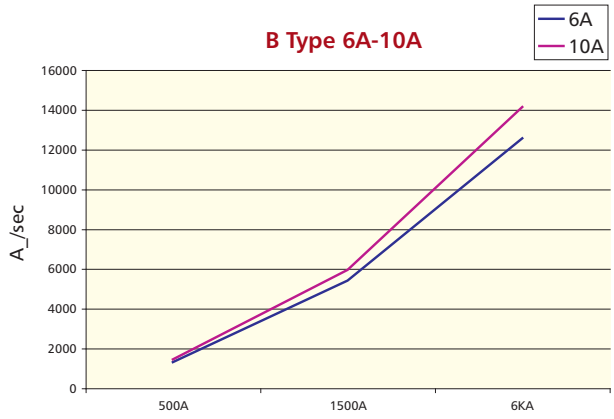


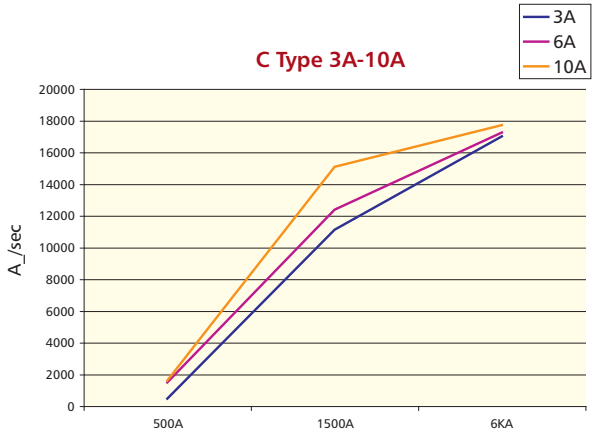
B-TYPE

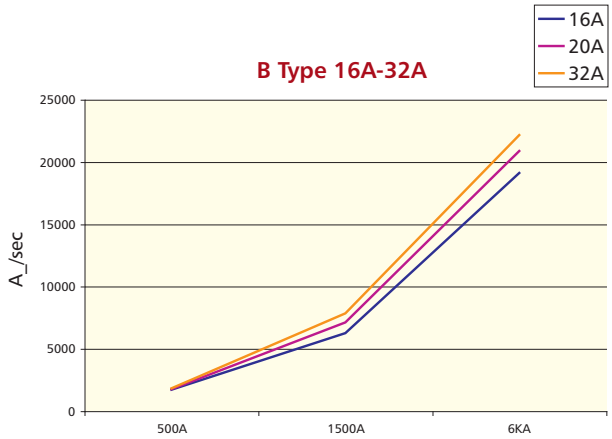


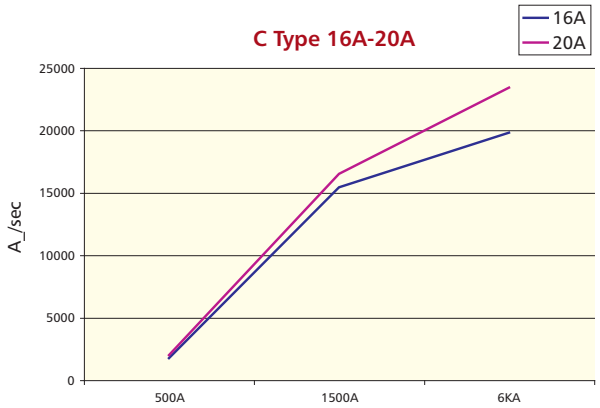
C-TYPE

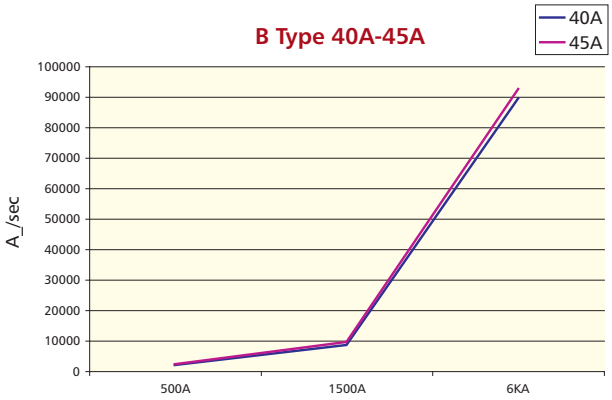
I^2t curves

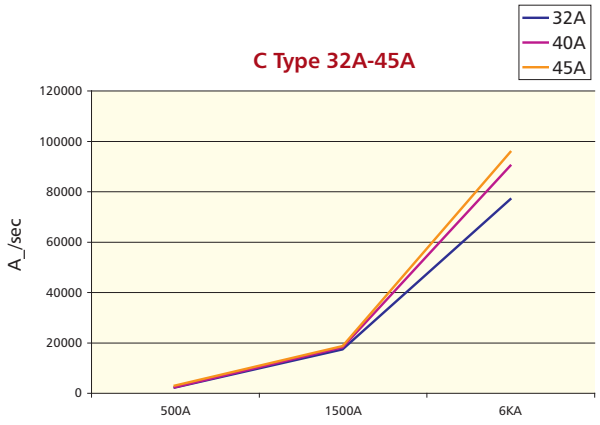

B Type 6A-10A
6A
10A
A_/sec
16000
14000
12000
10000
8000
6000
4000
2000
0
500A
1500A
6KA


C Type 3A-10A
3A
6A
10A
A_/sec
20000
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
500A
1500A
6KA


B Type 16A-32A
16A
20A
32A
A_/sec
25000
20000
15000
10000
5000
0
500A
1500A
6KA


C Type 16A-20A
16A
20A
A_/sec
25000
20000
15000
10000
5000
0
500A
1500A
6KA


B Type 40A-45A
40A
45A
A_/sec
100000
90000
80000
70000
60000
50000
40000
30000
20000
10000
0
500A
1500A
6KA


C Type 32A-45A
32A
40A
45A
A_/sec
120000
100000
80000
60000
40000
20000
0
500A
1500A
6KA

Residual Current Breakers with Overcurrent Protection (RCBOs)

Standards and approvals

All Sentry RCBOs are designed to fully comply with the relevant requirements of BS EN 61009-1, BS IEC 61 009-2-2, BS 61543 for EMC.

The RCBOs feature positive contact status indication in accordance with 17th edition IEE Wiring Regulations (537.2.2.2 and 537.3.2.2).

Technical specification

Electrical

Operating voltage: 230V a.c.

Operating frequency: 50Hz

Rated Short circuit capacity Icn: 6,000A

Service short circuit capacity Ics: 6,000A

When backed up by a BS 1361, 100A fuse, then the breaking capacity of the RCBO is increased to 16,000A.

Type AC

Physical

Ambient operating temperature: –25°C to + 40°C

IP rating:

Front face IP4X, screw IP2X

Terminal capacity:

Line in 25mm^2

Line and neutral out 25mm^2

Tightening torque:

2.5Nm

Max. installation altitude: 2000 metres



Description

The Sentry range features solid neutral type single pole RCBOs in one module format.

The one module Sentry RCBOs are a combination of a Type B MCB and a Residual Current Device. This enables both overcurrent protection and earth fault current protection to be provided by a single unit.

This combination allows earth fault protection to be restricted to a single circuit, thus ensuring that only the circuit with the fault is interrupted. (When groups of circuits are protected by an RCD, all circuits would be interrupted under fault conditions, which may cause unnecessary inconvenience).

The operating switch on all Sentry RCBOs may be locked in either the ON or OFF position without affecting the ability of the trip mechanism to operate.

Sentry RCBOs feature tunnel terminals of generous capacity, with 25mm^2 for live supply for live and neutral load terminals. The neutral supply (blue) and earth supply (white/cream) are provided via flying leads.

Mode of operation

As the RCBO is a combination of an MCB and RCD, reference should be made to the relevant technical information regarding these devices.

Features

- Single module
- Meet BS EN and IEE Wiring Regulation requirements
- Allows both overcurrent and earth fault protection and detection
- Available in a range of current ratings
- Tunnel type terminals
- Generous terminal capacity
- Positive contact status indication

Residual Current Breakers with Overcurrent Protection (RCBOs)

Rating specification

Rating RCBO	Tripping Current	List No.
6A, 230V	30mA	7932s
10A, 230V	30mA	7933s
16A, 230V	30mA	7934s
20A, 230V	30mA	7935s
32A, 230V	30mA	7936s
40A, 230V	30mA	7937s
45A, 230V	30mA	7938s
50A, 230V	30mA	7939s

Installation

Sentry RCBOs may be installed anywhere along the length of the busbar and will occupy one outgoing way.

Selection of the most suitable RCBO should take into account the following considerations:

1. Operating voltage and frequencies

2. Fault breaking capacity

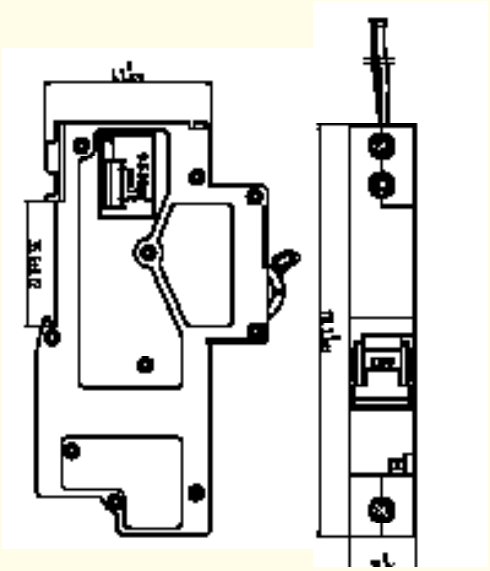
For applications where the prospective fault current is in excess of this, a BS 1361, 100A (maximum) fuse should be used upstream of the RCBO to provide a system breaking capacity of 16,000A.

3. Cable protection

The current carrying capacity of the cable should always exceed the current rating of the RCBO, to prevent damage. However, should this not be the case, a further calculation may show that the RCBO can still interrupt the current in a sufficiently short time to prevent overheating of the cable insulation. Although this will prevent mechanical damage to the cables, further overload protection should be provided by a separate device, e.g. a motor overload relay.

In case of doubt please contact the Technical Sales and Service Department.

Dimensions (mm)



Residential 6kA Residual Current Devices (RCDs)

Standards and approvals

All Sentry RCDs are designed to fully comply with the requirements of BS EN 61 008:1995. IEC 1008:1990

They all feature positive contact status indication in accordance with 17th edition IEE Wiring Regulations (537.2.2.2 and 537 .3 .2 .2).

Technical specification

Electrical

Rated making and breaking capacity /m:

16 - 40A = 500A 63 - 80A = 800A

Type AC

Rated short-circuit current / inc:

16A - 40A = 6,000A (100A Fuse)

Rated residual short-circuit current /IAm: 16 - 100A = 6,000A

Rated voltages:

2 pole devices, 230V

Operating voltages:

2 pole devices, 230V - 100V to 250V

Tripping Time:

1 x IAn ~300ms

5 x IAn ~40ms

Physical

Ambient operating temperature: –25°C to + 40°C

IP rating:

Front face after installation of enclosure IP40

Terminal capacity:

Solid standard - 1 x 1.5 - 35mm^2 Flexible with female - 1 x 1 .5 - 35mm^2

Tightening torque: 3Nm

Max. installation altitude: 2000 metres



Description

The Sentry range of RCDs offer a comprehensive selection of devices designed to meet most residential, commercial and light industrial requirements.

The range is two pole, a.c. fault current sensitive with a selection of current ratings from 16 to 80A and is available in a variety of tripping sensitivities.

When in the OFF position a contact gap of 4mm is present, enabling Sentry RCDs to be used as isolating switches where appropriate.

The operating dolly may be locked in either the ON or OFF position without affecting the ability of the trip mechanism to operate, i.e. the RCD is 'trip-free'. It is not possible to hold the contacts closed when a fault condition exists.

All Sentry RCDs incorporate a filtering device to provide protection against transient surges in the supply to the unit, thus reducing the occurrence of unwanted tripping.

Features

- Meet BS EN and IEE Wiring Regulation requirements
- Extensive range to suit all specifications
- Protect against unwanted tripping
- Positive contact status indication
- Suitable for most residential, commercial and light industrial applications
- Offer a high degree of protection against electrocution in accidental shock hazard situations
- Two module, double pole units available up to 80A

Residential 6kA Residual Current Devices (RCDs)

Rating specification

Double pole, 2 module

Rating	Tripping current	List No.
16A	30mA	7816s
32A	30mA	7832s
40A	30mA	7840s
63A	30mA	7860s
80A	30mA	7880s
63A	100mA	7560s
80A	100mA	7580s
63A	300mA	7660s
80A	300mA	7680s

Operation

The RCD provides an indication of an earth fault and contact status as detailed below.

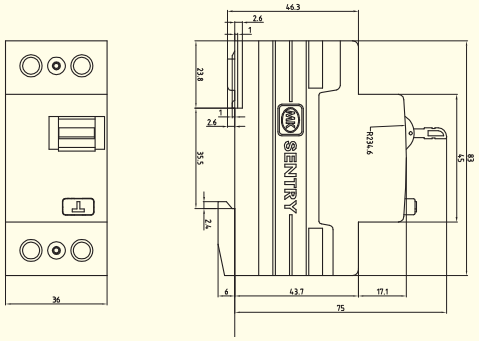
The operating dolly provides the following indication:

I = Switched ON

0 = Switched OFF

The contact status is shown via dolly markings.

In the event of an Earth Fault in the installation or the operation of the test button, the dolly will move to the OFF position. To re-connect the supply the dolly must be reset by moving it to the ON position.



Testing

If an RCD is installed as additional protection for basic protection, it is a requirement of the IEE Regulations that the effectiveness of the RCD be verified. This must be achieved by a test simulating an appropriate fault condition and be independent of any test facility incorporated in the RCD. The test currents to be applied are as follows:

Test current	Condition
0.5 x I Δ n	RCD must not trip
1.0 x I Δ n	RCD must trip within 300mS
5.0 x I Δ n	RCD must trip within 40mS

Where I Δ n is the RCD's rated tripping current in accordance with wiring regulations and product standard BS EN 61008.

Industrial 10kA Residual Current Devices (RCDs)

Standards and approvals

All Sentry RCDs are designed to fully comply with the requirements of BS EN 61008: 1995. IEC 1008:1990

They all feature positive contact status indication in accordance with the 17th Edition IEE Wiring Regulations (537.2.2.1 and 537.3.2.2).

Technical specification

Electrical

Rated making and breaking capacity /m:
16 - 40A = 500A
63 - 80A = 800A
100A = 1000A

Type AC

Rated short-circuit current / inc:
16A - 40A = 10,000A (63A Fuse)
63A - 80A = 10,000A (100A Fuse)
100A = 10,000A (125A Fuse)

Rated residual short-circuit current /IΔm:
16 - 100A = 10,000A

Rated voltages:
2 pole devices, 110V and 230V
4 pole devices, 230V to 440V

Operating voltages:
2 pole devices, 110V - 100V to 250V
230V - 100V to 250V

4 pole devices, 185V - 440V

Tripping Time:
1 x IΔn ≤300ms
5 x IΔn ≤40ms
Time delay version
1 x IΔn - 150 - 500ms
5 x IΔn - 50 - 150ms

Physical

Ambient operating temperature:
–25°C to +40°C

IP rating:
Front face after installation of enclosure IP40

Terminal capacity:
Solid standard - 1 x 1.5 - 50mm²
Flexible with female - 1 x 1.5 - 35mm²

Tightening torque:
3Nm

Max. installation altitude:
2000 metres



Description

The Sentry range of RCDs offers a comprehensive selection of devices designed to meet most residential, commercial and light industrial requirements.

The range includes two and four pole, a.c., d.c. fault current sensitive and time delayed models and a selection of current ratings from 16 to 100A is available in a variety of tripping sensitivities.

When in the OFF position a contact gap of 4mm is present, enabling Sentry RCDs to be used as isolating switches where appropriate.

Positive indication of the opening of the contacts is only given when contact status indicator shows green.

The operating dolly may be locked in either the ON or OFF position without affecting the ability of the trip mechanism to operate, i.e. the RCD is 'trip-free'. It is not possible to hold the contacts closed when a fault condition exists.

All Sentry RCDs incorporate a filtering device to provide protection against transient surges in the supply to the unit, thus reducing the occurrence of unwanted tripping.

Features

- Meet BS EN and IEE Wiring Regulation requirements
- Extensive range to suit all specifications
- Protect against unwanted tripping
- Positive contact status indication
- Suitable for most residential, commercial and light industrial applications
- Offer a high degree of protection against electrocution in accidental shock hazard situations
- Two module, double pole units available up to 100A
- Indication of earth fault, via central dolly position

Industrial 10kA Residual Current Devices (RCDs)

Rating specification

Double pole, 2 module

Rating	Tripping current	List No.
16A, 110V	10mA	6016s
16A, 110V	30mA	6416s
16A, 230V	10mA	6316s
16A, 230V	30mA	5716s
32A, 110V	30mA	6032s
32A, 230V	30mA	6730s
40A, 230V	30mA	5740s
63A, 230V	30mA	5760s
63A, 230V	100mA	6160s
63A, 230V	300mA	5860s
80A, 230V	30mA	5780s
80A, 110V	30mA	6080s
80A, 230V	300mA	5880s
80A, 230V	100mA	6180s
100A, 230V	30mA	7700s
100A, 230V	100mA	6600s
100A, 230V	300mA	7800s
Double pole, pulsating d.c., fault current sensitive, 2 module		
16A, 230V	10mA	6216s
16A, 230V	30mA	6716s
32A, 230V	30mA	6630s
40A, 230V	30mA	5640s
63A, 230V	30mA	5660s
Time delayed, 2 module		
80A, 230V	100mA	6980s
100A, 230V	100mA	6400s
Four pole, 4 module		
25A, 230/400V	30mA	6425s
40A, 230/400V	30mA	6440s
40A, 230/400V	100mA	6240s
63A, 230/400V	30mA	6463s
63A, 230/400V	100mA	6363s
63A, 230/400V	300mA	6263s
Four pole, pulsating d.c., fault current sensitive, 4 module		
40A, 230/400V	30mA	6640s

Installation

Sentry RCDs must never be used as the sole method of basic protection, but are invaluable in providing supplementary protection in high risk environments where damage may occur.

Application

The choice of the most suitable RCD for a particular application should take into account the following considerations:

1. Sensitivity

10mA RCDs offer a high degree of protection against electrocution in an accidental shock hazard situation. They are of particular value in a high risk area where resistances external to the body are likely to restrict the earth fault current flowing through the body to less than 30mA and where 110V supply is being used.

30mA RCDs offer a high degree of protection in an accidental shock hazard situation and are by far the most popular sensitivity used in the United Kingdom. In a shock situation, the current flowing through the human body at 240V 50Hz could be between 80 and 240mA, depending on the resistance of the body in question. To ensure that there are no harmful physiological effects in such a situation, it is necessary for the RCD to operate within 300mS at 30mA and 40mS at 150mA. As the Sentry RCD typically operates well below these times, it clearly more than satisfies this requirement.

100mA RCDs may, in some circumstances, provide protection against electrocution in an accidental shock hazard situation. However, it is important to note that there is a likelihood that the earth fault current may be below the sensitivity of the RCD. This becomes increasingly likely if additional resistances to that of the human body are in the current path.

300mA RCDs provide protection against the risk of fire only. They do not provide protection against electrocution in an accidental shock hazard situation. A typical application would be lighting circuits where it is deemed that the risk of electric shock is small.

It is important to note that a current of less than 500mA flowing in a high resistance path is sufficient to bring metallic parts to incandescence and, potentially, initiate a fire.

2. Requirements of the IEE Wiring Regulations BS 7671

RCDs may be used to provide additional protection against both fault protection and basic protection.

Fault Protection

Defined as protection against electric shock under single fault conditions.

Effective earthing in conjunction with automatic disconnection should always be employed to protect against the effects of fault protection. The provision of a low resistance path back to the supply from the fault should ensure that the overcurrent device operates before damage occurs. This is the earth fault loop impedance.

In circumstances where the earth fault loop impedance in the circuit is too high to ensure operation of the overcurrent device, then the IEE Wiring Regulations allow the installation of an RCD. To comply with the Regulations, the earth loop impedance of the circuit (in ohms), multiplied by the rated tripping current of the RCD (in amperes) must not produce a value greater than 50. With this in mind, the maximum values of earth loop impedance permissible when installing an MK Sentry RCD are as follows:

$$Z_s \text{ (max)} = \frac{50}{I\Delta n} = \frac{50}{0.03} = 1666 \text{ ohms}$$

Rated Tripping Current of RCD	Maximum Permissible Earth Fault Loop Impedance
10mA	5000 ohms
30mA	1666 ohms
100mA	500 ohms
300mA	166 ohms

RCD's are further specified for fault protection on TT systems (Regulation 411.5.2, 411.5.3 apply)

Industrial 10kA Residual Current Devices (RCDs)

Application (continued)

Direct Contact

Defined as "contact of persons or livestock with live parts".

The Regulations recognise four main means of providing protection against direct contact which include enclosures and the use of extra low voltage systems.

However, the use of RCDs is specified by the Regulations in the following instances:

• A socket outlet rated at 32A or less which may reasonably be expected to supply portable equipment for use outdoors shall be protected by an RCD having the characteristics specified in Regulation 412-06-02. (Regulation 471-16-01 applies.)

• Where socket outlets are used to supply caravans on caravan sites, then they must be protected by an RCD having the characteristics specified in Regulation 412-06-02.

Regulation 412-06-02 stipulates among other things that where supplementary protection is provided by residual current devices, their rated residual operating current must not exceed 30mA and that they must trip within 40ms at 5 times rated operating current.

Although RCDs must never be used as the sole method of direct contact protection, they are invaluable in providing supplementary protection in high risk environments where damage may occur. Typical applications include situations where equipment may be used outside or fed by trailing sockets, equipment accessible to children or equipment used in wet areas. For these reasons RCDs are commonly found in schools, hospitals and residential installations.

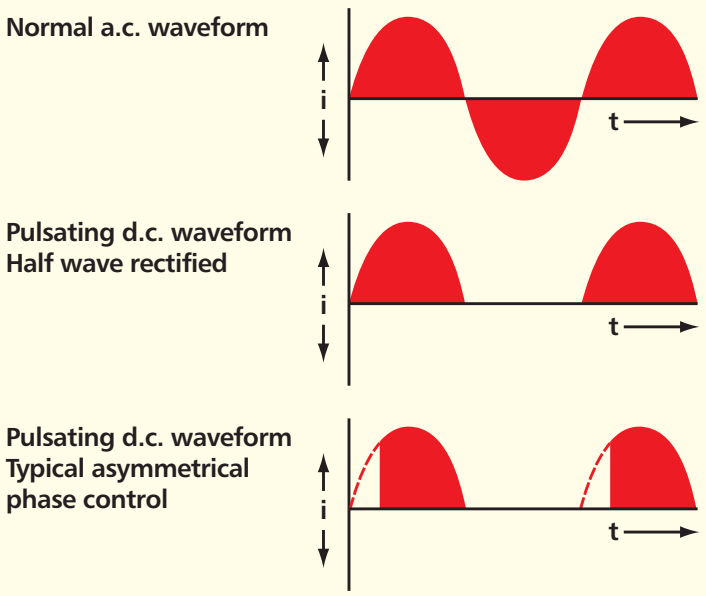
3. Types of fault current

In an installation different types of fault current can occur. MK offer RCDs to suit these conditions.

Sentry Type AC RCDs are suitable for situations where there are residual sinusoidal alternating currents, whether applied suddenly or rising slowly. This is the most commonly used type of RCD in the UK.

Sentry Type A RCDs (i.e. pulsating d.c. fault current sensitive) are suitable for situations where there are residual sinusoidal alternating currents, whether suddenly applied or slowly rising. These situations can occur with the use of semiconductor devices in modern electrical and electronic equipment, such as computers, printers, plotters, televisions, video cassette recorders and hi-fi equipment, is growing.

Such devices may result in the normal sinusoidal a.c. waveform generated by the mains electrical supply being 'modified'. for example, the waveform may be rectified or, as in asymmetric phase control devices, the waveform may be chopped. The resulting waveforms are said to contain a pulsating d.c. component as illustrated below.



Industrial 10kA Residual Current Devices (RCDs)

Application (continued)

Pulsating d.c. fault current sensitive RCDs

Should a waveform containing a pulsating d.c. component develop an earth fault, then it is possible that it may not be detected by an "a.c. only" sensitive RCD. For this reason, the Sentry range contains RCDs designed to be sensitive to pulsating d.c. fault currents thus maintaining the intended degree of protection.

Type B RCDs are suitable for situations where there are residual sinusoidal alternating currents, residual pulsating direct currents and smooth d.c. and a.c. residual current of various frequencies, which would not trip Type AC or A RCDs.

These situations can occur in 50Hz a.c. installations with electronic equipment, e.g. frequency converters, UPS installations, power supply unit or high-frequency power converters.

The following symbols are used on the front plate of the device to indicate the type of RCD.

– type AC RCD.

– type A RCD.

– type B RCD.

4. Temperature

All Sentry RCDs are suitable for use in the temperature range –25°C to +40°C. This is indicated on the RCD by the symbol .

5. Time Delayed RCDs S Type S (or selective)

When two or more Sentry RCDs are installed in series with one another, measures must be taken to ensure that they discriminate properly. In event of an earth fault, only the RCD immediately upstream from the fault should operate.

RCDs do not discriminate on rated tripping current alone, i.e. a 100mA rated RCD situated upstream from a 30mA rated RCD, will not offer inherent discrimination.

In order to ensure that discrimination is achieved, a Sentry Time Delayed RCD should be used. The in-built time delay period ensures that the downstream RCD opens the circuit before the upstream RCD starts to operate.

The maximum tripping time of a Sentry Time Delayed RCD is 500ms.

Please refer to the current edition of the Wiring Regulations BS 7671 for guidance on the use of these products.

6. 3 phase, 3 wire systems

Sentry 4 pole RCDs may be used to provide earth fault protection on 3 phase, 3 wire systems, as the current balance mechanism does not require a neutral to be connected in order to operate effectively.

Industrial 10kA Residual Current Devices (RCDs)

Operation

The RCD provides an indication of an earth fault and contact status as detailed below.

The operating dolly provides the following indication:

I = Switched ON

+ = Switched OFF due to Earth Fault or test button operation

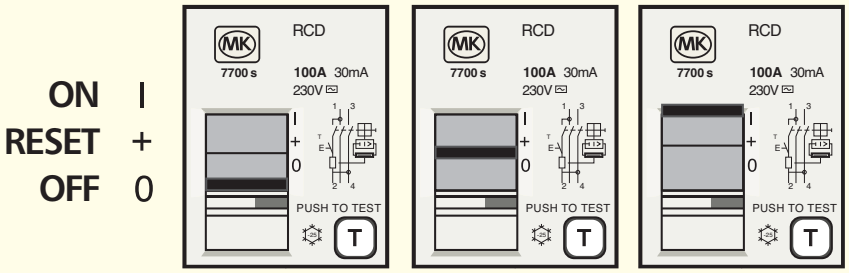
0 = Switched OFF

The contact status is shown through the window.

Red = contact closed

Green = contact open (RCD is switched off)

In the event of an Earth Fault in the installation or the operation of the test button, the dolly will move to the central position (+) and the contact status indicator shows green. To re-connect the supply the dolly must be reset by moving to the off position before switching on.



Testing

If an RCD is installed for additional protection against indirect contact, it is a requirement of the IEE Regulations that the effectiveness of the RCD be verified. This must be achieved by a test simulating an appropriate fault condition and be independent of any test facility incorporated in the RCD. The test currents to be applied are as follows:

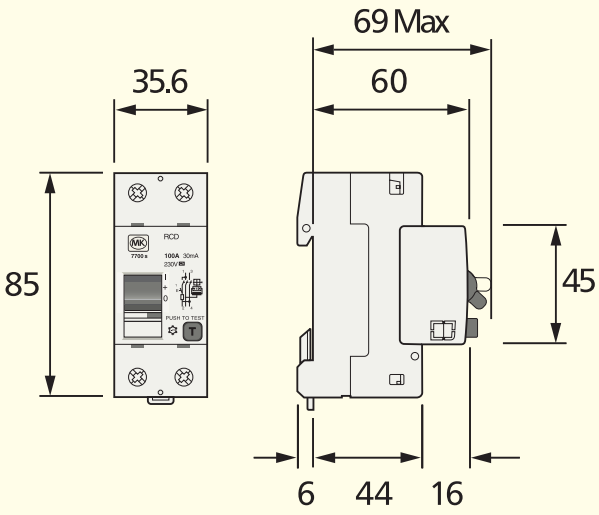
Test current	Condition
0.5 x I Δ n	RCD must not trip
1.0 x I Δ n	RCD must trip within 300mS
5.0 x I Δ n	RCD must trip within 40mS

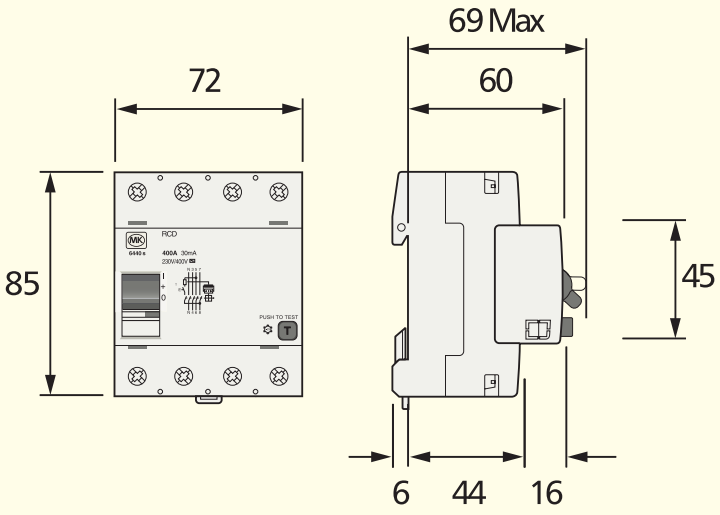
Where I Δ n is the RCD's rated tripping current in accordance with wiring regulations and product standard BS EN 61008.

For time delay RCD 1.0 x I Δ n RCD must trip between 130-500mS.

Industrial 10kA Residual Current Devices (RCDs)

Dimensions (mm)





Contactors

Standards and approvals

All Sentry contactors in the range are designed to fully comply with BS EN 61095

Rating specification

Type	Width	List No.
20A, double pole	1 module	6220s
20A, double pole, with manual override	1 module	6720s
20A, four pole	2 module	6420s
40A, double pole	2 module	7240s
63A, double pole	2 module	7263s
40A, four pole	3 module	7440s
63A, four pole	3 module	7463s



Description

Sentry contactors provide a method of remotely switching single and three phase loads. In this regard, they are particularly useful for switching heating, lighting and ventilation circuits, in particular when used in conjunction with REC supply off-peak tariffs.

The Auxiliary Contact is suitable for fitting to all Sentry Contactors and allows remote indication of contactor status, one normally open and one normally closed contact is provided. The Auxiliary Contact is a half module width, a half module blank is supplied to complete installation.

The suppression block is suitable where contractor controls are not bounce free and connects across the coil terminals. It can be used in conjunction with one or two contactors.

They are suitable for mounting on a standard DIN rail and are therefore fully compatible with all Sentry Consumer Units and small enclosures. (5504s, 5604s, 5704s, 5702s.)

Functions

CONTROL

Achieved by energising and de-energising the contactor coil, via an MK Time Switch or REC meter during 'off peak' hours as set by supply authorities. A coil status indicator is visible through the small window on the front of the contactor.

MANUAL OVERRIDE (6720s only)

An extra function is offered by the Sentry Contactor with manual override. This performs in the same way, but has a switch on the front face to give the following extra facilities:

1. AUTO START MODE

This gives the same performance as above.

2. 'STOP' (0)

In this position the user is able to switch the load off when required, eg during periods of absence. The load remains off until manually reset.

3. MANUAL START MODE (1)

A manual override which allows the load to be energised outside the normal timed period when required. When the contactor is used via an MK Time Switch or by an REC supply meter, the override switch can either be reset manually or allowed to return to the 'auto' position at the commencement of the next timed period. During the 'manual' period, electricity will be used at the standard rate.

4. 'PERMANENTLY 'ON' MODE

The manual override switch features a locking mechanism which allows the contactor to be fixed in a 'permanently on' state. Note: this will not now reset at the commencement of the next timed period.

Contactors

Features

- Compatible with all Sentry Consumer Units (single phase only) (excludes 5502s) and the following Sentry enclosures: 5504s, 5604s, 5704s, 5702s (for single and three phase) .
- Suitable for heating, lighting and ventilation circuits
- Choice of functions
- Ideal for use with REC supply off-peak tariffs

Installation

a) When a contactor is mounted alongside an MCB of greater than 10 amp current rating, or two contactors are mounted alongside an MCB of any current rating, it is advisable to insert a module blank between them. (List No. 5544s.)

b) When mounting more than two contactors side by side, it is necessary to insert a module blank between every two contactors, to give ventilation.

c) When using dual rail consumer units, it is advisable to mount electronic products on the lower rail and contactors on the upper rail. If mounting in a single rail consumer unit, it is advisable to mount electronic products as far away as possible from contactors. As a minimum they should be spaced by a single module width blank.

d) Ensure the load to be controlled is protected against short circuit and overload conditions by a suitable rated Sentry MCB.

e) Contactors and Suppression Module are mounted into Sentry Consumer Units and enclosures, by clipping onto the DIN rail mounted in the base by means of the spring clip. If the contactor is required to be removed for any reason, unclip the contactor from the DIN rail by means of the spring clip on the contactor.

f) The suppression module can be used in conjunction with one or two contactors and should be fitted, in parallel with the contactor controls, when they are not bounce free. The module is suitable for 220/240A operation.

Technical specification

All Contactor List Nos. are designed to operate at either 20, 40 or 63 amps continuous current (AC1-AC7b) 50Hz and have a mechanical life of 1,000,000 operations.
The coil voltages are 220/240V 50Hz.

List No.	**6220s**	**6420s**	**6720s**	**7240s**	**7263s**	**7440s**	**7463s**
Description	Contactor			Contactor			
Contactor rating (Ith)	20A	20A	20A	40A	63A	40A	63A
Includes manual override?	No	No	Yes	No	No	No	No
No. of poles (normally open only)	2	4	2	2	2	4	4
Width in 18mm modules	1	2	1	2	2	3	3
Rated Voltage (V) *(i) Insulation (Ui)* *(ii) Max. operating (Ue)*	 500 250	 500 415	 500 250	 500 250	 500 250	 500 415	 500 415
Average consumption of control circuit coil (VA) – inrush – closed	15 3.8	34 4.6	15 3.8	53 6.5	53 6.5	53 6.5	53 6.5
Terminal cable capacity (max.) *Controls* 2 x 1.5mm² rigid	2 x 2.5mm² flexible						
Power 2 x 2.5mm² flexible 2 x 6mm² rigid		2 x 4mm² flexible 2 x 25mm² rigid					
Torque for terminals	1.4Nm			3.5Nm			

Contactors

Terminal Layout

i) Contactor

a) The coil connections to control energisation should be made between terminals A1 and A2.

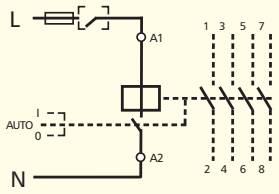
b) One normally open main contact is between terminals 1 and 2.

c) A second normally open main contact is between terminals 3 and 4.

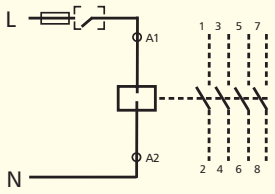
d) In the case of four pole contactors, the other main contacts are between terminals 5 and 6, and 7 and 8 respectively.

Typical schematic layouts of modular contactors.

With Manual Override



Without Manual Override



Contactors

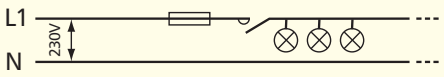
Applications and Maximum Ratings

LIGHTING – Maximum number of lamps

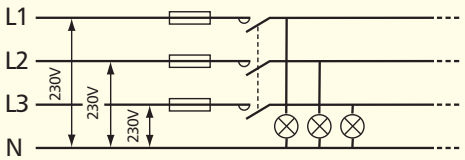
Presentation of installations according to type of supply.

The maximum number of lamps which can be operated per phase is equal to the total number of lamps in the "Single-Phase 230V" table.

Single-phase circuit, 230V



3-phase circuit, 400V (with neutral)



SINGLE-PHASE 230V TABLE

Type of lighting application (AC5a and AC5b categories)	6220s/6420s/6720s Maximum No. of lamps	7240s/7440s Maximum No. of lamps	7263s/7463s Maximum No. of lamps
Incandescent and halogen lamps			
40 W	57	115	172
60 W	45	85	125
100W	28	70	100
Halogen lamps used with transformer			
60 W	14	27	40
80 W	12	23	35
Fluorescent lamp with starter (single fitting with parallel correction)			
15 W	20	40	60
20 W	20	40	60
40 W	20	40	60
Fluorescent lamp with starter (single fitting non-corrected)			
15 W	30	70	100
20 W	30	70	100
40 W	28	70	100
Electronic ballast (fluorescent lamp single setting)			
18 W	111	222	333
36 W	58	117	176
Electronic compact lamp (low consumption)			
7 W	200	400	600
11 W	120	240	360
15 W	88	176	264
20 W	66	132	200
MOTORS – Maximum Power Type of small motor application (AC1 – AC7a categories)			
220/240V single phase with capacitor	1.1kW	2.2kW	4kW
400V three phase motor	4kW	7.5kW	11kW

HEATING – Maximum Power Type of small heating application (AC7b category)

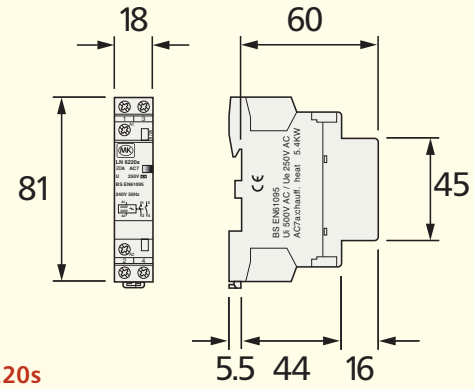
Number of operating cycles	230V Single Ph	400V 3 Ph	230V Single Ph	400V 3 Ph	230V Single Ph	400V 3 Ph
100,000	5.4kW	16kW	8.6kW	26kW	13.6kW	41kW
150,000	4.6kW	14kW	7.4kW	22kW	11.6kW	35kW
200,000	3.5kW	10kW	5.6kW	17kW	8.8kW	26.5kW
500,000	1.6kW	5kW	2.6kW	7.5kW	4kW	12kW
1,000,000	1.2kW	3.5kW	1.9kW	6kW	3kW	9kW

ELECTRICAL ENDURANCE

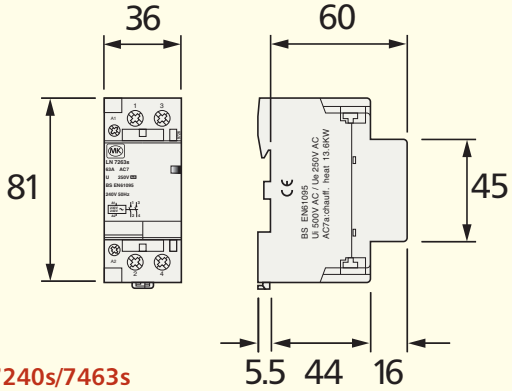
AC1 and AC7a categories	250,000 operations

Contactors

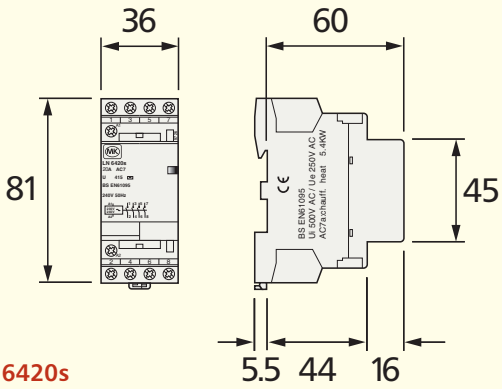
Dimensions (mm)



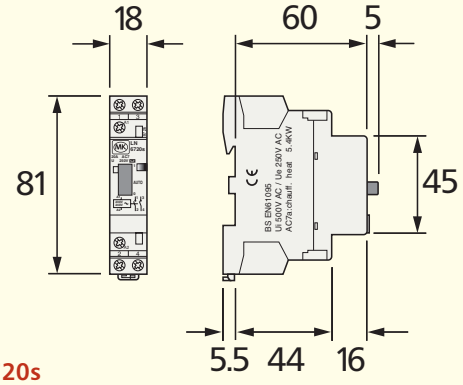
6220s



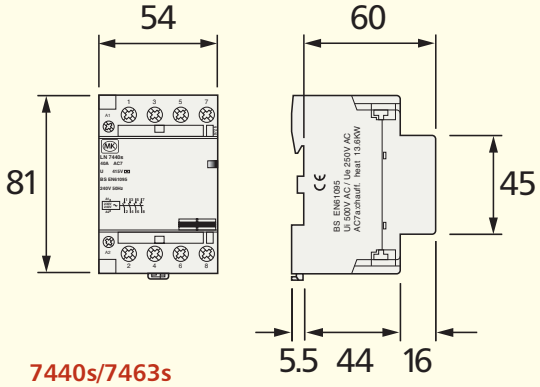
7240s/7463s



6420s



6720s



7440s/7463s

Bell Transformer

Standards and approvals

The Sentry Bell Transformer is designed to comply fully with the requirements of EN 60558-2-8.

Technical specification

Electrical	
Primary voltage:	220V/240V a.c. 50Hz
Secondary voltage:	8V a.c.
Rated output current:	1A
Physical	
Width:	2 modules (36mm)
Terminal capacity:	1 x 2.5mm²
Ambient operating temp:	–5°C to +40°C
IP rating:	Front face IP4X
Max installation altitude:	2000 metres



Description

The Bell Transformer is of the safety isolating, fail safe type. The construction is all insulated, Class II.

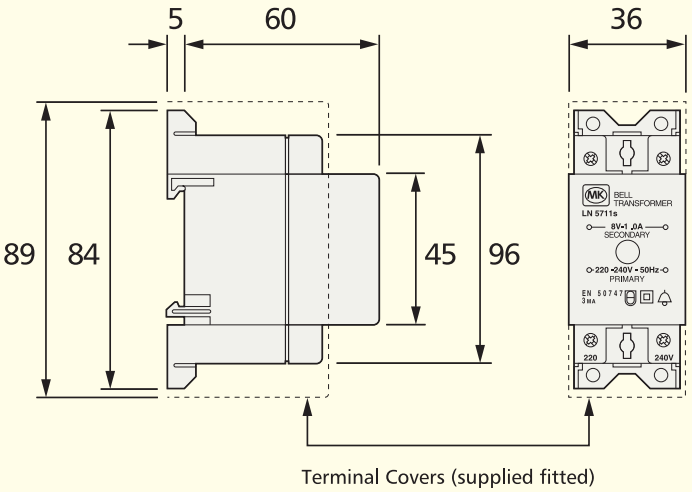
It may be mounted within a Sentry Consumer Unit within 2 or 4 module enclosures alongside MCBs, RCDs and RCBOs or surface mounted.

Installation

The Sentry Bell Transformer should always be connected in series with an MCB or other type of protective device of rating not exceeding 6A.

When installed in a 230V environment, i.e. inside a consumer unit, the cables used to connect the bell or chime to the transformer must have a 230V rated voltage. If bell wire is used, suitable sleeving must be provided to increase its insulation rating to 230V.

Dimensions (mm)



Terminal Covers (supplied fitted)

Electromechanical & Digital Timeswitches

Standards and approvals

EN 60730-1, EN 60730-2-7

Features

- Ideal for independent programmable control of lighting, heating and other functions
- Can be mounted in Sentry Consumer Units and appropriate Sentry enclosures, or surface mounted
- Integral resistance to normal electrical interference
- Manual override of programmed commands
- Display indication of switch position for each Channel, i.e. ON or OFF (Digital only)
- Simple summer time to winter time (and vice versa) adjustment facility (Digital only)
- Random and holiday setting programme (5733s only)



Description

Sentry electromechanical and digital timeswitches enable pre-programmed commands to be executed on a given circuit. The Sentry time delay switches can be installed on circuits to energise suitable equipment for between 1 to 7 minutes.

Note: Inductive loads, particularly fluorescent lamps or energy saving lamps, place a heavy stress on the switching contacts. If in doubt about the ability of the timeswitches to directly switch a particular load it is advisable to install the timeswitch in conjunction with a suitable relay or contactor. If in doubt please consult the Technical Sales and Service Department for assistance.

Electromechanical

All Sentry electromechanical timeswitches are suitable for DIN rail mounting in Sentry Consumer Units and appropriate Sentry enclosures.

Quartz controlled units (5807s, 5824s) contain a power reserve of 150 hrs for accurate time keeping in the event of a mains failure.

3 module timeswitches have an additional insulated 'parking' terminal for earth or other connections.

24 hr units have a minimum switching time of 30 mins and 7 day units 3 hrs.

Digital

All Sentry digital timeswitches are suitable for DIN rail mounting in Sentry Consumer Units and 2 and 4 module Sentry enclosures.

Sentry digital timeswitches are available in both 1 and 2 module widths.

The 1 channel 1 module digital timeswitch (5733s) provides 50 programming selections, with random and holiday options. A simple summer to winter time (and vice versa) adjustment facility is provided. The timeswitch contains a power reserve of 150 hrs for accurate time keeping in the event of mains failure.

The two module digital timeswitches are available in both one channel (5731s) and 2 channel (5732s) versions. The units are supplied pre-programmed to UK time, and will automatically change from winter to summer time. The integral battery (with a 3 year power reserve) maintains the settings until the mains supply is connected. This feature will allow programming of switching commands prior to installation, if required.

The 1 channel 2 module digital timeswitch (5731s) provides for 50 programming selections.

The 2 channel 2 module digital timeswitch (5732s) provides a facility for independent control of two circuits. A maximum of 50 switching commands can be programmed for each channel.

All digital timeswitches have a minimum programming time of 1 minute and a manual override. Commands can be programmed for individual days or for groups of days.

Technical specification

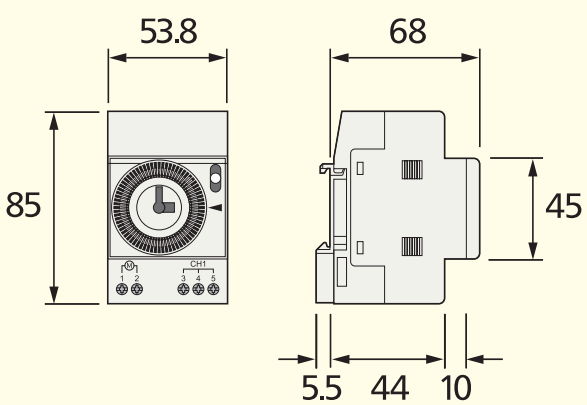
Electromechanical	5707s	5724s	5833s	5807s	5824s
Supply voltage	220-240V a.c. 50Hz	220-240V a.c. 50Hz	220-240V a.c. 50Hz	220-240V a.c. 50-60Hz	220-240V a.c. 50-60Hz
Maximum power consumption	1VA	1VA	1VA	1VA	1VA
Switching capacity per channel – Resistive – Inductive – Fluorescent	 16A 4A (Cos.Ø 0.6) 1350W	 16A 4A (Cos.Ø 0.6) 1350W	 16A 4A (Cos.Ø 0.6) 1350W	 16A 4A (Cos.Ø 0.6) 1350W	 16A 4A (Cos.Ø 0.6) 1350W
Switching arrangement	1 x c/o	1 x c/o	1 x n/o	1 x c/o	1 x c/o
No. of switching commands	56	48	48	56	48
Minimum programme time	3hrs	30mins	30mins	3hrs	30mins
Operating temperature range	–25°C to +55°C	–25°C to +55°C	–25°C to +55°C	–20°C to +55°C	–20°C to +55°C
Running reserve	–	–	–	*150hrs	*150hrs
Width of unit	54mm (3 mods)	54mm (3 mods)	18mm (1 mod)	54mm (3 mods)	54mm (3 mods)
Terminal capacity	2 x 2.5mm²	2 x 2.5mm²	2 x 4mm²	2 x 2.5mm²	2 x 2.5mm²

Digital and Time delay	5731s	5732s	5733s
Supply voltage	220-240V a.c. 50-60Hz	220-240V a.c. 50-60Hz	220-240V a.c. 50-60Hz
Maximum power consumption	5VA	5VA	5VA
Switching capacity per channel – Resistive – Inductive – Fluorescent	 16A 8A (Cos.Ø 0.6) 1000W	 16A 8A (Cos.Ø 0.6) 1000W	 16A 8A (Cos.Ø 0.6) 1000W
Switching arrangement	1 x c/o	2 x c/o	1 x c/o
No. of switching commands	50	50	50
Programme options	–	–	R/H
Minimum programme time	1min	1min	1min
Operating temperature range	-25°C to +55°C	-25°C to +55°C	-25°C to +55°C
Operating accuracy @ 20°C	2.5sec/day	2.5sec/day	2.5sec/day
Running reserve	3 years from factory	3 years from factory	3 years from factory
Width of unit	36mm (2 mods)	36mm (2 mods)	18mm (1 mod)
Terminal capacity	2 x 2.5mm²	2 x 2.5mm²	2 x 4mm²
Summer/winter changeover	Yes	Yes	Yes
Neon indicator lamp load	–	–	–

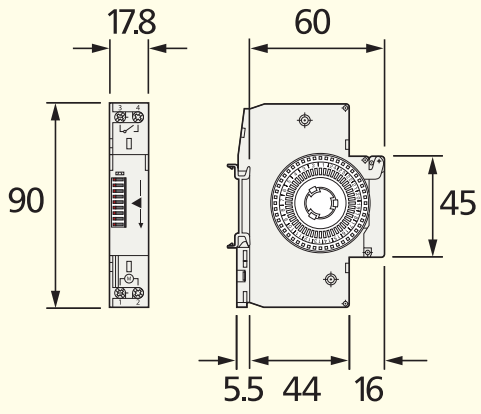
R/H = Random/holiday C/O = Changeover switch N/O = Normally open contact * = after 140hr charging time

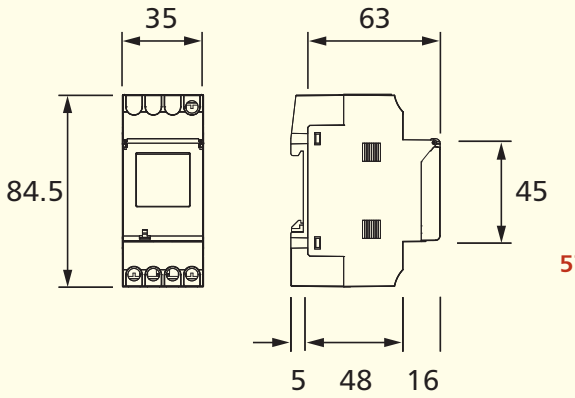
Dimensions (mm)

5707s/5724s/5807s/5824s

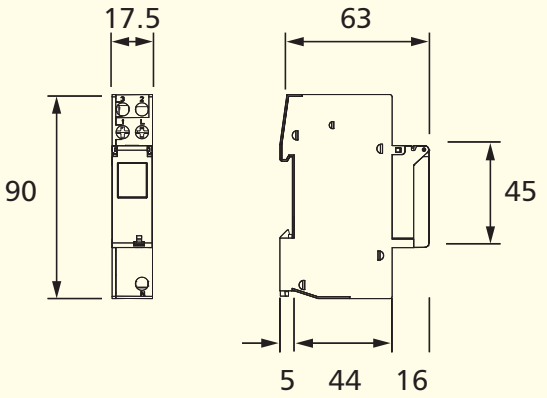


5833s





5731s/5732s



5733s



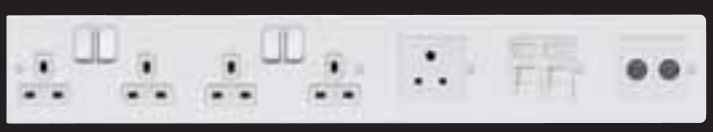
the york building, london

London's West End is renowned architecturally, for its style and sophistication and the York Building is no different.

The development, which occupies an island site close to Marble Arch, is a mix of commercial, retail and residential use. The 22 high quality residential apartments feature the latest and best in hi-tech services and MK was asked to design bespoke combination plates to provide a neat outlet for power and data applications.

The Design team came up with specially-designed in-line combination plates that met both the aesthetic and service requirements for these state of the art living spaces.

Available on a worldwide basis, the MK Design Service is supported by a dedicated team to ensure the seamless delivery of your chosen products.
To find out more visit **www.mkelectric.co.uk**



Sentrysocket

Compliance with EC Directives, Standards and approvals

All Sentrysockets comply with the following EC Directives and are CE marked:

Low Voltage Directive
Electromagnetic Compatibility Directive (89/336/EEC)

Sentrysocket RCD Single Sockets comply with the requirements of the following standards:

BS 7288:1990
BS EN 50082-1: 1998

Sentrysocket RCD Double Socket also complies with the requirements of BS EN 61543:1996

Technical specification

Electrical

Rated Voltage:
240V a.c.

Current rating:
13A resistive

Rated tripping current
30mA and 10mA versions

Terminal capacity:
3 x 4mm² for 1 gang
2 x 4mm² for 2 gang

Physical

Ambient operating temperature:
–5°C to +40°C

IP rating:
IP4X

Max. installation altitude:
2000 metres

Sentrysockets are only suitable for use in TN-S system where the Supply Neutral Connection is connected to the Supply Earth.

They are not suitable for connection across two lines of a 127V line to Neutral Voltage System.

Cable management

Decorative finish Sentrysockets can be mounted in a variety of MK trunking systems.

Installation

Flush mounting steel wall box

It should be noted that some of the conduit entries may be restricted, depending upon their positions and the depth of box used.

For a full range of corresponding products, see pages 292-293 in the product selector.





Description

Sentrysocket provides a high level of protection against electrocution and gives further protection when used with appliances vulnerable to insulation damage, particularly when they are in damp environments or outdoors. The Sentrysocket units are not suitable for mounting in damp environments or outdoors.

Sentrysocket, incorporating an RCD, is part of a complete range of fixed and portable wiring devices and circuit protection devices suitable for use in domestic, commercial and light industrial applications.

Active control circuits

Incorporate a 'Re-set' mechanism and are mains failure sensitive, i.e. they will function under all the normal conditions expected of an RCD, but will also trip in the event of a power cut or a sudden, dramatic reduction in mains voltage. This makes them ideal for use where it would be hazardous for equipment to suddenly energise after return of mains power, such as use with rotating machinery and heat developing apparatus.

Passive control circuits

Incorporate a 'Stay-set' mechanism and is mains failure proof, i.e. it will function under all the normal conditions expected of an RCD and will not trip in the event of a power cut. This makes it suitable for use with freezers or in inaccessible or unmanned locations.

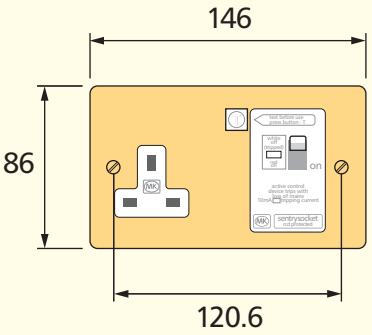
Features

- Suitable for most residential, commercial and light industrial applications
- Active and passive control circuit applications
- Comply fully with current Wiring Regulations
- Double pole switching
- Flexible and versatile in use
- Ideal for use with equipment subject to wet weather or high humidity
- Part of a complete range of MK circuit protection devices
- They are a.c. and pulsating d.c. sensitive for residual current

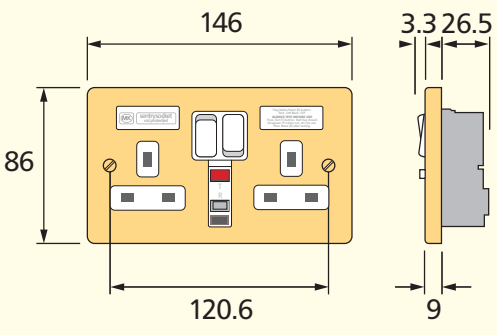
Sentrysockets products can be wall or bench mounted. Do not mount or use as a trailing socket or where they maybe subject to excessive moisture or dampness.

Dimensions (mm)

Single socket



Double socket



Sentrysocket

Installation

Flush mounting steel wall box

It should be noted that some of the conduit entries may be restricted, depending upon their positions and the depth of box used.

Socket Testing:

Single Socket Testing

After installation, turn the mains electricity supply on.

To test that the Sentrysocket is functioning correctly:

1. Ensure that no appliance is connected to the Sentrysocket. **Switch Sentrysocket on**: The switch should remain closed and the red flag will appear in the window. If the switch fails to remain closed, check that the Supply L and N connections are not reversed or the Supply N connection is not open circuit. If the Sentrysocket is correctly connected and still trips after being switched on, the Sentrysocket is faulty and should not be used
2. If the Sentrysocket stays on, **press the test button**: The switch will open and the white flag will appear In the window. If the Sentrysocket does not trip and there is mains voltage present at the socket outlet, Sentrysocket is faulty and should not be used.
3. **Switch Sentrysocket on**: Connect an RCD tester and ensure that the Sentrysocket trips within the specified time:

   ≤ 200 ms AT RATED TRIP CURRENT

   ≤ 40 ms AT 5 x RATED TRIP CURRENT

   If the Sentrysocket does not trip within the specified times then the product is faulty and should not be used (If more than one RCD is in series then there is no guarantee as to which device will trip first).
4. **Reset all tripped RCD's including the Sentrysocket.**
5. **Switch off the mains supply switch disconnector**. On mains failure, a Sentrysocket with Active Control Circuit will trip, whilst a Sentrysocket with Passive Control Circuit will not trip. If the Active Control device does not trip, it is faulty and should not be used – see note below. If no faults have been found then installation testing has been completed successfully.

Note: If a fault is identified at any stage of installation testing procedure do not use Sentrysocket, and contact your local electrician, or your local MK stockist.

Double Socket Testing

After installation, turn the mains electricity supply on.

To test that the Sentrysocket is functioning correctly follow the steps 1 to 4 below:

1. Ensure that no appliance is connected to the Sentrysocket.
2. **Reset** – Press the button marked R (for Reset) – the contact status indicator should show red, indicating that the socket outlets are now live (if the switches are in the ON positions).
3. **Test** – Press the TEST button marked T (for Test), the product should trip with the contact status indicator showing black. In this state the socket outlets are disconnected from the supply.
4. **Reset** – Press the button marked R again, the contact status indicator should show red.
5. Connect an RCD Tester to either socket outlet and ensure that the Sentrysocket trips with the specified times below:

   ≤ 200 ms AT RATED TRIP CURRENT

   ≤ 40 ms AT 5 x RATED TRIP CURRENT
6. Reset the Sentrysocket as in step 2 above.
7. Switch off the Mains Supply Switch Disconnector.
8. A Sentrysocket with Active Control Circuit should trip while a Sentrysocket with Passive Control Circuit should not trip.

If all the operations in steps 2 to 8 above give correct results, the Sentrysocket RCD socket outlet is safe to use.

If the procedures in steps 2 to 8 above are not completed correctly, do not use the Sentrysocket product and seek professional advice or contact the MK Technical Sales and Service department on +44 (0)1268 563720.

Range Technical Data

Cable Management

Perimeter and Distribution

Cable Management Overview An introduction and technical overview to MK cable management	572-573
Prestige 3D Dado and Skirting The new three compartment dado trunking system for compliance with Cat 6 structured cabling	574-583
Prestige 3D Antibac Blue Antibacterial solution for power and data distribution in environments where hygeine is priority.	574-583
Prestige 3D Compact 3 compartment trunking with a smaller footprint for more confined installations	574-583
Prestige 3D Aluminium Unbeatable strength with gently curved aesthetics	574-583
Prestige 2com Two compartments provide maximum data capacity around radiused bends	585-591
Prestige Poles and Posts Poles and Posts for supplying multi-services to work stations	592-593
Powerlink Plus Busbar trunking system with flush fitting accessories	594-601
Pinnacle Versatile angular bench trunking system	602-606
Pinnacle Pillar Multi compartment trunking for perimeter locations	607
Premier Integrated trunking system with snap fit mouldings	608-615
Norwich Durable and popular trunking system	616-620
Ega Industrial Heavy duty trunking in a variety of sizes	622-627
Ega Cornice Trunking for wall/ceiling junctions	628-631

Range	Technical Data
Conduit and Mini	
Egatube Conduit High impact conduit with a comprehensive range of fittings	632-637
Egatube Oval Conduit Oval conduit	N/A
Egaflex Conduit Corrugated flexible conduit	N/A
Ega Mini Trunking Wide selection of mini trunking profiles and fittings	638-640
Alarm and Communication	
Red Alert Trunking for alarm circuit identification	638-640
Ega Communication Unobtrusive low profile trunking	638-640

Material Specification

PVCu

PVCu is used for the production of extrusions and mouldings and is universally accepted as having the most suitable properties for use within the electrical industry.

Standards and Approvals

All MK PVCu products are manufactured in accordance with the requirements of BS EN 50085 Series, BS 4678: Part 4, BS EN 61386 Series and BS 4662. The PVCu material used has been tested by an approved laboratory in accordance with the requirements of the following British Standards: BS 4607: Part 1, BS 476: Part 7. Copies of test certificates are available upon request. MK has been awarded ISO 9001: 2008 accreditation. The system complies with all relevant requirements of BS 7671: 2008.

CE marking

All relevant MK products in this brochure are CE marked, confirmation that they meet the EMC and LV directives.

Performance

Strength	Impact resistance normal climatic conditions, BS 4678: medium duty	High impact resistance under	
	Charpy notched impact strength		25 kJ/m^2
	Tensile strength at break	at yield 42.00 N/mm^2	34.62 N/mm^2

Fire performance

The PVC-U materials used in the manufacture of MK products are non-flame propagating in accordance with BS EN 61386, BS EN 50085 and BS 4678. Extrusion material has been tested by an accredited laboratory in accordance with the requirements of BS 476: part 7 and has achieved a Class 1Y classification. Moulding material has been tested by an accredited laboratory and conforms with IEC 695-2-1 at a severity of 650ºC.

Thermal properties

All MK PVCu products are designed to accommodate local thermal expansion. Fitting instructions explain the procedure required to deal with the differential movement at the interface with the building fabric.

Coefficient of linear expansion	55 x 10^{-6}/°C (5mm/3000mm with a temperature rise of 25°C)
Operating temperatures	-5° to 60°C
Vicat softening point	81ºC
Thermal conductivity	0.19w/mk

Chemical resistance

PVCu is non-corrosive and not affected by sea water. It has excellent resistance to mineral acids, alkalis and detergents, good resistance to alcohols, but liable to attack from solvents such as keytones, aromatics and hydrocarbons.

Electrical

PVCu is non-conductive.

Dielectric strength	40 kV/mm in DBP
	17 kV/mm in tx oil
Resistivity	1014 Ω ohm

Biological

Resistant to vermin and termites.

Workability

All MK PVCu products are lightweight and can be readily cut and drilled with hand tools. Short component lengths can be readily incorporated, reducing wastage of material. All covers and accessories are manufactured to fine tolerances to ensure a tight fit with ease of removal. Stop ends are secured to the carriers. For details, see the relevant installation guide.

Durability

All MK PVCu products are stable and will maintain their performance characteristics in accordance with the terms and conditions described above.

Maintenance

Clip-on covers with optional screw fix and interchangeable accessories provide continuous accessibility for rewiring, extensions and modifications to an installation. Covers and accessories can be cleaned with a damp cloth and household detergent. The surface can be decorated with commercial paints if required

Mechanical performance

Impact resistance at -5^{0}C, BS EN 50085: medium duty for trunking, BS EN 61386 heavy or medium, where relevant for conduits.

Aluminium

Standards and approvals

The Prestige 3D Aluminium System is manufactured in accordance with the requirements of BS EN 50085-1:2005 and BS EN 50085-2-1:2006. 1, 2 & 3 Gang Boxes conforming to BS 4662 where applicable.

IEE Wiring Regulations

All products are designed and manufactured to allow installation to comply with all relevant requirements of the latest edition of BS 7671: 2008.

Quality Assurance

The system is manufactured to BS EN ISO 9001: 2008

Earth Continuity

The system makes provision for earth bonding where required in accordance with BS 7671: 2008.

When PVC cable trunking items are used that interrupt the earth continuity, Earth Kits (VP218 & VP219) are required to ensure continuity.

Impact Classification

Composite trunking systems (PVC / Al) will withstand "medium" impact to BS EN 50085. Metal components will withstand "heavy" impact as defined in BS EN 50085.

Thermal Properties

Min/Max installation and application temperature –5 to +60°C.

Coefficient of linear expansion 23 x 10-6 per°C.

1mm/m for 40 degree rise.

Maintenance

Resistant to staining. Wipe with soapy water (neutral 5/7 ph value).

Electrical Properties

Resistance to 0.03 ohm mm^2/m.

Chemical Properties

Corrosion only occurs, to any extent, when ph value is less than 3 or greater than 9.

PVCu Chemical Resistance Table

The resistance of unplasticised PVC to a wide range of chemicals is listed in the table below.

The symbols used to denote performance are as follows:

- ▲ Satisfactory
- ● Some attack or absorption: the material may be considered for use when alternative materials are unsatisfactory and where limited life is acceptable. When PVC is to be used with such chemicals full scale trials under realistic conditions are necessary.
- ■ Unsatisfactory: so rated because of decomposition, solution, swelling, loss of ductility etc, of the samples tested.

For clarification and for details of resistance to other chemicals please call our Technical Hotline on +44 (0)1268 563720.

Note: to determine the suitability of PVCu for external applications we strongly advise you contact the MK Technical Sales and Service Department on +44 (0)1268 563720.

CHEMICAL	CONCENTRATION	UNPLASTICISED PVC 20°C	60°C
acetaldehyde	40% aq. solution	▲	■
acetic acid	60% aq. solution	▲	■
acetic anhydride		■	■
acetone	Traces	■	■
alcohol, ethyl	40% w/w water	▲	●
alcohol, isopropyl		▲	▲
alcohol, menthyl	6% aq. solution	▲	▲
	100%	▲	●
aliphatic hydrocarbons		▲	▲
aluminium chloride		▲	▲
aluminium hydroxide		▲	▲
ammonia	0,88S.G., aq. solution	▲	▲
	Anhydrous gas	■	■
	Anhydrous liquid	■	■
ammonium chloride		▲	▲
ammonium hydroxide		▲	▲
aniline		■	■
animal oils		▲	▲
aqua regia	Dilute	▲	▲
	Concentrated	▲	■
barium sulphate		▲	▲
beer		▲	
benzine		■	■
benzoyl chloride		■	■
borax		▲	▲
boric acid		▲	▲
brine		▲	▲
bromide	Traces, gas	●	■
	100% (dry gas)	■	■
	Liquid	■	■
calcium chloride	aq. solution	▲	▲
	20% in methyl alcohol	▲	
calcium hydroxide		▲	▲
calcium hypochlorite		▲	▲
carbon dioxide		▲	▲
carbonic acid		▲	▲
carbon monoxide		▲	▲
carbon tetrachloride		●	■
castor oil		▲	
chloric acid		▲	
chlorine	100% (dry gas)	▲	●
	10% (moist gas)	●	
chlorine water	Sat. solution	●	●
chloroform		■	■
chrome allum		▲	▲
chromic acid	Plating solution	▲	▲
cider		▲	
citric acid		▲	▲
copper chloride		▲	▲
copper cyanide		▲	▲
copper nitrate		▲	▲
copper sulphate		▲	▲
cupric sulphate		▲	▲
cyclohexanone		■	■
detergent, synthetic	All concentrations	▲	▲
developers, photographic		▲	▲
dextrin		▲	▲
dextrose		▲	▲
diazo salts		▲	▲
dichlorodifluoromethane		▲	
diethyl ether		■	■
emulsifiers	All concentrations	▲	▲
emulsions, photographic		▲	▲
ethyl acetate		■	■
ethylene glycol		▲	▲
ethylene oxide		■	■
fatty acids		▲	▲
ferric chloride		▲	▲
ferric nitrate		▲	▲
ferric sulphate		▲	▲
ferrous ammonium citrate		▲	▲
ferrous chloride		▲	▲
ferrous sulphate		▲	▲
fixing solution, photographic		▲	▲
fluorine		●	●
formaldehyde	40% w/w water	▲	▲
formic acid	50% solution	▲	▲
	100% solution	▲	■
fructose		▲	▲
fruit pulp		▲	▲
glucose		▲	▲
glycerol		▲	▲
grape sugar		▲	▲
heptane		▲	▲
hydrobromic acid	100%	▲	▲
hydrochloric acid	22% aq. solution	▲	▲
	Concentrated	▲	▲
hydrochloric acid	40% aq. solution	▲	●
	60% aq. solution	●	■
	Concentrated		
hydrogen bromide	Anhydrous	▲	▲
hydrogen chloride	Anhydrous	▲	▲
hydrogen flouride	Anhydrous	▲	▲
hydrogen peroxide	3% (10vol)	▲	▲
	12% (40vol)	▲	▲
	30% (100vol)	▲	▲
	90% and above	▲	
hydrogen sulphide		▲	▲
iodine	Solution in potassium iodine	■	■
lactic acid	10% aq. solution	▲	▲
	100%	●	●
lanoline		▲	▲
linoletic acid		▲	▲
linseed oil		▲	▲
magnesium hydroxide		▲	▲
maleic acid	50% aq. solution	▲	
	Concentrated	▲	●
metallic soaps (water soluble)		▲	▲
methyl bromide		■	■
methyl chloride		■	■
methyl cyclohexanone		■	■
methyl ethyl ketone		■	■
methyl isobutyl ketone		■	■
methylated spirit		▲	
methylene chloride		■	■
milk		▲	▲
mineral oil		▲	▲
mixed acids (sulphuric/nitric	Various proportions)	●	■
molasses		▲	▲
naphtha		▲	▲
naphtalene		■	■
nicotine		▲	▲
nitric acid	5% aq. solution	▲	
	50% aq. solution	▲	●
nitrobenzene		■	■
oleic acid		▲	▲
oxalic acid		▲	▲
oxygen		▲	▲
ozone		▲	▲
paraffin		▲	▲
pentane		▲	▲
petrol		▲	▲
phosphoric acid	30% aq. solution	▲	▲
	95% aq. solution	▲	▲
photographic developers		▲	▲
potassium bromide		▲	▲
potassium carbonate		▲	▲
potassium cyanide		▲	▲
potassium ferricyanide		▲	▲
potassium hydroxide			
	10% aq. solution	▲	▲
	Concentrated	▲	▲
potassium hypochlorite		▲	▲
potassium permanganate		▲	▲
propane		▲	▲
propylene glycol		▲	▲
propylene oxide		■	■
saccharose		▲	▲
sea water		▲	▲
silver nitrate		▲	▲
soap solution		▲	▲
sodium bicarbonate		▲	▲
sodium bisulphate		▲	▲
sodium borate		▲	▲
sodium bromide		▲	▲
sodium carbonate		▲	▲
sodium chlorate		▲	▲
sodium chloride		▲	▲
sodium cyanide		▲	▲
sodium ferricyanide		▲	▲
sodium ferrocyanide		▲	▲
sodium fluoride		▲	▲
sodium hydroxide	40% aq. solution	▲	▲
	Concentrated	▲	▲
sodium hypochlorite	15% Cl	▲	▲
sodium hyposulphate		▲	▲
sodium nitrate		▲	▲
sodium peroxide		▲	▲
sodium silicate		▲	▲
sodium sulphate		▲	▲
sodium sulphide	25% aq. solution	▲	▲
	Concentration	▲	▲
sodium sulphite		▲	▲
soft soap		▲	▲
surface active agents (emulsifiers, synthetic detergents and wetting agents)	All concentrations	▲	▲
starch		▲	▲
stearic acid		▲	▲
sucrose		▲	▲
sulphur	Colloidal	▲	▲
sulphur dioxide	Dry	▲	▲
	Liquid	●	■
sulphuric acid	80% aq. solution	▲	▲
	90% aq. solution	▲	●
	Fuming	■	■
sulphurous acid	10% aq. solution	▲	▲
tallow		▲	▲
tanning extracts		▲	▲
tartaric acid		▲	▲
transformer oil		▲	▲
trichloroethane		■	■
trichloroethylene		■	■
turpentine		▲	▲
vegetable oils		▲	▲
vinegar		▲	▲
water		▲	▲
wetting agents	All concentrations	▲	▲
wines and spirits		▲	
xylene		■	■
zinc carbonate		▲	▲
zinc chloride		▲	▲
zinc sulphide		▲	▲

Data Trunking System

Standards and approvals

The Prestige 3D System is manufactured in accordance with the requirements of BS EN 50085-1: 2005 and BS 4662: 2006. Copies of test certificates are available upon request. The system complies with all the relevant requirements of BS 7671: 2008. MK has been awarded ISO 9002 accreditation.



Features

- Greater trunking depth, increased data and power cable capacity, accepts 45mm deep back boxes
- Patented Cat 5e, 6 and 7 compliant Data Sweep, with no loss of capacity and without the need for bulbous, protruding corner covers
- Cat 5e, 6 and 7 compliant moulded flexible Internal and External Corners, moulded Flat Angles and Tees
- Divider Knockouts, making wiring easier and faster with no drilling or cutting
- Patented two stage Hinge Lids enables cables to be supported by the trunking cover during installation, and makes retro-installation of additional cables more simple
- All extrusions manufactured from 90% recycled material*

Prestige Antibac Blue

New from MK, an antibacterial cable management solution for power and data distribution in environments where hygiene is a prioty.

Prestige Compact

A Dado system which has a smaller footprint and offers a solution for confined locations, such as between radiators and window sills.

* Based on 2008 consumption

Description

Prestige 3D is the new three compartment dado, skirting and compact trunking from MK that satisfies the growing data demands of cable management installations. As well as providing greater depth for larger cable capacity, Prestige 3D is rich in new features, offering installation benefits and improved cable management. Prestige 3D is Cat 5e, 6 and 7 compliant, with the new Data Sweep, Flat Angles and Tees, all allowing continuous cable capacity.

Technical specification

CE marking
All relevant MK products in this brochure are CE marked, confirmation that they meet the EMC and LV directives.

Manufacture
All trunking components are manufactured from PVCu.

Appearance
Prestige 3D is manufactured in white. The trunking surface can be painted, if required, after installation. Antibac Blue must not be painted or otherwise coated.

Performance

Impact	Medium
Minimum Storage Temperature	-25ºC
Minimum Installation Temperature	-5ºC
Maximum Application Temperature	+60ºC

Fire performance
The PVCu materials used in the manufacture of MK products are non-flame propagating in accordance with BS EN 50085-1: 2005.

Extrusion material has achieved classification 1Y in accordance with BS 476-7. Moulding material has achieved 650ºC glow wire rating in accordance with BS EN 60695-2-11: 2001.

Thermal properties
Prestige 3D trunking is designed to accommodate local thermal expansion. Fitting instructions explain the procedure required to deal with the differential movement at the interface with the building fabric.

Linear Expansion: 4mm over every 3000mm with a temperature rise of 25ºC.

Chemical resistance
The PVCu materials used are non-corrosive and not affected by seawater. It has excellent resistance to mineral acids, alkalis and detergents, good resistance to alcohols, but is liable to attack from solvents such as ketones, aromatics and hydrocarbons.

Electrical
Prestige 3D trunking is non-conductive.

Dielectric strength	40 kV/mm in DBP
	17 kV/mm in tx oil
Resistivity	1014 Ω cm

Biological
Prestige 3D trunking is resistant to vermin and termites.

Workability
Prestige 3D trunking is lightweight and can readily be cut and drilled to suit installation needs with hand tools.

Durability
Prestige 3D trunking is stable and will maintain its performance characteristics in accordance with the terms and conditions described above.

Maintenance
Clip-on covers with optional screw fix and interchangeable accessories provide continuous accessibility for rewiring, extensions and modifications to an installation. Covers and accessories can be cleaned with water and household detergent. The surface can be decorated with commercial paints if required.

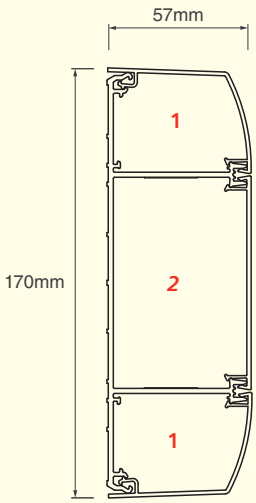
Data Trunking System

Dimensions (mm)

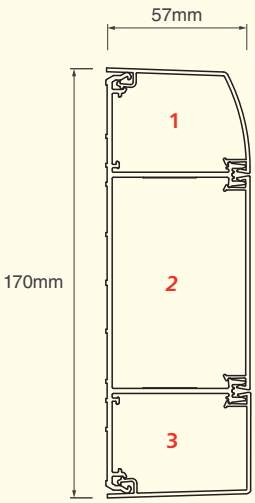
Profiles
Compartment CSA mm²
1 = 1763
2 = 3828
3 = 1952

Assembly
Dado = 1.58 kg/m
Skirting = 1.60 kg/m

Wall Thickness
VP100 = 1.7mm
VP110 = 1.7mm
VP115 = 1.7mm
VP180 = 2.0mm



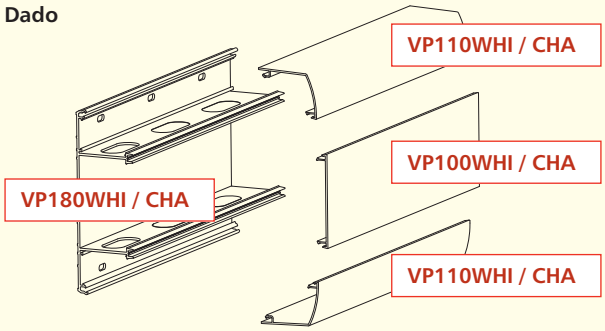
Dado



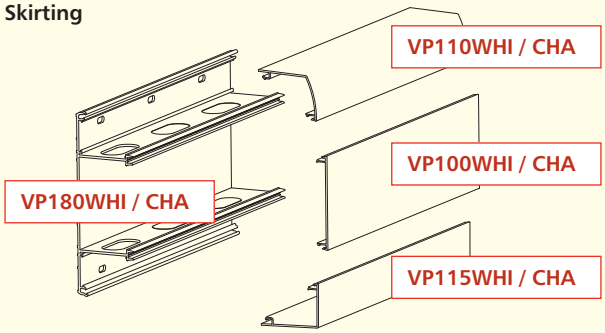
Skirting

Component selection guide

Dado



Skirting



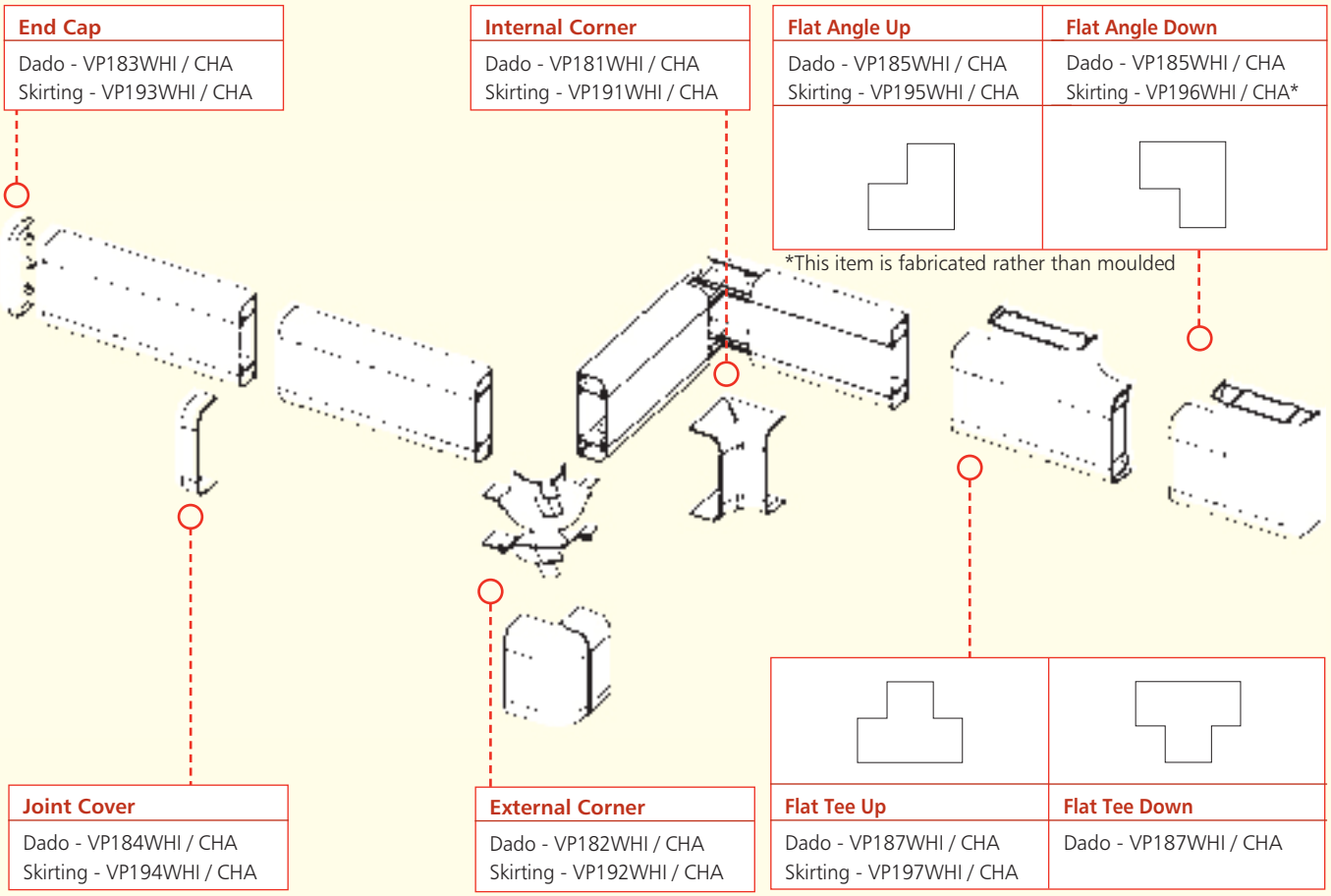
CABLE CAPACITY

Type of conductor	Size	Cable factor	Compartment 1	Compartment 2	Compartment 2 with 45mm deep box	Compartment 3
			Full Term CSA (mm²)			
			1763	3828	610	1952
			Term at 45% fill (mm²)			
			793	1722	274	878
Power cables			Number of cables at 45% fill			
PVC stranded	1.5mm²	8.6	92	200	31	102
	2.5mm²	12.6	62	136	21	69
	4mm²	16.6	47	103	16	52
	6mm²	21.2	37	81	12	41

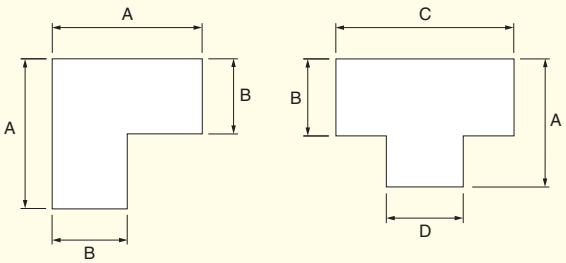
Data cables			Number of cables at 45% fill (a) and full capacity (b)							
			a	b	a	b	a	b	a	b
Cat 5E UTP	5.5mm dia.	30.2	26	58	57	126	9	20	29	64
Cat 5E STP	6.0mm dia.	36.0	22	48	47	106	7	16	24	54
Cat 6 UTP	6.5mm dia.	42.2	18	41	40	90	6	14	20	46
Cat 6 STP	7.0mm dia.	49.0	16	35	35	78	5	12	17	39
Cat 7	8.0mm dia	64.0	12	27	26	59	4	9	13	30

Data Trunking System

Component selection guide



Flat angles and tees



FLAT ANGLES AND TEES DIMENSIONS (mm)					
LIST NO	DESCRIPTION	A	B	C	D
VP185WHI / CHA	Flat Angle	218mm	170mm		
VP187WHI / CHA	Flat Tee	202mm	170mm	235mm	170mm
VP195WHI / CHA	Flat Angle Up	218mm	170mm		
VP196WHI / CHA	Flat Angle Down	270mm	170mm		
VP197WHI / CHA	Flat Tee Up	202mm	170mm	235mm	170mm

Prestige 3D Antibac Blue
Installation

When planning the installation establish the layout of your system, paying particular attention to:

- **Direction Changes**
- **Feed Positions**
- **Component Spacing**

The carrier components are not treated with the antibacterial additive. As such these must always be fixed onto a surface where they will not be touched once the installation is complete.

During the installation of Prestige 3D Antibac Blue no special treatment of the product is required. There is no need for an installer to wear sterile gloves, use sterile tools or undertake special training.

Once installed, the Prestige 3D Antibac Blue system carries a 10 year guarantee, the same as all MK Cable Management products, giving both the installer and specifier confidence and peace of mind. The unique addition of a fluorescent additive gives further confidence, clearly identifying the product as Prestige 3D Antibac Blue. A bright blue glow under UV light indicates the antibacterial additive is present, a dull purple glow under UV light indicates standard PVCu.



When maintaining the product after installation, no special treatment is required. The antibacterial additive depends on intimate contact between surfaces of the trunking and the user, so any barriers such as dirt or grime will reduce or negate the antibacterial effect. However, the exterior of the trunking can be cleaned very simply using a damp cloth with a mild detergent, which must be thoroughly wiped off. Alternatively the trunking can also be cleaned using Ultraviolet light. Prestige 3D Antibac Blue is not intended to replace standard cleaning regimes. It is an additional protection which can only operate efficiently if the surfaces are kept free of dirt and grime. Before hand-over to the client the entire trunking run must be thoroughly cleaned as described in the product installation guide.

Prestige 3D Antibac Blue product and packaging is recyclable. At the end of its useful life it should be recycled where facilities exist.

The additive used in Prestige 3D Antibac Blue is registered with the Environmental Protection Agency (EPA) and is compliant with the European Biocidal Products Directive (BPD).

Prestige 3D Antibac Blue is easily distinguishable from standard Prestige 3D, it has a different protective film and has a unique patent pending fluorescence under UV light which glows bright blue.



Prestige 3D Antibac Blue

Data Trunking System

Standards and approvals

The Prestige 3D Compact System is manufactured in accordance with the requirements of BS EN 50085-1:2005 and BS 4662: 2006. Copies of test certificates are available upon request. The system complies with all the relevant requirements of BS 7671: 2008. MK has been awarded ISO 9002 accreditation.

Features

- Unique 'open box' mounting frames combined with divider knockouts to provide unhindered tool-free cable entry
- Patented Cat 5e, 6 and 7 compliant Data Sweep, with no loss of capacity and without the need for bulbous, protruding corner covers
- Cat Cat 5e, 6 and 7 compliant moulded flexible Internal and External Corners, moulded Flat Angles and Tees
- Divider Knockouts, making wiring easier and faster with no drilling or cutting
- Patented two stage Hinge Lids enables cables to be supported by the trunking cover during installation, and makes retro-installation of additional cables more simple
- Pre-punched bases
- Attractive easy to fit single piece covers for flat angle and flat tee
- Curved outer covers that complement MK Logic Plus accessories
- All extrusions manufactured from 90% recycled material*



Description

Prestige 3D Compact satisfies the growing data demands in more confined locations. Prestige 3D Compact has a smaller footprint than Prestige Plus and Prestige 3D and is rich in features, offering installation benefits and improved data cable management. The new concept uses the full trunking depth with a sliding open box (frame) principal to ease power and data connections. Prestige 3D Compact trunking is capable of being installed to Cat 5e, 6 and 7 data cable installation requirements, and the depth is more conducive to data accessories.

The centre compartment is intended for accessory mounting only. Power and data cables are to be run in the outer compartments.

Technical specification

CE marking
All relevant MK products in this brochure are CE marked, confirmation that they meet the EMC and LV directives.

Manufacture
All trunking components are manufactured from PVCu.

Appearance
Prestige 3D Compact is manufactured in white. The trunking surface can be painted, if required, after installation.

Performance

Impact	Medium
Minimum Storage Temperature	-25ºC
Minimum Installation Temperature	-5ºC
Maximum Application Temperature	+60ºC

Fire performance
The PVCu materials used in the manufacture of MK products are non-flame propagating in accordance with BS EN 50085-1: 2005.

Extrusion material has achieved classification 1Y in accordance with BS 476-7: 1997. Moulding material has achieved 650ºC glow wire rating in accordance with BS EN 60695-2-11: 2001.

Thermal properties
Prestige 3D Compact trunking is designed to accommodate local thermal expansion. Fitting instructions explain the procedure required to deal with the differential movement at the interface with the building fabric.

Linear Expansion: 4mm over every 3000mm with a temperature rise of 25ºC.

Chemical resistance
The PVCu materials used are non-corrosive and not affected by seawater. It has excellent resistance to mineral acids, alkalis and detergents, good resistance to alcohols, but is liable to attack from solvents such as ketones, aromatics and hydrocarbons.

Electrical
Prestige 3D Compact trunking is non-conductive.

Dielectric strength	40 kV/mm in DBP 17 kV/mm in tx oil
Resistivity	1014 Ωcm

Biological
Prestige 3D Compact trunking is resistant to vermin and termites.

Workability
Prestige 3D Compact trunking is lightweight and can readily be cut and drilled to suit installation needs with hand tools.

Durability
Prestige 3D Compact trunking is stable and will maintain its performance characteristics in accordance with the terms and conditions described above.

Maintenance
Clip-on covers with optional screw fix and interchangeable accessories provide continuous accessibility for rewiring, extensions and modifications to an installation. Covers and accessories can be cleaned with a damp cloth and household detergent. The surface can be decorated with commercial paints if required.

* Based on 2008 consumption

Data Trunking System

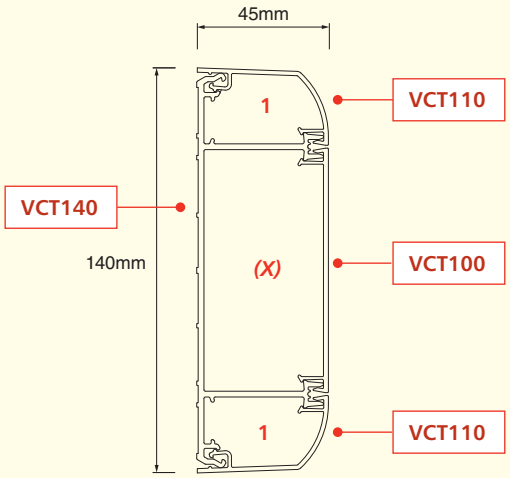
Dimensions (mm)

Profiles
Compartment CSA mm²
1 = 742
2 = 1431

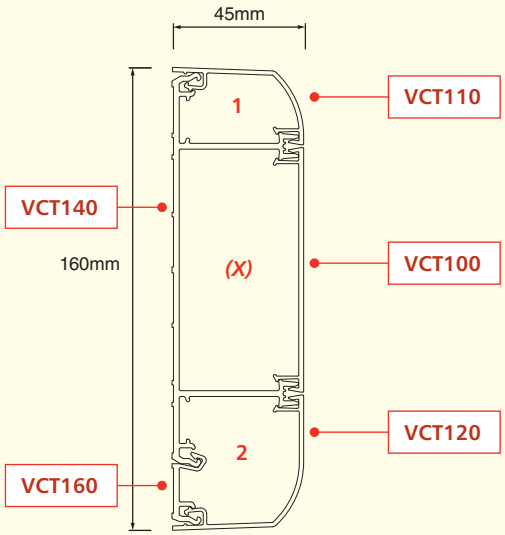
***(X) = 3035**

Assembly
Dado = 1.20 Kg/m
Extended Dado = 1.35 Kg/m

Wall Thickness
VCT100 = 1.7mm
VCT110 = 1.7mm
VCT120 = 1.7mm
VCT140 = 2.0mm
VCT160 = 2.0mm



DADO



EXTENDED DADO

CABLE CAPACITY

Type of conductor	Size	Cable factor	Compartment 1		Compartment 2		Compartment (X)	
			Full Term CSA (mm²)					
			742		1431		3035	
			Term at 45% fill (mm²)					
			333		643		1365	
Power cables			Number of cables at 45% fill					
PVC stranded	1.5mm²	8.6	38		74		158	
	2.5mm²	12.6	26		51		108	
	4mm²	16.6	20		38		82	
	6mm²	21.2	15		30		64	
Data cables			Number of cables at 45% fill (a) and full capacity (b)					
			a	b	a	b	a	b
Cat 5E UTP	5.5mm dia.	30.2	11	24	21	47	45	100
Cat 5E STP	6.0mm dia.	36.0	9	20	17	39	37	84
Cat 6 UTP	6.5mm dia.	42.2	7	17	15	33	32	71
Cat 6 STP	7.0mm dia.	49.0	6	15	13	29	27	61
Cat 7	8.0mm dia.	64.0	5	11	10	22	21	47

* Compartment (X) dimensions and capacity are given as guide only for instances where trunking is used for cable routing e.g. vertical drops/risers.

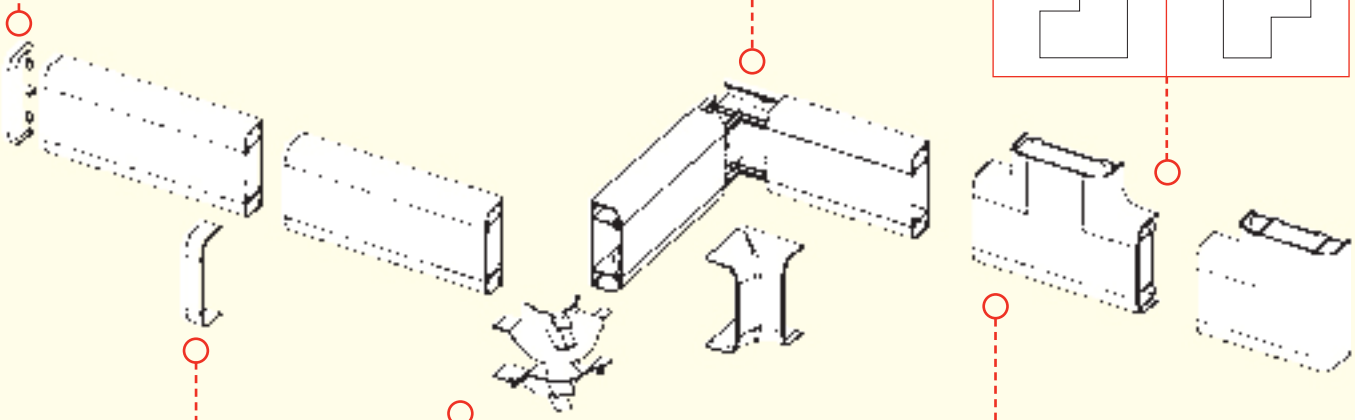
Data Trunking System

Component selection guide

Profile	End Cap
140mm	VCT143WHI
160mm	VCT163WHI

Profile	Internal Corner
140mm	VCT141WHI
160mm	VCT161WHI

Profile	Flat Angle Up	Flat Angle Down
140mm	VCT145WHI	VCT145WHI
160mm	VCT165WHI	VCT166WHI

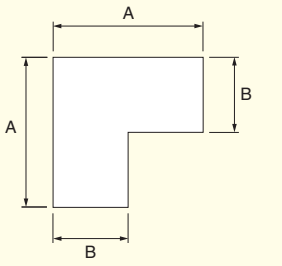


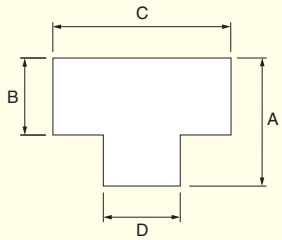
Profile	Joint Cover
140mm	VCT144WHI
160mm	VCT164WHI

Profile	External Corner
140mm	VCT142WHI
160mm	VCT162WHI

Profile	Flat Tee Up	Flat Tee Down
140mm	VCT147WHI	VCT147WHI
160mm	VCT167WHI	

Flat angles and tees



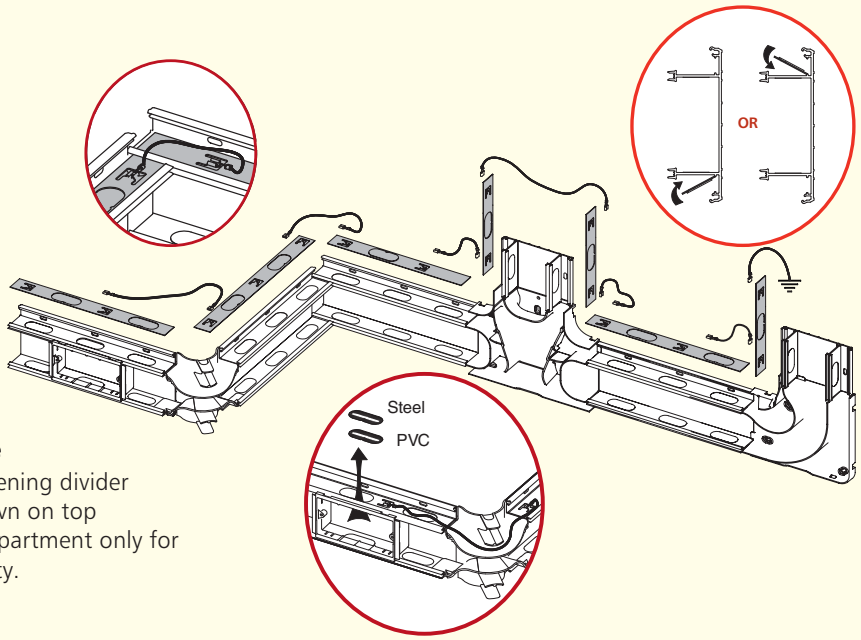


FABRICATED ANGLES AND TEES DIMENSIONS (mm)

LIST NO	DESCRIPTION	A	B	C	D
VCT145WHI	Flat Angle 140 (Dado)	190mm	140mm		
VCT147WHI	Flat Tee 140 (Dado)	200mm	140mm	235mm	140mm
VCT165WHI	Flat Angle – Up 160 (Extended Dado)	215mm	160mm		
VCT166WHI	Flat Angle – Down 160 (Extended Dado)	215mm	160mm		
VCT167WHI	Flat Tee – Up 160 (Extended Dado)	220mm	160mm	235mm	140mm

Data Trunking System

Screening assembly (optional)



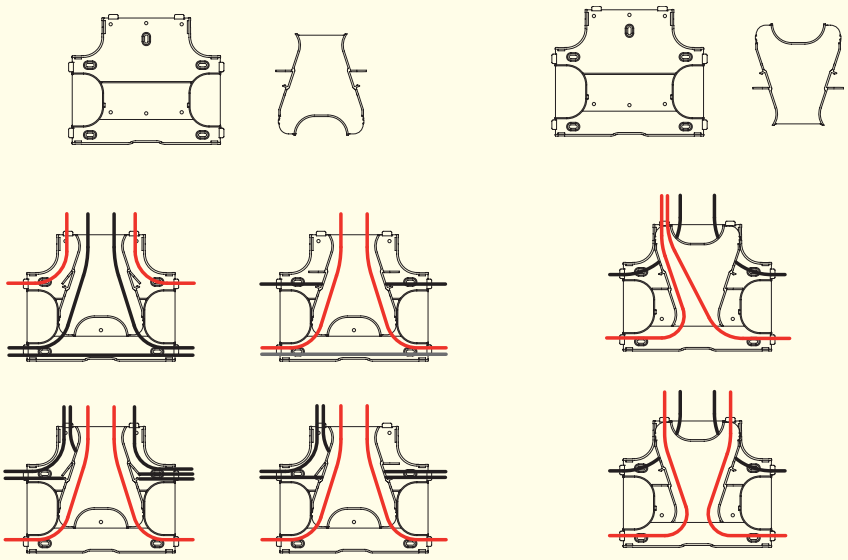
Note
Screening divider shown on top compartment only for clarity.

PRODUCT IDENTIFICATION	
VP30 / VCT30 Screening Divider 1.5m (steel)	
VX31 Screening Cable 300mm	
VX32 Screening Braid 500mm	
VX33 Screening Cable 500mm plus	

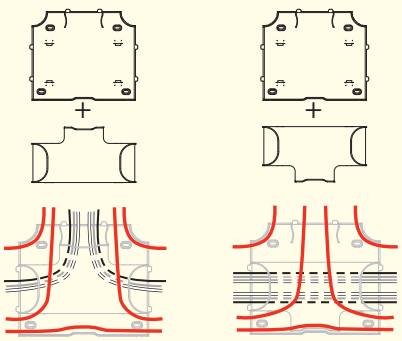
Flat Tee Bridge

The Flat Tee's bridge can be fitted in two positions increasing the versatility of cable runs whilst maintaining the correct separation and Cat 5e, 6 and 7 compatibility.

Prestige Compact



Prestige 3D Dado and Skirting



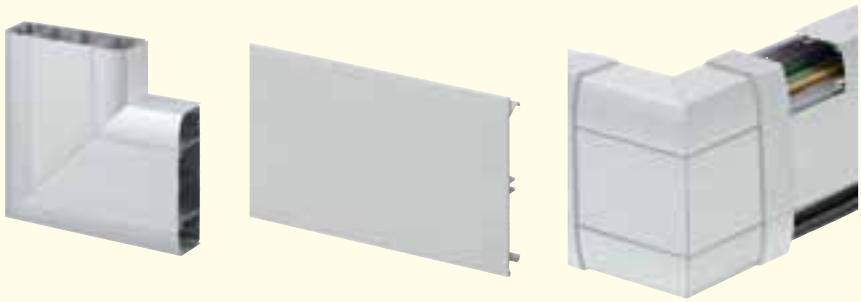
Data Trunking System

Standards and approvals

The Prestige 3D Aluminium System is manufactured in accordance with the requirements of BS EN 50085-1:2005 and BS EN 50085-2-1:2006, copies of the certification are available on request. MK has been awarded ISO 9002 accreditation.

Features

- Fully Cat 5e, 6 and 7 compliant
- Available in Dado and Skirting Profile
- Product profile 170 x 57mm
- All profiles use the same carrier VP180ALM
- Choose from PVC or aluminium fittings depending on the application
- Choice of 2 colours - WHI and ALM
- Pre-drilled trunking base
- PVC fittings have all of the same features and benefits as Prestige 3D trunking
- Suitable for commercial offices, schools, colleges and laboratories
- 10 year guarantee
- Two step hinged lid
- Knockouts on main carrier for easier and faster installation
- Fabricated corners for a complete aluminium trunking system
- Ideal with the Edge range of sockets



Description

NEW to the Prestige 3D family is its aluminium range of Dado and Skirting Trunking.

Available in 2 profiles, it satisfies the needs of a Cat 5e, 6 and 7 compliant system that is easier and faster to install, with a robust and aesthetically pleasing appearance.

Technical specification

CE Marking
All relevant MK products are CE marked, confirmation that they meet the EMC and LV directives.

Manufacture
All PVC trunking components are manufactured in the UK. All Aluminium trunking components are manufactured in the UK.

Appearance
Prestige 3D Aluminium is manufactured in aluminium (6063, T6 Tempered) and the covers are either anodised or powder coated for the white finish (RAL 9003), the trunking surface can also be painted in other colours available on request.

Fire Performance
This product is designed not to burn.

Thermal Properties
The product is designed to accommodate anticipated thermal expansion and contraction, within the temperature range -5°C and +60°C.

Chemical Resistance
Corrosion only occurs to any great degree when ph is less than 3 or greater than 9 (acid/alkaline).

Biological
Resistant to attack from vermin and termites.

Workability
Prestige 3D Aluminium is lightweight and can be readily cut with hand tools.

Durability
Prestige 3D Aluminium is mechanically, electrically and chemically stable. It will maintain its performance characteristics if it is installed and maintained as per standard installation guidelines.

Maintenance
The product is suitable for normal cleaning with a dry cloth or a slightly damp cloth with mild detergent to remove stubborn dirt or grease. It can also be cleaned using Ultra-Violet light.

Guarantee
The products are provided with a ten year guarantee.

Environmental
The wiring devices will comply with the Wiring Devices RoHs strategy. The chemicals in the manufacturing process comply with the REACH regulations.

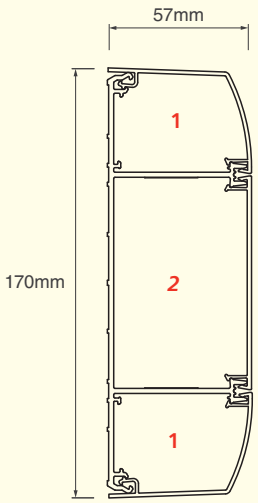
Data Trunking System

Dimensions (mm)

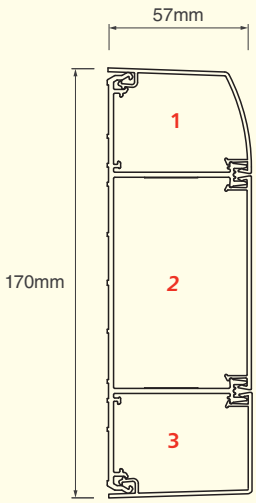
Profiles
Compartment CSA mm²
1 = 1763
2 = 3828
3 = 1952

Assembly
Dado = 3.22 kg/m
Skirting = 3.24 kg/m

Wall Thickness
VP100 = 1.7mm
VP110 = 1.7mm
VP115 = 1.7mm
VP180 = 2.0mm



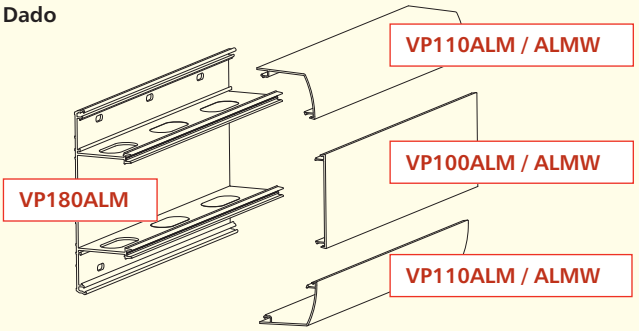
Dado



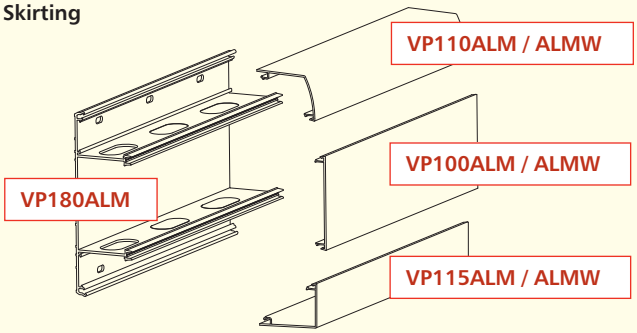
Skirting

Component selection guide

Dado



Skirting



CABLE CAPACITY

Type of conductor	Size	Cable factor	Compartment 1		Compartment 2		Compartment 2 with 45mm deep box		Compartment 3	
			Full Term CSA (mm²)							
			1763		3828		610		1952	
			Term at 45% fill (mm²)							
			793		1722		274		878	
Power cables			Number of cables at 45% fill							
PVC stranded	1.5mm²	8.6	92		200		31		102	
	2.5mm²	12.6	62		136		21		69	
	4mm²	16.6	47		103		16		52	
	6mm²	21.2	37		81		12		41	
Data cables			Number of cables at 45% fill (a) and full capacity (b)							
			a	b	a	b	a	b	a	b
Cat 5E UTP	5.5mm dia.	30.2	26	58	57	126	9	20	29	64
Cat 5E STP	6.0mm dia.	36.0	22	48	47	106	7	16	24	54
Cat 6 UTP	6.5mm dia.	42.2	18	41	40	90	6	14	20	46
Cat 6 STP	7.0mm dia.	49.0	16	35	35	78	5	12	17	39
Cat 7	8.0mm dia	64.0	12	27	26	59	4	9	13	30



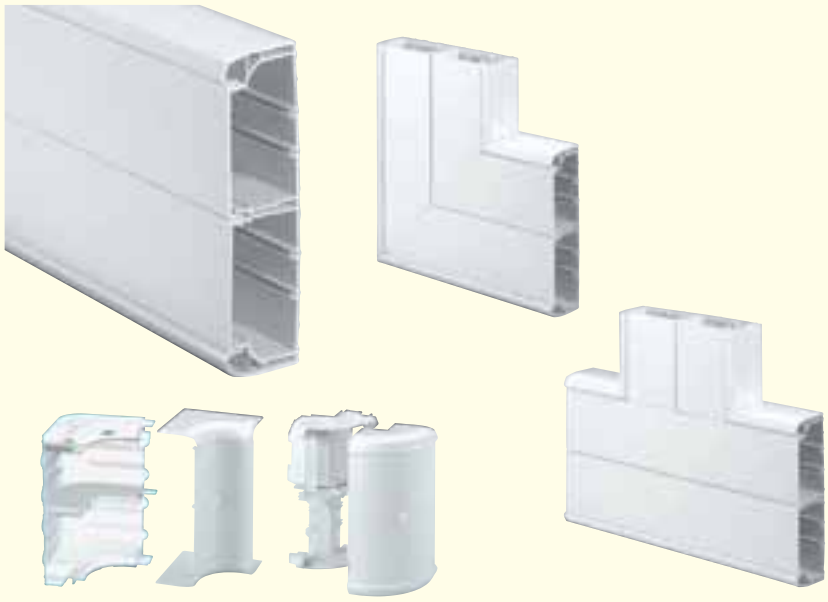
MEIGAN clean earth facility 2 gang socket outlet, engraved "Medical Equipment Only"

Available on a worldwide basis, the MK Design Service is supported by a dedicated team to ensure the seamless delivery of your chosen products.
Visit **www.mkelectric.co.uk** for more information

Data Trunking System

Features

- System bend radius 50mm Exceeds Cat 5e, 6 and 7 data cable requirements
- Attractive styling complementary to Logic Plus
- Aesthetic one piece fitting covers with carriers
- Two equal compartments – maximises wiring compartment capacity
- Accessory mounting in either or both compartments – giving flexibility/ versatility
- Unobtrusive screw fixing covers to maximise security against tampering
- Ease of installation – butt jointed construction, no mitring required
- Economical – cost effective 3 components (2 x lids, 1 base)
- Suitable for skirting or dado mounting
- Pre-drilled base – ease/speed of installation
- Accommodates matching MK and other BS switches and sockets
- Interfaces with MK Premier, and Ega Industrial and Ega Mini Trunking and Conduit Systems
- Strong PVCu sections are resistant to impact
- Manufactured to high precision standards
- Full range of components, spares and accessories
- Mounting frames for LJU6C and Euro data outlets – cost effective, minimum space requirement (for mounting in SELV compartment only).
- Choice of 180 RAL paint colours
- All extrusions manufactured from 90% recycled material*



Description

The Prestige 2com trunking is a symmetrical two compartment system offering a Cat 6 flexible solution to routing data cabling whilst maintaining a slow bend radius of 50mm, with a separate compartment for power cables. The trunking is normally surface mounted at dado or skirting height but may also be used vertically. The covers are of the snap-on type with the option of screw fixing for added security against vandalism. Special accessories include adaptors for connection to the full range of MK Ega Mini Trunking.

Technical specification

Materials

All components are manufactured from PVCu. Carriers, covers and cable dividers are extruded. Carrier couplers, corner carriers, stop ends and accessory boxes are formed by injection moulding.

Colours

The system is available in a standard white colour, with a choice of over 180 RAL paint colours on special orders.

Outlets

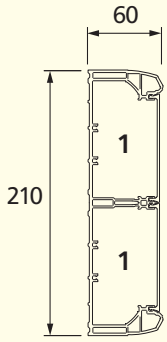
The system is designed to accommodate the complementary range of Logic Plus switches and sockets. Other MK wiring devices may also be used.

* Based on 2008 consumption

For a full range of corresponding products, see pages 323-328 in the product selector.

Data Trunking System

Dimensions (mm)



VTS2001WHI main carrier +
2 x VTS5WHI straight covers

Weight:

2.41 Kg/m

Wall thickness:

VTS2001WHI = 2.5mm, 2.0m
VTS5WHI = 1.7mm

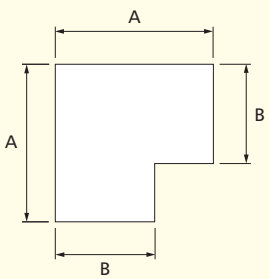
PRESTIGE 2COM CABLE CAPACITY										
Type of Conductor	**Size**	**Cable Factor**	**Compartment 1**		**Compartment 1 with 25mm back box**		**Compartment 1 with 35mm back box**		**Compartment 1 Ext Corner 50mm Data Bend**	
			Full Term CSA 100% Fill (mm²)							
			4466		**2236**		**1633**		**3132**	
			Term at 45% Fill (mm²)							
			2009		**1006**		**734**		**1409**	
Power Cables			**Number of Cables at 45% Fill**							
PVC Stranded	1.5mm²	8.6	233		116		85		163	
	2.5mm²	12.6	159		79		58		111	
	4mm²	16.6	121		60		44		84	
	6mm²	21.2	94		47		34		66	
Data Cables			**Number of Cables at 45% Fill (a) and Full Capacity (b)**							
			a	**b**	**a**	**b**	**a**	**b**	**a**	**b**
Cat5E UTP	5.5mm dia.	30.2	66	147	33	74	24	54	46	103
Cat5E STP	6.0mm dia.	36.0	55	124	27	62	20	45	39	87
Cat6 UTP	6.5mm dia.	42.2	47	105	23	52	17	38	33	74
Cat6 STP	7.0mm dia.	49.0	41	91	20	45	14	33	28	63

Components

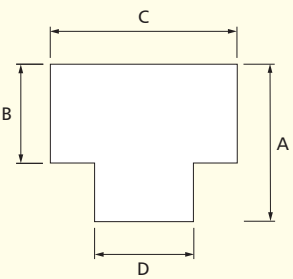
Flat angles and tees

These components are fabricated sections and space must be allowed for their inclusion in runs of trunking. All other components snap on over standard trunking profiles.

Flat angle



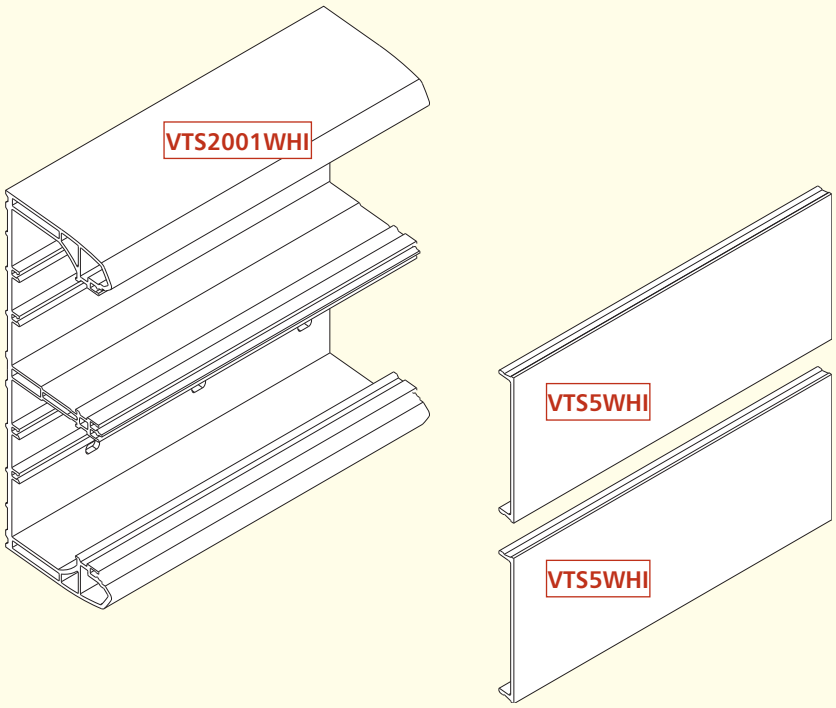
Flat tee

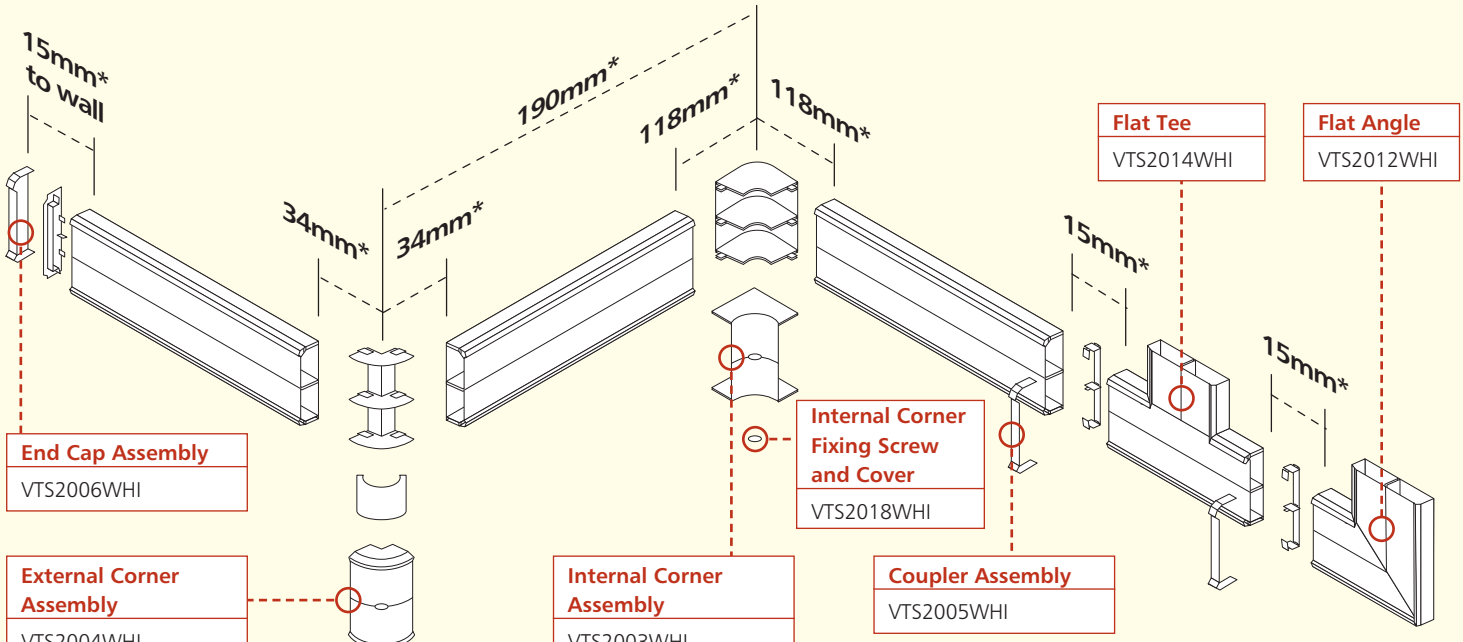


DIMENSIONS (mm)				
Flat angle	**A**	**B**		
VTS2012WHI	310	210		
Flat T details	**A**	**B**	**C**	**D**
VTS2014WHI	310	210	410	210

Data Trunking System

Component selection guide





* Minimum distance

Data Trunking System

Installation guide

General installation guidelines

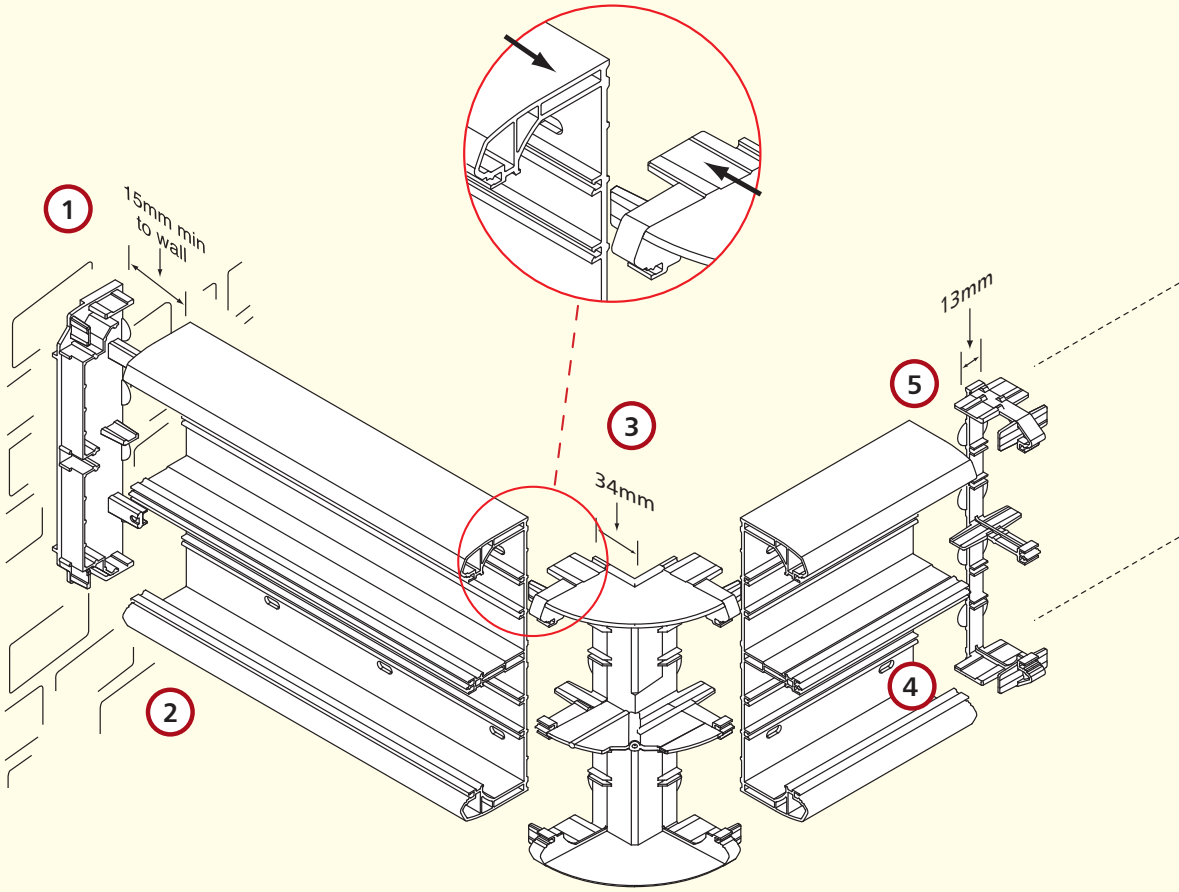
Tools and sundries required for installation:

1. Fine toothed tenon saw or a hacksaw with a 32 – 26 TPI blade for cutting the trunking, or preferably a circular saw with a 350mm diameter fine tungsten tipped blade (100TPI approx.)
2. All purpose knife or fine file for trimming of trunking
3. Spirit level, Plumb Bob and chalk line
4. A range of screwdrivers (flat or cross point) to suit fixing screws and Earth Carrier Connectors
5. A 5.5mm Ø drill bit and No.8 Round head or Pan head screws with suitable washers to secure the trunking.
6. Soft faced mallet to aid lid fitting

Planning the Installation

It is important to spend some time planning the installation, before starting. Time spent on planning the layout at this stage can avoid mistakes later on. The installation is designed for a non-conductive substrate, if you have any queries please contact: MK Technical Sales Service Department. Telephone 01268 563720.

1. Surface to which the trunking is to be installed should be flat and prepared for decorating.
2. Establish the layout of the trunking run with particular attention to the following: -
   - **a.** Changes in direction of the trunking.
   - **b.** The position of any feeds to or from the system.
   - **c.** The position of any connections with existing trunking/wiring systems.
   - **d.** Allow for minimum distances between corners, couplers, screw fixings, angles and tees (please see individual technical sections for details).
   - **e.** When installing at skirting level, ensure room is also allowed for future floor coverings to be fitted below trunking.

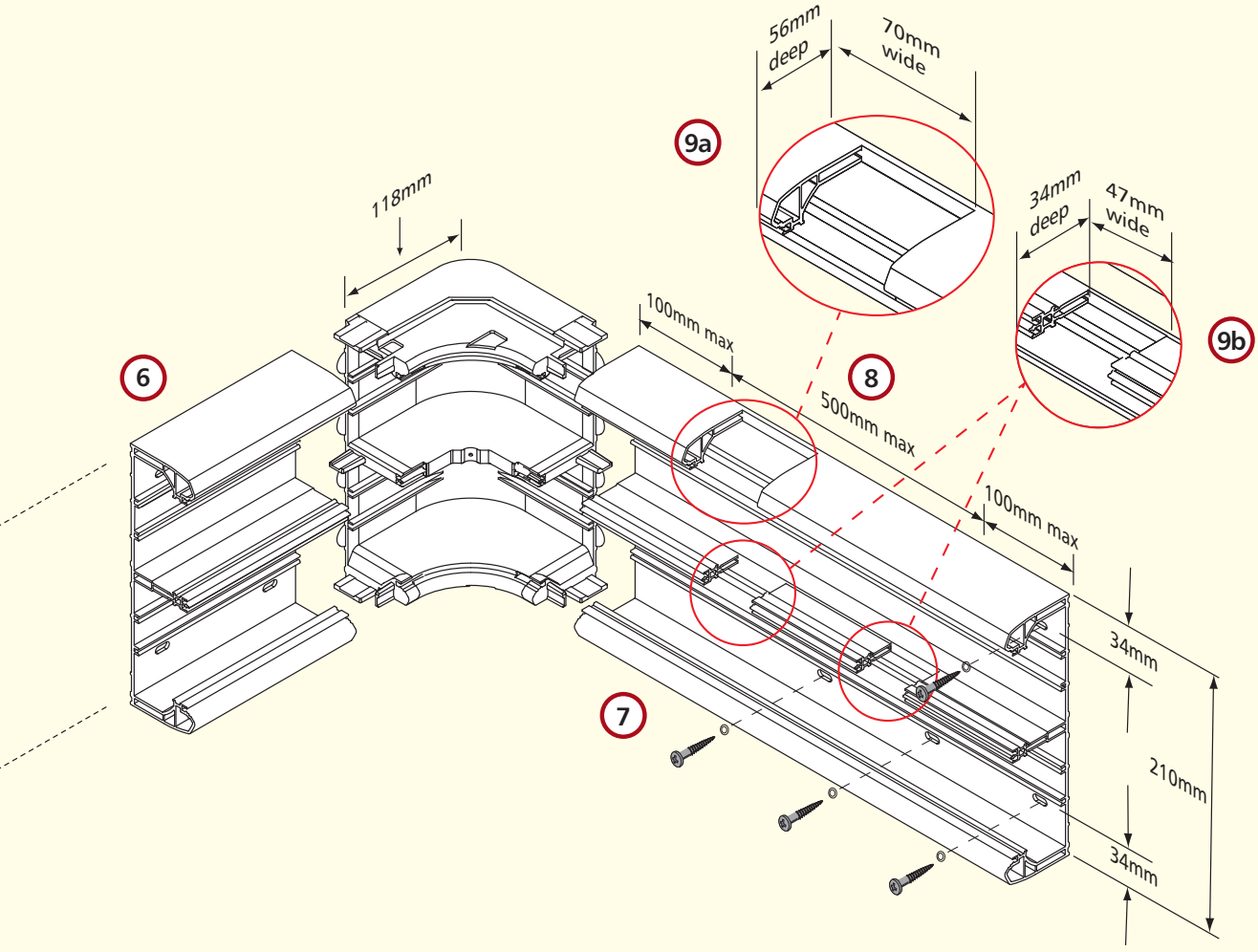


Data Trunking System

General notes

Prior to installation strike a line of trunking using a plumb and chalk line for vertical, and spirit levels for horizontal runs.

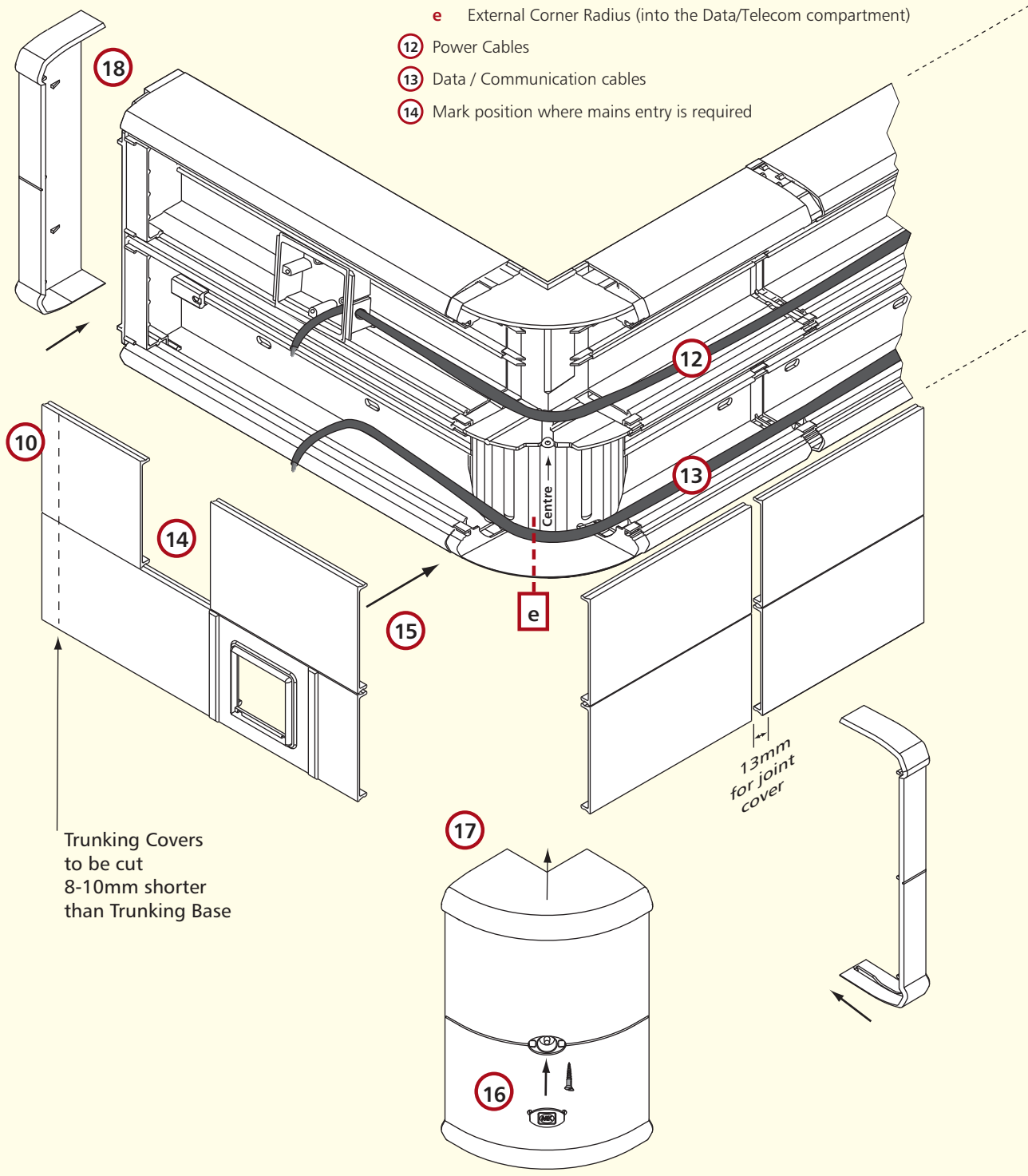
1. Drill Holes in supporting walls prior to fixing
2. When mounting at skirting level allowance should be made for thickness of floor finish
3. Start Installation at a corner position
4. Debur all carrier cut ends
5. Carrier couplers must be placed at all junctions between carriers
6. Leave a gap of 5mm for expansion in long runs
7. Fixings require washers and No. 8 Round or Pan head screws
8. Fixings to be at 500mm centres and also at points within 100mm of each end
9. Cut trunking to allow for mini trunking / conduit (9a) and box adaptor crossover bridge (9b).



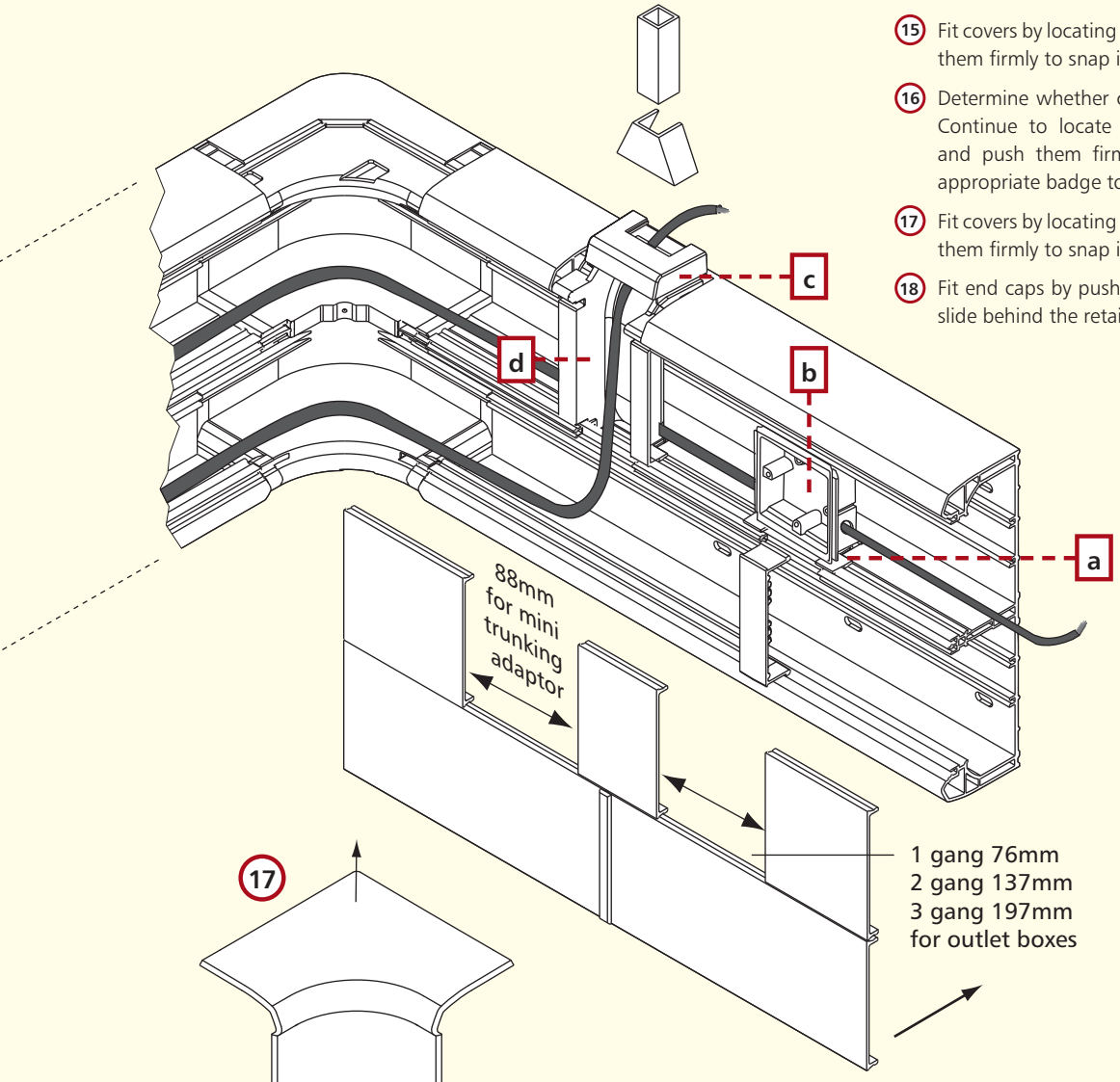
Data Trunking System

Installation guide continued

10. Debur all cover cut ends
11. Insert accessories in the following order
    - **a** Box adaptor
    - **b** Accessory Boxes
    - **c** Appropriate slide (VTS2081 shown)
    - **d** Cross over bridge
    - **e** External Corner Radius (into the Data/Telecom compartment)
12. Power Cables
13. Data / Communication cables
14. Mark position where mains entry is required



Data Trunking System



15 Fit covers by locating them correctly into position and pushing them firmly to snap in place.

16 Determine whether corners need to be screw fixed **(Fig 1)**. Continue to locate correctly the Corner and Joint covers and push them firmly until they snap into place. Fit the appropriate badge to the Corner Covers.

17 Fit covers by locating them correctly into position and pushing them firmly to snap in place.

18 Fit end caps by pushing them on from the front so the clips slide behind the retainers and engage in the main carrier.

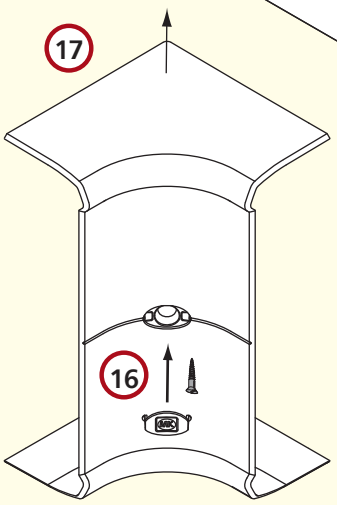
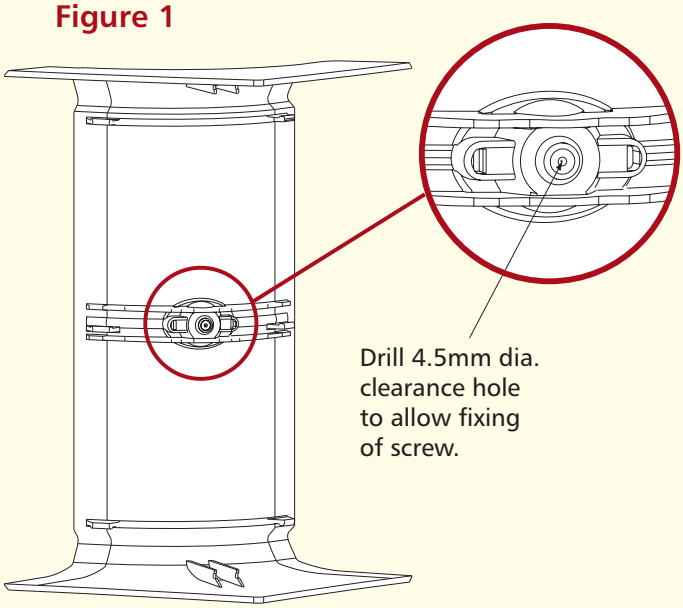


Figure 1



Power Post and Power Pole

Standards and approvals

Prestige Power Post and Power Poles are manufactured in accordance with the requirements of BS 4678 Part 4.

All systems comply with all relevant requirements of BS 7671: 2008.

Features

- Supply multi-services to work stations
- Discreet, fit neatly under desk (Power Post only)
- 2 colours available
- Compatible with MK and other manufacturer's fittings
- Easy to assemble and install
- Durable and impact resistant
- All PVC extrusions manufactured from 90% recycled materials*

* Based on 2008 consumption.





Description

Power Post

MK Power Post provides a means to supply multi-services to work stations as an alternative to, or in conjunction with services outlet boxes. They fit neatly under desks and provide up to ten accessory outlets for any combination of power, telecommunications and data services.

Power Posts have a natural anodised aluminium body and are available with PVCu covers in a choice of charcoal or white, or white powder coated aluminium body with white PVCu cover. It is recommended that Power Posts are fitted with MK accessories which have thin profile front plates and are available in co-ordinating colours.

When used in conjunction with Interact or Cablelink Plus Screeded Floor systems, Power Posts provide even greater flexibility in cable distribution.



Power Pole

MK Power Pole, similar in construction to the Power Post, is a multi-compartment system segregating power, data and telecom circuits and can accommodate a complete range of accessories including fire alarm manual call points.

It is suitable for both suspended and solid ceiling applications.

Prestige Power Poles can be easily cut to size on site and are equipped with a jacking facility to assist installation and ensure secure location.



Technical specification

Materials

Aluminium AW 6060.

Complying with BS EN 573 and BS EN 755

PVCu materials used in the manufacture of MK products are self extinguishing non-flame propagating in accordance with BS 4678 Part 4.

Extrusion material has been tested by a UKAS accredited laboratory in accordance with the requirements of BS476: part 7 and has achieved a Class 1Y.

Moulding material has been tested by a UKAS accredited laboratory and conforms with IEC 695-2-1 at a severity of 650°C

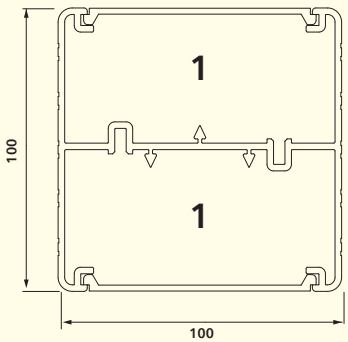
IEE Wiring Regulations

Designed and manufactured to comply in all respects with BS 7671: 2008 (IEE wiring regulations 17th Edition: 2008)

Quality Assurance

The system is manufactured to BS EN ISO 9001

Dimensions (mm)

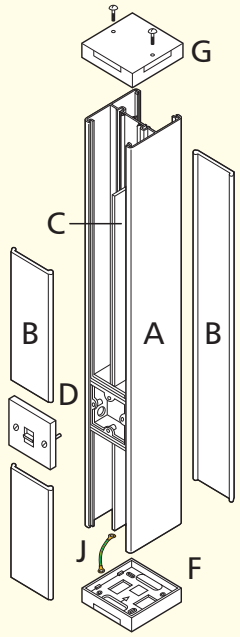


PRESTIGE POLE AND POST CABLE CAPACITY

Type of Conductor	Size	Cable Factor	Compartment 1		Compartment 1 with PPC20 backbox	
			Full Term CSA 100%Fill (mm²)			
			4196		1625	
			Term at 45% Fill (mm²)			
			1888		731	
Power Cables			Number of Cables at 45% Fill			
PVC Stranded	1.5mm²	8.6	219		85	
	2.5mm²	12.6	149		58	
	4mm²	16.6	113		44	
	6mm²	21.2	89		34	
Data Cables			Number of Cables at 45% Fill (a) and Full Capacity (b)			
			a	b	a	b
Cat5E UTP	5.5mm dia.	30.2	62	138	24	53
Cat5E STP	6.0mm dia.	36.0	52	116	20	45
Cat6 UTP	6.5mm dia.	42.2	44	99	17	38
Cat6 STP	7.0mm dia.	49.0	38	85	14	33

For a full range of corresponding products, see pages 330-331 in the product selector.

Power Post and Power Pole

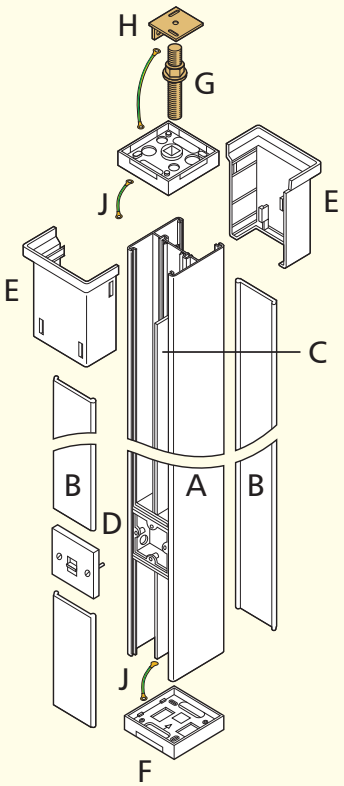


Power Post assembly

DIMENSIONS		
List. No.	**Size (overall) mm**	**Weight kg (each)**
PPT650	650 x100 x100	3.32

Part	Description	Qty.
A	Power Post Body (650mm long)	1
B	Cover Section (650mm long)	2*
C	Dividing Strip (not supplied)	
D	Outlet Box Assembly	5
E	SELOK Pins (not shown)	4
F	End Load Plate	1
G	Top Cover + Screws	1
J	Earth Link Strap	1

*Four cover sections are supplied with PPT650ALM – 2 x White & 2 x Charcoal



Power Pole assembly

DIMENSIONS		
List. No.	**Size (overall) mm**	**Weight kg (each)**
PPA100	3600 x100 x100	15.0

Part	Description	Qty.
A	Power Pole Body 3.6m long	1
B	Cover Section 3.6m long	2*
C	Dividing Strip 3.0m long	2
D	Outlet Box Assembly	6
E	Top End Collar	1
F	End Load Plates	2
G	Jacking Screw Assembly	1
H	Jack Locating Plate	1
J	Earth Link Strap	3

*Four cover sections are supplied with PPT100ALM – 2 x White & 2 x Charcoal

Installation

Power Poles and Power Posts are supplied as complete kits as per list and are to be assembled as described in the appropriate Installation Instruction booklet.

Additional accessory boxes are available, List No. PPC20.

Additional Dividing strip is available, List No. PPC10.

Skirting and Dado Trunking System

Technical specification

Electrical

Voltage rating:
63A, 250V a.c.

Voltage drop:
L to N = 3.47 mV/A/metre run
L to E = 3.47 mV/A/metre run
N to E = 3.47 mV/A/metre run

Earth fault loop impedance:
L to E = 3.47 mΩ/m run.

Conditional short circuit rating:
(Fuse links BS 88 – 100A and BS 1361 100A).

Prospective current 16.5 KA

Mechanical withstand 10.0 KA peak min.

Materials

PVCu materials used in the manufacture of MK products are self extinguishing non-flame propagating in accordance with BS 4678 Part 4.

Extrusion material has been tested by a UKAS accredited laboratory in accordance with the requirements of BS476: part 7 and has achieved a Class 1Y.

Moulding material has been tested by a UKAS accredited laboratory and conforms with IEC 695-2-1 at a severity of 650°C

IEE Wiring Regulations

Designed and manufactured to comply in all respects with BS 7671: 2008 (IEE wiring regulations 17th Edition: 2008)

Quality Assurance

The system is manufactured to BS EN ISO 9001



Description

Powerlink Plus is a trunking distribution system which contains within its profile a 63A single phase set of busbars and facilities for carrying telecommunications and data services cables. Co-ordinated within the system is a wide variety of electrical and extra low voltage (ELV) outlets.

On the mains side these include specially designed sockets, both switched and unswitched, non-standard switchsockets, switches, connection units and, via a simple interface, facilities for mounting all standard MK outlets.

ELV outlets include a master telephone socket outlet, an isolated co-axial socket outlet, "handset" telephone linejack outlet, computer sockets, a blank box and cover to accommodate other ELV requirements and, via a simple interface, facilities for mounting all single gang, standard MK ELV outlets. Also available are BNC type, LJU6C/RJ45 outlets, Euro Outlets and a blank to accommodate other ELV requirements.



Features

- Wide variety of visually and physically compatible mains and ELV outlets
- Complete segregation between mains and ELV
- Stylish and elegant appearance
- Easy to assemble, extend and modify
- Durable and impact resistant
- Attractive styling
- Suitable for skirting or dado mounting
- 3 compartment trunking
- Manufactured to high precision standards
- All extrusions manufactured from 90% recycled material*

* Based on 2008 consumption

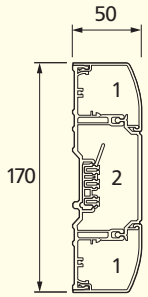
For a full range of corresponding products, see pages 333-343 in the product selector.

Skirting and Dado Trunking System

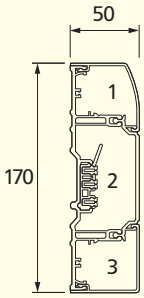
Dimensions (mm)

The dado trunking is divided into three compartments. Two identical outer compartments are mainly for ELV cables with a third central compartment containing the busbars with a cableway above. The cable carrying capacity can be increased by introducing an extension trunking below the surface track.

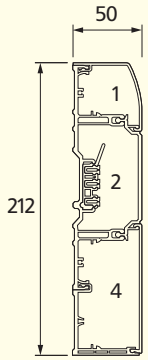
Cross section through Dado trunking



Cross section through Skirting and Dado trunking



Cross section through Skirting and Dado trunking with extension



WALL THICKNESS	
Trunking base	2.4mm
Centre compartment cover	2.5mm
Curved cover	1.5mm
Extension cover	2.5mm
Extension base	3.0mm

WEIGHT (KG)			
Type		Number of compartments with screening	
		1	2
Dado trunking without busbar (K1903)	2.4	3.0	3.6
Dado trunking with busbar (K1963)	3.0	3.6	4.2
Extension trunking (K1913)	1.0	2.3	–

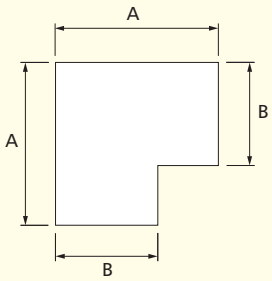
POWERLINK PLUS CABLE CAPACITY

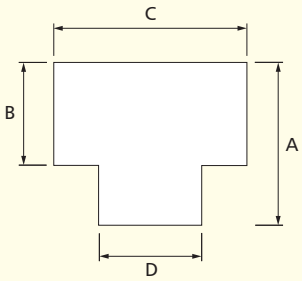
Type of Conductor	Size	Cable Factor	Cmpt 1 (curved)	Cmpt 2 (without busbar)	Cmpt 2 (with busbar)	Cmpt 3 (square)	Cmpt 4 (extension)
			Full Term CSA 100%Fill (mm²)				
			943	2968	2528	1044	2685
			Term at 45% Fill (mm²)				
			424	1335	1137	469	1208
Power Cables			Number of Cables at 45% Fill				
PVC Stranded	1.5mm²	8.6	49	155	132	54	140
	2.5mm²	12.6	33	105	90	37	95
	4mm²	16.6	25	80	68	28	72
	6mm²	21.2	20	62	53	22	56

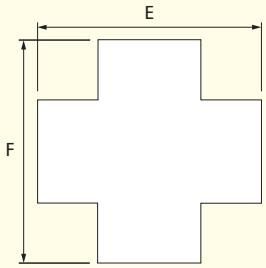
Data Cables			Number of Cables at 45% Fill (a) and Full Capacity (b)									
			a	b	a	b	a	b	a	b	a	b
Cat5E UTP	5.5mm dia.	30.2	14	31	44	98	0	0	15	34	40	88
Cat5E STP	6.0mm dia.	36.0	11	26	37	82	0	0	13	29	33	74
Cat6 UTP	6.5mm dia.	42.2	10	22	31	70	0	0	11	24	28	63
Cat6 STP	7.0mm dia.	49.0	8	19	27	60	0	0	9	21	24	54

Skirting and Dado Trunking System

Components





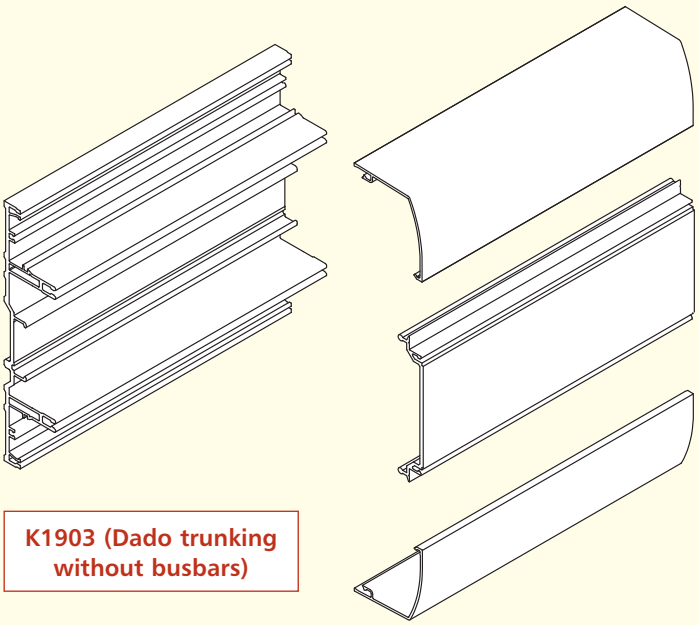


Flat angles and tees

These components are fabricated sections and space must be allowed for their inclusion in runs of trunking. All other components snap on over standard trunking profiles.

DIMENSIONS (MM)					
Flat Angle	**A**	**B**	**Flat Cross**	**E**	**F**
Dado	270	170		370	370
Skirting	270	170		–	–
Skirting (with extension)	315	215		–	–

DIMENSIONS (MM)				
Flat Tee	**A**	**B**	**C**	**D**
Dado	270	170	320	170



K1903 (Dado trunking without busbars)

Skirting and Dado Trunking System

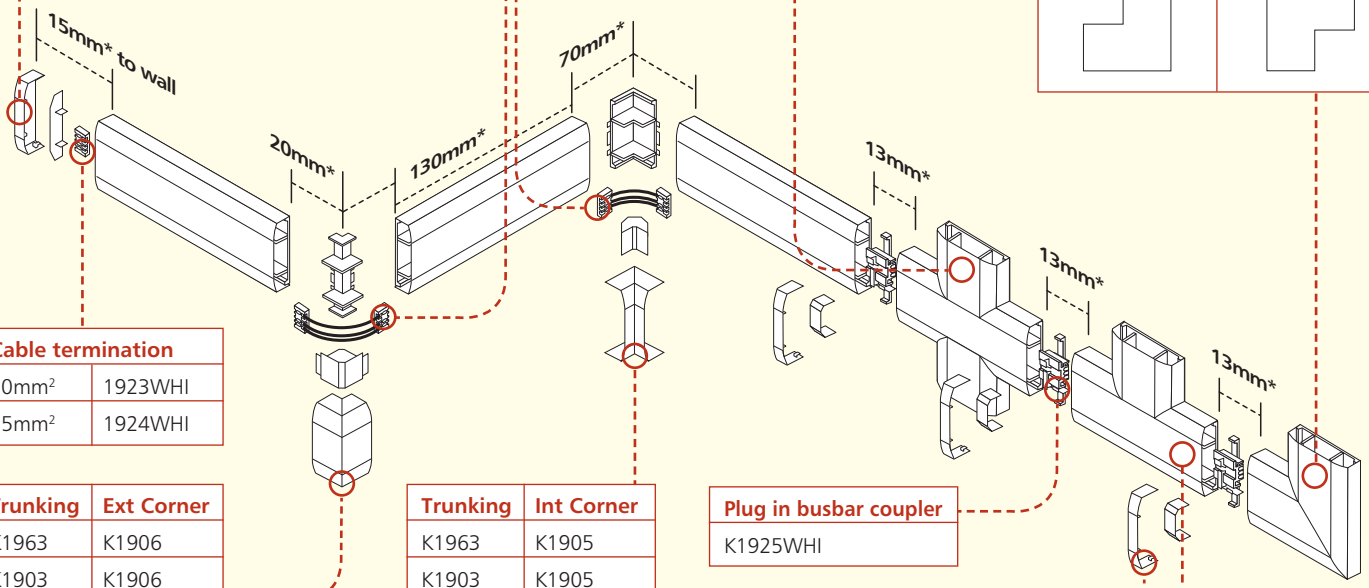
Component selection guide

Trunking	End Cap
K1963	K1904
K1903	K1904
K1962	K1944
K1902	K1944
K1913	K1914

Cable link assembly
1919

Trunking	Flat Cross
K1963	K1974
K1903	K1974

Trunking	Flat Angle Up	Flat Angle Down
K1963	K1992	K1992
K1903	K1992	K1992
K1962	K1957	K1958
K1902	K1957	K1958
K1916	K1994	K1993



Cable termination	
10mm²	1923WHI
25mm²	1924WHI

Trunking	Ext Corner
K1963	K1906
K1903	K1906
K1962	K1912
K1902	K1912
K1913	K1916

Trunking	Int Corner
K1963	K1905
K1903	K1905
K1962	K1911
K1902	K1911
K1913	K1915

Plug in busbar coupler
K1925WHI

Trunking	Coupler
K1963	K1908
K1903	K1908
K1962	K1945
K1902	K1945
K1916	K1918

Trunking	Flat Tee Up	Flat Tee Down
K1963	K1973	K1972
K1903	K1973	K1972

* Minimum distance

Skirting and Dado Trunking System

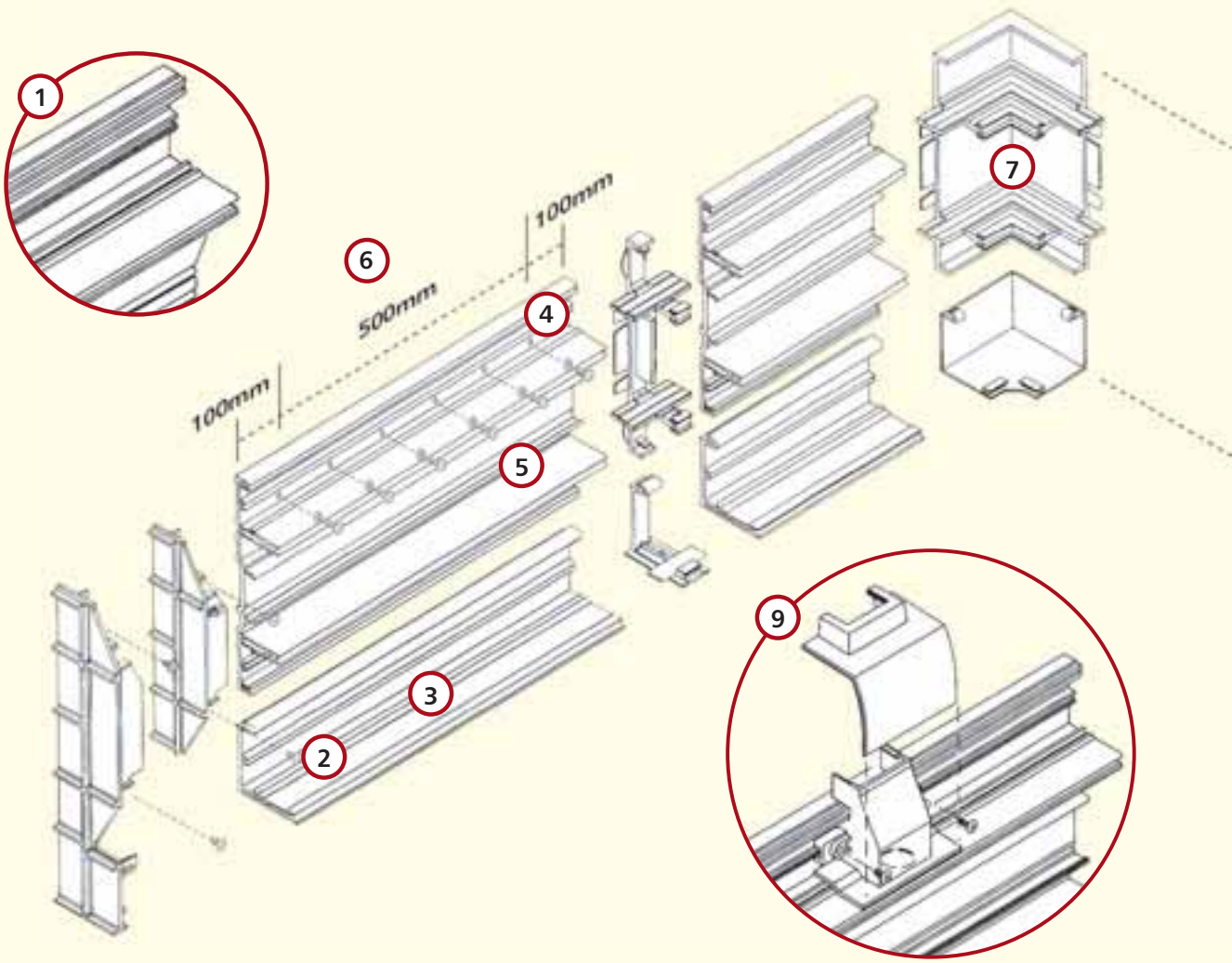
Installation guide

General notes

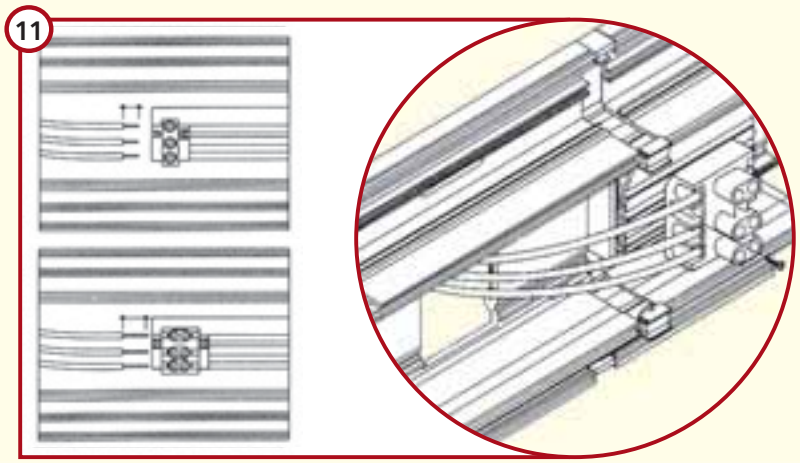
Prior to installation strike a line of trunking using a plumb and chalk line for vertical, and spirit levels for horizontal runs.

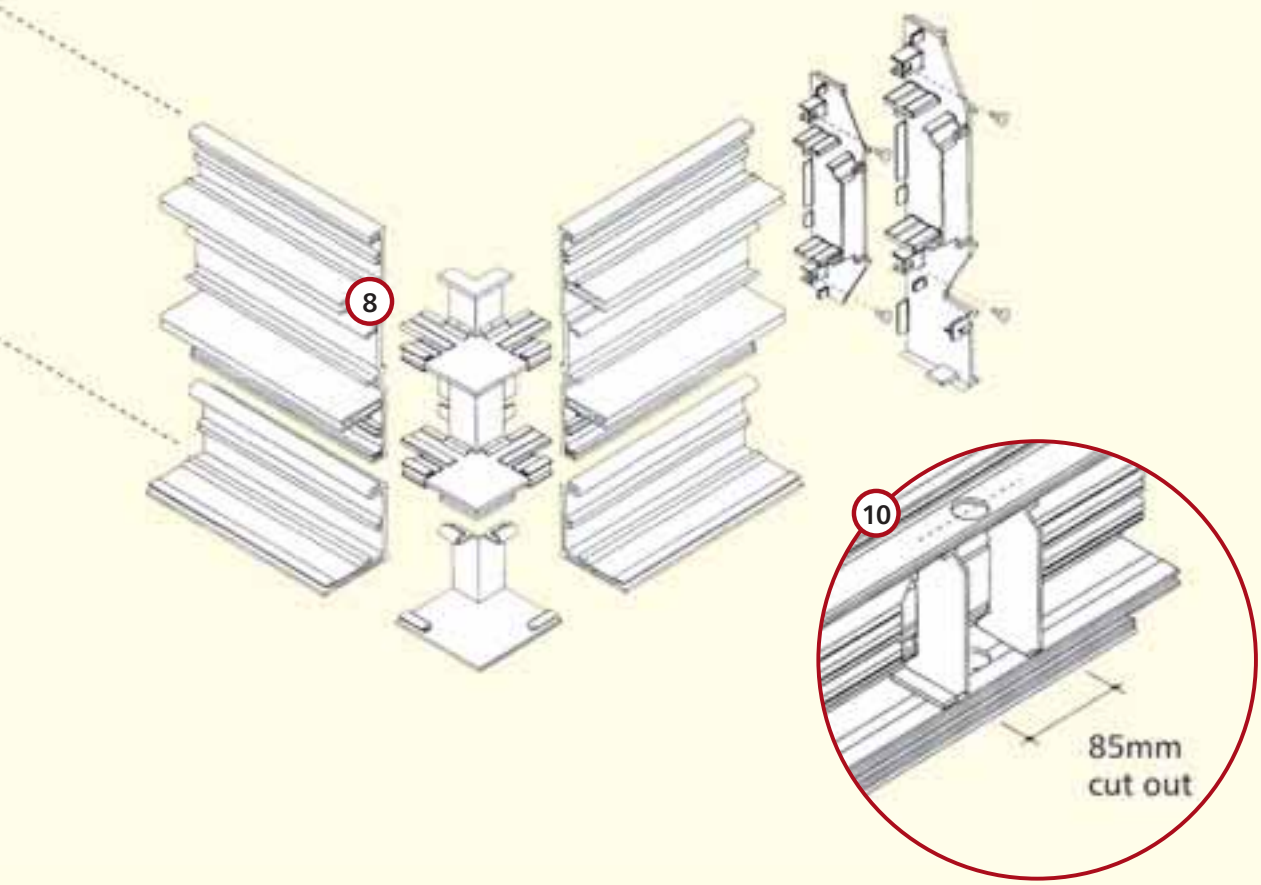
1. Surface track accommodates 63 amp busbar with an integral duct directly above mains.
2. Data and Telecom cables.
3. Extension trunking can be added after installation.*
4. Pre cut slots and circular holes at 100mm centres permit fixing holes to be drilled and a wallplug with screw inserted after the surface track has been positioned.
5. When fixing trunking use bushes provided and No. 8 wood screws.
6. Ensure trunking base is secured within 100mm from the end and a maximum of 500mm apart on either side along the length.
7. Check levels frequently – particularly at corners.
8. Debur all cut ends using a file or a sharp knife.
9. For mini trunking adaptors drill a 20mm diameter hole through the wall of the centre compartment using drill guide. Insert the tunnel and fix with two screws provided.
10. Bridging busbar compartment – if required to take cables from top compartment to bottom or vice versa – drill holes to align with top and bottom holes of the centre compartment. Cut out 85mm from the busbar at the required position. Install cable link (1919) to the busbar and snap fit cable crossing barrier (K1937CHA) over cables.
11. Commence installation at cable entry position. Route cables into the central section, wire in to the selected cable termination and plug into adjacent busbar and secure with screws supplied.

* It is recommended that the extension trunking is used in all skirting installations so that the position of the electrical outlets will be a suitable height above the finished floor level.



Skirting and Dado Trunking System

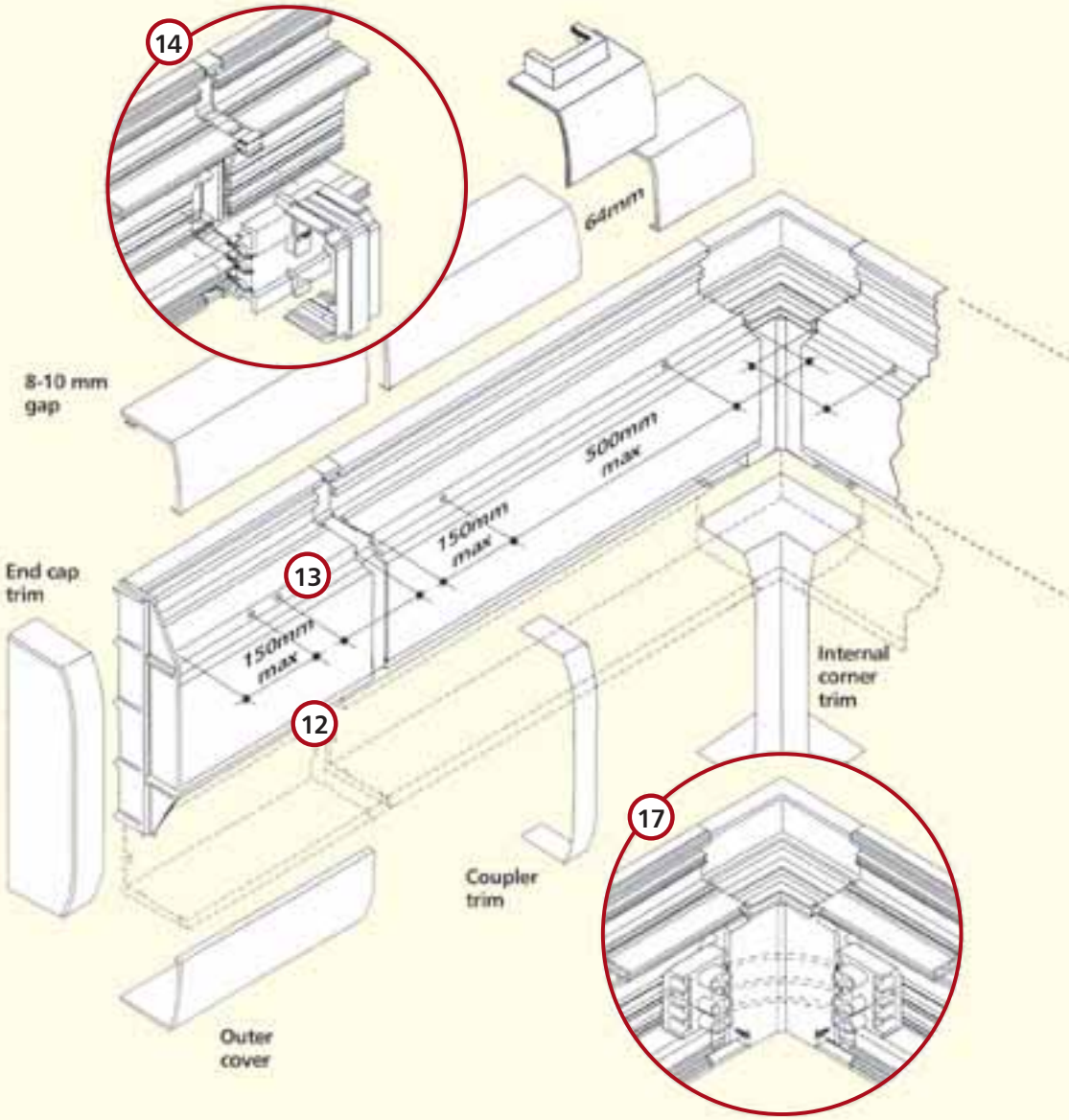




Skirting and Dado Trunking System

Installation guide continued

12. Cut central cover to length to fit exactly between the exposed frontplates of accessories. At coupling positions leave expansion gaps by cutting the central cover to the same length as the trunking base.
13. Secure centre covers to the main base with the screws provided every 500mm max, top and bottom and within 150mm of accessories and fittings.
14. At the junction of two adjacent lengths of trunking busbar plug in the coupler to maintain electrical continuity. It is fitted over a protector in the coupler carrier.
15. Data / Telecoms Devices – Secure enclosure box over centre compartment with screws supplied. Run cabling into enclosure and terminate onto outlet on frontplate. Secure front cover to enclosure box with screws provided.
16. Accessories for extension trunking – Fit ELV plate by clipping onto the centre cover and extension trunking.
17. Internal and external corners – Connect the lengths of busbar using the cable link assembly (1919) and secure trunking using the screws provided.
18. Moulded corner and coupler shields should be fitted before fitting any covers. They are secured by the central covers overlapping each side of the component and do not require additional fixing.



Skirting and Dado Trunking System

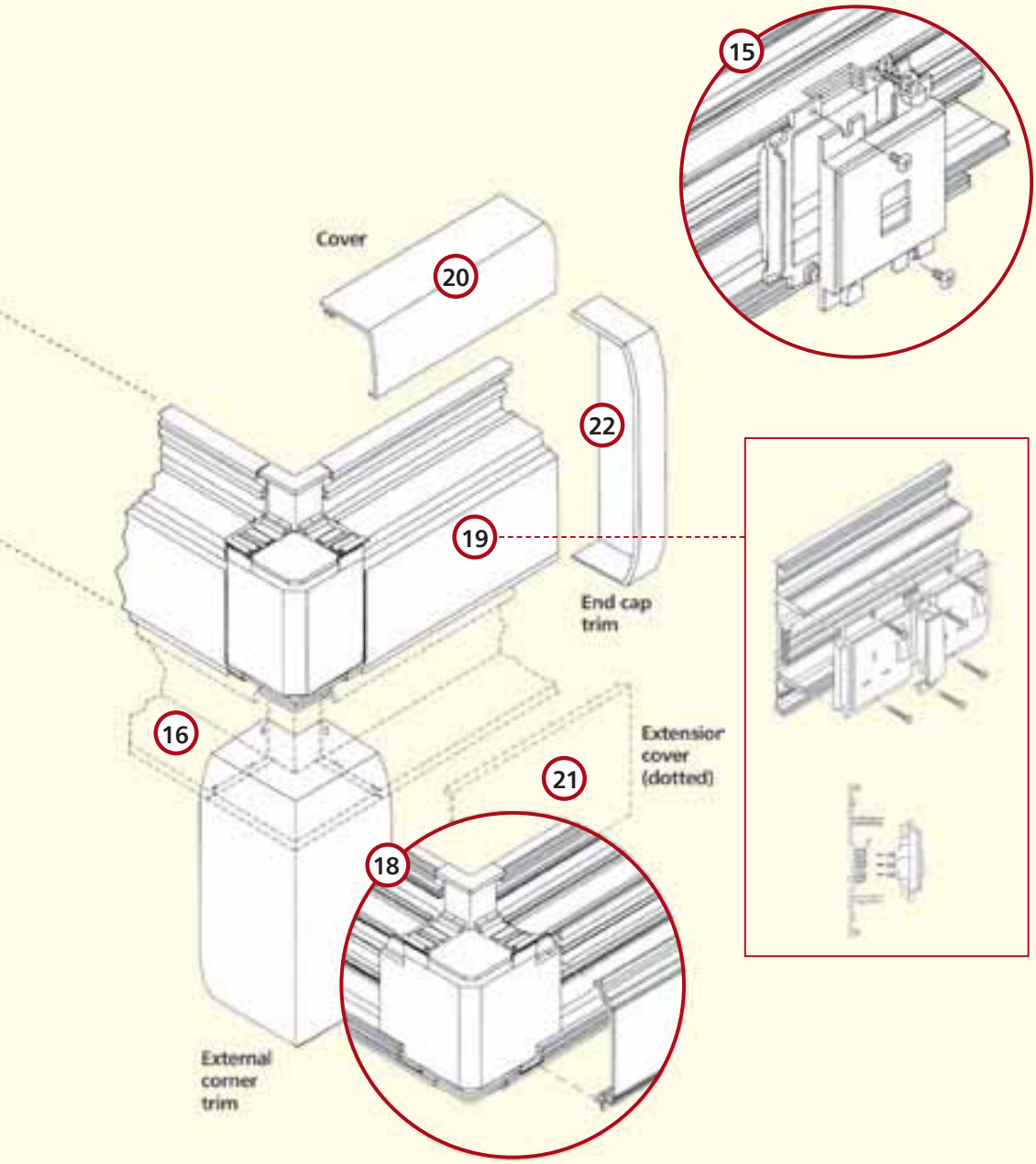
19 Powerlink Plus Sockets – Plug the socket onto the busbars in the required region ensuring that the socket clips fully locate firmly on to their corresponding busbars. Secure with screws provided. Note – do not tamper with busbar clips.

Plug on connection units – Connect the load conductors which are either routed through the centre compartment of the trunking or enter through the flex outlet. Plug connection unit onto busbar where required and secure as described above.

20 Outer Covers – For central covers and end cap retainers, leave a gap of 8-10mm and snap fit onto trunking.

21 Extension cover – Snap and fit onto trunking but leave a gap of 15mm at the coupling position and align exposed joints with outer cover.

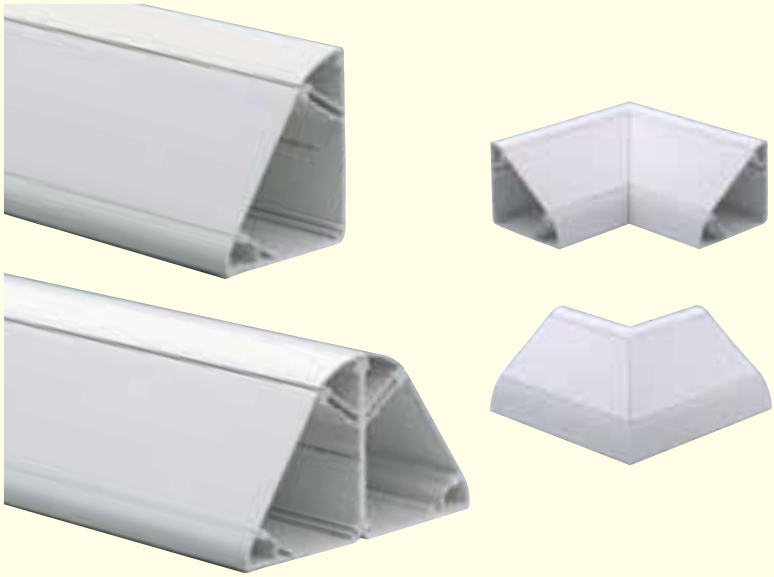
22 Snap fit end caps then other trims after fitting all central and outer covers.



Bench and Shelf Trunking

Features

- Available in a single or double configuration
- May be fitted either direct to the work surface or inverted above the working area
- Cable segregation is provided by two separate compartments with the facility to further subdivide the main compartment by means of a clip-in cable divider
- Single profiles may be converted to a back to back double assembly. A one-piece centre lid and double end caps complete the coupling
- Prefabricated internal and external corners
- Coupler sets for greater strength and protection
- Bench units are also available to match the system
- All extrusions manufactured from 90% recycled material*



Description

Pinnacle is an angular bench trunking system ideally suited for distributing LV electrical and communication services in laboratories, schools and workshops and other applications where the service contacts are mounted on or above desks and benches.

Technical specification

Materials

PVCu materials used in the manufacture of MK products are self extinguishing non-flame propagating in accordance with BS 4678 Part 4.

Extrusion material has been tested by a UKAS accredited laboratory in accordance with the requirements of BS476: part 7 and has achieved a Class 1Y.

Moulding material has been tested by a UKAS accredited laboratory and conforms with IEC 695-2-1 at a severity of 650°C

IEE Wiring Regulations

Designed and manufactured to comply in all respects with BS 7671: 2008 (IEE wiring regulations 17th Edition: 2008)

Quality Assurance

The system is manufactured to BS EN ISO 9001







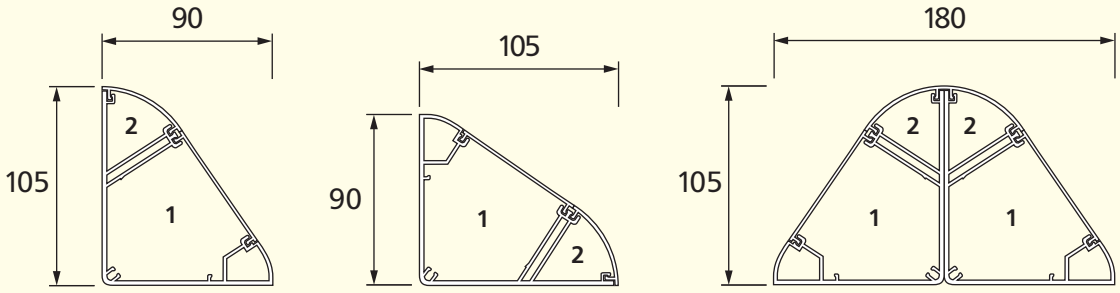
Pinnacle trunking is available in a choice of colours, White and Special. The Special offers a choice of over 180 RAL paint colours.

* Based on 2008 consumption

For a full range of corresponding products, see pages 344-350 in the product selector.

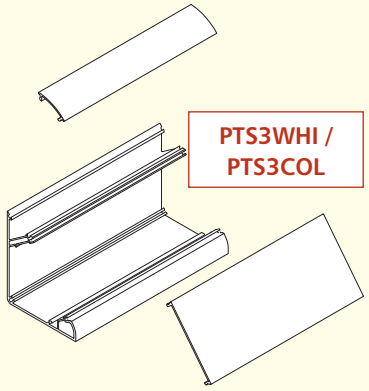
Bench and Shelf Trunking

Dimensions (mm)

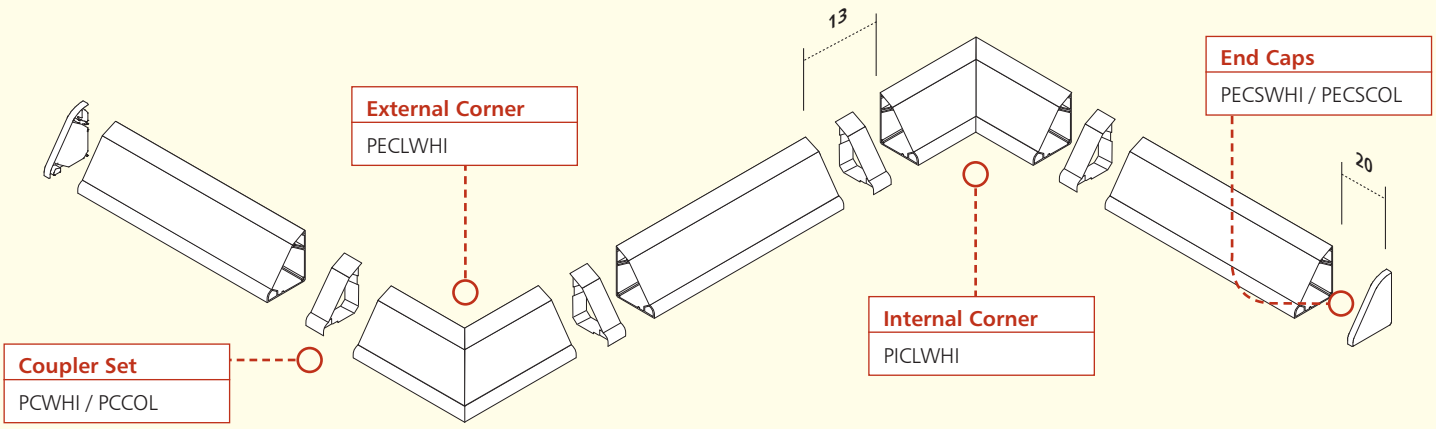


Version 1 PTS | Version 2 PTS | Version 3 PTD

PINNACLE CABLE CAPACITY										
Type of Conductor	**Size**	**Cable Factor**	**Compartment 1**	**Compartment 1 with 25mm backbox**	**Compartment 1 with 35mm backbox**	**Compartment 1**				
			Full Term CSA 100%Fill (mm²)							
			4510	**2499**	**1857**	**460**				
			Term at 45% Fill (mm²)							
			2029	**1124**	**835**	**207**				
Power Cables			**Number of Cables at 45% Fill**							
PVC Stranded	1.5mm²	8.6	235	130	97	24				
	2.5mm²	12.6	161	89	66	16				
	4mm²	16.6	122	67	50	12				
	6mm²	21.2	95	53	39	9				
Data Cables			**Number of Cables at 45% Fill (a) and Full Capacity (b)**							
			a	**b**	**a**	**b**	**a**	**b**	**a**	**b**
Cat5E UTP	5.5mm dia.	30.2	67	149	37	82	27	61	6	15
Cat5E STP	6.0mm dia.	36.0	56	125	31	69	23	51	5	12
Cat6 UTP	6.5mm dia.	42.2	48	106	26	59	19	44	4	10
Cat6 STP	7.0mm dia.	49.0	41	92	22	51	17	37	4	9



PTS3WHI / PTS3COL



External Corner
PECLWHI

End Caps
PECSWHI / PECSCOL

Internal Corner
PICLWHI

Coupler Set
PCWHI / PCCOL

Installation guide

General notes

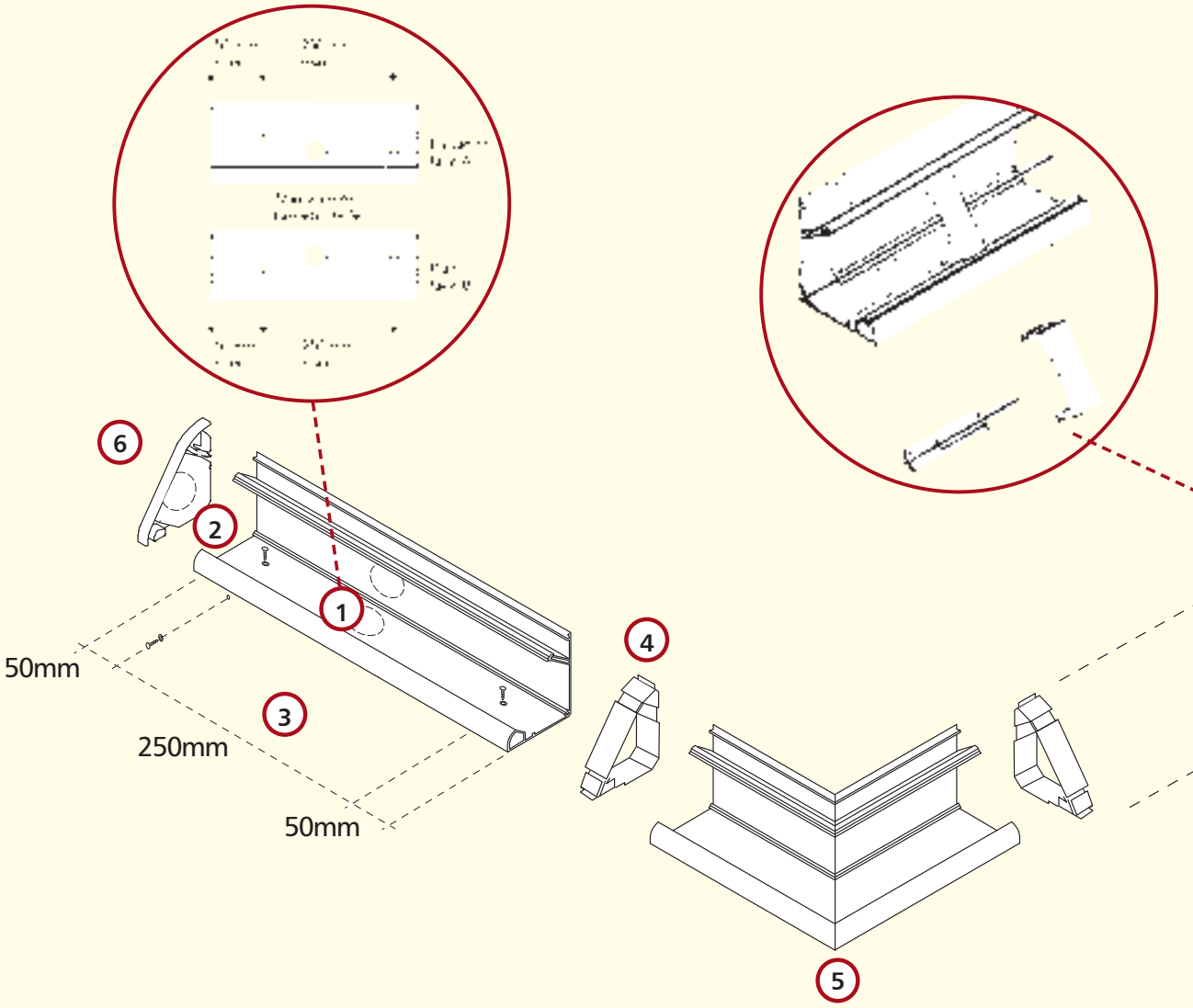
Prior to installation strike a line of trunking using a plumb and chalk line for vertical, and spirit levels for horizontal runs.

Incoming Supply Cables

1. Establish location of incoming cable supplies. Entry into the trunking can be from the back, base or end caps and is achieved by drilling up to a 25mm hole using the drill base centres in the trunking and inserting a conduit gland.
2. Holes of 20mm can be drilled into the end caps for access to the large compartment using one of a series of moulded drill centres.

Fixing

3. Trunking requires fixing at staggered centres, 250mm maximum along the length with the first and last fixing not more than 50mm from the end of each length. Drill trunking with 6mm holes using drill guides and fix with pan or round head screws and washers (Note: Tighten screws firmly and back off slightly to allow for movement). For double trunking installation fix both bases this way.
4. Couplers - Always use a trunking coupler and cover at the junction between each length and at corners to maintain IP4X Classification. To fix push the coupler carrier onto the end of the free trunking length. Slide up to fixed trunking and push home.
5. Internal and External Corners – Remove covers. Push a coupler onto each end and assemble to trunking. Position trunking and corner. Check that the internal corner base fits snugly into the corner. Fix trunking base as previously described.
6. End caps – Having located the length of trunking and cut if required push fit the end cap firmly onto the trunking ensuring that it is butted up tight. Note: where greater retention is required use MK adhesive EW PLUS to bond the end cap to the trunking base only. Avoid adhesive contact with covers.
7. Cable Retainer without central divider installed.



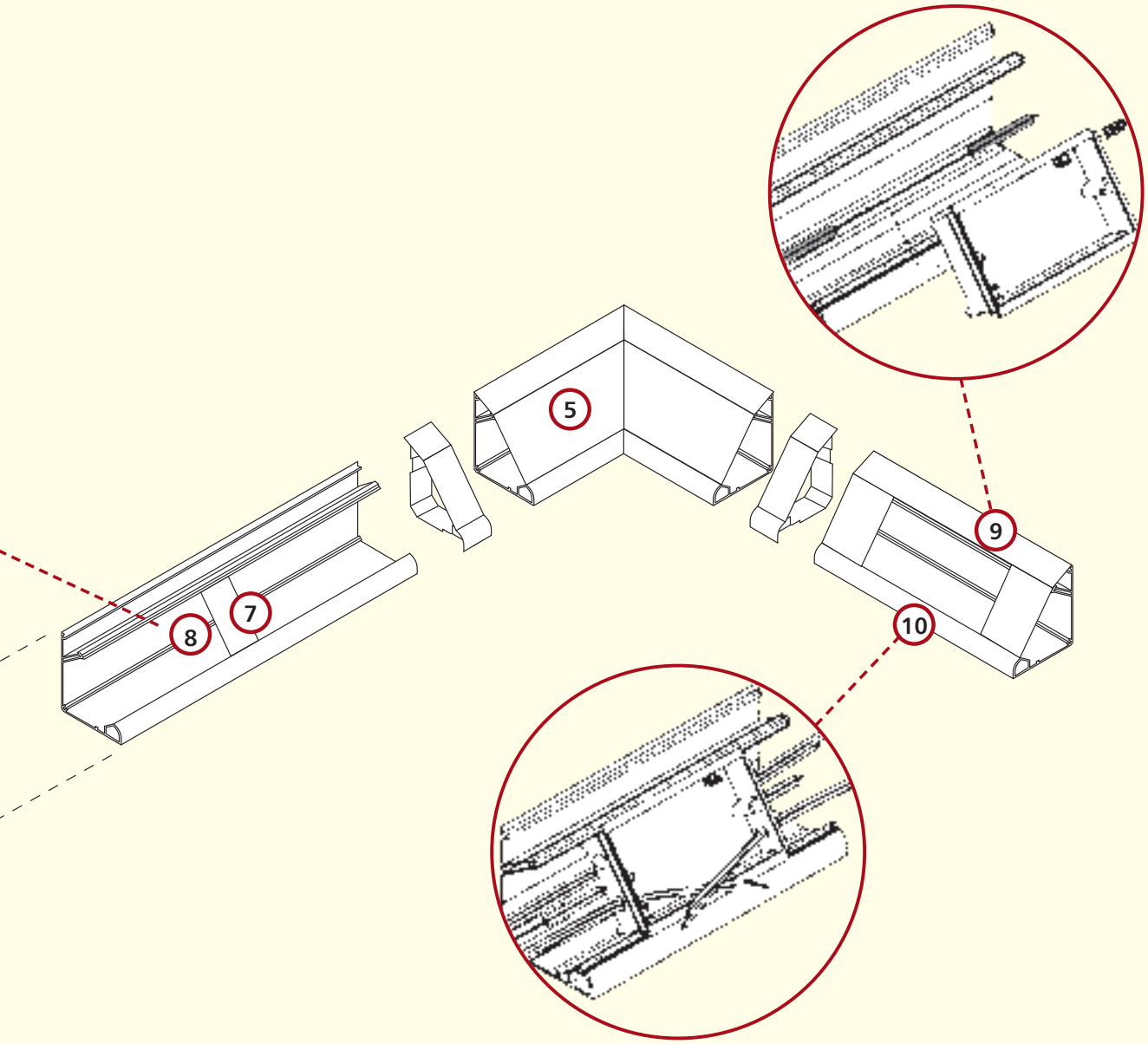
8 The divider and cable retainer interlock should be installed together whenever the divider is used.

Divider – To achieve the correct fit a portion of the divider needs to be removed prior to fitting. The divider is formed with a series of depth gauge lines to assist when cutting. These also serve to determine the correct cut out when using outlet boxes. Having prepared the cut outs as required push fit the divider into the preformed groove in the internal corner of the trunking.

Cable Retainer – Incorporate as many cable retainers as required to provide restraint and support for cables. This is particularly critical when trunking is mounted overhead in a downward facing position. These should be no more than 600mm centres maximum and within 100mm of an end or corner. The cable retainer is supplied with a series of shallow slots. Use the centre slot to engage the outer cut edge of the cable divider. The legs of the cable retainer engage behind the projections within the large compartment.

9 Determine location of outlets and select correct depth box. Remove knockouts to suit cable entry. Push fit brass terminal (K3716) if required into the aperture in the base of the box.

10 Drill the large compartment walls using the drill guide groove to allow cables to feed when supplying from small compartment. Press and clip box into the trunking body engaging the rear projections. Note: Where dividers are installed they need to be reduced to accommodate the selected depth box. Adjacent boxes should not be more than 25mm apart.



Covers

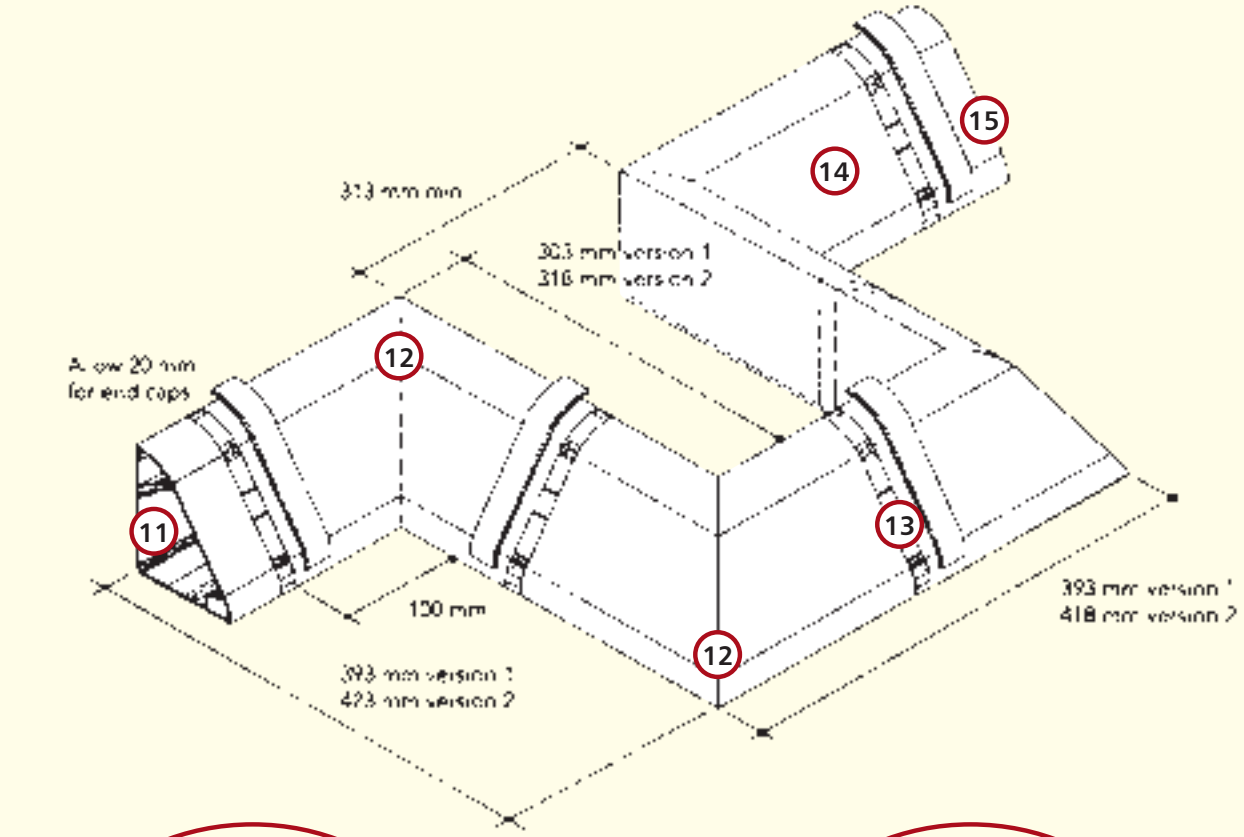
11 Slide cover under end cap where required before locating correctly in position. Pushing firmly snap into place. The top cover in the double (back to back) trunking locks the two trunking bodies together.

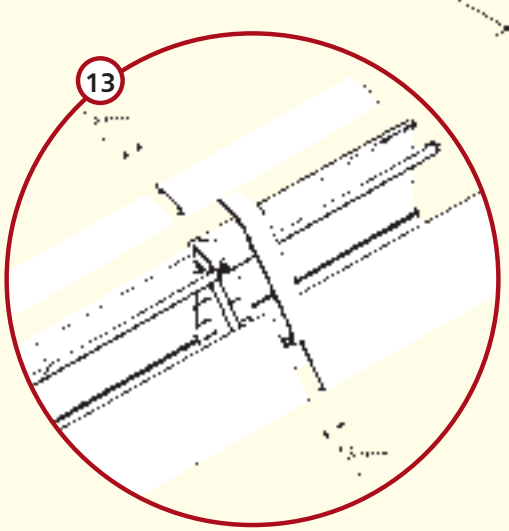
12 Internal and external corner covers should be installed with couplers. Leave a gap of 13mm at the junction between corner cover and the trunking covers to allow fitting of coupler covers. Correctly position and snap firmly into place.

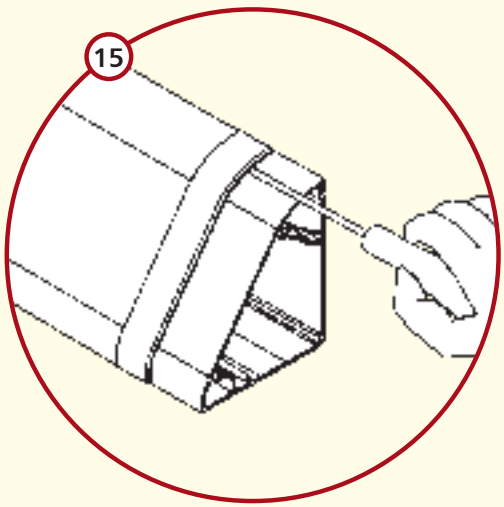
13 At joint couplers , overlap the coupler carrier flanges with the lids. The gap left between the covers will allow for the fitting of joint covers. Having satisfactorily installed all trunking covers firmly push fit the coupler covers into place overlapping all the cover completely.

14 Removal – Main compartment cover removal is readily achieved if a wiring accessory or coupler is present. Remove the accessory and exerting pressure to the underside of the cover with the head of a flat screwdriver to initiate disengagement, peel the cover back.

15 When no accessory is available remove a moulded coupler cover by placing the head of a small flat screwdriver at the junction with the trunking cover and lever outwards slowly disengaging the cover moulding. When levering off coupler covers protect trunking faces from damage. When the coupler cover is removed initiate clip disengagement of trunking covers and peel back.







Pinnacle Pillar

Standards and approvals

Conforms to the heavy duty requirement of BS 4678 Part 4 and the IP4X classification of EN 60529

CE compliant meeting the LV directive

Technical specification

Materials

PVCu materials used in the manufacture of MK products are self extinguishing non-flame propagating in accordance with BS 4678 Part 4.

Extrusion material has been tested by a UKAS accredited laboratory in accordance with the requirements of BS476: part 7 and has achieved a Class 1Y.

Moulding material has been tested by a UKAS accredited laboratory and conforms with IEC 695-2-1 at a severity of 650°C

IEE Wiring Regulations

Designed and manufactured to comply in all respects with BS 7671: 2008 (IEE wiring regulations 17th Edition: 2008)

Quality Assurance

The system is manufactured to BS EN ISO 9001



Description

Pinnacle Pillars are versatile, vertical multi-compartment systems providing a means to supply LV power, data and telecom services from ceiling or floor voids to specific perimeter locations.

Installation

This unit cannot be free standing and requires to be fully supported to an adequate wall or structure for its entire length.

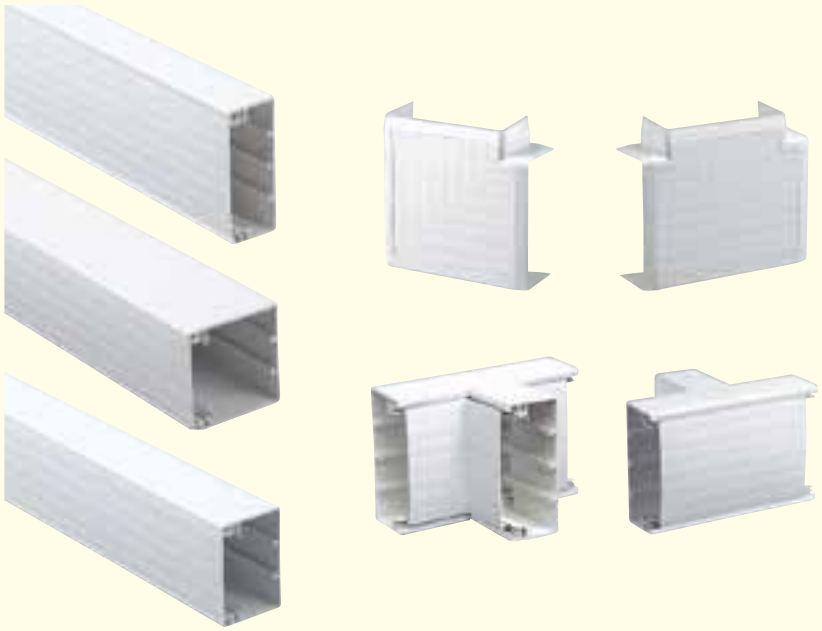
See Installation Guide 41973PL for details

For a full range of corresponding products, see page 350 in the product selector.

Integrated Trunking

Features

- Wide range of integrated components maximise versatility in application
- Simple, clean lines
- Easy to assemble and install
- Data bend option 32mm radius
- High impact resistance and durability
- Tapered joints provide complete protection at junctions masking cut ends
- Continuity of cable distribution through different sized trunking is provided by special end reducers
- Clip on covers provide continuous access for wiring modifications
- All extrusions manufactured from 90% recycled material*



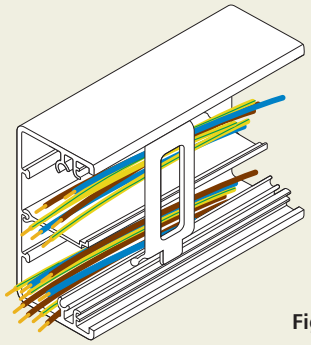


Figure 1

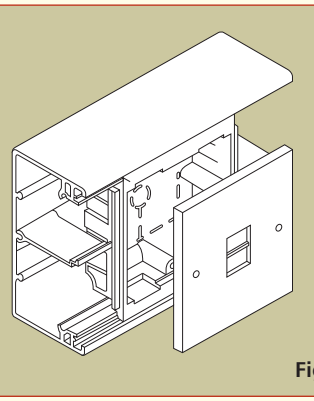


Figure 2

Description

Premier is an integrated PVCu trunking system for general cable distribution. A comprehensive range of tees, angles, reducers and junctions make a very wide range of configurations possible and the system can be wall or ceiling mounted.

6 trunking sizes are available (see dimensions overleaf) offering the user distribution solutions, from incoming mains to the most remote power, telecom or data outlet.

Cable segregation (see figure 1)

Each trunking profile incorporates a series of preformed locators which accept clip-in dividers for cable segregation. Special dividers are provided to maintain cable segregation behind outlet positions. Clip-in components are provided for retaining cables within each compartment prior to trunking lids being fitted.

Finish

Premier lid components are decoratively textured in contrasting linear patterns giving a subtle 'striped' effect.

All other components are in white with a semi matt finish.

Accessories boxes and Mounting Frames (see figure 2)

One, two and three gang outlets boxes in 25mm, 28mm and 35mm depths and one and two gang outlet frames, allow power, telecom and data outlets to be incorporated where required. MK plug-in lighting can be used with all trunking sizes.

Colour

The system is available in a standard white colour, plus a choice of over 180 RAL paint colours to special order (minimum order value applies).

Technical specification

Materials

PVCu materials used in the manufacture of MK products are self extinguishing non-flame propagating in accordance with BS 4678 Part 4.

Extrusion material has been tested by a UKAS accredited laboratory in accordance with the requirements of BS476: part 7 and has achieved a Class 1Y.

Moulding material has been tested by a UKAS accredited laboratory and conforms with IEC 695-2-1 at a severity of 650°C

IEE Wiring Regulations

Designed and manufactured to comply in all respects with BS 7671: 2008 (IEE wiring regulations 17th Edition: 2008)

Quality Assurance

The system is manufactured to BS EN ISO 9001

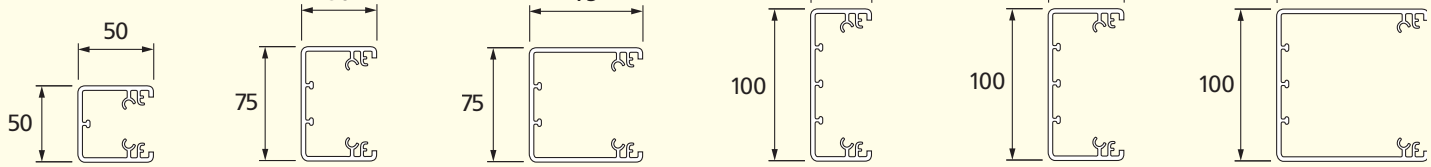
* Based on 2008 consumption

For a full range of corresponding products, see pages 352-357 in the product selector.

Integrated Trunking

Dimensions (mm)

Trunking systems



NCT5050 NCT7550 NCT7575 NCT1040 NCT1050 NCT1010

PREMIER CABLE CAPACITY													
Type of Conductor	Size	Cable Factor	NCT5050	NCT7550	NCT7575	NCT1040	NCT1050	NCT1010	NCT1040 with 25mm backbox	NCT1050 with 25mm backbox	NCT1050 with 35mm backbox	NCT1010 with 25mm backbox	NCT1010 with 35mm backbox
			Full Term CSA 100%Fill (mm^2)										
			1881	3039	4754	3091	4041	8725	1081	1866	1224	6550	5908
			Term at 45% Fill (mm^2)										
			846	1367	2139	1390	1818	3926	486	839	550	2947	2658
Power Cables			Number of Cables at 45% Fill										
PVC	1.5mm^2	8.6	98	158	248	161	211	456	56	97	63	342	309
Stranded	2.5mm^2	12.6	67	108	169	110	144	311	38	66	43	233	210
	4mm^2	16.6	50	82	128	83	109	236	29	50	33	177	160
	6mm^2	21.2	39	64	100	65	85	185	22	39	25	139	125
Data Cables			Number of Cables at 45% Fill (a) and Full Capacity (b)										
			a b	a b	a b	a b	a b	a b	a b	a b	a b	a b	a b
Cat5E UTP	5.5mm dia.	30.2	28 62	45 100	70 157	46 102	60 133	130 288	16 35	27 61	18 40	97 216	88 195
Cat5E STP	6.0mm dia.	36.0	23 52	37 84	59 132	38 85	50 112	109 242	13 30	23 51	15 34	81 181	73 164
Cat6 UTP	6.5mm dia.	42.2	20 44	32 72	50 112	32 73	43 95	93 206	11 25	19 44	13 29	69 155	62 140
Cat6 STP	7.0mm dia.	49.0	17 38	27 62	43 97	28 63	37 82	80 178	9 22	17 38	11 24	60 133	54 120

Applications

The Premier system is ideal for use in factories, workshops, schools, portable accommodation and general commercial buildings where integration of cable distribution with accessory mounting facility is desirable.

Generally systems can be used as follows:

50 x 50, 75 x 50 and 75 x 75mm – general cable distribution.

100 x 40 and 100 x 50mm – where mounting accessories are also required.

100 x 100mm – where mounting accessories and/or generous cable distribution is required.

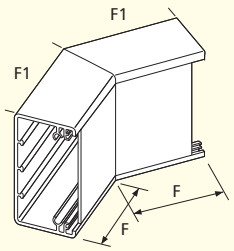
ACCESSORIES		
	For use with	List No.
One gang accessory box and frame	NCT1040, NCT1050, NCT1010 for power and ELV outlets requiring 25mm deep box	VTS6025
	NCT1050/NCT1010 for power and ELV outlets requiring 35mm deep box	VTS6035
	NCT1040, NCT1050, NCT1010 for power and ELV outlets requiring extra deep accessory space	VTS6000
Two gang accessory box and frame	NCT1040, NCT1050, NCT1010 for power and ELV outlets requiring 25mm deep box	VTS7025
	NCT1050/NCT1010 for power and ELV outlets requiring 35mm deep box	VTS7035
	NCT1040, NCT1050, NCT1010 for power and ELV outlets requiring extra deep accessory space	VTS7000
Three gang accessory box	NCT1040, NCT1050, NCT1010 for power and ELV outlets requiring 28mm deep box	VTS8028
Mini trunking adaptor	Integrates Premier with YEA1, YEA2, YEA200, YEA3 CMA1, CMA3, CMA4 Mini trunking fittings	NYT100
Partition wall cover	NCT1040	NWC1040

Integrated Trunking

Components

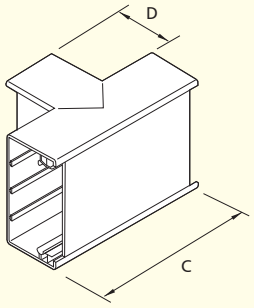
The five components that follow are fabricated sections and space must be allowed for their inclusion in runs of trunking. All other components snap on over standard trunking profiles.

Internal angle (135°) NMI



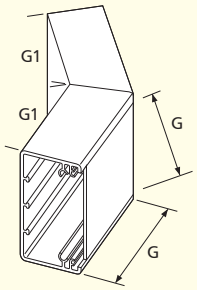
	F mm	F1 mm	
NMI	5050	75	96
7550	75	96	
7575	75	106	
1040	75	92	
1050	75	96	
1010	75	116	

External Tee NTE



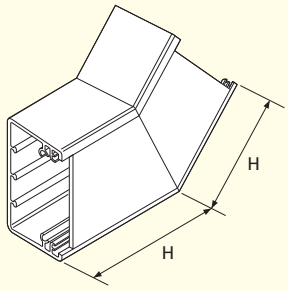
	C mm	D mm	
NTE	5050	150	50
7550	150	50	
7575	225	75	
1040	150	60	
1050	150	50	
1010	250	75	

External angle (135°) NMO



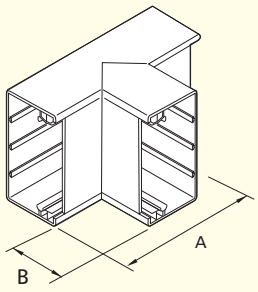
G mm		G1 mm	
NM0	1050	96	75
7550	96	75	
7575	106	75	
1040	92	75	
1050	96	75	
1010	116	75	

Flat angle (135°) NMT



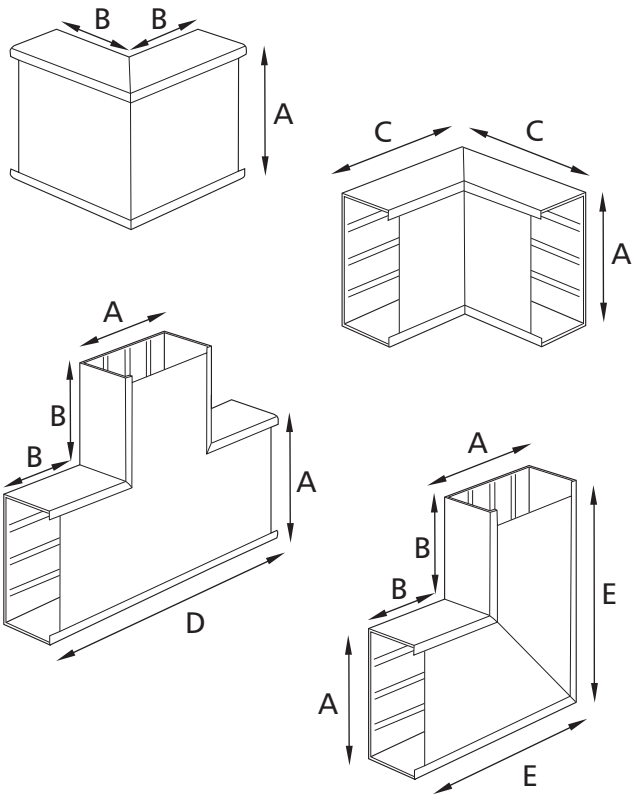
	H mm	
NMT	5050	96
7550	106	
7575	106	
1040	116	
1050	116	
1010	116	

Internal Tee NTI



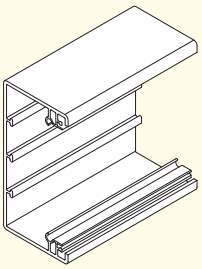
	A mm	B mm	
NTI	5050	150	50
7550	150	50	
7575	225	75	
1040	150	60	
1050	150	50	
1010	250	75	

Fabricated fittings (for 1050 only)

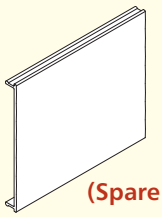


DIMENSIONS (mm)				
A	B	C	D	E
100	75	125	250	175

Integrated Trunking



NCT1010 (Trunking is supplied with lid)

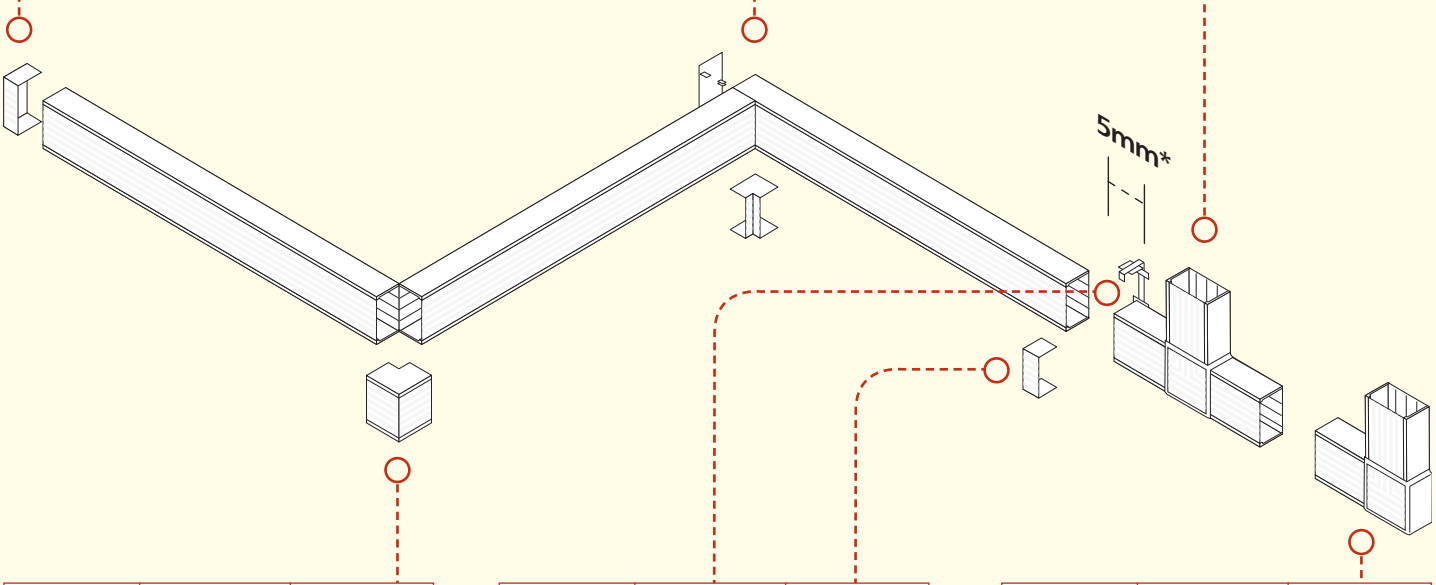


NCT1010LID (Spare lid)

Profile	End Cap
50 x 50	NEP5050
75 x 50	NEP7550
75 x 75	NEP7575
100 x 40	NEP1040
100 x 50	NEP1050
100 x 100	NEP1010

Profile	Int Corner Corner	With Data
50 x 50	NAI5050	
75 x 50	NAI7550	
75 x 75	NAI7575	
100 x 40	NAI1040	
100 x 50	NAI1050	NDAI1050
100 x 100	NAI1010	

Profile	Flat Tee Corner	With Data
50 x 50	NTF5050	
75 x 50	NTF7550	
75 x 75	NTF7575	
100 x 40	NTF1040	
100 x 50	NTF1050	NDTF1050
100 x 100	NTF1010	



Profile	Ext Corner Corner	With Data
50 x 50	NAE5050	
75 x 50	NAE7550	
75 x 75	NAE7575	
100 x 40	NAE1040	
100 x 50	NAE1050	NDAE1050
100 x 100	NAE1010	

Profile	Int Coupler Cover	Joint
50 x 50	NCI5050	NJC5050
75 x 50	NCI7550	NJC7550
75 x 75	NCI7575	NJC7575
100 x 40	NCI1040	NJC1040
100 x 50	NCI1050	NJC1050
100 x 100	NCI1010	NJC1010

Profile	Flat Angle Corner	With Data
50 x 50	NAF5050	
75 x 50	NAF7550	
75 x 75	NAF7575	
100 x 40	NAF1040	
100 x 50	NAF1050	NDAF1050
100 x 100	NAF1010	

Note: Diagram shows profile 1050

* Minimum distance

Integrated Trunking

Installation guide

General notes

Prior to installation strike a line of trunking using a plumb and chalk line for vertical, and spirit levels for horizontal runs.

1. It may be advantageous to fit stop ends to trunking prior to installation. Where stop end could be subjected to lateral force the mounting clip should be solvent welded to the rail.
2. Drill Trunking with oversized holes in positions and at maximum centre shown.
3. Fix with dome head screws and fibre or rubber washers. Allow for expansion movement when tightening screws and between joints.
4. When feeding with mini trunking, cut trunking base as indicated and cover with appropriate mini trunking adapter.
5. Internal coupler should be used to ensure correct alignment. Clip the coupler to the end of the free trunking length, offer up to the fixed trunking and slide home.
6. Minimum dimensions:

Trunking size mm	Dimension A (mm)
50 x 50	100
75 x 50	100
75 x 75	130
100 x 40	90
100 x 50	100
100 x 100	210

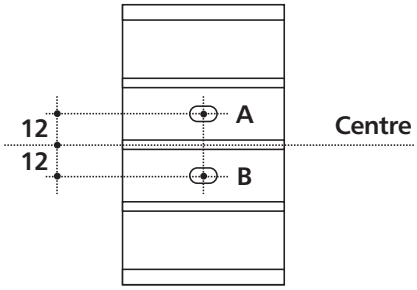
7. Partition wall cover – having passed through a partition fix the wall cover to it using screws or adhesive. For future maintenance work ensure the partition and partition wall cover will not restrict lid removal.

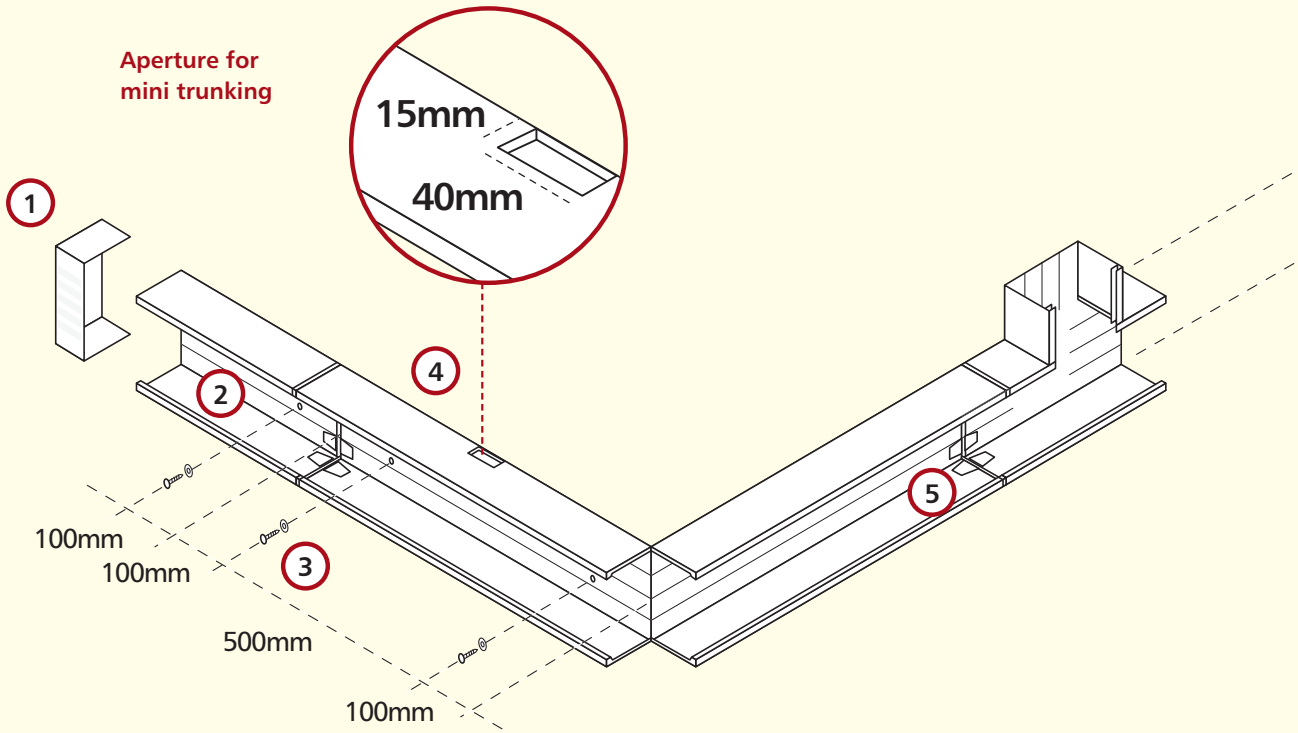
Fixing centres (2)

For 50mm wide trunking use hole A.

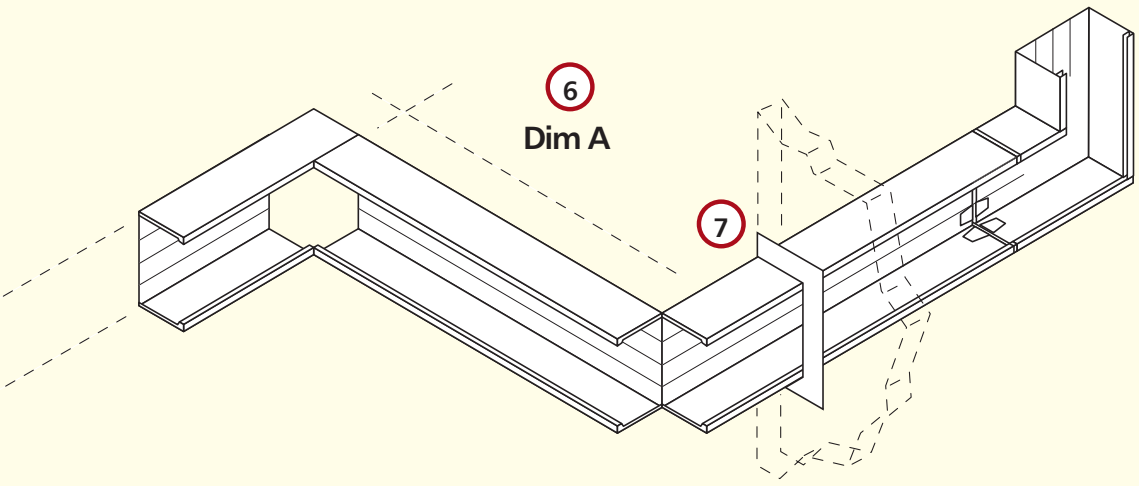
For 100mm wide trunking use holes A and B.

For 75mm wide trunking drill single fixing on the centre line.





Integrated Trunking



Integrated Trunking

Installation guide continued

(8) Clip in cable dividers prior to cabling. Divider clip fits to the tee bar mounting rail extruded on the trunking base. To correctly fit divider, the extension foot of the female clip profile is mounted below the tee bar for horizontal runs, and to the right hand side of vertical runs.

(9) Cable retainers clip into the semi-circular grooves extruded within the trunking profile. Retainers should be installed at 750mm maximum centres on straight runs or within 100mm of each end, corner or change of plane.

At internal corners, external corners, flat angles and flat tees, leave gaps between lids and the end trunking body as shown below:

(10) Internal corners – measure distance into corner and cut trunking length 2mm short.

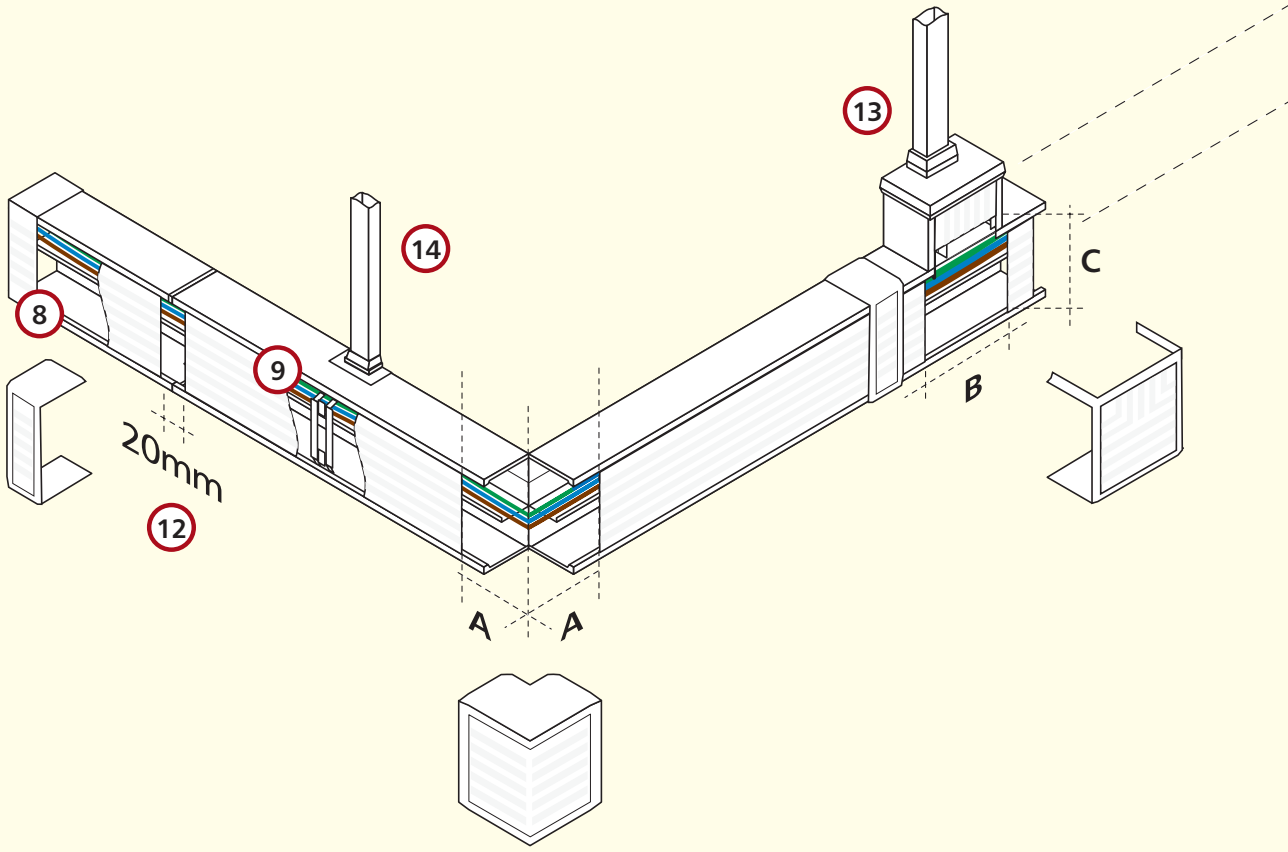
(11) Wall plates should be used to maintain enclosure function of trunking.

(12) Leave a gap of 20mm to allow fitting of joint cover moulding.

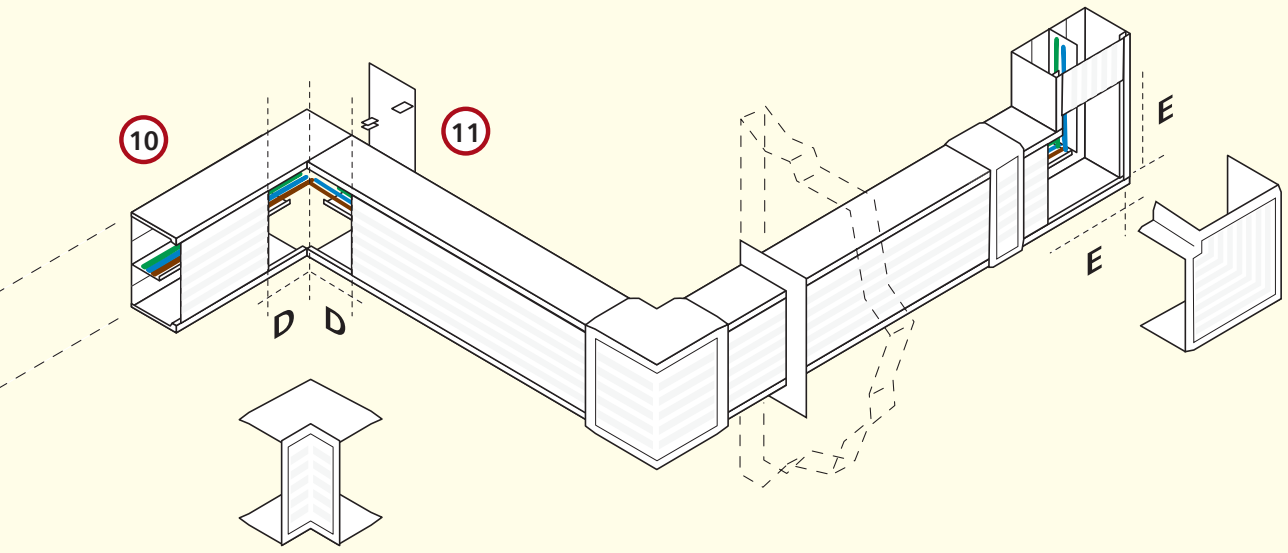
(13) To join lengths of different sized trunking use the appropriate reducer. For correct alignment of adjacent trunking bodies temporarily clip reducers into fixed trunking.

(14) For mini trunking, clip adaptor from YEA range into aperture to suit mini-trunking size YT1 to YT3.

		50x50	75x50	75x75	100x40	100x50	100x100
External Corner	**A**	62	62	87	52	62	140
Flat Tee	**B**	74	99	99	124	124	124
	C	65	90	90	115	115	115
Internal Corner	**D**	62	62	87	52	62	140
Flat Angle	**E**	66	90	90	115	115	140



Integrated Trunking



Trunking

Features

- 2 sizes with one or two compartments
- Easy to add sockets and outlets once installed
- Wall or ceiling mounting possible
- Wide range of integrated components maximises versatility of application
- Unobtrusive and neat
- Easy to assemble and install
- Durable and impact resistant to Heavy Classification BS 4678 Part 4
- All extrusions manufactured from 90% recycled material*

Technical specification

Materials

PVCu materials used in the manufacture of MK products are self extinguishing non-flame propagating in accordance with BS 4678 Part 4.

Extrusion material has been tested by a UKAS accredited laboratory in accordance with the requirements of BS476: part 7 and has achieved a Class 1Y.

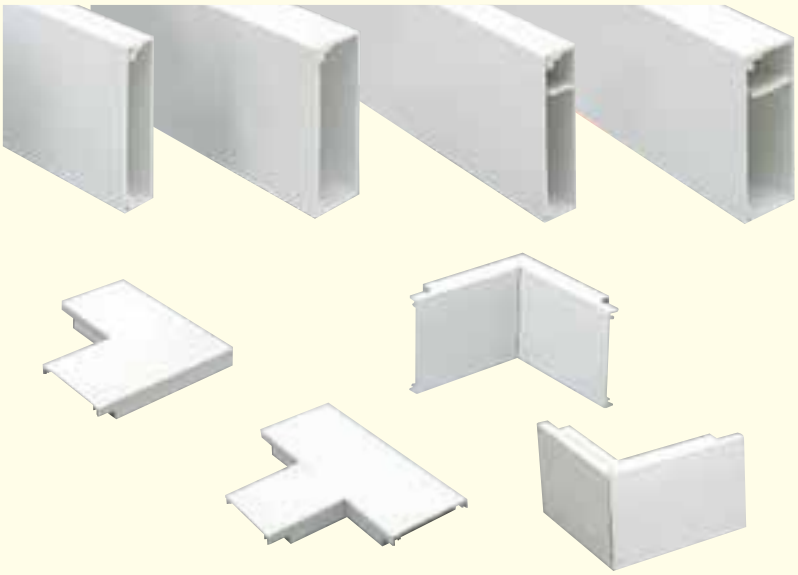
Moulding material has been tested by a UKAS accredited laboratory and conforms with IEC 695-2-1 at a severity of 650°C

IEE Wiring Regulations

Designed and manufactured to comply in all respects with BS 7671: 2008 (IEE wiring regulations 17th Edition: 2008)

Quality Assurance

The system is manufactured to BS EN ISO 9001



Description

Norwich trunking is available in two depths with one or two compartments for wall or ceiling mounting. The standard version is 40mm deep with a 25mm deep option, where lack of space makes the projection critical. Accessory mounting frames are located within the trunking, providing a visually co-ordinated system with the facility to relocate and extend accessory outlet positions as required.

The system is widely used in schools, offices and commercial installations because of its durability and the ability to retrofit extra sockets and outlets as required.

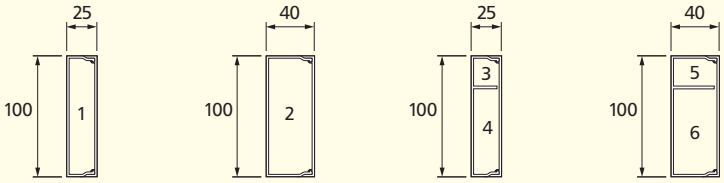
Material: PVCu **Colour:** White only

* Based on 2008 consumption

For a full range of corresponding products, see pages 358-359 in the product selector.

Trunking

Dimensions (mm)



NBT3 NBT4 NBT3TC NBT4TC

NORWICH CABLE CAPACITY								
Type of Conductor	**Size**	**Cable Factor**	**NBT3 (1)**	**NBT3TC (3)**	**NBT3TC (4)**	**NBT4 (2)**	**NBT4TC (5)**	**NBT4TC (6)**
			Full Term CSA 100%Fill (mm²)					
			1805	**384**	**1383**	**3230**	**706**	**2455**
			Term at 45% Fill (mm²)					
			812	**172**	**622**	**1453**	**317**	**1104**
Power Cables			**Number of Cables at 45% Fill**					
PVC Stranded	1.5mm²	8.6	94	20	72	168	36	128
	2.5mm²	12.6	64	13	49	115	25	87
	4mm²	16.6	48	10	37	87	19	66
	6mm²	21.2	38	8	29	68	14	52

Data Cables			**Number of Cables at 45% Fill (a) and Full Capacity (b)**											
			a	**b**	**a**	**b**	**a**	**b**	**a**	**b**	**a**	**b**	**a**	**b**
Cat5E UTP	5.5mm dia.	30.2	26	59	5	12	20	45	48	106	10	23	36	81
Cat5E STP	6.0mm dia.	36.0	22	50	4	10	17	38	40	89	8	19	30	68
Cat6 UTP	6.5mm dia.	42.2	19	42	4	9	14	32	34	76	7	16	26	58
Cat6 STP	7.0mm dia.	49.0	16	36	3	7	12	28	29	65	6	14	22	50

Note: NBT3 & NBT3TC are not deemed suitable for terminating Cat6 cabling.

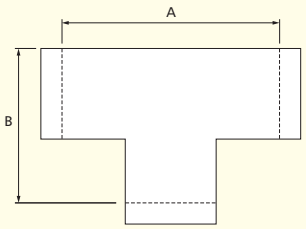
Components

The four components shown opposite are fabricated sections and space must be allowed for inclusion in runs of trunking. All other components snap on over standard trunking profiles.

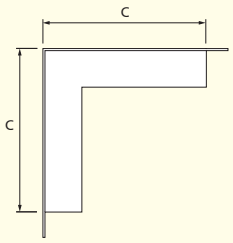
List No.	Component dimensions			
	A	**B**	**C**	**D**
NBT3	240	170	125	125
NBT4	240	170	140	140

The four components shown below are fabricated sections and space must be allowed for inclusion in runs of trunking. All other components snap on over standard trunking profiles.

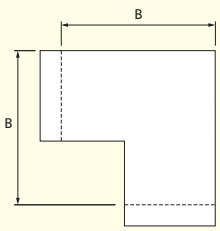
Flat Tee



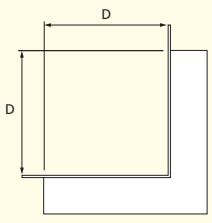
External Corner



Flat Angle



Internal Corner



Trunking

Installation guide

General notes

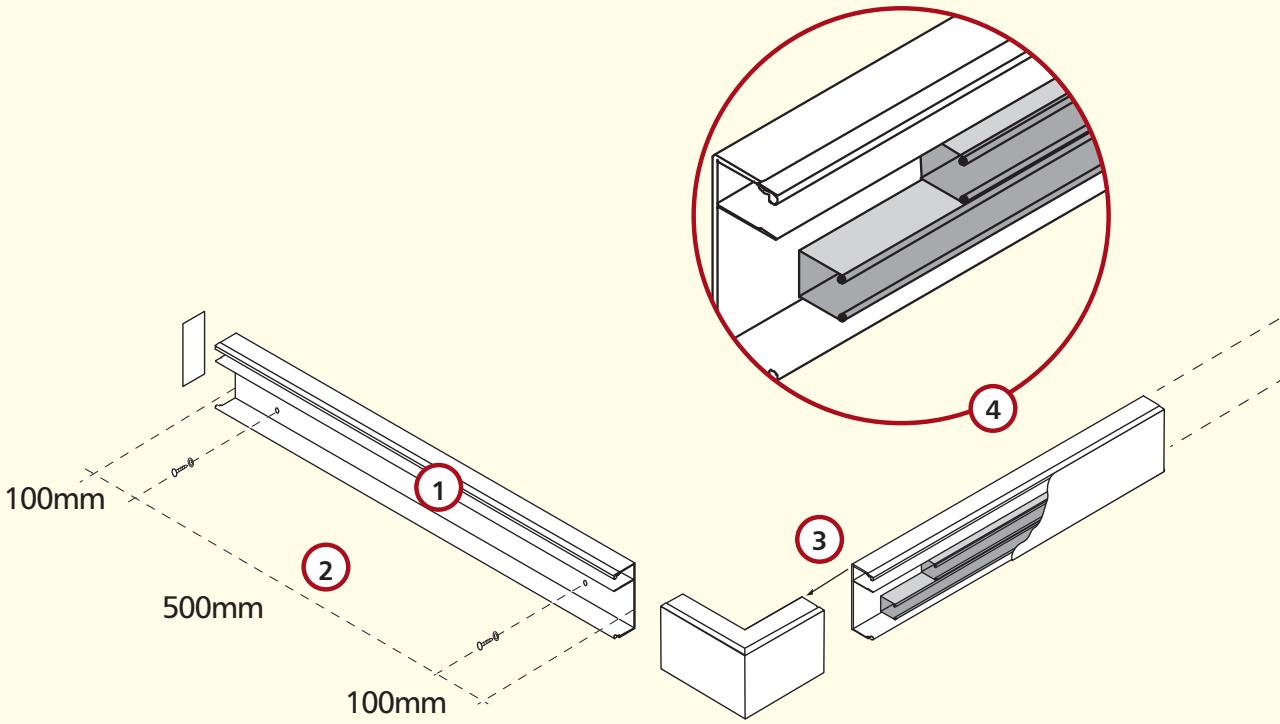
Prior to installation strike a line of trunking using a plumb and chalk line for vertical, and spirit levels for horizontal runs.

Fixing

1. Cut and fix the continuous carrier at not more than 500mm centres along its entire length and not more than 100mm from the end of a run, and at intersection with other systems.
2. Locate and secure, with a minimum of two screws, the carrier for flat angles, external angles, internal angles and flat tees.
3. Close butt to the carrier using internal couplers – see 5.

Cable segregation

4. Further segregation within the single or two compartment trunking can be achieved during or following the installation by inserting the appropriate size of Mini-trunking sections. Fit the socket insertion units, install the conductors and cable runs and draw the conductors through. Fix the clip on cover using the back up couplers at the intersections.
5. The couplers can also serve as cable retaining straps prior to the cover being fitted. Stagger the joints in the cover with the joints in the carrier and offset by 50mm. Bond the end stop to the main trunking using Egaweld PLUS solvent weld



Trunking

Junction with Mini-trunking

6 Locate the position of the junction. Drill the carrier with the correct sized hole to accommodate the number of cables required. Position the correct UEA/-adaptor using a short length of compatible Mini-trunking as a guide.

The trunking should stop 6mm from the face of the Norwich trunking to allow the adaptor to fit tight. Bond the adaptor to the Norwich trunking using Egaweld PLUS solvent weld

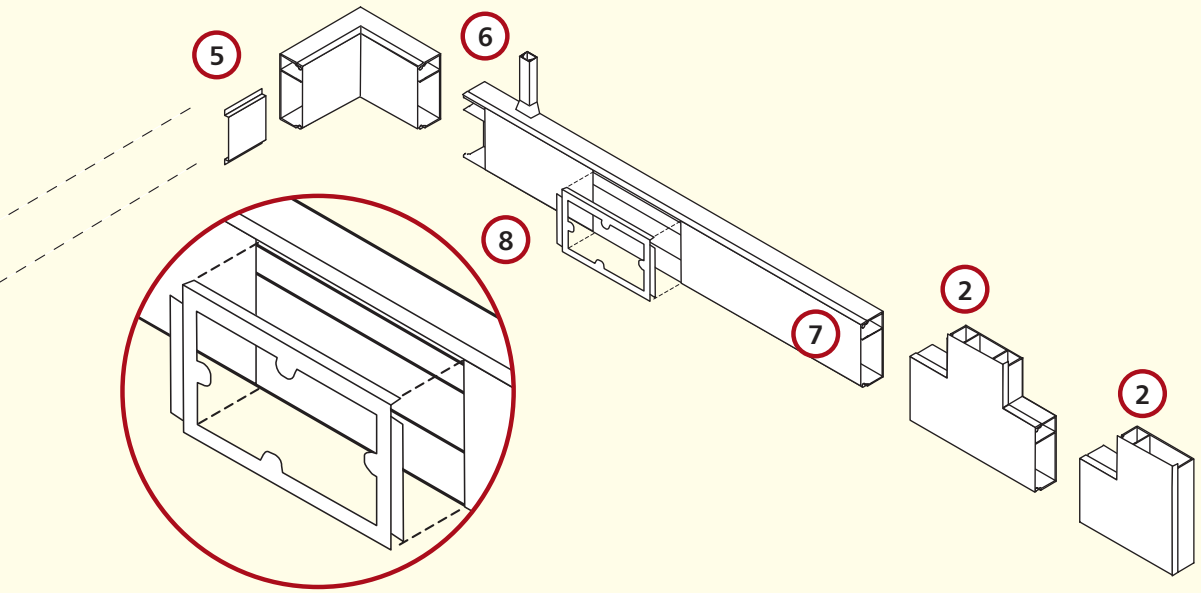
Remove the temporary trunking guide and proceed with the installation.

Cover

7 Covers simply clip onto base.

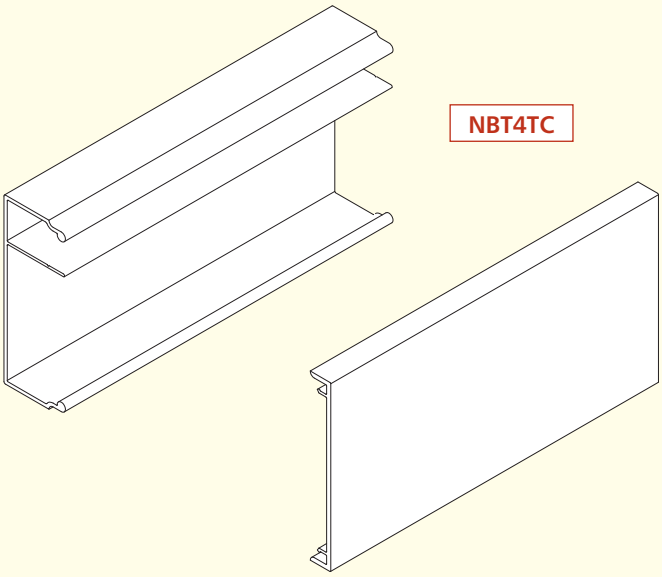
Accessories

8 The 'clip on' accessory mounting frames will accept most standard one and two gang socket plates and socket mounting with back box enables telephone circuitry to be segregated from other services.



Trunking

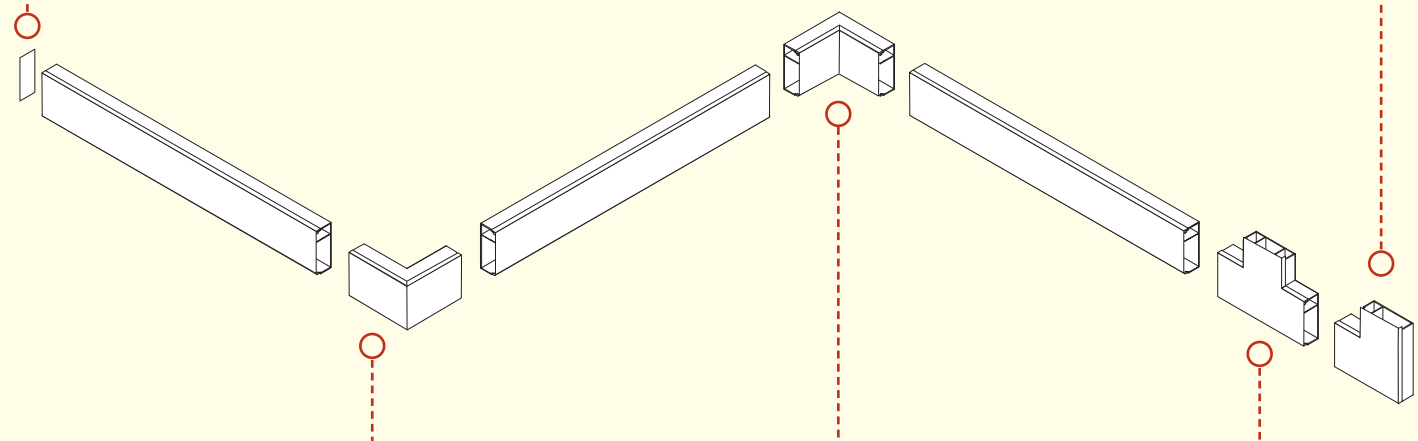
Component selection guide



NBT4TC

Profile	End Cap
100 x 25mm (NBT3 & NBT3TC)	NEP3
100 x 40mm (NBT4 & NBT4TC)	NEP4

Profile	Flat Angle
Single	
100 x 25mm (NBT3)	NAF3
100 x 40mm (NBT4)	NAF4
Twin – Compartment to outside	
100 x 25mm (NBT3TC)	NAF3TC
100 x 40mm (NBT4TC)	NAF4TC
Twin – Compartment to inside	
100 x 25mm (NBT3TC)	NAF3TCSI
100 x 40mm (NBT4TC)	NAF4TCSI



Profile	Ext Corner
100 x 25mm (NBT3)	NAE3
100 x 40mm (NBT4)	NAE4
100 x 25mm (NBT3TC)	NAE3TC
100 x 40mm (NBT4TC)	NAE4TC

Profile	Int Corner
100 x 25mm (NBT3)	NAI3
100 x 40mm (NBT4)	NAI4
100 x 25mm (NBT3TC)	NAI3TC
100 x 40mm (NBT4TC)	NAI4TC

Profile	Flat Tee
100 x 25mm (NBT3)	NTF3
100 x 40mm (NBT4)	NTF4
100 x 25mm (NBT3TC)	NTF3TC
100 x 40mm (NBT4TC)	NTF4TC

technical hotline +44 (0)1268 563720



Echo switch (transmitter) - Edge polished chrome

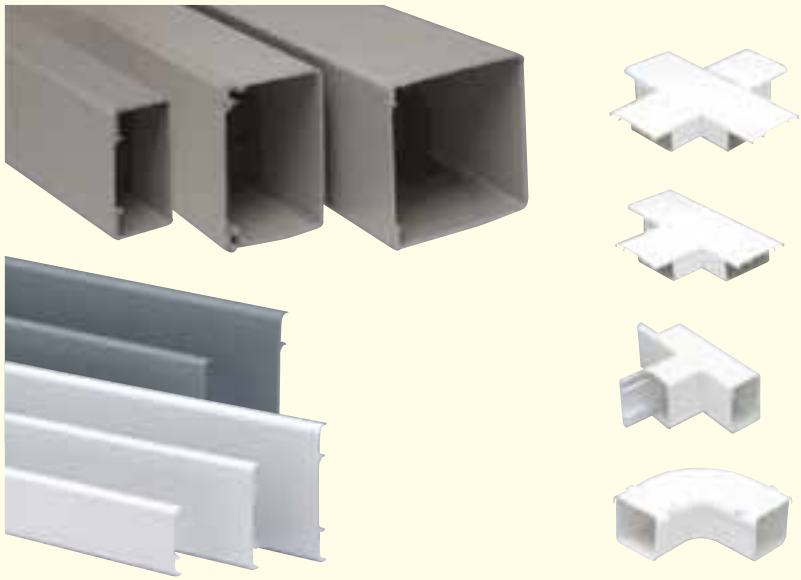
Available on a worldwide basis, the MK Design Service is supported by a dedicated team to ensure the seamless delivery of your chosen products.
To find out more visit **www.mkelectric.co.uk**

Industrial Trunking

Features

- Wide range of trunking sizes and capacity
- Wide range of integrated components maximises versatility of application
- Available in white or grey
- Extremely durable and impact resistant to Heavy Classification BS 4678, Part 4
- Easy to assemble and install
- All trunking fittings are supplied plain without couplings to avoid wastage
- External couplings strengthen the trunking and internal coupling pieces
- All extrusions manufactured from 90% recycled material*

Specified sizes, pages 360-361.



Technical specification

Materials

PVCu materials used in the manufacture of MK products are self extinguishing non-flame propagating in accordance with BS 4678 Part 4.

Extrusion material has been tested by a UKAS accredited laboratory in accordance with the requirements of BS476: part 7 and has achieved a Class 1Y.

Moulding material has been tested by a UKAS accredited laboratory and conforms with IEC 695-2-1 at a severity of 650°C

IEE Wiring Regulations

Designed and manufactured to comply in all respects with BS 7671: 2008 (IEE wiring regulations 17th Edition: 2008)

Quality Assurance

The system is manufactured to BS EN ISO 9001

Description

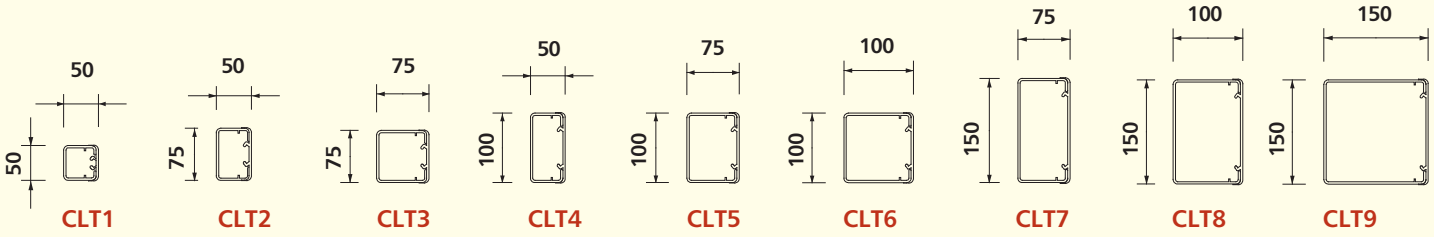
Ega Industrial trunking is a PVCu heavy duty system available in white or grey, used extensively for industrial wiring purposes. It is available in a large variety of sizes and has found wide acceptance throughout the world. Its durability, safety and strength are well proven.

Nine basic sizes are available ranging from 50 x 50 mm to 150 x 150 mm complete with a comprehensive variety of fittings. The trunkings have a simple clip on cover which positively locates when hand pressure is applied and enables fast, efficient installation.

* Based on 2008 consumption

For a full range of corresponding products, see pages 360-361in the product selector.

Industrial Trunking

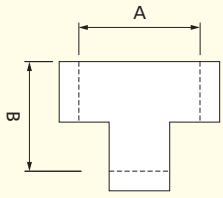


EGA INDUSTRIAL CABLE CAPACITY											
Type of Conductor	**Size**	**Cable Factor**	**CLT1**	**CLT2**	**CLT3**	**CLT4**	**CLT5**	**CLT6**	**CLT7**	**CLT8**	**CLT9**
			Full Term CSA 100%Fill (mm²)								
			2130	**3312**	**5117**	**4408**	**6841**	**9270**	**10446**	**14175**	**21566**
			Term at 45% Fill (mm²)								
			958	**1490**	**2302**	**1983**	**3078**	**4171**	**4700**	**6378**	**9704**
Power Cables			**Number of Cables at 45% Fill**								
PVC Stranded	1.5mm²	8.6	111	173	267	230	357	485	546	741	1128
	2.5mm²	12.6	76	118	182	157	244	331	373	506	770
	4mm²	16.6	57	89	138	119	185	251	283	384	584
	6mm²	21.2	45	70	108	93	145	196	221	300	457
Data Cables			**Number of Cables at 45% Fill (a) and Full Capacity (b)**								
			a	**b**	**a**	**b**	**a**	**b**	**a**	**b**	**a**	**b**	**a**	**b**	**a**	**b**	**a**	**b**	**a**	**b**
Cat5E UTP	5.5mm dia.	30.2	31	70	49	109	76	169	65	145	101	226	138	306	155	345	211	469	321	714
Cat5E STP	6.0mm dia.	36.0	26	59	41	92	63	142	55	122	85	190	115	257	130	290	177	393	269	599
Cat6 UTP	6.5mm dia.	42.2	22	50	35	78	54	121	46	104	72	162	98	219	111	247	151	335	229	511
Cat6 STP	7.0mm dia.	49.0	19	43	30	67	46	104	40	89	62	139	85	189	95	213	130	289	198	440

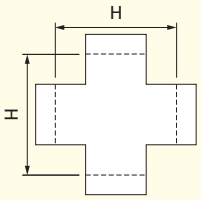
Industrial Trunking

Components

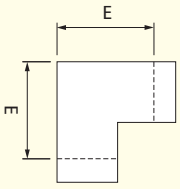
The following components are fabricated sections and space must be allowed for inclusion in runs of trunking. All other components fit over standard trunking profiles.



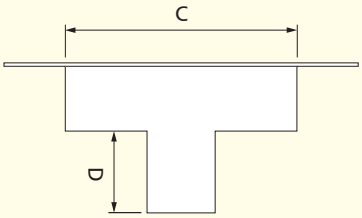
Flat Tee (FTF)



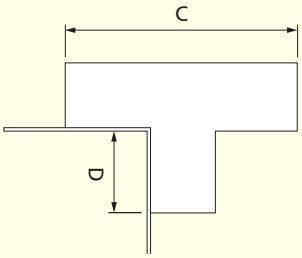
Flat Cross (FCU)



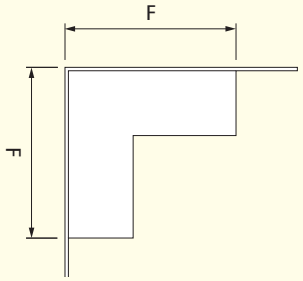
Flat Angle (FAF)



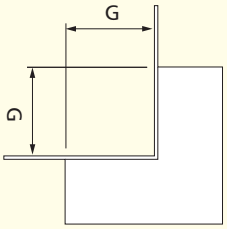
Internal Tee (FTI)



External Tee (FTE)



Internal Corner (FAI)

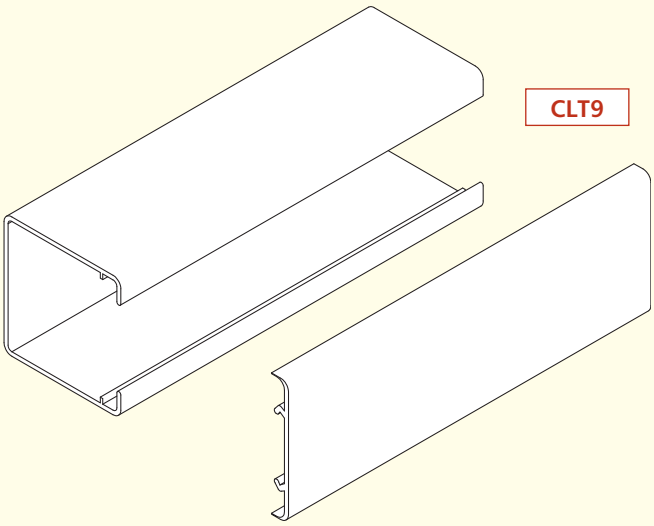


External Corner (FAE)

DIMENSIONS								
List. No.	**Components dimensions (mm)**							
CLT/	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**
CLT1	*100	*90	170	60	*80	*125	*65	*100
CLT2	*150	*115			115	110	60	*150
CLT3	*150	*115	225	75	*115	150	75	*150
CLT4	220	160	170	60	160	110	60	220
CLT5	250	175			175	150	75	250
CLT6	250	175	250	75	175	175	75	250
CLT7	330	240			240	165	90	330
CLT8	380	265			265	215	115	380
CLT9	380	265			265	265	115	380

* indicates moulded items

Component selection guide



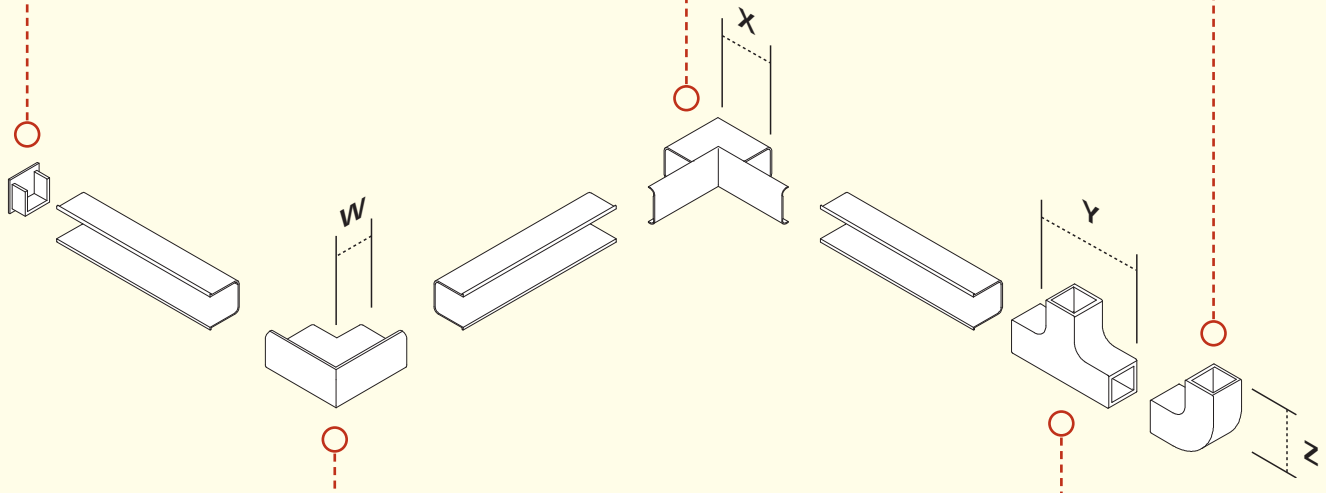
Industrial Trunking

Component selection guide

Profile	End Cap
CLT1	TEP1
CLT2	TEP2
CLT3	TEP3
CLT4	TEP4
CLT5	TEP5
CLT6	TEP6
CLT7	TEP7
CLT8	TEP8
CLT9	TEP9

Profile	Int Corner	X (mm)
CLT1	FAI1	125
CLT2	FAI2	110
CLT3	FAI3	150
CLT4	FAI4	110
CLT5	FAI5	150
CLT6	FAI6	175
CLT7	FAI7	165
CLT8	FAI8	215
CLT9	FAI9	265

Profile	Flat Angle		Z (mm)
Moulded	Fabricated		
CLT1	FAF1		125
CLT2	FAF2		110
CLT3	FAF3		150
CLT4		FAF4	110
CLT5		FAF5	150
CLT6		FAF6	175
CLT7		FAF7	165
CLT8		FAF8	215
CLT9		FAF9	265



Profile	Ext Corner	W (mm)
CLT1	FAE1	65
CLT2	FAE2	60
CLT3	FAE3	75
CLT4	FAE4	60
CLT5	FAE5	75
CLT6	FAE6	75
CLT7	FAE7	90
CLT8	FAE8	115
CLT9	FAE9	115

Profile	Flat Tee		Y (mm)
Moulded	Fabricated		
CLT1	FTF1		170
CLT2	FTF2		170
CLT3	FTF3		225
CLT4		FTF4	170
CLT5		FTF5	225
CLT6		FTF6	250
CLT7		FTF7	255
CLT8		FTF8	330
CLT9		FTF9	380

Industrial Trunking

Installation guide

General notes

Prior to installation strike a line of trunking using a plumb and chalk line for vertical, and spirit levels for horizontal runs.

Fixing

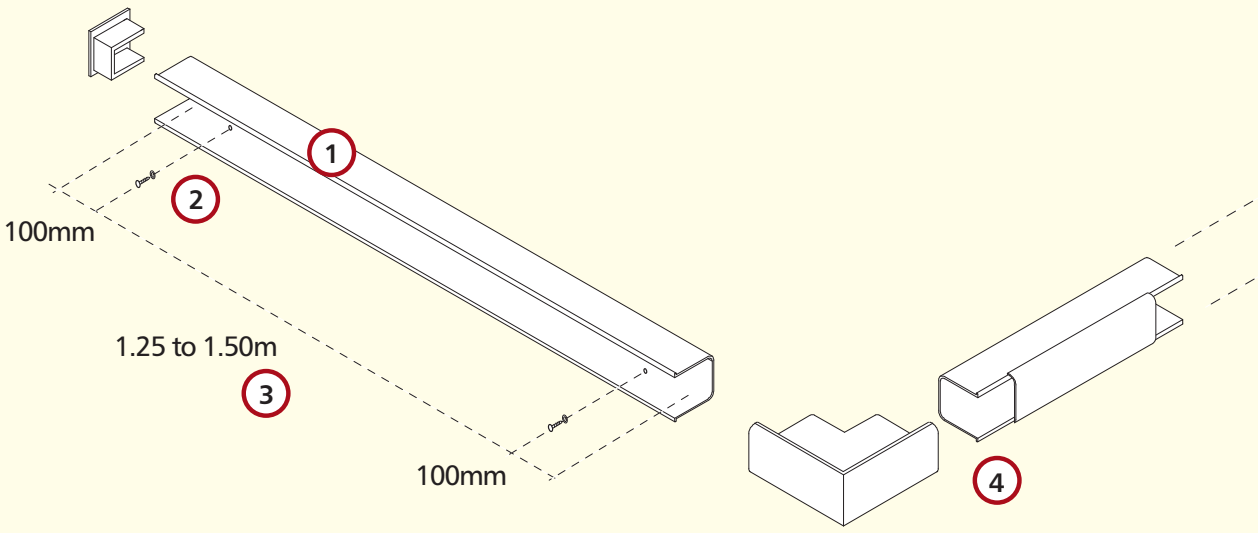
1. Fix trunking with screws or gas nail gun. It is essential that the hole in the trunking is considerably oversized to allow for expansion.
2. Washers should be used under the head of the screw. The screw should not be tightened to its full extent to allow for movement.
3. For suspended trunking it is advisable to provide fixings every 1.25 m to 1.5 m and a maximum of 100mm either side of coupling.
4. Trunking and lid joints should be staggered to increase the strength of couplings.

Fixing lids

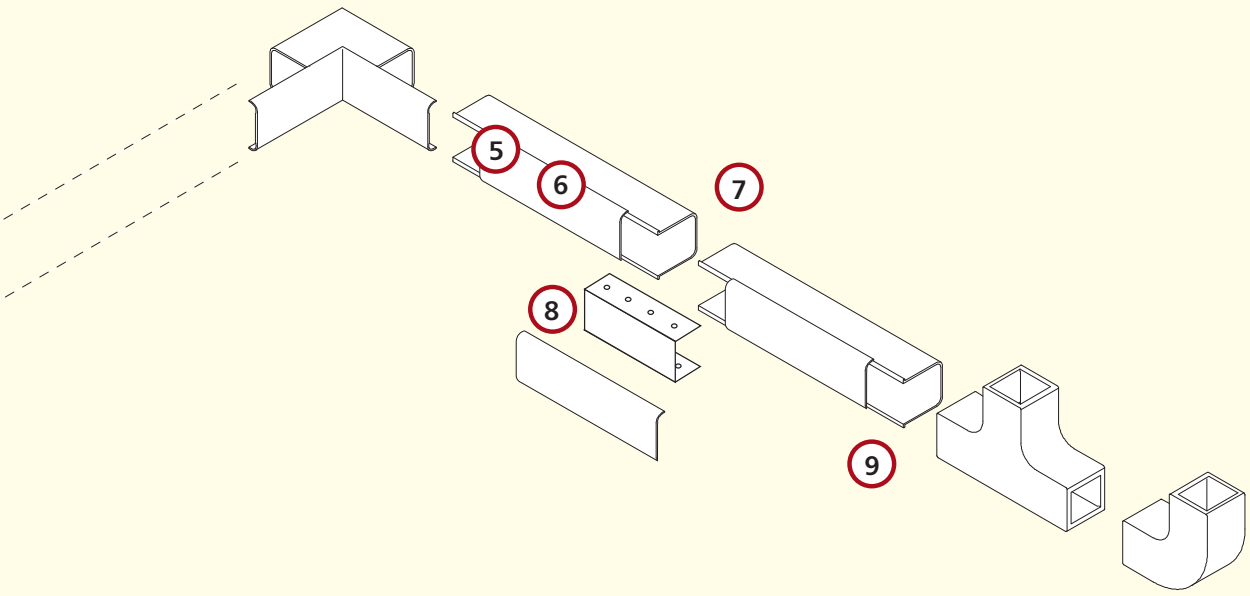
5. Fix lid by sliding it onto the trunking at one end, aligning it to the run of trunking and then curving the cover at the same time as pressing the continuous clip into the trunking gap.
6. To remove lid grasp the trunking firmly at one end and pull in peeling motion so that the cover is gradually freed along its whole length.

Joining fittings

7. Drill trunking with a 7.2mm drill. Bridge pieces are available for retaining the cable in the trunking and the special corrugated shape allows them to be used as a support for dividing fillets required within the trunking.
8. External couplings are fitted by means of the special plastic rivet (ref: TPR/1). To connect couplings to trunking the trunking must be drilled centrally, size 7.2mm, and the rivet inserted.
9. Economical joints can be made using a vinyl adhesive tape especially where added strength is obtained by the lid and trunking being joined in different positions. The joint created is weather resistant and is ideal for surface installation and in conditions of wide temperature variations.



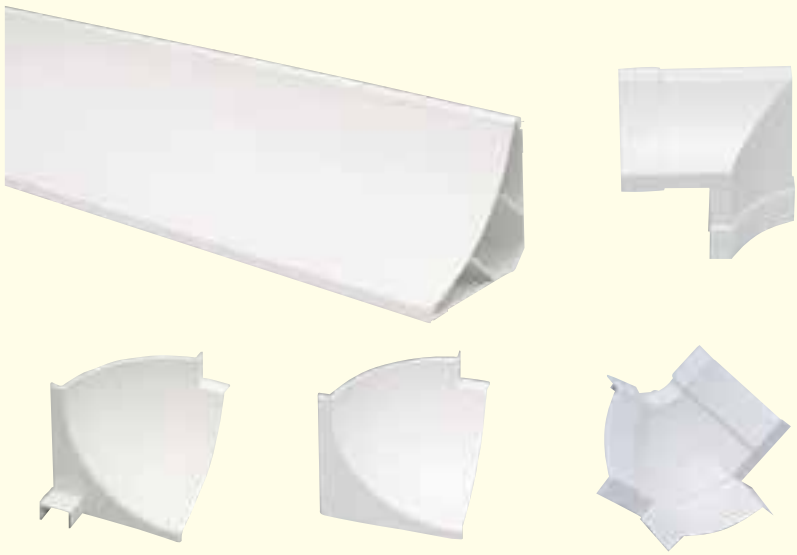
Industrial Trunking



Cornice Trunking

Features

- Two trunking profiles
- Wide range of integrated components maximises versatility of application
- Fully compatible with Ega Mini Trunking systems
- Neat and unobtrusive
- Accessories designed to overlap edge of trunking cover, hiding joint line
- Easy to assemble and install
- Durable and impact resistant to Medium Classification BS 4678 Part 4
- All extrusions manufactured from 90% recycled material*



Technical specification

Materials

PVCu materials used in the manufacture of MK products are self extinguishing non-flame propagating in accordance with BS 4678 Part 4.

Extrusion material has been tested by a UKAS accredited laboratory in accordance with the requirements of BS 476 Part 7 and has achieved a Class 1Y.

Moulding material has been tested by a UKAS accredited laboratory and conforms with IEC 695-2-1 at a severity of 650°C

IEE Wiring Regulations

Designed and manufactured to comply in all respects with BS 7671: 2008 (IEE wiring regulations 17th Edition: 2008)

Quality Assurance

The system is manufactured to BS EN ISO 9001

Description

Ega Standard and Compact Cornice Trunking Systems are manufactured from PVCu. They are designed to be mounted on interior surfaces, at the interface of wall and ceiling for the protection of electrical cables.

Standard trunking consists of a base, containing three separate compartments, and a common cover. Compact trunking has a single compartment.

Both types are compatible with Ega Mini Trunking.

The smaller, single compartment trunking is ideal for domestic rewires, whereas the larger three compartment trunking is best suited to commercial and sheltered housing applications.

Various types of services can be accommodated, such as mains wiring, lighting circuits, alarm warden call systems and data.

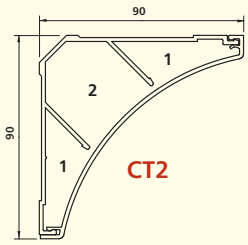
The system is available in a standard white colour.

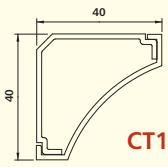
* Based on 2008 consumption

For a full range of corresponding products, see pages 362-363 in the product selector.

EGA CORNICE CABLE CAPACITY								
Type of Conductor	**Size**	**Cable Factor**	**CT1**		**CT2 Cmpt 1**		**CT2 Cmpt 2**	
			Full Term CSA 100% Fill (mm²)					
			755		**636**		**1441**	
			Term at 45% Fill (mm²)					
			339		**286**		**648**	
Power Cables			**Number of Cables at 45% Fill**					
PVC Stranded	1.5mm²	8.6	39		33		75	
	2.5mm²	12.6	26		22		51	
	4mm²	16.6	20		17		39	
	6mm²	21.2	15		13		30	
Data Cables			**No. of Cables at 45% Fill (a) and Full Capacity (b)**					
			a	**b**	**a**	**b**	**a**	**b**
Cat5E UTP	5.5mm dia.	30.2	11	25	9	21	21	47
Cat5E STP	6.0mm dia.	36.0	9	20	7	17	18	40
Cat6 UTP	6.5mm dia.	42.2	8	17	6	15	15	34
Cat6 STP	7.0mm dia.	49.0	6	15	5	12	13	29

Dimensions (mm)

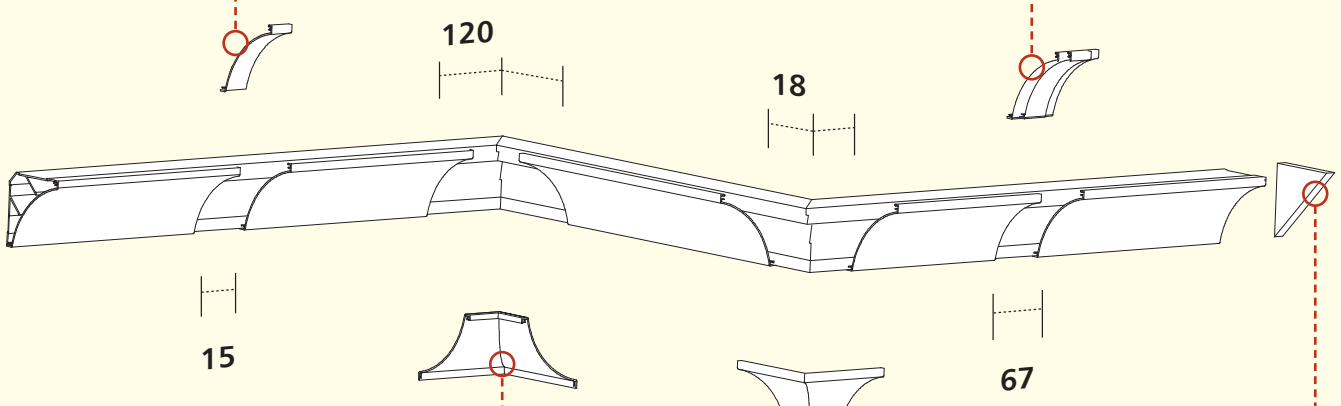




Component selection guide (dimensions in mm)

Profile	Joint Cover
40 x 40mm (CT1)	CJC1
90 x 90mm (CT2)	CJC2

Profile	Mini Trunking Adaptor
40 x 40mm (CT1)	CA1
90 x 90mm (CT2)	CA2



Profile	Int Corner
40 x 40mm (CT1)	CIP1
90 x 90mm (CT2)	CIP2

Profile	Ext Corner
40 x 40mm (CT1)	CXP1
90 x 90mm (CT2)	CXP2

Profile	End Cap
40 x 40mm (CT1)	CEP1
90 x 90mm (CT2)	CEP2

Cornice Trunking

Installation guide

General notes

Prior to installation strike a line of trunking using a plumb and chalk line for vertical, and spirit levels for horizontal runs.

(1) Installation

a Separate the cover from the backing. Measure the walls and cut trunking base to length making due allowance for external corner mitres. Fix base to wall/ceiling using woodscrews or bolts, with large washers. Oversized holes must be drilled to allow for expansion.

b The base should be fixed to both wall and ceiling at 500mm intervals giving a staggered arrangement

(2) Spurs

a Spurs from the main Cornice trunking across ceilings or down walls are made using a Mini Trunking Adaptor (CA1 for Compact or CA2 for Standard) in conjunction with the appropriately sized Mini Trunking spout adaptor.

b In Standard Cornice, the cable retaining strap enables cables to be segregated from other services used in conjunction with a mini trunking adaptor. A hole of 25mm or less must be drilled and the cable should be looped through the aperture as shown. A cable retraining strap is also available for Compact Cornice.

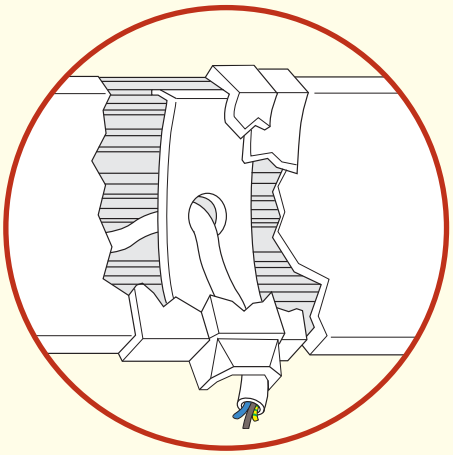
Locate ceiling and wall spur then mark base to indicate the end of the lid run. Fit Ega Mini Trunking as appropriate using the relevant Mini Trunking spout adaptor (YEA). Install wiring using retaining strap(s) as necessary.

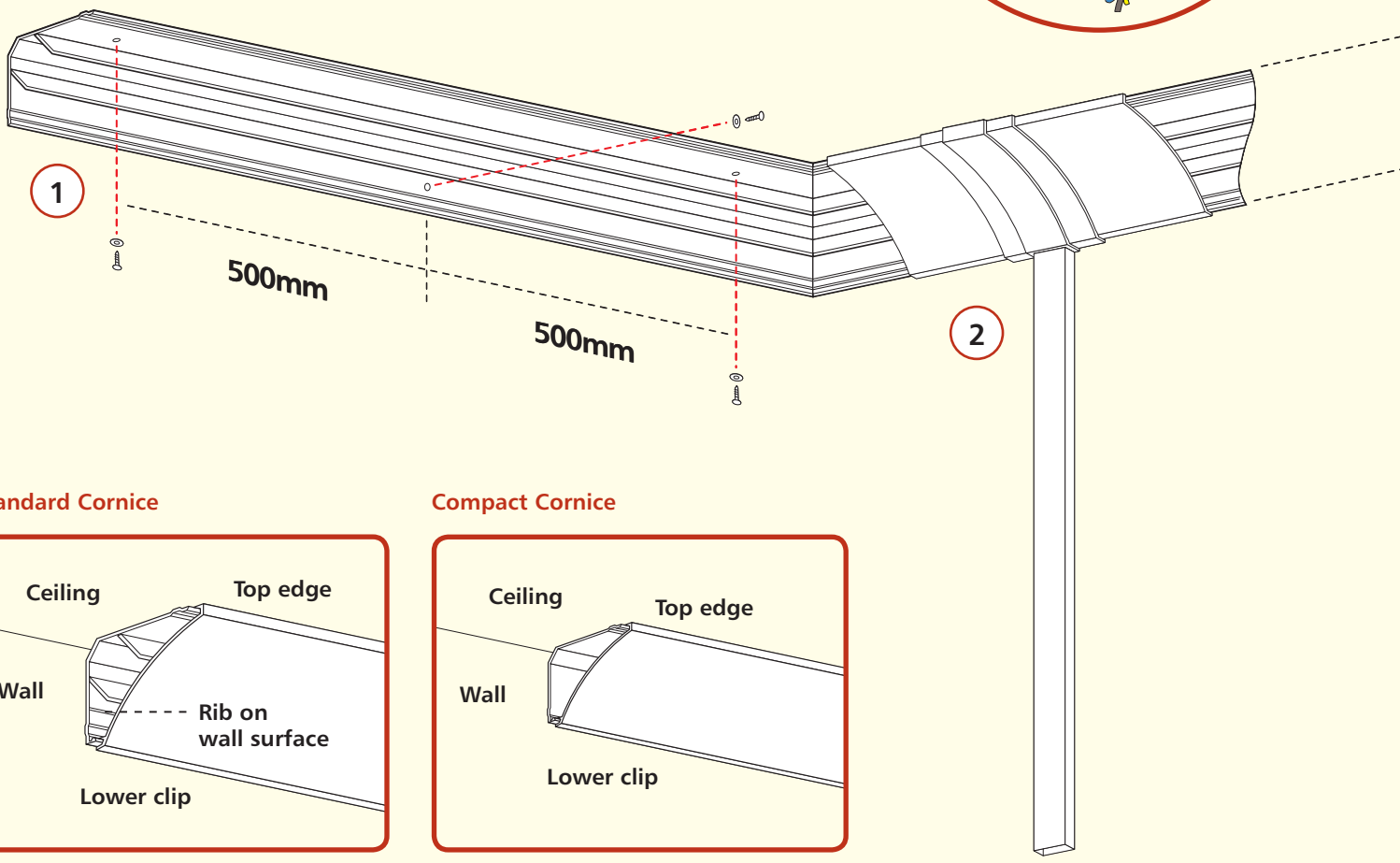
(3) Corners and Accessories

a Mitre base to ensure moulded accessories fit. Cut lid square having made suitable allowance for the width of the accessories and the overlap required to fit under joint covers.

b All fittings clip onto an exposed section of the trunking base. Allow suitable gaps in trunking lid.

Mark the base with position and width of the accessories and cut the lid the appropriate length, taking due notice of the gap allowances. (Standard Cornice shown).





Standard Cornice

Compact Cornice

4 Covers

Installation – Locate the top edge, adjacent to the ceiling, with upper back clip.

The lower clip is then fitted by exerting pressure against the front face, pushing towards the wall (Standard Cornice Shown).

Removal – Gain access to the interior of the trunking. Remove one of the accessory mouldings and carefully insert screwdriver, under the top edge and lever forward so as to disengage clip.

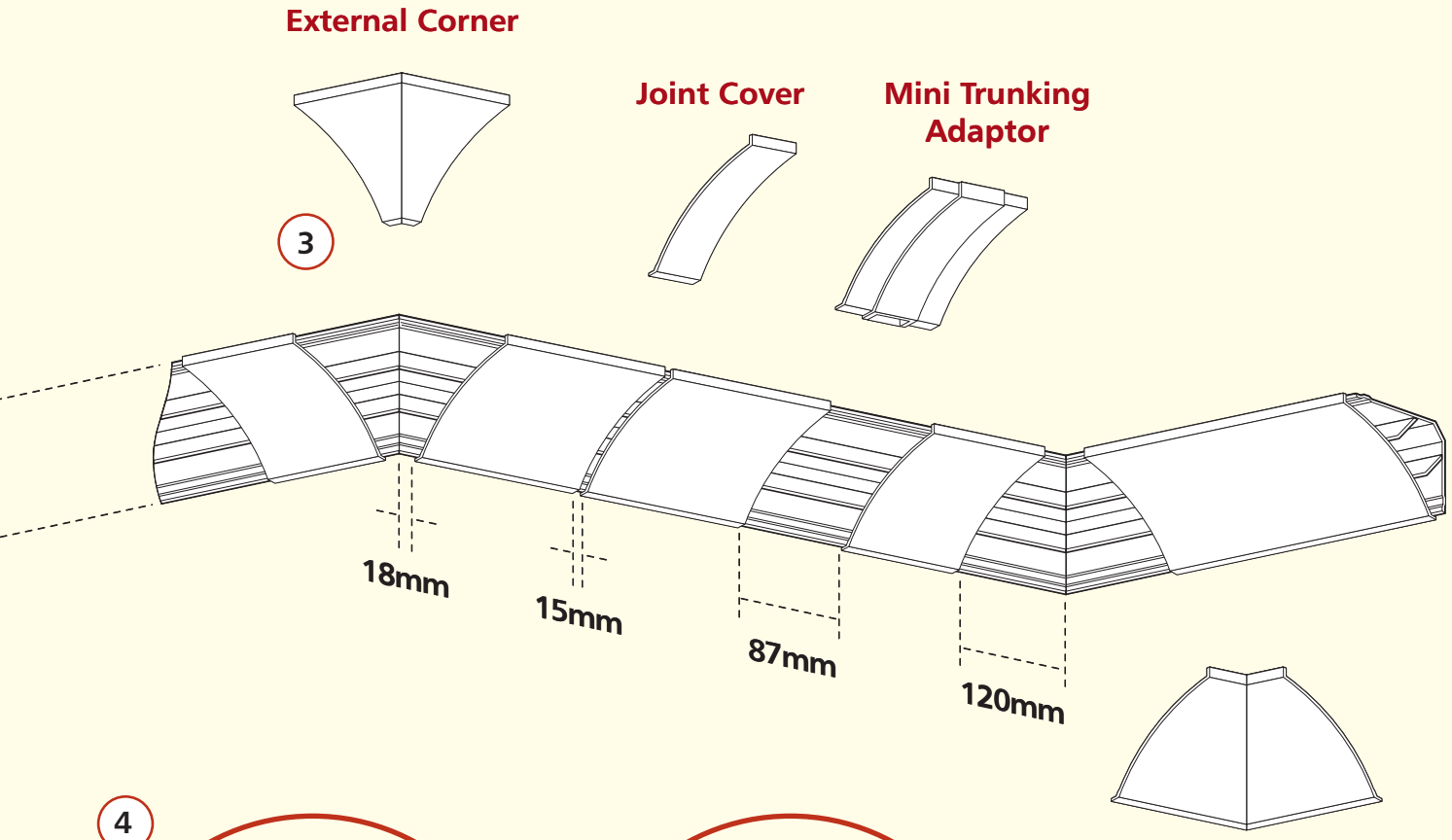
In restricted spaces, engage a hook behind the ceiling edge of the cover, and pull forward to disengage.

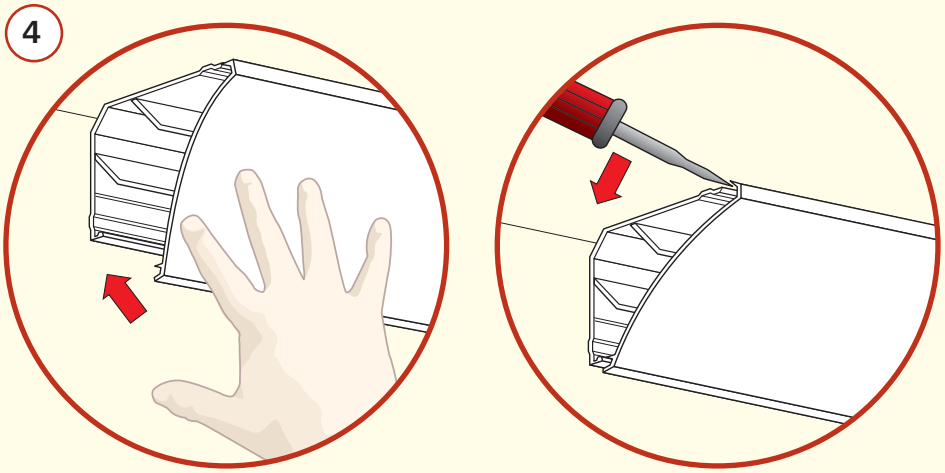
The lower clip is then disengaged in the same way.

Notes

Jointing – Where gaps occur, a gap of 5mm must be left between base sections to allow for expansion. The cover must overlap this joint by a minimum of 50mm.

Finishing – In circumstances where the wall or ceiling is uneven, a flexible sealer or mastic can be used to fill any gaps which occur along the edge of the trunking. Relief finishes, such as Artex, must be smoothed down with a spatula, for a width of 25mm minimum, along the line of the trunking in order to enable cover removal.





Conduit and fittings

Features

- Wide range of sections and sizes
- Oval, round and corrugated sections are compatible
- Simple and fast installation
- Very wide range of components maximises versatility of application
- Very durable and impact resistant
- 3 grades of round conduit to suit various site conditions
- All extrusions manufactured from 90% recycled material*



Technical specification

Materials

PVCu materials used in the manufacture of MK products are self extinguishing non-flame propagating in accordance with BS 4678 Part 4.

Extrusion material has been tested by a UKAS accredited laboratory in accordance with the requirements of BS 476 Part 7 and has achieved a Class 1Y.

Moulding material has been tested by a UKAS accredited laboratory and conforms with IEC 695-2-1 at a severity of 650°C

IEE Wiring Regulations

Designed and manufactured to comply in all respects with BS 7671: 2008 (IEE wiring regulations 17th Edition: 2008)

Quality Assurance

The system is manufactured to BS EN ISO 9001

Description

Egatube high impact PVCu conduit offers a cost effective solution for both new and refurbishment contracts.

The conduit is available in oval sections (5 sizes), in 3 grades of round section (6 sizes of each) and as a flexible corrugated version (4 sizes).

The wide range of fittings and ancillary products means that almost any installation can be specified for with confidence.

Egatube conduits are light in weight, the smaller sizes can be bent cold and they can easily be cut using a hacksaw or Egasnips. This means that installation can be 50% quicker than using steel. Repairs and alterations are also simpler and quicker to make.

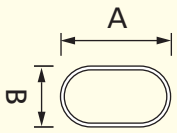
* Based on 2008 consumption

For a full range of corresponding products, see pages 364-372 in the product selector.

Conduit and fittings

Dimensions (mm)

Oval section conduit (ref EOC)



Oval conduit is mainly used for switch drops and general domestic installations in both buried and surface installations. Manufactured in accordance with requirements of BS 4607 Part 5 and BS EN 50085 Part 1 and Part 2-1.

List. No.	Size mm A	B	Wall thickness mm	Weight kg/m	Cross section area mm²
EOC1	13	8	0.9	0.036	60
EOC2	16	10	0.9	0.049	103
EOC3	22.5	11	0.9	0.084	172
EOC4	29	11	1.0	0.097	225
EOC5	29	16	1.0	0.125	336
EOC6	23	14	0.8	0.081	238

Standard length 3 metres.

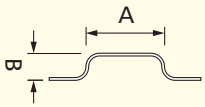
Flexible conduit (ref EF)

Suitable for connection of vibrating equipment or to provide tight bends for interconnecting conduits. Can be surface mounted or cast in concrete and can be used with standard conduit fittings. Manufactured in accordance with BS EN 61386-1.

List. No.	Diameter mm	Weight kg/m	Cross section area mm²
EF1	16	0.05	107
EF2	20	0.064	189
EF3	25	0.094	308

Standard lengths 50 metre coils.

Rectangular channelling (ref REC)

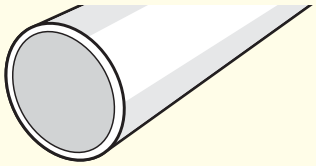


Used for switch drops and general domestic installations mainly in carcass situations.

List. No.	Size mm A	B	Wall thickness mm	Weight kg/m
REC1	12.5	8	0.9	0.047
REC2	25	8	0.9	0.051
REC3	38	9.5	0.9	0.069

Standard length 2 metres.

Round section heavy gauge high impact conduit (ref. HIP)



This is acknowledged to be the finest PVCu conduit available and is designed to withstand the most arduous site conditions and extremes of weather.

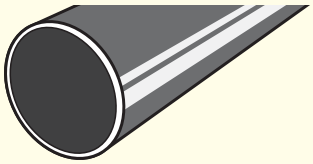
Temperature range –5˚C to +60˚C.

Complies with BS EN 61386 Part 1 Heavy Impact.

List. No.	Outside diameter mm	Wall thickness mm	Weight kg/m	Cross section area mm²
HIP1	16	1.7	0.102	121
HIP2	20	1.8	0.150	209
HIP3	25	1.9	0.205	350
HIP4	32	2.5	0.322	573
HIP5	38	2.5	0.394	859
HIP6	50	3.1	0.684	1506

Standard lengths 3 metres.

Round section light gauge high impact conduit (ref. HLG)



Suitable for applications where heavy compressive strength is not required. The high impact characteristic combined with the lighter gauge provides excellent physical properties for flush and surface applications.

Temperature range –5˚C to +60˚C.

Complies with BS EN 61386 Part 1 Heavy Impact.

List. No.	Outside diameter mm	Wall thickness mm	Weight kg/m	Cross section area mm²
HLG1	16	1.1	0.076	143
HLG2	20	1.3	0.102	237
HLG3	25	1.5	0.170	376
HLG4	32	1.5	0.214	654
HLG5	38	1.5	0.259	954
HLG6	50	1.9	0.417	1676

Standard lengths 3 metres

Conduit and fittings

Cable capacities of conduit

17th Edition of the I.E.E. Wiring Regulations Selection and Erection of Wiring Systems

The 17th Edition of the Wiring Regulations, Chapter 52 'Selection and Erection of Wiring Systems', describes methods to provide a means of compliance with Regulation 522-8.

The number of cables drawn into or laid in an enclosure of a wiring system shall be such that no damage is caused to the cables or to the enclosure during their installation.

The method employs a unit system, each cable size being allocated a factor. The sum of all factors for the cables intended to be run in the same enclosure is compared against the factors given for conduit in order to determine the size of the conduit necessary to accommodate those cables.

Types of run

It has been found necessary, for conduit, to distinguish between:-

1. Straight runs not exceeding 3 metres in length, and
2. Straight runs exceeding 3 metres, or runs of any length incorporating bends or sets

The term "bend" signifies a British Standard 90° bend, and one double set is equivalent to one bend.

For case 1, each conduit size is represented by only one factor. For case 2, each conduit size has a variable factor which is dependent on the length of run and the number of bends or sets. For a particular size of cable the factor allocated to it for case 1 is not the same as for case 2.

Variable factors

A number of variable factors affect any attempt to arrive at a standard method of assessing the capacity of conduit.

Some of these are:

- reasonable care (of drawing-in)
- acceptable use of the space available
- tolerance in cable sizes
- tolerance in conduit

The following tables can only give guidance as to the maximum number of cables which should be drawn in. The sizes should ensure an easy pull with low risk of damage to the cables.

Only the ease of drawing-in is taken into account. The electrical effects of grouping is not. As the number of circuits increases the current carrying capacity of the cable decreases. Cable sizes have to be increased with consequent increase in cost of cable and conduit.

Single-core PVC insulated cables in straight runs of conduit not exceeding 3 metres in length.

- For each cable it is intended to use, obtain the term from Table A1.
- Add the cable terms together and compare the total with the conduit terms given in Table A2.
- The conduit size which will satisfactorily accommodate the cables is that size having a factor equal to or exceeding the sum of the cable factors

Single-core PVC insulated cables in straight runs of conduit exceeding 3 metres in length or in runs of any length incorporating bends or sets

- For each cable it is intended to use, obtain the appropriate terms from Table A3.
- Add all the cable terms so obtained and compare with the conduit terms given in Table A4, taking into account the length of run it is intended to use and the number of bends and sets in that run.
- The conduit size which will satisfactorily accommodate the cables is that size having a terms equal to or exceeding the sum of the cable terms.

Conduit and fittings

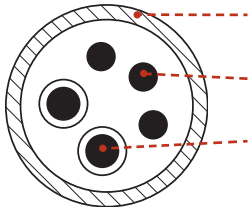
TABLE A1

Cable terms for short straight runs

Type of conductor	Conductor cross-sectional area (mm²)	Term
Solid	1	22
	1.5	27
	2.5	39
Stranded	1.5	31
	2.5	43
	4	58
	6	88
	10	146
	16	202
	25	385

CAPACITY EXAMPLE

Number of cables for a 3.0 metre run with three bends



CONDUIT 20mm dia.
(Term 182) Table A4

CABLE SOLID 2.5mm² (3 qty)
(Term 30) Table A3

CABLE STRANDED 4.0mm² (2 qty)
(Term 43) Table A3

Term total – (30+30+30)+(43+43) = **176**

The conduit size is satisfactory (Term 182) to accommodate the cables shown (Term 176).

TABLE A2

Conduit terms for short straight runs

Conduit dia (mm)	Term
16	290
20	460
25	800
32	1400
38	1900
50	3500

TABLE A3

Cable terms for long straight runs, or runs incorporate bends

Solid or stranded conductor	Conductor cross-sectional area mm²	Term
	1	16
	1.5	22
	2.5	30
	4	43
	6	58
	10	105
	16	145
	25	217

TABLE A4

Conduit terms for long straight runs, or runs incorporating bends

Length of run (m)	Conduit dia mm																			
	16	20	25	32	16	20	25	32	16	20	25	32	16	20	25	32	16	20	25	32
		Straight				One bend				Two bends				Three bends				Four bends		
1					188	303	543	947	177	286	514	900	158	256	463	818	130	213	388	692
1.5					182	294	528	923	167	270	487	857	143	233	422	750	111	182	333	600
2					177	286	514	900	158	256	463	818	130	213	388	692	97	159	292	529
2.5					171	278	500	878	150	244	442	783	120	196	358	643	86	141	260	474
3					167	270	487	857	143	233	422	750	111	182	333	600				
3.5	179	290	521	911	162	263	475	837	136	222	404	720	103	169	311	563				
4	177	286	514	900	158	256	463	818	130	213	388	692	97	159	292	529				
4.5	174	282	507	889	154	250	452	800	125	204	373	667	91	149	275	500				
5	171	278	500	878	150	244	442	783	120	196	358	643	86	141	260	474				
6	167	270	487	857	143	233	422	750	111	182	333	600								
7	162	263	475	837	136	222	404	720	103	169	311	563								
8	158	256	463	818	130	213	388	692	97	159	292	529								
9	154	250	452	800	125	204	373	667	91	149	275	500								
10	150	244	442	783	120	196	358	643	86	141	260	474								

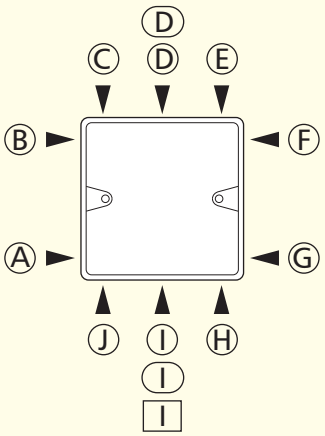
Covered by Tables A1 and A2

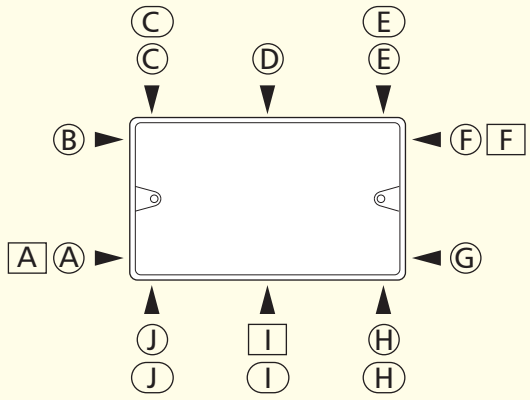
Conduit and fittings

Boxes

This table breaks down box specifications showing gang, entry points, cut outs and corner types.

List No.	Mounting	Gang	Entry Type Rectangular	Round	Oval	Cut-Outs in back	Corner
ESU61	flush	1	-	-	DI	1	-
ESU81	flush	1	-	ABCEFGHJ	-	-	-
ESU8ML	flush	1	-	ABCEFGHJ	-	1	-
ESU82ML	flush	2	-	ABCDEFGHJ	I	2	-
ESU92ML	flush	2	-	BCDEGHJ	I	2	-
ESU9ML	flush	1	-	BCEGHJ	-	1	-
ESU241	surface	1	I	D	-	2	round
ESU242	surface	2	AFI	D	-	2	round
ESU261	surface	1	-	D	-	1	square
ESU262	surface	2	-	D	-	-	square
ESU281	surface	1	-	I	-	1	square
ESU282	surface	2	I	D	-	1	square





Conduit and fittings

Fixing

Egatube round conduit is fixed in the normal way with saddles or clips. (Various types of saddles are available). The distance between saddles should not exceed that stated in the following table, or less in hot temperatures.

Nominal Conduit Size (mm)	Maximum distance between Supports (m)	
	Horizontal	Vertical
Not exceeding 16	0.75	1.00
Exceeding 16 but not exceeding 25	1.5	1.75
Exceeding 25 but not exceeding 40	1.75	2.00
Exceeding 40	2.00	2.00

It is recommended that all boxes be fixed first wherever practicable, using the two fixing holes provided in circular boxes. Lines may then be struck for the saddle run and the saddles should be fixed 225mm on either side of bend or boxes. The tubing may then be 'sprung' into the box spouts. It will be noted that the saddles are designed to be a sliding fit on the conduit and it is important to see that all fixings should be sliding fits (see Expansion).

Expansion

A rise in temperature of 25˚C would cause an increase of 5mm in a 3 metre length of conduit. This may be ignored in flush work where the tube is bonded to the concrete or plaster.

In surface work, however, precautions must be taken or expansion will cause the tube to bow, although where bends and sets are close together these take up any expansion. Where long straight runs occur in conditions of varying temperatures, care must be taken to overcome problems by using expansion couplers. These are couplers of double normal length with a shoulder formed 19mm from one end. Conduit is secured into this end of about 75mm long which is a sliding fit over the other conduit. The other conduit is inserted about 50mm into the coupler leaving it free to move 25mm in either direction, which is ample for even the greatest extremes of temperature. For straight runs it is advisable to use an expansion coupling every 6 metres.

Adhesives

Egaweld Plus

Waterproof for making watertight joints between PVC conduit , trunking and fittings.

A statement regarding COSHH regulations is available on the MK website – www.mkelectric.co.uk

Light fittings

When considering the use of totally enclosed lighting fittings, remember that the I.E.E. Wiring Regulations restrict the use of PVCu boxes to loads of 3 kg and a temperature of 60˚C. When conditions in excess of these figures are anticipated, the use of either the heat resistant boxes or conduit boxes suffixed 'EL' are recommended.

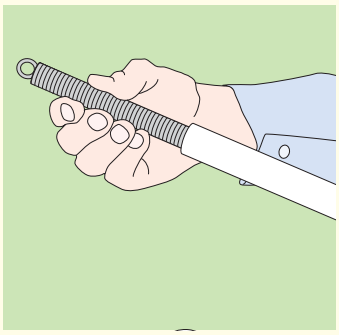
The "EL" conduit boxes will support a load of up to 10 kgs at 60˚C.

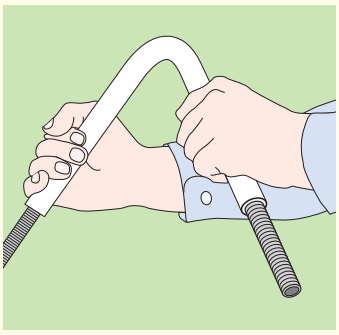
Fittings

A wide range of fittings are available, see Product Selector for details.

Bending

To bend circular conduit, insert the appropriate spring. The spring has an "eye" formed on one end, to which a cord should be attached in order to withdraw the spring. The bend is then made by hand. Twice the angle required should be bent and the tube then allowed to ease back to the desired position. Do not attempt to force the bend back with the spring inserted, as this action will damage the spring. When withdrawing the spring it is suggested that it be twisted in an anti-clockwise direction thus reducing the diameter of the spring and providing easy withdrawal. It is important to use the correct size spring. In cold weather it may be necessary to warm the tube slightly at the point where the bend is to be made. Always saddle the tubing as quickly as possible after bending.





Ega Mini, Communication and Red Alert Trunking

Standards and approvals

EGA mini-trunking systems are manufactured in accordance with the requirements of BS EN 50085-1 and BS 4678 Part 4 and achieve medium impact classification.

Red Alert mini-trunking complies with the following:

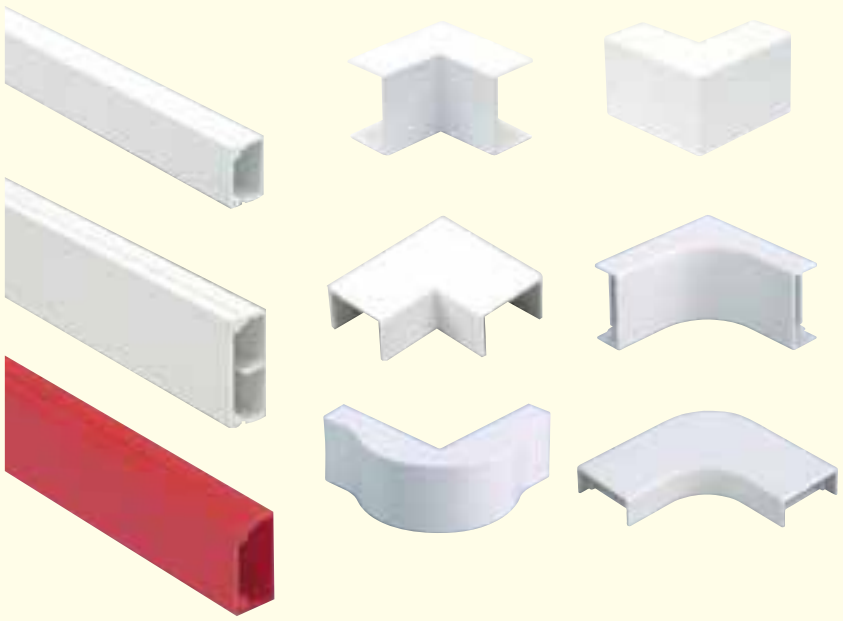
BS 5839 Fire detection and alarm systems in buildings (if used with fire product, ie. cables, cables must still be secured with metal securing clips **inside** trunking or trunking held with metal clip **around** trunking to comply with BS 5839 Part 1.)

BS 4662 Boxes for the enclosure of electrical accessories

BS EN 50085-1 and BS 4678 Part 4 Cable trunking made of insulating material.

All systems comply with all relevant requirements of the latest Edition of the IEE Wiring Regulations.

Ega Mini Trunking systems are Class 1Y for spread of flame when tested in accordance with BS 476 Part 7.



Technical specification

Materials

PVCu materials used in the manufacture of MK products are self extinguishing non-flame propagating in accordance with BS 4678 Part 4.

Extrusion material has been tested by a UKAS accredited laboratory in accordance with the requirements of BS 476 Part 7 and has achieved a Class 1Y.

Moulding material has been tested by a UKAS accredited laboratory and conforms with IEC 695-2-1 at a severity of 650°C

IEE Wiring Regulations

Designed and manufactured to comply in all respects with BS 7671: 2008 (IEE wiring regulations 17th Edition: 2008)

Quality Assurance

The system is manufactured to BS EN ISO 9001

Features

- Wide range of trunking profiles
- Red Alert profile for alarm circuits
- Wide range of integrated components maximises versatility of application
- Unobtrusive and neat
- Easy to assemble and install
- Durable and impact resistant to Medium Classification BS EN 50085-1 and BS 4678 Part 4
- Communication trunking for voice and data
- Speedfix options allow fast installation
- All extrusions manufactured from 90% recycled material*

* Based on 2008 consumption

For a full range of corresponding products, see pages 375-384 in the product selector.

Ega Mini, Communication and Red Alert Trunking

Description

A range of trunking systems designed for cable distribution in new or refurbishment projects in the domestic and commercial sectors.



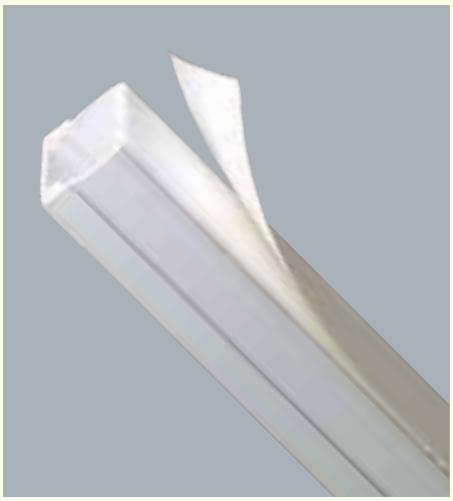
Red Alert

Available in red, simplifies alarm circuit identification and is specifically designed for use with light duty mineral insulated cables.



Communication trunkings

Designed to take smaller diameter telecommunications and data cabling. There are three sizes available and the systems are complete with a range of fittings.



Speedfix trunkings

These are self-adhesive profiles used to distribute data and voice cabling.

All systems are compatible and have simple clip on lids which positively locate when hand pressure is applied.

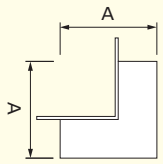


Circular boxes

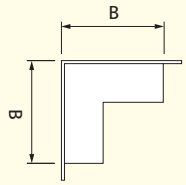
These are designed to accept standard ceiling roses, pull switches and plug-in lighting fittings. The base incorporates an earth terminal facility (order terminal separately). Red Alert bases are supplied with earth terminal. 50.8 mm fixing centres and M4 Pillar inserts. Load suspension 3 kg @ 60˚C max.

Components

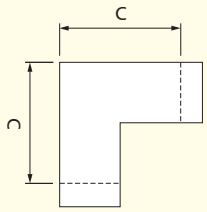
The four components shown below are fabricated sections and space must be allowed for inclusion in runs of trunking. All other components snap on over standard trunking profiles.



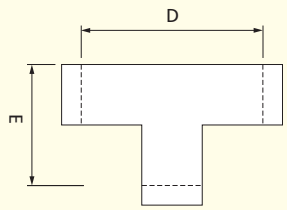
EXTERNAL CORNER (90˚) YAE	
List No	A
YAE7	80mm



INTERNAL CORNER (90˚) YAI	
List No	B
YAI7	50mm



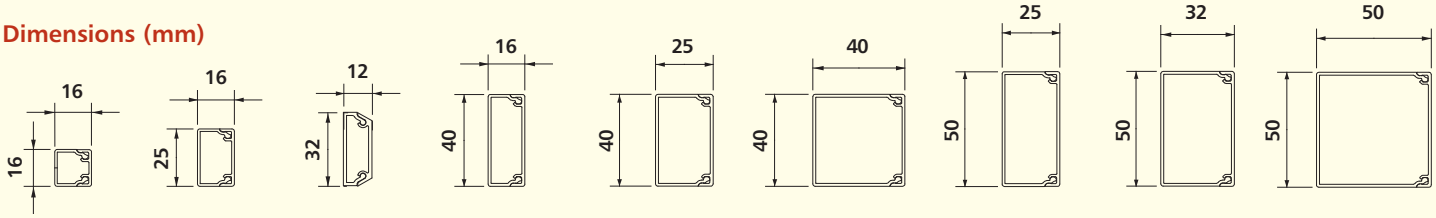
FLAT ANGLE (90˚) YAF	
List No	C
YAF7	100mm



FLAT TEE (90˚) YTF		
List No	D	E
YTF7	150mm	100mm

Ega Mini, Communication and Red Alert Trunking

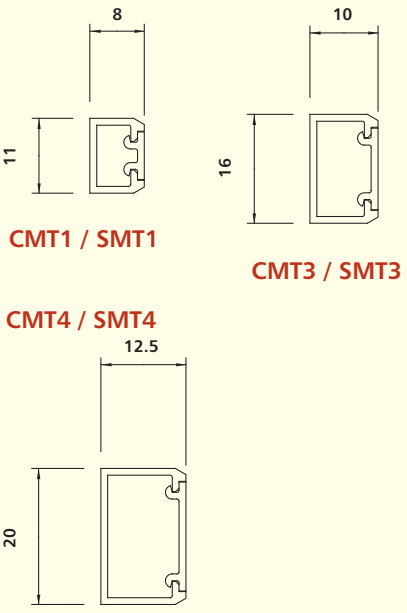
Dimensions (mm)



EGA MINI AND RED ALERT CABLE CAPACITY																							
Type of Conductor	Size	Cable Factor	YT1 / SPF1		YT2 / SPF2 YT2RED		YT200 / SPF200		YT3 / SPF3		ZT3 (each cmpt)		YT4 / SPF4		ZT4 (each cmpt)		YT5		YT6		YT7		YT8
			Full Term CSA 100% Fill (mm²)																				
		154	276		234		458		224		795		387		1312		948		1273		2037		
			Term at 45% Fill (mm²)																				
		69	124		105		206		100		357		174		590		426		572		916		
Power Cables			Number of Cables at 45% Fill																				
PVC	1.5mm²	8.6	8		14		12		23		11		41		20		68		49		66		106
Stranded	2.5mm²	12.6	5		9		8		16		7		28		13		46		33		45		72
4mm²	16.6	4	7		6		12		6		21		10		35		25		34		55		
6mm²	21.2	3	5		4		9		4		16		8		27		20		26		43		
Data Cables			Number of Cables at 45% Fill (a) and Full Capacity (b)																				
		a	b	a	b	a	b	a	b	a	b	a	b	a	b	a	b	a	b	a	b	a	b	
Cat5E UTP	5.5mm dia.	30.2	2	5	4	9	3	7	6	15	3	7	11	26	5	12	19	43	14	31	18	42	30	67
Cat5E STP	6.0mm dia.	36.0	1	4	3	7	2	6	5	12	2	6	9	22	4	10	16	36	11	26	15	35	25	56
Cat6 UTP	6.5mm dia.	42.2	1	3	2	6	2	5	4	10	2	5	8	18	4	9	13	31	10	22	13	30	21	48
Cat6 STP	7.0mm dia.	49.0	1	3	2	5	2	4	4	9	2	4	7	16	3	7	12	26	8	19	11	25	18	41

EGA COMMUNICATION CABLE CAPACITY								
Type of Conductor	Size	Cable Factor	CMT1 / SMT1		CMT3 / SMT3		CMT4 / SMT4	
			Term CSA 100% Fill (mm²)					
			44	102	156			
			45% Fill (mm²)					
			19	45	70			
Power Cables			Number of Cables at 45% Fill					
PVC Stranded	1.5mm²	8.6	2		5		8	
2.5mm²	12.6		1	3	5			
4mm²	16.6		1	2	4			
6mm²	21.2		0	2	3			
Data Cables			Number of Cables at 45% Fill (a) and Full Capacity (b)					
			a	b	a	b	a	b
Cat5E UTP	5.5mm dia.	30.2	0	1	1	3	2	5
Cat5E STP	6.0mm dia.	36.0	0	1	1	2	1	4
Cat6 UTP	6.5mm dia.	42.2	0	1	1	2	1	3
Cat6 STP	7.0mm dia.	49.0	0	0	0	2	1	3

Dimensions (mm)



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CLT9	3m	360
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FTF6	1	360
FTF7	1	360
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K9115RED	1	250	K9189BLU	1	248	K9253VLT	1	256
K9116RED	1	252	K9190BLU	1	248	K9254VLT	1	256
K9117GRN	1	254	K9191RED	1	250	K9255WHI	1	256
K9118VLT	1	256	K9192RED	1	250	K9256WHI	1	256
K9119VLT	1	256	K9193YEL	1	246	K9257WHI	1	256
K9120WHI	1	256	K9194BLU	1	248	K9258GRN	1	254
K9121WHI	1	256	K9195RED	1	252	K9264BLU	1	248
K9122WHI	1	256	K9200YEL	1	246	K9265RED	1	250
K9123YEL	1	246	K9201BLU	1	248	K9269RED	1	250

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K9283RED	1	252	K9415RED	1	250, 266	K9609YEL	1	247
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K9292RED	1	250	K9417GRN	1	254, 267	K9611RED	1	251
K9293RED	1	252	K9432YEL	1	246, 266	K9612RED	1	251
K9294YEL	1	246	K9433BLU	1	248, 266	K9632YEL	1	247
K9298BLU	1	248	K9437RED	1	250, 266	K9633BLU	1	249
K9306BLU	1	249	K9444BLU	1	248, 266	K9634RED	1	251
K9311BLU	1	249	K9445RED	1	250, 266	K9635RED	1	252
K9312RED	1	251	K9446RED	1	252, 266	K9636BLK	1	253
K9322RED	1	251	K9447GRN	1	254, 267	K9638YEL	1	247
K9324BLU	1	249	K9465RED	1	250	K9639BLU	1	249
K9327RED	1	251	K9470RED	1	250	K9640RED	1	251
K9330RED	1	251	K9472BLU	1	248	K9641RED	1	252
K9342RED	1	251	K9481RED	1	250	K9642YEL	1	247
K9343RED	1	252	K9482RED	1	250	K9643BLU	1	249
K9344BLK	1	253	K9483BLU	1	248	K9644RED	1	251
K9352RED	1	251	K9518VLT	1	256	K9645RED	1	251
K9353RED	1	252	K9519VLT	1	256	K9664BLU	1	249
K9355BLU	1	249	K9520WHI	1	256	K9665RED	1	251
K9356YEL	1	247	K9521WHI	1	256	K9670RED	1	251
K9359RED	1	251	K9522WHI	1	256	K9688BLU	1	249
K9362RED	1	251	K9544BLU	1	249, 266	K9691RED	1	251
K9369BLU	1	249	K9565RED	1	251, 266	K9692RED	1	252
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K9401BLU	1	248, 266	K9582RED	1	251	K9700YEL	1	247
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K9406BLU	1	248, 266	K9602RED	1	251	K9711RED	1	251
K9407RED	1	250, 266	K9603RED	1	252	K9725VLT	1	256
K9410GRN	1	254, 267	K9605GRN	1	254	K9726VLT	1	256
K9411GRN	1	267	K9606YEL	1	247	K9732YEL	1	247

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K9751RED	1	251
K9752RED	1	251
K9754RED	1	252
K9755RED	1	252
K9756GRY	1	255
K9761YEL	1	246
K9762BLU	1	248
K9763RED	1	250
K9764RED	1	250
K9765RED	1	250
K9766RED	1	250
K9767YEL	1	247
K9768RED	1	251
K9769YEL	1	247
K9771BLU	1	249
K9772BLU	1	249
K9773BLU	1	249
K9774BLU	1	249
K9775BLU	1	249
K9776BLU	1	249
K9777RED	1	251
K9778RED	1	251
K9779RED	1	251
K9780YEL	1	247
K9781BLU	1	249
K9782RED	1	251
K9783RED	1	251
K9784YEL	1	247
K9785BLU	1	249
K9786RED	1	251
K9787RED	1	251
K9788YEL	1	247
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K13215RED	1	250	K13471DBZB	1	120	K13476SAG*	1	37
K13232YEL	1	246	K13471LBKB	1	120	K13476TCOB	1	37
K13233BLU	1	248	K13471LBS*	1	120	K13476TIRB	1	37
K13237RED	1	250	K13471LIVW	1	120	K13476WHIW	1	37
K13241RED	1	250	K13471PBR*	1	120	K13477ABSB	1	37
K13309YEL	1	263	K13471POC*	1	120	K13477BRC*	1	37
K13310BLU	1	263	K13471SAA*	1	120	K13477BSS*	1	37
K13311RED	1	263	K13471SAG*	1	120	K13477DBZB	1	37
K13312RED	1	263	K13471TCOB	1	120	K13477LBKB	1	37
K13342YEL	1	263	K13471TIRB	1	120	K13477LBS*	1	37
K13343BLU	1	263	K13471WHIW	1	120	K13477LIVW	1	37
K13344RED	1	263	K13472ABSB	1	121	K13477PBR*	1	37
K13345RED	1	263	K13472BRC*	1	121	K13477SAA*	1	37
K13346YEL	1	263	K13472BSS*	1	121	K13477SAG*	1	37
K13347YEL	1	263	K13472DBZB	1	121	K13477TCOB	1	37
K13348BLU	1	263	K13472LBKB	1	121	K13477TIRB	1	37
K13349BLU	1	263	K13472LBS*	1	121	K13477WHIW	1	37
K13350RED	1	263	K13472LIVW	1	121	K13600YEL	1	247
K13351RED	1	263	K13472PBR*	1	121	K13601BLU	1	249
K13352RED	1	263	K13472POC*	1	121	K13607RED	1	251
K13353RED	1	263	K13472SAA*	1	121	K13615RED	1	251
K13413YEL	1	262	K13472SAG*	1	121	K13623YEL	1	247
K13414BLU	1	262	K13472TCOB	1	121	K13624BLU	1	249
K13415RED	1	262	K13472TIRB	1	121	K13625RED	1	251
K13416RED	1	262	K13472WHIW	1	121	K13626RED	1	251
K13433BLU	1	262	K13476ABSB	1	37	K13632YEL	1	247
K13434RED	1	262	K13476BRC*	1	37	K13633BLU	1	249
K13435RED	1	262	K13476BSS*	1	37	K13637RED	1	251
K13463BLU	1	262	K13476DBZB	1	37	K13641RED	1	251
K13464RED	1	262	K13476LBKB	1	37	K13653YEL	1	247
K13465RED	1	262	K13476LBS*	1	37	K13654BLU	1	249
K13471ABSB	1	120	K13476LIVW	1	37	K13655RED	1	251
K13471BRC*	1	120	K13476PBR*	1	37	K13656RED	1	251

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K13714BLU	1	263	K14114TIRB	1	121	K14182LBK	1	137
K13715RED	1	263	K14114WHIW	1	121	K14182LBS	1	137
K13716RED	1	263	K14172ABS	10	143	K14182LIV	1	137
K13733BLU	1	263	K14172BRC	10	143	K14182PBR	1	137
K13734RED	1	263	K14172BSS	10	143	K14182POC	1	137
K13735RED	1	263	K14172DBZ	10	143	K14182SAA	1	137
K14100ABSB	1	114	K14172LBK	10	143	K14182SAG	1	137
K14100BRC*	1	114	K14172LBS	10	143	K14182TCO	1	137
K14100BSS*	1	114	K14172LIV	10	143	K14182TIR	1	137
K14100DBZB	1	114	K14172PBR	10	143	K14182WHI	1	137
K14100LBKB	1	114	K14172POC	10	143	K14184ABS	1	137
K14100LBS*	1	114	K14172SAA	10	143	K14184BRC	1	137
K14100LIVW	1	114	K14172SAG	10	143	K14184BSS	1	137
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K14100TCOB	1	114	K14181BRC	1	137	K14184PBR	1	137
K14100TIRB	1	114	K14181BSS	1	137	K14184POC	1	137
K14100WHIW	1	114	K14181DBZ	1	137	K14184SAA	1	137
K14101	1	198	K14181LBK	1	137	K14184SAG	1	137
K14102	1	198	K14181LBS	1	137	K14184TCO	1	137
K14114ABSB	1	121	K14181LIV	1	137	K14184TIR	1	137
K14114BRC*	1	121	K14181PBR	1	137	K14184WHI	1	137
K14114BSS*	1	121	K14181POC	1	137	K14200ABSB	1	114
K14114DBZB	1	121	K14181SAA	1	137	K14200BRC*	1	114
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K14114POC*	1	121	K14182ABS	1	137	K14200LIVW	1	114
K14114SAA*	1	121	K14182BRC	1	137	K14200PBR*	1	114
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K14200SAG*	1	114	K14246TIRB	1	113	K14302LBK	1	122
K14200TCOB	1	114	K14246WHIW	1	113	K14302LBS	1	122
K14200TIRB	1	114	K14268ABSB	1	112	K14302LIV	1	122
K14200WHIW	1	114	K14268BRC*	1	112	K14302PBR	1	122
K14201	1	198	K14268BSS*	1	112	K14302POC	1	122
K14202	1	198	K14268DBZB	1	112	K14302SAG	1	122
K14205ABSB	1	114	K14268LBKB	1	112	K14302SSA	1	122
K14205BRC*	1	114	K14268LBS*	1	112	K14302TCO	1	122
K14205BSS*	1	114	K14268LIVW	1	112	K14302TIR	1	122
K14205DBZB	1	114	K14268PBR*	1	112	K14302WHI	1	122
K14205LBKB	1	114	K14268POC*	1	112	K14305ABSB	1	121
K14205LBS*	1	114	K14268SAA*	1	112	K14305BRC*	1	121
K14205LIVW	1	114	K14268SAG*	1	112	K14305BSS*	1	121
K14205PBR*	1	114	K14268TCOB	1	112	K14305DBZB	1	121
K14205POC*	1	114	K14268TIRB	1	112	K14305LBKB	1	121
K14205SAA*	1	114	K14268WHIW	1	112	K14305LBS*	1	121
K14205SAG*	1	114	K14301ABS	1	122	K14305LIVW	1	121
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K14205TIRB	1	114	K14301BSS	1	122	K14305POC*	1	121
K14205WHIW	1	114	K14301DBZ	1	122	K14305SAA*	1	121
K14206	1	198	K14301LBK	1	122	K14305SAG*	1	121
K14207	1	198	K14301LBS	1	122	K14305TCOB	1	121
K14246ABSB	1	113	K14301LIV	1	122	K14305TIRB	1	121
K14246BRC*	1	113	K14301PBR	1	122	K14305WHIW	1	121
K14246BSS*	1	113	K14301POC	1	122	K14320ABSB	1	144
K14246DBZB	1	113	K14301SAG	1	122	K14320BRC*	1	144
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K14246LBS*	1	113	K14301TCO	1	122	K14320DBZB	1	144
K14246LIVW	1	113	K14301TIR	1	122	K14320LBKB	1	144
K14246PBR*	1	113	K14301WHI	1	122	K14320LBS*	1	144
K14246POC*	1	113	K14302ABS	1	122	K14320LIVW	1	144
K14246SAA*	1	113	K14302BRC	1	122	K14320PBR*	1	144
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K14320TCOB	1	144	K14325DBZB	1	145	K14330SAA	1	145
K14320TIRB	1	144	K14325LBKB	1	145	K14330SAG	1	145
K14320WHIW	1	144	K14325LBS*	1	145	K14330TCO	1	145
K14321ABSB	1	145	K14325LIVW	1	145	K14330TIR	1	145
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K14321DBZB	1	145	K14325SAA*	1	145	K14331ABS	1	124
K14321LBKB	1	145	K14325SAG*	1	145	K14331BRC	1	124
K14321LBS*	1	145	K14325TCOB	1	145	K14331BSS	1	124
K14321LIVW	1	145	K14325TIRB	1	145	K14331DBZ	1	124
K14321PBR*	1	145	K14325WHIW	1	145	K14331LBK	1	124
K14321POC*	1	145	K14329ABS	1	145	K14331LBS	1	124
K14321SAA*	1	145	K14329BRC	1	145	K14331LIV	1	124
K14321SAG*	1	145	K14329BSS	1	145	K14331PBR	1	124
K14321TCOB	1	145	K14329DBZ	1	145	K14331POC	1	124
K14321TIRB	1	145	K14329LBK	1	145	K14331SAA	1	124
K14321WHIW	1	145	K14329LBS	1	145	K14331SAG	1	124
K14322ABSB	1	145	K14329LIV	1	145	K14331TCO	1	124
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K14322SAG*	1	145	K14330BSS	1	145	K14332LIV	1	125
K14322TCOB	1	145	K14330DBZ	1	145	K14332PBR	1	125
K14322TIRB	1	145	K14330LBK	1	145	K14332POC	1	125
K14322WHIW	1	145	K14330LBS	1	145	K14332SAA	1	125
K14325ABSB	1	145	K14330LIV	1	145	K14332SAG	1	125

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K14332TIR	1	125	K14345BRC*	1	113	K14347LIVW	1	112
K14332WHI	1	125	K14345BSS	1	113	K14347PBR*	1	112
K14333	1	192	K14345DBZB	1	113	K14347POC*	1	112
K14333ABS	1	125	K14345LBKB	1	113	K14347SAA*	1	112
K14333BRC	1	125	K14345LBS*	1	113	K14347SAG*	1	112
K14333BSS	1	125	K14345LIVW	1	113	K14347TCOB	1	112
K14333DBZ	1	125	K14345PBR*	1	113	K14347TIRB	1	112
K14333LBK	1	125	K14345POC*	1	113	K14347WHIW	1	112
K14333LBS	1	125	K14345SAA*	1	113	K14348	1	193
K14333LIV	1	125	K14345SAG*	1	113	K14348ABS	1	125
K14333PBR	1	125	K14345TCOB	1	113	K14348BRC	1	125
K14333POC	1	125	K14345TIRB	1	113	K14348BSS	1	125
K14333SAA	1	125	K14345WHIW	1	113	K14348DBZ	1	125
K14333SAG	1	125	K14346	1	192	K14348LBK	1	125
K14333TCO	1	125	K14346ABS	1	125	K14348LBS	1	125
K14333TIR	1	125	K14346BRC	1	125	K14348LIV	1	125
K14333WHI	1	125	K14346BSS	1	125	K14348PBR	1	125
K14334	1	192	K14346DBZ	1	125	K14348POC	1	125
K14334ABS	1	125	K14346LBK	1	125	K14348SAA	1	125
K14334BRC	1	125	K14346LBS	1	125	K14348SAG	1	125
K14334BSS	1	125	K14346LIV	1	125	K14348TCO	1	125
K14334DBZ	1	125	K14346PBR	1	125	K14348TIR	1	125
K14334LBK	1	125	K14346POC	1	125	K14348WHI	1	125
K14334LBS	1	125	K14346SAA	1	125	K14349	1	193
K14334LIV	1	125	K14346SAG	1	125	K14349ABS	1	125
K14334PBR	1	125	K14346TCO	1	125	K14349BRC	1	125
K14334POC	1	125	K14346TIR	1	125	K14349BSS	1	125
K14334SAA	1	125	K14346WHI	1	125	K14349DBZ	1	125
K14334SAG	1	125	K14347ABSB	1	112	K14349LBK	1	125
K14334TCO	1	125	K14347BRC*	1	112	K14349LBS	1	125
K14334TIR	1	125	K14347BSS*	1	112	K14349LIV	1	125
K14334WHI	1	125	K14347DBZB	1	112	K14349PBR	1	125
K14336BSS*	1	121	K14347LBKB	1	112	K14349POC	1	125

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K14349SAA	1	125	K14354WHI	1	126	K14358LBK	1	126
K14349SAG	1	125	K14355ABSB	1	116	K14358LBS	1	126
K14349TCO	1	125	K14355BRC*	1	116	K14358LIV	1	126
K14349TIR	1	125	K14355BSS*	1	116	K14358PBR	1	126
K14349WHI	1	125	K14355DBZB	1	116	K14358POC	1	126
K14352	1	193	K14355LBKB	1	116	K14358SAA	1	126
K14352ABS	1	126	K14355LBS*	1	116	K14358SAG	1	126
K14352BRC	1	126	K14355LIVW	1	116	K14358TCO	1	126
K14352BSS	1	126	K14355PBR*	1	116	K14358TIR	1	126
K14352DBZ	1	126	K14355POC*	1	116	K14358WHI	1	126
K14352LBK	1	126	K14355SAA*	1	116	K14361ABSB	1	121
K14352LBS	1	126	K14355SAG*	1	116	K14361BRC*	1	121
K14352LIV	1	126	K14355TCOB	1	116	K14361BSS*	1	121
K14352PBR	1	126	K14355TIRB	1	116	K14361DBZB	1	121
K14352POC	1	126	K14355WHIW	1	116	K14361LBKB	1	121
K14352SAA	1	126	K14357ABSB	1	112	K14361LBS*	1	121
K14352SAG	1	126	K14357BRC*	1	112	K14361LIVW	1	121
K14352TCO	1	126	K14357BSS*	1	112	K14361PBR*	1	121
K14352TIR	1	126	K14357DBZB	1	112	K14361POC*	1	121
K14352WHI	1	126	K14357LBKB	1	112	K14361SAA*	1	121
K14354	1	193	K14357LBS*	1	112	K14361SAG*	1	121
K14354ABS	1	126	K14357LIVW	1	112	K14361TCOB	1	121
K14354BRC	1	126	K14357PBR*	1	112	K14361TIRB	1	121
K14354BSS	1	126	K14357POC*	1	112	K14361WHIW	1	121
K14354DBZ	1	126	K14357SAA*	1	112	K14371ABSB	1	120
K14354LBK	1	126	K14357SAG*	1	112	K14371BRC*	1	120
K14354LBS	1	126	K14357TCOB	1	112	K14371BSS*	1	120
K14354LIV	1	126	K14357TIRB	1	112	K14371DBZB	1	120
K14354PBR	1	126	K14357WHIW	1	112	K14371LBKB	1	120
K14354POC	1	126	K14358	1	193	K14371LBS*	1	120
K14354SAA	1	126	K14358ABS	1	126	K14371LIVW	1	120
K14354SAG	1	126	K14358BRC	1	126	K14371PBR*	1	120
K14354TCO	1	126	K14358BSS	1	126	K14371POC*	1	120
K14354TIR	1	126	K14358DBZ	1	126	K14371SAA*	1	120

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K14371SAG*	1	120	K14378BSS	1	116	K14381PBR*	1	115
K14371TCOB	1	120	K14378DBZ	1	116	K14381POC*	1	115
K14371TIRB	1	120	K14378LBK	1	116	K14381SAA*	1	115
K14371WHIW	1	120	K14378LBS	1	116	K14381SAG*	1	115
K14372ABSB	1	120	K14378LIV	1	116	K14381TCOB	1	115
K14372BRC*	1	120	K14378PBR	1	116	K14381TIRB	1	115
K14372BSS*	1	120	K14378POC	1	116	K14381WHIW	1	115
K14372DBZB	1	120	K14378SAA*	1	116	K14382ABSB	1	115
K14372LBKB	1	120	K14378SAG	1	116	K14382BRC*	1	115
K14372LBS*	1	120	K14378TCO	1	116	K14382BSS*	1	115
K14372LIVW	1	120	K14378TIR	1	116	K14382DBZB	1	115
K14372PBR*	1	120	K14378WHI	1	116	K14382LBKB	1	115
K14372POC*	1	120	K14379BSS	1	117	K14382LBS*	1	115
K14372SAA*	1	120	K14380ABSB	1	115	K14382LIVW	1	115
K14372SAG*	1	120	K14380BRC*	1	115	K14382PBR*	1	115
K14372TCOB	1	120	K14380BSS*	1	115	K14382POC*	1	115
K14372TIRB	1	120	K14380DBZB	1	115	K14382SAA*	1	115
K14372WHIW	1	120	K14380LBKB	1	115	K14382SAG*	1	115
K14373ABSB	1	120	K14380LBS*	1	115	K14382TCOB	1	115
K14373BRC*	1	120	K14380LIVW	1	115	K14382TIRB	1	115
K14373BSS*	1	120	K14380PBR*	1	115	K14382WHIW	1	115
K14373DBZB	1	120	K14380POC*	1	115	K14383ABSB	1	113
K14373LBKB	1	120	K14380SAA*	1	115	K14383BRC*	1	113
K14373LBS*	1	120	K14380SAG*	1	115	K14383BSS*	1	113
K14373LIVW	1	120	K14380TCOB	1	115	K14383DBZB	1	113
K14373PBR*	1	120	K14380TIRB	1	115	K14383LBKB	1	113
K14373POC*	1	120	K14380WHIW	1	115	K14383LBS*	1	113
K14373SAA*	1	120	K14381ABSB	1	115	K14383LIVW	1	113
K14373SAG*	1	120	K14381BRC*	1	115	K14383PBR*	1	113
K14373TCOB	1	120	K14381BSS*	1	115	K14383POC*	1	113
K14373TIRB	1	120	K14381DBZB	1	115	K14383SAA*	1	113
K14373WHIW	1	120	K14381LBKB	1	115	K14383SAG*	1	113
K14378ABS	1	116	K14381LBS*	1	115	K14383TCOB	1	113
K14378BRC	1	116	K14381LIVW	1	115	K14383TIRB	1	113

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K14383WHIW	1	113	K14432LBK	1	123	K14434SAG	1	123
K14401	1	193	K14432LBS	1	123	K14434TCO	1	123
K14401ABS	1	126	K14432LIV	1	123	K14434TIR	1	123
K14401BRC	1	126	K14432PBR	1	123	K14434WHI	1	123
K14401BSS	1	126	K14432POC	1	123	K14521ABS	1	122
K14401DBZ	1	126	K14432SAA	1	123	K14521BRC	1	122
K14401LBK	1	126	K14432SAG	1	123	K14521BSS	1	122
K14401LBS	1	126	K14432TCO	1	123	K14521DBZ	1	122
K14401LIV	1	126	K14432TIR	1	123	K14521LBK	1	122
K14401PBR	1	126	K14432WHI	1	123	K14521LBS	1	122
K14401POC	1	126	K14433ABS	1	123	K14521LIV	1	122
K14401SAA	1	126	K14433BRC	1	123	K14521PBR	1	122
K14401SAG	1	126	K14433BSS	1	123	K14521POC	1	122
K14401TCO	1	126	K14433DBZ	1	123	K14521SAA	1	122
K14401TIR	1	126	K14433LBK	1	123	K14521SAG	1	122
K14401WHI	1	126	K14433LBS	1	123	K14521TCO	1	122
K14431ABS	1	123	K14433LIV	1	123	K14521TIR	1	122
K14431BRC	1	123	K14433PBR	1	123	K14521WHI	1	122
K14431BSS	1	123	K14433POC	1	123	K14522ABS	1	122
K14431DBZ	1	123	K14433SAA	1	123	K14522BRC	1	122
K14431LBK	1	123	K14433SAG	1	123	K14522BSS	1	122
K14431LBS	1	123	K14433TCO	1	123	K14522DBZ	1	122
K14431LIV	1	123	K14433TIR	1	123	K14522LBK	1	122
K14431PBR	1	123	K14433WHI	1	123	K14522LBS	1	122
K14431POC	1	123	K14434ABS	1	123	K14522LIV	1	122
K14431SAA	1	123	K14434BRC	1	123	K14522PBR	1	122
K14431SAG	1	123	K14434BSS	1	123	K14522POC	1	122
K14431TCO	1	123	K14434DBZ	1	123	K14522SAA	1	122
K14431TIR	1	123	K14434LBK	1	123	K14522SAG	1	122
K14431WHI	1	123	K14434LBS	1	123	K14522TCO	1	122
K14432ABS	1	123	K14434LIV	1	123	K14522TIR	1	122
K14432BRC	1	123	K14434PBR	1	123	K14522WHI	1	122
K14432BSS	1	123	K14434POC	1	123	K14647ABSB	1	113
K14432DBZ	1	123	K14434SAA	1	123	K14647BRC*	1	113

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K14647BSS*	1	113	K14709DBZB	1	117	K14780SAA*	1	115
K14647DBZB	1	113	K14709LBKB	1	117	K14780SAG*	1	115
K14647LBKB	1	113	K14709LBS*	1	117	K14780TCOB	1	115
K14647LBS*	1	113	K14709LIVW	1	117	K14780TIRB	1	115
K14647LIVW	1	113	K14709PBR*	1	117	K14780WHIW	1	115
K14647PBR*	1	113	K14709POC*	1	117	K14781ABSB	1	115
K14647POC*	1	113	K14709SAA*	1	117	K14781BRC*	1	115
K14647SAA*	1	113	K14709SAG*	1	117	K14781BSS*	1	115
K14647SAG*	1	113	K14709TCOB	1	117	K14781DBZB	1	115
K14647TCOB	1	113	K14709TIRB	1	117	K14781LBKB	1	115
K14647TIRB	1	113	K14709WHIW	1	117	K14781LBS*	1	115
K14647WHIW	1	113	K14710ABSB	1	117	K14781LIVW	1	115
K14657ABSB	1	112	K14710BRC*	1	117	K14781PBR*	1	115
K14657BRC*	1	112	K14710BSS*	1	117	K14781POC*	1	115
K14657BSS*	1	112	K14710DBZB	1	117	K14781SAA*	1	115
K14657DBZB	1	112	K14710LBKB	1	117	K14781SAG*	1	115
K14657LBKB	1	112	K14710LBS*	1	117	K14781TCOB	1	115
K14657LBS*	1	112	K14710LIVW	1	117	K14781TIRB	1	115
K14657LIVW	1	112	K14710PBR*	1	117	K14781WHIW	1	115
K14657PBR*	1	112	K14710POC*	1	117	K14790ABS	1	116
K14657POC*	1	112	K14710SAA*	1	117	K14790BRC	1	116
K14657SAA*	1	112	K14710SAG*	1	117	K14790BSS	1	116
K14657SAG*	1	112	K14710TCOB	1	117	K14790DBZ	1	116
K14657TCOB	1	112	K14710TIRB	1	117	K14790LBK	1	116
K14657TIRB	1	112	K14710WHIW	1	117	K14790LBS	1	116
K14657WHIW	1	112	K14780ABSB	1	115	K14790LIV	1	116
K14701	10	126	K14780BRC*	1	115	K14790PBR	1	116
K14702	10	127	K14780BSS*	1	115	K14790POC	1	116
K14703	10	127	K14780DBZB	1	115	K14790SAA	1	116
K14704	10	127	K14780LBKB	1	115	K14790SAG	1	116
K14706	10	127	K14780LBS*	1	115	K14790TCO	1	116
K14709ABSB	1	117	K14780LIVW	1	115	K14790TIR	1	116
K14709BRC*	1	117	K14780PBR*	1	115	K14790WHI	1	116
K14709BSS*	1	117	K14780POC*	1	115	K14791ABS	1	116

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K14791BRC	1	116	K14891LIV	1	124	K14893TIR	1	124
K14791BSS	1	116	K14891PBR	1	124	K14893WHI	1	124
K14791DBZ	1	116	K14891POC	1	124	K14896ABS	1	124
K14791LBK	1	116	K14891SAA	1	124	K14896BRC	1	124
K14791LBS	1	116	K14891SAG	1	124	K14896BSS	1	124
K14791LIV	1	116	K14891TCO	1	124	K14896DBZ	1	124
K14791PBR	1	116	K14891TIR	1	124	K14896LBK	1	124
K14791POC	1	116	K14891WHI	1	124	K14896LBS	1	124
K14791SAA	1	116	K14892ABS	1	124	K14896LIV	1	124
K14791SAG	1	116	K14892BRC	1	124	K14896PBR	1	124
K14791TCO	1	116	K14892BSS	1	124	K14896POC	1	124
K14791TIR	1	116	K14892DBZ	1	124	K14896SAA	1	124
K14791WHI	1	116	K14892LBK	1	124	K14896SAG	1	124
K14801	10	127	K14892LBS	1	124	K14896TCO	1	124
K14859ABSB	1	121	K14892LIV	1	124	K14896TIR	1	124
K14859BRC*	1	121	K14892PBR	1	124	K14896WHI	1	124
K14859BSS*	1	121	K14892POC	1	124	K14931ABSB	1	118
K14859DBZB	1	121	K14892SAA	1	124	K14931BRC*	1	118
K14859LBKB	1	121	K14892SAG	1	124	K14931BSS*	1	118
K14859LBS*	1	121	K14892TCO	1	124	K14931DBZB	1	118
K14859LIVW	1	121	K14892TIR	1	124	K14931LBKB	1	118
K14859PBR*	1	121	K14892WHI	1	124	K14931LBS*	1	118
K14859POC*	1	121	K14893ABS	1	124	K14931LIVW	1	118
K14859SAA*	1	121	K14893BRC	1	124	K14931PBR*	1	118
K14859SAG*	1	121	K14893BSS	1	124	K14931POC*	1	118
K14859TCOB	1	121	K14893DBZ	1	124	K14931SAA*	1	118
K14859TIRB	1	121	K14893LBK	1	124	K14931SAG*	1	118
K14859WHIW	1	121	K14893LBS	1	124	K14931TCOB	1	118
K14891ABS	1	124	K14893LIV	1	124	K14931TIRB	1	118
K14891BRC	1	124	K14893PBR	1	124	K14931WHIW	1	118
K14891BSS	1	124	K14893POC	1	124	K14941ABSB	1	118
K14891DBZ	1	124	K14893SAA	1	124	K14941BRC*	1	118
K14891LBK	1	124	K14893SAG	1	124	K14941BSS*	1	118
K14891LBS	1	124	K14893TCO	1	124	K14941DBZB	1	118

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K14941LBKB	1	118	K14958SAG*	1	119	K14978BSS*	1	119
K14941LBS*	1	118	K14958TCOB	1	119	K14978DBZB	1	119
K14941LIVW	1	118	K14958TIRB	1	119	K14978LBKB	1	119
K14941PBR*	1	118	K14958WHIW	1	119	K14978LBS*	1	119
K14941POC*	1	118	K14961ABSB	1	118	K14978LIVW	1	119
K14941SAA*	1	118	K14961BRC*	1	118	K14978PBR*	1	119
K14941SAG*	1	118	K14961BSS*	1	118	K14978POC*	1	119
K14941TCOB	1	118	K14961DBZB	1	118	K14978SAA*	1	119
K14941TIRB	1	118	K14961LBKB	1	118	K14978SAG*	1	119
K14941WHIW	1	118	K14961LBS*	1	118	K14978TCOB	1	119
K14948ABSB	1	119	K14961LIVW	1	118	K14978TIRB	1	119
K14948BRC*	1	119	K14961PBR*	1	118	K14978WHIW	1	119
K14948BSS*	1	119	K14961POC*	1	118	K14989ABSB	1	119
K14948DBZB	1	119	K14961SAA*	1	118	K14989BRC*	1	119
K14948LBKB	1	119	K14961SAG*	1	118	K14989BSS*	1	119
K14948LBS*	1	119	K14961TCOB	1	118	K14989DBZB	1	119
K14948LIVW	1	119	K14961TIRB	1	118	K14989LBKB	1	119
K14948PBR*	1	119	K14961WHIW	1	118	K14989LBS*	1	119
K14948POC*	1	119	K14971ABSB	1	118	K14989LIVW	1	119
K14948SAA*	1	119	K14971BRC*	1	118	K14989PBR*	1	119
K14948SAG*	1	119	K14971BSS*	1	118	K14989POC*	1	119
K14948TCOB	1	119	K14971DBZB	1	118	K14989SAA*	1	119
K14948TIRB	1	119	K14971LBKB	1	118	K14989SAG*	1	119
K14948WHIW	1	119	K14971LBS*	1	118	K14989TCOB	1	119
K14958ABSB	1	119	K14971LIVW	1	118	K14989TIRB	1	119
K14958BRC*	1	119	K14971PBR*	1	118	K14989WHIW	1	119
K14958BSS*	1	119	K14971POC*	1	118	K23471ABSB	1	87
K14958DBZB	1	119	K14971SAA*	1	118	K23471BRC*	1	87
K14958LBKB	1	119	K14971SAG*	1	118	K23471BSS*	1	87
K14958LBS*	1	119	K14971TCOB	1	118	K23471DBZB	1	87
K14958LIVW	1	119	K14971TIRB	1	118	K23471LBKB	1	87
K14958PBR*	1	119	K14971WHIW	1	118	K23471LBS*	1	87
K14958POC*	1	119	K14978ABSB	1	119	K23471LIVW	1	87
K14958SAA*	1	119	K14978BRC*	1	119	K23471PBR*	1	87

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K23471SAG*	1	87	K23476LBKB	1	37	K24171WHI	1	107
K23471TCOB	1	87	K23476LBS*	1	37	K24172ABS	1	107
K23471TIRB	1	87	K23476LIVW	1	37	K24172BRC	1	107
K23471WHIW	1	87	K23476PBR*	1	37	K24172BSS	1	107
K23472ABSB	1	87	K23476POC*	1	37	K24172DBZ	1	107
K23472BRC*	1	87	K23476SAG*	1	37	K24172LBK	1	107
K23472BSS*	1	87	K23476TCOB	1	37	K24172LBS	1	107
K23472DBZB	1	87	K23476TIRB	1	37	K24172LIV	1	107
K23472LBKB	1	87	K23476WHIW	1	37	K24172PBR	1	107
K23472LBS*	1	87	K23477ABSB	1	37	K24172POC	1	107
K23472LIVW	1	87	K23477BRC*	1	37	K24172SAG	1	107
K23472PBR*	1	87	K23477BSS*	1	37	K24172TCO	1	107
K23472POC*	1	87	K23477DBZB	1	37	K24172TIR	1	107
K23472SAG*	1	87	K23477LBKB	1	37	K24172WHI	1	107
K23472TCOB	1	87	K23477LBS*	1	37	K24181ABS	1	101
K23472TIRB	1	87	K23477LIVW	1	37	K24181BRC	1	101
K23472WHIW	1	87	K23477PBR*	1	37	K24181BSS	1	101
K23473ABSB	1	88	K23477POC*	1	37	K24181DBZ	1	101
K23473BRC*	1	88	K23477SAG*	1	37	K24181LBK	1	101
K23473BSS*	1	88	K23477TCOB	1	37	K24181LBS	1	101
K23473DBZB	1	88	K23477TIRB	1	37	K24181LIV	1	101
K23473LBKB	1	88	K23477WHIW	1	37	K24181PBR	1	101
K23473LBS*	1	88	K24171ABS	1	107	K24181POC	1	101
K23473LIVW	1	88	K24171BRC	1	107	K24181SAG	1	101
K23473PBR*	1	88	K24171BSS	1	107	K24181TCO	1	101
K23473POC*	1	88	K24171DBZ	1	107	K24181TIR	1	101
K23473SAG*	1	88	K24171LBK	1	107	K24181WHI	1	101
K23473TCOB	1	88	K24171LBS	1	107	K24182ABS	1	101
K23473TIRB	1	88	K24171LIV	1	107	K24182BRC	1	101
K23473WHIW	1	88	K24171PBR	1	107	K24182BSS	1	101
K23476ABSB	1	37	K24171POC	1	107	K24182DBZ	1	101
K23476BRC*	1	37	K24171SAG	1	107	K24182LBK	1	101
K23476BSS*	1	37	K24171TCO	1	107	K24182LBS	1	101

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K24182LIV	1	101	K24305BRC*	1	88	K24330SAG	1	109
K24182PBR	1	101	K24305BSS*	1	88	K24330TCO	1	109
K24182POC	1	101	K24305DBZB	1	88	K24330TIR	1	109
K24182SAG	1	101	K24305LBKB	1	88	K24330WHI	1	109
K24182TCO	1	101	K24305LBS*	1	88	K24331	1	192
K24182TIR	1	101	K24305LIVW	1	88	K24331ABS	1	90
K24182WHI	1	101	K24305PBR*	1	88	K24331BRC	1	90
K24184ABS	1	101	K24305POC*	1	88	K24331BSS	1	90
K24184BRC	1	101	K24305SAG*	1	88	K24331DBZ	1	90
K24184BSS	1	101	K24305TCOB	1	88	K24331LBK	1	90
K24184DBZ	1	101	K24305TIRB	1	88	K24331LBS	1	90
K24184LBK	1	101	K24305WHIW	1	88	K24331LIV	1	90
K24184LBS	1	101	K24329ABS	1	109	K24331PBR	1	90
K24184LIV	1	101	K24329BRC	1	109	K24331POC	1	90
K24184PBR	1	101	K24329BSS	1	109	K24331SAG	1	90
K24184POC	1	101	K24329DBZ	1	109	K24331TCO	1	90
K24184SAG	1	101	K24329LBK	1	109	K24331TIR	1	90
K24184TCO	1	101	K24329LBS	1	109	K24331WHI	1	90
K24184TIR	1	101	K24329LIV	1	109	K24332	1	192
K24184WHI	1	101	K24329PBR	1	109	K24332ABS	1	90
K24301ABS	1	89	K24329POC	1	109	K24332BRC	1	90
K24301BRC	1	89	K24329SAG	1	109	K24332BSS	1	90
K24301BSS	1	89	K24329TCO	1	109	K24332DBZ	1	90
K24301DBZ	1	89	K24329TIR	1	109	K24332LBK	1	90
K24301LBK	1	89	K24329WHI	1	109	K24332LBS	1	90
K24301LBS	1	89	K24330ABS	1	109	K24332LIV	1	90
K24301LIV	1	89	K24330BRC	1	109	K24332PBR	1	90
K24301PBR	1	89	K24330BSS	1	109	K24332POC	1	90
K24301POC	1	89	K24330DBZ	1	109	K24332SAG	1	90
K24301SAG	1	89	K24330LBK	1	109	K24332TCO	1	90
K24301TCO	1	89	K24330LBS	1	109	K24332TIR	1	90
K24301TIR	1	89	K24330LIV	1	109	K24332WHI	1	90
K24301WHI	1	89	K24330PBR	1	109	K24333	1	192
K24305ABSB	1	88	K24330POC	1	109	K24333ABS	1	91

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K24333BSS	1	91	K24336SAG*	1	88	K24348BSS	1	91
K24333DBZ	1	91	K24336TCOB	1	88	K24348DBZ	1	91
K24333LBK	1	91	K24336TIRB	1	88	K24348LBK	1	91
K24333LBS	1	91	K24336WHIW	1	88	K24348LBS	1	91
K24333LIV	1	91	K24346	1	192	K24348LIV	1	91
K24333PBR	1	91	K24346ABS	1	91	K24348PBR	1	91
K24333POC	1	91	K24346BRC	1	91	K24348POC	1	91
K24333SAG	1	91	K24346BSS	1	91	K24348SAG	1	91
K24333TCO	1	91	K24346DBZ	1	91	K24348TCO	1	91
K24333TIR	1	91	K24346LBK	1	91	K24348TIR	1	91
K24333WHI	1	91	K24346LBS	1	91	K24348WHI	1	91
K24334	1	192	K24346LIV	1	91	K24357ABSB	1	84
K24334ABS	1	91	K24346PBR	1	91	K24357BRC*	1	84
K24334BRC	1	91	K24346POC	1	91	K24357BSS*	1	84
K24334BSS	1	91	K24346SAG	1	91	K24357DBZB	1	84
K24334DBZ	1	91	K24346TCO	1	91	K24357LBKB	1	84
K24334LBK	1	91	K24346TIR	1	91	K24357LBS*	1	84
K24334LBS	1	91	K24346WHI	1	91	K24357LIVW	1	84
K24334LIV	1	91	K24347ABSB	1	84	K24357PBR*	1	84
K24334PBR	1	91	K24347BRC*	1	84	K24357POC*	1	84
K24334POC	1	91	K24347BSS*	1	84	K24357SAG*	1	84
K24334SAG	1	91	K24347DBZB	1	84	K24357TCOB	1	84
K24334TCO	1	91	K24347LBKB	1	84	K24357TIRB	1	84
K24334TIR	1	91	K24347LBS*	1	84	K24357WHIW	1	84
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K24336ABSB	1	88	K24347PBR*	1	84	K24371BRC*	1	87
K24336BRC*	1	88	K24347POC*	1	84	K24371BSS*	1	87
K24336BSS*	1	88	K24347SAG*	1	84	K24371DBZB	1	87
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K24336LIVW	1	88	K24348	1	193	K24371PBR*	1	87
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K24371TIRB	1	87	K24381LIVW	1	85	K24521BRC	1	89
K24371WHIW	1	87	K24381PBR*	1	85	K24521BSS	1	89
K24372ABSB	1	87	K24381POC*	1	85	K24521DBZ	1	89
K24372BRC*	1	87	K24381SAG*	1	85	K24521LBK	1	89
K24372BSS*	1	87	K24381TCOB	1	85	K24521LBS	1	89
K24372DBZB	1	87	K24381TIRB	1	85	K24521LIV	1	89
K24372LBKB	1	87	K24381WHIW	1	85	K24521PBR	1	89
K24372LBS*	1	87	K24382ABSB	1	84	K24521POC	1	89
K24372LIVW	1	87	K24382BRC*	1	84	K24521SAG	1	89
K24372PBR*	1	87	K24382BSS*	1	84	K24521TCO	1	89
K24372POC*	1	87	K24382DBZB	1	84	K24521TIR	1	89
K24372SAG*	1	87	K24382LBKB	1	84	K24521WHI	1	89
K24372TCOB	1	87	K24382LBS*	1	84	K24522ABS	1	89
K24372TIRB	1	87	K24382LIVW	1	84	K24522BRC	1	89
K24372WHIW	1	87	K24382PBR*	1	84	K24522BSS	1	89
K24373ABSB	1	87	K24382POC*	1	84	K24522DBZ	1	89
K24373BRC*	1	87	K24382SAG*	1	84	K24522LBK	1	89
K24373BSS*	1	87	K24382TCOB	1	84	K24522LBS	1	89
K24373DBZB	1	87	K24382TIRB	1	84	K24522LIV	1	89
K24373LBKB	1	87	K24382WHIW	1	84	K24522PBR	1	89
K24373LBS*	1	87	K24383ABSB	1	85	K24522POC	1	89
K24373LIVW	1	87	K24383BRC*	1	85	K24522SAG	1	89
K24373PBR*	1	87	K24383BSS*	1	85	K24522TCO	1	89
K24373POC*	1	87	K24383DBZB	1	85	K24522TIR	1	89
K24373SAG*	1	87	K24383LBKB	1	85	K24522WHI	1	89
K24373TCOB	1	87	K24383LBS*	1	85	K24541ABS	1	90
K24373TIRB	1	87	K24383LIVW	1	85	K24541BRC	1	90
K24373WHIW	1	87	K24383PBR*	1	85	K24541BSS	1	90
K24381ABSB	1	85	K24383POC*	1	85	K24541DBZ	1	90
K24381BRC*	1	85	K24383SAG*	1	85	K24541LBK	1	90
K24381BSS*	1	85	K24383TCOB	1	85	K24541LBS	1	90
K24381DBZB	1	85	K24383TIRB	1	85	K24541LIV	1	90

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K24541POC	1	90	K24657DBZB	1	84	K24740TIRB	1	85
K24541SAG	1	90	K24657LBKB	1	84	K24740WHIW	1	85
K24541TCO	1	90	K24657LBS*	1	84	K24742ABSB	1	85
K24541TIR	1	90	K24657LIVW	1	84	K24742BRC*	1	85
K24541WHI	1	90	K24657PBR*	1	84	K24742BSS*	1	85
K24561ABS	1	90	K24657POC*	1	84	K24742DBZB	1	85
K24561BRC	1	90	K24657SAG*	1	84	K24742LBKB	1	85
K24561BSS	1	90	K24657TCOB	1	84	K24742LBS*	1	85
K24561DBZ	1	90	K24657TIRB	1	84	K24742LIVW	1	85
K24561LBK	1	90	K24657WHIW	1	84	K24742PBR*	1	85
K24561LBS	1	90	K24709ABSB	1	86	K24742POC*	1	85
K24561LIV	1	90	K24709BRC*	1	86	K24742SAG*	1	85
K24561PBR	1	90	K24709BSS*	1	86	K24742TCOB	1	85
K24561POC	1	90	K24709DBZB	1	86	K24742TIRB	1	85
K24561SAG	1	90	K24709LBKB	1	86	K24742WHIW	1	85
K24561TCO	1	90	K24709LBS*	1	86	K24780ABSB	1	85
K24561TIR	1	90	K24709LIVW	1	86	K24780BRC*	1	85
K24561WHI	1	90	K24709PBR*	1	86	K24780BSS*	1	85
K24647ABSB	1	84	K24709POC*	1	86	K24780DBZB	1	85
K24647BRC*	1	84	K24709SAG*	1	86	K24780LBKB	1	85
K24647BSS*	1	84	K24709TCOB	1	86	K24780LBS*	1	85
K24647DBZB	1	84	K24709TIRB	1	86	K24780LIVW	1	85
K24647LBKB	1	84	K24709WHIW	1	86	K24780PBR*	1	85
K24647LBS*	1	84	K24740ABSB	1	85	K24780POC*	1	85
K24647LIVW	1	84	K24740BRC*	1	85	K24780SAG*	1	85
K24647PBR*	1	84	K24740BSS*	1	85	K24780TCOB	1	85
K24647POC*	1	84	K24740DBZB	1	85	K24780TIRB	1	85
K24647SAG*	1	84	K24740LBKB	1	85	K24780WHIW	1	85
K24647TCOB	1	84	K24740LBS*	1	85	K24781ABSB	1	85
K24647TIRB	1	84	K24740LIVW	1	85	K24781BRC*	1	85
K24647WHIW	1	84	K24740PBR*	1	85	K24781BSS*	1	85
K24657ABSB	1	84	K24740POC*	1	85	K24781DBZB	1	85
K24657BRC*	1	84	K24740SAG*	1	85	K24781LBKB	1	85

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K24781PBR*	1	85	K24958BSS*	1	86	K24971TCOB	1	86
K24781POC*	1	85	K24958DBZB	1	86	K24971TIRB	1	86
K24781SAG*	1	85	K24958LBKB	1	86	K24971WHIW	1	86
K24781TCOB	1	85	K24958LBS*	1	86	K24978ABSB	1	87
K24781TIRB	1	85	K24958LIVW	1	86	K24978BRC*	1	87
K24781WHIW	1	85	K24958PBR*	1	86	K24978BSS*	1	87
K24859ABSB	1	88	K24958POC*	1	86	K24978DBZB	1	87
K24859BRC*	1	88	K24958SAG*	1	86	K24978LBKB	1	87
K24859BSS*	1	88	K24958TCOB	1	86	K24978LBS*	1	87
K24859DBZB	1	88	K24958TIRB	1	86	K24978LIVW	1	87
K24859LBKB	1	88	K24958WHIW	1	86	K24978PBR*	1	87
K24859LBS*	1	88	K24961ABSB	1	86	K24978POC*	1	87
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K24941POC*	1	86	K24971DBZB	1	86	K46103CLR	1	236
K24941SAG*	1	86	K24971LBKB	1	86	K46103GRY	1	236
K24941TCOB	1	86	K24971LBS*	1	86	K46103WHI	1	236
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Superswitch range of wiring devices

This range of wiring devices offers customers a choice of white plastic Silk, decorative Flatplate, decorative Screwless, flexible Grid and Ceiling Accessories. Designed to meet the demanding requirements of contemporary living or commercial spaces, the Superswitch range offers quality products, with a no-quibble, five year guarantee*. All Superswitch products comply with their relevant British Standards.

*Excludes electronic products which carry a two year guarantee.

Superswitch Silk

The Superswitch Silk range of white plastic wiring devices is the perfect choice for modern interiors. The sleek, low profile blends in with any décor, offering an unobtrusive finish to complement contemporary home or commercial interiors.

Features and Benefits:

- Contemporary Styling
- Tough and Scratch Resistant
- Ease of installation and end user added safety



Superswitch Flatplate

The Superswitch Flatplate range has an ultra slim 1.5mm frontplate making this an ideal choice for modern interiors. The unique grey inserts and oval neons create a stylish design statement

Features and Benefits:

- 1.5mm profile frontplate
- Stylish design with grey inserts and oval neons
- Ease of installation and end user added safety





Superswitch Screwless

The Superswitch Screwless range consists of a 9mm clip-on frontplate, which offers a superb aesthetic with no screws, and a perfect finish as the frontplate can be applied after painting or decorating. The unique grey inserts and oval neons create a stylish design statement.

Features and Benefits:

- 9mm clip-on curved frontplate
- Stylish design with grey inserts and oval neons
- Ease of installation and end user added safety



Superswitch Grid

The Superswitch Grid range is a modular system which compliments the other Superswitch wiring devices ranges. The range of modules includes are easy to fit and simply clip into the mounting frame. Available modules include switches, dimmers, indicator modules and more.

Features and Benefits:

- Frontplates available in Superswitch Silk, Superswitch Flatplate and Superswitch Screwless
- Full range of printed switches available
- Ease of installation

To find out more about the Superswitch ranges visit www.mkelectric.co.uk

Cablelink Plus range of power and data distribution systems

The Ackermann range of products are now part of the MK Electric Cablelink Plus range. The full portfolio is still available, with all the additional benefits of MK and Honeywell. We continue to focus on both product functionality and installation practice – as well as striving to develop ever more innovative new products and features. Now, in a move to address the increasing demand placed on modern buildings.

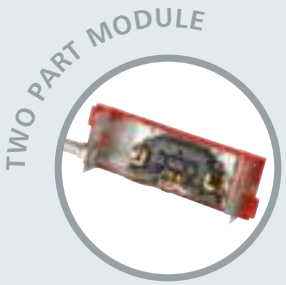
Specifying and installing Cablelink Plus ranges of of Raised Floor and Screed Floor Systems, or Onix Plus™ will provide a robust power and data distribution system that ensures:

- **Superior load bearing performance** – tested to pr EN50085-2-2 to accept 5000N load, 10,000N load for Onix Plus™
- **Fully supports Cat 6 structured cabling systems** – features to ensure minimum wiring spaces and bend radii are achieved
- **Fast and simple installation every time** – new design features incorporated
- **5 year product guarantee** – quality, reliability and safety come as standard

To find out more about the Cablelink Plus ranges visit www.mkelectric.co.uk

FASTER AND SIMPLER INSTALLATION

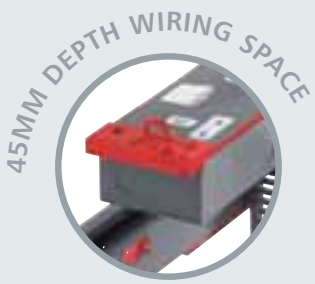




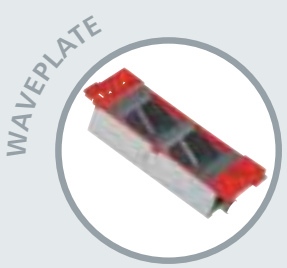




SUPPORTING CAT 6 SYSTEMS











Cablelink Plus Modular



Cablelink Plus Single Pan Box



Cablelink Plus Screed System



DeskPod



Onix Plus™

ROBUST DESIGN







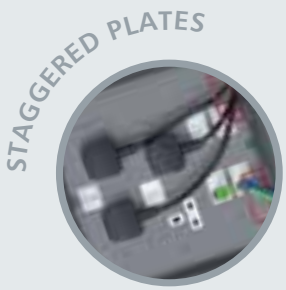


MORE NEW PRODUCT FEATURES









Ex-Or lighting management systems

Ex-Or Lighting Management Systems offers lighting controls for all applications and includes presence detection, lighting management, architectural dimming and scene-setting, and emergency lighting testing. Ex-Or Systems help customers achieve energy savings, reduce fuel bills, and create an optimum environment for staff or visitors.

Ex-Or MLS Digital – Networked Managed Lighting System

MLS Digital offers a flexible, user-responsive, building-wide control solution via a network of communicating detectors, either integrated within individual luminaires or mounted remotely to control groups of lights.



Features and Benefits:

- Maximises customers' energy savings
- Zoned lighting for enhanced convenience and visual comfort
- Straightforward installation and simple commissioning
- Flexibility to accommodate changes in layout or usage without altering wiring

Ex-Or LightSpot – Stand-alone Lighting Control by Presence Detection and Photocell

Ex-Or LightSpot controls are designed to save energy by ensuring that lights are never left burning needlessly in an area that has been vacated or where there is already enough natural light. Savings of 40% to 60% are usually made in office applications but they can be as high as 70% and more in areas such as warehouses.



Features and Benefits:

- Effective environmental and money-saving solution
- Lighting provided automatically and at correct levels
- Local control, so no major breakdown possible
- Enhanced security



Ex-Or Connect – Lighting Control Modules and Plug-in Connection Centres

Ex-Or Connect offers plug-in simplicity via a range of purpose-designed connection centres with varying degrees of sophistication. MLS Connect Digital can also incorporate FailSafe emergency lighting testing.

Features and Benefits:

- Quicker and easier installation for time and cost savings
- Elimination of wiring faults as pre-wired luminaires and detectors are delivered direct to site
- Flexibility as luminaires and detectors can be changed or re-positioned without major disruption



Ex-Or SceneSelect – Architectural Scene-setting and Dimming System

Ex-Or SceneSelect allows the user to create and recall custom pre-set scenes. Once the lighting is set up in the area for an activity, the combination of lighting levels is saved as a pre-set scene and the user can fade between different pre-sets at the touch of a button.

Features and Benefits:

- Flexibility in design
- Increased lamp life and energy savings
- Ease of installation and configuration

To find out more the Ex-Or ranges of products visit www.ex-or.com

Friedland range of chimes, alarms and security lighting

Friedland offers you a comprehensive choice of Wired and Wirefree Chimes, Alarm Systems, Security Lighting and CCTV suitable for residential and commercial applications.

Libra+

Libra+ is the stylish, state of the art range of wirefree chimes, and is Friedland's first chimes range to utilise the 868MHz frequency band, making Libra+ less liable to interference from other wirefree products.

Features and Benefits:

- Chime icons visually identify source of chime activation – a number of options are available including front door push and back door push
- CD quality sound and analogue volume control
- Operating range of up to 200m*
- Portable/wall mounted and plug in



Evo+ Wirefree Chimes

The Evo+ range of contemporary styled door chimes are ideal for use in the home and garden. All products have a 150m* range, with CD quality chimes and range of colours.

Features and Benefits:

- Wirefree for easy installation
- Pre-programmed push to chime kits, for ease of installation
- Unique learning code for push to avoid interference with neighbours' chimes
- Available as a plug-in or portable chime



* Maximum range between push and chime. Note: Building structures e.g. metal and thick wall may affect transmission range.



Wireless CCTV

Wireless CCTV systems are designed for easy installation and simply plug into an existing TV. CCTV cameras act as a visual deterrent and allow monitoring of visitors or intruders via a TV, with the ability to record what is seen. Wireless CCTV is ideal for protecting remote locations such as garages or outbuildings, or locations which make it difficult to run cabling such as alleyways and gardens.

Features and Benefits:

- Simple to use, plug and play set up
- IP54 colour camera with night vision
- Operating open field rage of 100m with 60° camera viewing angle
- 12 hours per channel video recording, with motion detector feature built into the DVR



Response Alarms

Friedland Response is a comprehensive range of wired and wirefree security systems and accessories which are easy to install and easy to operate. A variety of kits are available to suit all installation requirements, with the ability to expand a system with additional accessories.

Features and Benefits:

- Available as wired and wirefree systems
- Wide variety of kits available
- Full range of accessories to upgrade or expand systems
- Wireless systems operate on the 868 Mhz frequency

To find out more about Friedland Chimes and Security products visit www.friedland.co.uk

Abbreviation Key

ABBREVIATIONS USED IN THIS CATALOGUE

17ED 17th Edition

ABS Antique Brass
ALM Aluminium
ALMW Painted White Aluminium
ALU Aluminium
AMB Amber

B Bell Symbol
B Black Inserts
BLK Black
BLN Black Nickel
BLU Blue
BNI Brushed Nickel
BR Boiler
BRC Brushed Chrome
BRO Brown
BRS Brass (Ancillary Products Only)
BSS Brushed Stainless Steel

CE Clean Earth
CH Cooker Hood
CHA Charcoal
CHM Champagne
CK Marked 'Cooker'
CLR Clear
CM Coffee Machine
COL Special RAL Colours (Cable Management only)

D Dimmer
DAB Digital Audio Broadcast
DBZ Desert Bronze
DW Dishwasher

EL Marked 'EMG LTG' (Grid Plus Only

FF Fridge Freezer
FG Fridge
FN Fan
FZ Freezer

GLAA Glass, Aluminium
GLAB Glass, Black
GLAG Glass, Green
GLAGA Glass, Grooved Aluminium
GRA Graphite
GRN Green
GRY Grey

HB Hob
HR Heater

IG Intumescent Gasket
IH Immersion Heater

KO Tamperproof Screw

L Neon Locator / Luminous
LBK Lustrous Black
LBS Lacquered Brushed Steel
LID Lid (Cable Management only)
LIV Lustrous Ivory
LSF Low Smoke and Fume
LV Low Voltage

M Master (High Power Dimmer)
MAG Magnolia
MW Microwave

N Neon
NIP Nickle Plated

ORG Orange
OV Oven

P Marked 'Press'
PBR Polished Brass
PBZ Polished Bronze (Ancillary Products only)
PCR Polished Chrome
PH Plinth Heater
POC Polished Chrome

RED Red

S Switch
S Slave (High Power Dimmer)
SAA Silver Anodised Aluminium
SAG Satin Gold
SH Marked 'Shower'

TCO Textured Copper
TD Tumble Dryer
TIR Textured Iron
TTA Titanium

UCB Uncapped Black Rockers
UCW Uncapped White Rockers

VLT Violet

W With Window
W White Inserts
WC Wine Cooler
WD Waste Disposal
WDA Warming Drawer
WDR Washer Dryer
WH Marked 'Water Heater'
WHI White
WHI Porcelain White (Decorative Only)
WL Worktop Lighting
WM Washing Machine

YEL Yellow

ZIC Zinc Plated LV

1 Standard Carton Quantities are indicated by the number in the box after all product descriptions eg:

K2747WHI **1**
2 GANG

All previous issues are cancelled.

General
The "Seller" means Novar ED&S Limited.
The "Buyer" means the person, firm or company to whom the Seller supplies the Goods.
All quotations are given and all orders are accepted on these terms, replace and supersede any other terms wherever appearing, and override and exclude any other terms stipulated or incorporated or referred to by the Buyer, whether in the order or in any negotiations, and any course of dealing established between the Seller, and the Buyer. All orders hereafter made by the Buyer shall be deemed to be made subject to these terms.

Acceptance of Orders
No contract for the sale of goods ("the Goods") shall be concluded until either the Seller sends or otherwise communicates to the Buyer its acceptance of the Buyer's order or on the delivery to the Buyer of the Goods, whichever is the earlier. The Buyer acknowledges that there are no representations outside these terms that have induced the Buyer to enter into the contract (which expression shall include any contract of which these terms form part) and save as provided herein, these terms shall constitute the entire understanding between the parties for the sale of the Goods. No modification of these terms shall be effective unless made by an express written agreement between the parties. The signing by the Seller of any of the Buyer's documentation shall not imply any modification of these terms.

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All descriptions and illustrations contained in catalogues, price lists and advertisements or otherwise communicated to the Buyer are intended merely to present a general idea of the Goods described therein, and nothing contained in any of them shall form any part of the contract.

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The Seller's policy is one of continuous improvement. The right to change designs at any time without notice is reserved.

Samples
Notwithstanding that a sample of the Goods may have been exhibited to and inspected by the Buyer, it is hereby agreed that such sample was so exhibited and inspected solely to enable the Buyer to judge for himself the quality of the bulk and not so as to constitute a sale by sample. The Buyer shall take the Goods at his own risk as to their corresponding with the said sample or as to their quality condition or sufficiency for any purpose.

Prices
All prices listed or quoted are provisional only and are subject to alteration without prior notice, and prices charged will be those current at the time of despatch of the Goods.

Delivery
All delivery dates are estimates only and the time of delivery shall not be of the essence of the contract. In no circumstances shall the Seller be liable to compensate the Buyer in damages or otherwise for non-delivery or late delivery of the Goods or any of them for whatever reason or for any loss consequential or otherwise arising there from. The Seller reserves the right to make partial deliveries and to allocate available supplies amongst customers in time of shortage. The Seller shall be entitled to deliver the Goods in one or more consignments unless otherwise expressly agreed. For UK sales, delivery shall be deemed to take place when the Goods are despatched from the Seller's premises. The Seller shall not be liable for any loss of any kind to the Buyer arising from any damage to the Goods occurring after the risk has been passed to the Buyer however caused, nor shall any liability of the Buyer to the Seller be diminished or extinguished by reason of such loss.

Carriage and Packing
Packing materials are in most instances non-returnable. The Seller will pay packing and carriage on all orders having a nett value of £250 (exc.VAT) or over and the Goods will be consigned by carrier at goods rate. Orders instructing despatch by other means will be subject to a packing and carriage charge to cover additional cost. Orders of less than £250 (exc.VAT) nett value will be consigned by parcel post up to 5kg in weight, otherwise goods will be consigned by carrier at goods rate.
A packing and carriage charge will be made for all such orders at the rate of £50 (exc.VAT).

Instructions and Labels
The Buyer shall ensure that labels, names, reference numbers and marks on the Goods and packing materials and cases are not removed altered or covered whilst the Goods are in his possession and shall not remove any label or plaque affixed to the Goods referring any user thereof to the Seller's or any other party's instructions and/or recommendations for use. If any item comprised in the Goods is resold by the Buyer the Buyer shall bring to the attention of his purchaser all instructions and/or recommendations for use packed with the Goods or which the Seller has otherwise notified to the Buyer.

Damage or Loss in Transit
When the price quoted includes delivery, the Seller shall repair or replace free of charge goods damaged in transit or not delivered in accordance with the advice note, provided that in the event of damage or shortage, written notification giving details of such damage or shortage must be sent to the Seller within 7 days of receipt, and in the event of non-delivery must be sent to the Seller within 14 days of the date shown on the advice note. Order number, advice note and date of despatch are required, and in the event of failure to give notice within the aforementioned period, the Goods will be deemed to be in all respects as invoiced.

Returns
Goods supplied in accordance with the Buyer's orders cannot be accepted for return without the Seller's written consent. If such consent is given an administration charge will be made. Returned Goods must be sent carriage free and at the Buyer's risk and will only be accepted if packed in the original carton which in the Seller's opinion is in a saleable condition. Only Goods of current design will be accepted for return.

Payments
For UK and Republic of Ireland sales, payment is due before the end of the month following despatch. Value Added Tax for UK sales is payable and is calculated on the cash discounted value of each invoice. If the Seller shall allow provisional credit in respect of any part of the Goods it shall be without prejudice to its rights to refuse to give up possession of any other part of the Goods except against payment: and the whole of the price of all goods bought or agreed to be bought by the Buyer shall fall due and payable without demand immediately on the happening of any of the following events:-
(a) failure by the Buyer to pay any sum due to the Seller within 14 days of the due date for payment;
(b) commencement of the winding up of the Buyer;
(c) any act, event or occurrence entitling any creditor of the Buyer to petition for the bankruptcy of the Buyer.
(d) appointment of a receiver of any asset of the Buyer, or the levying of any distress or execution or any asset of the Buyer.
The failure of the Buyer to pay any part of the price of the Goods in due time shall entitle the Seller to treat such failure as a repudiation of the whole contract by the Buyer and to recover damages for such breach of contract.
Interest on all sums due shall run at the rate of 2 per cent per annum over the base lending rate of Barclays Bank plc until payment is received before as well as after any judgement therefore.

Liability
These terms set out the Seller's entire liability in respect of the Goods and the Seller's liability under these terms shall be in lieu and to the exclusion of all other warranties, conditions, terms and liabilities expressed or implied statutory or otherwise in respect of the quality or the fitness for any particular purpose of the Goods or otherwise (notwithstanding any advice or representation to the Buyer, all liability in respect of which howsoever arising, is expressly excluded) except any implied by law which by law cannot be excluded. Save as provided in these terms and except as aforesaid the Seller shall not be under any liability, whether in contract, tort (including negligence) or otherwise, in respect of defects in the Goods or failure to correspond to specification or sample or for any injury, damage or loss resulting from such defects or failure or from any work done in connection therewith. The Seller shall be under no liability to any purchaser of the Goods from the Buyer. In any event the Seller's liability (if any) whether in contract, tort or otherwise in respect of any defect in the Goods, or for any breach of this Agreement or of any duty owed to the Buyer in connection herewith, shall be further limited in the aggregate to the price of the Goods in question.
Nothing in these terms shall restrict the Seller's liability for death or personal injury caused by the Seller's negligence.

Indemnity
The Buyer shall indemnify the Seller in respect of all damage injury or loss occurring to any person or property and against all actions, suits, claims, demands, charges or expenses in connection therewith arising from the condition or use of the Goods in the event and to the extent that the damage injury or loss shall have been occasioned partly or wholly by the carelessness of the Buyer and his servants or agents or by any breach by the Buyer of its obligations to the Seller hereunder.

U.K. and Republic of Ireland Sales
For UK and Republic of Ireland sales risk of loss or damage to the Goods shall pass to the Buyer at the time of delivery. The property in the Goods shall not pass to the Buyer until: all sums due or owing to the Seller by the Buyer on any account have been paid. The whole of the price shall not be treated as paid until any cheque, bill of exchange or other instrument of payment given by the Buyer has been met on presentation or otherwise honoured in accordance with its terms. The Seller may sue for the whole of the price at any time after it has become payable.
Until such time as the property in the Goods passes to the Buyer, the Buyer shall hold the Goods on a fiduciary basis as bailee of the Seller and shall keep the Goods separate from those of the Buyer and third parties and properly stored, protected, insured and identified as the Seller's property, but the Buyer shall be entitled to resell and use the Goods in the ordinary course of its business for the account of the Seller. Until property in Goods passes from the Seller, the entire proceeds of sale or otherwise of the Goods shall be held in trust for the Seller and shall not be mixed with any other money or paid into any overdrawn bank account and shall be at all material times identified as the Seller's money. Until such time as property in Goods passes from the Seller the Buyer shall upon request deliver up such of the Goods as have not ceased to be in existence, or resold to the Seller. If the Buyer fails to do so the Seller may enter upon any premises owned, occupied or controlled by the Buyer where the Goods are situated and repossess the Goods. The Buyer shall not pledge or in any way charge by way of security for any indebtedness any of the Goods which remain the property of the Seller. Without prejudice to the other rights of the Seller, if the Buyer does so all sums whatever owing by the Buyer to the Seller shall forthwith become due and payable.

Export
All orders are accepted subject to a minimum value of £500.
All Goods will be supplied and invoiced in multiples of carton quantities only. The basis of the prices quoted will be FOB as defined in Incoterms 2000 Edition, at a UK port which may be nominated by the Seller, or such other basis as may seem appropriate to the Seller in the circumstances. Payment unless otherwise agreed must be by irrevocable letter of credit confirmed by an established UK bank satisfactory to the Seller. The Seller has separate standard terms and conditions which apply to export sales, and a copy will be supplied to the export buyers.

NOVAR ED&S Patents and Registered Designs
Many of the products offered for sale by the Seller are covered by UK and foreign patents or other intellectual property rights. It is not feasible to mark each component or product with the appropriate patent numbers, but any relevant and reasonable enquiries will be dealt with on application, subject to reimbursement of the Seller's out of pocket expenses. The Seller also has rights in a number of names and trade marks, registered and unregistered. The Seller will take all necessary legal action in any part of the world against any party found to be manufacturing, selling or otherwise dealing with any article which infringes the Seller's patents, trade marks or other similar intellectual property rights.

Force Majeure
Neither party shall be liable to the other for any failure or delay in the performance of any obligation hereunder as a result of strikes, lockouts, trade disputes, breakdown of plants, accident or other cause whatsoever beyond the reasonable control of the Seller or the Buyer respectively.

Legal Construction
The contract shall be governed by and interpreted in accordance with English Law, and the Buyer submits to the jurisdiction of the Courts in England but the Seller may enforce the contract in any court of competent jurisdiction. A person who is not a party to the contract shall have no rights under the Contracts (Rights of Third Parties) Act 1999 to enforce any of its terms.

Assignment
The Buyer shall not assign any benefit under the contract without the consent in writing of the Seller, which may if given be on such terms as to guarantee or indemnify or otherwise as the Seller thinks fit.

Health and Safety at Work etc. Act 1974. Statement to purchasers and prospective purchasers

1. Section 6* of this Act provides that manufacturers, designers, importers or suppliers of articles for use at work have a duty to ensure, so far as is reasonably practicable, that the article will be safe and without risk to health at all times when it is being set, used, cleaned or maintained by a person at work. An absence of safety or risk to health is to be disregarded insofar as the case in or in relation to which it arises is shown to be one the occurrence of which could not reasonably be foreseen and in determining whether any such duty as aforementioned has been performed regard shall be had to any relevant information or advice which has been provided by the manufacturer, designer, importer or supplier.
2. Having regard to these provisions the following is given as a guide to the information which is readily available to you, in order that the obligations of all concerned may be met as fully as is reasonably practicable. This information relates to those products detailed in the Seller's catalogue(s) or associated literature.
3. Information on the design, construction and installation of the Seller's products to ensure that so far as is reasonably practicable they are safe and without risk to health when properly used may be found in:
   - Regulations for Electrical Equipment of Buildings (published by the Institution of Electrical Engineers) Catalogues and product leaflets of the Seller.
   - Or may be obtained by specific request to the Seller.
4. It is important that the products concerned should be installed, commissioned and maintained by, or under the supervision of competent persons in accordance with good engineering practice and
   - The Regulations for the Electrical Equipment of Buildings
   - Codes of Practice
   - Statutory Requirements
   - Any instructions specifically advised by the Seller and where appropriate, with particular reference to information marked on the product.
5. In accordance with the provisions of the Act, the Buyer is therefore requested to take such steps as are necessary to ensure that any appropriate information relevant to the Seller's products is made available by you to anyone concerned.

* As amended by section 36 of the Consumer Protection Act 1987.

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MK Trade Mark.
Registered in Great Britain and other countries 'MK' are the initials of 'Multy-Kontact' – a name coined to signify 'many points of contact' the salient feature of our pioneer spring-grip socket patented in 1919.

by Honeywell

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Standard Conditions of sale are subject to change, visit www.mkelectric.co.uk for the latest version.

Sustainable Opportunities Policy

Honeywell's Commitment to Health, Safety and the Environment

By integrating health, safety and environmental considerations into all aspects of our business, we protect our employees, our communities and the environment, achieve sustainable growth and accelerated productivity, drive compliance with all applicable regulations and develop technologies that expand the sustainable capacity of our world. Our health, safety and environmental management systems reflect our values and help us meet our business objectives.

- We protect the safety and health of our employees, and minimise the environmental footprint of our operations through efforts to prevent illness, injury and pollution.
- We actively promote and develop opportunities for expanding sustainable capacity by increasing fuel efficiency, improving security and safety, and reducing emissions of harmful pollutants.
- We are committed to compliance with all of our health, safety, environmental and legal requirements everywhere we operate.
- Our commitment to health, safety and the environment is an integral aspect of our design of products, processes and services, and of the lifecycle management of our products.
- Our management systems apply a global standard that provides protection of both human health and the environment during normal and emergency situations.
- We identify, control and endeavour to reduce emissions, waste and inefficient use of resources and energy.
- We are open with stakeholders and work within our communities to advance laws, regulation and practices that safeguard the public.
- We abide by the company's own strict standards in cases where local laws are less stringent.
- Our senior leadership and individual employees are accountable for their role in meeting our commitments.
- We measure and periodically review our progress and strive for continuous improvement.

These are our commitments to health, safety, and the environment, and to creating Sustainable Opportunity everywhere we operate.

MK Electric Catalogue Rangefinder

Range	Product Pages	Technical Data
Wiring Devices		
Albany Plus	153-174	423-456, 482
Alloy	147-152	423-456, 482
Ancillary Products	202-206	N/A
Aspect	82-109	423-456, 482-483
Boxes	197-201	N/A
Ceiling Accessories	67-70	475-477
Clearshave Plus	77-79	480-481
Commando Combination Units	260-263	533-534
Commando Modular Combi	264-270	535-536
Commando Plugs and Sockets	244-259	518-532
Commando Safetyswitch	240-243	516-517
Duraplug	220-223	498-500
Echo	31-41	417-422
Edge	110-145	423-456, 482, 484-487
Grid Plus	175-193	488-493
Heating Controls	65-66	468-474
High Power Dimmer	194-196	494-496
Logic Plus	42-60	423-456
Link	72-76	478-479
Masterseal Plus	227-233	502-513
Metalclad Plus	208-219	423-456
MK Astral	24-30	388-416
MK Shield	234-236	514-515
MK Splashguard	237-239	N/A
Plugs and Adaptors	224-225	501
Sensors	61-64	457-467
Circuit Protection		
Sentry	271-291	538-566
Sentrysocket	292-293	568-569
Cable Management		
Cable Management Overview	N/A	572-573
Ega Communication	384	638-640
Ega Cornice	362-363	628-631
Ega Industrial	360-361	622-627
Ega Mini Trunking	375-379	638-640
Egaflex Conduit	374	N/A
Egatube Conduit	364-374	632-637
Egatube Oval Conduit	373	N/A
Norwich	358-359	616-620
Pinnacle	344-349	602-606
Pinnacle Pillar	350	607
Powerlink Plus	333-343	594-601
Premier	352-357	608-615
Prestige 2com	323-328	585-591
Prestige 3D Aluminium	315-320	574-583
Prestige 3D Antibac Blue	301-307	574-583
Prestige 3D Compact	309-314	574-583
Prestige 3D Dado and Skirting	295-300	574-583
Prestige Poles and Posts	330-331	592-593
Red Alert	380-383	638-640

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