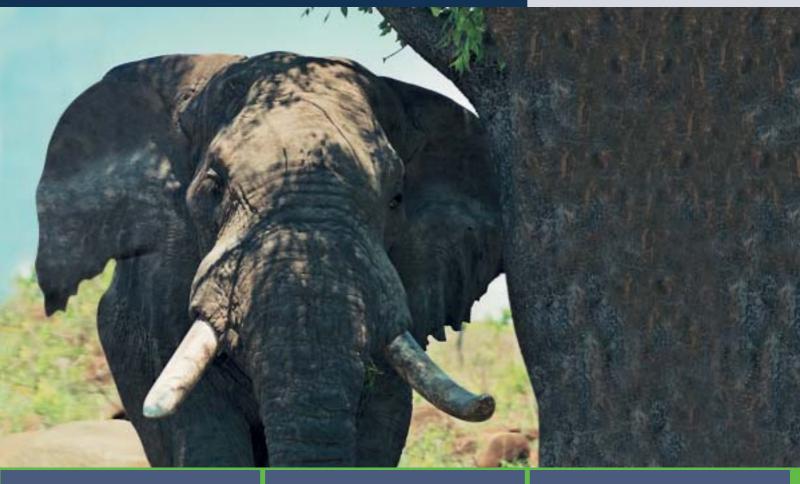
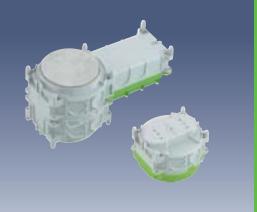
els spelsberg

IBT Stable as concrete...









Contents

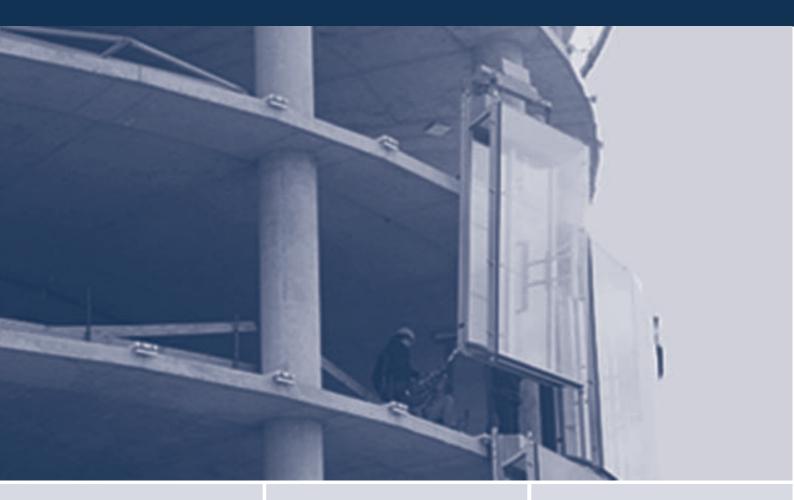


■ Introduction	Page	2-3	N. A.
Site cast concrete	Page	4-5	9:0
Pre-cast parts construction	Page	6-7	
■ IBTronic introduction NEW	Page	8-9	-9-9
New products	Page	10-11	New Produkts
Assembly and installation	Page	12-13	A
■ IBT support spar technique	Page	14-15	
■ Wall, ceiling transfers	Page	16-21	
■ IBT system	Page	22-37	The second
■ Export versions	Page	38-40	
Accessories	Page	41-49	
■ IBTronic system NEW	Page	50-55	
■ Technical information	Page	56-73	
■ Pricelist	Page	74-75	Pricelist
■ Service	Page	76-80	Service



Electrical installation in concrete structures



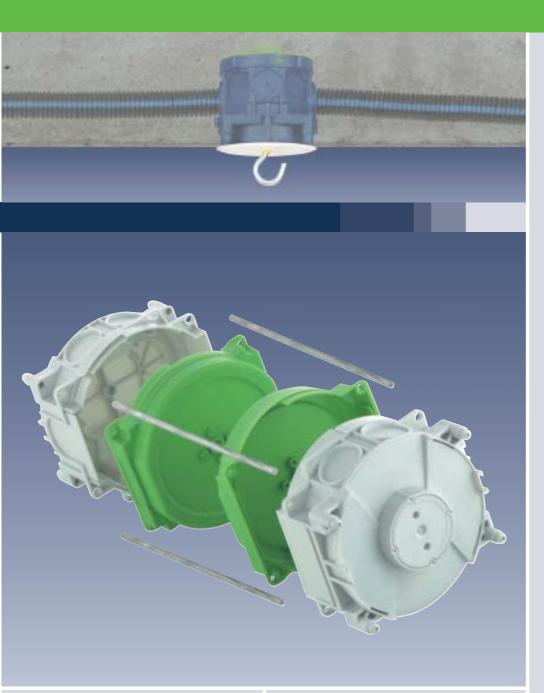


Concrete is gaining more and more supporters because the material is very versatile in use, reduces construction time and lowers costs. Concrete long ago lost its grey, sad image and it is increasingly developing into a design element. In concrete construction there is a distinction between two manufacturing processes: site cast concrete and large panel construction. With site cast concrete, formwork is set up on the building site into which liquid

concrete is poured. With large panel construction, wall and ceiling elements are industrially prefabricated. Here the concrete is cast in vertical or horizontal formwork installations. The right accessories play an important role so that high grade technology, such as is found a more and more frequently in concrete walls and ceilings in functional buildings, can be optimally accommodated. Equipment and ceiling boxes, junction boxes and other installation components have to be fixed to the formwork before the actual concreting process, in order

to be cast in. Spelsberg has supplemented its tried-and-tested IBT range with a new housing series: IBTronic, as its name would lead you to suppose, makes it possible for halogen and LED luminaires, loud-speakers and also high quality electronics such as e.g. EIB components and transformers, to be hidden comfortably and conveniently in the concrete ceiling. Different shapes are available which are ideally suitable not only for pre-cast components but also for site cast concrete.

ELEKTRICAL INSTALLATION CONRETE MAKING



Thanks to the patented support spar technique the housing can be inserted equally well in horizontal and vertical formwork. The spars hold the box in the right position during pouring even under extreme pressure from the concrete. The IBTronic boxes are distinguished by their particularly high stability and strength, as customers already know from the IBT series. There is no fear either of leakage or changes in position whilst pouring. The particularly high resistance to leaks

is achieved by a patented diaphragm system. After inserting the conduit the diaphragm returns to its original position and provides strain relief and sealing without any further accessory components.

IBTronic also holds many advantages for the factory manufacture of concrete components: the smooth front can easily be stuck to the formwork. The high thermal stability of the material guarantees that the housing will retain its shape. **IBT and IBTronic - as stable as concrete.**

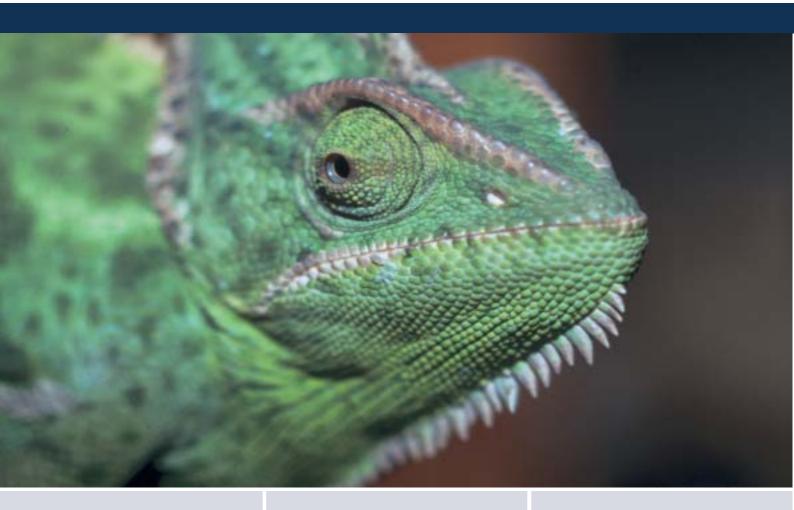
General advantages of the IBT range

- For site cast concrete and pre-cast component construction
- For horizontal and vertical formwork in the area of walls and ceilings
- Security due to patented support spar technique
- System for opposing formwork
- Particularly high stability
- Good sealing due to patented diaphragm system without special grommets etc.
- High temperature resistance
- Halogen-free material
- IBT system with limitless variety of models
- Simple assembly
- Good thermal installation
 - Good soundproofing
- Certified security





Flexible in use...



Site cast concrete:

Site cast concrete is transported to the construction site by vehicles or mixed in situ. It is put into place there as fresh concrete which then cures.

Site cast concrete is necessary, for example, where large components and surfaces areas are being produced. For building e.g. a basement wall, formwork is erected on the foundations or foundation slab and the fresh concrete is poured in and compacted.

After curing, the formwork is removed and the basement wall is finished.

ELECTRICAL INSTALLATION SITE CAST CONCRETE



■ Receptacles can be combined without
using tools. Patented support spar technique
makes secure, stable fitting possible for any
wall thickness.

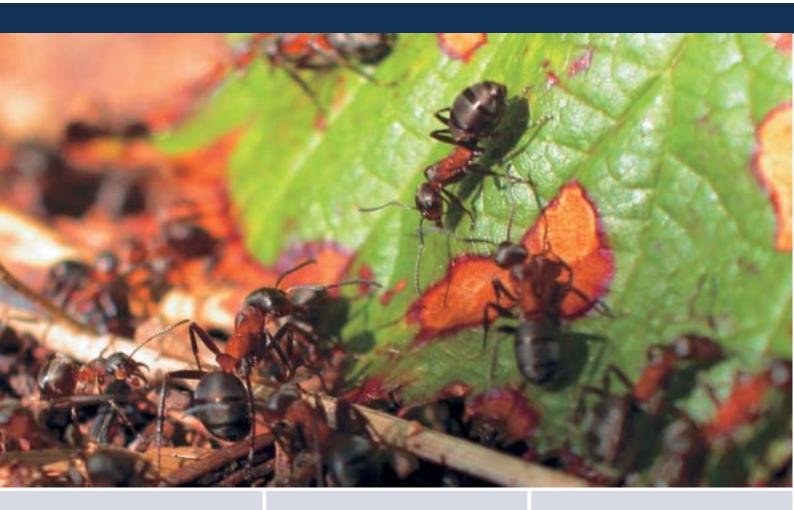
Site cast concrete

- Electrical installation possible on the site of the building project
- Suitable for vertical and horizontal formwork
- Short construction time
- High efficiency
- Requirement: mechanical stability especially when pouring the concrete





Perfect logistics...



Building with pre-cast sections:

In pre-cast sectional structures the ceiling sections are manufactured in modern pre-cast component factories. They are delivered from the manufacturing plant directly to the building site. The high-level of pre-finish makes for short installation times. In addition the manufacturing of the concrete within the factory, in temperature-controlled halls independent of the weather, and its

compaction in modern plant, ensures a consistently high level of quality.

The computerised planning, static load calculations, reinforcement and design of the large area ceiling sections allow manufacturing precisely to the required dimensions and load-bearing capacity.

Built-in components, e.g. for the power supply, recesses, insulators and connecting reinforcements are already inserted. When using ceilings made of pre-cast concrete components, there is no need for

formwork or reinforcement work.

To connect the precast components into one uniform ceiling requires joint grouting or a surface layer of concrete depending on the ceiling system.

After grouting the ceiling is ready to paint, doing away with the costs of plastering or ceiling panels.

ELECTRICAL INSTALLATION PRE-CAST COMPONENT CONSTRUCTION

▼ The boxes can be fixed onto the formwork whilst still in the concrete factory.





▶ When constructing with large panels the wall and ceiling elements are made in the concrete factory in an industrial production process. In this the boxes are fixed to the formwork with an adhesive gun. The types: U 71 K, U 86 K and U 120 K and also all IBTronic and IBTronic-TT versions provide a particularly large contact area due to their completely flat face and thus achieve a high level of security. Filigree ceilings are only cast to part of the finished ceiling thickness.



In these the boxes are still protruding from the pre-cast components and are frequently only fitted with installation conduits on the building site. After this concrete is poured in up to the full ceiling thickness.

Pre-cast component construction

- Series manufacture of wall and ceiling elements in the concrete factory
- Electrical installation with clearly calculable costs
- Boxes with flat front suitable for gluing in place
- Flexibility thanks to 3-piece boxes for pallet rotating plant
- Special boxes for filigree ceilings
- Conduit ferrules for conduit transfer
- Requirements:
 Secure positioning, even
 when compacting the
 concrete, and high thermal
 stability even when reheating
 the formwork table





New

An endless number of possibilities...





Wide range of possibilities

The new universal IBTronic and IBTronic-TT housing systems offer a wide range of possibilities for the easy integration into concrete ceilings and walls of LEDs, low voltage or high-voltage luminaires and loud speakers, and other components. Two housing shapes each with a different "face" (outlet openings) are available to the planner and the user. All the housings can be combined with each other, allowing a large number of different application possibilities to be realised. Installation is possible both in pre-cast concrete parts and also in site cast concrete directly on the building site, from a ceiling thickness of 14 centimetres. The basis for this is two different housing shapes in 2 different usable installed heights.





▲ Precisely aligned light installation with the Fermacell® plate ceiling outlet.

Hotline: 0 23 55/892 - 156

IBTRONIC



and LED luminaires and high grade electronics

conveniently and elegantly in the concrete ceiling.

an electronic safety transformer.

Simple wall mounting with the patented support spar technique (support spar length = wall thickness minus 1 cm).

■ Used as a back mounted box from a wall thickness of 240 mm.

1 way receptacle:

Allows the use of numerous standard UP inserts such as e.g. electrical sockets and switches

2 way receptacle:

Allows the use of numerous standard UP inserts such as e.g. electrical sockets and switches

Ceiling outlet:

Ø 68 mm

Typical installation dimension for a large number of low voltage luminaires

Ø 100/120 mm

When required this variant can be opened in two sizes:

- Ø 100 mm

The connecting webs between the 100 and 120 mm opening are simply cut through with a knife. The 100 mm opening can then easily be knocked out with a hammer.

- Ø 120 mm

This opening can be made directly with the hole cutter (Order Reference No. 925 121 01).

Fermacell plate

The universal outlet, variable up to Ø 100 mm. The required installation opening is defined on the building site. For this the required aperture is simply cut directly into the Fermacell® plate with a suitable hole cutter.

els spelsberg

New BT



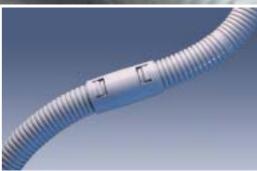
▲ Universal 90° outlet

For building into concrete, with a minimum space requirement, for the simple transfer of conduit into the wall or ceiling area or for continuing on the concrete floor. Entries for conduits up to M 25. Suitable for fixing with nails or adhesive and also supported by the blank base and support spars for opposing formwork

Order reference number: 970 716 01



▲ Universal 90° outlet

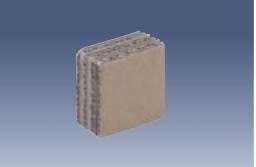


▲ Conduit connector (without conduit) with strain relief, grey, for flexible and rigid electrical installation conduits, from M 20 to M 40.

Further joints easily made.

New Products





◆ Conduit stopper made of corrugated cardboard as a conduit limit stop when using rigid conduits.

Order reference number: 979 109 01



◀ IBT universal outlet cleats

For concrete structures, can be used as a ceiling outlet with large tolerance compensation. Application example: Feed in for internal partitions.

The cleats can be combined next to each other and one behind the other without using tools. When combined one behind the other the tolerance range is doubled, the second opening can be closed off with the metric plugs (separate accessory). Likewise a second conduit entry is possible.

Order reference number: 970 705 01, M 20 Order reference number: 970 706 01, M 25



▲ Trouble-free transition of leads out of the ceiling into light structural walls set up below.



▲ Conduit lead-in angled upwards, allowing the easy conduit laying above the reinforcement.



▲ Reliable, fast further connection with the conduit connector.



Assembly and installation techniques







◀ ▼ Precision perforation

The perforation is always 2 - 3 mm smaller than the outside diameter of the conduit.

(Accessories: Hand hole punch: Order Reference No. 978 100 01, Page 48).

Patented sealing principle

After enlarging the access hole with the expansion mandrel (Accessories:

Order Reference No. 979 155 01, Page 49), the conduit can easily be inserted. The diaphragm then returns to its original position and ensures strain relief and sealing.

ASSEMBLY AND INSTALLATION TECHNIQUES

▶ Preparation and the insertion in site cast concrete. Simple preparation of the box for direct mounting onto the formwork.



- The front section of the box also acts as a conduit mounting
- When the formwork is removed the front section is pulled off. The box is then ready for the insertion of the equipment

▲ Direct formwork

With direct installation on existing formwork, the front of the box with its closed face is placed on the formwork and fixed in place. When assembling, care should be taken to ensure that the fixing is done from inside through the face and not through the external support spar mountings (later rust spots visible in the concrete!).



▲ The green bottom section seals securely.





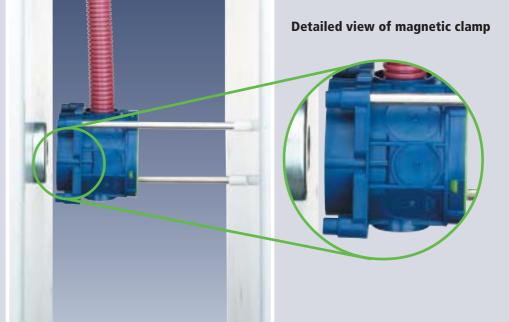
IBT support spar technique (opposing formwork)

Pre-cast opponent construction / site cast concrete



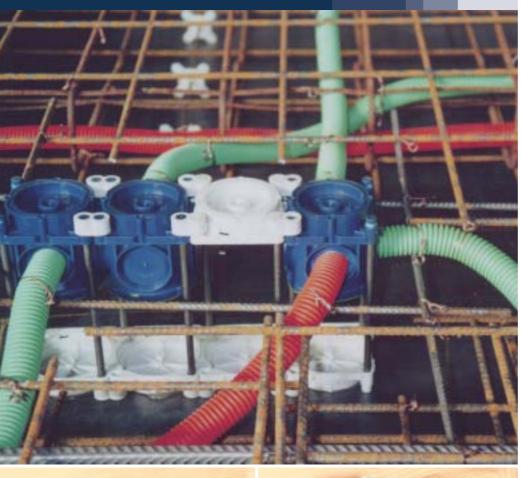
The IBT support spar technique

also comes into use when high stability is required. This could for instance be the case with the use of magnetic clamps on vertical shuttering. Here the magnet is used for fixing the box unit onto the working formwork until the opposing formwork is brought into place and provides the necessary pressure on the support spars. This is sufficient to ensure precise seating of the box even under extreme pressure from the concrete.





▼Vertical installation in site cast concrete structures.



Horizontal installation in the pre-cast components factory.







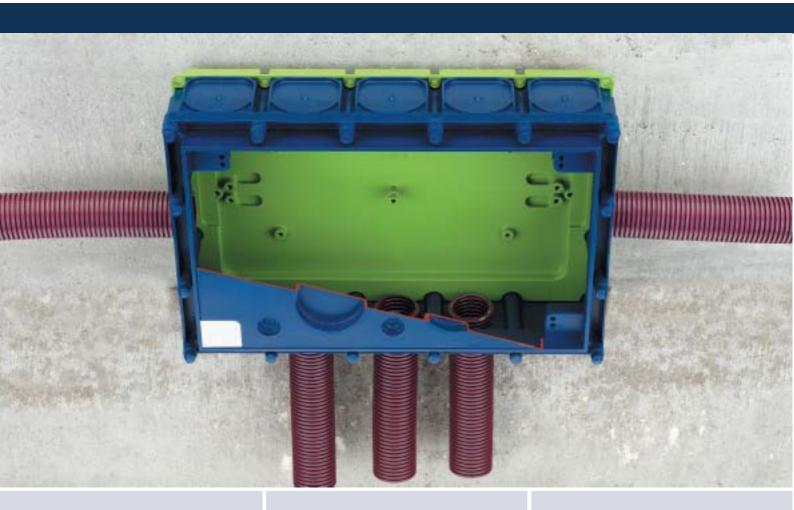


- + For the installation of back mounted boxes, the blank base is first fixed to the working formwork.
- Then the support spars are knocked in diagonal to each other (support spar length = wall thickness minus 1 cm).
- ◆ ▼ Finally the boxes are pushed on, reversed.

The grey blank bases require later rework by plastering etc.



Wall an ceiling transfers



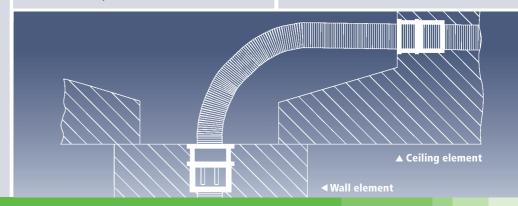
▲ K 4 pulling box

As the length of a run of conduit increases, and it becomes more and more difficult to pull through the conductors, it is recommended that longer sections of conduit be interrupted by so-called pulling boxes.

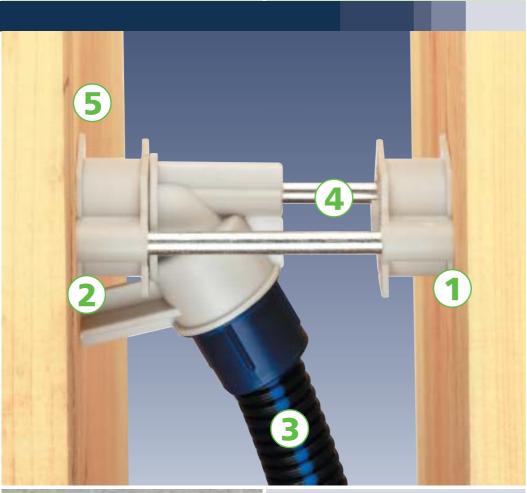
The required conductors can be drawn through particularly easily due to the especially large installation space of the K 4. The K 4 can also be used as a large distribution box.

▼ Conduit ferrule

This is used as a link between wall and ceiling elements in large panel construction. No connecting sleeves are required. In the 2 piece conduit ferrule, the lower section is used for fixing onto the formwork and the upper section to locate and seal the conduit. Corrugated conduit is automatically stress relieved.



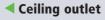
Wall and ceiling transfers



Conduit ferrule and conduit elbows

are fitted as follows when used with opposing formwork:

- Fix the blank base (1) onto the working formwork
- Assemble the elbow combination (2)
- Make the conduit joint (3)
- Knock the support spars (4) into the blank base (spar length = wall thickness minus 1 cm)
- Knock the elbow combination lightly onto the support spars, the opposing formwork (5) ensures precise fixing.



Fitted together these give small conduit bending angles of below 30 $^{\circ}$.

Assembly sequence: • Fix the bottom section.

- Knock on the conduit elbow.
- Fit the upper section. Push in the conduit.

 After removing the formwork the core of the ferrule is removed. In this way the combination can be used as a sleeve coupler. Since the conduit elbow has a built-in wall plug, the ceiling hook (Order Reference No. 979 115 01) converts the combination, if required, into a perfect ceiling outlet "in no time at all".







Wall an ceiling transfers

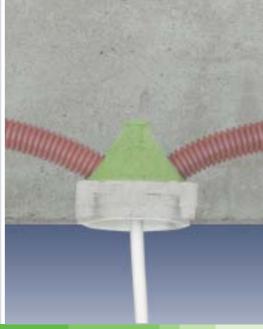


▲ Conical funnels

are mainly used for risers where they are used to compensate for manufacturing tolerances. With vertical formwork the funnel is positioned by two blank cleats (Order Reference No. 979 531 01) and two support spars. Here too: support spar length is equal to wall thickness **minus 1 cm.**

▶ Dome funnels

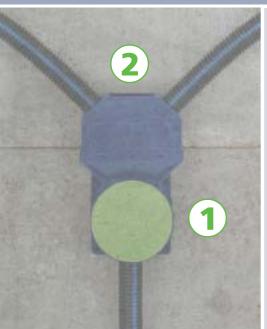
As a ceiling outlet for internal partitions the dome funnel permits ideal conduit guidance below 45° and thus makes it comfortable to pull through the conductors. A ceiling hook can be screwed into the spigot on the upper section.



Wall and Ceiling Transfers

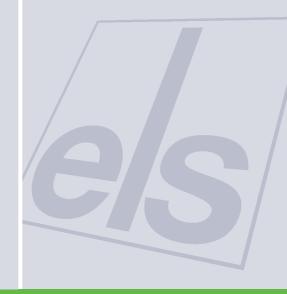


◆ The ceiling branch box U 71 serves as the central supply point. The 8 inlets (maximum 25 mm Ø) allow a universal conductor feed. Thus the box is optimally suited for fitting ceiling lights (maximum loading 10 kp = 100 N). To achieve the carrying capacity the light hook is completely screwed in. Integral M5 threaded socket to take a ceiling hook. A ceiling plug is not required. Box cover (Order Reference No. 979 100 01) and ceiling hook (Order Reference No. 979 117 01) are available as accessories



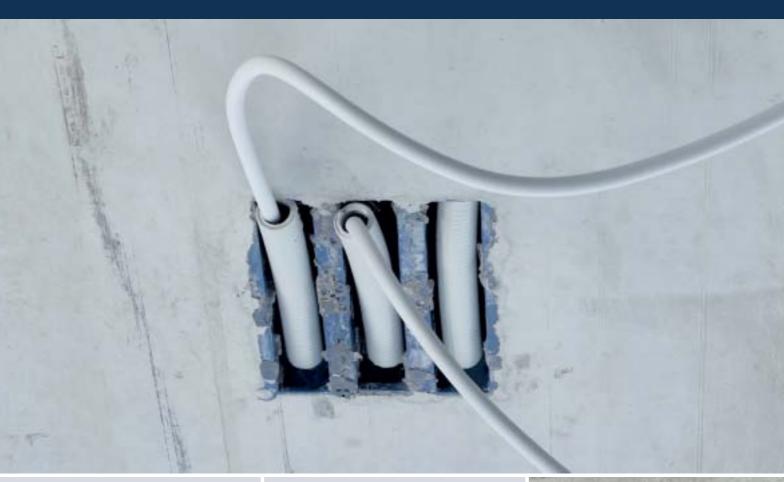
■ Dome box and transfer box

In order to create transfers between wall and ceiling, with the tolerances necessary for this, there are many options open to you. Frequently the transfer box (Order Reference No. 970 690 01) (1) is used in combination with a dome box (Order Reference No. 970 550 01) (2) let into the ceiling.





Wall an ceiling transfers



▲ Ceiling outlet cleats

These provide a trouble free transition for conductors from the ceiling into the light construction walls being set up below.

The ceiling outlet cleats also provide the necessary tolerance for large inaccuracies in the area of ceiling and wall transfers.

After the formwork is removed the conduits can be continued with sleeves.

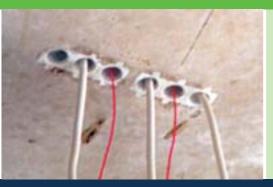
► Ceiling boxes U 86 plus U120

are suitable as special boxes for slab ceilings and part finished ceilings such as filigree, Kaiser Omnia etc. The boxes are inserted in the up to 6.5 cm thick ceiling slab whilst still in the concrete factory. The conduits can be fed into the entries which are still protruding.

Concrete is then poured in on the building site up to full ceiling thickness.

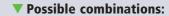


Wall and ceiling transfers



■ Conduit ferrule for conductor transfers

Transfer point from the concrete ceiling into a light construction wall / cavity wall to be erected later.



(see drawing):

Accessories (for assembly one behind the other):

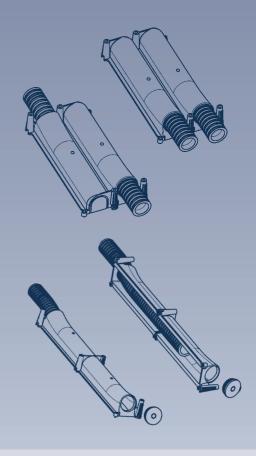
M 20 sealing plug

Order Reference No. 231 620 01.

M 25 sealing plug

Order Reference No. 231 625 01











Reference building:

RWE Tower, Dortmund

els spelsberg

The wide variety of the IBT system.









Stable as concrete



- Wall and ceiling boxes for built-in equipment to DIN/VDE 0606, AFI and British Standards. Built-in boxes
- Wall and ceiling transfers
- for opposing formwork
 (support spar length =
 wall thickness minus 1 cm.
 The length of the support spar
 for this is "wall thickness minus
 1 cm", regardless of which
 boxes and receptacles are used.
 The only thing important for the
 length of the support spar is the
 thickness of the wall!



4444

Reference building: Maritim Hotel



Reference building:

RWE Tower, Essen



Reference building:

Central Railway Station, Frankfurt



Reference building:

Frankfurt airport



IBT Product summary

Concrete installation system

AFI-Standard T: 61 mm, LB: 111 x 116 mm *Assembly: M/ -/ ST/ k	for light call E1 Zettler T: 53 mm, LB: 85x91 mm *Assembly: M/ -/ ST/ -	for light call E2 Zettler or intercoms T: 53 mm, LB: 149 x 91 mm *Assembly: M/ -/ ST/ -	Telephone DG box T: 70 mm, LB: 142 x 142 mm *Assembly: M/ -/ ST/ k
*Assembly: M/ -/ ST/ k Universal box BS2 British Standard T: 60 mm, LB: 146 x 86 mm	*Assembly: M/ -/ ST/ - Specialbox K0 American St. 432 T: 61 mm, LB: 111 x 71 mm	*Assembly: M/ -/ ST/ - Specialbox K15 American St. T: 61 mm, LB: 111 x 116 mm	*Assembly: M/ -/ ST/ k
*Assembly: M/ -/ ST/ -	*Assembly: M/ -/ ST/ k Threaded base M5	*Assembly: M/ -/ ST/ k Dome	Interconnection frame Blank base BS
	*Assembly: M/ -/ ST/ k Universal box BS2 British Standard T: 60 mm, LB: 146 x 86 mm *Assembly: M/ -/ ST/ -	for Light outlet T: 62/64 mm, Ø 60 mm *Assembly: -/ K/ ST/ k *Assembly: -/ -/ -/ Spezial box K15 AFI-Standard T: 61 mm, LB: 111 x 116 mm *Assembly: M/ -/ ST/ k Universal box BS2 British Standard T: 60 mm, LB: 146 x 86 mm *Assembly: M/ -/ ST/ - *Assembly: M/ -/ ST/ - *Assembly: M/ -/ ST/ b T: 61 mm, LB: 111 x 71 mm *Assembly: M/ -/ ST/ b Threaded base M5	for Light outlet T: 62/64 mm, Ø 60 mm *Assembly: -/ K/ ST/ k *Assembly: -/ -/ -/ - *Spezial box K15 AFI-Standard T: 61 mm, LB: 111 x 116 mm *Assembly: M/ -/ ST/ k *Assembly: M/ -/ ST/ c *Assembly: M/ -/ ST/ - *Assembly: M/ -/ ST/ c *Assem

Hotline IBT: 0 23 55/892 - 175



*Assembly techniques:

M = Magnet

K = Stick

ST = Support spar technique

k = Combinable

*1 = M20, M25 combinable





Summary of the IBT individual components

Combinable without limit

Overall height Designation	44 mm Tube 74101	35 mm Box 35K 70011	45 mm Wall outlet box 70501	48 mm Switch box 48 70101	48 mm Switch box 48K 70111
21 mm Front cover 73301	×				
21 mm Front cover K 73311	×				
2 mm Base 71001	×	×	X	X	×
14 mm Threaded base M5 71101	×	×	×	×	×
41 mm Dome with Wood thread 73501	×	×	×	×	×
43 mm Dome with Threadet bush M5 73502	×	×	×	×	×
Damp room cover 71601	×	×	×	×	×
lengthens each box by 49 mm Tube GR 70601	×	×	×	×	X
lengthens each box by 44 mm Tube 74101	X	×	X	×	×

66 mm Box 66 70201	66 mm Box 66K 70211	73 mm Box 73GR 70401	73 mm Box 73GRK 70411	49 mm Tube GR 70601*
				×
•				×
	×	×	×	×
×	×	×	×	×
×	×	×	×	×
×	×	×	×	×
×	×	×	×	×
	×	×	×	×
×	×	×	×	×

* You will find this number directly on the individual component





U 71 – Flat box

71 x 71 x 38 mm, 60 mm Ø

Description Order. Ref. No **VPE**

Receptacle for installation in concrete, flat construction for extremely thin walls, 2 screw bosses with 60 mm screw spacing, combinable, suitable for opposing formwork



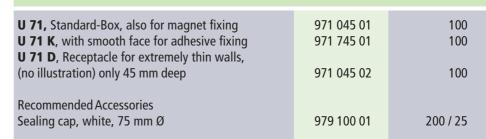
U 71 K, with smooth face for adhesive fixing	971 035 01	100
Recommended Accessories Sealing cap, white, 75 mm Ø	979 100 01	200 / 25

Entries: 2 x bis 20 mm Ø

U 71 – Receptacle $71 \times 71 \times 50 (U 71 D = 45 mm), 60 mm \emptyset$



Receptacle for installation in concrete, standard version, 2 screw bosses with 60 mm screw spacing, combinable, suitable for opposing formwork



Entries: 2 x up to 25 mm Ø U71 D = $2 \times \text{bis } 20 \text{ mm } \emptyset$



U 71 – Dome box 71 x 71 x 89/91 mm, 60 mm Ø

Dome box for installation in concrete, also usable as a ceiling box 2 screw and for magnet fixing



bosses with 60 mm screw spacing, combinable, suitable for opposing formwork

U 71, also for magnet fixing Recommended 971 047 01 100 Accessories Sealing cap, 75 mm Ø 979 100 01 200 / 25 Ceiling hook, 90 mm length 979 116 01 600 / 100 U 71, with M5 Threaded bush to take a ceiling hook 971 248 01 100 **Recommended Accessories** Sealing cap, white, 75 mm Ø 979 100 01 200 / 25 Ceiling hook with M5 thread, 90 mm length 979 122 01 600 / 100

Entries:: 4 x up to 25 mm Ø, 45° 2 x up to 25 mm Ø

U 71 - Equipment **Connection box 2-piece**

71 x 71 x 68 mm, 60 mm Ø



Entries:: 6 x up to 25 mm Ø 2 x up to 20 mm Ø



Equipment junction box for installation in concrete, with enlarged connection chamber, 4 screw bosses with 60 mm screw spacing, combinable, suitable for opposing formwork

U 71, also for magnet fixing U 71 K, with smooth face for adhesive fixing	971 065 01 971 765 01	80 80
Recommended Accessories Sealing cap, white, 75 mm Ø	979 100 01	200 / 25

BT-SYSTEM UNIVERSAL BOXES / CEILING BOXES / WALL AND CEILING TRANSFERS

U 71 - Equipment **Connection box** 3-piece

71 x 71 x 68 mm, 60 mm Ø



Description	Order. Ref. No	VPE
component factories , 4 screw bosses with 60 mm suitable for opposing formwork	screw spacing, con	nbinable,
U 71, also for magnet fixing U 71 K, with smooth face for adhesive fixing	971 365 01 971 865 01	80 80
Recommended Accessories Sealing cap, white, 75 mm Ø	979 100 01	200 / 25

U 71 – Large conduit box 71 x 71 x 76 mm, 60 mm Ø



Large conduit box for installation in concrete, 4 screw bosses with 60 mm screw spacing, combinable, suitable for opposing formwork

U 71, also for magnet fixingU 71 K, with smooth face for adhesive fixing	972 960 01 972 760 01	75 75
Recommended Accessories Sealing cap, white, 75 mm Ø	979 100 01	200 / 25

U 71 – Deep box

71 x 71 x 49 mm, 60 mm Ø



Deep box for installation in concrete, as a top housing for all U 71 boxes when using large conduits, 60 mm screw spacing, suitable for opposing formwork

Entries: 972 925 01: 6 x up to 25 mm \emptyset 2 x up to 20 mm Ø

Entries: 972 945 01: 4 x up to 32 mm Ø

M32 deep box, 49 mm deep	972 945 01	100
M25 deep box, 44 mm deep	972 925 01	100
Recommended Accessories Dome with threaded bush Threaded base M5 Blank base U 71 K for adhesive fixing Blank base U 71 for magnet fixing	971 748 01 979 110 01 979 538 01 979 539 01	100 120 80 80

Wall outlet box

71 x 71 x 48 mm, 35 mm Ø



Wall outlet box for installation in concrete, for connecting wall luminaires to VDE 0100. with screwed hole for light fixing, combinable, front outlet of 35 mm

Suitable for opposing formwork 970 560 01 100 Sealing cap, white, 35 mm @as outlet cover 970 562 01 600 / 100

Entries: 2 x up to 20 mm Ø





U 71-Ceiling luminaire junction box

71 x 71 x 89 mm, 35 mm Ø



Entries: 4 x up to 25 mm Ø, 45° 2 x up to 20 mm Ø



Perilex® receptacle

71 x 71 x 50 mm, 70 mm Ø



Entries: 6 x up to 22,5 mm Ø

U 71 - Ceiling-**Connection box** 71 x 71 x 79 / 81 mm, 60 mm Ø



Ceiling-Connection box for installation in concrete, 4 screw bosses with 60 mm screw spacing, standard version, with M5 Threaded bush to take a ceiling hook, combinable, suitable for opposing formwork

U 71 , also for magnet fixing, 2-piece	971 066 01	50
U 71 K , with smooth face for adhesive fixing, 2-piece	971 766 01	50
U 71 K, with smooth face for adhesive fixing ,	371 700 01	50
3-piece	971 866 01	50
Recommended Accessories		
Sealing cap, white, 75 mm Ø	979 100 01	200 / 25
Ceiling hook, 75 mm length	979 117 01	600 / 100

U 86 - Universal-**Ceiling box**

106 mm hoch, 74 / 92 mm Ø



Universal-Ceiling box for installation in concrete for slab ceilings up to 4.5 cm thick, with M5 threaded bush to take a ceiling hook

U 86 , also for magnet fixing, 2-piece	973 081 02	50
U 86 K, with smooth face for adhesive fixing, 2-piece	973 781 01	50
U 86 K , with smooth face for adhesive fixing, 3-piece	973 783 01	50
Recommended Accessories		
Sealing cap, white, 75 mm Ø	979 100 01	200 / 25
Sealing cap, white, 90 mm Ø	925 100 01	300 / 10
Ceiling hook, 100 mm length	979 119 01	600 / 100

Order. Ref. No

973 050 01

979 100 01

VPE

50

200 / 25

U 71 Ceiling luminaire junction box for installation in concrete, front section grey, rear dome with threaded bush to take a ceiling hook,

Equipment- or Connection box for installation in concrete,

Suitable for opposing formwork and magnet fixing

Recommended Accessories Sealing cap, white, 75 mm Ø

combinable, front outlet 35 mm		
Suitable for opposing formwork	971 548 01	100
Recommended Accessories Sealing cap, white, 35 mm Ø as an outlet cover Ceiling hook, 90 mm long	970 562 01 979 122 01	600 / 100 600 / 100

67 mm screw spacing, for Perilex® inserts 16 A, FR-UP-Equipment, CEE sockets 5-pin 16 A

IBT-SYSTEM UNIVERSAL BOXES / CEILING BOXES / WALL AND CEILING TRANSFERS

U 120) –	
large	conduit-ceiling	box
	och, 80/92 mm Ø	



Description Order. Ref. No **VPE**

Ceiling box for installation in concrete, for slab ceilings up to 6.5 cm thick, with M5 threaded bush to take a ceiling hook

U 120 , also for magnet fixing, 3-piece	973 312 01	35
U 120 K , with smooth face for adhesive fixing, 3-piece	973 713 01	40
U 120 K , with smooth face for adhesive fixing, 2-piece	973 712 01	40
Recommended Accessories		
Sealing cap, white, 75 mm Ø	979 100 01	200 / 25
Sealing cap, white, 90 mm Ø	925 100 01	300 / 10
ceiling hook, 115 mm length	979 121 01	600 / 100

Conduit ferrule

with bottom section

Entries: 4 x up to 35 mm Ø 8 x up to 26 mm \emptyset



Conduit ferrule for installation in concrete, to take various conduit diameters, also suitable for opposing formwork

Ferrule opening	For conduit type		
Hole Ø			
18 mm	M20	970 518 01	210
23 mm	M25	970 523 01	90
30 mm	M32	970 530 01	90
37 mm	M40 (one piece, no illustration)	970 537 01	100
	·		

Conduit elbow

Conduit elbow for 30° entry for installing in conduit ferrule

Flhows for conduit ferrules



LIBOWS for condu	referrates		
30° small	970 518 01	970 425 01	300
30° medium	970 523 01	970 430 01	120
30° large	970 530 01	970 435 01	120

Recommended Accessories Ceiling hook for conduit elbow, small 979 115 01 600 / 100

Conduit ferrule / conduit ferrule elbow set



Conduit ferrule/ conduit elbow for installation in concrete, 3-piece, consisting of conduit ferrule with bottom section and conduit elbow 30°

For conduit type		
M20 M25 M32	970 720 01 970 725 01 970 732 01	30 15 15



Sealing plug for conduit ferrule



Description

Order. Ref. No

VPE

Sealing plug for conduit ferrule bottom section for protection against the ingress of dirt after concreting

for opening	for conduit ferrules		
18 mm	970 518 01	970 318 01	1500 / 250
23 mm	970 523 01	970 323 01	750 / 125
30 mm	970 530 01	970 330 01	300 / 50

Conduit stopper



Conduit stopper made of corrugated cardboard, to limit the insertion of conduits

for use in U71-boxes 979 109 01 50



Cone funnel

for Wall-/Ceiling transfers and risers



Cone funnel for installation in concrete, for wall-wall –connections in large panel constructionand for connections from risers (e.g. Telephone-TV), also suitable for magnet fixing and opposing formwork

Hole	for conduit Type		
71	18 mm Ø M20	970 618 01	70
Typ 23	23 mm Ø M25	970 623 01	60
Typ 30	30 mm Ø M32	970 630 01	60
Typ 37	37 mm Ø M40	970 637 01	60

Dome funnel

71 x 71 x 62/64 mm, 60 mm Ø



Entries: $4 \text{ x up to } 25 \text{ mm } \emptyset, 45^{\circ}$ **Dome funnel** for installation in concrete, as a ceiling outlet for internal partition or as a luminaire outlet, combinable, also suitable for adhesive fixing and opposing formwork

Dome funnel Recommended Accessories Ceiling hook, 65 mm length	970 540 01 979 118 01	150 600
Dome funnel with M5 Threaded bush Recommended Accessories ceiling hook with M5 thread, 65 mm length	970 748 01 979 120 01	150 600
caming nook that his ancaa, os him tengan	373 120 01	

IBT-SYSTEM UNIVERSAL BOXES / CEILING BOXES / WALL AND CEILING TRANSFERS

	Description	Order. Ref. No	VPE	
Dome box 90 x 40 x 55 mm	Dome box for installation in concrete,as a ceiling outlet in site cast concrete or large panel construction			
	or as a wall ceiling connection in large panel construction	970 550 01	100	
Entries: 10 x up to 22,5 mm Ø				
Connection box 95 x 90 x 50 mm	Connection box for installation in concrete, as a wacceiling transfer in large panel construction	all /		
	or as a wall branch box in site cast concrete	970 690 01	60	
	Recommended Accessories Sealing cap, white, 75 mm Ø	979 100 01	200 / 25	
Entries: 3 x up to 28,3 mm Ø				
Universal outlet cleats	Universal outlet cleats for installation in concrete, usable as a ceiling outlet with a large tolerance compensation. DAL 1 and DAL 2 can be combined next to each other and one behind the other without tools			
	DAL 1: for conduits M20, M25 (171 x 49 x 35 mm) DAL 2: for conduits M25 (171 x 49 x 35 mm) 4: for conduits M32, M40 (315 x 80 x 90 mm)	970 705 01 970 706 01 970 704 01	100 100 50	
	Recommended Accessories DAL 1 / DAL2:Sealing plug M20, M25			
Sealing plug	Sealing plugs with closed sealing diaphragm are ne are combined one behind the other	eded when DAL 1/l	DAL 2	
	Sealing plug M20 Sealing plug M25	231 620 01 231 625 01	100 50	
Universal outlet 90°	Universal outlet for installation in concrete, for eas ceiling area or for continuing conduits under the scree Suitable for adhesive fixing and opposing formwork			
	Universal outlet 90°	970 716 01	90	
NEW!	Empfohlenes Zubehör: RV20, conduit connector M20 RV25, conduit connector M25	970 220 01 970 225 01	100 50	



K0 - Transfer box

111 x 71 x 61 mm



Entries: up to 32 mm Ø



Description

Order. Ref. No

VPE

Transfer box for installation in concrete, suitable as a junction box, screw spacing 83.5 and 100 mm, complies with AFI-Standard, combinable also for opposing formwork and magnet fixing

auch für Gegenschalung und Magnetbefestigung	977 001 01	50
Recommended Accessories Sealing cap K0	977 100 01	180 / 30

K15 – Spezial box 111 x 116 x 61 mm



Entries: up to 30 mm Ø

Special box for installation in concrete, suitable as a junction box with large terminal space, screw spacing 2 x 83.5 and 1 x 100 mm, complies with AFI-Standard

combinable also for opposing formwork and magnet fixing	977 002 01	30
Recommended Accessories Sealing cap K15	977 105 01	90 / 15



K1 – Spezial box 85 x 91 x 53 mm



Entries: up to 23 mm Ø **Special box** for installation in concrete, suitable as a junction box or installation box for Zettler light call E1

also for opposing formwork and magnet fixing	975 001 01	50
Recommended Accessories Sealing cap K1	975 100 01	150 / 25





Entries: up to 23 mm Ø



Special box for installation in concrete, suitable as a junction box, As an installation box for Zettler light call E2 or for various intercoms

also for opposing formwork and magnet fixing	975 002 01	30
Recommended Accessories Sealing cap K2	975 102 01	90 / 15



BT-SYSTEM UNIVERSAL BOXES / CEILING BOXES / WALL AND CEILING TRANSFERS

K3 – Connection box

142 x 142 x 70 mm



Entries: 8 x up to 47,5 mm Ø

NE VE

K4 – Connection box

311 x 202 x 87 mm



Entries: 16 x up to 47,5 mm Ø



K4 – H

Connection box 311 x 202 x 158 mm





Entries: 32 x up to 47,5 mm Ø

UP 015 – Distribution set

311 x 202 mm for installation box K4



Description

Order. Ref. No

VPE

Connection box for installation in concrete, prepared to take the WK-Terminal blocks 2.5-25 mm², suitable to take a 20-pin telephone terminal strip or as a telephone continuity box to DIN 47614-615, combinable

also for opposing formwork and magnet fixing	980 002 01	15
Recommended Accessories Sealing cap K3 Divider K3	980 100 01 980 105 01	50 / 10 300 / 30

Connection box for installation in concrete, prepared to take the WK-Terminal blocks 2.5-25 mm², a 40-pin telephone terminal strip, as a telephone continuity box to DIN 47614-615 or IBT-Distribution set UP 015 (single row, 15 TE), combinable

also for opposing formwork and magnet fixing	980 004 01	4
Recommended Accessories Sealing cap K4	980 104 01	10

Connection box for installation in concrete, prepared to take the WK-Terminal blocks 2.5-25 mm², a 40-pin. telephone terminal strip, as a telephone continuity box to DIN 47614-615 or IBT-Distribution set UP 015 (single row, 15 TE), combinable

also for opposing formwork and magnet fixing	980	005 01	1
Recommended Accessories Sealing cap K4		980 104 01	10

Distribution set single row, 15 divider units, plastic frame and -door, white, with spring latch, 35 mm-DIN standard rail, PE/N terminals, cover strips and label pad

for installation box K4	986 000 01	6 / 1



K8 -	instal	lation	box
320 x 4	40 x 95 mm		



Description Order. Ref. No VPE

K8-installation box for installation in concrete, including fitting template, for all types of formwork fixing in the IBT range

also for opposing formwork and magnet fixing	988 002 01	1/ 1
Recommended accessories		
Sealing cap K8	980 108 01	10

K12 - installation box 320 x 565 x 95 mm



K12-installation box for installation in concrete, including fitting template, for all types of formwork fixing in the IBT range

also for opposing formwork and magnet fixing	988 003 01	1/1
Recommended accessories Sealing cap K12	980 112 01	10



■ Reference building Reha Oldenburg



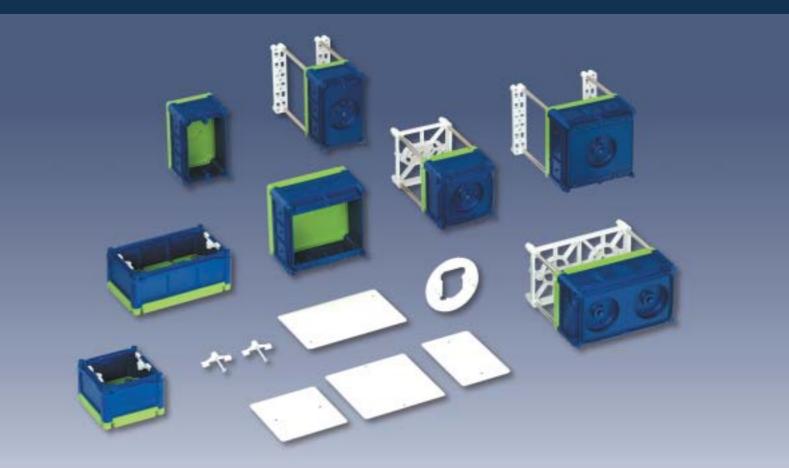


∢ Reference building RWE-Tower, Dortmund

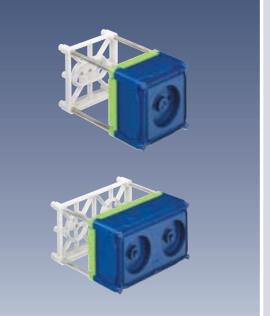
■ Reference building Shopping Centre, Dresden



Export versions



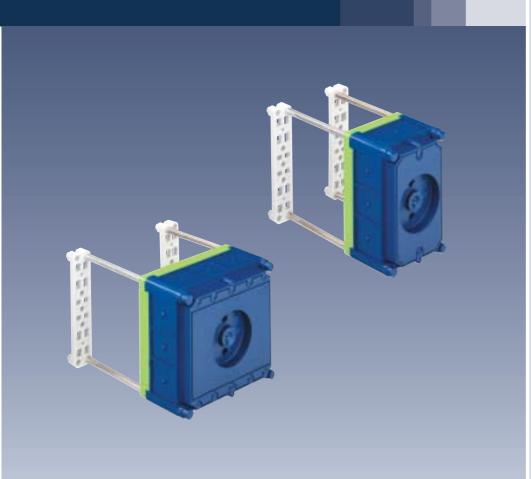




◀ British Standard

bridges (Order. Ref. No.974 120 01) are snapped in after knocking out the front wall. This automatically gives a fixing dimension of 60.3 mm for BS1 or 120.6 mm for BS2. The assembly bridges can still be moved sideways, allowing later adjustment of the equipment.

On Types BS1 and BS2 the assembly



The IBT-boxes for export are developed in accordance with BS-Regulation or NEMA Standards-Publication.

The range for the installation of American switches and sockets is equally suitable for Italian, French and Japanese built-in equipment with a screw spacing of 83.5 mm.

Reference buildings worldwide are evidence of our wide know-how in electrical installations in concrete structures.



▲ American Standard

With back mounted boxes K0 and K15 it should always be noted that 2 blank bases AS (Order. Ref. No. 979 532 01) and 4 support spars are needed for each back mounted box. The length of the support spars for this is wall thickness **minus 1 cm**





IBT-SYSTEM BOXES FOR THE EXPORT

Order. Ref. No

VPE

BS	1 -	· Uni	ver	sal	box
86 v 8	86 v 6	0 mm			

86 x 86 x 60 mm



Entries: 8 x up to 32 mm Ø

BS 2 – Universal box 146 x 86 x 60 mm



Entries: 10 x up to 32 mm Ø

Special box K 0



Entries: 8 x up to 32 mm Ø

Special box K 15 111 x 116 x 61 mm



Entries: 12 x up to 32 mm Ø Description

Universal box for installation in concrete, "1-gang-box" for installing "British Standard" equipment, screw spacing 60.3 mm (2³/8 inch.), delivered with earthing screw

suitable for opposing formwork and magnet fixing	974 001 01	50
Blank base BS 1 for opposing formwork BS Assembly bridge	974 431 01 974 120 01	100 1000 / 100
Installation screws for fixing BS equipment 3,5 x 30 3,5 x 35	974 130 01 974 135 01	4000/1000 3000 / 750
3,5 x 50	974 150 01	2000 / 500

Universal box for installation in concrete, "2-gang-box" for installing "British Standard" equipment", screw spacing 120.6 mm (43/4 inch.), delivered with earthing screw

suitable for opposing formwork and magnet fixing	974 002 01	30
Recommended accessories Blank base BS 2 for opposing formwork BS Assembly bridge Installation screws for fixing BS equipment 3,5 x 30 3,5 x 35 3,5 x 50	974 432 01 974 120 01 974 130 01 974 135 01 974 150 01	60 1000 / 100 4000/1000 3000 / 750 2000 / 500

Special box for installation in concrete, for installing "American Standard 432" equipment to NEMA Publ. NO.OS 1, screw spacing 83.5 mm (39/32 inch.), combinable

suitable for opposing formwork and magnet fixing	977 001 01	50
Recommended accessories AS Blank cleat for opposing formwork, 2 off required per box	979 532 01	200
' '		

Special box for installation in concrete, for installing "American Standard "equipment to NEMA Publ. NO.OS 1, corresponds to the » "4" square box« for 2 units, screw spacing 2 x 83.5 mm (39/32 inch.), combinable

suitable for opposing formwork and magnet fixing	977 002 01	30
Recommended accessories AS Blank cleat for opposing formwork, 2 off required per box	979 532 01	200

IBT-SYSTEM Accessories







◄ Precision punching

The hole is always made 2-3 mm smaller than the outside diameter of the conduit

Open up with expansion mandrel

Easy insertion of the conduit

1) Hole punch

for large scale operation in precast concrete factories, with fixing device

2) Expansion mandrel

Assembly tool when inserting conduit

3) Hand hole punch

for making precision fit entries in concrete boxes

4) Punch sets

as replacements or where expansion is required

Other accessories can be found on the following pages.





	Description	Order. Ref. No	VPE
Terminal blocks	Terminal blocks , for installation in IBT-boxes and s	special boxes	
The state of the s	5 x 2,5/4 mm ² for K0-, K15-, K1-, K2-boxes 5 x 6 mm ² for K15-, K2-, K3-boxes 5 x 10 mm ² for K15-, K3-, K4-boxes 5 x 16 mm ² for K3-, K4-boxes 5 x 25 mm ² for K4-boxes	840 004 01 460 506 01 460 510 01 460 516 01 460 535 01	10 1 1 1 1
 IBT-plugs	IBT-plugs		
.51 p.a.55	yy .		
	protect the holes for the equipment screws from the ingress of concrete	979 205 01	6000/1000
Threaded base M5 15 mm high	Threaded base M5		
Entries:	converts any U 71 junction box into a ceiling box	979 110 01	120
4 x up to 25 mm Ø, 45°			
Dome 43 mm high	Dome with threaded bush M5, suitable as a top for U 71boxes and for magnet and adhesive blank bases		
	(only suitable for Series U 71, blue version)	971 748 01	100

IBT-SYSTEM Accessories

	Description	Order. Ref. No	VPE
Accessories for combinations	Interconnection frames for the combination	n of boxes under extreme	loading
	for a spacing of 71 mm for a spacing of 80 und 85 mm for a spacing of 90 mm for a spacing of 105 mm Compound nipple as a seal and wire	979 212 01 979 213 01 979 214 01 979 215 01	900 / 150 450 / 75 600 / 100 600 / 100
	grommet for a spacing of 71 mm (for U 71 receptacle 971 045 02)	979 210 01	900 / 150
Sealing cap K	Sealing cap , white, flame retardant, for speci	al junction boxes	
NEW!*		977 100 01 977 105 01 975 100 01 975 102 01 980 100 01 980 104 01 980 108 01 980 112 01	180 / 30 90 / 15 150 / 25 90 / 15 50 / 10 10 1
Sealing cap U	Sealing cap for junction boxes, flame retarda	ant, white, with fixing scre	NS
	Cover Diameter for Unit cover Ø 75 mm U71, U86, Sealing cap Ø 90 mm U71 Sealing cap Ø 90 mm U86 / U120 Damp room cover Ø 80 mm U71 Damp room cover Ø 90 mm U 86 Universal cover for pressing into Ø 80 mm U71	925 101 01	200 / 25 300 / 10 300 / 10 100 / 10 100 / 10
Sealing cap BS	Sealing cap BS , white, flame retardant, with fixing screws and assembly bridges		
	BS 1, for Universal box BS 1 86 x 86 mm BS 2, for Universal box BS 2	974 100 01	150 / 25
	146 x 86 mm	974 102 01	90 / 15



Sealing cap AS



Description Order. Ref. No

Sealing cap AS, white, flame retardant,for "American Standard" boxes

K O for Special box K O

it of for special box it o	377 100 01	100750
K 15. for Special box K 15	977 105 01	90 / 15

977 100 01

VPE

180 / 30

Ceiling hook





Ceiling hook, insulated, with wood screw thread

Shank length: 55 mm conduit elbow small 65 mm dome funnel 80 mm dome box	979 115 01 979 118 01 979 116 01	600 / 100 600 / 100 600 / 100
Ceiling hook, insulated, with M 5 thread		
Shank length		
65 mm for dome funnel with threaded bu	sh 979 120 01	600 / 100
75 mm for ceiling junction box U 71	979 117 01	600 / 100
90 mm for dome box with threaded bush	979 122 01	600 / 100
100 mm for ceiling junction box U 86	979 119 01	600 / 100
115 mm for ceiling junction box U 120	979 121 01	600 / 100
135 mm for special requirement	979 123 01	600 / 100

Blank base U 71

71 x 71 x 25 / 21 mm



Blank base, Base for supporting IBT-boxes and boxes in opposing formwork in conjunction with support spars, combinable by a snap-in connection. If fitting the blank base with nails, magnet or adhesive, it is necessary to plaster the fixing points later.

For fitting:

1.the **boxes U 71** in opposing formwork, at a 71 mm spacing. For extreme loadings can be combined using an interconnection frame2.the **special boxes K3 and K4** in opposing formwork with 2 or 4 bases and 3 support spars each in the corners

Type:	High: for:		
U 71	25 mm nail fixing	979 530 01	80
U 71	25 mm fair face concrete, min. visibility on the feet	979 530 02	80
U 71 K	21 mm adhesive fixing	979 538 01	80
U 71	21 mm magnet fixing,		
	magnet hole has to be plastered later	979 539 01	80

	Description	Order. Ref. No	VPE
Blank cleats AS 110 x 21 x 15 mm	Blank cleat AS for fixing the transition box K 0 and the Special box K 15 for opposing formwork		
	2 off required per box	979 532 01	200
Blank cleats K1 90 x 21 x 15 mm	Blank cleat K1 for fixing		
	 the special boxes K 1 and K 2 for opposing formwork the cone funnel for transfer from risers, off required per insert 	979 531 01	20
Blank base BS	Blank base BS to support the BS boxes, for opposing formwork in conjunction with support spars		
10000000000000000000000000000000000000	BS 1 BS 2	974 431 01 974 432 01	100 60
Blank base	Blank base to support the conduit elbows including of for opposing formwork in conjunction with support spa	conduit ferrules, ars	
	for conduit ferrules 970 518 01 970 523 01 / 970 530 01	970 500 01 970 505 01	150 90



Support spars IBT Metall, 6 mm Ø



Order. Ref. No **VPE**

IBT support spars for various wall thickness in opposing formwork, always used in conjunction with blank base or back mounted box, spar length = Wall thickness minus 1 cm.



Wall thickness:	Spar length:		
8 cm	7 cm	979 570 01	1000 / 50
10 cm	9 cm	979 590 01	600 / 50
12 cm	11 cm	979 610 01	600 / 50
14 cm	13 cm	979 630 01	500 / 50
15 cm	14 cm	979 640 01	500 / 50
16 cm	15 cm	979 650 01	400 / 50
18 cm	17 cm	979 670 01	400 / 50
20 cm	19 cm	979 690 01	400 / 50
24 cm	23 cm	979 730 01	300 / 50
25 cm	24 cm	979 740 01	200 / 50
30 cm	29 cm	979 790 01	200 / 50

Support buffer/ **Cartridge insert**

Support buffer as an attachment for support spars when using magnetic clamps



or adhesive in vertical formwork (instead of the blank base)	979 535 01	6000/1000
Cartridge insert , 6 mm Ø, when support spar -tolerance compensation is required	979 536 01	300

Fixings for wood / plastic formwork

Fixings for wood / plastic formwork, for site cast concrete or poured concrete constructionon the wooden formwork, for extreme loading use 2 nails

Aluminium-nail, 40 mm

longridged



smooth	979 243 01	4800 / 800
Double screw for permanent fixing in series production with M6 (15 mm) and wood thread (20 mm), length 35 mm	979 266 01	30

979 242 01

4800 / 800

IBT-SYSTEM Accessories

	Description	Order. Ref. No	VPE	
Fixing for plastic / steel formwork	Fixings for plastic / steel formwork			
	Adhesive blank, as a non-damaging fixing When using blank and flange (usable several times), with vertical formwork also use support spars Support flange, 50 mm Ø, plastic Support clip for mesh thickness as an auxiliary fixing for the boxes onto reinforcement mesh in special cases (2 - 3 Clips per box),	979 248 01 979 250 01	1200 / 200 300 / 50	
Fixing steel	only usable with support spars Fixings for steel formwork Spreader nail, Aluminia		600 / 100	
formwork	with plastic plug for fixing the boxes on the steel form	work (drilled hole 5	5.5 mm),	
	has proven excellent for tunnel formwork	979 240 01	1800 / 300	
	Weld on screw, M6 x 10 mm,inexpensive, secure fixing of the box onto steel formwork without drilling, ideal for large batch production	979 260 01	50	
	Magnetic clamp , 50 mm Ø, normal (pull off strength 120 +/- 20 N) extra strong (pull off strength 300 +/- 20 N=30kp)	979 280 01 979 299 01	3	
Fixings for conduits and cables	Fixings for conduits and cables			
	Clip , 4,6 x 180 mm 979	136 01	2000 / 100	
and mill	Spacer , 40 x 40 x 33 mm	979 135 01	300	
	Conduit support, grau, Höhe 21 cm	979 230 01	25 / 1	
Conduit connector	Conduit connector (without conduit) with cleat, grey, for flexible and rigid metric electro-installation conduits			
	grey, for flexible and rigid metric electro-installation co	muuts		
NEW!	RV 20, for smooth and corrugated conduits M20	970 220 01	100	
To American	RV 25 , for smooth and corrugated conduits M25	970 225 01	50	
	RV 32 , for smooth and corrugated conduits M32	970 232 01	25	
	RV 40 , for smooth and corrugated conduits M40	970 240 01	25	



Hand hole punch



Description Order. Ref. No VPE

Hand hole punch, Punching tool for making precision fit entries in concrete boxes, The perforation is always 1 - 3 mm smaller than the outside diameter of the conduit / conductor

Handhole p without pu with 18 mi with 23 mi	inch m punch	for conduit M20 M25	978 100 01 978 118 01 978 123 01	1 1 1	
where exp	as replacements or ansion is required				
Hole Ø	for cable / conduit ty	pe (outside Ø)			
10 mm	NYY 3 x 1,5 (11 mm)		978 910 01	1	l
14 mm	M16 (16 mm)		978 914 01	1	l
18 mm	M20 (20 mm)		978 918 01	1	l
23 mm	M25 (25 mm)		978 923 01	1	l

Hole punch



Hole punch for large scale operation in precast concrete factories, with fixing device

Punch sets 18 mm and 21 mm plus expansion mandrel		979 162 01	1
Punch se	ts		
Hole Ø	for cable / conduit type (outside Ø)		
8 mm	NYY 3 x 1,5 (11 mm)	978 808 01	1
14 mm	M16 (16 mm)	978 814 01	1
18 mm	M20 (20 mm)	978 818 01	1
23 mm	M25	978 823 01	1
30 mm	M32	978 830 01	1
39 mm	M40	978 839 01	1

BS assembly bridge, Installation screws



Assembly bridge BS for the installation of British Standard equipment in boxes BS 1 and BS 2, can be clicked in place and moved sideways,

2 off required per box	974 120 01	1000 / 100
Installation screws for fixing BS equipment		
3,5 x 30	974 130 01	4000/1000
3,5 x 40	974 135 01	3000 / 750
3,5 x 50	974 150 01	2000 / 500

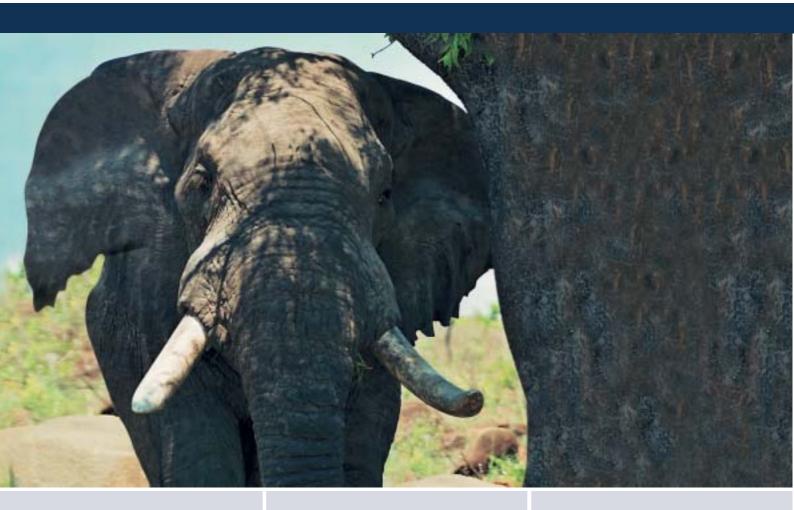
	Description	Order. Ref. No	VPE	
Expansion mandrel	Expansion mandrel, Assembly tool when inserting conduit			
	Expansion range 9-25 mm Ø	979 155 01	1	
Hole saw	Hole saw , Perforating tool for conduits from NG 23 / inserts from 25-62 mm \varnothing	Pg 21,7 replaceabl	e	
	Will fit in any commercial drill chuck	979 160 01	1	
Hole cutter, 120 mm Ø	Hole cutter , 120 mm Øsuitable for wood and gypsum fibre concrete panels			
	Will fit in any commercial drill chuck Cutting depth 40 mm	925 121 01	1	
Euipment srews	Equipment screws for fixing operating equipment in concrete boxes			
	3,1 x 10 mm 3,1 x 18 mm 3,1 x 25 mm	979 105 01 979 106 01 979 107 01	400 250 200	



New!

Stable as concrete...





The advantages at a glance

- Two different housing shapes each with two different installed heights (100 / 145 mm) – giving a choice of outlet apertures
- Housings with the 1 and 2 way receptacle outlet aperture allow the installation of countless UP inserts
- High mechanical stability
- Good thermal installation
- Good soundproofing
- Certified security

- Easy fitting into site cast concrete ceilings and walls and in precast components (e.g. ceiling elements)
- M25/M32 conduit stoppers integrated in the housing prevent the conduits from being pushed right through during insertion
- Retrospective extension of the installed height possible on the building site.
- Compatible with the tried and tested support spar technique
- Retrospective installation of series built-in equipment possible (e.g. EIB components)

- Installation in ceilings from a ceiling thickness of 140 mm
- One-piece IBTronic-TT housing with additional connection space (e.g. for the installation of safety transformers)
- Variants with Fermacell plate inserted allow the outlet aperture to be determined on the building site.
 The necessary aperture is simply cut with a hole cutter.

Hotline: 0 23 55/892 - 156

IBTRONIC



■ A choice of two different housing shapes each with two different installed heights (100 / 145 mm)



▲ IBTronic housings with the
" 2 way receptacle" outlet aperture
offer adequate space for the
installation of series built-in equipment
(Standard 35 mm rail,
Order Ref. No. 979 800 01 required)

- Retrospective extension possible on the building site
- Easy fitting into site cast concrete ceilings and walls and also in precast components
- Integral conduit stoppers prevent
 the conduits from being pushed right
 through
- Compatible with the tried and tested support spar technique (Spar length = Wall thickness minus 1 cm)



IBTRONIC



IBTronic

150 x 150 x 106 mm

for installation ceilings from 140 mm

(Wall installation with IBT-Support spars)
Installation high: 100 mm



Entries: 4 x up to 34 mm Ø Integral conduit stopper for M25, M32

Description Order. Ref. No VPE

Universal installation housing for site cast concrete or precast concrete structures, for the installation of LV/HV/LED luminaires (*) and loudspeakersSuitable for adhesive fixing and opposing formwork

IBTronic H120-S1 outlet aperture:	1-way receptacle	976 001 01	10
IBTronic H120-S2 outlet aperture:	2-way receptacle	976 002 01	10
IBTronic H120-68 outlet aperture:	Ø 68 mm	976 005 01	10
IBTronic H120-0 outlet aperture optional:	Ø 100/120 mm	976 003 01	10
IBTronic H120-P outlet aperture:	Fermacell®-plate variable up to max. Ø 100 mm	976 004 01	10

Accessories







Recommended accessories:

Blank cleat AS for opposing formwork 2 off required per installation box		979 532 01	200
Standard rail 35 mm for retrofitting in IBTron		979 800 01	1
Support spars for fixing the IBTronic housing in opposing formwork. Always used in conjunction with blank cleat AS. Spar length = Wall thickness minus 1 cm			
Wall thickness	Spar length		
14 cm	13 cm	979 630 01	500/50
15 cm	14 cm	979 640 01	500/50
16 cm	15 cm	979 650 01	500/50
18 cm	17 cm	979 670 01	400/50
20 cm	19 cm	979 690 01	400/50
24 cm	23 cm	979 730 01	300/50
25 cm	24 cm	979 740 01	300/50
30 cm	29 cm	979 790 01	200/50
Fermacell®-plate for retrofitting in H120-P		979 801 01	10
Hole cutter, Ø 120 mr	n	925 121 01	1

(*) For the installation of VDE approved luminaires to DIN EN 60598 (VDE 0711) and with 🈿 or 😾 💖 marking Maximum installation height Low-voltage luminaires: 75 mm, High-voltage luminaires: 80 mm, Lamp wattage rating max. 50 W

IBTronic

150 x 150 x 151 mm

for installation ceilings from 180 mm

(Wall installation with IBT-Support spars)
Installation high: 145 mm



NEW!

Entries: 8 x up to 34 mm \emptyset Integral conduit stopper for M25, M32 Description Order. Ref. No VPE

Universal installation housing for site cast concrete or precast concrete structures, for the installation of LV/HV/LED luminaires (*) and loudspeakersSuitable for adhesive fixing and opposing formwork

1-way or 2 -way receptacle	976 101 01	12
1 -way receptacle or Ø 100/120 mm	976 103 01	12
Ø 68 mm Ø 100/120 mm	976 105 01	12
Fermacell®-plate, variable up to max. Ø 100 mm oder Ø 100/120 mm	976 104 01	12
	2 -way receptacle 1 -way receptacle or Ø 100/120 mm Ø 68 mm Ø 100/120 mm Fermacell®-plate, variable up to max. Ø 100 mm oder	2 -way receptacle 976 101 01 1 -way receptacle 976 103 01 Ø 68 mm Ø 100/120 mm 976 105 01 Fermacell®-plate, variable up to max. Ø 100 mm oder

Accessories









Recommended accessories:

Blank cleat AS for opposing 2 off required per installation I	979 532 01	200	
Support spars for fixing the opposing formwork. Always us blank cleat AS. Spar length = Wa			
Wall thickness Span 18 cm 17 cm 20 cm 19 cm 24 cm 23 cm 25 cm 24 cm 30 cm 29 cm	cm cm cm	979 670 01 979 690 01 979 730 01 979 740 01 979 790 01	400/50 400/50 300/50 300/50 200/50
Fermacell®-plate for retrofitting in H120-P-0		979 801 01	10
Hole cutter, Ø 120 mm		925 121 01	1

(*) For the installation of VDE approved luminaires to DIN EN 60598 (VDE 0711) and with 😿 or 🖞 🖞 marking Maximum installation height Low-voltage luminaires: 75 mm, High-voltage luminaires: 80 mm, Lamp wattage rating max. 50 W

IBTRONIC-TT



IBTronic-TT

150 x 306 x 106 mm

for installation in ceilings from 140 mm

(Wall installation with IBT-Support spars)

Installation height: 100 mm



Entries: 6 x up to 34 mm Ø Integral conduit stopper for M25, M32

Description Order. Ref. No VPE

Universal installation housing with additional connection space (e.g. for fitting a safety transformer (*) for site cast or precast concrete structures, for the installation of LV/HV/LED luminaires (*1) and loudspeakersSuitable for adhesive fixing and opposing formwork

, ,	'	9	3
IBTronic-TT H120TT-S1 outlet aperture:		976 201 01	8
IBTronic-TT H120TT-S2 outlet aperture:		976 202 01	8
IBTronic-TT H120TT-68 outlet aperture:		976 205 01	8
IBTronic-TT H120TT-0 outlet aperture:	Ø 100/120 mm	976 203 01	8
IBTronic-TT H120TT-P outlet aperture:	Fermacell®-plate variable up to max. Ø 100 mm	976 204 01	8

Accessories







Recommended accessories:

Blank cleat AS for opposing formwork 2 off required per installation box					
Standard rail 35 mm for retrofitting in IBTronic-TT H120TT-S2					
Support spars for fixing the IBTronic housing in opposing formwork. Always used in conjunction with blank cleat AS. Spar length = Wall thickness minus 1 cm					
nath					
.9	979 630 01	500/50			
	979 640 01	500/50			
	979 650 01	500/50			
	979 670 01	400/50			
	979 690 01	400/50			
	979 730 01	300/50			
	979 740 01	300/50			
	979 790 01	200/50			
Fermacell®-plate for retrofitting in H120TT-P					
	925 121 01	1			
	T-S2 nic housing in conjunction with	979 800 01 T-S2 nic housing in conjunction with kness minus 1 cm ngth 979 630 01 979 640 01 979 650 01 979 670 01 979 690 01 979 730 01 979 740 01 979 790 01 979 801 01			

^{*)} Electronic transformers up to max. 150 W (e.g. OSRAM HALOTRONIC®, HTM 150 Mouse)(*1).
For the installation of VDE approved luminaires to DIN EN 60598 (VDE 0711) and with \(\overline{\psi} \) or \(\overline{\psi} \) \(\overline{\psi} \) marking.

Maximum installation height Low-voltage luminaires: 75 mm, High-voltage luminaires: 80 mm, Lamp wattage rating max. 50 W

IBTronic-TT

150 x 306 x 151 mm

for installation ceilings from 180 mm

(Wall installation with IBT-Support spars)
Installation height: 145 mm



Entries: 10 x up to 34 mm Ø Integral conduit stopper for M25, M32 Description Order. Ref. No VPE

Universal installation housing with additional connection space (e.g. for fitting a safety transformer (*) for site cast or precast concrete structures, for the installation of LV/HV/LED luminaires (*1) and loudspeakers. Suitable for adhesive fixing and opposing formwork

, , , , , , , , , , , , , , , , , , , ,		3 - 111 - 3	
IBTronic-TT H120T outlet aperture:	T-S1-0 1-way receptacle	976 301 01	6
IBTronic-TT H120T outlet aperture:	T-S2-0 2-way receptacle	976 302 01	6
IBTronic-TT H120T outlet aperture:		976 305 01	6
IBTronic-TT H120T outlet aperture:		976 303 01	6
IBTronic-TT H120T outlet aperture:		976 304 01	6
outiet aperture.	variable up to max. Ø 100 mm	370 304 01	Ü

Accessories









Recommended accessories:

Blank cleat AS for opposition 2 off required per installation		979 532 01	200
	g the IBTronic housing in ays used in conjunction with = Wall thickness minus 1 cm		
Wall thickness	Spar length		
18 cm	17 cm	979 670 01	400/50
20 cm	19 cm	979 690 01	400/50
24 cm	23 cm	979 730 01	300/50
25 cm	24 cm	979 740 01	300/50
30 cm	29 cm	979 790 01	200/50
Fermacell®-plate for retrofitting in H120TT-	.P-0	979 801 01	10
Hole cutter, Ø 120 mm		925 121 01	1

^(*) Electronic transformers up to max. 150 W (e.g. OSRAM HALOTRONIC®, HTM 150 Mouse)(*1)
For the installation of VDE approved luminaires to DIN EN 60598 (VDE 0711) and with 🌃 or 🖫 warking
Maximum installation height Low-voltage luminaires: 120 mm, High-voltage luminaires: 125 mm, Lamp wattage rating max. 50 Waccessories



Manufacturing process

Table 1:	: Properties of the materials used for the IBT range																	
Material:		Products used in:	Weak acid	Strong acid	Weakalkali	starke Lauge	Alcohol	Petrol	Benzene	Mineral oil	Diesel	Ammonia	Vegetable fats	Animal fats	Free of halogen heavy metals, PVC an silicon	Burning characteristics to VDE 0471 / EN 60695 / UL 94	Max. ambient temperature, short term (1 hour)	Application temperature range. Continuos
Polystyrene, impact resistan	t	UP 015-distribution set, Sealing cap K	•	•	•	•	•	\otimes	\otimes	•	\otimes	•	•)	Yes ¹	960°C / V-2	+80°C	-40°C to +70°C
Polypropylen		IBT boxes IBTronic IBTronic-TT	•)	•)	•	•	•)	•	•	•	•	Yes	650°C / HB	+120°C	-30°C to +100°C

¹⁾ The base material is halogen-free. Only the flame-proofing additive added to the base material has a very low percentage (up to approximately 6%). All data is according to the details given by the manufacturers, with no guarantee.

Manufacturing process in concrete structures.

1. Large panel structures

means the industrial production of wall and ceiling elements in a concrete factory and is done by pouring the concrete into horizontal or vertical formwork (battery formwork, vibratory and tilting tables etc.) The pre-cast concrete components are transported to the building site and assembled there. The production of partially finished ceilings (filigree ceilings) saves setting up ceiling formwork on site. Installation boxes U 86 and U 120 can for example be inserted into the filigree ceilings.

They protrude from the ceiling panel and are fitted with installation conduits on the building site. After this concrete is poured in up to the full ceiling thickness.

2. Site cast or poured concrete.

means an individual installation on site. Here a distinction is made between horizontal formwork (e.g. ceiling formwork) with only one formwork side and vertical formwork with two formwork sides (working formwork with opposing formwork).

Working formwork (see also page 13 Direct Formwork).

Fitting the boxes and receptacles onto the first, existing formwork (working formwork) is ideal because it is particularly easy and quick. After fitting the conduits into the system and inserting the steel reinforcement, the second formwork (opposing formwork) is set to the distance required for the wall. After pouring and setting of the concrete, the working formwork removed, at the same time pulling off the front faces of the receptacles and boxes. Now the operating equipment (switches and plug sockets) can be fitted.

Opposing formwork (see also page 14)

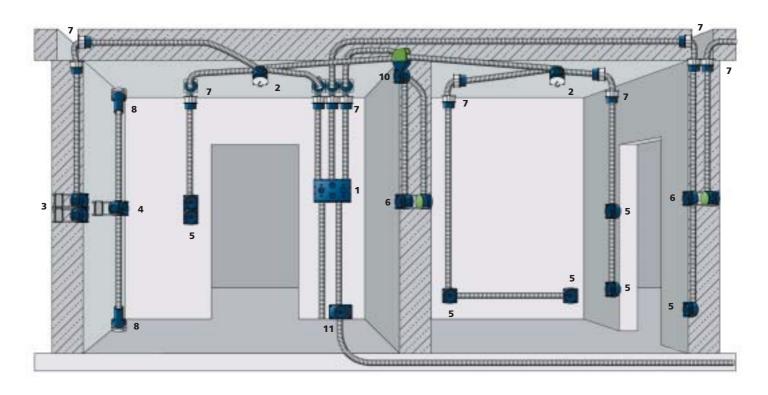
When installing the boxes and receptacles opposite to the existing formwork, we speak of opposing formwork.

Here firstly the blank base is mounted on the working formwork, then the boxes and receptacles are set to the distance required for the wall with support spars. The length of the support spar for this is "wall thickness minus 1 cm", regardless of which boxes and receptacles are used. The only thing important for the length of the support spar is the thickness of the wall! The necessary stability for the system is achieved due to the pressure exercised on the structure as the second formwork is "positioned".

N.B.: The formwork standing time needed for the concrete to set must be complied with.

All details are given without guarantee. We reserve the right to make improvements in the interests of technical progress.

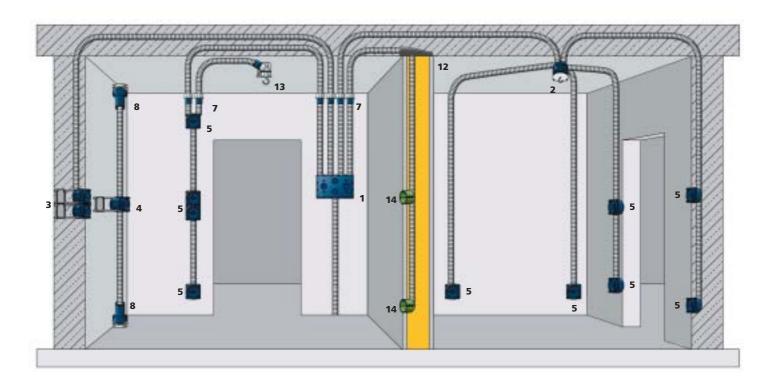
TECHNICAL INFORMATION



Precast component construction

Nr.		Description	Order. Ref. No.	Page	Nr.		Description	Order. Ref. No.	Page
1	130	Installation box K 4 Distribution set UP 015	980 004 01 986 000 01		6		U 71 receptacle or alternatively U 71 Equipment junction box as a double box with 2 support spars	971 045 01 971 065 01 979 570 01	28
2		U 71 ceiling junction box with ceiling hook and sealing cap	971 066 01 979 117 01 979 100 01	30	7	22	Conduit ferrule alternatively with conduit elbow for small conduit bend angle	970 518 01 970 425 01	
3	1	U 71 Equipment junction box with 2 support spars and 1 blank base for opposing formwork	971 065 01 979 570 01 979 530 01	28	8	1	Cone funnel for risers	970 618 01	32
4		U 71 Large conduit box with 2 support spars and 1 blank base for opposing formwork	972 960 0° 979 570 0° 979 530 0°	29	10		Dome box and supplementary option connection box	970 550 01 970 690 01	
5		U 71 receptacle or alternatively U 71 equipment junction box	971 045 01 971 065 01		11	10	K0 Transfer box	977 001 01	34

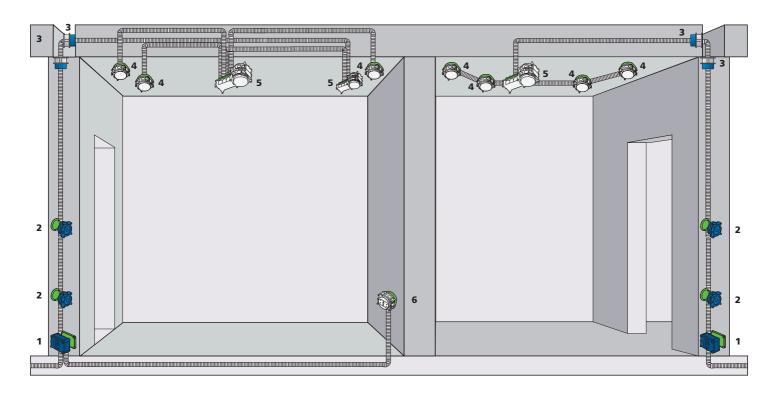




Site cast concrete construction

Nr.	Description	Order. Ref. No.	Page	Nr.		Description	Order. Ref. No.	Page
1	Installation box K 4 Distribution set UP 015	980 004 0° 986 000 0°		7	22	Conduit ferrule alternatively with conduit elbow for small conduit bend angle	970 518 01 970 425 01	31 31
2	U 71 ceiling junction box with ceiling hook and sealing cap	971 066 0 979 117 0 979 100 0	1 30	8	1	Cone funnel for risers	970 618 01	32
3	U 71 Equipment junction box with 2 support spars and 1 blank base for opposing formwork	971 065 0° 979 570 0° 979 530 0°	28	12	1	DAL 1 ceiling outlet cleat, M20 DAL 2 ceiling outlet cleat, M25 DAL 4 ceiling outlet cleat, M32	970 705 01 970 706 01 970 704 01	33
4	U 71 Large conduit box with 2 support spars and 1 blank base for opposing formwork	972 960 0 979 570 0 979 530 0	1 29	13	100	Conduit ferrule/conduit elbow for installation in concrete for conduit type M20 conduit type M25 conduit type M32	970 720 01 970 725 01 970 732 01	
5	U 71 receptacle or alternatively U 71 equipment junction box	971 045 0° 971 065 0°		14	<u>j</u> ©	HW 050 Cavity wall-receptacle or HW 065 Cavity wall junction box See Full Catalogue	920 050 01 920 065 01	

TECHNICAL INFORMATION



Precast component construction

Nr.		Description	Order. Ref. No.	Page	Nr.	Description	Order. Ref. No.	Page
1		K0 Transfer box	977 001 01	34	6	IBTronic H120-S2 outlet aperture 2-way receptacle	976 002 01	52
2		U 71 receptacle or alternatively U 71 equipment junction box	971 045 01 971 065 01					
3	2 E	Conduit ferrule alternatively with conduit elbow for small conduit bend angle	970 518 01 970 425 01					
4		IBTronic H120-P outlet aperture Fermacell® plate variable up to Ø 100 mm or alternatively see P. 52-55	976 004 01	52				
5		IBTronic TT H120TT-P-0 outlet aperture Fermacell® plate variable up to Ø 100 mm or alternatively see P. 52-55	976 304 01	55				



Suitable installation conduits

IBT-boxes and boxes are equally suitable for smooth and corrugated Installation conduits.

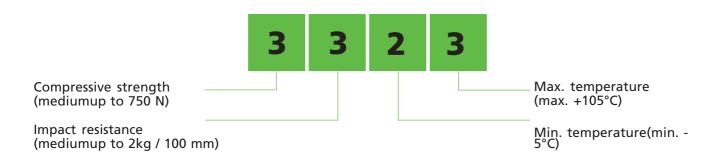
DIN EN 50086 applies here. The nominal sizes have the following external gradations (to DIN/EN 60423) in mm:

EN 16, EN 20, EN 25, EN 32, EN 40, EN 50, and EN 63

With these new standards the designations also alter:

From the former letter code (e.g. "AS" = heavy compressive stress) a numeric coding with at least 4 digits is now used, from which the most important properties of the products can be read off, such as compressive strength, impact resistance and lower and upper application temperature. A conduit with the following code would be suitable for installation in concrete:

Classification code for conduits to DIN EN 50086



First character: compressive strength

1 = very light	2 = light	3 = medium	4 = heavy	5 = very heavy
125 N	320 N	750 N	1250 N	4000 N

Second character: impact resistance (drop energy)

1 = very light	2 = light	3 = medium	4 = heavy	5 = very heavy
0.5ka/100mm	1ka/100mm	2ka/100mm	2ka/300mm	6.8ka/300mm

Third character: Minimum temperature range Transport, Use, Installation

$$1 = +5^{\circ}C$$
 $2 = -5^{\circ}C$ $3 = -15^{\circ}C$ $4 = -25^{\circ}C$ $5 = -45^{\circ}C$

Fourth character: Maximum temperature range Transport, Use, Installation

$$1 = +60^{\circ}\text{C}$$
 $2 = +90^{\circ}\text{C}$ $3 = +105^{\circ}\text{C}$ $4 = +120^{\circ}\text{C}$ $5 = +150^{\circ}\text{C}$

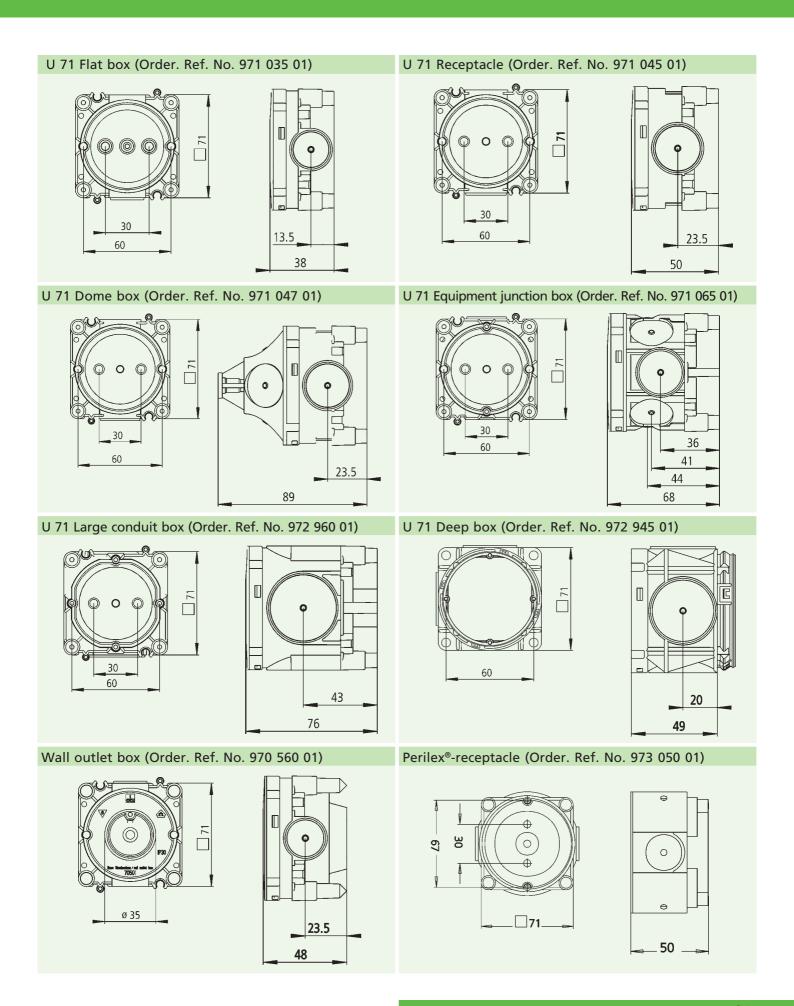
You can get further information e.g. from the conduit manufacturers:

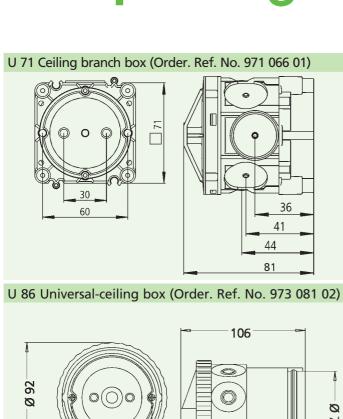
Fränkische Rohrwerke, Gebr. Kirchner GmbH & Co. KG, Hellinger Str. 1,486 Königsburg / Bayern, telephone: +49 (0) 95 26 / 88-0 **Hegler Plastik GmbH**, Hegler Str. 8,714 Oerlenbach, telephone: +49 (0) 25 / 66-0

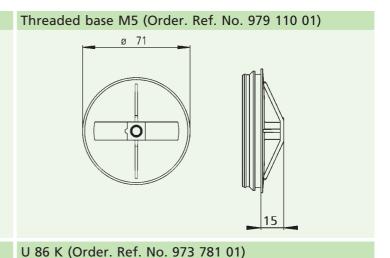
Pipelife Deutschland GmbH, Steinfeld 40, 26160 Bad Zwischenahn, telephone: +49 (0) 44 03 / 6 05-0

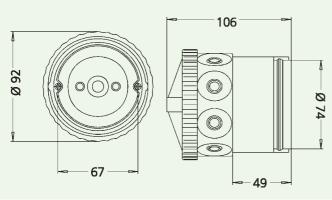
Pipelife Austria GmbH & Co. KG, IZ NO-Süd, Straße 1, A-2355 Wiener Neudorf, telephone: +43 (0) 2236 / 6702-0

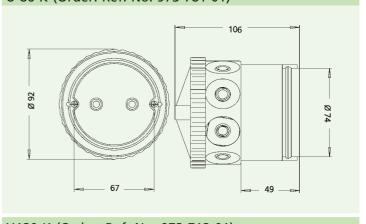
TECHNICAL INFORMATION

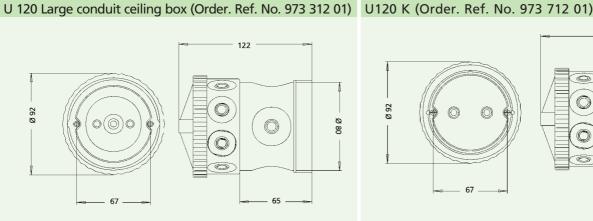


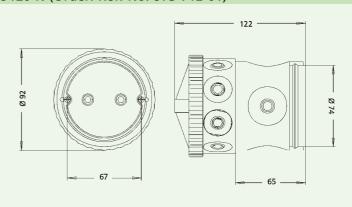


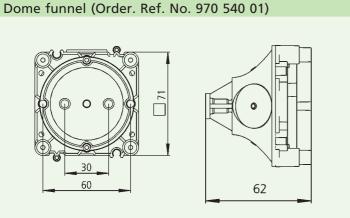


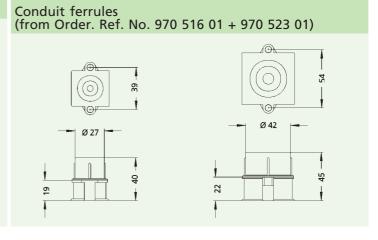






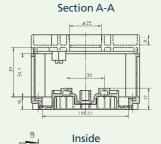


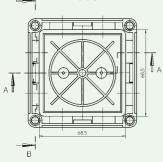


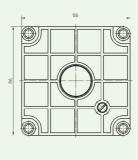


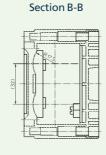
TECHNICAL INFORMATION

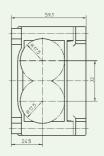
BS 1 (Order. Ref. No. 974 001 01)

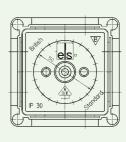




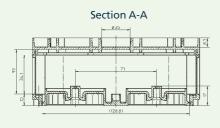


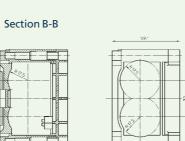


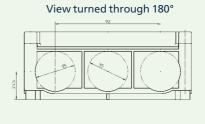


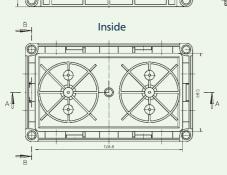


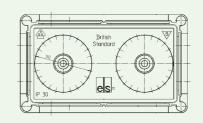
BS 2 (Order. Ref. No. 974 002 01)



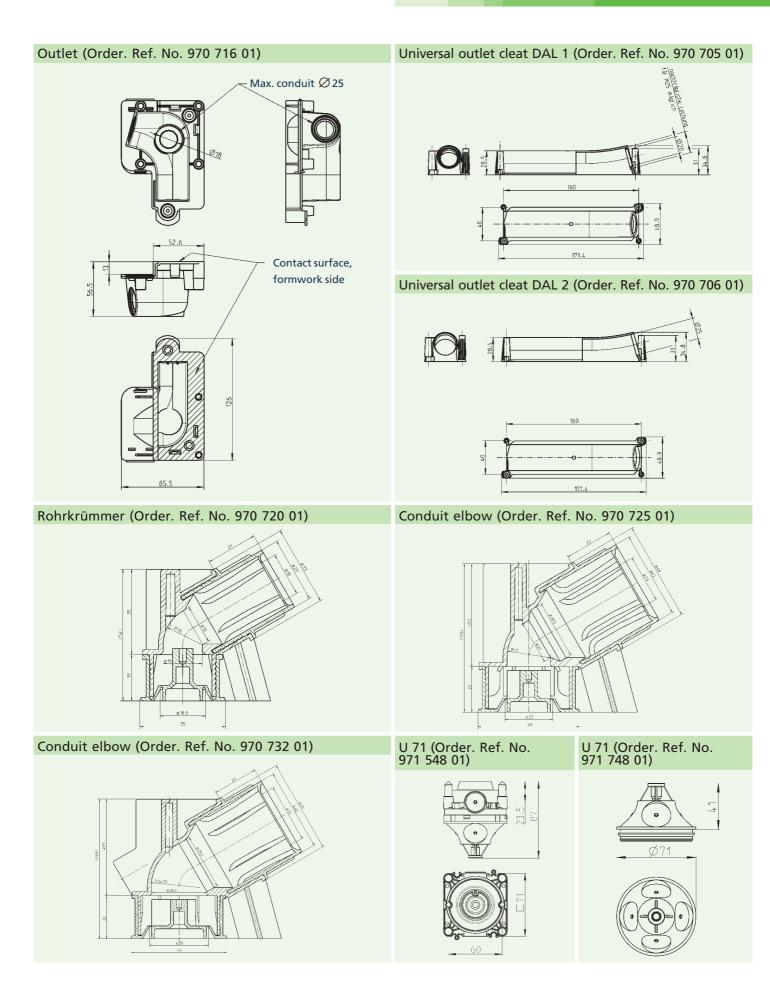




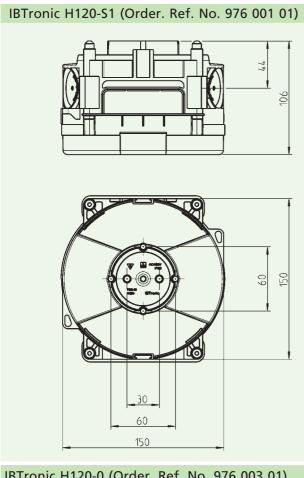




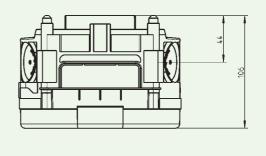
els spelsberg

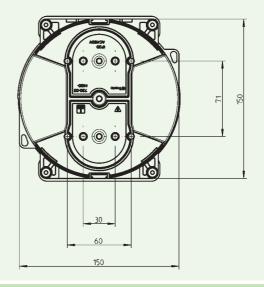


TECHNICAL INFORMATION

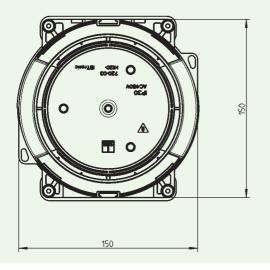


IBTronic H120-S2 (Order. Ref. No. 976 002 01)

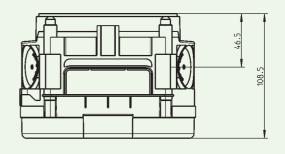


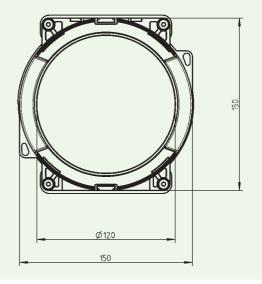


IBTronic H120-0 (Order. Ref. No. 976 003 01)



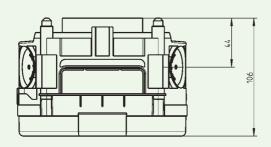
IBTronic H120-P (Order. Ref. No. 976 004 01)

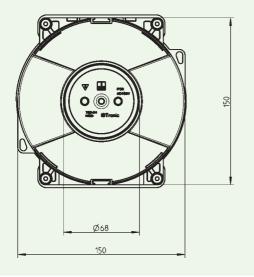




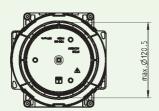


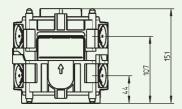
IBTronic H120-68 (Order. Ref. No. 976 005 01)

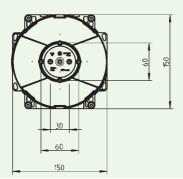




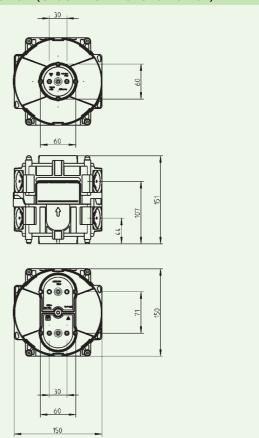
IBTronic H120-S1-0 (Order. Ref. No. 976 103 01)



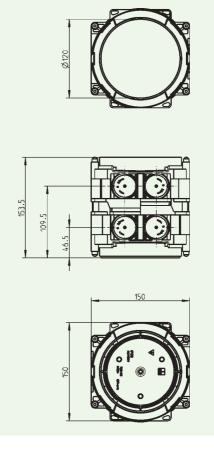




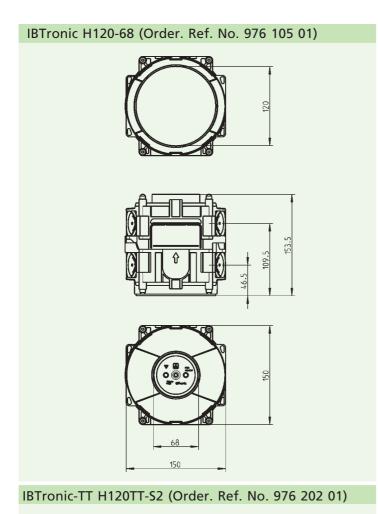
IBTronic H120-S1-S2 (Order. Ref. No. 976 101 01)



IBTronic H120-P-0 (Order. Ref. No. 976 104 01)

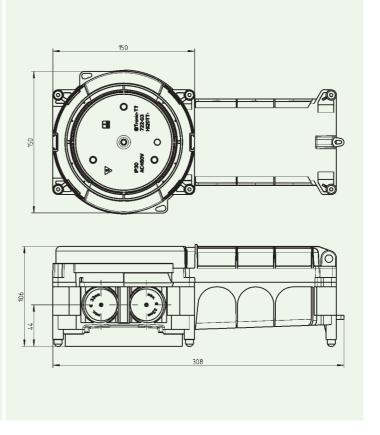


TECHNICAL INFORMATION

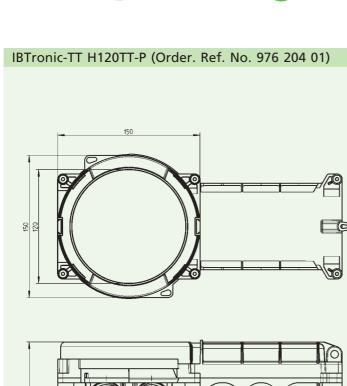


IBTronic-TT H120TT-S1 (Order. Ref. No. 976 201 01)

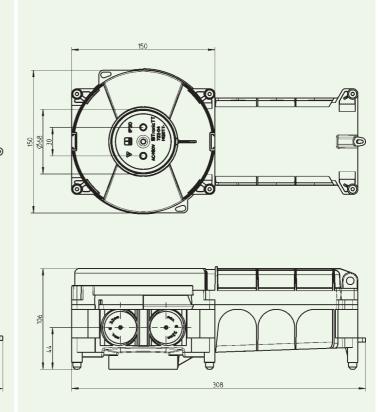
IBTronic-TT H120TT-0 (Order. Ref. No. 976 203 01)



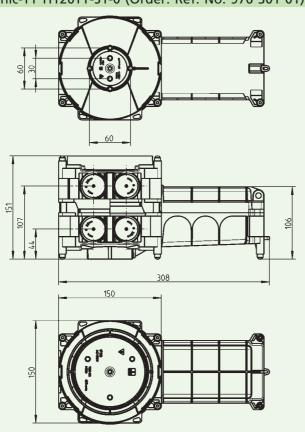
els spelsberg

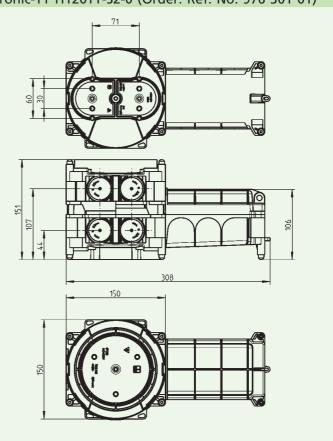


IBTronic-TT H120TT-68 (Order. Ref. No. 976 205 01)

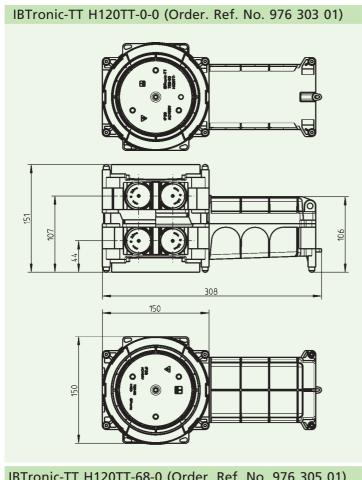


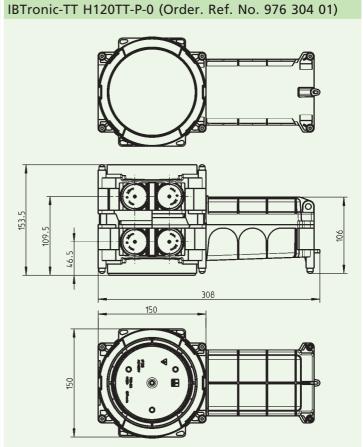
IBTronic-TT H120TT-S1-0 (Order. Ref. No. 976 301 01) IBTronic-TT H120TT-S2-0 (Order. Ref. No. 976 301 01)



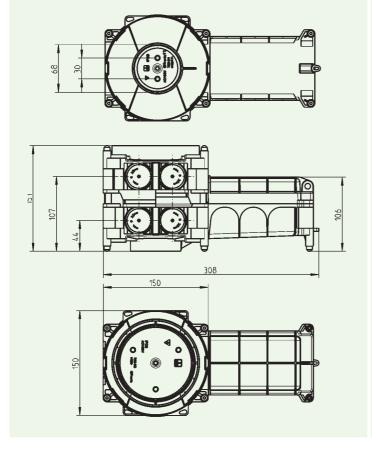


TECHNICAL INFORMATION



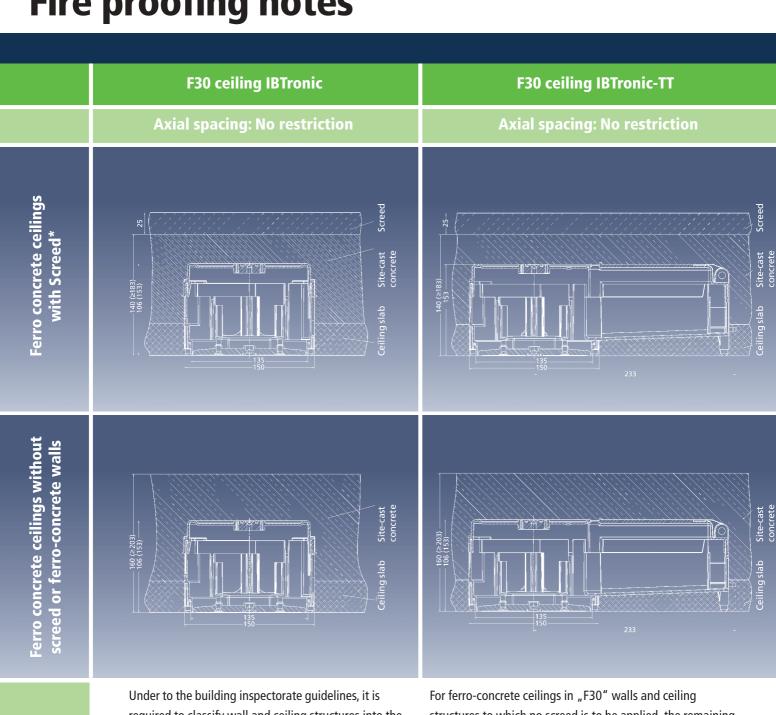


IBTronic-TT H120TT-68-0 (Order. Ref. No. 976 305 01)





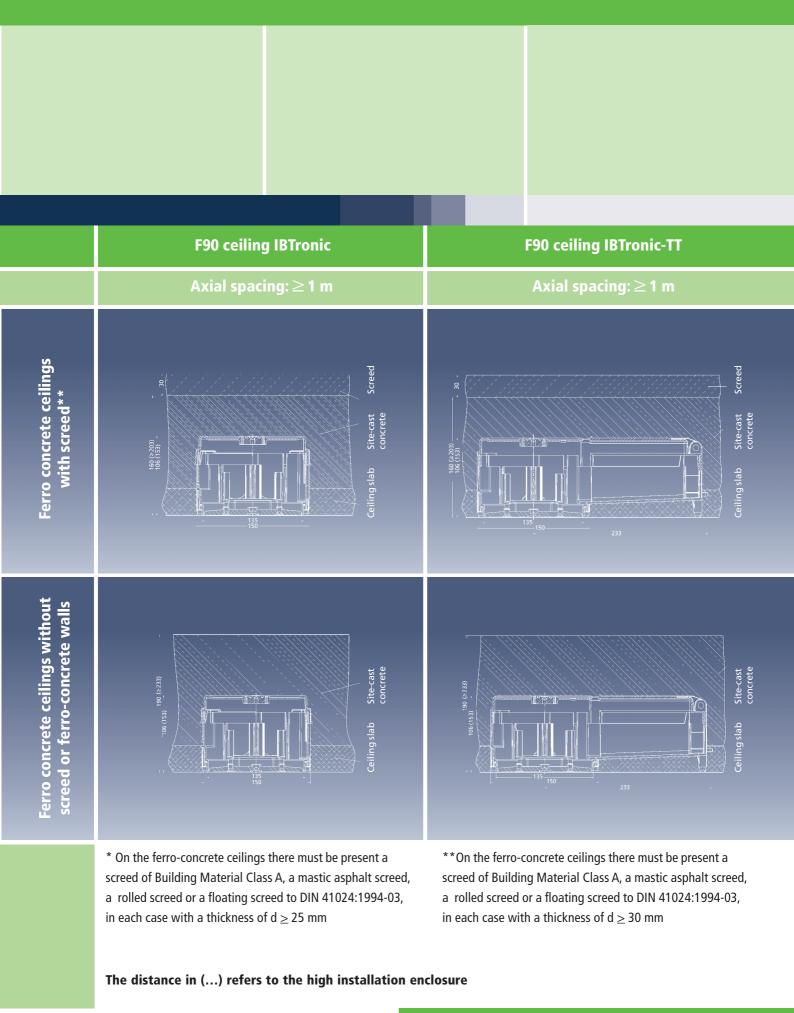
Fire proofing notes



required to classify wall and ceiling structures into the Fire Resistance Class "F30" or "F90" respectively, depending on the type and use of the building. The table shows the conditions under which the IBTronic and IBTronic-TT enclosures can be used in ferroconcrete walls and ceilings.

structures to which no screed is to be applied, the remaining residual cross sectional thickness above the built in enclosures must be at least 50 mm. For ferro-concrete ceilings in "F90" walls and ceiling structures to which no screed is to be applied, the remaining residual cross sectional thickness above the built in enclosures must be at least 80 mm.

TECHNICAL INFORMATION



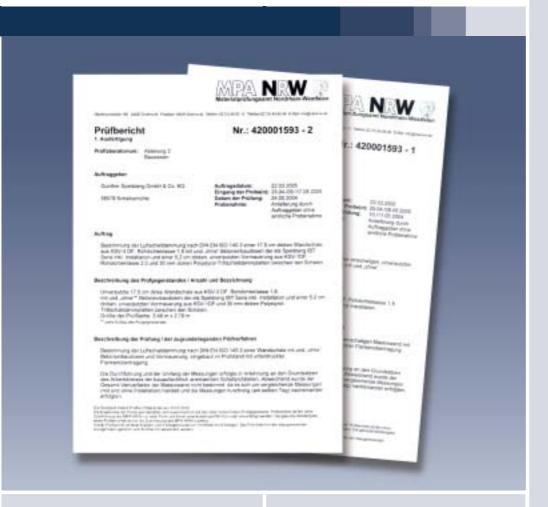


Fire proofing notes



The current experts report on the behaviour in fire of ferro-concrete wall and ceiling structures with integral Spelsberg installation enclosures can be requested at any time

Sound proofing notes



The IBTronic and IBTronic-TT enclosures have been tested in single skin solid walls and multi-skin wall shells.

The airborne sound insulation measurements show that the Spelsberg IBT / IBTronic and IBTronic-TT concrete installation enclosures do not fundamentally affect the deadening of airborne sound.

The current test certificate on determination of the deadening of airborne sound can be requested at any time.



els spelsberg

Order No	Description D	iscount Gr	oup	Price	EUR/100	VPE* P	ack qty	
46050601	Terminal block 6 ²		140		477.00		1	
46051001	Terminal block 10 ²		140		491.00		<u>.</u> 1	
46051601	Terminal block 16 ²		140		907.00		<u>.</u>	
46053501	Terminal block 25 ²		140	:	3.010.00		<u>_</u>	
84000401	Terminal block 2.5- 4 ²		120		124.00		160	
92510001	Sealing cap 67		100		40.00		300/10	
92510101	Sealing cap 60		100		40.00		300/10	
92512101	Hole cutter 120.		100	1:	3,200.00		1	
97022001	Conduit connector M2		520	- 1.	57.80		100	
97022501	Conduit connector M2		520		90.60		50	
97023201	Conduit connector M3		520		131.00		25	
97023201	Conduit connector M4		520 520		224.00		25	
97031801	Conduit ferrule - seali			0	13.10	15	00/250	
97032301	Conduit ferrule - seali				18.50		50/125	
97033001	Conduit ferrule - seali				33.80		300/50	
97042501	Conduit elbow small		520	0	42.00		300	
97043001	Conduit elbow mediur		520 520		96.00		120	
97043501	Conduit elbow large		520		96.00		120	
97050001	Blanking plug. f. Cond				25.10		150	
97050501	Blanking plug. f. Cond				37.00		90	
97051801	Conduit ferrule 18 mn		520 520		37.00		210	
97052301	Conduit ferrule 23 mn		520 520		62.00		90	
97053001	Conduit ferrule 30 mm		520		62.00		90	
97053701	Conduit ferrule 37 mm		520 520		303.00		100	
97054001	Dome funnel		520 520		99.00		150	
97055001	Dome box		520		106.00		100	
97056001	Wall outlet box		520		123.00		100	
97056201	Sealing cap		520		29.00	6	00/100	
97061801	Cone funnel 18 mm		520		120.00		70	
97062301	Cone funnel 23 mm		520		222.00		60	
97063001	Cone funnel 30 mm		520		222.00		60	
97063701	Cone funnel 37 mm		520		222.00		1	
97069001	Junction box		520		227.00		1	
97070401	Universal Outlet cleat				510.00		50	
97070501	Universal Outlet cleat		520		106.00		100	
97070601	Universal Outlet cleat		520		106.00		100	
97071601	Universal outlet 90°		520		169.00		90	
97072001	Conduit elbow small o		520		118.00		300	
97072501	Conduit elbow mediur				237.00		120	
97073201	Conduit elbow large o	omplete	520		240.00		120	
97074801	U 71 Dome cover with		bush	ı	520		152.00	150
97103501	U 71 Flat box		520		121.00		100	
97104501	U 71 receptacle		520		117.00		100	
97104502	U 71 D receptacle		520		117.00		100	
97104701	U 71 dome box		520		115.00		100	
97106501	U 71 Branch switch bo		520		142.00		80	
97106601	U 71 ceiling -Branch b		520		175.00		50	
97124801	U 71 Dome box with t			20	152.00		100	
97136501	U 71 Equipment juncti				520		168.00	80
	1 1 2 1							_

Order No	Description Discount	Group Prio	ce EUR/100 VI	PE* Pack qty
97154801	U 71 Ceiling connection box	520	158.00	100
97174501	U 71 K Switch box	520	117.00	100
97174301	Dome threaded bush U71	520	85.00	100
97174801	U 71 K	520	142.00	80
97176601	U 71 K ceiling box	520	175.00	50
97186501	U 71 Equipment junction Box		520	168.00 80
97186601	U 71 K ceiling box	520	175.00	50
97276001	Large Conduit box K	520	136.00	75
97292501	U 71 Deep box M25	520	100.00	100
97294501	U 71 Deep box M32	520	92.00	100
97296001	U 71 Large Conduit box	520	147.00	75
97305001	Perilex-Box	520	208.00	50
97308102	U 86 Universal-ceiling box	520	200.00	50
97331201	U 120 3-piece	520	289.00	35
97371201	U 120 K 2-piece	520	211.00	40
97371301	U 120 K 2-piece	520	278.00	35
97378101	U 86 K	520	202.00	50
97378301	U 86	520	241.00	50
97400101	Universal box BS 1	520	371.00	50
97400201	Universal box BS 2	520	465.00	30
97410001	Sealing cap BS 1	520	123.00	150/25
97410201	Sealing cap BS 2	520	183.00	90/15
97412001	Assembly bridge BS 1/BS 2	520	27.00	1000
97413001	Installation screw 3.5 x 30	520	9.78	4000/1000
97413501	Installation screw 3.5 x 40	520	12.00	3000/750
97415001	Installation screw 3.5 x 50	520	16.30	2000/500
97443101	Blank base BS 1	520	75.30 100	2000/300
97443201	Blank base BS 2	520	107.00	60
97500101	Special box K 1	520	325.00	50
97500201	Special box K2	520	467.00	30
97510001	Sealing cap K 1	520	78.00	150/25
97510201	Sealing cap K 2	520	120.00	90/15
97600101	IBTronic H120-S1	520	880.00	10
97600201	IBTronic H120-S2	520	880.00	10
97600301	IBTronic H120-0	520	880.00	10
97600401	IBTronic H120-P	520	1560.00	10
97600501	IBTronic H120-68	520	880.00	10
97610101	IBTronic H120-S1-S2	520	920.00	12
97610301	IBTronic H120-S1-O	520	920.00	12
97610401	IBTronic H120-P-O	520	1650.00	12
97610501	IBTronic H120-68-0	520	920.00	12
97620101	IBTronic H120TT-S1	520	1730.00	8
97620201	IBTronic H120TT-S2	520	1730.00	8
97620301	IBTronic H120TT-0	520	1730.00	8
97620401	IBTronic H120TT-P	520	2390.00	8
97620501	IBTronic H120TT-68	520	1730.00	8
97630101	IBTronic H120TT-S1-O	520	1820.00	6
97630201	IBTronic H120TT-S2-O	520	1820.00	6
97630301	IBTronic H120TT-0-0	520	1820.00	6
37030301	ID HOME HIZOH U-U	320	1020.00	

Order No	Description Discount G	iroup	Price EUR/100 V	PE* Pack qty
97630401	IBTronic H120TT-P-O	520	2550.00	6
97630501	IBTronic H120TT-68-0	520	1820.00	6
97700101	Transfer box K 0	520	213.00	50
97700201	special box K 15	520	347.00	30
97710001	Sealing cap K 0	520	89.00	180/30
97710501	Sealing cap K 15	520	132.00	90/15
97810001	Hand hole punch, without punch	ch520	6.700.00	1
97811801	Hand hole punch, with punch	520	10.800.00	1
97812301	Hand hole Punch, with punch	520	10.800.00	1
97880801	Punch 8 mm	520	1.160.00	1
97881401	Punch 14 mm	520	1.160.00	1
97881801	Punch 18 mm	520	1.160.00	1
97883001	Punch 30 mm	520	7.400.00	1
97883901	Punch 39 mm	520	8.120.00	1
97891001	Punch 10 mm for hand punch	520	4.200.00	1
97891401	Punch 14 mm for hand punch	520	4.200.00	1
97891801	Punch 18 mm for hand punch	520	4.200.00	1
97892301	Punch 23 mm for hand punch	520	4.500.00	1
97910001	Unit cover	520	40.00	200/25
97910201	Damp room cover U 71	520	62.20 100/10	
97910301	Damp room cover U 86	520	119.00	100/10
97910401	Universal cover, plug in	520	55.00	100/10
97910501	Installation screw 3.1 x 10	520	4.68	400
97910601	Installation screw 3.1 x 18	520	4.60	250
97910701	Installation screw 3.1 x 25	520	5.82	200
97910901	Conduit stopper U71	520	104.00	1
97911001	Threaded base M 5	520	73.00	120
97911501	Ceiling hook 55 mm	520	62.00	600/100
97911601	Ceiling hook 90 mm	520	68.00	600/100
97911701	Ceiling hook 75 mm	520	65.00	600/100
97911801	Ceiling hook 65 mm	520	62.00	600/100
97911901	Ceiling hook 100 mm	520	78.00	600/100
97912001	Ceiling hook 65 mm	520	65.00	600/100
97912101	Ceiling hook 115 mm	520	89.00	600/100
97912201	Ceiling hook 90 mm	520	73.00	600/100
97912301	Ceiling hook 135 mm	520	106.00	600/100
97913501	Spacer	520	29.00	300
97913601	Clip	520	17.00	2000/100
97915501	Expansion mandrel	520	146.00	90/15
97916001	Hole saw	520	2.250.00	120
97916201	Hole Punch	520	67,800.00	1
97920501	IBT-plug	520	3.33	6000/1000
97921001	Compound nipple	520	9.40	900/150
97921201	Interconnection frame 71 mm	520	11.50	900/150
97921301	Interconnection frame 80/85 m	m520	29.00	450/75
97921401	Interconnection frame 90 mm	520	54.00	600/100
97921501	Interconnection frame 105 mm	520	54.00	600/100
97923001	Conduit support	520	563.00	25/1
97924001	Spreader nail	520	14.00	1800/300

Order No	Description Dis	count Group	Price EUR/100 V	'PE* Pack qty
97924201	Alum. nail serrated	520	9.40	4800/800
97924301	Alum. nail smooth	520	9.40	4800/800
97924501	Support clip	520	17.50	600/100
97924801	Adhesive blank	520	50.00	1200/200
97925001	Support flange	520	33.00	300/50
97926001	Connecting screw	520	10.90	50
97926601	Double screw	520	51.00	30
97928001	Magnetic clamp	520	1.220.00	3
97929901	Magnetic clamp	520	2.030.00	3
97953001	Blank base U 71	520	74.00	80
97953002	Blank base U 71	520	74.00	80
97953101	Blank cleat K 1 and K 2	2 520	43.70	200
97953201	Blank cleat AS	520	44.70	200
97953501	Support buffer	520	6.55	6000/1000
97953601	Cartridge insert	520	4.37	300
97953801	Adhesive blank base U	71 K 520	74.00	80
97953901	Magnet blank base U	71 520	74.00	80
97957001	Support spar 70 mm	520	27.20	1000/50
97959001	Support spar 90 mm	520	28.40	600/50
97961001	Support spar 110 mm	520	30.70	600/50
97963001	Support spar 130 mm	520	31.70	500/50
97964001	support spar 140 mm	520	31.70	500/50
97965001	support spar 150 mm	520	32.80	400/50
97967001	support spar 170 mm	520	33.80	400/50
97969001	support spar 190 mm	520	36.40	400/50
97973001	support spar 230 mm	520	39.50	300/50
97974001	support spar 240 mm	520	39.50	200/50
97979001	support spar 290 mm	520	42.60	200/50
97980001	NS 35 mm	900	230.00	1
97980101	Fermacell Plate	520	720.00	10
98000201	Branch box K 3	520	803.00	15
98000401	Branch box K 4	520	1.980.00	4
98000501	Branch box K 4-H	520	On Enquiry	1
98010001	Sealing cap K 3	520	300.00	50/10
98010401	Sealing cap K 4	520	725.00	10
98010501	Divider K 3	520	49.00	300/30
98010801	Sealing cap K 8	520	2380.00	1
98011201	Sealing cap K 12	520		1
98600001	Distribution set UP 01	5 300		6/1
98800201	Installation box K8	520		1
98800301	Installation box K12	520		1



We are committed to you!



Simply manufacturing good products is no longer enough these days.

The variety and complexity of the tasks set by our customers and partners demand practical total solutions, optimal application and the greatest availability. With our extensive service programme we are thus actively committed to your requirements and satisfaction.

We are committed to you!



You can find our round the clock online support, with all important product information – from technical details right up to test results – on our website:

www.spelsberg.de







Not only as a manufacturer, but also as your value creation partner.

Uncomplicated, individual dialogue is important for this — so we are personally available — quickly and flexibly.

We have set up an expert hot line for special installation themes

Hotline IBT: 0 23 55/ 892 - 175 Hotline IBTronic: 0 23 55/ 892 - 156

- Current exhibition dates
- Downloads, such as tendering texts
- New products

and much more





Our agencies in Germany





- ▲ The Spelsberg main plant in Schalksmühle concentrates our activities on one site and ensures short communication channels and quick decisions.
- ◆ The Spelsberg subsidiary plant in Buttstädt, Thüringen guarantees a fast delivery service in former East Germany

Hotline IBT: 0 23 55/ 892 - 175 Hotline IBTronic: 0 23 55/892 - 156

www.IBTronic.de



Hamburg region Helge Böhmer GmbH Siemensstraße 11 25462 Rellingen

Telephone: 0 41 01 / 3 30 55 0 41 01 / 3 30 09 Telefax: info@hbh-boehmer.de e-mail: www.hbh-boehmer.de Internet:

Bremen region

Geisthardt GmbH Industrie-Vertretungen Gewerbepark 8

26209 Hatten - Munderloh Telephone: 0 44 82 / 92 88-12/13/14

0 44 82 / 92 88-44/99 Telefax: e-mail: info@geisthardt.de Internet: www.geisthardt.de

Lower Saxony region Claus Henter

Elektrotechnische Industrievertretung Wiesenweg 1

37589 Echte

Telephone: 0 55 53 / 9 92 20 0 55 53 / 99 22 20 Telefax:

e-mail: henter-vertretung@t-online.de Internet: www.henter-vertretungen.de

Berlin region

Mr. Alexander Schwarz Mobile: 01 60/ 6 11 36 68 e-mail: asw@spelsberg.de Günther Spelsberg GmbH + Co. KG

Im Gewerbepark 1 58579 Schalksmühle Telephone: 0 23 55 / 8 92-135

Telefax: 0 23 55 / 8 92-299 Internet: www.spelsberg.de

Westphalia region

Volker Spelsberg Industrie-Vertretungs-GmbH 58579 Schalksmühle

Telephone: 0 23 55 / 90 88 10 Telefax: 0 23 55 / 90 88 19

Gewerbering 12 58579 Schalksmühle

info@volker-spelsberg.de e-mail: Internet: www.volker-spelsberg.de

Rhineland (North) region

Mr. Michael Deschouffour 01 70/ 8 13 39 39 e-mail: mde@spelsberg.de Günther Spelsberg GmbH + Co. KG Im Gewerbepark 1

58579 Schalksmühle

Telephone: 0 23 55 / 8 92-135 Telefax: 0 23 55 / 8 92-299 Internet: www.spelsberg.de

Rhineland (South) region

Mr. Volker Thomas

01 60 / 6 11 36 72 Mobile: e-mail: vth@spelsberg.de Günther Spelsberg GmbH + Co. KG

Im Gewerbepark 1 58579 Schalksmühle

Telephone: 0 23 55 / 8 92-135 Telefax: 0 23 55 / 8 92-299 Internet: www.spelsberg.de

Hessen Dillkreis region

R. Schaum Rheinstr. 8 35625 Hüttenberg

Telephone: 0 64 03 / 9 11 90 0 64 03 / 91 19 20/21 Telefax: e-mail: Info@schaum.tobit.net Internet: www.schaum-net.de

Baden region

Hipp Industrievertretungs-GmbH Zum Engelberg 4 79249 Merzhausen b. Freiburg Telephone: 07 61 / 40 24 25 Telefax: 07 61 / 40 83 51 e-mail: info@hipp-gmbh-fr.de

Saarland region

Alfons Schmidt GmbH Gewerbegebiet Heeresstr. / Postfach 1149

66822 Lebach

Telephone: 0 68 81 / 9 35 60 0 68 81 / 40 51 Telefax: e-mail: info@schmidt-lebach.de

Württemberg region

Schützinger Labor-Schütz GmbH Industrievertretungen Eichwiesenring 6

70567 Stuttgart Telephone: 07 11 / 7 15 46 50 Telefax: 07 11 / 7 15 46 60 07 11 / 7 15 46 30 Telefax: (Order processing)

hv-hh@schuetzinger.de e-mail: Internet: www.schuetzinger.de

North Bavaria region

(Except concrete and cavity wall systems) Haaq OHG Am Farrnbach 5 90556 Cadolzburg

Telephone: 0 91 03 / 9 88 0 91 03 / 9 16 Telefax: haag@haag-elektro.de Internet: www.haag-elektro.de

North Bavaria region

(Concrete- and cavity wall systems) Bernd Schneiderheinze Elektro-Vertretung Gewerbegebiet V Mühlsteig 20 D-90579 Langenzenn Telephone: 0 91 01 / 90 48 10

Telefax: 0 91 01 / 90 48 25 e-mail: elektro@schneiderheinze.de Internet: www.schneiderheinze.de

South Bavaria region

Mr. Peter Mayr

01 / 400 43 05 Mobile: pma@spelsberg.de e-mail: Günther Spelsberg GmbH + Co. KG

Im Gewerbepark 1 58579 Schalksmühle Telephone: 0 23 55 / 8 92-133

Telefax: 0 23 55 / 8 92-299 Internet: www.spelsberg.de

Saxony region

Mr. Matthias Heinig Mobile: 01 71/ 5 19 35 93 mhe@spelsberg.de e-mail: Günther Spelsberg GmbH + Co. KG

Vor dem Lohe 3

99628 Buttstädt/Thüringen Telephone: 03 63 73 / 9 84 00 Telefax: 03 63 73 / 9 84 99 Internet: www.spelsberg.de

Saxony-Anhalt region

Mr. Gordon Koch

Mobile: 01 75/ 2 08 80 84 e-mail: gko@spelsberg.de Mr. Matthias Heinig

01 71/5 19 35 93 Mobile: mhe@spelsberg.de Günther Spelsberg GmbH + Co. KG

Vor dem Lohe 3

99628 Buttstädt/Thüringen Telephone: 03 63 73 / 9 84 00 Telefax: 03 63 73 / 9 84 99 Internet: www.spelsberg.de

Thüringen region

Mr. Gordon Koch Mobile:

01 75 / 2 08 80 84 gko@spelsberg.de Günther Spelsberg GmbH + Co. KG

Vor dem Lohe 3

99628 Buttstädt/Thüringen Telephone: 03 63 73 / 9 84 00 03 63 73 / 9 84 99 Telefax: Internet: www.spelsberg.de



General conditions of business

- 1. For all deliveries
 - including deliveries from our agents' stocks
 - the following terms shall be applied:
- 1.1 "Manufacturers Warranty Terms for Installation Equipment and Systems"
- 1.2. "General Conditions for the Supply of Products and Services of the Electrical and Electronics Industry for Commercial Transactions between Businesses" in the latest version from the Zentralverband der Elektrotechnik und Elektronikindustrie (ZVEI) e.V.", the German Electrical and Electronic Manufacturers' Association
- 1.3. The "Supplementary Clause of Extended Reservation of Ownership" in the latest version from the Zentralverband der Elektrotechnik und Elektronikindustrie (ZVEI) e.V.", the German Electrical and Electronic Manufacturers' Association
- 1.4 In addition, the following paragraphs 2 to 12. We will happily send you the above mentioned rules, delivery terms and clauses, if required. The documents can also be downloaded from our web site (www.spelsberg.de). We herewith reject the conditions of purchase of our customer unless they are explicitly acknowledged by us. Our terms will be acknowledged as the sole binding legal foundation when delivery is taken. Order confirmations will only be sent if requested expressly.
- 2. Small orders
 Under 100 Euros gross there will be no discount but invoicing will be gross as net.
- Normal packaging
 is the smallest packing unit indicated in our
 catalogue. Should the ordered quantity not
 correspond with the quantities in our packing
 units, we will delivery the nearest packing unit.
- 4. Sea- proof packaging will be invoiced at a small surcharge only in case of packing in containers.
- Delivery freight prepaid (freight paid, packaging included) will be carried out within Germany for a net order value of more

than 1,000 Euros. Freight charges payable atdestination shall be borne by the receiver of the goods.

6. Dispatch will always be carried out at receiver's risk, even in case of agreed delivery freight prepaid.

7. Suitability and nature

Any details and information given concerning the suitability, nature and application of our goods shall not absolve our customer from conducting their own controls and tests. The customer processing our goods shall assume liability for regulations prescribed by law, public agencies and electricity supply companies.

8. Complaints

can only be acknowledged within 8 days of the receipt of the consignment.

On receipt of the goods, the person delivering the goods must confirm any visible transport damage with a signature on the relevant delivery notes.

9. Return of goods

shall be rejected in principle unless we have given our prior consent. In case of non-compliance, the company/person returning the goods shall assume liability for any costs and disadvantages incurred.

10. Our payment terms are

less 3 % cash discount within 10 days or net within 30 days. If the customer is in arrears with payment, we are entitled to claim interest at the usual bank rate. Should the customer's solvency be in doubt, particularly in the case of payment arrears, we are entitled, notwithstanding any other claims, to demand payment in advance or securities or revoke already granted credit terms.

11. Place of fulfilment

for delivery, payment and other contractual activities by both parties is Schalksmühle. The court of jurisdiction is Lüdenscheid. German law applies exclusively.

12. Data protection

We are entitled to use data obtained from the business relationship with our customers, regardless of origin, within the meaning of the BDSG (the German Federal Data Protection Act).







Günther Spelsberg GmbH + Co. KG

<u>Hauptverwaltung</u>

Im Gewerbepark 1, D-58579 Schalksmühle Postfach 15 20, D-58571 Schalksmühle

Telefon: 0 23 55 / 8 92-0 Telefax: 0 23 55 / 8 92-299 e-mail: info@spelsberg.de Internet: www.spelsberg.de

Werk Buttstädt

Vor dem Lohe 3, D-99628 Buttstädt Postfach 30, D-99627 Buttstädt Telefon: 03 63 73 / 98-400

Telefon: 03 63 73 / 98-400 Telefax: 03 63 73 / 98-499