MK Electric Sensors

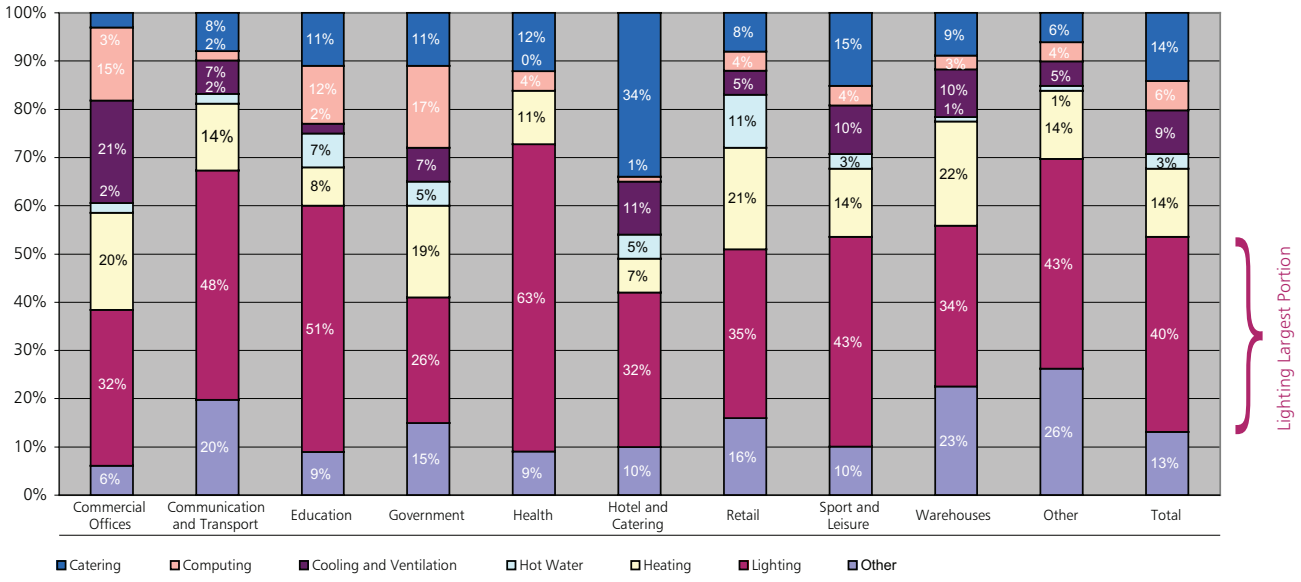
MK Sensors Energy Efficient Lighting Control

Why Stand Alone PIRs for Lighting Control?

The provision of effective and efficient lighting controls should be a key priority for contractors and specifiers alike. The MK Sensors range offers products to assist customers in complying with the relevant regulations, whilst also providing an energy conscious product choice.

Statistics published by the Building Research Establishment show that, across a broad selection of non-domestic applications, lighting represents 40% of a building's total energy consumption. In each example (with the exception of catering for obvious reasons) lighting was by far the function with the highest energy usage, also representing the largest opportunity for energy savings. In addition, the UK Department of Environment Energy Efficiency Office, has shown that an office rest room which changes from a light which is centrally controlled – and thus switched on whenever a building is occupied – to one which is controlled by a PIR and only switched on when required, can show potential energy savings of up to 90%.

MK Sensors not only help you and your customers realise the highest potential savings in energy consumption, and thus to energy bills, but also offer the shortest payback periods. There are a variety of ways to make lighting more energy efficient, from switching to energy efficient lamps to the installation of High Frequency Electronic Ballasts. However, the Building Regulations clearly state the need to provide energy efficient fixed building services with effective controls.

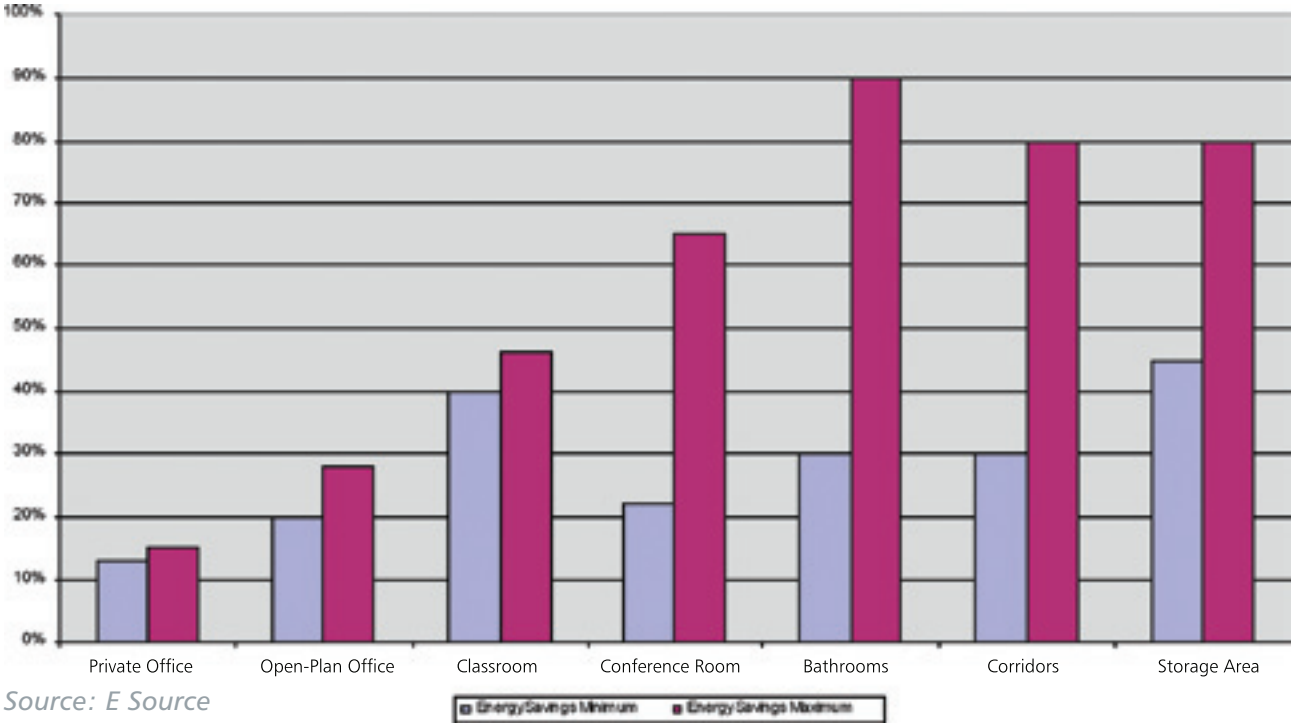


Source - devised from building research establishment dates – Office for National Statistics

Energy usage by application

The associated costs of specifying and installing lighting control products can be offset against the potential energy savings and thus associated costs. The potential energy savings are affected by a number of variables, including the type of space, the footfall within that space and the presence of ambient light or natural daylight. Significant savings have been shown in a variety of installations, in particular, bathrooms, corridors, storage and other low usage areas.

Typical Energy Savings Through Occupancy Sensors



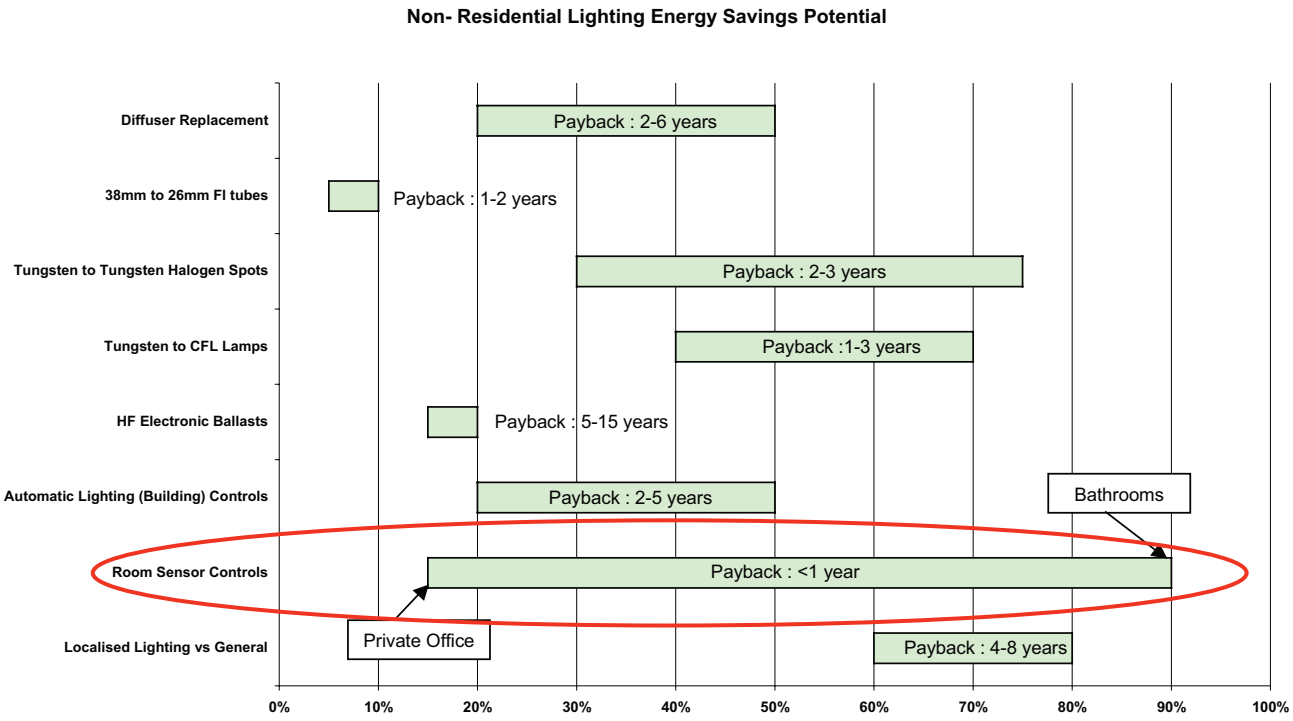
Source: E Source

Energy Business Intelligence

When considering these potential savings and taking into account the initial cost of specification and installation of lighting control, the payback period can vary dramatically from less than one year for Room Sensor Controls (such as MK Sensors) to up to 5 years for Automatic Lighting (Building) Controls.

The following research statistics, produced by the Chartered Institute of Building Services Engineers, shows the quickest payback period, combined with the highest potential energy savings which occur when installing Room Sensors Controls, such as MK Sensors.

Lighting Energy Saving Measures



Source = CIBSE – Chartered Institute of Building Services Engineers

Room sensor controls offer fastest payback and up to 90% savings in certain applications

In addition to fast payback periods, all MK energy-saving lighting controls and associated equipment qualify for Enhanced Capital Allowances (ECAs)*. ECAs enable businesses to claim 100% first year capital allowances on qualifying investments via their Corporation Tax Return. In addition to equipment costs, installation charges, and any changes to the building needed to install the equipment also qualify for tax relief. The Carbon Trust offer interest-free loans of £5,000 - £100,000 for energy efficient projects, repayable over 4 years. These loans are available to small and medium sized enterprises in England and Wales that have been trading for at least 12 months. Any project which saves energy and has a payback of less than 5 years may qualify, and the loan can cover installation and commissioning costs as well as equipment costs.

*At time of print awaiting registration

MK Electric's lighting management systems detect energy savings

MK Electric, the UK's leading manufacturer of wiring devices and accessories, has a comprehensive range of innovative lighting controls – MK Sensors – 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.

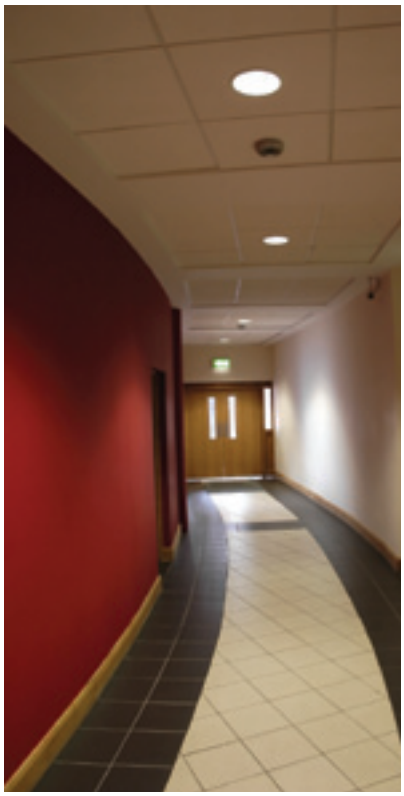
MK Sensors not only help realise the highest potential savings in energy consumption, and thus to energy bills; but also offer the shortest payback periods when compared to means such as diffuser replacement and lamp type changes.

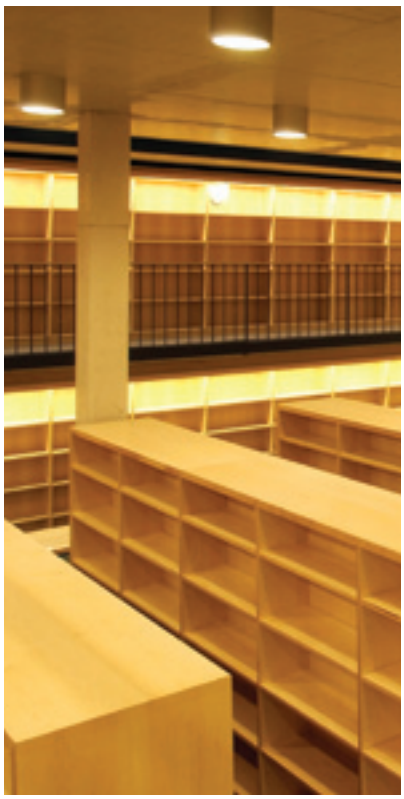
The MK Sensor range deploys three main types of sensor technology – namely PIR, Microwave and Ultrasonic – in a variety of devices configured for ceiling or corner mounting; as well as long range detection.

All 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 MK Sensors easy to install, easy to understand and easy to use

Awareness of environmental issues and the need to reduce carbon dioxide emissions has increased considerably in recent years. With various government targets in mind, and the ever-growing issues and concerns around energy consumption, the environment and sustainability; it is now essential that contractors, specifiers and building managers alike appreciate the effect lighting sensors can have on the efficiency and environmental impact of buildings.

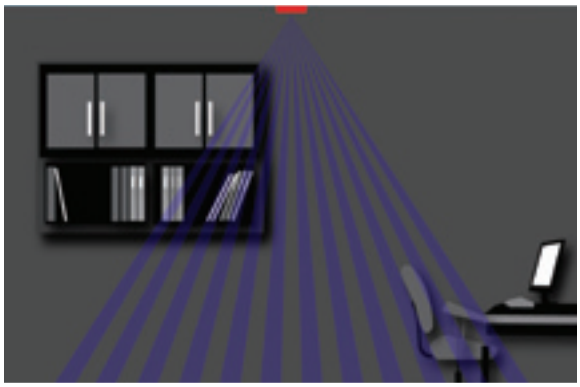
Ceiling mounted sensors comprise a choice of Simple Fit PIR, Standard PIR, Superior PIR and Microwave Detectors.



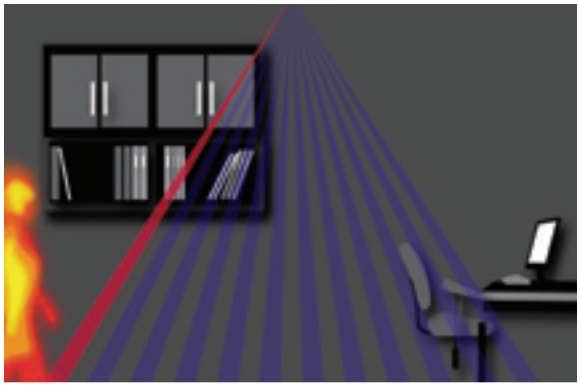


MK Sensors PIR Passive Infrared

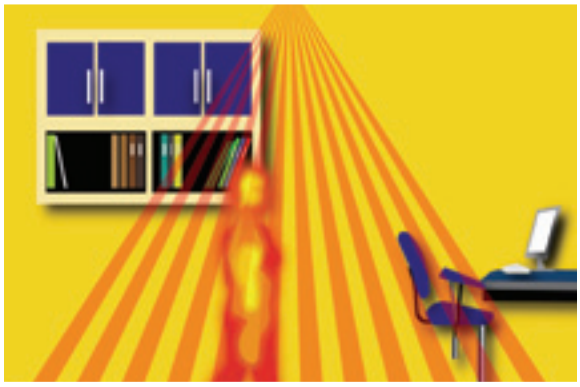
Automatically switch or dim lighting based on presence and daylight levels.



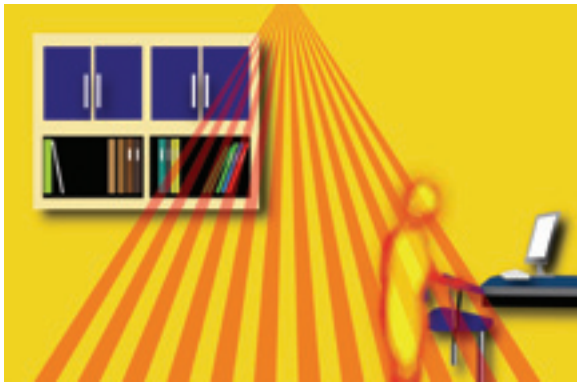
Passive infrared operates by detecting changes in temperature within a cone-shaped area around the detector.



Changes in temperature within the detection area are recognised as occupancy signals.

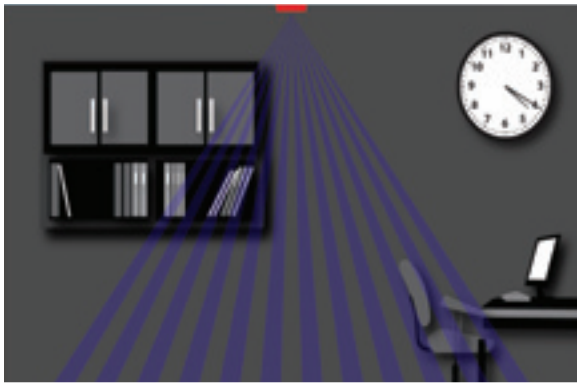


When someone enters the room, their body heat is detected and the lights are switched on.

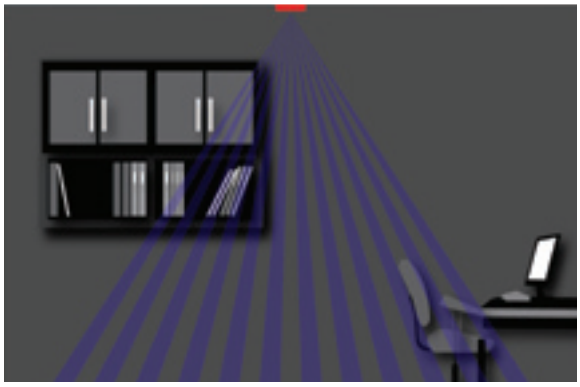


Lights are kept on for as long as someone remains in the area.

When the last person leaves the area and there is no longer any body heat to detect, the switch-off timer is activated.



If no-one re-enters the room within this period (set to 20 minutes in this example), the lights switch off.



Lights remain off until someone re-enters the monitored area.

Ultrasonic & Microwave - Active Presence Detection

Ultrasonic and microwave detectors operate by constantly sending out signals to detect activity in the area.

If these signals come back unchanged, there is no movement.

When movement is detected, this causes a distortion of the signals and the detector switches the lights on.

Lights are kept on for as long as there is movement in the area.

When movement ceases and the signals show no distortion, the switch-off timer is activated.

If no movement is detected within this period (set to 20 minutes in this example), the lights switch off.

Lights remain off until movement is again detected in the monitored area.

Using all three major types of presence detection technology; passive infrared, ultrasonic and microwave as demonstrated in the above captions, gives optimum control covering a vast array of applications and scenarios.

MK Sensors Applications

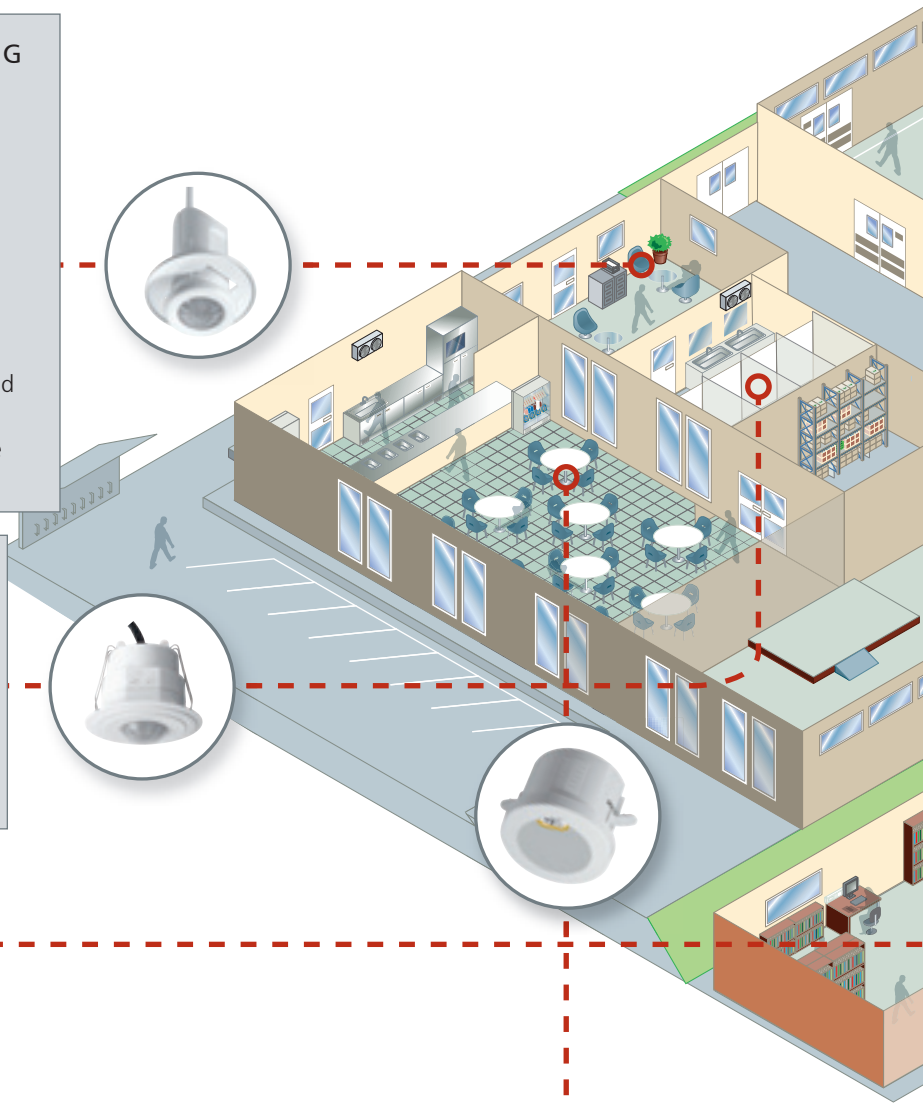
Typical product specification in an educational environment

STAFF ROOM – UP TO 30% SAVING
CEILING MOUNTED SUPERIOR PIR

- Programmable presence detection for use in open plan areas and offices
- Two photocell settings – Active or Passive
  Active photocell adjusts light levels in response to natural illuminations.
  Passive (set as standard) holds lights off in bright ambient conditions
- Off Delay between 5 and 35 minutes
- Remote Programmers allow easy commissioning and re-commissioning
- Dual circuit switches perimeter lights which require photocell control

TOILETS – UP TO 90% SAVING
CEILING MOUNTED SIMPLE FIT PIR

- Cost effective presence detection for lighting in small areas
- Passive Photocell holds lights off in bright ambient conditions
- Off Delay between 5 seconds and 40 minutes

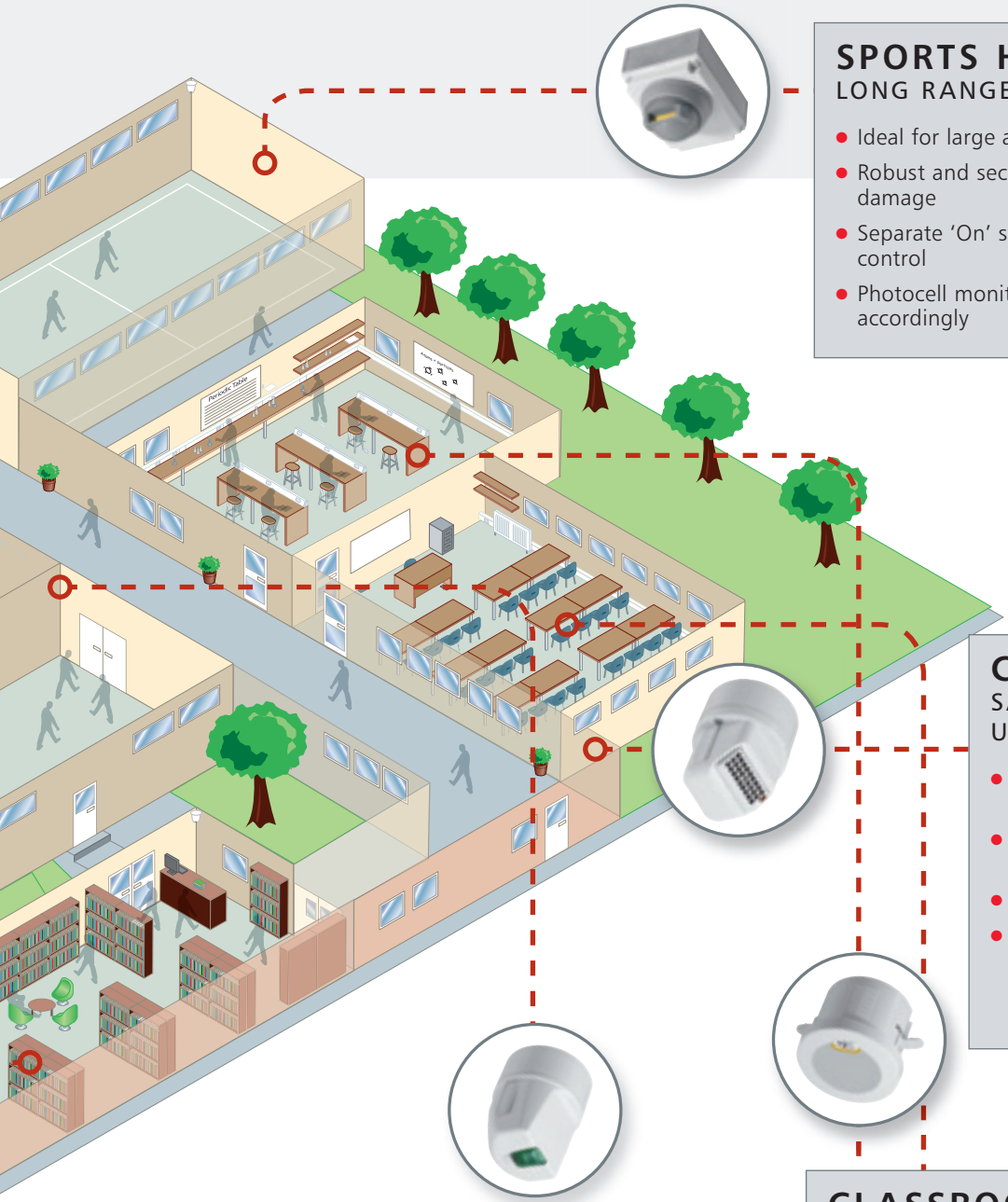


LIBRARY – MINIMUM 45% SAVING
CORNER MOUNTED MICROWAVE SENSOR

- High performance directional presence detector, ideal for a library or storage aisle
- Built in Photocell monitors the controlled space as well as ambient light and all other light contributions
- Can be installed vertically for use in aisles
- Low Off Range setting will avoid traffic passing the end of the aisle activating the lights within the aisle
- Can be installed horizontally for wide angle horizontal coverage

CANTEEN – UP TO 65% SAVING
CEILING MOUNTED MICROWAVE DIGITAL SENSOR

- Utilises microwave technology as opposed to infrared, avoiding activation by heat, therefore ideal for use in kitchens
- Photocell monitors ambient light and adjusts output accordingly
- Off Delay between 5 and 35 minutes
- Remote Programmers allow easy commissioning and re-commissioning



SPORTS HALL – UP TO 80% SAVING LONG RANGE DETECTORS

- Ideal for large areas such as sports halls
- Robust and secure, protects against accidental damage
- Separate 'On' switch can be installed for further control
- Photocell monitors ambient light and adjusts output accordingly

CORRIDOR – UP TO 80% SAVING. CORNER MOUNTED ULTRASONIC SENSOR

- General purpose directional presence detector with 13m range
- Passive Photocell holds lights off in right ambient conditions
- Off Delay between 5 and 15 minutes
- Adjustable On and Off Range, which allows low setting during Off mode to avoid lights being activated by traffic passing across the end of the corridor

ASSEMBLY HALL – UP TO 65% SAVING. CORNER MOUNTED MICROWAVE SENSOR

- High performance directional presence detector, ideal for conference rooms or assembly hall
- Built in Photocell monitors the controlled space as well as ambient light and all other light contributions
- Extremely flexible with no independent sensitivity controls

CLASSROOMS – UP TO 45% SAVING CEILING MOUNTED MICROWAVE DIGITAL SENSOR

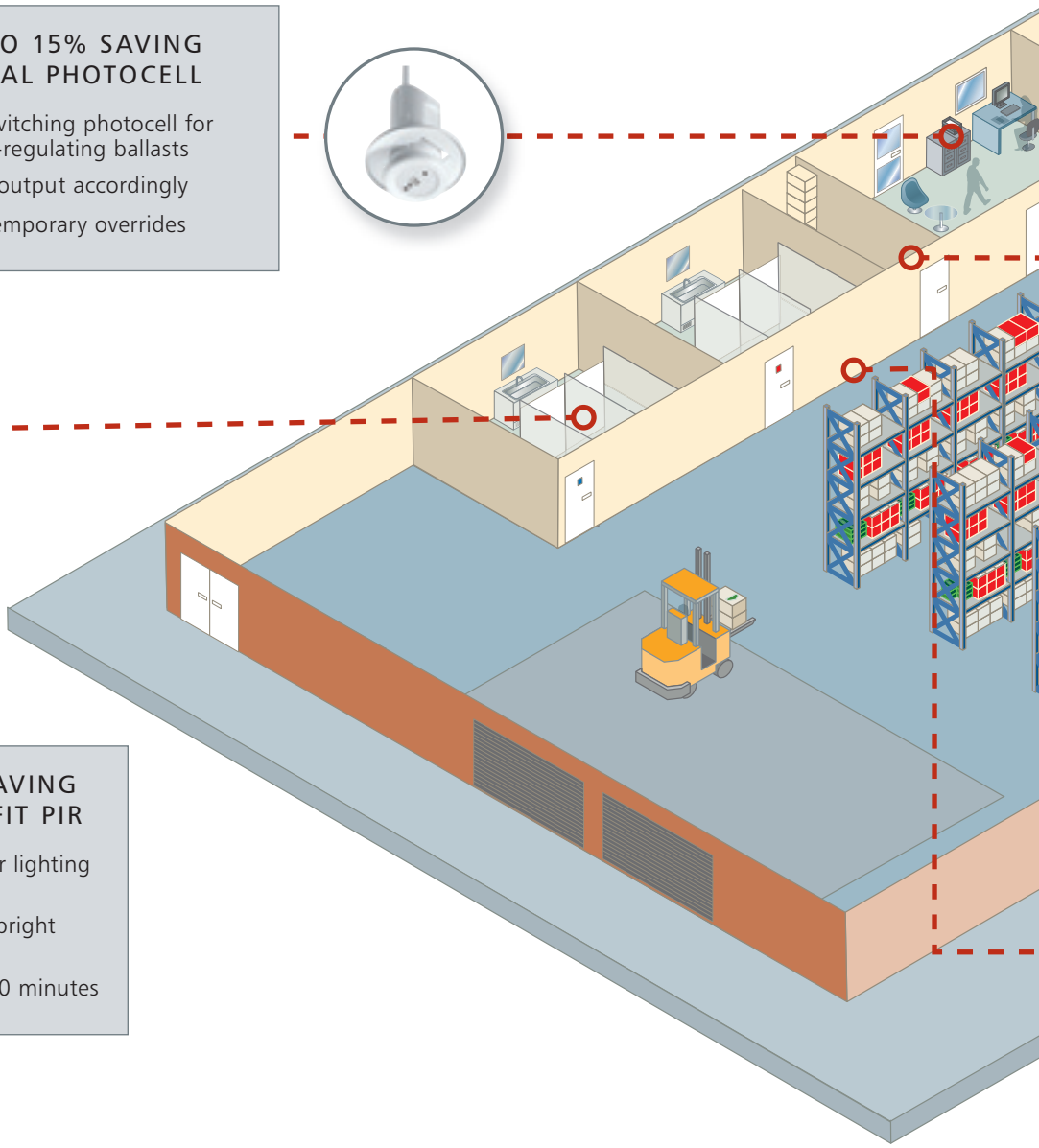
- Programmable control in open work spaces and classrooms
- Photocell monitors ambient light and adjusts output accordingly
- Scene settings can be programmed for use when viewing multimedia presentations or for other activities
- Hand-held Controller available for temporary override and scene setting
- Off Delay between 5 and 35 minutes

MK Sensors Applications

Typical product specification in a warehouse environment

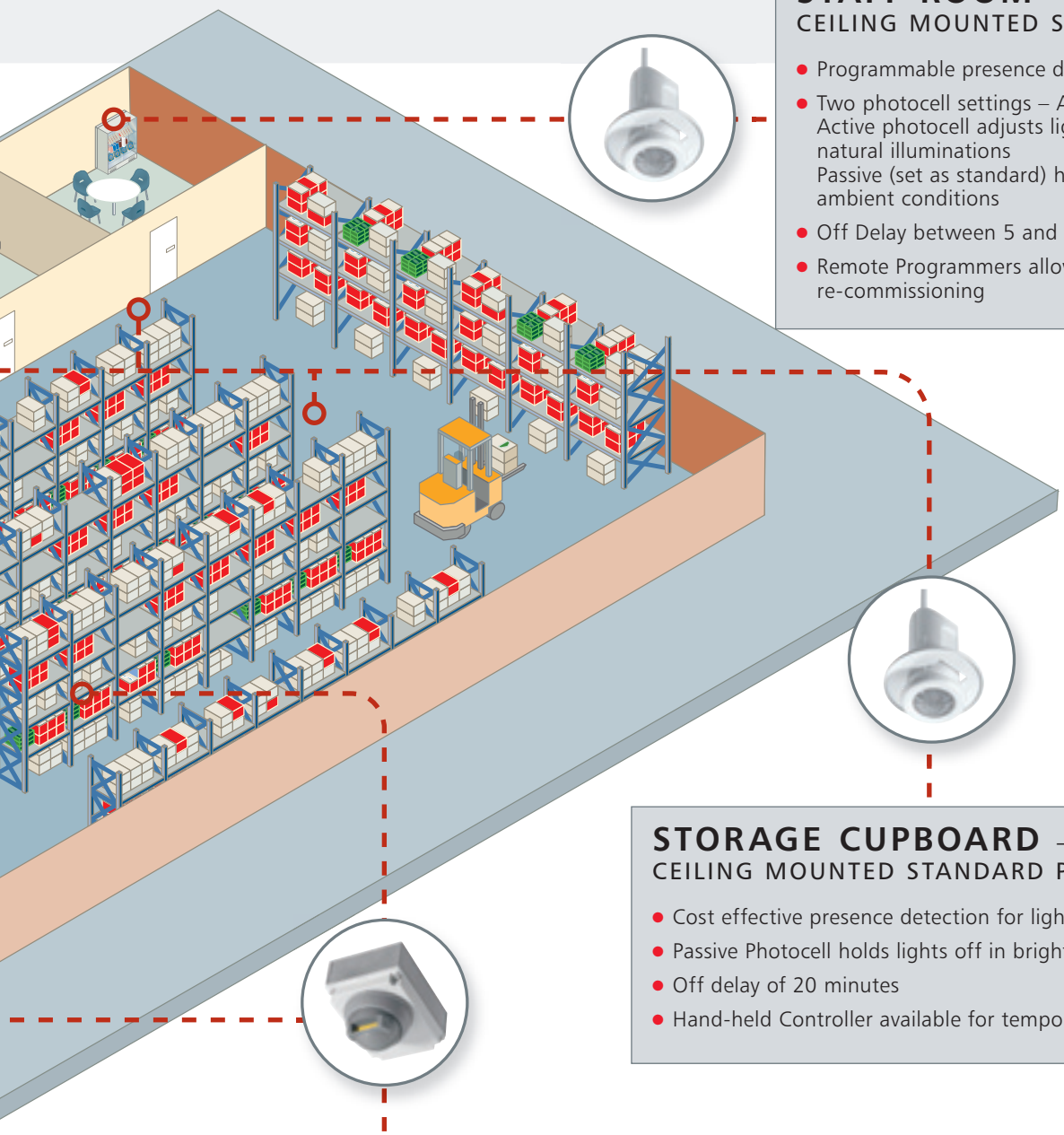
SMALL OFFICE – UP TO 15% SAVING
CEILING MOUNTED UNIVERSAL PHOTOCELL

- High performance regulating and switching photocell for DSI, DALI, Analogue 1-10V and non-regulating ballasts
- Monitors ambient light and adjusts output accordingly
- Hand-held Controller available for temporary overrides



TOILETS – UP TO 90% SAVING
CEILING MOUNTED SIMPLE FIT PIR

- Cost effective presence detection for lighting in small areas
- Passive Photocell holds lights off in bright ambient conditions
- Off Delay between 5 seconds and 40 minutes



STAFF ROOM – UP TO 65% SAVING
CEILING MOUNTED SUPERIOR PIR

- Programmable presence detector
- Two photocell settings – Active or Passive
  Active photocell adjusts light levels in response to natural illuminations
  Passive (set as standard) holds lights off in bright ambient conditions
- Off Delay between 5 and 35 minutes
- Remote Programmers allow easy commissioning and re-commissioning

STORAGE CUPBOARD – UP TO 80% SAVING
CEILING MOUNTED STANDARD PIR

- Cost effective presence detection for lighting in small areas
- Passive Photocell holds lights off in bright ambient conditions
- Off delay of 20 minutes
- Hand-held Controller available for temporary override

STORAGE AREA – UP TO 80% SAVING
LONG RANGE SENSORS

- High performance presence detection system
- Control unit and low voltage microwave detectors
- Remote photocells can be used to control all or part of the load
- Low Off Range setting will avoid traffic passing the end of the aisle activating the lights within the aisle

MK Sensors Applications

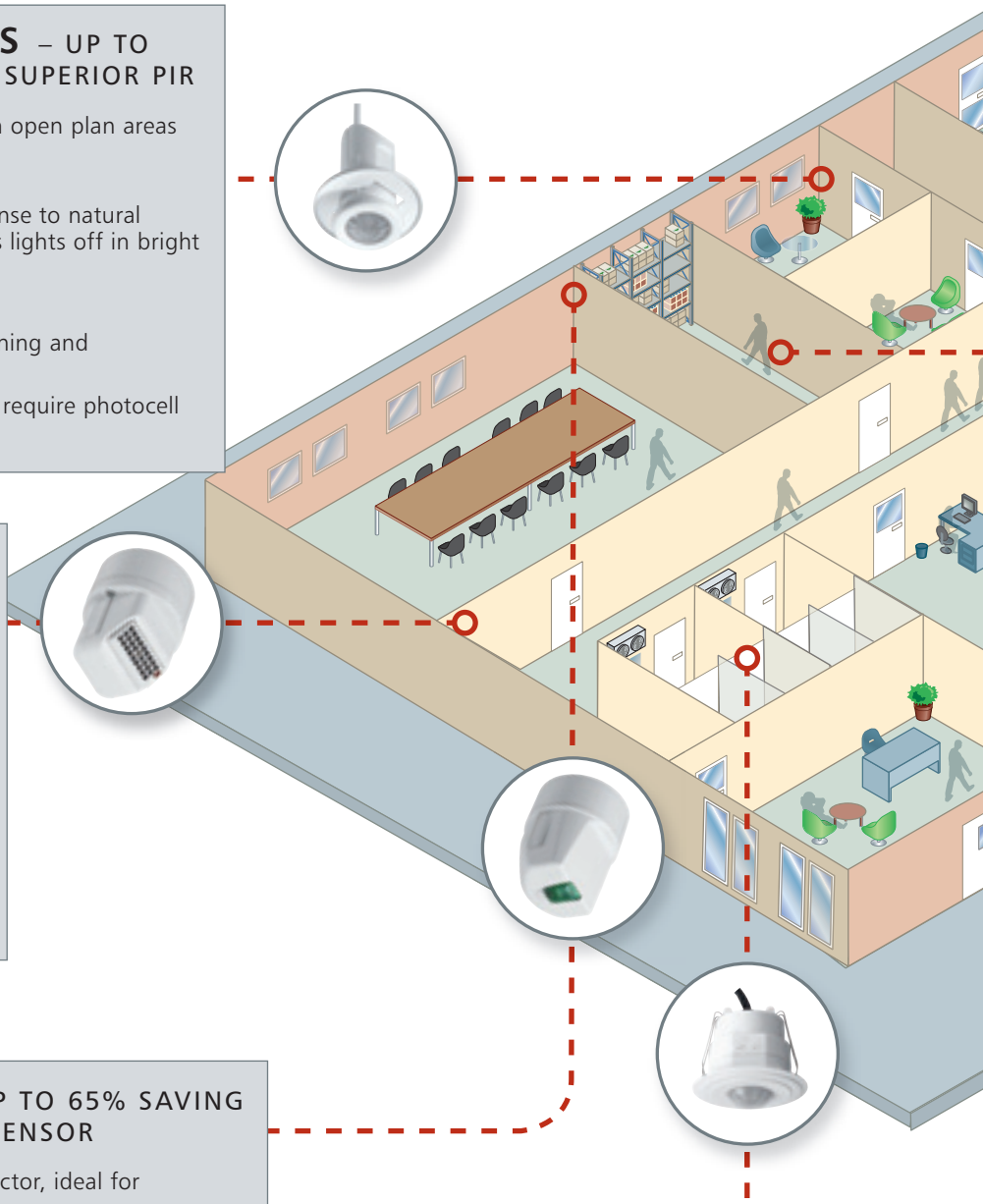
Typical product specification in an office environment

SMALL MEETING ROOMS – UP TO 65% SAVING. CEILING MOUNTED SUPERIOR PIR

- Programmable presence detection for use in open plan areas and offices
- Two photocell settings – Active or Passive
  Active photocell adjusts light levels in response to natural illuminations. Passive (set as standard) holds lights off in bright ambient conditions
- Off Delay between 5 and 35 minutes
- Remote Programmers allow easy commissioning and re-commissioning
- Dual circuit switches perimeter lights which require photocell control

CORRIDOR – UP TO 80% SAVING. CORNER MOUNTED ULTRASONIC SENSOR

- General purpose directional presence detector with 13m range
- Passive Photocell holds lights off in bright ambient conditions
- Off Delay between 5 and 15 minutes
- Adjustable On and Off Range, which allows low setting during Off mode to avoid lights being activated by traffic passing across the end of the corridor

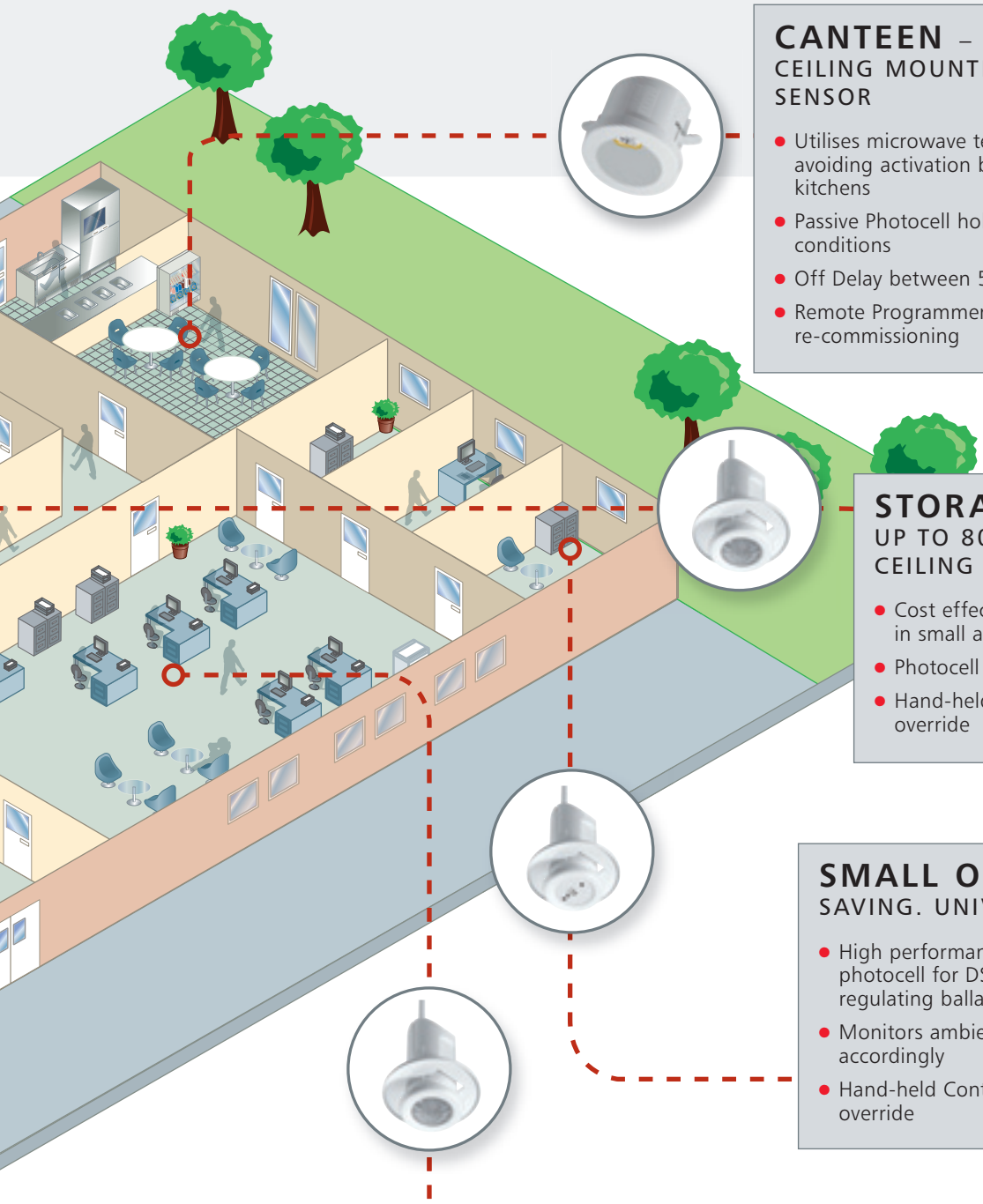


CONFERENCE ROOM – UP TO 65% SAVING CORNER MOUNTED MICROWAVE SENSOR

- High performance directional presence detector, ideal for conference rooms
- Built in Photocell monitors the controlled space as well as ambient light and all other light contributions
- Can be installed horizontally for wide angle horizontal coverage
- Extremely flexible with two independent sensitivity controls

TOILETS – UP TO 90% SAVING CEILING MOUNTED SIMPLE FIT PIR

- Cost effective presence detection for lighting in small areas
- Passive Photocell holds lights off in bright ambient conditions
- Off Delay between 5 seconds and 40 minutes



CANTEEN – UP TO 65% SAVING CEILING MOUNTED MICROWAVE DIGITAL SENSOR

- Utilises microwave technology as opposed to infrared, avoiding activation by heat, therefore ideal for use in kitchens
- Passive Photocell holds lights off in bright ambient conditions
- Off Delay between 5 and 35 minutes
- Remote Programmers allow easy commissioning and re-commissioning

STORAGE CUPBOARD – UP TO 80% SAVING CEILING MOUNTED STANDARD PIR

- Cost effective presence detection for lighting in small areas
- Photocell Off delay of 20 minutes
- Hand-held Controller available for temporary override

SMALL OFFICES – UP TO 15% SAVING. UNIVERSAL PHOTOCELL

- High performance regulating and switching photocell for DSI, DALI, Analogue 1-10V and non-regulating ballasts
- Monitors ambient light and adjusts output accordingly
- Hand-held Controller available for temporary override

OPEN PLAN OFFICE – UP TO 30% SAVING CEILING MOUNTED SUPERIOR REGULATING PIR

- Programmable presence detection for use in open plan areas and offices
- Two photocell settings – Active or Passive
  Active photocell adjusts light levels in response to natural illuminations
  Passive (set as standard) holds lights off in bright ambient conditions
- Off Delay between 5 and 35 minutes
- Up to six scenes can be set via user remote control
- Remote Programmers allow easy commissioning and re-commissioning

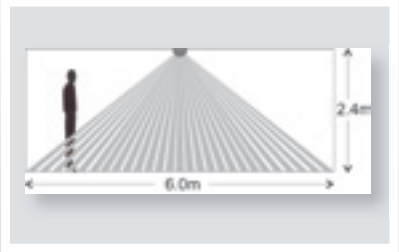
MK Sensors Ceiling Mounted

Simple Fit PIRs

MK Simple Fit Sensors offer cost effective presence detection for lighting control in small areas. This one-box solution is easy to install and programme, and requires no additional fixing tools or parts.

- Presence detection by passive infrared
- Loading up to 6 Amps (1500W) of any type of load (including fluorescent lights)
- PIR Lens provides 360 degree detection and a 6m range
- External programming dials enable quick adjustment of time and lux levels with easy configuration
- Off delay adjustable between 5 seconds and 40 minutes following the last observed movement after which the lights switch off
- Spring Clips enables ease of installation in plasterboard ceilings
- Flush mounted

Cone shaped detection pattern. Optimum mounting height of 2.4m, gives a detection diameter of 6m



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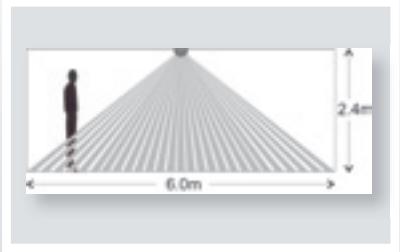
- PIR Lens provides 360 degree detection and a 6m range
- External programming dials enable quick adjustment of time and lux levels with easy configuration
- Off delay adjustable between 5 seconds and 40 minutes following the last observed movement after which the lights switch off
- Screw and Plug Fixings, can be mounted direct to the ceiling or on to a square pattress box (K2160 WHI)
- Surface Mounted

Cone shaped detection pattern. Optimum mounting height of 2.4m, gives a detection diameter of 6m



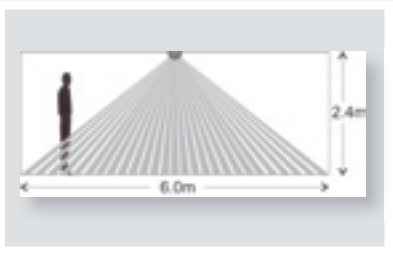
MK Sensors Ceiling Mounted

Standard PIRs (6 Amp)

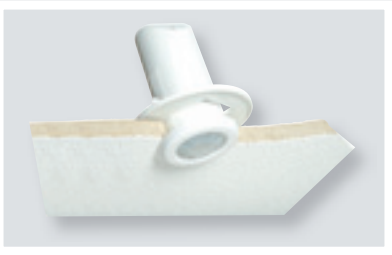
MK Standard Sensors provides simple, cost-effective presence detection for lighting control in small areas.

- Presence detection by passive infrared effectively enhanced to improve sensitivity to small movements
- Passive photocell holds lights off in bright ambient conditions
- Off delay of 20 minutes following the last observed movement after which the lights switch off
- Flush or surface mounted variants available
- Quick fixing clamp (flush mounted) adjusts to ceiling tile thickness

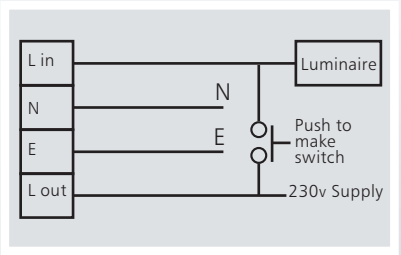
Cone shaped detection pattern. Optimum mounting height of 2.4m, gives a detection diameter of 6m



Quick fixing clamp (flush mounted) adjusts to the ceiling tile thickness



All MK Sensors provide absence switching when combined with an MK Grid Plus K4900 retractive switch



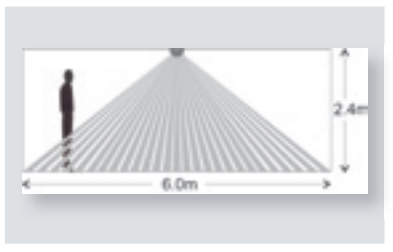
MK Sensors Ceiling Mounted

Superior PIRs (6 Amp)

MK Superior Sensors offer high-performance, programmable presence detection for lighting control in offices and open-plan workstations.

- Presence detection by passive infrared effectively enhanced to improve sensitivity to small movements
- Passive photocells hold lights off in bright ambient conditions (pre set as standard). Active photocell ensures artificial light is only provided when necessary
- Dual circuit option (1x volt free, 1 x switched-live) available for areas where just perimeter lights require photocell control
- Off delay adjustable between 5 and 35 minutes following the last observed movement after which the lights switch off
- Power up off = In the event of a power cut, sensors will only activate lights when an area is occupied
- Semi automatic mode provides "absence detection" via either an MK retractive switch or hand-held controller
- Wash room mode – no movement is detected in a 24 hour period, Detector can be linked to a valve unit plus programmed to switch the load on for the duration in the off delay

Cone shaped detection pattern. Optimum mounting height of 2.4m, gives a detection diameter of 6m



Independent time delays and photocell adjustments can be programmed by use of an Infrared Programming Tool (K4053 or K4050)

Hand-held Controllers give temporary on or off override, light level adjustment and scene setting to the building's occupant (K4051 & K4052)

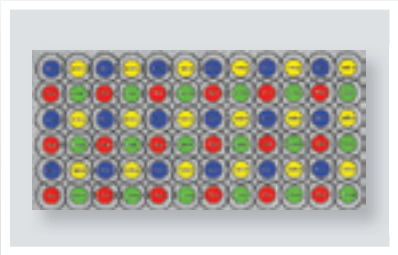
MK Sensors Ceiling Mounted

Microwave Digital Sensors (6 Amp)

MK Microwave Digital Sensors offer superior-performance programmable presence detection for lighting control in offices, open plan workstations and classrooms.

- Active presence detection by Microwave technology
- Dual circuit available (useful for applications where perimeter lights require dimming while the remainder are fixed output)
- Regulating photocell actively monitors ambient light levels and adjusts the light output accordingly (dimmable control gear only)
- Off delay adjustable between 5 and 60 minutes following the last observed movement after which the lights switch off
- Incorporates simple scene setting – up to six scenes can be set via user remote control
- The entry scene is automatically selected when the area becomes occupied. Similarly, there is an option to select an Exit Scene for when an area is vacated
- One switch dimming manual input to adjust light level or turn luminaires on or off. Available for fixed output high frequency ballasts and dimmable DSI and DALI ballasts

For reliable operation it is essential that units of the same colour code do not occupy adjacent positions in open-plan areas. This is why MK supplies four variants of the Sensor (K4025 Blue/Yellow/Red/Green)



Remote Programming Handsets allows commissioning and re-commissioning of Sensors to be carried out with virtually no disturbance to the building's occupants (K4053 or K4050)

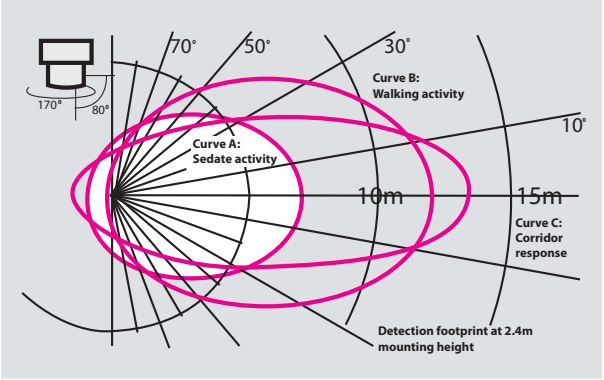
Hand-held Controllers give temporary on or off override, light level adjustment and scene setting to the building's occupant (K4051 & K4052)

MK Sensors Corner Mounted

Ultrasonic Sensors (10 Amp)

MK Ultrasonic Sensors are a general purpose, fully automatic, directional presence detector with photocell. The Ultrasonic Sensor saves energy by switching off lights in unoccupied areas and by holding lights off in occupied areas that have adequate natural light.

- Ultrasonic radar monitors the controlled space for movement, and is sensitive enough to respond to even the slightest movement, ensuring lighting is sustained whenever space is occupied
- If no movement has been detected for a pre-selected period the lights will be switched off until the next visitor is detected
- Features movement detector, photocell and 10 Amp load switching element
- Off delay adjustable between 5 and 15 minutes following the last observed movement after which the lights switch off
- The adjustable photocell will bring lights on as required if light levels in an occupied area fall
- Two independent sensitivity controls make the Ultrasonic Sensor extremely flexible in use
- Adjustment controls are available for commissioning purposes
- 'On Range' is the adjustable normal range control
- 'Off Delay' sets the time delay after the last detected movement



MK 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. Directional range of 13m makes the Ultrasonic sensor ideal for use in corridors

MK Sensors Corner Mounted

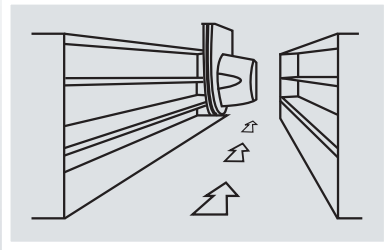
Microwave Sensors (10 Amp)

MK Microwave Sensors are high performance, directional presence detectors with built-in photocell for use in almost any internal space. Ideal for larger classrooms, conference rooms, longer storage aisles and other applications up to 20m x 20m, the unit is self-contained offering simple installation. It utilises microwave technology and features a movement detector, photocell and 10 Amp (load switching) element.

- Two independent sensitivity controls make the Ultrasonic Sensors supremely flexible in use
- ON Range is the normal range control, which may be adjusted according to the needs of the space being monitored
- OFF Range sets the detector range once lights have been switched off and may, in some cases require a low setting
- OFF Range offers a low setting which may be used in some applications, for example a library or storage aisle. A higher range may be required when the aisle is occupied, but a much lower range when the area becomes unoccupied. Traffic passing across the end of an aisle will not activate the lights
- OFF Delay sets the time delay (after last detected movement) before lights are switched off and is adjustable up to 20 minutes
- The Photocell observes the controlled space, not just ambient daylight, and takes account of all light contributions - even from adjacent zones

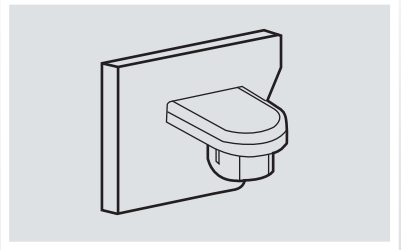
Vertical Installation

Use this method of mounting for racking aisle applications and where adjustment in the vertical plane will give improved control over the precise point of entry detection



Horizontal Installation

For general applications where ceiling mounting is not convenient and wide angle coverage in the horizontal plane is desirable



MK Sensors Long Range

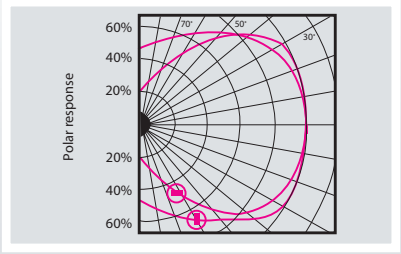
Long Range Detector (10 Amp)

MK Long Range Sensors offer high performance presence detection system providing effective energy-saving control to large areas such as warehouses, sports halls and stadia, workshops, hangars, conference centres etc.

- Long Range Detectors consist of a control unit and low voltage microwave detectors, which may be combined to form one self-contained unit
- All or part of the load may be in semi-automatic operation, whereby a switch is provided to switch On. The load is automatically reset Off once the area is vacated
- Semi-automatic operation can be employed where activation from adjacent spaces may occur or where existing light levels are adequate for visiting access
- The remote photocells can be configured to control all, or part of, the controlled load
- Detectors are located in a unique spherical housing which incorporates an antenna and offers a wide polar response
- The unit is robust and secure against accidental damage in open areas such as sports halls and warehouses
- Flush or surface mounted, 30m and 60m variants available

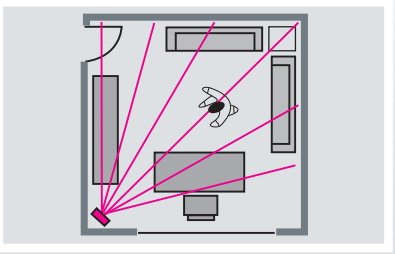
Polar response

Orientation to give optimum width or depth of coverage. Note: the Long Range Detectors can 'see' behind themselves in open ended aisles they should be inset



Positioning

The Detector can see through glass and should be pointed away from thin partitions and windows



MK Sensors Photocell

Universal Photocell (6 Amp)

The MK Universal Photocell offers a high performance regulating and switching photocell for DSI, DALI, Analogue 1-10V and non-regulating ballasts.

- Easy installation, Universal Photocells are designed for use in a suspended or plasterboard ceiling, with simple connections and commissioning
- Easy to programme and configure using infrared programming tool
- For use with all common types of control gear in almost any environment where lights would be left on unnecessarily when there is sufficient daylight
- The Photocell observes the controlled space, not just daylight, and takes account of all light contributions
- Passing Cloud Timer prevents nuisance switching when light levels fluctuate rapidly, and can be set from 5-60 minutes
- Hand-held controllers available for manual dimming and on/off control

Menu-driven Digital Programmer with automatic equipment recognition and parameter download facilities (K4053)

Quick fixing clamp (flush mounted) adjusts to the ceiling tile thickness

Hand-held Controllers give temporary on or off override, light level adjustment and scene setting to the building's occupant (K4051 & K4052)

MK Sensors Accessories

K4050 – Programmer

An easy-to-use programming tool for use with Standard and Superior PIRs and Ceiling Mounted microwave Digital Sensors.

- Allows the commissioner to set the time delay function, and select semi or fully automatic operation via an array of 12 dil switches
- Regulating light level may also be set in conjunction with a suitable lux meter

K4053 – Digital Programmer

The Digital Programmer is a hand-held infrared unit designed for use with Standard and Superior PIRs, Ceiling Mounted Microwave Digital Sensors and Universal Photocells.

- Allows commissioning and re-commissioning to be carried out with almost no disturbance to the building's occupants
- Settings are chosen from a menu and transferred instantaneously to the PIR or Detector by simply pressing the Upload button
- The commissioner receives positive feedback throughout the process, and can download settings from one product to upload to another to reduce commissioning time
- During the lifetime of an installation the lighting requirements may change several times due to changes in layout or use of a space. The reprogramming of the PIRs or Detectors can be carried out quickly, easily and with minimum disruption by utilising the Digital Programmer
- The Digital Programmer can be upgraded to accommodate product revisions and additions via software from MK which can be uploaded into the Handset via the USB port

K4051 and K4052 – Hand-held Controller

Hand held remote controls are available to enable users to temporarily override preset conditions and take local control over lighting.

- The two button option allows the user to turn lights on or off and adjust light level (K4051)
- Multi-functional option has the additional feature of allowing the user to select any one of six preset scenes (K4052)

MK Sensors Product Selector

KEY

- Advanced presence detection by passive infrared (PIR) technology
- Active presence detection by Ultrasonic or microwave technology
- Off delay in minutes following the last observed movement after which lights switch off up to 96 hours with K4053
- Passive photocell holds lights off when area becomes occupied in bright ambient conditions
- Regulating photocell adjusts luminaire output to maintain constant light levels
- Active photocell switches lights on and off according to ambient conditions
- 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
- Hand-held Controllers provide local user override
- Infrared programming enables easy commissioning and re-commissioning
- Dual circuit option (switching or switching and dimming) available
- Scene setting – lights switch on to a pre-programmed scene when area becomes occupied

MK PIR'S

IMAGE	LIST NO.	DESCRIPTION											
	K5015	Simple Fit PIR with Photocell – Flush 6 Amp	✓		0-40	✓			6m				
	K5016	Simple Fit PIR with Photocell – Surface 6 Amp	✓		0-40	✓			6m				
	K4010	Standard PIR with Photocell – Slim Flush. 6 Amp	✓		20	✓			6m				
	K4011	Standard PIR with Photocell – Surface. 6 Amp	✓		20	✓			6m				
	K4015	Superior PIR with Photocell – Slim Flush. 6 Amp	✓		✓			✓	6m		✓		
	K4016	Superior PIR with Photocell – Surface. 6 Amp	✓		✓			✓	6m		✓		
	K4017	Superior Dual Circuit PIR with Photocell – Flush. 6 Amp	✓		✓			✓	6m		✓	✓	
	K4018	Superior Dual Circuit PIR with Photocell – Surface. 6 Amp	✓		✓			✓	6m		✓	✓	
	K4019	Superior PIR - Slim Flush 9 x DSI Ballasts.	✓		✓		✓		6m		✓		✓
	K4020	Superior PIR – Surface 25 x DSI Ballasts.	✓		✓		✓		6m		✓		✓

MK PLASTERBOARD FIXING KIT

IMAGE	LIST NO.	DESCRIPTION
	K4054	Plasterboard Fixing Kit

MK CEILING MOUNTED DIGITAL SENSORS

IMAGE	LIST NO.	DESCRIPTION											
	K4025 BLUE	Ceiling Mounted Microwave Digital Sensor – Flush DSI Blue. 6 Amp		✓	5-60		✓		7m	✓	✓	✓	✓	✓
	K4025 YELLOW	Ceiling Mounted Microwave Digital Sensor – Flush DSI Yellow. 6 Amp		✓	5-60		✓		7m	✓	✓	✓	✓	✓

MK CEILING MOUNTED DIGITAL SENSORS (CONTINUED)

IMAGE	LIST NO.	DESCRIPTION			5-35		R	A	6m 15m					SS
	K4025 RED	Ceiling Mounted Microwave Digital Sensor – Flush DSI Red. 6 Amp		✓	5-60		✓		7m	✓	✓	✓	✓	✓
	K4025 GREEN	Ceiling Mounted Microwave Digital Sensor – Flush DSI Green. 6 Amp		✓	5-60		✓		7m	✓	✓	✓	✓	✓

MK CORNER MOUNTED ULTRASONIC SENSORS

IMAGE	LIST NO.	DESCRIPTION			5-35		R	A	6m 15m					SS
	K4030	Corner Mounted Ultrasonic Sensor with Photocell – Surface. 10 Amp		✓	5-15	✓			6m 13m					
	K4031	Corner Mounted Ultrasonic Sensor with Photocell – Semi Flush. 10 Amp		✓	5-15	✓			6m 13m					
	K4032	Corner Mounted Microwave Sensor with Photocell 20m Range – Surface. 10 Amp		✓	0-20	✓			20m					
	K4033	Corner Mounted Microwave Sensor with Photocell 20m Range – Semi Flush. 10 Amp		✓	0-20	✓			20m					

MK LONG RANGE DETECTORS

IMAGE	LIST NO.	DESCRIPTION			5-35		R	A	6m 15m					SS
	K4035*	Corner Mounted Long Range Detector 30m Range – Flush Mounted.		✓	0-16 0-32	✓			30				✓	
	K4036*	Corner Mounted Long Range Detector 30m Range – Box Mounted.		✓	0-16 0-32	✓			30				✓	
	K4037*	Corner Mounted Long Range Detector 60m Range – Flush Mounted.		✓	0-16 0-32	✓			60				✓	
	K4038*	Corner Mounted Long Range Detector 60m Range – Box Mounted		✓	0-16 0-32	✓			60				✓	
	K4039*	Corner Mounted Long Range Control Unit – Single Circuit.10 Amp												
	K4040*	Corner Mounted Long Range Control Unit – Dual Circuit. 10 Amp												

**For long range detectors a control unit is required, each control unit can control up to 2 detectors*

All MK Sensors are CE marked.

MK Sensors Product Selector

MK PHOTOCELL

IMAGE	LIST NO.	DESCRIPTION											
	K4045	Universal Photocell – Slimline Flush. 6 Amp					✓				✓	✓		✓

MK LONG RANGE CONTROL UNITS

IMAGE	LIST NO.	DESCRIPTION
	K4051	Two Button Hand-held Controller
	K4052	Multifunction Hand-held Controller

MK PROGRAMMERS

IMAGE	LIST NO.	DESCRIPTION
	K4050	Hand-held Programmer
	K4053	Digital Programmer

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