

KAISER Electrical installation

Boxes, housings and systems

2020 / 2021



The basis for good installation

 **KAISER**



Dear partners and friends of good electrical installation,

in front of you are the latest innovations from KAISER. You can look forward to products from the areas of concealed, cavity wall and concrete construction that can be processed efficiently and safely.

Starting with our airtight flush-mounted boxes ECON® with multi-membrane, solutions in the area of cavity walls for network and data technology, sound insulation and new multiple boxes for quick and easy installation. Cavity wall installation on the construction site.

A special highlight is the new concrete construction program "B1" for in-situ concrete with many technical advantages. It sets standards for inlaid work and is perfectly adapted to Electrical installation work of the specialist trade after stripping the formwork optimised.

In addition, you will find further professional solutions in the areas of EMC cable glands, our new installation set "IP68BOX Outdoor" and the flexible spacer for free space in hollow ceilings.

With our future-oriented and proven solutions you can rely on leave our brand promise:
KAISER - The basis of good installation.

Burkard Kaiser
CEO
KAISER GmbH & Co. KG

Ulrich Kaiser
KAISER GmbH & Co. KG

Flush-mounting / masonry

Complete system for all flush-mounted/masonry applications.

Air-tight, fire protection, sound insulation, interior and exterior insulation and accessories.



FLUSH-MOUNTING

Cavity masonry

Complete system for all flush-mounted/masonry applications.

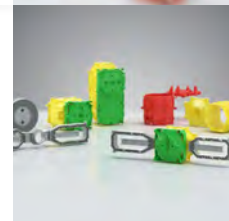
Air-tight, fire protection, sound insulation, interior and exterior insulation and accessories.



CAVITY WALL

Concrete construction

Boxes, housings, cable and conduit entry systems for on-site mixed concrete and precast concrete. Universal installation housing and international products for walls and ceilings.



CONCRETE

Installation housings

For lights, speakers, displays and more. For ceilings and walls. For fire protection requirements, insulated cavity ceilings and thermal insulation systems.



HOUSINGS

Fire protection

Box, housing and sealing systems for fire-protection walls and ceilings.



FIRE PROTECTION

Surface-mounted

Cable junction box for particularly damp environments.



SURFACE

Cable glands

The Syntec® professional product range in all sizes. Plastic and brass.



CABLE GLAND

Tools

Top-quality system tools for professional electrical installation.



TOOLS

Service

Easy to find. From communication to the article number. Digital aids from tender texts to BIM data and certificates.



SERVICE



Energy efficiency.

Flush mounting

Air-tight flush-mounting instal.	p. 24
Interior Insulation box	p. 48
Installation systems for insulated external facades	p. 52

Cavity wall

Air-tight cavity wall installation	p. 93
Air-tight sleeves	p. 112

Installation housings	p. 254
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Energy efficiency is an important part of the “energy revolution”. Considerable energy savings can be achieved in buildings by using professional insulation which complies with the current standards and regulations. This reduces the operating costs over the building’s entire life cycle, and at the same time it protects the environment.

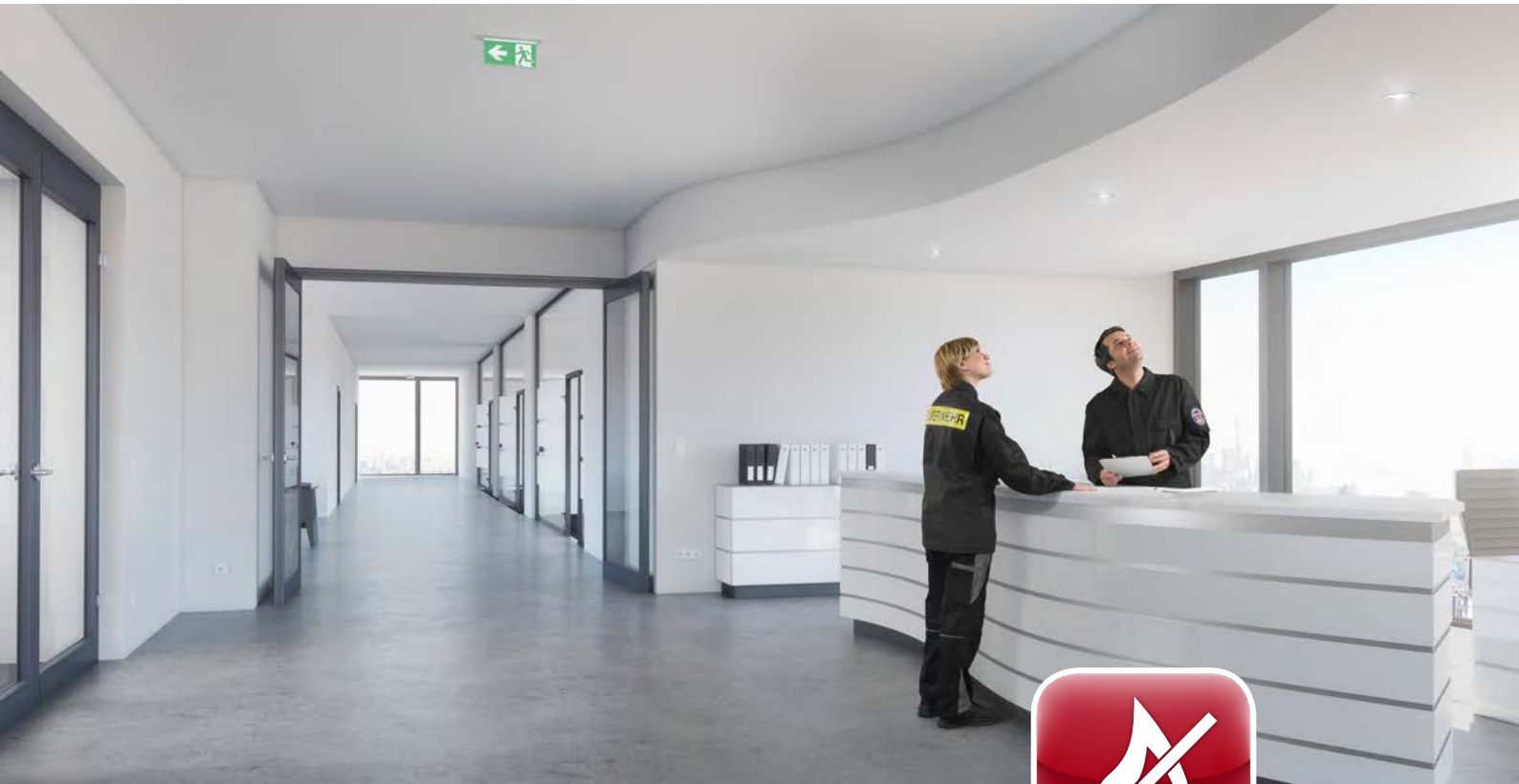
Electrical installations are often carried out within the insulation level or penetrate it. To ensure that no heat bridges occur – these can often have fatal consequences for the fabric of the building – KAISER has developed innovative installation systems for energy-efficient and standardised electrical installation work. Further details can be found in our “Energy efficiency” brochure and on our website at www.kaiser-elektro.de.

The KAISER range comprises products and systems for electrical installation used for both external insulation and for walls with internal insulation. Our tried-and-tested cavity wall and flush-mounted boxes with ECON® technology and installation housings are ideal for air-tight electrical installation in cavity or solid walls. Sealing plugs and sealing sleeves are available.



KAISER has continued to add to the product range for energy-efficient electrical installation with numerous innovations. These include the installation housing for LED built-in luminaires in external insulation, the ThermoX® LED installation range for the air-tight fitting of LED built-in luminaires in hollow ceilings, and the air-tight ECON® Data data and network box.





Fire protection.



The aim of constructional fire-protection measures is to prevent the spread of fire and smoke if a fire breaks out and to ensure that emergency and escape routes can still be used. In doing this, the focus is especially on the electrical installation, because it can have a major effect on the fire-resistance of a fire protection wall or ceiling.

By using the KAISER fire protection systems, which activate automatically and maintain the fire resistance class in spite of the embedded electrical installation, the electrical trade can provide tested and certified fire protection from a single source. No more home-made encasings, filling work using fire-protection mortar or stuffing with mineral wool! Further details can be found in our "Fire protection" brochure and on our website at www.kaiser-elektro.de.

Fire protection	p. 268
Fire protection boxes	p. 273
Fire protection boxes for cabin walls in shipbuilding	p. 283
Fire sealings	p. 286
Fire protection housings	p. 303

For more than a decade, the KAISER name has stood for fire-protection competence. In 2006, the HWD 90 was the first fire-protection box for cavity walls to establish itself on the market. Further developments mean that it is now approved for fire protection walls up to EI120. HWD 68 fire protection boxes form the basis for good fire protection, and the flush-mounting fire protection box is available for solid walls.



The HWD 30 ceiling boxes and the new generation of FlamoX® fire protection boxes are designed for fire protection ceilings up to fire resistance class EI30. KAISER's product range includes a very wide selection of wall and ceiling sealings for feeding cables and conduits through walls or ceilings. All KAISER's fire-protection products are designed and equipped in such a way that they reliably and automatically close the installation opening in the event of fire.





Flush-mounting p. 21

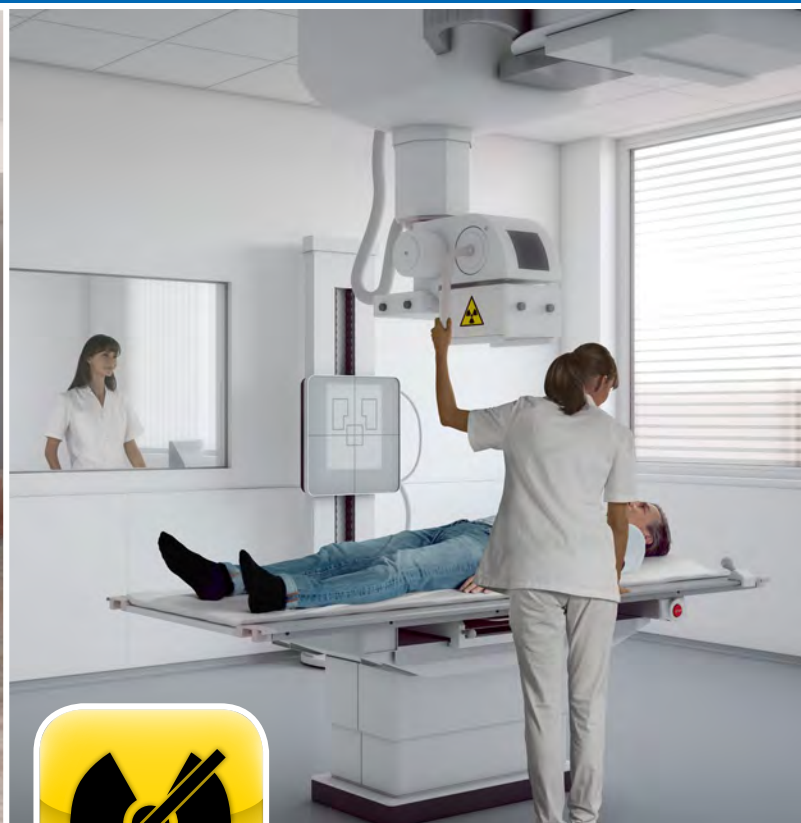
Cavity wall p. 120

Sound insulation.

Sound insulation walls play an important part in feelings of wellbeing in buildings because they make possible peace, quiet, privacy and comfort. These factors are not only important in the private sector, such as terraced houses and apartment blocks, but also in public and commercial buildings, for example in schools, hospitals, retirement homes, doctors' practices, hotels and conference centres. Further information can be found in our "Sound insulation" brochure and on our website at www.kaiser-elektro.de.

KAISER's **innovative sound insulation boxes** maintain the sound insulation characteristics of separator walls. This also applies especially in the case of sound insulation walls with increased demands on the sound insulation despite fitted electrical installations. The sound insulation electronics box provides additional installation space for electronic switch devices.

The basis for sound insulation is provided by the Schallschutz 68 one-gang and one-gang junction boxes. Thanks to their installation diameter of 68 mm, they are also suitable for the upgrading of existing buildings to conform with modern sound insulation requirements. In flush-mounting installation, the sound insulation one-gang junction box guarantees the wall's sound insulation function – even for opposing installation.



Cavity wall p. 130

Radiation protection.

Constructional measures for radiation protection are found in hospitals, medical practices and all places in which X-ray and gamma radiation equipment is used. Electrical installations in radiation protection walls represent a major challenge because they are not allowed to affect the wall's specified radiation protection values. More information can be found in our special "Radiation protection" brochure and on our website at www.kaiser-elektro.de.

KAISER radiation protection boxes ensure that the function of radiation protection walls is fully maintained despite fitted electrical installations – without any additional screening measures. The radiation protection boxes which we supply – for both lead-free and lead-lined radiation protection walls – can easily be retrofitted.





Cable glands

p. 308

Building.

For all projects, KAISER offers the right basis for efficient and secure electrical installation work – whether for a new building or conversion, extension, restructuring or renovation. Our installation systems cover the whole spectrum from flush-mounting boxes for solid walls to an extremely wide range of cavity wall boxes to installation components for concrete construction in on-site mixed concrete or precast concrete. KAISER has the optimal solution for every application.

With its O-range brand name, KAISER has now combined the basic range of cavity wall boxes and added innovative products.

The new HaloX® simplifies the everyday work of concrete constructors. It creates space for new light and sound options in new buildings using on-site mixed concrete or precast concrete.



Cable glands.

AGRO cable glands made of plastic, brass or stainless steel represent the best possible quality and practicality. The complete range provides everything for professional cable entries for both trade and industry. This also includes products for enhanced requirements such as EMC, Ex or elbow cable glands and universal cable entries. There are also completely individualised products and a comprehensive range of accessories. More information on the more than 3,500 products can be found in our special "AGRO cable glands" catalogue and on our website at www.kaiser-elektro.de.

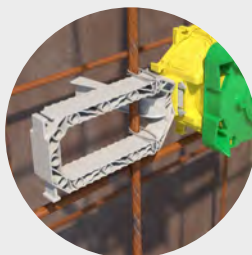
A new product is the PROGRESS® EMV powerCONNECT cable gland which stands out not only because of its compact design but also because of its high leakage currents. It makes possible not a strong connection and reliable clamping of the cable shield.

One of the latest innovations in the cable glands sector is the PROGRESS® aqua. This is the world's first cable gland which is certified for use in drinking water plants.



B¹ The new standard in on-site mixed concrete.

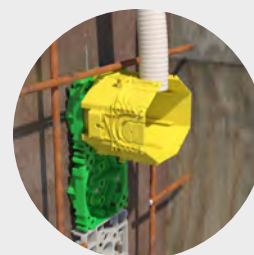
All B¹ wall applications have two sturdy slots for Prefix® system wings



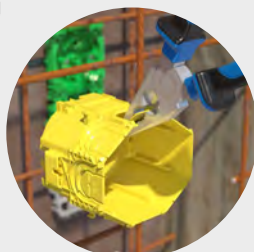
Sturdily combined on front part and box body



Easy insertion and through-feeding of commercially available conduits

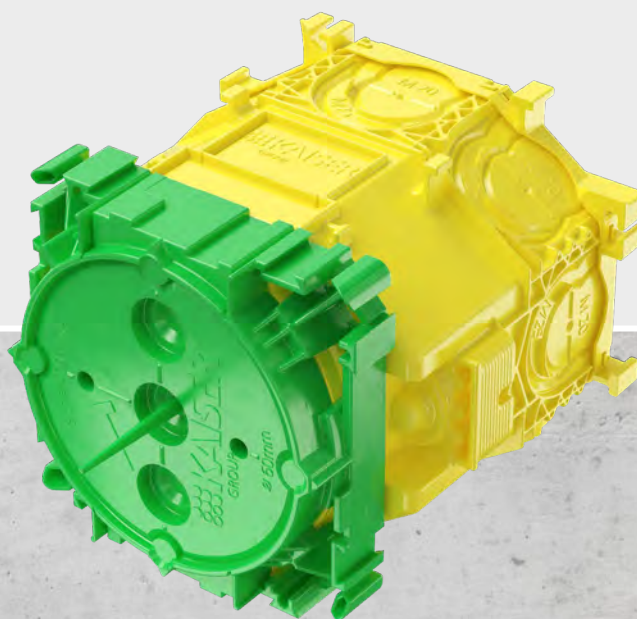


Innovative conduit opening



First choice for **mounting** ...

... and **installation.**



Signal bristles make it easy to find the boxes after striking of the formwork



Large mounting and installation space



Easy breaking-out of the bridges



Installation of pre-wired sockets and switches



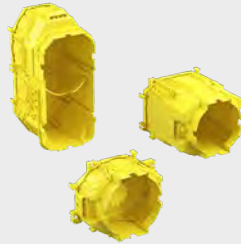
3D animation

The KAISER colour system.

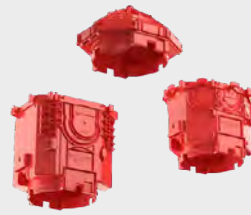
Different colours for the individual components make correct installation easy.



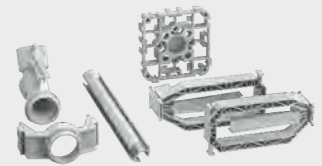
Green:
Front parts for fixing to the formwork.



Yellow:
Box and casing rear parts for wall installation.



Red:
Box rear parts for ceiling installation.



Grey:
Intermediate parts and fixing accessories.

Installation in on-site mixed concrete

The KAISER concrete construction system. For all concreting and construction methods. It offers a comprehensive range of articles with numerous wall and ceiling boxes as well as practical solutions for wall-ceiling transitions.

- 1 B¹ universal ceiling exit
- 2 B¹ ceiling junction box
- 3 B¹ one-gang, B¹ Prefix® system wing set
- 4 B¹ large conduit ceiling junction box
- 5 B¹ large conduit one-gang junction box, B¹ Prefix® system wing set
- 6 B¹ one-gang junction box, abutment, Ø 20 mm support element
- 7 Wall and ceiling transition 30°, B¹ Prefix® system wing set, B¹ Prefix® wall exit adapter Ø 25 mm



O-range®

The new cavity wall box!

Variable: Combination entry for cable and conduit M20/M25 for easy breaking out.

Flexible: 90° conduit entry angle Secure: Device screws with plus-minus drive

Compatible: Standardised support connector for standard and ECON® boxes



O-range ECON®

The new cavity wall box!

Innovative opening tab:

guaranteed permanently air-tight

Practical: Conduit entries up to M25 with all ECON® boxes

Secure: Air-tight, cable retention and self-locking of the conduits

Helpful: Marking on the membrane

Fast: FX⁴ screws



3D animation

Only from us! Combination entry for cables and conduits:
Proven selection of diameters with optimal assignment. Permanently tight fit, thanks to cable retention acc. to DIN EN 60670.

Visible brand name quality – original KAISER!

Cable entries:
Six cable entries – firm fit thanks to cable retention.

Simplest opening technology

PLOPP

The opening tab:
Toolless: new opening technology for defined opening of the conduit membrane – guaranteed permanently air-tight!

Enlarged conduit entries up to M25

Marking for conduits and cables:
Clear and unambiguous assignment of cable and conduit to all entry openings.

FX⁴ screws:
The fastest screw fixing that exists for cavity wall boxes!

Device screws:
with plus-minus drive!



No matter what screwdriver you are using – it fits!

Round support connector:
Easy to connect! Now standardised for all KAISER O-range® cavity wall boxes!

Multiple box with continuous installation space.

O-range ECON® 2 / 3 / 4 - gang junction boxes



With the new O-range ECON® 2 / 3 / 4 - gang junction boxes, KAISER offers the perfect basis and especially easy processing for the fitting of all standard installation accessories in multiple combinations.



3D animation

Gentle, easy installation of data cables.

O-range ECON® Data one-gang connection box.



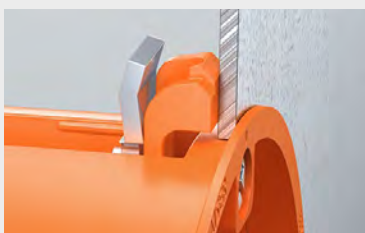
With the new air-tight O-range ECON® Data accessory connection box, KAISER is offering a system for the connection and installation of communication and network connection boxes which is easier to use than ever before.



3D animation

35 mm installation depth and zero tension technology.

O-range® one-gang box for thin boarding.

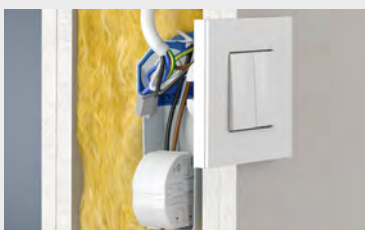


The low 35 mm installation depth makes the one-gang box ideal for installation in cavity walls with a small cavity. In addition, thanks to the zero tension technology, the onegang box can be fitted securely in wall systems with thin boarding.



Sound insulation with additional installationspace.

Sound-insulation box 68 Flex.



Thanks to fast installation, the **sound absorbing sound insulation 68 Flex electronics box** is ideal for modernising or expanding existing installations. The flexible tunnel allows easy installation and creates more space for electronic components, cable reserves and terminals.



3D animation



For easy installation in wood fibre insulation boards.

ECON® Iso +

The **ECON® Iso + one-gang junction box** is the solution for electrical installation work in wood fibre insulation panels. Specially designed for use in solid heat-insulating and plaster base panels, 4 swivels ensure secure anchoring – including for retrofitting!



3D animation



3 times awarded in 2019:

B+B Bauen im Bestand
Produkt des Jahres 2019
Sieger in der Kategorie Energetische Sanierung



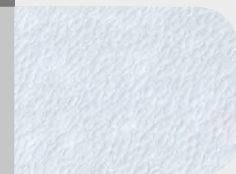
The right solution for every thermal insulation composite system



For installation in wood fibre insulating materials before and after plastering.



For retrofitting in composite thermal insulation systems with synthetic insulating materials (e.g. EPS).

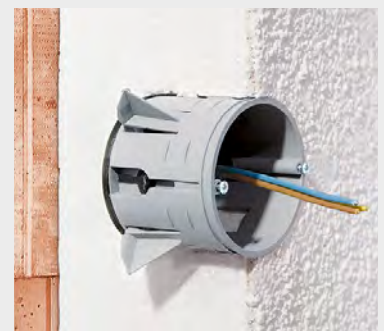


Securely anchored without heat bridges.
ECON® Styro55.

The **ECON® Styro55** one-gang junction box makes possible the retrofitting of accessories such as sockets and switches in synthetic composite thermal insulation systems (WDVS) - fast, securely, and without heat bridges. The box is easily and quickly inserted and fixed in position.

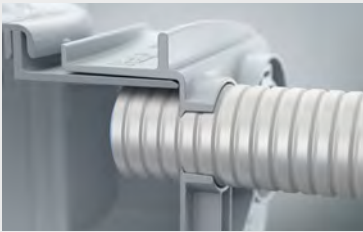


3D animation



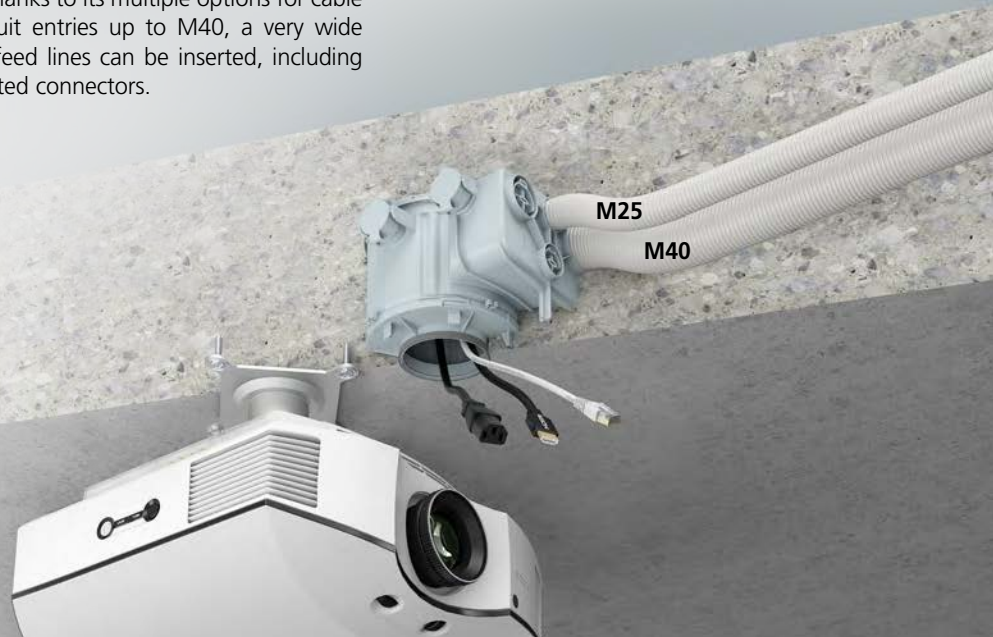
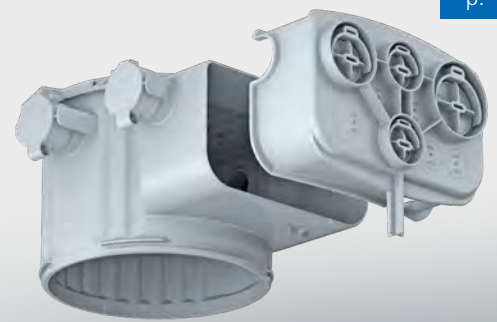
Installation housing for a wide range of uses in concrete.

HaloX® 100 multi-conduit entry.



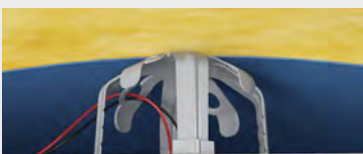
3D animation

The **HaloX® 100 multi-conduit entry** provides optimal conditions for multi-medial applications. Thanks to its multiple options for cable and conduit entries up to M40, a very wide range of feed lines can be inserted, including prefabricated connectors.



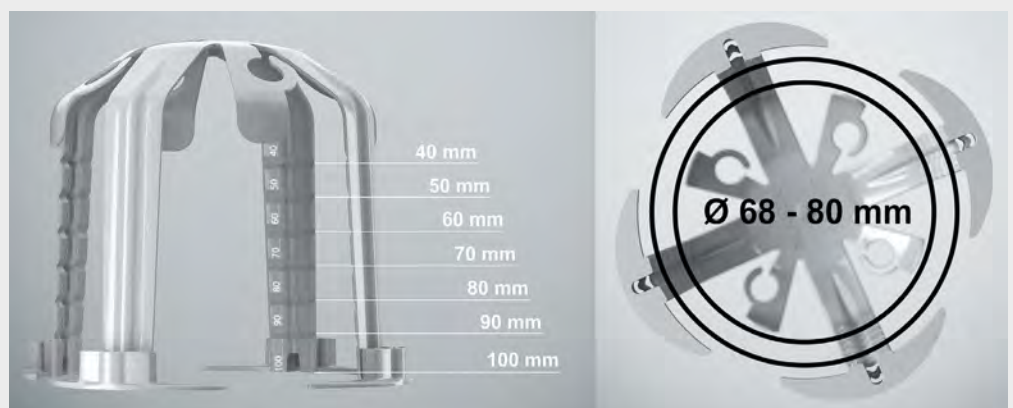
Variable in height and diameter.

Spacer.



3D animation

The spacer provides the necessary distance between the luminaire and the surrounding material. With a mounting diameter between 68 and 80 mm and an adjustable height of 100 - 40 mm, it offers the greatest possible flexibility for every installation situation.



Multiple membrane for air-tight flush-mounting installation with **ECON® technology**.



Flush-mounting boxes with **ECON® technology** are particularly suitable for use in masonry walls where the interior plaster forms the air-tight closure on the room side. They ensure that for sockets and switches there are no air flows between the hollow chambers in the brickwork and the interior of the house, which guarantees air-tight installation.

ECON® flush-mounting boxes offer a wide range of options for air-tight conduit and cable entry and can be plastered in or processed with **KLEMMFIX®**.



The elasticity of the sealing membrane ensures that the membrane fits around the conduit or cable during piercing, and air currents can be excluded.

The toolless cable and conduit entry of ECON® technology makes installation work easier and saves time. In the case of pre-plastered boxes, cables or conduits can be very easily retrofitted.



3D animation

The subdivision of the **ECON® multi-membrane** prevents leaks and gaps during the insertion of multiple cables.

Installation conduits up to M25 can be inserted - toolless and air-tight - through the membrane.



Cable junction box for particularly moist environments. IP68BOX outdoor installation kit.



The **IP68BOX** Outdoor cable junction box is filled with a 2-component PUR cast resin. This protects electrical connections in especially moist environments, for example in the ground or even under water. Traffic-related ground vibrations do not affect the long-term connection.

- Delivery as a complete set
- Quick and easy to process
- Fast implementation
- IP68



3D animation

The new cable gland catalogue has arrived!



In the new „**AGRO Cable Glands 5.0**“ **catalogue** you will find metal and cable glands. Whether tried-and-tested products or innovative new developments - here you will find the optimal and secure solution for all areas, including Ex and EMC applications.

The Syntec® cable glands for the electrical trade can be found in this catalogue from page 308 onwards.

Catalogue order at:
www.kaiser-elektro.de





Flush-mounting basic installation

- Complete system for all flush-mounting/masonry applications
- UP-Plus technology with M20/M25 combination connection pieces and up to 15% more installation space
- Plaster-free installation with KLEMMFIX®
- Signal covers make it easy to find boxes and casings again
- International products for accessory installation according to national standards
- Halogen-free



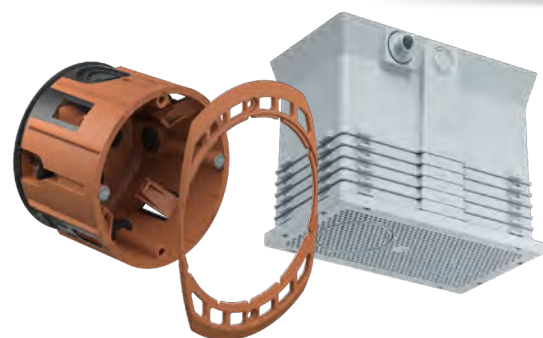
Air-tight flush-mounting installation

- Air-tight installation acc. to EnEV
- ECON® technology: air-tight one-gang boxes and junction boxes for toolless cable and conduit entries
- Air-tight sleeves for air-tight feed-through of cables and conduits



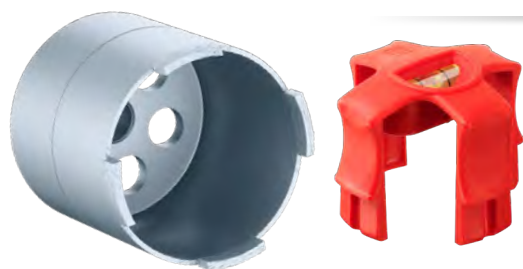
Flush-mounted special solutions

- Fire-protection products
- Sound-insulation products
- Universal installation housing with mineral fibreboard for all standard accessory sizes (e.g. displays, LED lights and much more)
- Installation solutions for biological construction









Insulated walls and ceilings

- Installation solutions for insulated walls and ceilings (WDVS)
- Secure fixing
- Prevention of thermal bridges



Tools

- Professional system tools for fast, secure and safe installation work
- Comprehensive range of system accessories

	Basic installation	Energy saving air-tight	Sound Insulation	Insulated interior wall	Screened Environmentally- friendly	Fire- protection
						
For installation accessories						
One-gang boxes	p. 19	p. 24		p. 48	-	-
One-gang junction boxes	p. 19	p. 25	p. 21		p. 37	p. 271
One-gang boxes for nailing	p. 31	-			-	-
Two-gang junction boxes	p. 31	p. 27			-	-
Electronics boxes	p. 20	p. 27			-	-
Perilex® one-gang boxes	p. 33	-			-	-
One-gang boxes CEE	p. 33	-			-	-
Universal installation housings	p. 47	-			-	-
For cable exits						
Wall light connection	p. 36	-			-	-
Luminaire connection	p. 36	-			-	-
For cable and conduit feed-throughs						
Sealings	-	p. 112			-	-
Sealing sleeves	-	-			-	p. 286
For cable connections						
Junction boxes	p. 34	-			-	-
Junction casings	p. 44	-			p. 37	-
Potential equalisation casings	p. 45	-			-	-
Accessories						
Fixing	p. 39	p. 39			-	-
Retrofitting sealing (air-tight)	p. 110/28	-			-	-
Sealing of electrical installation conduits (smoke-tight and air-tight)	-	p. 29			-	p. 29
Plaster compensation	p. 41	p. 41			-	-
Plaster protection	p. 178/40	p. 178/40			-	-
End cover	p. 211/109/41	p. 211/109/41			p. 37	-

FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS








FIRE PROTECTION

SURFACE

CABLE GLANDS

TOOLS

SERVICE

Installation on or in insulated external walls / ceilings Product overview							
							
	Universal equipment carrier	Modular sup- port for dev. / Telescope equipment car.	Installation housing ThermoX® Iso +	Telescope switch box	Mini equipment carrier	ISO box set	One-gang junction box ECON® Styro55 / ECON® Iso +
	p. 53	p. 59/p. 66	p. 62	p. 66	p. 71	p. 67	p. 74/p. 76
Installation option							
Prepared installation	•	•	•	•	-	•	- / •
Retrofitting	-	-	-	-	•	-	•
Application							
External accessories	•	•	-	-	•	-	-
Built-in luminaires / accessories	-	-	•	-	-	-	-
External corner accessories*	-	-	-	-	•	-	-
Installation accessories 1-unit combination*	•	-	-	•	-	•	•
Installation accessories up to 3-unit combinations	•	-	-	-	-	•	•
Installation accessories up to 5-unit combinations	-	-	-	-	-	•	•

* universal screw-on surface



UP-PLUS flush-mounting installation

UP-PLUS, the new generation of flush-mounting installation with the innovative combination connection piece for quick and non-distorting combinations. With variable conduit entry for M20/M25 conduits and large installation space.

- Variable combination connection piece for conduits up to M25
- Flexible for screw and claw fixing of the accessories
- More installation space
- High torsional strength, guaranteed standard distance of 71 mm for combinations



Combination entry, interconnecting options



The combination entry permits exact and solid fit for Ø 20 or Ø 25 mm conduits.



Simply break out the reducing bend for Ø 25 mm conduits.



The distance support (Art. No. 1159-34) ensures an exact and safe distance of 91 mm.



The tunnel connector (Art. No. 1159-36) permits fully-insulated through-wiring in the floor area.

Entries for conduits and DIN EN conduits



Secure combination with the new combination connection piece


The audibly secure combination with the new combination connection piece. Place the boxes next to each other. Place centering piece in groove and press together until you hear a „click“. Now you have a non-distorting combination with a standard distance of 71 mm.



One-gang box

- with 4 screw domes and 2 expanding claw fields
- dimensions in accordance with German DIN 49073
- For M20/M25 conduits




Depth	46 mm	46 mm
Installation opening	60 mm	60 mm
Device screws	-	2
Conduit entries M20	3	3
Conduit entries M25	2	2
Combination conduit entries M20/25	2	2
	•	•
Art. No.	1055-04	1056-04
Inner packaging/shipping	25 / 500	25 / 500

Flush-mounting one-gang junction box

- with 4 screw domes and 2 expanding claw fields
- dimensions in accordance with German DIN 49073
- For M20/M25 conduits




Depth	66 mm	66 mm
Installation opening	60 mm	60 mm
Device screws	-	2
Conduit entries M20	9	9
Conduit entries M25	2	2
Combination conduit entries M20/25	2	2
	•	•
Art. No.	1555-04	1556-04
Inner packaging/shipping	25 / 250	25 / 250

One-gang junction box

- with side cavities for connections
- with 4 screw domes
- from above 4 x multi-lead wiring
- dimensions in accordance with German DIN 49073
- For M20/M25 conduits



Length x Width x Depth	110 x 71 x 49 mm
Installation opening	60 mm
Device screws	2
Conduit entries M20	6
Conduit entries M25	4
Combination conduit entries M20/25	2
	•
Art. No.	1069-02
Inner packaging/shipping	10 / 100

Electronics box

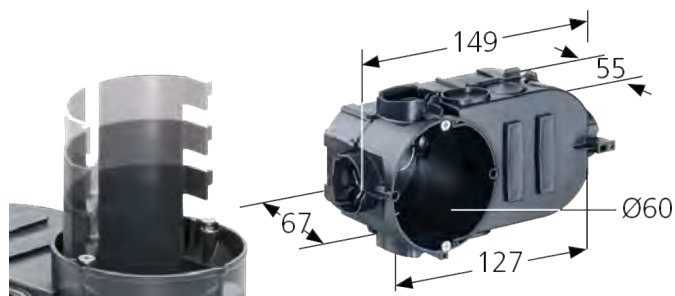


The electronics box has space for electronic components. The accompanying separator wall also enables you to have different kinds of voltages in one box.

- For accessories and electronic components such as EIB actuators, communication and network technology, radio-controlled elements, alarm modules, etc.
- Can be combined with KAISER one-gang boxes via snap-in connector
- Optimal for use as an entry box for combinations
- The separator wall (supplied) turns it into a twin-chamber box



Application



The range of possibilities is as diverse as their solutions.



Here for example is a relay for central control of several roller blind drives or a flush mounting EIB interface with a conventional button.



For communication equipment, the box volume is ideal for accommodating cable reserves.



Concealed installation of electronic components such as radio-controlled modules, EIB actuators, emergency lighting or cable lengths in data network technology.

Electronics box

- with 4 screw domes
- Twin-chamber box (with separator wall)
- dimensions in accordance with German DIN 49073
- For M20/M25 conduits



Length x Depth	149 x 67 mm
Installation opening	60 mm
Device screws	2
Conduit entries M20	11
Conduit entries M25	2
Combination conduit entries M20/25	4
	•
Art. No.	1068-02
Inner packaging/shipping	10 / 100

Flush-mounting sound insulation one-gang junction box

Sound insulation box for use in solid construction sound insulation walls with stringent sound insulation requirements. The solid box body with additional sound insulation coating absorbs and reflects the sound, so that interference in adjacent rooms is excluded and the sound insulation remains intact as if no installation box were present.

- Maintains the wall's sound insulation protection
- Installation up to 5-unit combinations
- Opposing installation is also possible
- Variable combination connection piece for conduits up to M25
- Flexible for screw and claw fixing of the accessories
- Can be used with sound protection cover as a junction box



Examples of use



Example of installation using a switch-socket combination.



Use of an opposing sound insulation box.



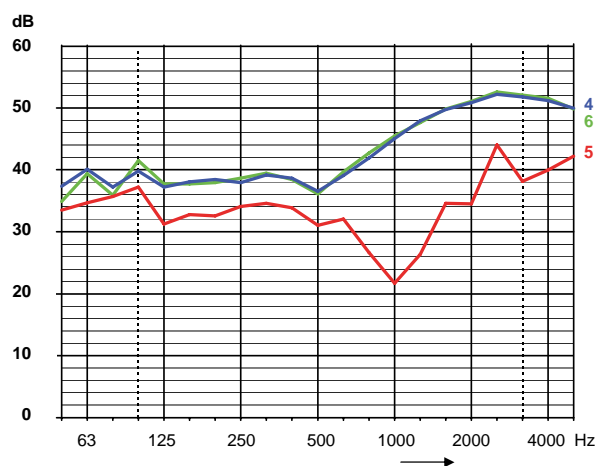
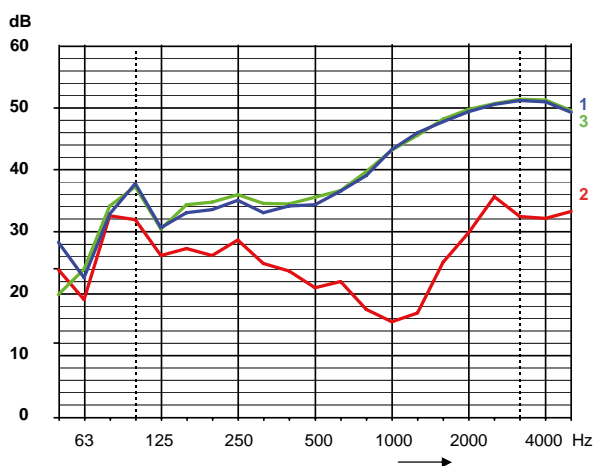
Cables up to Ø 11.5 mm and conduits up to M25 can be fed into the sound insulation box.



With sound insulation cover it can also be used as junction box.

Comparison of sound insulation

Solid wall 11.5 cm and 17.5 cm with 10 mm plaster on both sides.



1 Wall, without installations, 52 dB | 2 with one-gang junction box 1555-04, 32 dB | 3 with one-gang junction box 1569-01, 52 dB | 4 Wall, without installations, 56 dB | 5 with one-gang junction box 1555-04, 41 dB | 6 with one-gang junction box type 1569-01, 56 dB

One-gang boxes, One-gang junction boxes

for flush-mounting installation

Installation



Cut a Ø 82 mm installation opening using a grinding head (e.g. Art. No. 1088-02).



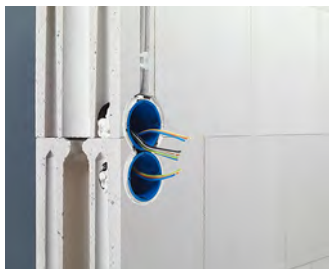
Make exact cable and conduit entries with the universal opening cutter (Art. No. 1085-80).



For combinations, the one-gang junction boxes are snapped together.



The sound insulation box is simply fixed with plaster.



Combinations at a standard spacing of 71 mm.



Soundproof and fully insulated through wiring is ensured by the support connectors.



Example of installation using a switch-socket combination.



With the sound insulation cover (Art. No. 1184-69), the box can also be used as junction box.

Processing instructions



The flush-mounting sound insulation box offers 6 possible entries for conduits up to M25 and cables up to Ø 11.5 mm.



The combination connection piece makes it easier to feed conduits up to M25 in the connection area.



In opposing installation, the sound insulation is guaranteed up to a five-way combination.

Allocation table for universal opening cutters



Flush-Mounting installation for sound insulation boxes		Ø setting
NYM cable	3 x 1.5 mm ²	7.5
	4 x 1.5 mm ²	8.5
	5 x 1.5 mm ² ; 3 x 2.5 mm ²	9.5
	7 x 1.5 mm ² ; 5 x 2.5 mm ²	10.5
Low-voltage cables	Integrated high voltage and MSR-Bus cable (N)Y(YSt)Y)M-J	10.5
	3 x 1.5 mm ²	7.5
	EDV cable, S/STP 4 x 2 AWG23/1	6.0
	EDV cable, 100 MB S/STP 4 x 2 x AWG23/1	6.0
	Coaxial cable, double screening	5.0
	Coaxial cable, single screening	5.0
	Bus cable YCYM 2 x 2 x 0.8	5.0
	EDV cable screened, plus outer screening	4.0
	Cable for telephone and signal transmission with screening	4.0
	Telephone cable without screening	4.0
Support connector	9060-98	Connector
Conduits according to DIN EN 60423 flexible (curled)	DIN EN 16 - Ø 16 mm	14.0
	DIN EN 20 - Ø 20 mm	17.0
	DIN EN 25 - Ø 25 mm	21.0

You can create cable entries with the prescribed strain relief easily and to the exact required size with the universal opening cutter (Art No. 1085-80).

Flush-mounting sound insulation box

INNOVATION



3D animation

- with 4 screw domes and 2 expanding claw fields
- One-gang junction box for solid construction sound insulation walls
- For conduits up to M25 and cables up to Ø 11.5 mm
- Combination distance: 71 mm




Depth	60 mm
Installation opening	60 mm
Tube entries up to M25	6
Cable entries of up to Ø 11.5 mm	6
for sound insulation walls up to	56 dB
Art. No.	1569-01
Inner packaging/shipping	10 / 100

Sound insulation cover

- for sound insulation box
- Sound insulation function in conjunction with sound insulation box



Diameter	92 mm
Halogen-free	•
	•
Art. No.	1184-69
Inner packaging/shipping	10 / 100

Air-tight flush-mounting boxes

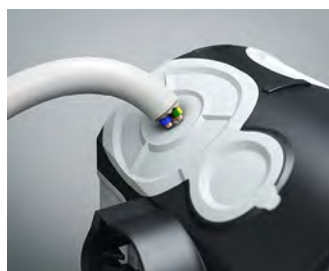


Flush-mounting boxes with ECON® technology permit guaranteed air-tight installation. They offer a variety of options for air-tight conduit and cable entries and can be either plastered or processed using Klemmfix®. The new ECON® Multi-Membrane allows the insertion of several cables without gusset formation or the insertion of conduits up to M25.

- Air-tight design with ECON® sealing membranes
- Avoids leaks in exterior facades made from hollow chamber blocks
- Variable and tool-free cable and conduit entries
- Torsion-proof, guaranteed standardised combination distance of 71 mm



Processing instructions



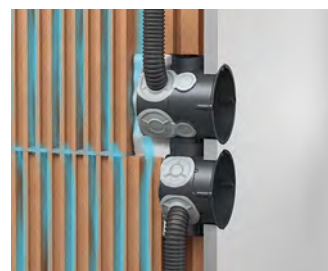
The tool-free cable and conduit entries reduce installation time and make processing easier.



The elastic sealing membrane fits air-tight around the conduit or cable.



Each cable and conduit diameter up to Ø 25 mm can be installed quickly and air-tight.




Vertical draughts occur in hollow chamber blocks. The UP boxes with ECON® technology prevent air exchange.

One-gang box ECON® 10

- Air-tight design with ECON® sealing membranes
- with 4 screw domes
- dimensions in accordance with German DIN 49073
- For M20/M25 conduits



3D animation


Depth	46 mm	46 mm
Installation opening	60 mm	60 mm
Device screws	-	2
Conduit entries M20	2	2
Conduit entries M25	2	2
Tool-free cable and conduit entries in the connector area up to M25	2	2
Air-tight	•	•
	•	•
Art. No.	1055-21	1056-21
Inner packaging/shipping	25 / 500	25 / 500

One-gang junction box ECON® 15

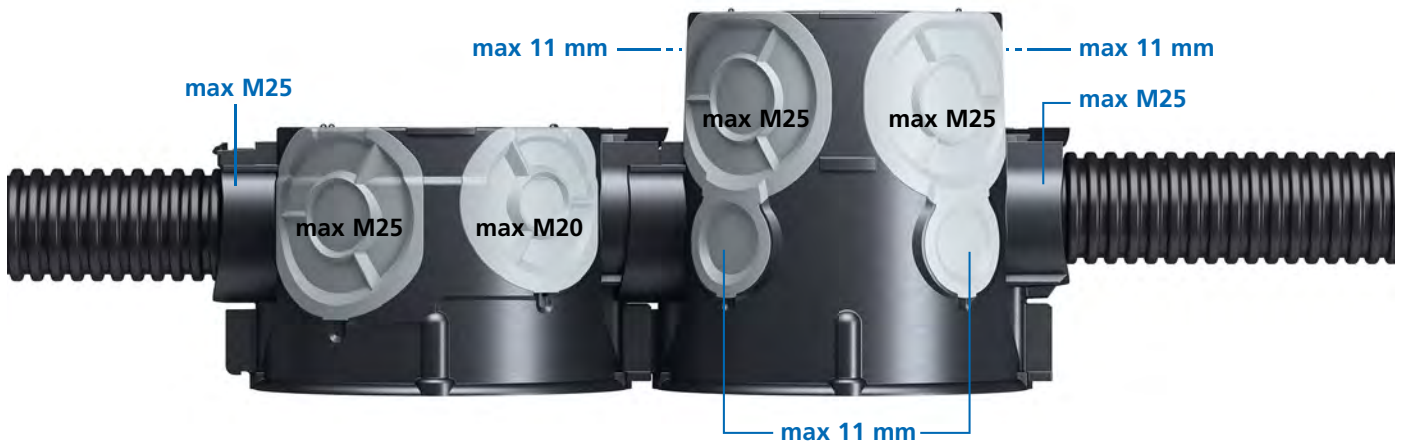
- Air-tight design with ECON® sealing membranes
- 4 screw domes, 2 expanding claws fields
- dimensions in accordance with German DIN 49073
- For M20/M25 conduits



3D animation

Depth	66 mm	66 mm
Installation opening	60 mm	60 mm
Device screws	-	2
Tool-free cable and conduit entries up to 11 mm around the box	4	4
Tool-free cable and conduit entries up to 11 mm below the connector	2	2
Tool-free cable and conduit entries up to M25 around the box	4	4
Tool-free cable and conduit entries in the connector area up to M25	2	2
Air-tight	•	•
	•	•
Art. No.	1555-21	1556-21
Inner packaging/shipping	25 / 250	25 / 250

Entries for conduits and DIN EN conduits





Electronics box ECON® Two-gang junction box ECON®

The electronics box and two-gang junction box using ECON® technology are ideal for installation in masonry walls in which the interior plaster forms the air-tight closure on the room side. The ECON® electronics box provides a generously-sized accessory installation compartment and additional space for fitting small switch actuators, etc. The matching separator wall allows the standardised installation of bus and operating voltage in one box. The ECON® two-gang junction box makes it easier than ever to install special accessories. The large installation opening and the very large installation compartment make it possible to install block and pre-wired accessories, and they create space for the configuring of cables for multi-media connections.

- Elastic sealing membrane for guaranteed air-tightness
- Variable and toolless insertion of single cables, duplex cables and DIN EN conduits
- Additional space for decentral installation of KNX / LON UP actuators, Venetian blinds UP cut-off relays, and many more
- Separator wall for standardised fitting of two voltage types in one box
- Maintenance of cable bending radii for network connection boxes - optimal data transfer
- Easy installation of pre-wired accessories and multi-media connection boxes



Examples of applications for the two-gang junction box ECON®



Thanks to its large installation opening without a central bridge, the two-gang junction box allows...



...the use of pre-wired accessories, block inserts, and many more.



It also provides an easy-to-use basis for the installation of multi-media connection boxes. The very large installation compartment has plenty of space for configuring cables.



Reserve cables and connection plugs can easily be inserted into the box and are then concealed behind the installation accessories.



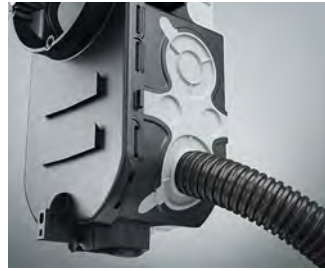
Processing instructions



The permanently elastic sealing membrane used in ECON® technology guarantees the airtight connection of cables up to Ø 11 mm, and conduits up to Ø 25 mm.



Even duplex cables can be installed securely and air-tight without an installation conduit.



The sealing membrane fits tightly around the cable or conduit and permanently prevents leakage in external walls and in interior walls next to external walls.

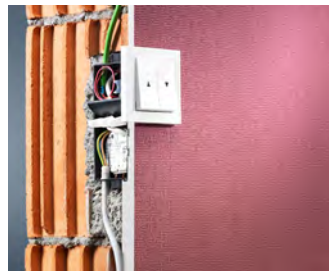


The peripheral sealing lip between the box body and the front part ensures an air-tight connection i.e. retention of the building's air-tight seal.

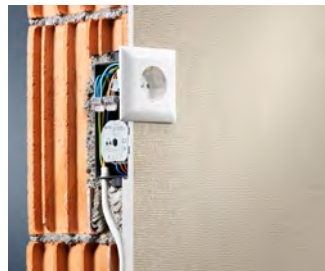
Examples of applications for the electronics box ECON®



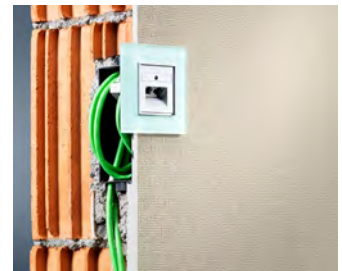
By inserting the separator wall, two different voltage types can be fitted in a standardised way in the electronics box. In addition, they provide a generously-sized installation space...



...for the decentral installation of, for example, small window actuators for controlling Venetian blinds and heating in the external wall.



Thanks to the electronics box, it is easy to install radio-controlled actuators etc. without putting excessive strain on cables or accessories.



Network connection boxes can be used while maintaining the cable bending radii and with the best possible data transfer speeds.

Electronics box ECON®

- Partition for circuit separation
- Air-tight version with sealing membrane
- 4 screw domes



Two-gang junction box ECON®

- Air-tight version with sealing membrane
- 6 screw domes



Length x Width x Depth	149 x 80 x 68 mm	149 x 80 x 68 mm
Installation opening Ø	60 mm	2 x 60 mm
Device screws	2	4
Conduit entries M25	4	4
Tool-free cable and conduit entries in the connector area up to M25	4	4
	•	•
Duplex cable entries 2 x up to 11 mm	4	4
Cable entries up to Ø 11 mm	4	4
Art. No.	1068-21	1656-21
Inner packaging/shipping	10 / 100	10 / 100



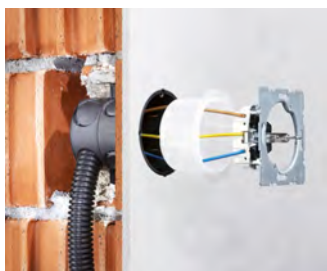
Sealing inserts

The sealing insert ensures air-tight closing of previously-installed one-gang boxes and one-gang junction boxes. It can be used in both flush-mounting and cavity wall installation. Its low installation depth makes use in one-gang junction boxes possible without restricting the wiring.

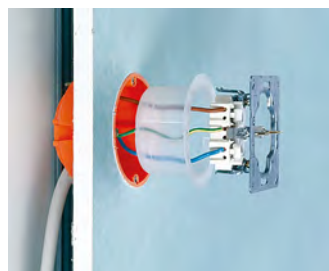
- Ensures later air-tight closing of one-gang boxes and one-gang junction boxes
- Toolless connection wire penetration is possible
- Guarantees later and permanent air-tightness



Application



Later air-tight closing of flush-mounting boxes.



Later air-tight closing of cavity wall boxes.



Pre-punched entry markings permit toolless connection wire penetration up to 2.5 mm².



Press sealing insert and installation accessories into the box and tighten with device screws.

Sealing inserts

- for retrofit sealing of all existing one-gang boxes and one-gang junction boxes
- permanently flexible plastic



Depth	36,5 mm
Diameter	60 mm
Air-tight	•
Art. No.	1040-01
Inner packaging/shipping	10 / 100

Sealing plugs 16-40

Sealing plugs with ECON® technology for sealing all standard electrical installation conduits in installation boxes or at cable outlets. The long sealing plug with three sealing lips and in different widths adapts itself to the installation conduit in use and guarantees air-tight and smoke-tight closing, even when the conduits are cut at an angle. From conduit size M25 and up, the membrane surfaces are separated by bridges, which ensure secure cable routing and prevent damage and gaps between cables.

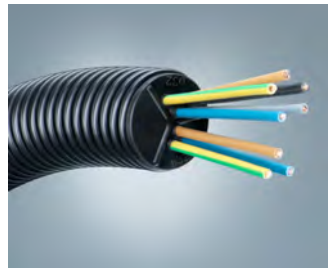
- For empty conduit installations in an air-tight design or in fire protection areas
- Sealing plug with three sealing lips and different widths adapts itself perfectly to the installation conduit and guarantees an air-tight end
- Elastic sealing membrane for guaranteed air-tightness
- Toolless cable entry
- Reinforcing ribs in the membrane ensure air-tightness for the cables
- For all installation conduits M16 - M40, Pg 9 – Pg 36, 3/4" and 5/8"



Product advantages of sealing plugs



When pushed through, the elastic sealing membrane using ECON® technology wraps itself around the cable or individual leads,...



...and prevents uncontrolled air flow.



From conduit size M25 upwards, the membrane areas are reinforced with ribs...

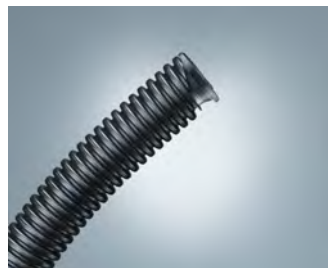


...which prevent damage and ensure air-tightness where the cables pass through.

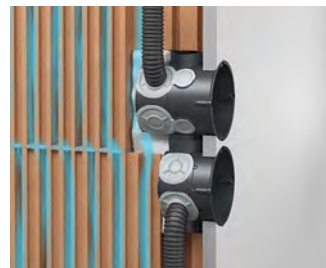
Processing instructions



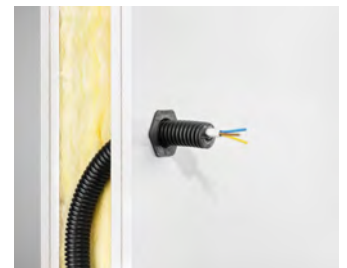
The long sealing plug with three sealing lips and different widths adapts itself perfectly to the installation conduit...



...and guarantees an air-tight end even when conduits are cut at an angle.



When air-tight installation is necessary, the sealing plugs prevent leakage at the conduit ends.

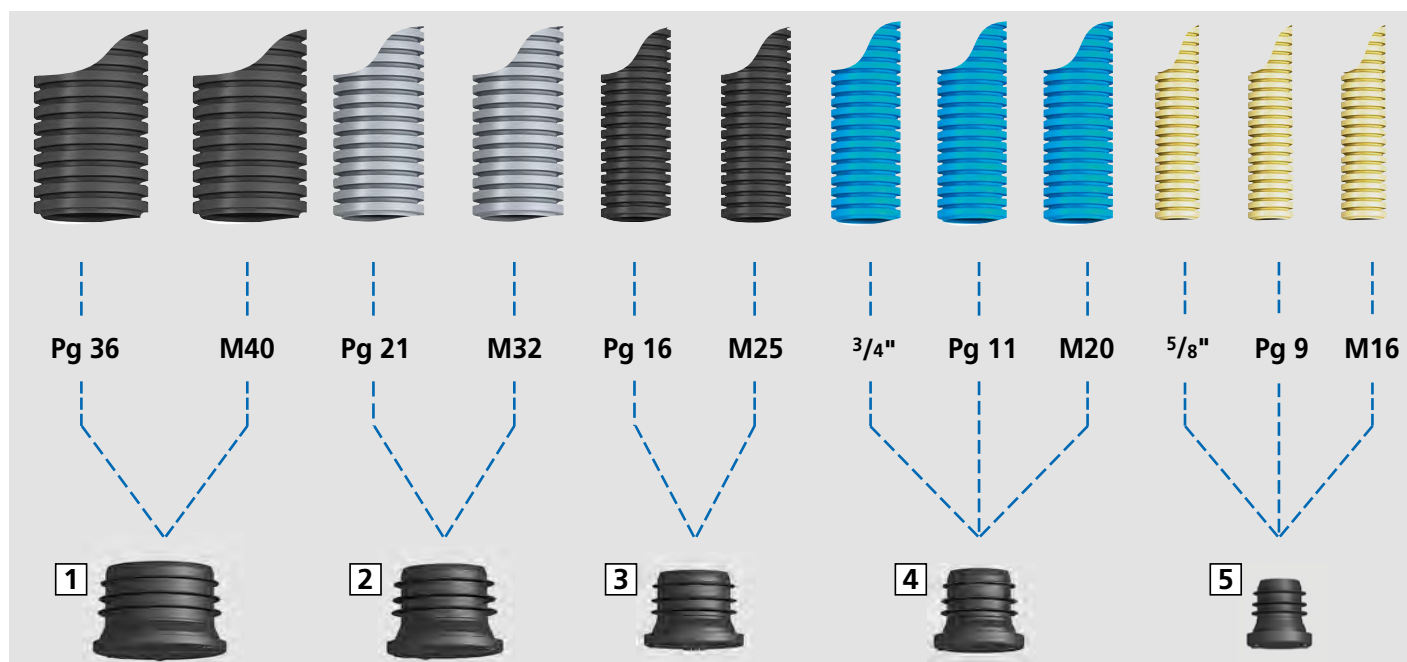


For installations in the field of fire protection, the sealing plug closes the conduit ends and ensures smoke-tight room separation.

One-gang boxes, One-gang junction boxes

for flush-mounting installation

Assignment of conduit sizes and sealing plugs



1 Sealing plug M40 Art. No. 1040-40 | **2** Sealing plug M32 Art. No. 1040-32 | **3** Sealing plug M25 Art. No. 1040-25 | **4** Sealing plug M20 Art. No. 1040-20 | **5** Sealing plug M16 Art. No. 1040-16

Air-tightness certificate

In comprehensive blower-door tests, a neutral institute tested and confirmed the air-tightness of the M16 - M40 sealing plugs.



Sealing plugs 16-20

- for sealing electrical installation conduits
- ECON® technology for easy cable entry
- permanently flexible plastic



3D animation

Sealing plug	M16	M20
DIN EN conduit Ø	16 mm	20 mm
Art. No.	1040-16	1040-20
Inner packaging/shipping	25 / 100	25 / 100

Sealing plugs 25-40

- for sealing electrical installation conduits
- ECON® technology for easy cable entry
- permanently flexible plastic




3D animation

Sealing plug	M25	M32	M40
DIN EN conduit Ø	25 mm	32 mm	40 mm
Art. No.	1040-25	1040-32	1040-40
Inner packaging/shipping	25 / 100	25 / 50	- / 25

Two-gang junction box

- can also be used as a one-gang junction box (incl. 2 device inserts)
- for use as a junction box cover Art. no. 9062-90 is additionally needed
- use separator wall to separate electrical circuits Art. No. 1656-22 (not illustrated)
- dimensions in accordance with German DIN 49073




Length x Width x Depth	140 x 60 x 42 mm	140 x 60 x 42 mm
Screw spacing	71 mm	71 mm
Device screws	-	4
Conduit entries M20	12	12
	•	•
Art. No.	1655-02	1656-02
Inner packaging/shipping	10 / 100	10 / 100

One-gang box

- with nail straps as fitting aid
- nail Ø max. 3 mm
- plaster depth min. 6 mm
- dimensions in accordance with German DIN 49073
- for M20 conduits



Depth	42 mm	42 mm
Installation opening	60 mm	60 mm
Device screws	-	2
Conduit entries M20	7	7
	•	•
Art. No.	1055-62	1056-62
Inner packaging/shipping	- / 100	- / 100


One-gang boxes, One-gang junction boxes

for flush-mounting installation

Cavity wall one-gang junction box

- with nail straps as fitting aid
- nail Ø max. 3 mm
- plaster depth min. 6 mm
- dimensions in accordance with German DIN 49073
- for M20 conduits




Depth	63 mm	63 mm
Installation opening	60 mm	60 mm
Device screws	-	2
Conduit entries M20	13	13
	•	•
Art. No.	1555-62	1556-62
Inner packaging/shipping	- / 100	- / 100

One-gang box without support

- for use in facing masonry
- for combinations: use supports Art. No. 1159-01
- dimensions in accordance with German DIN 49073
- for M20 conduits




Depth	42 mm	42 mm
Installation opening	60 mm	60 mm
Device screws	-	2
Conduit entries M20	7	7
	•	•
Art. No.	1050-00	1051-00
Inner packaging/shipping	25 / 500	25 / 500

One-gang junction box without support

- for use in facing masonry
- for combinations: use supports Art. No. 1159-01
- dimensions in accordance with German DIN 49073
- for M20 conduits



Depth	63 mm	63 mm
Installation opening	60 mm	60 mm
Device screws	-	2
Conduit entries M20	13	13
	•	•
Art. No.	1550-00	1551-00
Inner packaging/shipping	25 / 250	25 / 250

PERILEX® one-gang box

- for PERILEX® 16 A inserts
- only for screw fixing
- dimensions in accordance with German DIN 49073
- for M20 conduits




Depth	48 mm
Screw spacing	67 mm
Installation opening	70 mm
Device screws	2
Conduit entries M20	8
Art. No.	1076-04
Inner packaging/shipping	10 / 100

One-gang box CEE

- for CEE 16 A connectors
- only for screw fixing
- with sealing ring, protection class IP3X
- dimensions in accordance with German DIN 49073
- For M20/M25 conduits



Depth	50 mm
Screw spacing	67 mm
Installation opening Ø	70 mm
Raised head accessory screws 4 mm	•
Conduit entries M20	2
Conduit entries M25	2
	•
Art. No.	1075-04
Inner packaging/shipping	- / 100

Junction boxes

for flush-mounting installation

Junction box

- with nail straps as fitting aid
- nail Ø max. 3 mm
- plaster depth min. 6 mm
- without cover and cover screws
- dimensions in accordance with German DIN 49073
- for M20 conduits




Depth	36 mm
Installation opening	70 mm
Conduit entries M20	8
For 6 terminals 1.5 mm² or 5 terminals 2.5 mm²	•
	•
Art. No.	1172-62
Inner packaging/shipping	- / 100

Junction box

- Klemmfix® mounting possible
- according to German DIN VDE 0606, junction box covers may only be removable using tools
- dimensions in accordance with German DIN 49073
- for M20 conduits




Depth	36 mm	36 mm	36 mm
Installation opening	70 mm	70 mm	70 mm
Conduit entries M20	8	8	8
For 6 terminals 1.5 mm² or 5 terminals 2.5 mm²	•	•	•
For mounting with Klemmfix® (Art. No. 1159-12)	•	•	•
With cover and 2 cover screws	-	-	•
	-	-	•
Art. No.	1172-02	1172-08	1172-92
Inner packaging/shipping	25 / 500	- / 100	25 / 250

Junction box

- with plaster disc, cover and cover screw
- Klemmfix® mounting possible
- For M20 conduits and cables up to 5 x 2.5 mm²



Depth	36 mm	36 mm	36 mm	36 mm
Installation opening	70 mm	70 mm	70 mm	70 mm
Conduit entries M20	8	8	8	8
For 6 terminals 1.5 mm² or 5 terminals 2.5 mm²	•	•	•	•
Terminal block, no. of poles	-	•	•	•
without terminal block	•	-	-	-
	•	-	-	-
Art. No.	1172-09	1172-04	1172-05	1172-06
Inner packaging/shipping	25 / 100	10 / 100	10 / 100	- / 100

Junction box

- for 8 terminals 1.5 mm², for 6 terminals 2.5 mm² or for 5 terminals 4 mm²
- without cover and cover screws
- For M16/M20 conduits



Depth	56 mm
Installation opening	70 mm
M16-20 combination conduit entry	14
	•
Art. No.	1572-02
Inner packaging/shipping	10 / 250

In-plaster junction box

- for flat multi-lead wiring (NYIF) 1.5 and 2.5 mm²
- terminal block permanently attached
- with plaster disc, cover and cover screw
- Junction box fire-resistant up to 960°C, cover to 850°C in accordance with DIN EN 60670



Depth	16 mm
Installation opening	80 mm
Terminal block, no. of poles	5
	•
Art. No.	1081-05
Inner packaging/shipping	25 / 250


Light connection boxes, Ceiling exits

for flush-mounting installation

Wall light connection box

- With integrated cover
- not to be used as a junction box!



Length x Width x Depth	60 x 32 x 30 mm
Break-out openings Ø 20 mm	4
	•
Art. No.	1048-00
Inner packaging/shipping	25 / 250

Cover

- for wall light connection boxes Art. No. 1048-00 and Art. No. 9148-00
- With Ø 3.2 x 15 mm cover screws




Length x Width	75 x 40 mm
Art. No.	1148-90
Inner packaging/shipping	25 / 250

Luminaire connection box

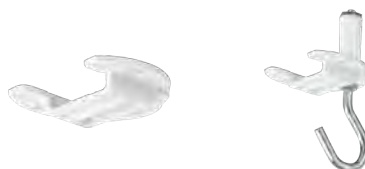
- for casting into concrete ceilings
- 2 parts with snap-in connection
- sealed against concrete
- delivery unit: 1 ceiling light connection box pre-cut for DIN EN conduits 20 mm Ø, 2 reducers/stoppers for use with cable, 1 sealing plug-in cover, 1 light hook (fully-insulated) max. load 100 N (10 kg) in accordance with German VDE
- Marking for cables and DIN EN conduits up to 25 mm



Depth	55 mm
Ceiling exit (CE) Ø	35 mm
Light hook length	55 mm
Conduit entries M20	1
	•
Art. No.	1248-55
Inner packaging/shipping	- / 100

Ceiling exit bush

- for multi-lead wiring (NYIF) 1.5 mm² and 2.5 mm²
- to prevent cable being ripped out



Cable entry	5,5 x 23 mm	5,5 x 23 mm
With light hook and expanding dowel Ø 10 mm	-	•
with brass wedge nut, max. load 100 N (10kg) to German VDE norm	-	•
Art. No.	1144-00	1144-05
Inner packaging/shipping	100 / 500	50 / 250

Screened one-gang junction box

Screened one-gang junction box for flush-mounting installation. The conductive coating suppresses interference with a high alternating field component, whether radiated or received.

- For environmentally-safe electrical installation
- With screening and potential conductivity
- The functional earth of the box must only be connected to the potential equalisation and not to the equipment grounding conductor (PE conductor)



Installation



Cut an accurate wall opening (Ø 82 mm) with the diamond grinding head.



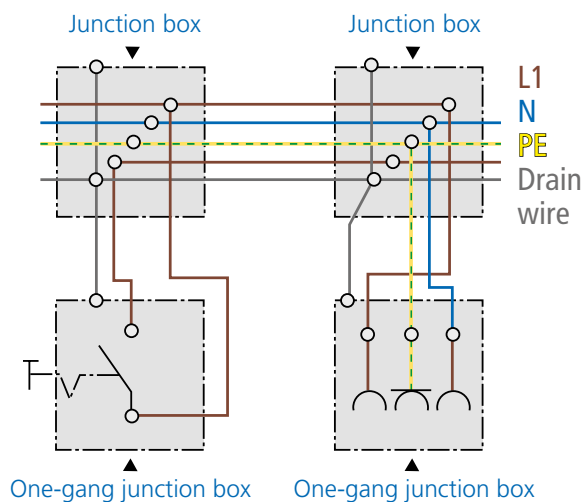
Remove cable sheath and screen with AMZ 2 (Art. No. 1190-02). Fit bare tracer wire with transparent insulating hose.



Connect functional earth of the box to tracer wires of screened cable.



One-gang junction box is ready for installation of a socket for biological design.



Technical processing instructions/standards

- dimensions in accordance with German DIN 49073
- for rooms used for medical purposes, environmentally-friendly construction, etc.
- the conductive coating suppresses interference with a high alternating field component, whether radiated or received
- The functional earth of the box must only be connected to the potential equalisation and not to the equipment grounding conductor (PE conductor)
- Not suitable for use in X-ray or radiation rooms!

Screened one-gang junction box

- with screening and functional earth of the box
- dimensions in accordance with German DIN 49073
- protection class IP 2X



Depth	63 mm
Installation opening	60 mm
Cable entries 3 x 2.5 mm ² or 5 x 1.5 mm ²	6
Cable entries 3 x 1.5 mm ²	4
Halogen-free	•
Art. No.	1555-88
Inner packaging/shipping	10 / 100

Screened cover

- for making screened one-gang junction boxes
- for one-gang junction boxes Art. No. 9064-88 and Art. No. 1555-88



Diameter	80 mm
Screw spacing	60 mm
Art. No.	1164-88
Inner packaging/shipping	10 / 100

Screened junction casing

- for cavity wall and flush-mounting installation
- with screened cover
- With Ø 3.2 x 15 mm cover screws
- protection class IP 3X



Length x Width x Depth	107 x 107 x 53 mm
Cut hole Ø	4 x 35 mm
Break-out openings Ø 20 mm	8
Cable entries for NYM and low-voltage cabling	•
For terminals up to	4 mm ²
Art. No.	9195-88
Inner packaging/shipping	- / 10

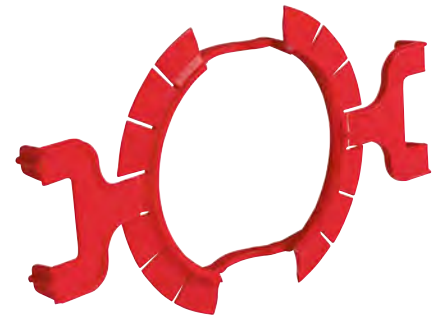
Note

Other installation boxes/housings with screening available on request. Please use our radiation protection box in X-ray areas or areas with ionising radiation.

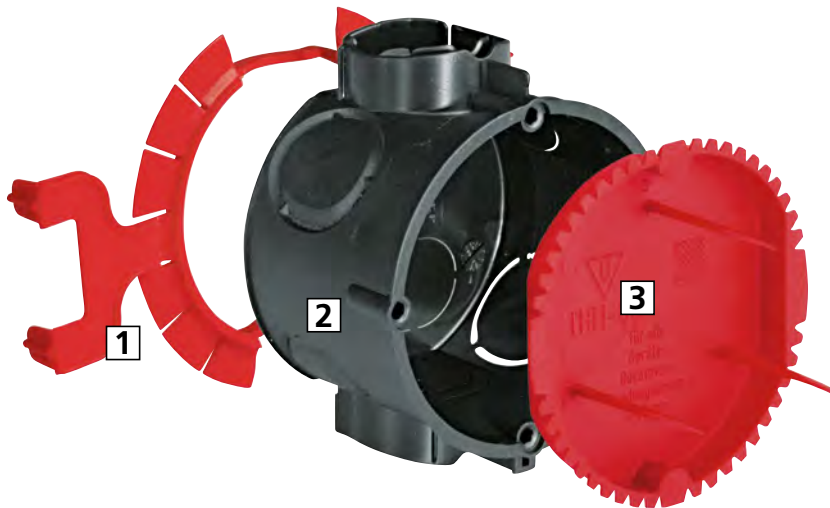
Plaster-free mounting with KLEMMFIX® and signal cover

The KLEMMFIX® system reduces mounting time by up to 50% compared with plastering. Thanks to the signal cover, the assembly position of the one-gang boxes can be seen immediately once plastering has taken place.

- For fitting boxes without plaster
- Efficient, clean and time-saving
- Alignment and secure mounting even before plastering
- Can also be used in sub-zero temperatures
- Not suitable for use with lime or thin plaster



KLEMMFIX® system

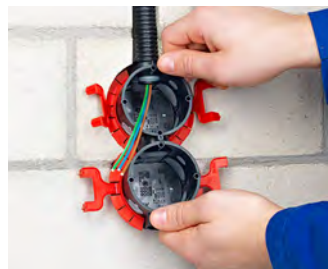


1 KLEMMFIX® | 2 One-gang box | 3 Signal cover

Installation



Creating installation opening.



Push in box with KLEMMFIX® clipped on.



Fit signal cover.



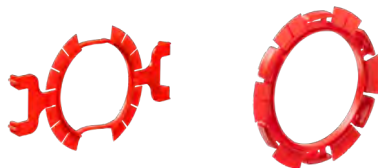
Fine marker bristles on the signal cover show the exact position of the one-gang box after plastering.

Proof of stability:

Tests carried out show that all boxes remain unchanged. Long-term use in practice confirms this result. Deviations in plastering material and application of the plaster have no effect.

KLEMMFIX®

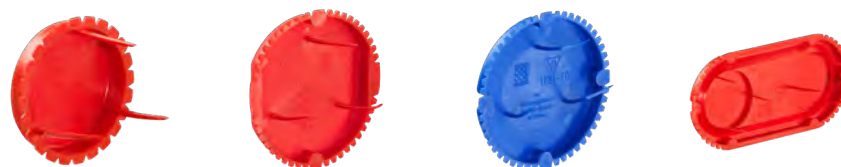
- for fitting boxes without plaster
- in openings made with Ø 82 mm hole saw
- for solid stones, such as sand-lime brick or aerated concrete



For one-gang boxes and one-gang junction boxes Art. Nos. 1055/1056-04, 1555/1556-04, 1055/1056-21, 1555/1556-21, 1555-88	•	-
For junction boxes Ø 70 mm (1172-02, -08, -09, -92)	-	•
with depth stop	•	-
Art. No.	1159-02	1159-12
Inner packaging/shipping	25 / 250	25 / 250

Signal cover

- reusable
- protects interior of box, screwing dome and screw heads when plastering



Length x Width	-	-	-	131 x 60 mm
For installation opening	35 mm	60 mm	70 mm	-
For two-gang junction box Art. No. 1656-02/1655-02	-	-	-	•
For one-gang boxes and one-gang junction boxes 60 mm Ø	-	•	-	-
For junction boxes, PERILEX® boxes and CEE one-gang boxes Ø 70 mm	-	-	•	-
Art. No.	1181-35	1181-60	1181-70	1181-56
Inner packaging/shipping	- / 50	50 / 1000	25 / 250	- / 50

Signal cover

- reusable
- protects interior of box, screwing dome and screw heads when plastering



Length x Width	80 x 80 mm	100 x 100 mm	60 x 32 mm
For wall light connection boxes Art. No. 1048-00	-	-	•
Art. No.	1181-94	1181-95	1181-48
Inner packaging/shipping	- / 50	- / 50	- / 100

Distance supports

- For combination distance 91 mm, e.g. for antenna sockets, telephone boxes or EDP connection boxes with sockets which are not touch-safe.



Art. No.	1159-34
Inner packaging/shipping	25 / 100

Tunnel connector

- For fully-insulated floor through-wiring of one-gang junction boxes Art. Nos. 1555/56-04, 1555/56-21, 1068-02, 1068-21 and 1656-21




Art. No.	1159-36
Inner packaging/shipping	- / 10

Plaster compensation rings

- to compensate for deep-seated boxes
- to maintain IP protection class
- with 2 screwed-in device screws
- with 2 ring attachment screws




Height	12 mm	24 mm	12 mm	24 mm
Screw spacing	60 mm	60 mm	67 mm	67 mm
For all one-gang boxes and one-gang junction boxes Ø	60 mm	60 mm	-	-
For junction boxes Ø	-	-	70 mm	70 mm
	•	•	•	•
Art. No.	1155-61	1155-62	1155-71	1155-72
Inner packaging/shipping	25 / 250	25 / 250	10 / 100	10 / 100

Universal VDE cover

- for all one-gang, one-gang junction and junction boxes
- with central exit for light hook
- flat cover edge
- surface roughened



Diameter	92 mm	92 mm
Screw spacing	60 / 67 mm	60 / 67 mm
Halogen-free	-	•
Fireproof	850 °C	850 °C
	•	•
Art. No.	1184-90	1184-77
Inner packaging/shipping	25 / 250	25 / 250

Universal waterproof cover

- central entry with stoppers
- for countersunk screws Ø 4 mm



Diameter	90 mm
Screw spacing	67 mm
Halogen-free	•
Fireproof	850 °C
Art. No.	1174-99
Inner packaging/shipping	- / 10

Spring cover

- with permanent elastic spring



Diameter	72 mm	85 mm	95 mm
for boxes Ø	60 mm	70 mm	80 mm
Art. No.	1159-25	1174-25	1184-25
Inner packaging/shipping	50 / 500	50 / 500	25 / 250

Screw box

- suitable for fixing accessories and covers
- self-tapping Ø 3.2 mm
- corrosion-resistant in accordance with German DIN VDE standard
- RoHS-compliant



NEW

Length	15, 25, 40 mm
Filled with device screws +/-, 100 of each	•
Art. No.	2472-91
Inner packaging/shipping	- / 8

Device screws +/-

NEW

- self-tapping Ø 3.2 mm
- Countersunk head with PZ1/S combination drive
- surface double-treated
- corrosion-resistant in accordance with German DIN VDE standard



Length	15 mm	20 mm	25 mm	40 mm
Art. No.	2472-15	2472-20	2472-25	2472-40
Inner packaging/shipping	100 / 1000	100 / 1000	100 / 1000	100 / 1000

Sealing screws

- in pure brass
- self-tapping Ø 3.2 mm
- with cross-hole in the screw head through which sealing wire can be pulled



Length	15 mm	40 mm
Art. No.	2444-15	2444-40
Inner packaging/shipping	100 / 1000	100 / 1000

Junction casings

Flush-mounting junction casings in all sizes and for almost any kind of jobs. This programme features practical housing sizes as well as robust housing design perfect for building sites.

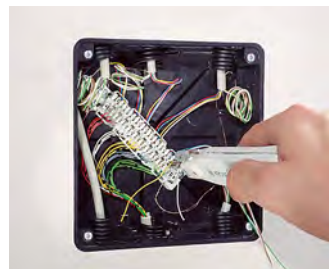
- As central junction casings for star-shaped cable laying
- Easy to rewire when changing the way rooms are used
- With separator walls to separate electrical circuits
- For installation of DIN terminal strips, TS 35 standard rails for terminal blocks, LSA+ terminal strips and much more
- End cover with screw fastening for VDE-compliant installation



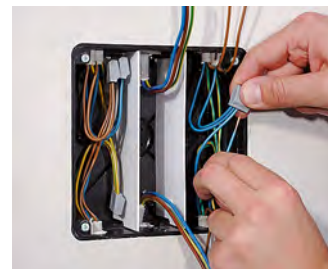
Processing instructions



Space for installation of TS 35 standard rails for the installation of terminal blocks, terminal installation devices etc.



Space for installation of LSA+ terminals for distribution of telecommunication equipment.



Several electrical circuits can be safely separated in one casing using separator walls that can be inserted.




After breaking out a side wall, the casings (Art. No. 1092-90) can be clipped together and expanded to twice the size.

Junction casing 80

- for max. 2 circuits using separator wall
- suitable for installation of DIN terminal strips, TS 35 standard rails for terminal strips, terminal blocks up to 16 mm², etc.
- including cover



Length x Width x Depth	87 x 87 x 60 mm	87 x 87 x 60 mm
Conduit entries M20	8	8
Cable entries from top	16	16
For terminals up to	4 mm ²	4 mm ²
Halogen-free	-	•
	•	-
Art. No.	1094-91	1094-01
Inner packaging/shipping	- / 100	- / 100


Junction casings

for flush-mounting installation

Junction casings 100 / 150

- for max. 2 circuits using separator wall
- suitable for installation of DIN terminal strips, TS 35 standard rails for terminal strips, terminal blocks up to 16 mm², etc.
- including cover




Length x Width x Depth	107 x 107 x 57 mm	107 x 107 x 57 mm	159 x 159 x 75 mm	159 x 159 x 75 mm
M16 conduit entries	4	4	-	-
Conduit entries M20	12	12	16	16
Conduit entries M25	4	4	8	8
M32 conduit entries	-	-	4	4
Cable entries	12	12	12	12
For terminals up to	6 mm ²	6 mm ²	16 mm ²	16 mm ²
Halogen-free	-	•	-	•
	•	-	•	-
Art. No.	1095-91	1095-01	1096-91	1096-01
Inner packaging/shipping	- / 100	- / 100	- / 30	- / 30

Junction casing

- suitable for installation of DIN terminal strips, TS 35 standard rails for terminal strips, terminal blocks up to 16 mm², etc.
- including cover




Length x Width x Depth	240 x 142 x 87 mm	238 x 208 x 68 mm
Conduit entries M20	24	20
Conduit entries M25	12	8
M32 conduit entries	6	4
Cable entries	12	-
For terminals up to	16 mm ²	16 mm ²
Halogen-free	•	•
Suitable for standard equipment with 70 mm installation height	•	-
Casings can be combined once with each other, dimensions are then	240 x 284 x 87 mm	-
Maximum of 3 electrical circuits with separator walls	-	•
For max. 4 electrical circuits using separator walls	•	-
	•	•
Art. No.	1092-90	1097-92
Inner packaging/shipping	- / 10	- / 10

Potential equalisation casing 10² and 16²

- for bathrooms or similar
- with potential equalisation rail, protected against corrosion
- including cover



Length x Width x Depth	107 x 107 x 57 mm	238 x 208 x 68 mm
Cables up to 16 ² , single and stranded wire	-	7
Circular conductors Ø 8–10 mm	-	1
Circular conductor 6–16 ² , also uncut	1	-
Cables 1.5–10 ² (for bathrooms or similar)	6	-
Flat strip up to 30 mm wide	-	1
	-	•
Art. No.	1095-73	1097-75
Inner packaging/shipping	- / 10	- / 1

Note

Other earthing products can be found at our website.

Replacement cover

- flat cover edge
- surface roughened



For casing size - flush-mounting boxes	For casing size - cavity wall boxes	For casing size - concrete construction boxes	Fireproof	Art. No.	Inner packaging/shipping
87 x 87 mm	-	-	650 °C	1094-13	10 / 450
107 x 107 mm	-	-	650 °C	1095-13	10 / 500
159 x 159 mm	-	-	650 °C	1096-13	10 / 200
107 x 107 mm	105 x 105 mm	128 x 128 mm	850 °C	1095-93	10 / 500
159 x 159 mm	165 x 165 mm	180 x 180 mm	850 °C	1096-93	10 / 200
240 x 142 mm	238 x 142 mm	-	850 °C	1092-93	- / 5
238 x 208 mm	235 x 205 mm	250 x 220 mm	850 °C	1097-93	5 / 100
240 x 284 mm	-	-	850 °C	1092-95	- / 5

Separator walls

- for junction casings
- can be retrofitted to separate electrical circuits



for casing size	Halogen-free	Fireproof	Art. No.	Inner packaging/shipping
87 x 87 mm	•	650 °C	1094-20	- / 10
107 x 107 mm	•	650 °C	1095-20	- / 10
159 x 159 mm	•	650 °C	1096-20	- / 10
238 x 208 mm	•	650 °C	1097-22	- / 10
240 x 142 mm	•	650 °C	1092-20	- / 10



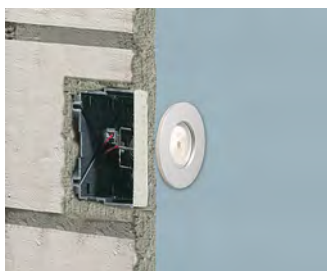
Universal installation housings

Universal installation housings for a wide range of device installations always ensure optimum installation space for all kinds of devices. The intelligent housing design of all six housings ensures stability and secure hold in the wall.

- For displays, LED lamps and much more
- For installing almost all shapes and sizes
- Mineral fibreboard allows individual installation opening



Examples of use



Installation



Make an appropriate wall opening, feed the cables and conduits into the housing and fasten it (using plaster) in the wall.



You can create the installation opening before or after inserting the housing. The equipment is attached by simply clamping it in or screwing it into the mineral fibreboard.



Use only screws that go into but not through the mineral fibreboard when attaching the device! (e.g. SPAX countersunk head screw 3.5 x 15 mm)!

Note

Observe the maximum stroke length of the saw blade when sawing the installation opening.

Universal installation housing with mineral fibreboard

- 2 parts, consisting of housing and mineral fibreboard
- all-round groove denotes the maximum opening dimension



Length x Width x Depth	87 x 87 x 75 mm	107 x 107 x 72 mm	159 x 159 x 90 mm
Universal opening size up to max.	57 x 57 mm	77 x 77 mm	129 x 129 mm
For devices with an installation depth of max.	60 mm	60 mm	75 mm
M16 conduit entries	-	4	-
Conduit entries M20	10	14	20
Conduit entries M25	-	4	10
M32 conduit entries	-	-	4
Cable entries	16	12	-
Art. No.	1094-22	1095-22	1096-22
Inner packaging/shipping	- / 10	- / 10	- / 10

Universal installation housing with mineral fibreboard

- 2 parts, consisting of housing and mineral fibreboard
- all-round groove denotes the maximum opening dimension



Length x Width x Depth	240 x 142 x 102 mm	240 x 280 x 102 mm	238 x 208 x 83 mm
Universal opening size up to max.	199 x 102 mm	189 x 240 mm	198 x 168 mm
For devices with an installation depth of max.	90 mm	90 mm	70 mm
Conduit entries M20	24	36	20
Conduit entries M25	12	16	8
M32 conduit entries	6	10	4
Cable entries	16	12	-
Art. No.	1092-27	1092-28	1097-28
Inner packaging/shipping	- / 10	- / 10	- / 10

My housing. Made just for me!

You manufacture modern operating elements for building technology, or sensitive control panels for industrial equipment? For concrete, masonry or cavity walls?

We have the housing solution that you need!

- A high-quality, flexible, plastic housing.
- Developed on the basis of our many years of experience in plastics technology.
- Whatever dimensions your product has, we will create the best possible shape!
- Look for yourself – it couldn't be easier!



Configure the housing you need
the configurator on our website makes it possible: www.myhousing.eu





Interior Insulation box

One-gang junction box for electrical installations in internal insulation systems. For permanently secure and heat-bridge-free installation of switches, sockets and other devices in internally insulated exterior walls. For optimal room climate with proven protection from moisture damage. For use in many internal insulation systems.

- For installation in insulated interior walls
- Guarantees installation without heat bridges
- Moisture regulating and insulating
- Prevention of moisture induced structural damage
- Suitable for use in many insulation systems
- For insulation thicknesses 30 to 100 mm
- Installation on masonry without plaster



Examples of use



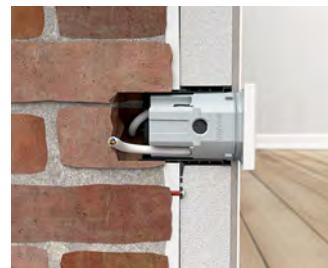
Historically significant facades in exposed masonry or stucco facades.



Facade of a listed half-timbered house.

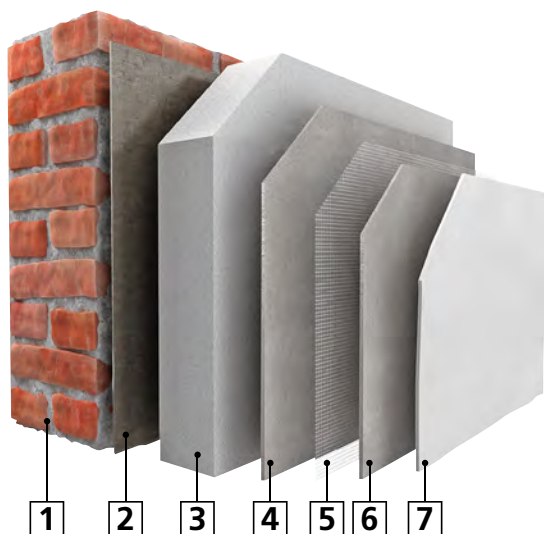


Suitable for e.g. diffusion-open insulation systems made of mineral insulation materials.



Can be used in existing masonry with different insulation thicknesses.

Specially developed for expert installation in diffusion-open internal insulation systems.



1 Masonry wall | 2 Adhesive | 3 Insulating board | 4 Reinforcement plaster | 5 Reinforcement fabric | 6 Reinforcement plaster | 7 Finish coat of plaster, decorative plaster

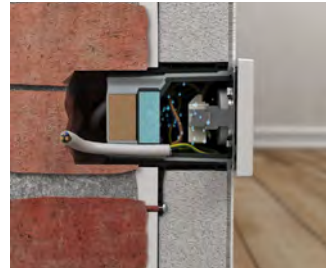
Technical information



Airtightness: · Maintains the level of airtightness, · No air through-flow possible, · Air flow behind the insulation system is prevented, · No convection, · No entry of mould spores



Heat insulation: • No heat bridge, • Room heat enters the box, not the cold wall, • Insulation component replaces function of the insulation system



Moisture regulation · Room-side moisture (caused by bad ventilation, many people in the room) is stored · Moisture is dispersed in a targeted way · No corrosion on the accessory terminals



Heat conductivity · Highly heat-conductive plastic for the inner box · Room heat is transferred to the box · The raised surface temperature prevents the formation of condensate

Proof of functionality

A comprehensive components test carried out by the TU Dresden – Institut für Bauklimatik – confirms demonstrably the functionality of the KAISER internal insulation box · The study of internal insulation systems with $\lambda > 0.03/\text{mK}$ in insulation thicknesses from 30 to 100 mm confirms that by using the new internal insulation box, hygrothermic damage can be excluded. The certificate can be downloaded as a pdf file from our website.



Processing instructions



Installation on masonry without using plaster or mortar.



Dimension details on the adapter allow easy adaptation to the insulation thickness.



The box allows 4 cables up to Ø 11.5 mm to be entered.



Cut exact and air-tight cable entry using a drill.

Creation of combinations



Combination of boxes by simply snapping the adapters into place.



Combination distance 71 mm by removing the premarked Edge.



Fully insulated through-wiring via support connector (Art. No. 9060-88).



Example of installation of a double socket

Installation



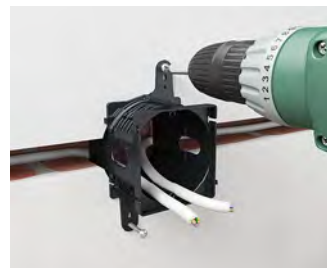
Determine insulation thickness, adjust fastening lugs of the Adapter.



For insulation thicknesses < 100mm, cut wall opening (Ø 82mm).



Define location on the wall and mark it.



Insert cable on rear side of adapter, fix adapter to the wall.



Insert cables into box, screw box to Adapter.



Strip cable, insert signal cover.



Apply the internal insulation around the box.



Remove signal cover and install required accessory.

Interior Insulation box

- One-gang junction box for insulated interior walls
- including attachment adapter
- rear cable entries
- circumferential airtight sealing lip
- Can be combined with each other



3D animation

Depth	90 mm
Adapter dimensions (LxWxD)	75 x 81 x 100 mm
for insulation thicknesses	30 - 100 mm
Device screws	2
Fixing screw spacing	60 mm
Cable entries of up to Ø 11.5 mm	4
Support connectors for each package	3
Art. No.	1159-90
Inner packaging/shipping	5 / 50

Fixing adapter internal insulation box

- For secure fixing of the internal insulation box
- For installation on masonry
- For standard combinations 71 mm



Adapter dimensions (LxWxD)	75 x 81 x 100 mm
for insulation thicknesses	30 - 100 mm
Art. No.	1159-91
Inner packaging/shipping	5 / 50

Support connector

- for through-wiring of combinations to IP 3X standard air-tight
- For Art. Nos. 1159-90, 1555-51, 9069-03, 9069-04 and 9074-03



Art. No.	9060-88
Inner packaging/shipping	25 / 100

Assignment table for making entry openings



HSS drill	Ø setting	
NYM cable	3 x 1.5 mm ²	8.0
	5 x 1.5 mm ²	9.5
	3 x 2.5 mm ²	9.5



Universal opening cutter	Ø setting	
Support connector	9060-88	14
Conduits	M16	17





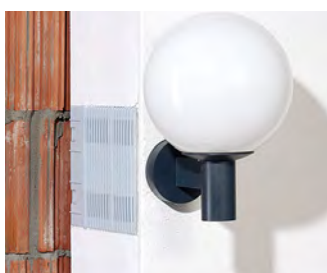
Universal equipment carrier

Universal equipment carrier for securely attaching electrical installations in or to heat-insulating external facades. Stable attachment of external lights, sockets, motion detectors, external temperature sensors, radio receivers, anemometers, cameras, letter boxes and much more.

- Secure attachment of various equipment to or in insulated external facades.
- Prevents heat bridges
- Quick installation with snap-in connections
- For insulation thicknesses of 60 to 360 mm

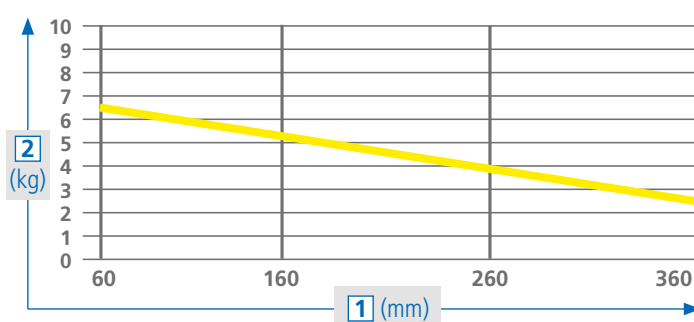
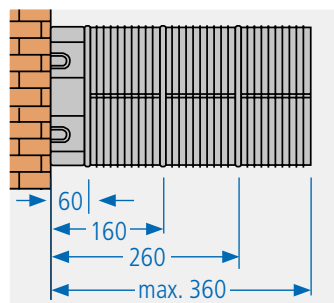
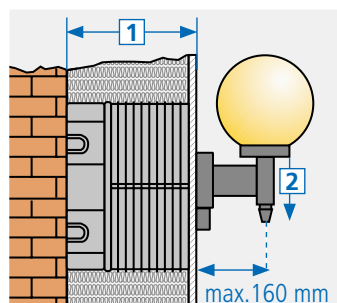


Examples of use



Processing instructions

Weight-bearing load dependent on the insulation thickness. The universal equipment carrier is only suitable for vertical installation (up-right)!



1 External insulation - insulation thickness | 2 Permissible load

Heat bridge calculation

Temp. in °C

not insulated insulated

When the equipment carrier is correctly installed, hardly any heat losses are measured.

Calculation and source:
PASSIV HAUS INSTITUT
Dr. W. Feist

[mm]	insulated [m ²]	not insulated [m ²]
160	0.027	0.300
360	0.039	0.520

Installation



Screw the housing base to the wall.



If necessary, adjust the extension element to suit the insulation thickness.



Fit the rock wool provided (supplied).



Fit the mounting plate (closing clip underneath) and close.



If you do not have a universal equipment carrier with combination insert (Art. No. 1159-26) available, you can use the rear markings to cut the installation opening for the fitting of one-gang boxes.



Fit and close the mounting plate with one-gang boxes.

Universal equipment carrier

- for use with externally-insulated walls
- for secure fixing of lights, intercoms, motion detectors etc.
- can be extended in steps of 100 mm each (max. 360 mm) using extension elements Art. No. 1159-27
- can be reduced in 10 mm steps
- With pre-cut rock wool parts through which the equipment carrier can be fed



Length x Width x Height	220 x 100 x 60-160 mm
Combination conduit entries M20/25	6
Art. No.	1159-24
Inner packaging/shipping	- / 5

Extension element

- to extend the Universal equipment carrier by 100 mm simply by latching on
- can be reduced in 10 mm steps by cutting
- with rock wool pre-cut parts to fill the extension panel



Length x Width x Depth	220 x 100 x 100 mm
Art. No.	1159-27
Inner packaging/shipping	- / 5



Universal equipment carrier with combination insert

Universal equipment carrier with combination insert for the installation of entryphones and installation accessories on the insulated external facade. The perfect basis for intercoms, sockets, switches and much more, and also for two-unit and three-unit combinations.

- Guarantees installation without heat bridges
- For entryphones and variable accessory installation combinations of 1 to 3 units
- For future expansion without damaging the external facade
- For insulation thicknesses up to 360 mm



Examples of use



The product is suitable for single, double or triple combinations...



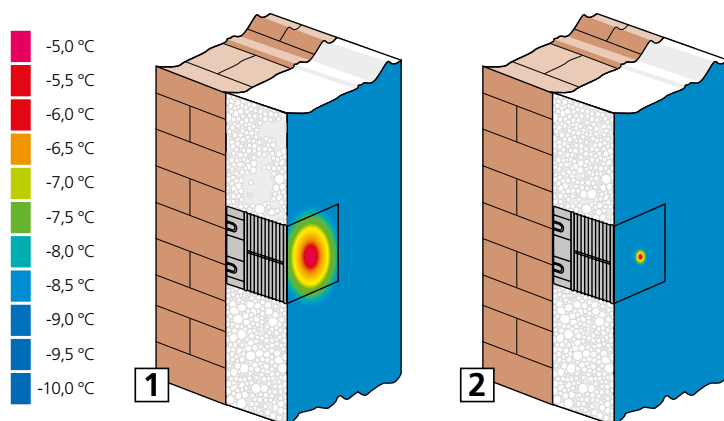
...and also permits future expansion without damage to the facade.



The equipment carrier with combination insert can be mounted horizontally or vertically.

Heat bridge calculation

If installed correctly, heat losses are hardly measurable. Calculation and source: inside: +20°C, outside: -10°C | PASSIV HAUS INSTITUT Dr. W. Feist



1 not insulated | 2 insulated

Installation



Define location on the wall and mark it.



Screw the housing base to the wall.



If necessary, adjust the extension element to suit the insulation thickness.



Attach the extension element and snap it into place.



Fit the rock wool insulation (supplied).



Position the combination insert (mounting clip at bottom) and snap into place.



The installation can now be fitted and installed.



After applying the plaster, attach the desired accessory.

Universal equipment carrier with combination insert

- for use with externally-insulated walls
- For secure mounting of intercoms, switches, sockets and many more
- Can be extended in steps of 100 mm using extension element
- With pre-cut rock wool parts through which the equipment carrier can be fed



3D animation

Length x Width x Depth	220 x 100 x 160 mm
Insulation thickness	60 - 160 mm
DIN EN conduit Ø	max. 25 mm
Cable entries	max. Ø 15 mm
Art. No.	1159-26
Inner packaging/shipping	- / 5

Extension element

- to extend the Universal equipment carrier by 100 mm simply by latching on
- can be reduced in 10 mm steps
- with rock wool pre-cut parts to fill the extension panel



Length x Width x Depth	220 x 100 x 100 mm
Art. No.	1159-27
Inner packaging/shipping	- / 5



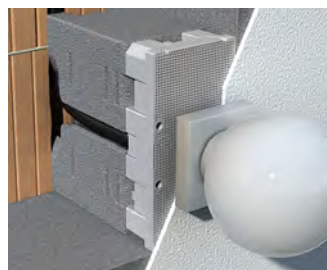
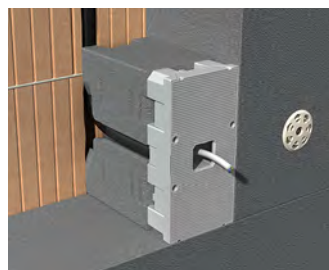
System equipment carrier

The system equipment carrier is designed to fit perfectly into the external insulation and in this way reliably prevents heat bridges. Easy, fast fixing with the screw dowles included in the scope of delivery permanently anchors the system equipment carrier on many surfaces. Ideal for stable fixing of external lamps, sockets, door intercom devices and many more. nd permanently. Heavy loads are not a problem.

- Extra-fast, easy installation
- 2 product types allow a wide range of applications
- Heat bridges are efficiently prevented
- Adaptable to insulation thickness in 10 mm steps – no cutting necessary
- Modular design for insulation thicknesses from 160 to 310 mm

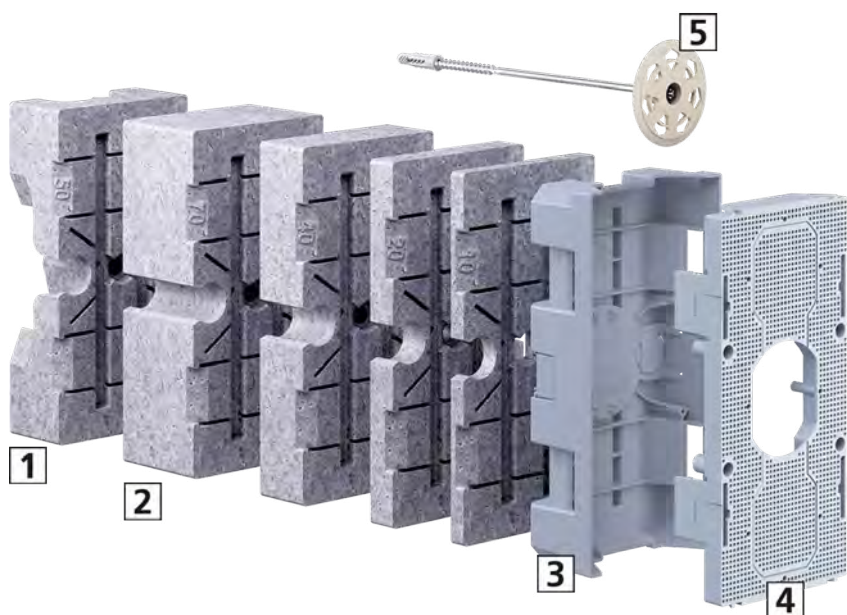


Examples of use



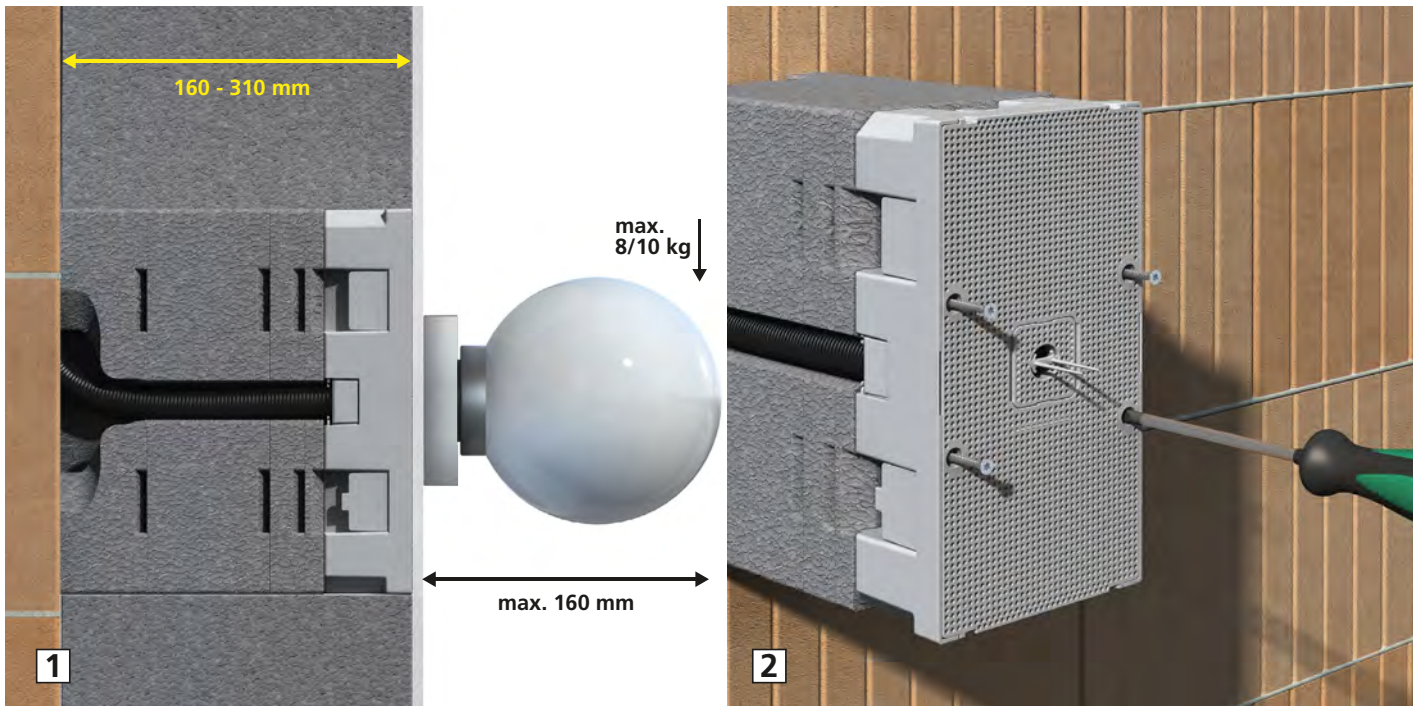
Versatile in use

The choice of two front parts and the modular design make the system equipment carrier a product which is extremely versatile in use. Cutting to size is not necessary because of adaptation to the insulation in 10 mm steps. Fixing by means of a single impact dowel reduces fitting time to a minimum, and at the same time it ensures secure anchoring to the base, e.g. masonry, concrete or wood materials.



1 Basic element | 2 Intermediate elements | 3 Housing base | 4 Front plate | 5 Screw-in wall-plug

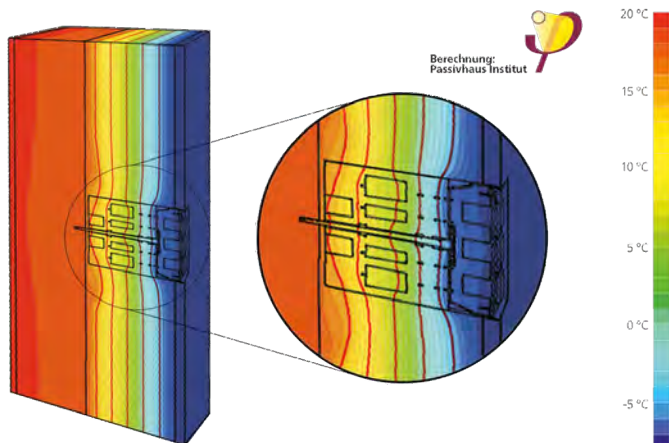
Weight-bearing loads



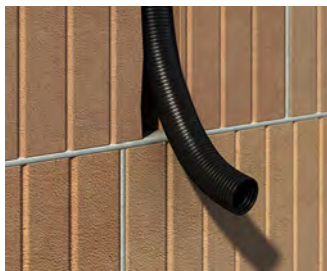
1 Weight-bearing loads – independently of the insulation thickness: For an overhang of 160 mm and insulation thicknesses of 160 - 310 mm; 8 kg without additional screwing of the front plate; 10 kg with additional screwing of the front plate. The system equipment carrier must be fitted vertically. The hole for the dowel must be drilled to make an exact fit. **2** Increasing the weight-bearing loads: To fix heavier loads, we recommend additional securing of the mounting plate by means of four Ø 3.5 x 25 screws

Heat bridge calculation

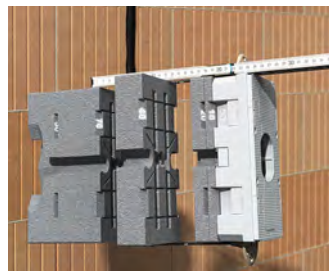
A heat bridge calculation carried out by the Passivhaus Institut in Darmstadt shows that the system equipment carrier has a point-specific heat bridge loss coefficient of $x_{WB} < 0,01 \text{ W/K}$ and meets the requirements of a heat bridge-free facade.>



Installation



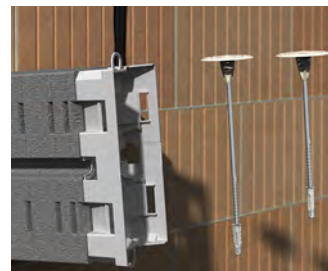
Masonry with conduit Exit.



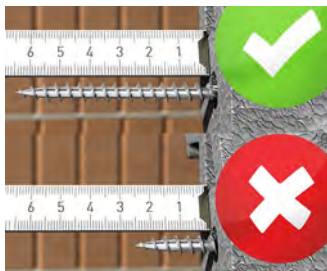
Adapt equipment carrier to insulation thickness by selecting suitable components.



Cut Ø 8 mm drill hole at least 50 mm deep.



Remove the side lugs from the screw dowel. Note the different lengths!



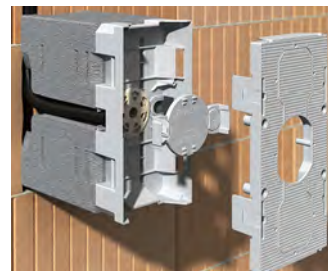
The dowel screw must protrude from the basic element by at least 40 mm.



Hold the equipment carrier against the wall, align it, and fix it using the dowel.



Press the conduit into the side guide and cut it to length.



Snap on the required front part. Fit Styrofoam cap and the dowel cover.

Tips and tricks



For an additional conduit, remove the bridges next to the Neopor® parts...



...and the perforated entry broken out in the case of the dowel cover.

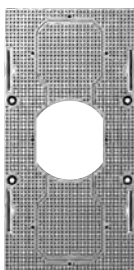


For air-tight installation, fit a suitable air-tight sleeve to the conduit exit site...



...and fit a sealing plug to the conduit.

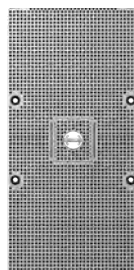
Combinations with front panels



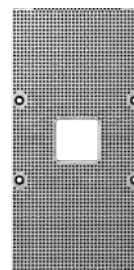
Multiple accessories front panel (Art. Nos. 9966.31 and 9966.32); opening Ø 1 x 68 mm.



2-way and 3-way combinations can be made by breaking out the covers.



Delivery status of (Art. Nos. 9966.21 and 9966.22), universal mounting plate.



Universal mounting plate with broken-out exit for luminaires.

Modular support for devices 160 – 240 mm

- Adaptation to insulation thickness possible in 10 mm steps
- including 2 screw dowels
- Material: Polyethylene
- Insulation material: Neopor
- Processing temperature: - 5 °C / + 60 °C



INNOVATION



3D animation

Length x Width x Height	220 x 110 x 160-240 mm	220 x 110 x 160-240 mm
Combination	1x1 / 2x1 / 3x1	•
Combination conduit entries M20/25	2	2
Halogen-free	•	•
CE	•	•
Screw-in wall-plug	1 x 200 mm, 1 x 240 mm	1 x 200 mm, 1 x 240 mm
Art. No.	9966.31	9966.21
Inner packaging/shipping	- / 5	- / 5

System equipment carrier 240 - 310 mm

- Adaptation to insulation thickness possible in 10 mm steps
- including 2 screw dowels
- Material: Polyethylene
- Insulation material: Neopor
- Processing temperature: - 5 °C / + 60 °C



INNOVATION



3D animation

Length x Width x Height	220 x 110 x 240-310 mm	220 x 110 x 240-310 mm
Combination	1x1 / 2x1 / 3x1	•
Combination conduit entries M20/25	2	2
Halogen-free	•	•
CE	•	•
Screw-in wall-plug	1 x 280 mm, 1 x 320 mm	1 x 280 mm, 1 x 320 mm
Art. No.	9966.32	9966.22
Inner packaging/shipping	- / 5	- / 5



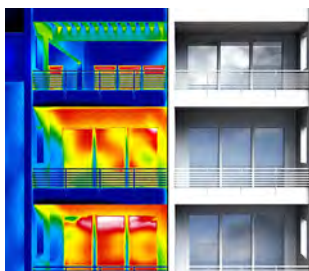
Installation housing ThermoX® Iso +

Installation housing for the secure and heat-bridge-free installation of rigid and swivelling built-in LED luminaires or other installation accessories in insulated ceilings. The housing protects the surrounding insulation material against the high operating temperatures of the LED luminaire and protects the LED luminaire itself against dirt. The integrated insulation element reliably prevents heat bridges.

- For the installation of luminaires and installation accessories in insulated ceilings
- Suitable for all standard insulation materials
- Thermically-protected installation space
- The integrated insulation element prevents heat bridges
- For insulation thicknesses from 100 mm to 160 mm (170 mm to 350 mm with extension element)
- Adjustment to the insulation thickness in 10 mm steps.
- Installation diameter up to Ø 86 mm



Examples of use



Buildings are constructed heat-bridge-free using the WDVS composite thermal insulation systems, e.g. ...



...insulated external ceilings of built-over terraces with lighting.



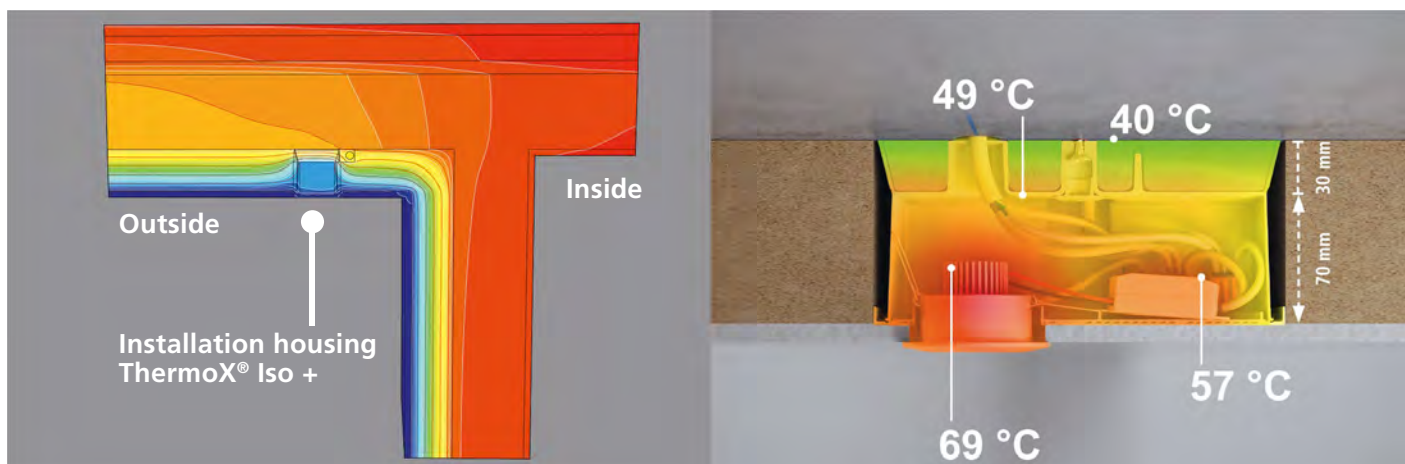
...insulated, recessed entrance areas with lighting.



...insulated facades with outdoor lighting over the entrance and garage door.

Heat-bridge calculation / temperature profile

A heat bridge calculation by the Passivhaus Institut, Darmstadt, shows that heat bridges can be reliably prevented by the installation housing for the external insulation. The installation housing is also suitable for use in passive houses.



1 Heat bridge profile | 2 Installation housing for external insulation (ambient temperature 25°C) with 8 Watt LED illumination.

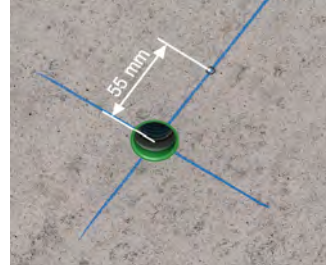
Installation



Ceiling with conduit or cable exit. Measuring the insulation thickness.



Adapt installation housing to the insulation thickness.



Mark fixing point 55 mm from the luminaire centre point.



Alternative: Position the installation housing with the alignment markings for the luminaire and mark the drill hole.



Drill a Ø 8 mm hole for a standard dowel and insert the dowel.



Break out the conduit entry or cut an exact cable entry for airtight installation, e.g. by using the KAISER universal opening cutter (Art. No. 1085-80).



Screw installation housing to the ceiling.



Fit the screw covering.



Insert the conduit or cable into the installation housing; fit sealing plug to the conduit.



Ceiling exit Ø 68 mm for knocking in, ceiling outlet up to Ø 86 mm for cutting out.



Depending on the required installation diameter ceiling exit of Ø 68 mm or up to Ø 86 mm, turn the front part by 180° and latch into position.

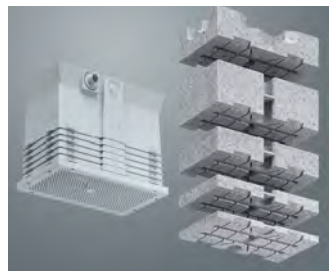


Applying insulation and plaster. Fitting the LED installation spotlight with plenty of space for the ballast device.

Processing instructions



Many entry possibilities for conduits and cables.



Adaptation to the insulation thickness (< 160 mm) simply by cutting-off using measuring scale or (> 160 mm) with extension element.



Universal front part for installation diameter of Ø 68 mm for knocking in or universal up to Ø 86 mm for cutting out (turn by 180°).



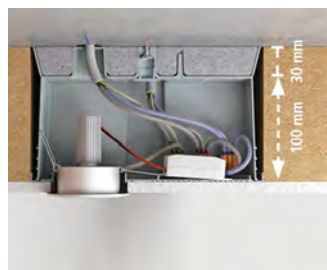
Alignment markings for the luminaire position and the fixing point.



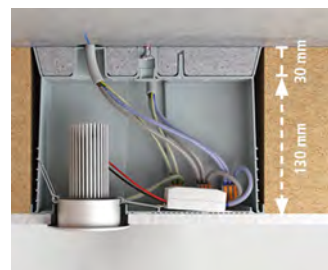
Adaptation to the insulation thickness (< 160 mm) in 10 mm steps, e.g.:



Installation depth 70 mm (insulation thickness 100 mm).



Installation depth 100 mm (insulation thickness 130 mm).



Installation depth 130 mm (insulation thickness 160 mm).

Installation housing ThermoX® Iso +

- with external insulation of ceilings
- for insulation thicknesses of 100 mm and above
- Adjustment to the insulation thickness in 10 mm steps.
- for LED luminaires up to 8 Watt
- max. luminaire installation depth 70 mm to 130 mm (insulation thickness less 30 mm)
- Front panel with ceiling exit (CE) Ø 68 mm or universal up to Ø 86 mm
- Space for ballast devices 120 mm x 30 mm x 28 mm (installation diameter 68 mm, installation depth 70 mm)



INNOVATION



3D animation

Length x Width x Height	220 x 110 x 160 mm
Insulation thickness	100 - 160 mm
Ceiling exit (CE) Ø	68 - 86 mm
max. installation depth for the LED luminaires	70 - 130 mm
max. lamp output	8 Watt
Cable or conduit entries up to max. Ø 25 mm	5
Art. No.	1159-70
Inner packaging/shipping	- / 6

Extension element

- for installation housing for external insulation
- for insulation thicknesses 170 - 350 mm
- Adjustment to the insulation thickness in 10 mm steps.



Length x Width x Height	220 x 110 x 190 mm
Insulation thickness in combination with Art. No. 1159-70	170 - 350 mm
Art. No.	1159-71
Inner packaging/shipping	- / 6



FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

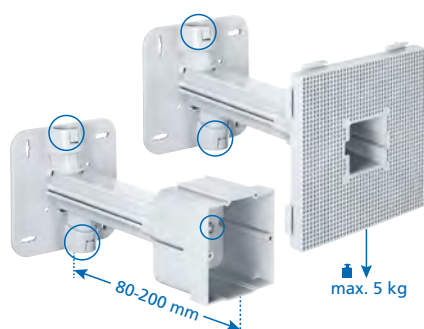
FIRE PROTECTION

SURFACE

CABLE GLANDS

TOOLS

SERVICE



Telescope equipment carrier and switch box.

For the safe installation of luminaires, motion detectors and many other accessories in and on insulated facades. Optimised for the latest insulation thicknesses, the telescopic products permit a wide range of applications in external faces with insulation thicknesses from 80 to 200 mm. The two conduit entries on the basic carrier guarantee secure conduit connection. The cable routing which is integrated in the carrier arm ensures a fast, easy cable pull-in.

- Stable fit to walls and ceilings
- For insulation thicknesses from 80 to 200 mm
- Equipment carriers for accessories up to max. 5 kg
- One-gang boxes can be combined with a standardised 71 mm combination distance
- Conduit entries on the carrier with internal cable routing
- Integrated indicated dimension allows easy cutting off to insulation thickness
- Front fixing and depth stop prevent incorrect installation
- Front fixing of the mounting plate/one-gang box



Examples of use



Installing the basic carrier



Prepare the cable routes. Try to avoid direct cable routing through masonry and insulation.



The internal cable routing can easily be broken off to permit cable routing from the rear.



Saw the carrier to the required length. The integrated indicated dimension ensures exact reading of the dimension.



Slotted holes allow precise alignment even when the drill holes are not exact.

Installing the equipment carrier



Push the one-gang box onto the supporting arm as far as the stop.



The front fixing and the depth stop always ensure exact fitting and prevent incorrect installation.



Side fixings allow the secure positioning of several equipment carriers next to each other...



...and stable installation for accessories when the attachment points are far apart.

Installing the one-gang box



Push the one-gang box onto the supporting arm as far as the stop.



The front fixing and the depth stop always ensure exact fitting and prevent incorrect installation.



For multiple combinations, cut out the side separator walls and connect the one-gang boxes.



For multiple combinations, cut out the side separator walls and connect the one-gang boxes.

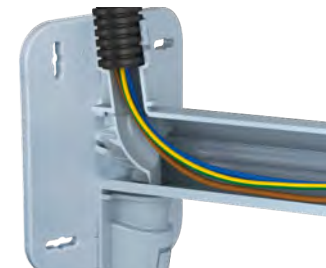
Product advantages



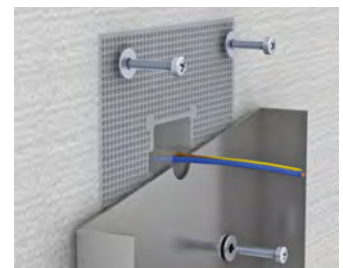
Dimensions shown on the carrier ensure that the carrier length can easily be sawn off to match the insulation thickness – no need for measuring!



Slotted holes allow precise alignment even when the drill holes are not exact.



The two conduit entries on the carrier guarantee secure conduit support. The integrated cable routing ensures fast, easy cable insertion.



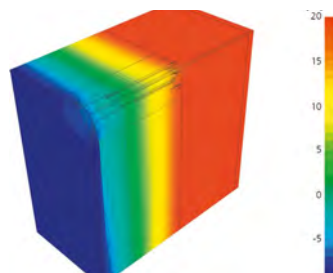
Luminaires and many other accessories are easily fitted in the mounting plate through the plaster using screws up to 4 mm Ø.

Front fixing of telescope equipment carrier and box

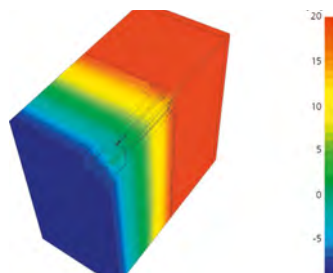


Heat bridge calculation / weight-bearing load

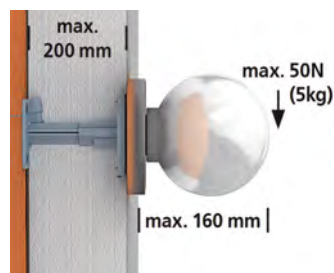
A heat bridge analysis produced by the Passivhaus Institut Dr. Feist, Darmstadt, showed that heat conductivity is only changed to a negligible extent and consequently it is demonstrated that no heat bridges result. When the space between the basic carrier and mounting plate / one-gang box is filled with insulating material, the loss coefficient „x WB“ for the telescope equipment carrier is 0.0085 W/K, and 0.0077 W/K for the telescope switch box.



Telescope equipment carrier



Telescope switch box



When fitting an equipment carrier to a wall, ensure that the cable entries are positioned vertically.

Telescope equipment carrier

- for secure installation of luminaires and much more
- for use with external insulation of walls and ceilings
- installation area for dowel-free installation of accessories



3D animation

Length x Width	120 x 120 mm
Insulation thickness	80 - 200 mm
max. attachment surface for devices	120 x 120 mm
Weight when attached to ceiling	5 kg
Weight when attached to wall	5 kg
Conduit entry M20 on the carrier	2
Art. No.	1159-60
Inner packaging/shipping	- / 10

Telescope switch box



- for secure fixing of sockets and much more
- for use with external insulation of walls and ceilings
- with 2 screw domes
- standardised combination distance 71 mm



Combination one-gang box



- for combinations with telescope switch box (Art. No. 1159-61)



Length x Width x Depth	50 x 68 x 70 mm	50 x 68 x 70 mm
Insulation thickness	80 - 200 mm	-
Conduit entry M20 on the carrier	2	-
Cable entries up to Ø 16 mm	2	2
Art. No.	1159-61	1159-62
Inner packaging/shipping	- / 10	- / 10

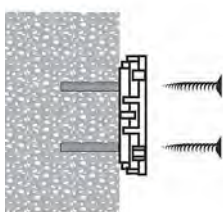
ISO box set

ISO box set for securely attaching one-gang boxes on the masonry in insulated facades.

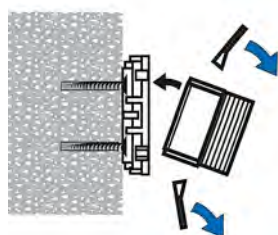
- For securely attaching switches, sockets etc. in the external insulation
- Can be extended as required
- High torsional strength, and can be combined by means of snap-in connector
- Guaranteed standard combination distance of 71 mm



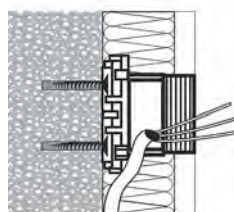
Installation



Secure front part to the wall.



Break off the nail straps of the extension ring and screw the ring to the front part (device screws 40 mm).



Extension rings can be fitted for adaptation to insulation thickness.



Note

Pay attention to expert cable entry and cable length! If necessary, extend cable prior to installation. All cavities in the ISO box set must be completely filled with insulating material in order to prevent heat bridges. Not suitable for internal insulation – please use Art. No. 1159-90 for this purpose!

ISO box set

- mounts on wall surface
- for exterior insulation
- consists of front part, extension ring and 2 ring attachment screws 40 mm
- compensation height 70 mm, can be reduced by 3 x 5 mm to 55 mm
- multiple extensions possible with extension ring



Installation opening	60 mm
Art. No.	1155-03
Inner packaging/shipping	5 / 10

UP extension ring



UP extension rings for extending existing one-gang boxes or one-gang junction boxes.

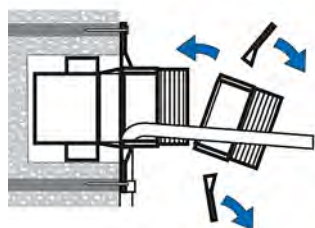
- For extending existing one-gang boxes
- Can be attached on top of existing one-gang boxes and one-gang junction boxes
- For securely attaching switches, sockets etc.
- Can be extended as required
- High torsional strength, and can be combined by means of snap-in connector
- Guaranteed standard combination distance of 71 mm



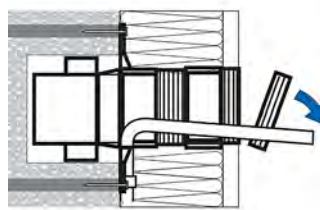
Installation



The existing one-gang box must be fitted flush to the wall and securely anchored. Using 40 mm device screws, screw the ISO extension ring to the existing box. (If necessary, also secure with nails.)



For multiple extensions: break off the nail straps on all additional extension rings and connectors. Fit with an offset of 90° and screw to the last ring.



Every extension ring can be shortened to adapt to the insulation thickness. Fill all cavities in the one-gang box and extension rings with insulating material (no heat bridge created).

Note

Pay attention to expert cable entry and cable length! If necessary, extend cable prior to installation. All cavities in the ISO box set must be completely filled with insulating material in order to prevent heat bridges. Not suitable for internal insulation – please use Art. No. 1159-90 for this purpose!

UP extension ring

- compensation height 50 mm, can be reduced by 3 x 5 mm to 35 mm
- multiple extensions possible
- 2 x 40 mm ring attachment screws needed, Art. No. 2472-40



Installation opening	60 mm
Art. No.	1155-02
Inner packaging/shipping	10 / 50

Mini equipment carrier

Mini equipment carrier for later attachment of a variety of accessories to insulated and already plastered composite thermal insulation systems. Luminaires, motion detectors, external sensors etc. can be permanently attached easily, quickly, securely and without creating heat bridges.

- For retrofitting in insulated facades
- Exact flush aligning of attachment devices
- Guarantees installation without heat bridges
- 4 swivels for secure anchoring
- No moisture penetration



Examples of use



The small mini device carriers are concealed by luminaires and smaller accessories.



Secure attachment of motion detectors.



Invisible even when close to edges.



Secure, easy fitting of the corner mounting.

Technical information



The swivels anchor the KAISER mini equipment carrier in the insulation.



Clamping ribs, sealing lip and holding ring provide additional stability.



The adjustable screw-on surface accommodates a tolerance of up to 10 mm.



The screw-on surface is concealed even when the attachment points are close to the edge.

Hardened metal cutter Ø 20 mm for KAISER mini equipment carrier



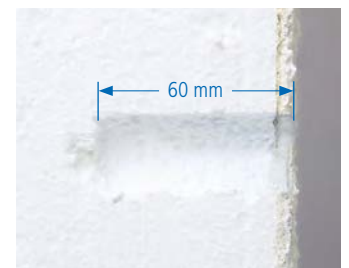
The hardened metal cutter Ø 20 mm with hardened metal cutters for exact installation openings. (Art. No. 1088-06).



By simply unscrewing the cutter head, the drilled core can be removed quickly using a centering drill.



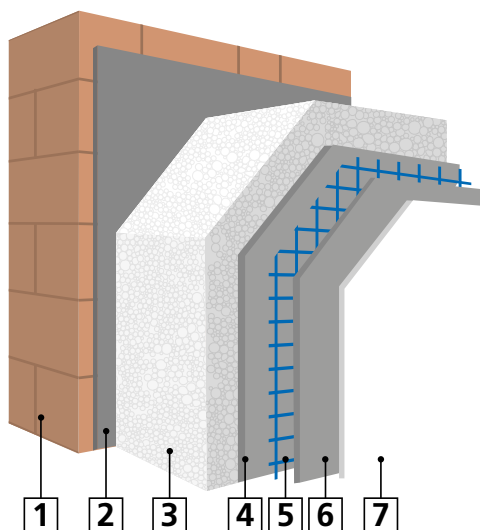
The drilling depth stop ensures that only the amount of insulation material is removed which is necessary to secure the mini equipment carrier.



The insulating capacity remains intact despite the installation opening.

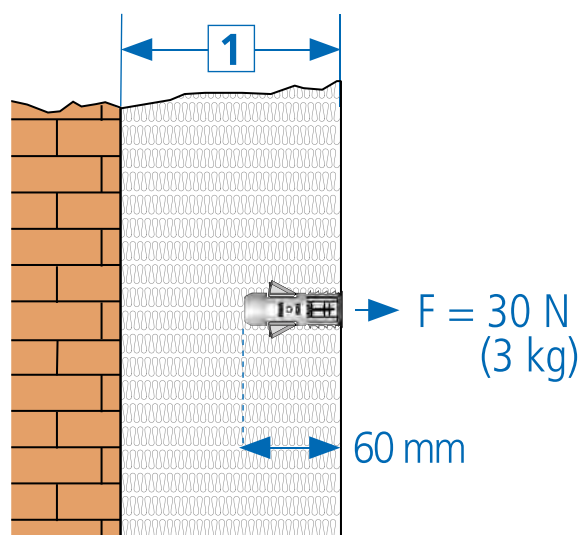
Structure of an organic WDVS

The mini equipment carrier was developed especially for later installation in organic composite thermal insulation systems.



1 Masonry wall | 2 Adhesive | 3 Insulating board | 4 Reinforcement plaster | 5 Reinforcement fabric | 6 Reinforcement plaster | 7 Finish coat of plaster, decorative plaster

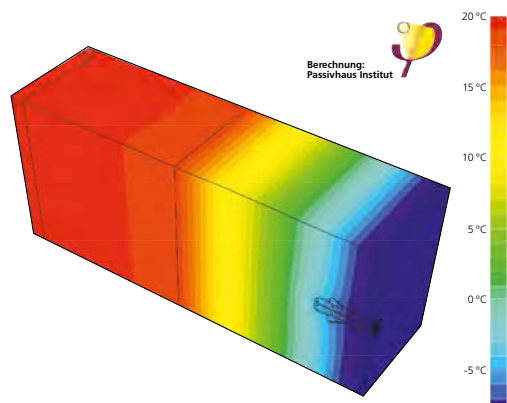
Maximum pull-out force for the mini equipment carrier.



1 External insulation - insulation thickness

Heat bridge calculation

A heat bridge analysis produced by the Passivhaus Institut Dr. Feist, Darmstadt, showed that heat conductivity is only changed to a negligible extent and consequently it is demonstrated that there are no heat bridges in the electrical installation. The loss coefficient „x WB“ is 0.000054 W/K.



Installation

The two-piece mini equipment carrier can be anchored securely in the insulated external facade in a few simple steps.



Create installation openings of Ø 20 mm (e.g. KAISER hardened metal cutter with depth stop).



Release the cutter head and remove the drilled core.



Press the anchor sleeve of the mini equipment carrier into the installation opening so that it is flush with the wall.



Press in the attachment core until it locks into the anchor sleeve.



Pressing in the attachment core anchors the swivels in the insulation material and provides a secure fit for the mini equipment carrier.



The mini equipment carriers now provide stable and wall-flush screw-on surfaces...



...and provide a tolerance compensation of up to 10 mm. This permits later exact alignment of all installation accessories.



The luminaire is securely and permanently flush-mounted to the wall.

Mini equipment carrier

- Retrofitting in existing composite thermal insulation systems
- consisting of anchor sleeve and attachment core
- for insulation thicknesses of 80 mm and upwards
- Screw-on surface with 10 mm tolerance compensation
- 4 swivel cutters
- 2 ribs
- Sealing lip on all sides
- Weight loading up to 30 N (3 kg)
- equipment attached with self-tapping screws with Ø of 3.2 - 4 mm



3D animation

Length	60 mm
Installation opening	Ø 20 mm
Art. No.	1159-50
Inner packaging/shipping	10 / 100

Accessories: Hardened metal cutter Ø 20 mm, Page 327

One-gang junction box ECON® Styro55



One-gang junction box ECON® Styro55 for later attachment of a wide range of installation accessories to insulated and pre-plastered composite thermal insulation systems (EIFS). Switches, sockets, intercoms etc. can be permanently attached easily, quickly, securely and without heat bridges.

- For retrofitting in insulated facades
- Cutter system prevents damage to cables
- Guarantees installation without heat bridges
- 4 swivels for secure anchoring
- No moisture penetration



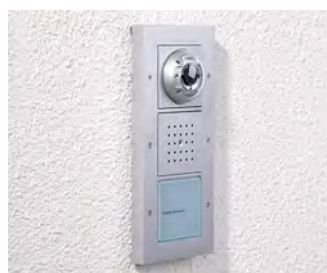
Examples of use



Secure attachment to a EIFS without adhesive.



Accessory installation without disrupting the insulation or creating heat bridges.



Secure and flush-mounting installation including multiple combinations.

Technical information



Tool-free and wind-tight cable entry prevents air draughts along the cable.



The swivels anchor the box securely in the insulation material. The ribs at the front also give the box additional support.



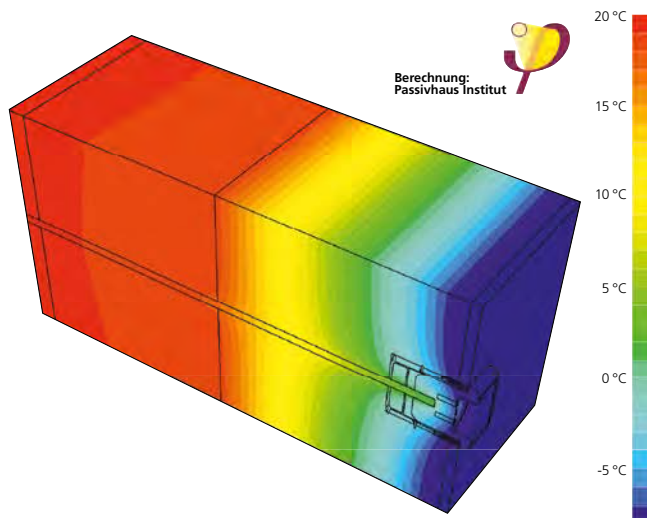
The lip at the back forms a sealing barrier to the insulation material and prevents air draughts along the box.



The all-round sealing lip seals the EIFS, so no moisture can penetrate.

Heat bridge calculation

A heat bridge analysis produced by the Passivhaus Institut Dr. Feist, Darmstadt, showed that heat conductivity is only changed to a negligible extent and consequently it is demonstrated that no heat bridges result. The loss coefficient „x WB“ is 0.005044 W/K.



Installation with an existing cable



Ensure that the cable was fed through the insulation material panel. Shorten the existing cable to approximately 10 cm.



Fasten the KAISER centering aid Ø 68 mm (Art. No. 1090-68) to the composite thermal insulation system using steel nails.



Using carbide cutter 180 (Art. No. 1088-07), cut the installation opening precisely as far as the depth stop.



Remove the drilled core from the opening.



The opening is now only as deep as necessary. The insulation remains intact and the cable is undamaged.



The ECON® technology elastic sealing membrane ensures a wind-tight seal around the cable as it is pushed through.



Simply insert the ECON® Styro55 one-gang junction box in the installation opening.



Press the box in the holding ring until the rim is flush with the wall.



Use KAISER tool (Art. No. 1090-22) to position the four swivels in the catch mechanism.



Flush-mounting and secure fit of the one-gang box.



Using the KAISER stripping pliers, (Art. No. 1190-02), remove the insulation from the cable.



The swivel sheaths on the box seat themselves securely in the insulation material.

Installation of combinations



Using the combined cutting aids (Art. No. 1090-68), cut installation openings at the standard spacing of 71 mm.



Before inserting the support connector, remove the strap without using a tool.



Fully-insulated through-wiring is accomplished using the KAISER support connector (Art. No. 9060-88).



Secure and permanent attachment of multi-gang combinations, intercoms and much more.

One-gang junction box ECON® Styro 55


- Retrofitting in existing composite thermal insulation systems
- for insulation thicknesses of 80 mm and upwards
- 4 swivel cutters
- Clamping ribs
- Sealing lip on all sides
- including setting tool (Art. No. 1090-22) per packaging unit



INNOVATION



3D animation

Depth	60 mm
Cut hole Ø	68 mm
Device screws	2
Cable entries up to Ø 15 mm	2
Support connectors for each package	5
	•
Art. No.	1555-51
Inner packaging/shipping	10 / 100

Accessories: Centering aid Ø 68 mm, Page 328 ; Hardened metal cutter 180, Page 327

One-gang junction box - ECON® Iso +

The ECON® Iso + one-gang junction box is the solution for electrical installation work in wood fibre insulation boards. Four swivels, specially designed for use in solid heat insulation and plaster base boards, ensure secure anchoring – also for retrofitting! The ECON® technology elastic sealing membrane guarantees air tightness and allows the toolless insertion of conduits or cables. This means that switches, sockets, intercoms and many more can be installed permanently and securely and heat bridge-free.

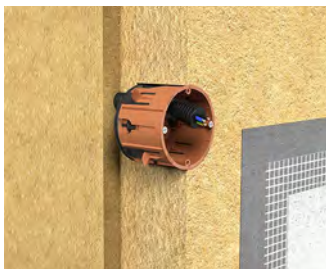
- Air-tight and heat bridge-free electrical installation in accordance with DIN 18015-5
- Suitable for pressure-resistant insulation panels of 60 mm thickness and greater
- 4 swivels for secure mechanical anchoring
- Making of combinations is possible



3 times awarded in 2019:



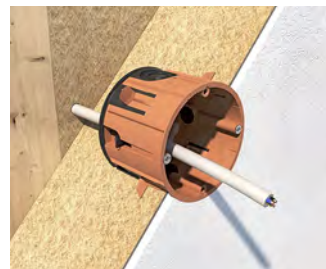
Examples of use



Ecological wall insulation in old and new buildings in both wood and solid constructions.



Suitable for mounting in pressure-resistant wood fibre insulation boards with a medium gross density of 110 - 180 kg/m³.



Retrofitting is possible. For retrofitting on the plastered wall, fit the box without a mounting frame.

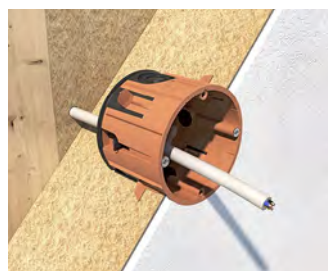


User-friendly mounting of the installation of accessories - also in combination - possible.

Processing instructions



Mounting in an unplastered insulation panel – use a mounting frame.



Mounting in a plastered insulation panel is possible, even with an existing cable.



The membrane which seals the swivel guarantees airtightness.

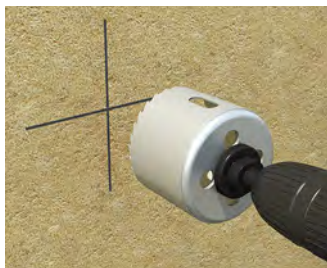


Plenty of entry options using ECON® technology for conduits and cables.

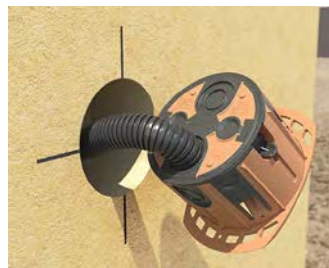


Plenty of installation space and four attachment points for user-friendly mounting of the installation accessories.

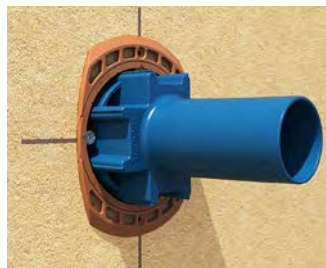
Mounting on unplastered insulation panel



Cut the Ø 68 mm installation opening using a suitable cutter (e. g. Art. No. 1083-70; countersink hole cutter and ejector spring must be removed).



Fit mounting frame, then feed the cable or conduit through the airtight membrane and into the box.



Using gentle pressure, insert the setting tool (Art. No. 1090-22) into the box as far as the stop. The swivels much expand completely.

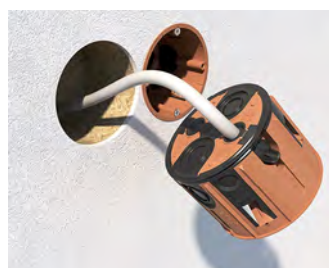


Before plastering, fit the signal cover (Art. No. 1181-60). Protects the interior of the box, the screw domes and the screw heads.

Mounting on plastered insulation panel in a combination



Using cutter (Art. No. 1088-07) and two centering aids (Art. No. 1090-68), cut two installation openings at least 55 mm deep and with a diameter of 68 mm.



The ECON® technology sealing membrane wraps itself airtight round the cable during insertion.



Through-wiring takes place after removal of the opening tabs and fitting of the support connector.



Installation of various installation accessories is possible – including in combinations.

One-gang junction box - ECON® Iso +

- Sealing lip on all sides
- 4 swivel cutters
- 4 screw domes
- with 2 device screws +/-
- including centering aid
- including setting tool (Art. No. 1090-22) per packaging unit




NEW

INNOVATION



3D animation

Depth	55 mm
Cut hole Ø	68 mm
for insulation thicknesses	> 60 mm
Device screws	2
Conduit entries M20	4
Cable entries of up to Ø 11.5 mm	4
Support connectors for each package	5
Halogen-free	•
	•
Art. No.	1159-55
Inner packaging/shipping	10 / 100

International products

For international projects, we offer a large range of products which meet the relevant national standards and regulations.

- Dimensions and approvals based on national standards
- Suitable installation tools
- Many combination options




Q-range® one-gang boxes



- For masonry installation
- With screw domes
- Conduit entries on all sides
- Suitable for 60 / 71 mm combinations
- Protection class IP 2X



Length x Width x Depth	60 x 60 x 50 mm	60 x 60 x 65 mm	60 x 60 x 50 mm	60 x 60 x 65 mm
Device screws	2	2	-	-
Fixing screw spacing	60 mm	60 mm	60 mm	60 mm
Horizontal conduit entry	2 x M20, 2 x M16/20 mm	2 x M20, 2 x M16/20 mm	2 x M20, 2 x M16/20 mm	2 x M20, 2 x M16/20 mm
Base conduit entry	2 x M20, 2 x M16, 2 x Ø 10,5 mm	2 x M20, 2 x M16, 2 x Ø 10,5 mm	2 x M20, 2 x M16, 2 x Ø 10,5 mm	2 x M20, 2 x M16, 2 x Ø 10,5 mm
Vertical conduit entry	2 x M16, 4 x M16/20 mm	2 x M16, 4 x M16/20, 4 x M20 mm	2 x M16, 4 x M16/20 mm	2 x M16, 4 x M16/20, 4 x M20 mm
Halogen-free	-	•	•	•
Screw domes for device attachment	V: 2 x 3, H: 2 x 1	V: 2 x 3, H: 2 x 1	V: 2 x 3, H: 2 x 1	V: 2 x 3, H: 2 x 1
Through-wiring fields	1	2	1	2
	•	•	•	•
Art. No.	7500	7650	7501	7651
Inner packaging/shipping	10 / 100	10 / 100	10 / 100	10 / 100

Q-range ECON® one-gang box



- Air-tight version with sealing membrane
- Centre distance 60 mm horizontally as well as 71 mm horizontally and vertically
- 2 x 3 fixed entries, 2 x 2 fixed entries, 4 base entries



Length x Width x Depth	60 x 60 x 50 mm
Horizontal conduit entry	2 x 20 + 2 x 16 mm
Base conduit entry	2 x 20 + 2 x 16 mm
Vertical conduit entry	2 x 20 + 1 x 16 mm
Halogen-free	•
for screw fixing	•
Art. No.	752
Inner packaging/shipping	10 / 100

Q-up®

- Plaster compensation frame with 2 screws 40 mm, Pozidriv drive
- For boxes which are placed too deeply



Art. No.	994
Inner packaging/shipping	10 / 100

Q-signal®

- Protects the box interior, the screw domes and screw heads during plastering
- reusable



Art. No.	975
Inner packaging/shipping	10 / 100

One-gang box - Swiss standard



- suitable for screw or claw fixing of accessories
- for device screws Ø 3 mm
- max. tightening torque 0.5 Nm
- with injection-moulded signal cover
- for assembling combinations, centre distance 60 mm
- low-lying plaster grips



Depth	59 mm
Diameter	71 mm
Break-out openings Ø 20 mm	11
Combination conduit entries M20/25	1
CE / 650 °C	• / •
	•
Art. No.	9921
Inner packaging/shipping	50 / 100

One-gang box - Swiss standard



- suitable for screw attachment of equipment
- to create combinations in both axis directions, centre distance 60 mm
- with separator wall



Length x Width x Depth	72 x 72 x 57 mm
Break-out openings Ø 20 mm	13
Combination conduit entries M20/25	5
CE	•
Art. No.	99.1234
Inner packaging/shipping	- / 50

Signal cover

- for one-gang box Art. No. 99.1234



Length x Width	67 x 67 mm
Art. No.	99.1234.06
Inner packaging/shipping	- / 25

One-gang box (Italian and American standard)

- with 2 screw domes (without screws)



Length x Width x Depth	100 x 60 x 52 mm	121 x 60 x 52 mm
Screw spacing	83 mm	108 mm
M16 conduit entries	1	1
Conduit entries M20	12	12
Conduit entries M25	3	6
Art. No.	662	663
Inner packaging/shipping	5 / 100	5 / 100

One-gang box acc. to EN 60670 and ÖVE

- variable screw fitting 57-63 mm
- 4 expanding claw fields



Depth	51 mm
Cable entries 1 x 5 x 1.5 mm ² or 3 x 2.5 mm ²	•
Conduit entries M16-M20	10
Telephone cable J-Y(ST)Y	1
ÖVE	•
Art. No.	1076-20
Inner packaging/shipping	- / 100



Cavity wall basic installation

- Complete system for all cavity wall applications
- FX⁴ quick mounting technology for time-saving installation work
- Universal installation housing with mineral fibreboard for all standard accessory sizes (e.g. displays, LED lights and much more)
- Halogen-free product range



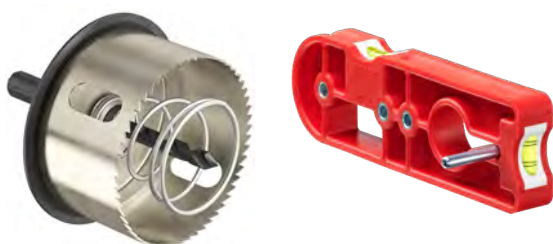
Air-tight cavity wall installation

- Air-tight installation according to EnEV
- ECON[®] technology for air-tight, toolless cable and conduit entries
- Air-tight sleeves for the air-tight feed-through of cables and conduit









Cavity wall special solutions

- HWD fire-protection boxes for fire-protection walls and ceilings and shipbuilding walls
- Safe, visible and certified protection without filling and smoothing by using KAISER sealing systems for cables and conduits
- Sound-insulation boxes for use in sound-insulation walls
- Radiation protection boxes for use in leaded and lead-free radiation protection walls
- International products for accessory installation according to national norms



Tools

- Professional system tools for fast, safe and secure installation work
- Comprehensive range of system accessories

	Basic installation	Energy saving Air-tight	Sound insulation	Radiation protection	Screened Environmen- tally-friendly	International products	Fire protection	
							Buildings	Ship- building
For installation accessories							see chapter	
							FIRE PROTECTION	
One-gang boxes	p. 84	p. 95	-	-	-	p. 145	p. 275	p. 284
One-gang junction boxes	p. 84	p. 95	p. 122	p. 130	p. 136	p. 145	p. 275	p. 285
One-gang boxes for thin boarding	p. 88	-	-	-	-	-	-	p. 284
One-gang junction boxes for thin boarding	p. 88	-	-	-	-	-	-	p. 285
One-gang junction boxes for solid wood	p. 107	-	-	-	-	-	-	-
Two-gang junction boxes	p. 85	-	-	-	-	-	-	-
Electronics boxes	p. 90/108	p. 90/108/ 103/104	p. 124 / 129	-	-	-	p. 278	-
Perilex® one-gang boxes	p. 86	-	-	-	-	-	-	-
CEE one-gang boxes	p. 86	p. 107	-	-	-	-	-	-
Universal installation housings	p. 143	-	-	-	-	-	-	-
Versions								
Available halogen-free	•	•	•	•	-	•	•	•
For cable exits								
Wall light connection boxes	p. 90	p. 90/108	-	-	-	-	-	-
Luminaire connection boxes	p. 91	-	-	-	-	-	p. 282	-
For cable entries								
Air-tight sleeves	-	p. 112	-	-	-	-	-	-
Sealings	-	-	-	-	-	-	p. 286	-
For cable connections								
Junction boxes	p. 86 / 141	-	-	-	-	-	-	-
Junction casings	p. 139	-	-	-	p. 137/38	-	-	-
Potential equalisation casings	p. 141	-	-	-	-	-	-	-
Accessories								
Fixing	p. 138	p. 138	p. 138	-	p. 138	p. 138	p. 138	p. 138
Retrofitting sealing (air-tight)	p. 110/28	-	-	-	-	-	-	-
Sealing of electrical installations (air-tight and smoke-tight)	-	p. 302/111/30	-	-	-	-	p. 302/111/30	-
Plaster compensation	p. 92	p. 92	-	-	-	-	-	-
Support connector	p. 92/108	p. 92/108	p. 122/ 135/51	p. 133	-	-	p. 275/92/ 108/122	p. 275/92/ 108/122
End cover	p. 142	p. 142	p. 122/23	-	p. 137/38	-	p. 282	p. 282

FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

SURFACE

CABLE GLANDS

TOOLS

SERVICE



Plus-minus device screw

The new screw allows the installer to fit screws and devices screws with the same screwdriver. In addition, the new screw drive can be used with many other components, e. g. switches, sockets, terminal blocks etc. Optimal shape for +/- or PZ1 screwdrivers, and at the same time a slot screwdriver up to max. 4mm width can be used. A closed long-slot ensures that the blade does not slip out.

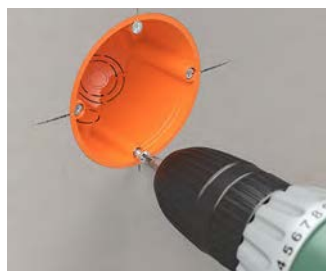
Processing instructions



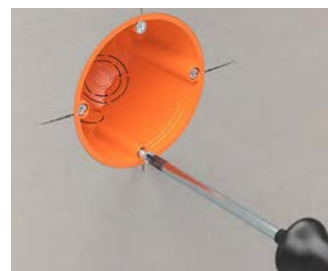
Device screw with extra-flat countersunk head for low installation height.



Combination drive Pozidrive1/slot provides the best grip.



Suitable for fitting using cordless screwdriver.



Optimal for fitting with +/- screwdriver.



FX⁴ technology - the fastest means of screw attachment

FX⁴ technology provides the fastest-ever screw fixing for cavity wall boxes and installation housings. The special thread shape enables up to 40% quicker mounting with simultaneous high self-locking effect.

- 40% quicker mounting
- High self-locking effect
- In cavity wall boxes and installation housings

Processing instructions

The screws with the steep thread design and the 3-part thread reduce installation time by up to 40%.



Standard screw.



KAISER standard.



Example of use for universal housing.



Example of use of EnoX®.

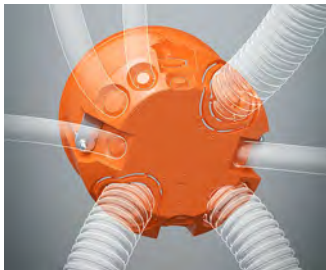
Cavity wall installation boxes

The new KAISER cavity wall installation boxes with proven mounting lug technology and improved product features. A practical design and a large selection of cable and conduit entries allow a large number of applications. Additional boxes for installation in thinly boarded walls or solid wood walls complete the wide range. VDE certification documents the high level of quality.

- Screws ensure permanent fixing
- Entries can be broken out for cables and conduits
- Combinable and through-wiring by using support connectors
- Fixing of devices by means of pre-mounted device screws



Processing instructions



New boxes provide a large number of entry options.



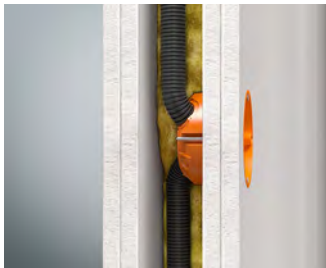
Marking of the openings simplifies the assignment of the correct diameter.



Combination entry for cable and conduits up to max. Ø 25 mm.



Specific openings can be made simply by breaking out.



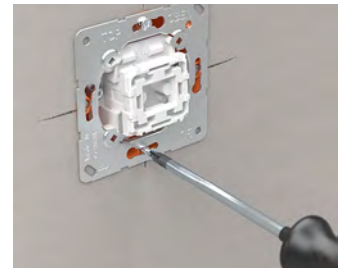
Bending of the conduit up to 90° is easily possible in the case of slim wall constructions or in the installation level.



Cable and conduit retention prevents slipping-out of live parts.



Standardised round support connector for fast installation.



Easy-to-fit device fixing thanks to new +/- screw.

Technical processing instructions / Standards

- in accordance with DIN EN 60670
- standardised combination distance 71 mm
- fully-insulated through-wiring in combinations of one-gang boxes and one-gang junction boxes for switches and sockets possible
- with holding ring
- break-out openings for sheathed cabling, low-voltage wires and DIN EN conduits
- integrated retention of NYM cables in accordance with DIN 60670/DIN 49073, self-locking of the conduits
- can also be used as junction box in accordance with DIN EN 60670

One-gang boxes, one-gang junction boxes, accessories

for cavity wall installation

O-range® one-gang box

- with holding ring
- Art. No. 9063-02 replaces Art. No. 9063-01, Art. No. 9063-78 replaces Art. No. 9063-77





INNOVATION

NEW



3D animation

For panel thickness	7 - 40 mm	7 - 40 mm
Depth	49 mm	49 mm
Cut hole Ø	68 mm	68 mm
Device screws +/-	2	2
Ø 20 / 25 mm combination entries	2	2
Cable entries 3 x 2.5 mm ² or 5 x 1.5 mm ²	2	2
Cable entries 3 x 1.5 mm ²	2	2
Cable entries for low voltages	2	2
Support connectors for each package	7	7
Halogen-free	-	•
 / 	• / •	• / •
Art. No.	9063-02	9063-78
Inner packaging/shipping	25 / 250	25 / 250

Accessories: Support connector, Page 92/108

O-range® one-gang junction box

- with holding ring
- Art. No. 9064-02 replaces Art. No. 9064-01, Art. No. 9064-78 replaces Art. No. 9064-77





INNOVATION

NEW



3D animation

For panel thickness	7 - 40 mm	7 - 40 mm
Depth	62 mm	62 mm
Cut hole Ø	68 mm	68 mm
Device screws +/-	2	2
Conduit entries Ø 20 mm	1	1
Ø 20 / 25 mm combination entries	2	2
Cable entries 3 x 2.5 mm ² or 5 x 1.5 mm ²	3	3
Cable entries 5 x 2.5 mm ² or 7 x 1.5 mm ²	1	1
Cable entries 3 x 1.5 mm ²	3	3
Cable entries for low voltages	2	2
Support connectors for each package	7	7
Halogen-free	-	•
 / 	• / •	• / •
Art. No.	9064-02	9064-78
Inner packaging/shipping	25 / 250	25 / 250

Accessories: Support connector, Page 92/108

One-gang box

- with holding ring

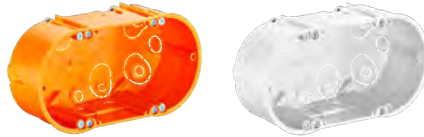




For panel thickness	7 - 28 mm	7 - 28 mm
Depth	35 mm	35 mm
Cut hole Ø	68 mm	68 mm
Device screws +/-	2	2
Cable entries 3 x 1.5 mm ²	4	4
Halogen-free	-	•
Art. No.	9061-00	9061-77
Inner packaging/shipping	25 / 250	25 / 250

Accessories: Support connector, Page 92/108

Two-gang junction box

- for 2 electrical inserts or 1 block insert
- with cover (Art. No. 9062-90), for use as a junction box
- use separator wall to separate electrical circuits Art. No. 9062-22
- with holding ring



For panel thickness	7 - 40 mm	7 - 40 mm
Depth	47 mm	47 mm
Cut hole Ø	2 x 68 mm	2 x 68 mm
Device screws +/-	4	4
Centre distance	71 mm	71 mm
Conduit entries Ø 20 mm	6	6
Cable entries 3 x 2.5 mm ² or 5 x 1.5 mm ²	2	2
Cable entries 3 x 1.5 mm ²	4	4
Halogen-free	-	•
 / 	• / •	•
Art. No.	9062-02	9062-77
Inner packaging/shipping	10 / 100	10 / 100

Accessories: Support connector, Page 92/108 ; Connecting clip for stacking boxes 9062-02/-77, Page 90

Replacement cover

- for junction box Art. No. 9062-02





Length x Width	145 x 75 mm
Art. No.	9062-90
Inner packaging/shipping	- / 10

One-gang boxes, one-gang junction boxes, accessories for cavity wall installation

PERILEX®/CEE One-gang box

- with holding ring
- for device inserts 16 A




For panel thickness	12,5 - 40 mm	12,5 - 40 mm	12,5 - 40 mm	12,5 - 40 mm
Depth	50 mm	50 mm	50 mm	50 mm
Cut hole Ø	74 mm	74 mm	74 mm	74 mm
Halogen-free	-	•	-	•
With sealing ring for protection class IP 34 and 2 raised head 4 mm Ø device screws, length 20 mm, for use with 16 A CEE equipment inserts	-	-	•	•
with 2 countersunk device screws 4 mm Ø, 16 mm in length to facilitate use of 16 A PERILEX inserts	•	•	-	-
 / 	• / •	•	•	•
Art. No.	9067-01	9067-77	9075-01	9075-77
Inner packaging/shipping	10 / 100	10 / 100	10 / 100	10 / 100

Junction box

- with universal VDE cover Art. No. 1184-90
- with holding ring
- with 2 Ø 4 x 16 mm countersunk head screws



For panel thickness	12,5 - 40 mm	12,5 - 40 mm
Depth	50 mm	50 mm
Cut hole Ø	74 mm	74 mm
Halogen-free	-	•
	•	•
Art. No.	9071-01	9071-77
Inner packaging/shipping	10 / 100	10 / 100

O-range® one-gang box for thin boarding

The low 35 mm installation depth makes the one-gang box ideal for installation in cavity walls with a small cavity. In addition, thanks to the zero tension technology, the one-gang box can be fitted securely in wall systems with thin boarding.

- With zero tension technology for thin boarding
- Low 35 mm installation depth
- Cable entries with integrated cable retention
- Device screws with flat countersunk head
- For cables up to Ø 11.5 mm



Processing instructions



6 entries with integrated retention for Ø 4 – 11.5 mm cables.



Marking of the openings makes it easy to assign the correct diameter.



Device screws with a flat countersunk head for a low installation height.



Possibility of combinations and fully-insulated through-wiring with a round support connector.



The special zero tension technology ensures a permanently secure fit.



For thin boardings made of wood, plaster or sheet metal.



The clamping range is from 0.2 to 30 mm.

Examples of applications



The box is primarily suitable for walls with little space or low wall thickness.



In addition, use in the container construction...



...or shipbuilding sectors is possible.

One-gang boxes, one-gang junction boxes, accessories for cavity wall installation


 INNOVATION

O-range® one-gang box for thin boarding

- for walls with small cavity up 35 mm
- for thin boarding
- combinable with each other




NEW

For panel thickness	0,2 - 30 mm	0,2 - 30 mm
Depth	35 mm	35 mm
Cut hole Ø	68 mm	68 mm
Device screws +/-	2	2
Cable entries Ø 4 up to 11.5 mm	6	6
Support connectors for each package	5	5
Halogen-free	-	•
	•	•
Art. No.	9061-01	9061-78
Inner packaging/shipping	25 / 250	25 / 250

One-gang box for thin boardings

- for boardings that do not permit stepped face cutting
- with thin holding ring
- protection class IP 2X





For panel thickness	0,2 - 40 mm	0,2 - 40 mm
Depth	41 mm	41 mm
Cut hole Ø	68 mm	68 mm
Device screws	2	2
Conduit entries Ø 20 mm	2	2
Cable entries 3 x 1.5 mm ²	4	4
Halogen-free	-	•
	•	•
Art. No.	9068-04	9068-74
Inner packaging/shipping	25 / 250	25 / 250

One-gang junction box for thin boardings

- for boarding that does not permit edge countersinking (e.g. metal-covered boarding)
- with thin holding ring



For panel thickness	0,2 - 40 mm	0,2 - 40 mm
Depth	61 mm	61 mm
Cut hole Ø	68 mm	68 mm
Device screws	2	2
Conduit entries Ø 20 mm	4	4
Cable entries 3 x 2.5 mm ² or 5 x 1.5 mm ²	2	2
Cable entries 3 x 1.5 mm ²	4	4
Cable entries for low voltages	2	2
Halogen-free	-	•
 / 	• / •	• / •
Art. No.	9068-03	9068-76
Inner packaging/shipping	25 / 250	25 / 250

Electronics box

Cavity wall electronics box for switching units, electronic components, cables and terminals in cavity walls. The box can be subdivided and combined, so it offers a wide range of usage options.

- For different kinds of voltages by using the associated separator wall
- Integrating radio or EIB actuators
- With cover that can be wallpapered and filled
- Can be combined with each other and with one-gang boxes and one-gang junction boxes



Processing instructions



Using turbo cutter MULTI 4000 Ø 68 mm (Art. No. 1083-10), cut two installation openings with a centre distance of 71 mm.



You can cut a precision cable entry for air-tight installation with the KAISER universal opening cutter (Art. No. 1085-80).



The electronics box offers space for all kinds of installations. Can also be used as a network box with sufficient space for reserve cables.



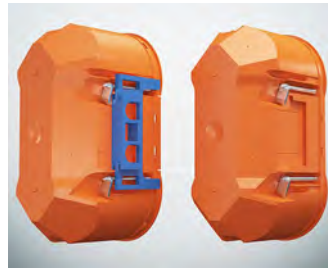
The cover can also be turned by 180° and mounted and filled. This will reduce any possible switching sounds.

Processing instructions

Connecting clips (Art. No. 9062-50) for horizontal combination of electronic boxes.



Push the connection clip onto the first box up to the holding ring. If needed make openings for through-wiring.



Then connect the second box to the clip.



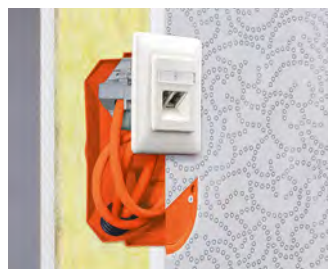
The connecting clip ensures the correct center distance and a secure fixing.



Optionally, the separator wall and the cover can be mounted after the can installation.

Cover ready for papering and filling

The cover can be fitted flush with the wall for papering over or turned 180° for filling.




One-gang boxes, one-gang junction boxes, accessories

for cavity wall installation

Electronics box

- air-tight version with additional sealing lip
- Tunnel twin-chamber box with enclosed separator wall and cover that can be wallpapered over.
- for one-gang inserts and electronic components such as EIB actuators, communications equipment (Cat 7), radio control elements, alarm modules, etc.
- with holding ring

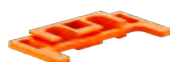


Depth	75 mm	75 mm
Cut hole Ø	2 x 68 mm	2 x 68 mm
Centre distance	71 mm	71 mm
Halogen-free	-	•
Air-tight	•	•
	•	•
Art. No.	9062-94	9062-74
Inner packaging/shipping	10 / 100	10 / 100

Accessories: Support connector, Page 92/108 ; Connecting clip for stacking boxes 9062-02/-77, Page 90

Connecting clip for stacking boxes

- for horizontal combination of two-gang junction boxes 9062-02 or electronics boxes 9062-94





Art. No.	9062-50
Inner packaging/shipping	- / 10

Wall light connection box

- with inner fitting cover
- not to be used as a junction box!
- with holding ring



For panel thickness	7 - 30 mm	7 - 40 mm	7 - 40 mm
Depth	40 mm	45 mm	45 mm
Cut hole Ø	2 x 35 mm	35 mm	35 mm
Centre distance	30 mm	-	-
Conduit entries Ø 20 mm	1	-	-
Cable entries 3 x 1.5 mm ²	2	1	1
Halogen-free	-	-	•
Air-tight	-	•	•
If necessary use screw cover 1148-90	•	-	-
 / 	• / •	-	-
Art. No.	9148-00	9248-01	9248-77
Inner packaging/shipping	25 / 100	25 / 100	25 / 100

Cover

- for wall light connection boxes Art. No. 1048-00 and Art. No. 9148-00
- With Ø 3.2 x 15 mm cover screws




Length x Width	75 x 40 mm
Art. No.	1148-90
Inner packaging/shipping	25 / 250

Luminaire connection box

- with M5 metal thread for light hooks min. length 55 mm
- maximum load 20 N (2 kg)
- can also be used as ceiling light junction box
- with holding ring
- Important! Always screw in light hook fully.



For panel thickness	7 - 40 mm
Depth	47 mm
Cut hole Ø	68 mm
Conduit entries Ø 20 mm	2
Cable entries 3 x 2.5 mm ² or 5 x 1.5 mm ²	2
Cable entries 3 x 1.5 mm ²	2
	•
Art. No.	9063-50
Inner packaging/shipping	- / 10

Light hook

- for retrofitting ceiling boxes (EN 60670)
- with M5 thread, fully-insulated



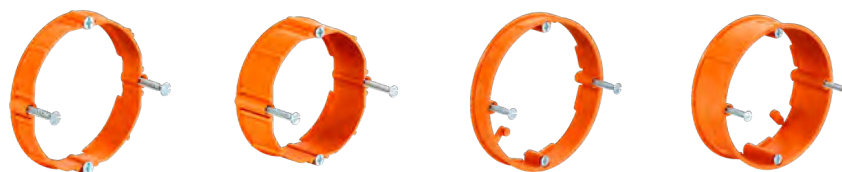
Length of shank	55 mm	65 mm
Diameter hook	26 mm	26 mm
Overall length	81 mm	91 mm
Thread length	10 mm	10 mm
Art. No.	1226-55	1226-65
Inner packaging/shipping	- / 150	- / 150

One-gang boxes, one-gang junction boxes, accessories

for cavity wall installation

Plaster compensation rings

- to compensate for deep-seated boxes
- plaster compensation rings with same diameter can be stacked
- with 2 screws for attaching equipment and 2 ring attachment screws



Height	10 mm	20 mm	12 mm	24 mm
Screw spacing	60 mm	60 mm	67 mm	67 mm
for boxes with an outer Ø	68 mm	68 mm	74 mm	74 mm
Art. No.	9155-61	9155-62	9155-71	9155-72
Inner packaging/shipping	25 / 250	25 / 250	10 / 100	- / 100

Support connector

- for through-wiring of combinations to IP 3X standard air-tight
- to make air-tight combinations
- for Art. Nos. 9066-01/12, 9068-01, 9263-..., 9264-..., 9062-02/-77, 9062-94/-74, 9268-94/-74, 9266-22/-77



Halogen-free	-	•
Art. No.	9060-98	9060-78
Inner packaging/shipping	25 / 100	25 / 100

Support connector

- for through-wiring of combinations to IP 30 standard
- for all boxes with a trapezoidal support connector opening



Halogen-free	-	•
Art. No.	9060-97	9060-77
Inner packaging/shipping	50 / 250	- / 50

Compensation ring

- for all Ø 68 mm cavity wall boxes
- for oversize drill holes
- can also be used for combinations where the formed surfaces are located next to each other



Compensation up to max. Ø 71 mm	•	-
Compensation from Ø 74 mm to Ø 68 mm	-	•
Art. No.	9060-40	9060-42
Inner packaging/shipping	25 / 250	- / 250

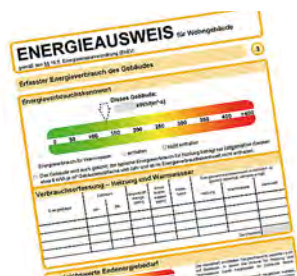
Air-tight cavity wall installation

Air-tight O-range® cavity wall boxes with ECON® technology for energy-efficient electrical installation according to EnEV and for installations under clean-room and hygiene conditions. The elastic ECON® technology sealing membrane allows air-tight electrical installation.

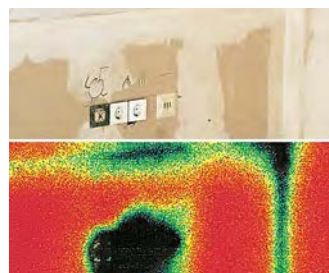
- Elastic sealing membrane for guaranteed air-tightness
- Innovative clamp technology with integrated cable retention
- Toolless cable and conduit entry
- Air-tight combined with support connector



Technical information



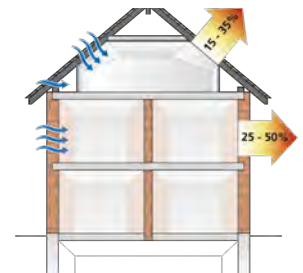
As a key component of the new German Energy Saving Ordinance (EnEV), the energy performance certificate is a prerequisite for both commercial and residential properties. It creates more transparency for both buyers and tenants regarding the energy efficiency of a property. This factor is set to become more important in the real estate industry, not only for new build projects but also for renovation projects (existing housing).



Thermographic photographs highlight the thermal losses, which occur in conventional electrical installations.



With the help of various test procedures such as thermographic photographs, the blower-door-test and thermo anemometer measurements, we and various neutral institutions have proven the level of air tightness achieved by KAISER installation systems.



Especially in cavity wall construction, an air-tight building shell, guaranteed largely through the moisture barrier foil, plays an important role in complying with permissible energy values. Each conventional installation opening breaks this air-tight shell and results in uncontrolled artificial currents, which often weaken other energy saving measures significantly.

Average heat energy consumption in houses with a living surface area of 100 m²

House type	"Normal house" (housing)	Low-energy house	Passive house	Zero-heating energy house	Energy-autonomous house (special case)
Fuel oil consumption	approx. 2200 l/year	approx. 850 l/year	approx. 180 l/year	approx. 0 l/year	approx. 0 l/year
Use of energy	187 kW h/m ² a	73 kW h/m ² a	15 kW h/m ² a	8.3 kW h/m ² a	0 kW h/m ² a

Air-tight one-gang boxes, one-gang junction boxes, accessories for cavity wall installation

Processing instructions

"The certificates can be downloaded as PDF files from our website, or can be requested from our technical consultancy department."



The ECON® technology elastic sealing membrane fits itself around the conduit or cable during piercing. This prevents uncontrolled air flows.



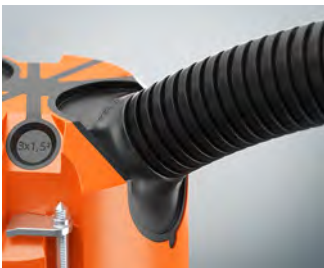
The flexible and tool-free insertion of the conduit or cable significantly simplifies the process and reduces installation time.



Reinforcement around the opening prevents tearing of the membrane.



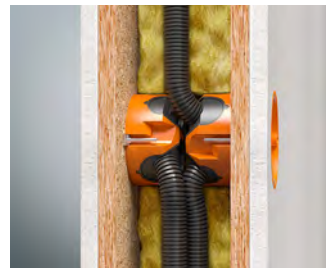
Easy opening of the conduit entry by means of pre-defined opening tab.



Permanently air-tight conduit entry up to conduit size M25.



The conduit can be angled in the entry by up to 90°...



...which is ideal for use in slim wall constructions and installation levels.



The marking of the entry openings simplifies the correct choice of opening size.



Easy-to-fit device fixing thanks to new +/- screw.





The support connector ensures the air-tight combination of the cavity wall boxes and is inserted via the removable metal plates without the use of tools.

O-range ECON® 63 one-gang box

- Air-tight version with sealing membrane
- fully-insulated air-tight through-wiring for combinations using support connectors
- toolless cable or conduit entries
- integrated strain relief of NYM cables, self-locking of conduits
- Art. No. 9263-22 replaces Art. No. 9263-21, Art. No. 9263-78 replaces Art. No. 9263-77



3D animation



For panel thickness	7 - 40 mm	7 - 40 mm
Depth	49 mm	49 mm
Cut hole Ø	68 mm	68 mm
Device screws	2	2
Tube entries up to M25	2	2
Cable entries 3 x 2.5 mm² or 5 x 1.5 mm²	2	2
Cable entries 3 x 1.5 mm²	2	2
Support connectors for each package	7	7
Halogen-free	-	•
Air-tight	•	•
 / 	• / •	• / •
Art. No.	9263-22	9263-78
Inner packaging/shipping	25 / 250	25 / 250

O-range ECON® 64 one-gang junction box

- Air-tight version with sealing membrane
- fully-insulated air-tight through-wiring for combinations using support connectors
- toolless cable or conduit entries
- integrated strain relief of NYM cables, self-locking of conduits
- Art. No. 9264-22 replaces Art. No. 9264-21, Art. No. 9264-78 replaces Art. No. 9264-77



3D animation

For panel thickness	7 - 40 mm	7 - 40 mm
Depth	62 mm	62 mm
Cut hole Ø	68 mm	68 mm
Device screws	2	2
Tube entries up to M25	2	2
Cable entries 3 x 2.5 mm² or 5 x 1.5 mm²	3	3
Cable entries 5 x 2.5 mm² or 7 x 1.5 mm²	1	1
Cable entries 3 x 1.5 mm²	3	3
Support connectors for each package	7	7
Halogen-free	-	•
Air-tight	•	•
 / 	• / •	• / •
Art. No.	9264-22	9264-78
Inner packaging/shipping	25 / 250	25 / 250



O-range ECON® 2 / 3 / 4 - gang junction boxes

With the new O-range ECON® 2 / 3 / 4 - gang junction boxes, KAISER offers the perfect basis and especially easy processing for the fitting of all standard installation accessories in multiple combinations. Thanks to their large installation opening without a central separation, it is easy to wire multiple devices together and even makes possible the use of pre-wired installation accessories. If different electrical circuits – e. g. for supply and communication connections – are used within a combination, the individual accessory installation spaces can be separated easily and in a standardised way.

- Easy installation of pre-wired accessories without spatial separation
- Maximum flexibility when fixing accessories, generous tolerance compensation
- Standardised separation of the individual installation openings by means of an insertable bridge
- Complete mounting and installation with just one screw drive
- combinable with all O-range® programme applications



Application examples



The O-range ECON® 2 / 3 / 4 - gang junction boxes...



...allow, thanks to their large installation opening without a separator, the use of pre-wired installation accessories.



By inserting the separator, different voltage types can be installed in accordance with standards.

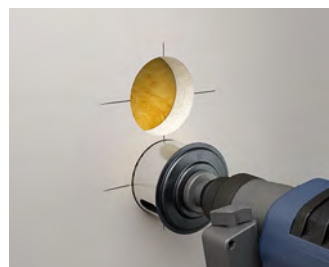


O-range ECON® 2 one-gang junction box in a 3-way combination with the O-range ECON® Data (Art. No. 9280-22).

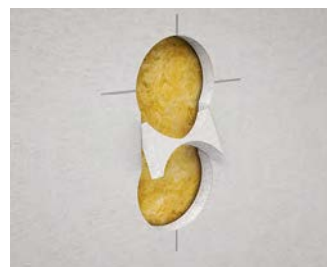
Installation instructions



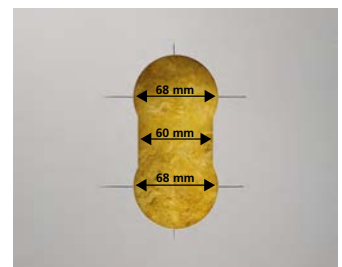
Mark the centre of the upper installation opening in accordance with DIN 18015-3 and the centre of the other installation openings with 71 mm spacing.



Make Ø 68 mm installation openings with countersinking by using a KAISER cutter (e. g. MULTI 4000 Art. No. 1083-10).



The individual installation openings must now be connected for the insertion of the multiple one-gang junction boxes and chamfered for the countersinking.



To ensure a perfect seat for the box, always keep to the dimensions shown in the diagram.

O-range ECON® 2 Two-gang junction box

- Air-tight version with sealing membrane
- Toolless cable and conduit entries
- Integrated cable retention for the NYM cable, self-locking of the conduits
- Standardised separation of the individual installation openings by means of an insertable separator
- combinable with all O-range® programme applications





NEW

INNOVATION



3D animation

For panel thickness	7 - 40 mm	7 - 40 mm
Depth	48 mm	48 mm
Cut hole Ø	2 x 68 mm	2 x 68 mm
Device screws +/-	4	4
Centre distance	71 mm	71 mm
Conduit entries up to Ø 20 mm	4	4
Conduit entries up to Ø 25 mm	2	2
Cable entries 3 x 2.5 mm² or 5 x 1.5 mm²	1	1
Cable entries 3 x 1.5 mm²	1	1
Halogen-free	-	•
 / 	• / •	• / •
Number of installation device openings	2	2
Art. No.	9252-22	9252-78
Inner packaging/shipping	10 / 100	10 / 100

O-range ECON® 3 Three-gang junction box

- Air-tight version with sealing membrane
- Toolless cable and conduit entries
- Integrated cable retention for the NYM cable, self-locking of the conduits
- Standardised separation of the individual installation openings by means of an insertable separator
- combinable with all O-range® programme applications





NEW

INNOVATION



3D animation

For panel thickness	7 - 40 mm	7 - 40 mm
Depth	48 mm	48 mm
Cut hole Ø	3 x 68 mm	3 x 68 mm
Device screws +/-	6	6
Centre distance	71 mm	71 mm
Conduit entries up to Ø 20 mm	6	6
Conduit entries up to Ø 25 mm	2	2
Cable entries 3 x 2.5 mm² or 5 x 1.5 mm²	2	2
Cable entries 3 x 1.5 mm²	2	2
Halogen-free	-	•
 / 	• / •	• / •
Number of bridges	1	1
Number of installation device openings	3	3
Art. No.	9253-22	9253-78
Inner packaging/shipping	5 / 50	5 / 50

Air-tight one-gang boxes, one-gang junction boxes, accessories for cavity wall installation

O-range ECON® 4 Four-gang junction box


- Air-tight version with sealing membrane
- Toolless cable and conduit entries
- Integrated cable retention for the NYM cable, self-locking of the conduits
- Standardised separation of the individual installation openings by means of an insertable separator
- combinable with all O-range® programme applications



INNOVATION



3D animation

For panel thickness	7 - 40 mm	7 - 40 mm
Depth	48 mm	48 mm
Cut hole Ø	4 x 68 mm	4 x 68 mm
Device screws +/-	8	8
Centre distance	71 mm	71 mm
Conduit entries up to Ø 20 mm	8	8
Conduit entries up to Ø 25 mm	2	2
Cable entries 3 x 2.5 mm ² or 5 x 1.5 mm ²	2	2
Cable entries 3 x 1.5 mm ²	4	4
Halogen-free	-	•
 / ÖVE	• / •	• / •
Number of bridges	2	2
Number of installation device openings	4	4
Art. No.	9254-22	9254-78
Inner packaging/shipping	5 / 50	5 / 50

O-range® separator

- for O-range ECON® 2 / 3 / 4 - gang junction box



Halogen-free	-	•
Art. No.	5000	5000-78
Inner packaging/shipping	10 / 100	10 / 100

Conduit one-gang junction box

Air-tight one-gang junction box with ECON® technology especially for installation with electrical installation conduit. The box is VDE-certified and suitable for energy-efficient electrical installation acc. to EnEV. 4 entries are optimal for continuous conduit installation e. g. in prefabricated house construction or with data networks. Extremely easy fitting thanks to toolless conduit insertion with opening tab. The sealing membrane guarantees permanent air-tightness and at the same time retention of the conduit.

- Installation in Ø 68 mm cut hole
- Elastic sealing membrane for guaranteed air-tightness
- Toolless conduit entry
- Can be combined with support connectors, air-tight and fully-insulated



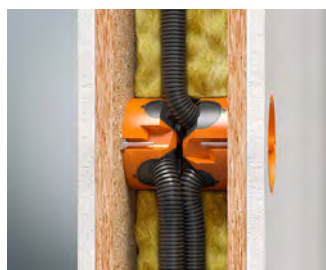
Processing instructions



Easy opening of the conduit entry by means of the opening tab – without any tearing of the membrane.



Air-tight conduit entry up to conduit size M25.



Bending of the conduit up to 90° is easily possible in the case of slim wall constructions or in the installation level.



Air-tight and fully-insulated combination using support connector (Art. No. 9060-98).

O-range ECON® conduit one-gang junction box

- Air-tight version with sealing membrane
- fully-insulated through-wiring for combinations of one-gang junction boxes with support connectors
- toolless conduit entries



3D animation

For panel thickness	7 - 40 mm	7 - 40 mm
Depth	62 mm	62 mm
Cut hole Ø	68 mm	68 mm
Device screws	2	2
Tube entries up to M20	2	2
Tube entries up to M25	2	2
Support connectors for each package	7	7
Halogen-free	-	•
Air-tight	•	•
/	• / •	• / •
Art. No.	9266-22	9266-77
Inner packaging/shipping	25 / 250	25 / 250



Junction box 120 mm air-tight

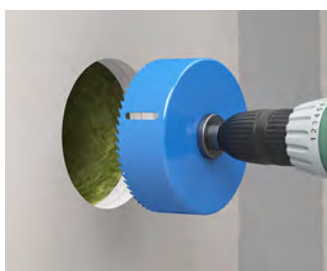
Air-tight Ø 120 mm junction box with ECON® technology for an energy-efficient electrical installation in accordance with EnEV. Extremely easy fitting thanks to toolless cable and conduit entry. The sealing membranes guarantee permanent air-tightness and at the same time retention of the cable or conduit. The large box volume provides plenty of installation space for various cable connections.

- Installation in Ø 120 mm cut hole
- Elastic sealing membrane for guaranteed air-tightness
- Toolless cable and conduit entry

Orange ECON®



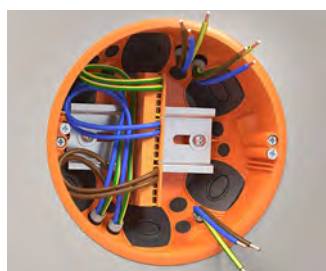
Processing instructions



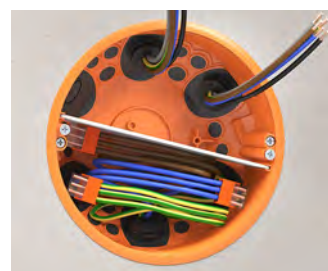
Cut installation opening with bi-metal cutter (Art. No. 1082-20).



Elastic sealing membrane allows toolless cable and conduit entries in air-tight version.



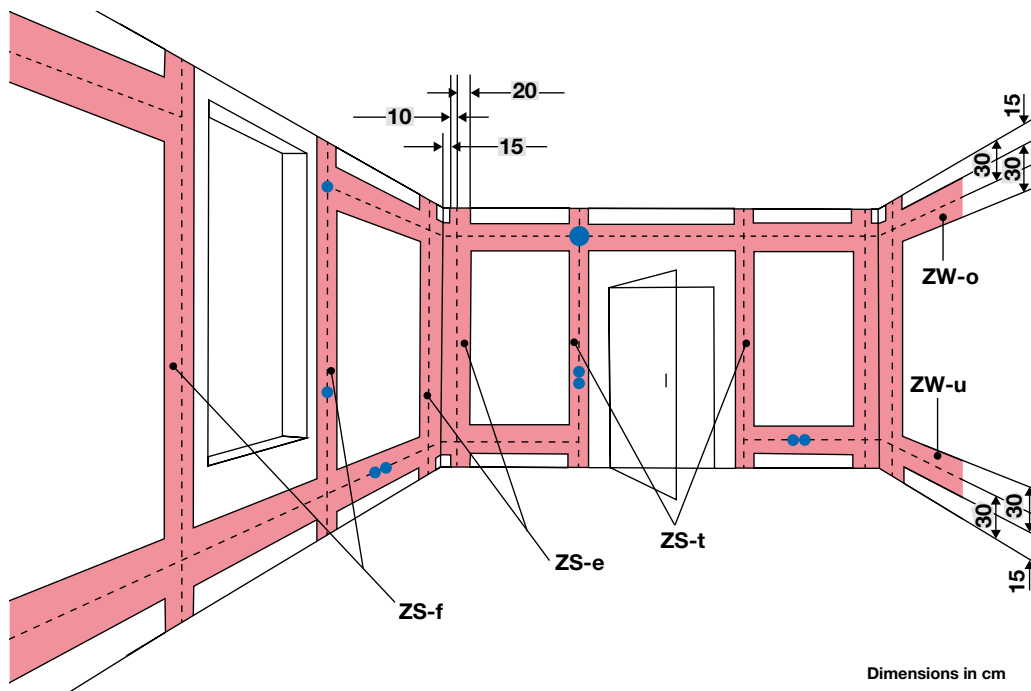
Fitting of fixing adapter for connection terminals on top hat rail.



For separation of 2 electrical circuits, use separator wall (Art. No. 9073-20).

Installation zones in accordance with DIN 18015-3:2016-09

The following preferred dimensions apply to the laying of cables inside buildings.



Legend

- ZS-t** vertical installation zones at doors: from 10 cm to 30 cm next to the constructional edges
- ZS-f** vertical installation zones at windows: from 10 cm to 30 cm next to the constructional edges
- ZS-e** vertical installation zones at wall corners: from 10 cm to 30 cm next to the constructional corners
- ZW-u** lower horizontal installation zone: from 15 cm to 45 cm above the floor
- ZW-o** upper horizontal installation zone: from 15 cm to 45 cm below the ceiling covering



Junction box Ø 120 mm O-range ECON®

- Air-tight version with sealing membrane
- for 2 electrical circuits through separator wall 9073-20
- receptacle for TS 35 standard rail
- with stable holding ring
- Cutting the installation opening with bi-metal cutter 1082-20 or VARIOCUT 1089-00
- including cover and screws



3D animation



For panel thickness	7 - 40 mm	7 - 40 mm
Depth	65 mm	65 mm
Cut hole Ø	120 mm	120 mm
Tube entries up to M25	6	6
Cable entries 3 x 2.5 mm ² or 5 x 1.5 mm ²	6	6
Cable entries 5 x 2.5 mm ² or 7 x 1.5 mm ²	4	4
Cable entries 3 x 1.5 mm ²	6	6
Halogen-free	-	•
Air-tight	•	•
 / 	• / •	• / •
Art. No.	9273-91	9273-77
Inner packaging/shipping	- / 10	- / 10

Accessories: Separator wall, Page 142

FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

SURFACE

CABLE GLANDS

TOOLS

SERVICE



Electronics box O-range ECON® Flex

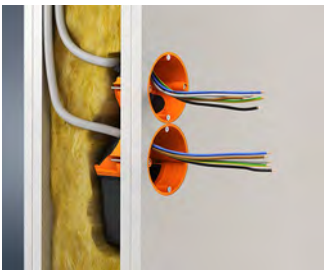
Air-tight O-range ECON® Flex electronics box with ECON® technology for energy-efficient electrical installation in accordance with EnEV and for installation under clean room or enhanced hygiene conditions. Fast installation is ideal for modernising or extending existing systems. The flexible tunnel makes it easy to install, and creates space for electronic components, cable reserves and terminals.

- Additional sideways terminal compartment for communications and network technology
- Elastic sealing membrane for guaranteed air-tightness
- Toolless cable and conduit entry
- Integrated cable retention
- Can be combined with support connectors, air-tight and fully-insulated

O-range ECON® air-tight halogen-free



Examples of use



Combination with ECON® cavity wall boxes is possible.



Additional space for connection terminals.

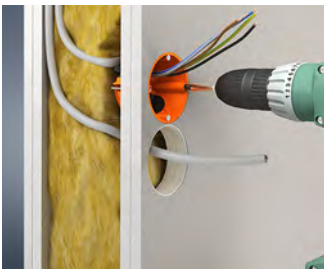


Accepts electronic components e.g. actuators.



Space for cable reserves.

Processing instructions



Existing Ø 68 mm installation openings can be used.



Air-tight and fully-insulated combination using support connector (Art. No. 9060-98).

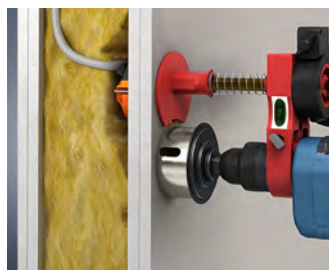


Standardised cable retention. Elastic sealing membrane permits toolless cable entry...

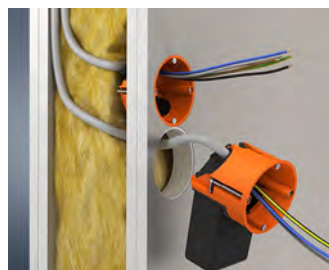


...and conduit entries up to M25 in an air-tight version

Installation



Cut Ø 68 mm installation opening; for refurbishing, centre distance 71 mm, using Profix.



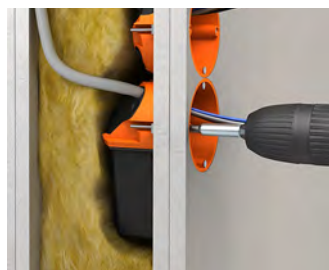
Feed cable or conduit air-tight through the elastic sealing membrane



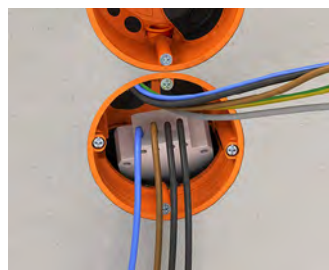
For easy installation, fold in the elastic tunnel.



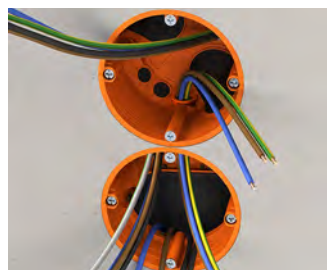
Insert the box into the component opening.



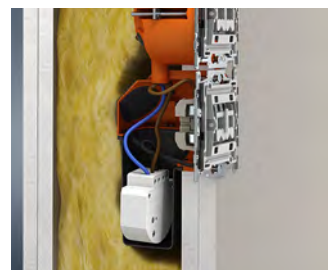
Tighten box lug screws and fold out the tunnel.



Insert electronic component into the tunnel.



Through-wiring takes place by means of support connector (Art. No. 9060-98).



Guaranteed airtight - secure terminal compartment for electronic components.

Electronics box O-range ECON® Flex



- for accessories and electronic components
- Air-tight version with sealing membrane
- Elastic tunnel
- Combinable with ECON® one-gang junction boxes



INNOVATION



3D animation

For panel thickness	7 - 30 mm	7 - 30 mm
Length x Width x Depth	122 x 71 x 75 mm	122 x 71 x 75 mm
Cut hole Ø	68 mm	68 mm
Device screws	2	2
Tube entries up to M25	2	2
Cable entries 3 x 2.5 mm ² or 5 x 1.5 mm ²	2	2
Cable entries 3 x 1.5 mm ²	2	2
Halogen-free	-	•
Air-tight	•	•
 / 	• / •	• / •
Art. No.	9268-94	9268-74
Inner packaging/shipping	10 / 100	10 / 100



O-range ECON® Data one-gang connection box

With the new O-range ECON® Data one-gang connection box, KAISER offers unprecedented ease of installation for the fitting and connection of communication and network connection boxes. The innovative cable entries for data and network cables are positioned in such a way that it is very easy to maintain the bending radii specified by the cable manufacturer. This prevents kinks in the cable, and ensures optimal data transfer. Whether you are fitting a network connection box or a Keystone module, the new O-range ECON® Data always provides optimal cable routing.

- Innovative cable entries prevent kinks in the cables
- 4 screw domes for maximum flexibility when fixing accessories
- Toolless cable and conduit entry
- Complete mounting and installation with just one screw drive
- combinable with all O-range® programme applications

O-range ECON®

air-tight

halogen-free



Application examples



Thanks to optimally-positioned cable entries, Keystone modules can quickly and easily be fitted - no kinks in the cable! – inside the O-range ECON® Data one-gang junction box...



...push the data and network cables into the lightweight wall's cavity.



The O-range ECON® Data one-gang connection box also offers easy cable feeding to the accessory for the fitting of network connection boxes...



...in order to fit the cable reserve in the lightweight wall's cavity.



The large number of different cable and conduit entries allows the installation of media converters...



...in which supply is always by means of NYM cables and installation conduits up to Ø 25 mm - so the connection is always the right one.



For conventional electrical installation work, and in addition to combinability with all applications in the O-range® programme, the O-range ECON® Data one-gang connection box...



...also offers plenty of space for convenient fitting of multiple connection terminals.

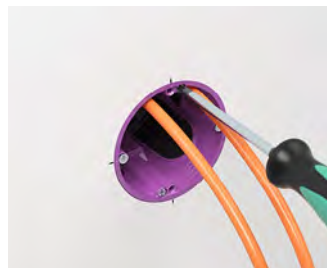
Installation of Keystone modules



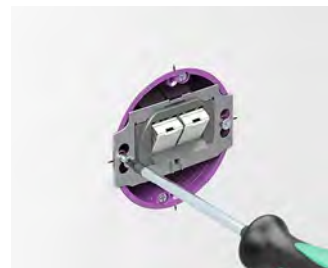
Make Ø 68 mm installation opening with countersinking using a KAISER cutter (e. g. MULTI 4000 with Art. No. 1083-10).



Toolless insertion of data and network cables through the elastic sealing membrane.



Insert the O-range ECON® Data one-gang connection box into the installation opening, use the centre marking for alignment, and tighten the lug screws.



Feed the data and network cables back into the lightweight wall's cavity and fix the accessory by means of the device screws.

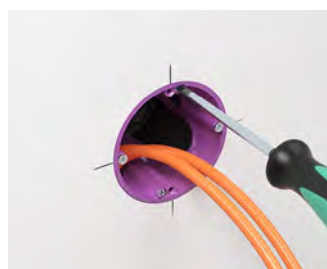
Installation of network junction boxes



Toolless insertion of data and network cables through the cable entries in the elastic sealing membrane.



For box installation, insert the cables from the outside into the membrane so that the box can be put into the installation opening.



Put the O-range ECON® Data accessory connection box into the installation opening, align it by means of the centre marking, and tighten the lug screws.



Feed the data and network cables back into the cavity of the lightweight wall. Fix the installation accessory in position by means of the device screws.

O-range ECON® Data one-gang connection box

- for network, coaxial, NYM and communication lines
- 4 screw domes
- air-tight version with sealing membranes
- toolless cable or conduit entries
- integrated NYM cable retention, self-locking of the communication cables and conduits
- combinable with all O-range® programme applications



INNOVATION



3D animation



NEW


For panel thickness	7 - 40 mm	7 - 40 mm
Depth	74 mm	74 mm
Cut hole Ø	68 mm	68 mm
Conduit entries up to Ø 25 mm	2	2
Cable entries 3 x 2.5 mm ² or 5 x 1.5 mm ²	1	1
Cable entries 3 x 1.5 mm ²	2	2
Entries for communication cables	6	6
Halogen-free	-	•
Air-tight	•	•
 / 	• / •	• / •
Art. No.	9280-22	9280-78
Inner packaging/shipping	10 / 100	10 / 100

Air-tight one-gang boxes, one-gang junction boxes, accessories for cavity wall installation

One-gang box for thin boardings

- for boardings that do not permit stepped face cutting
- Combinations only possible with boxes with the same Art. No.
- with thin holding ring





For panel thickness	0,2 - 40 mm	0,2 - 40 mm
Depth	47 mm	47 mm
Cut hole Ø	68 mm	68 mm
Device screws	2	2
Cable entries up to max. Ø 10.5 mm can be made using universal opening cutter Art. No. 1085-80	•	•
Halogen-free	-	•
Air-tight	•	•
	•	•
Art. No.	9068-01	9068-79
Inner packaging/shipping	10 / 100	10 / 100

Cavity wall one-gang junction box

- incl. 10 connection pieces (for every 25 boxes)
- with holding ring





For panel thickness	7 - 40 mm	7 - 40 mm
Depth	65 mm	65 mm
Cut hole Ø	68 mm	68 mm
Device screws	2	2
Cable or conduit entries to max. Ø 25 mm cut using universal opening cutter Art. No. 1085-80	•	•
Halogen-free	-	•
Air-tight	•	•
 / 	• / •	•
Art. No.	9066-01	9066-77
Inner packaging/shipping	25 / 250	25 / 250

Accessories: Support connector, Page 92/108

One-gang junction box for solid wood

- for clamped attachment in solid wood from 10 mm thickness upwards
- not suitable for use with plasterboard or mineral fibreboard!
- with holding ring



Depth	65 mm
Cut hole Ø	68 mm
Cable or conduit entries to max. Ø 25 mm cut using universal opening cutter Art. No. 1085-80	•
Air-tight	•
 / 	• / •
Art. No.	9066-12
Inner packaging/shipping	25 / 250

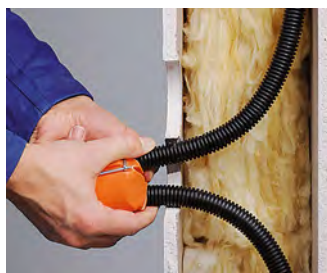
Accessories: Support connector, Page 92/108

Cavity wall boxes, air-tight version, without sealing membrane

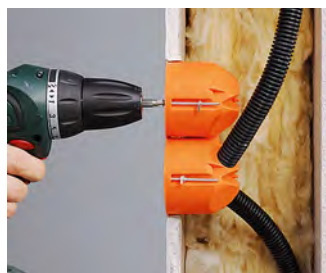
Air-tight making of cable or conduit entries and of box combinations.



Cut all required entry points for cavity wall boxes (except ECON® = without the use of tools) with the opening cutter.



Insert cables or conduit with a slight turn. To insert the box with ease, push folding base together towards the centre.



Tighten both screws of the FX4 fast screw attachment.




For combinations: Insert support connectors.

One-gang box CEE

- for use with 16A CEE equipment inserts
- with holding ring




For panel thickness	12,5 - 40 mm	12,5 - 40 mm
Depth	50 mm	50 mm
Cut hole Ø	74 mm	74 mm
Screw spacing	67 mm	67 mm
Cable entries up to max. Ø 10.5 mm can be made using universal opening cutter Art. No. 1085-80	•	•
Halogen-free	-	•
Air-tight	•	•
	•	•
Art. No.	9075-12	9075-78
Inner packaging/shipping	10 / 100	10 / 100

Air-tight one-gang boxes, one-gang junction boxes, accessories for cavity wall installation

Electronics box

- air-tight version with additional sealing lip
- Tunnel twin-chamber box with enclosed separator wall and cover that can be wallpapered over.
- for one-gang inserts and electronic components such as EIB actuators, communications equipment (Cat 7), radio control elements, alarm modules, etc.
- with holding ring



Depth	75 mm	75 mm
Cut hole Ø	2 x 68 mm	2 x 68 mm
Centre distance	71 mm	71 mm
Halogen-free	-	•
Air-tight	•	•
	•	•
Art. No.	9062-94	9062-74
Inner packaging/shipping	10 / 100	10 / 100

Accessories: Support connector, Page 92/108 ; Connecting clip for stacking boxes 9062-02/-77, Page 90

Wall light connection box

- with inner fitting cover
- not to be used as a junction box!
- for 3 terminal blocks



For panel thickness	7 - 40 mm	7 - 40 mm
Depth	45 mm	45 mm
Cut hole Ø	35 mm	35 mm
Cable entries 3 x 1.5 mm ²	1	1
Halogen-free	-	•
Air-tight	•	•
Art. No.	9248-01	9248-77
Inner packaging/shipping	25 / 100	25 / 100

Support connector

- for through-wiring of combinations to IP 3X standard air-tight
- to make air-tight combinations
- Support connectors for new boxes
- for Art. Nos. 9066-01/12, 9068-01, 9263-..., 9264-..., 9062-02/-77, 9062-94/-74, 9268-94/-74, 9266-22/-77




Halogen-free	-	•
Art. No.	9060-98	9060-78
Inner packaging/shipping	25 / 100	25 / 100

Universal VDE cover

- for all one-gang, one-gang junction and junction boxes
- with central exit for light hook
- flat cover edge
- surface roughened



Diameter	92 mm	92 mm
Screw spacing	60 / 67 mm	60 / 67 mm
Halogen-free	-	•
Fireproof	850 °C	850 °C
	•	•
Art. No.	1184-90	1184-77
Inner packaging/shipping	25 / 250	25 / 250

Universal waterproof cover

- central entry with stoppers
- for countersunk screws Ø 4 mm



Diameter	90 mm
Screw spacing	67 mm
Halogen-free	•
Fireproof	850 °C
Art. No.	1174-99
Inner packaging/shipping	- / 10

Internal cover

- for flush closure of one-gang boxes and one-gang junction boxes
- suitable for wallpapering
- for all one-gang boxes and one-gang junction boxes



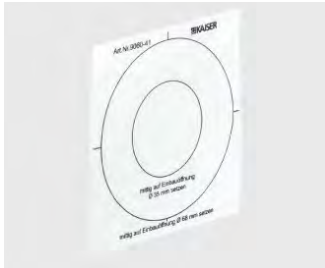
Diameter	64 mm
	• / •
Art. No.	1158-90
Inner packaging/shipping	25 / 250

Air-tight one-gang boxes, one-gang junction boxes, accessories

for cavity wall installation

Sealing foil

Sealing foil for later sealing of over-sized, non-circular or broken-out openings, as often found with combinations in plasterboard, mineral fibreboard or similar materials, which are guaranteed to be sealed air-tight with the sealing foil.



Sealing foil

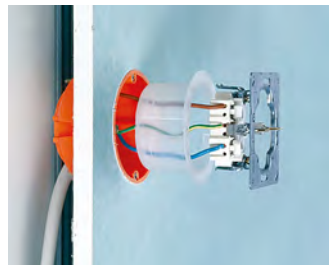
- for sealing between box edge and boarding material with oversized, non-circular or broken-out drill holes (e.g. in combination areas with plasterboard, mineral fibreboard or similar materials)
- for Art. No. 9066-01/77, 9068-01/79, 9248-01, 9263-..., 9264-...



Air-tight	•
Art. No.	9060-41
Inner packaging/shipping	- / 25

Sealing inserts

Sealing insert for retrofit sealing of existing installation boxes in air-tight building shells. The insert encloses the cables and creates a guaranteed air-tight installation space.



Sealing inserts

- for retrofit sealing of all existing one-gang boxes and one-gang junction boxes
- permanently flexible plastic



Depth	36,5 mm
Diameter	60 mm
Air-tight	•
Art. No.	1040-01
Inner packaging/shipping	10 / 100

Sealing plugs 16-20

- for sealing electrical installation conduits
- ECON® technology for easy cable entry
- permanently flexible plastic



3D animation

Sealing plug	M16	M20
DIN EN conduit Ø	16 mm	20 mm
Art. No.	1040-16	1040-20
Inner packaging/shipping	25 / 100	25 / 100

Sealing plugs 25-40

- for sealing electrical installation conduits
- ECON® technology for easy cable entry
- permanently flexible plastic



3D animation

Sealing plug	M25	M32	M40
DIN EN conduit Ø	25 mm	32 mm	40 mm
Art. No.	1040-25	1040-32	1040-40
Inner packaging/shipping	25 / 100	25 / 50	- / 25



Sealing sleeves

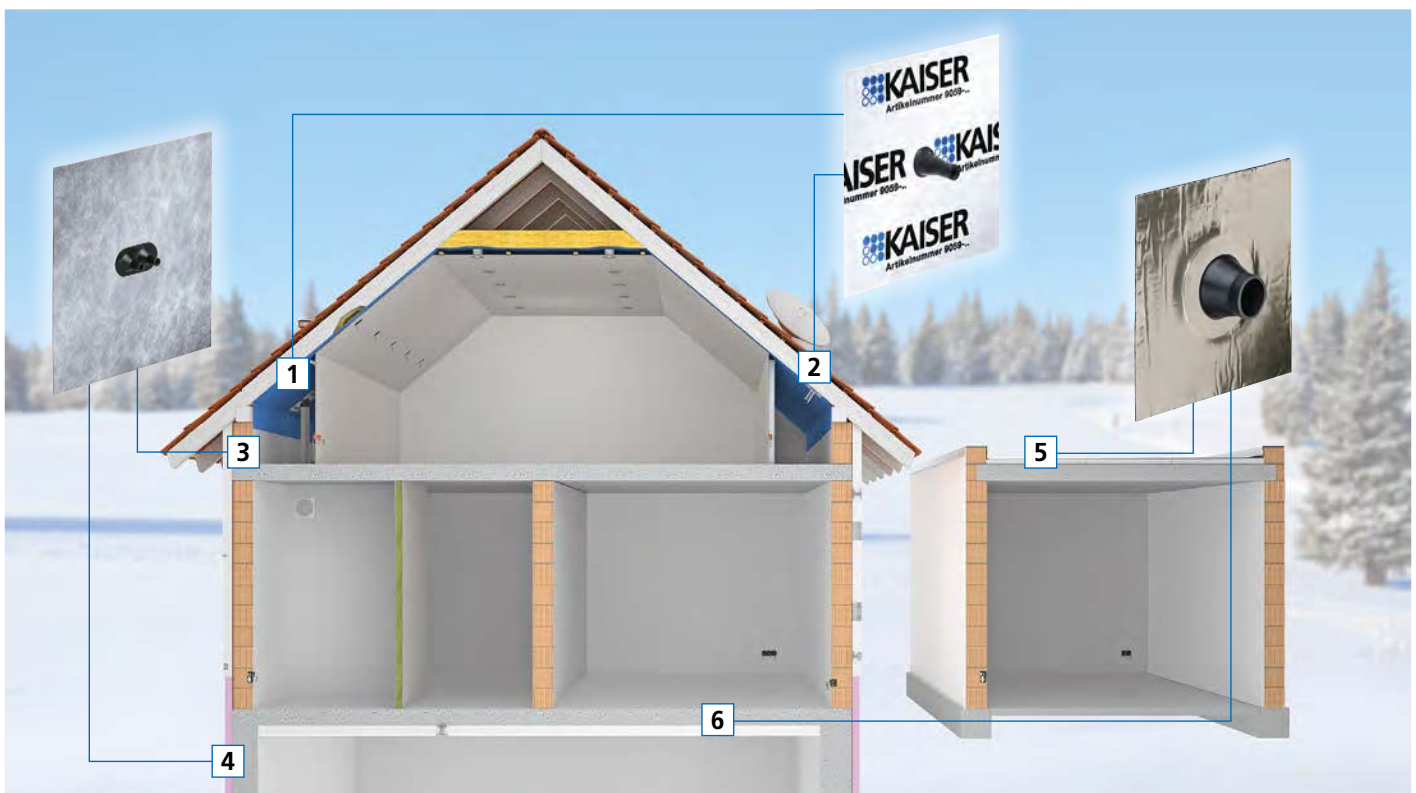
The KAISER range of sealing sleeves offers perfect sealing for all standard cable and conduit sizes, both indoors and outdoors. The range consists of single and double sleeves for one or two cables or conduits respectively, and of two multiple air-tight sleeves for up to six cables or conduits. The self-adhesive KAISER sealing sleeves can be fitted without the need for any tools. Talcum is applied to the sleeves before they leave the factory. They ensure easy cable or conduit feed-through, and fast processing on the building site. In contrast to the conventional improvised method, KAISER sealing sleeves guarantee the permanent air-tight sealing of installation penetrations.

- For cables Ø 4 - 12 mm and conduits Ø 15 - 110 mm
- Large contact area to cables and conduits
- Anti-kink sleeve also permanently seals very kinked cables
- Completely toolless wall installation
- Extremely good adhesion

air-
tight

halogen-
free

Applications for sealing sleeves



1 Sealing of a ventilation conduit through the vapour or moisture barrier | **2** Sealing of more than one cable through the vapour or moisture barrier | **3** Sealings in plastered walls | **4** Sealings in the cellar area | **5** Sealings in flat roof areas | **6** Sealing of the cellar ceiling or the foundation baseplate



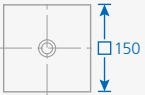
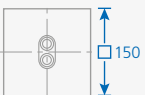
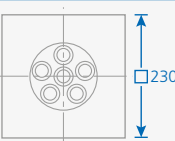
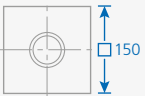
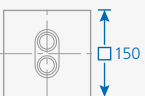
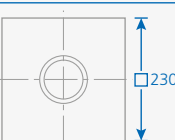
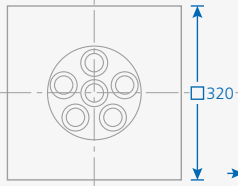
Air-tight sleeve

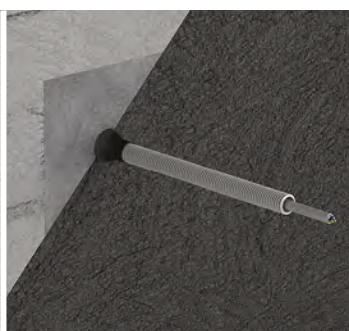


Fleece-butyl sealing sleeve



Aluminium butyl sealing sleeve

		Applications		Indoors	Indoors & outdoors	Indoors & outdoors
L x B	H	Ø mm	Art. No.	Art. No.	Art. No.	Art. No.
Cables (coaxial, NYM, underground, solar, etc.)						
Single		4 - 8 mm	9059-44	9089-44	9079-44	
		8 - 12 mm	9059-46	9089-46	9079-46	
Double		4 - 8 mm	9059-45	9089-45	9079-45	
		8 - 12 mm	9059-47	9089-47	9079-47	
6 combinations		4 - 11 mm	9059-61	-	-	
Conduits (electrical installation, waste water, ventilation, heating, etc.)						
Single		15 - 22 mm	9059-48	9089-48	9079-48	
		25 - 32 mm	9059-49	9089-49	9079-49	
Double		15 - 22 mm	9059-55	9089-55	9079-55	
Single		42 - 55 mm	9059-51	9089-51	9079-51	
		50 - 75 mm	9059-52	9089-52	9079-52	
		75 - 90 mm	9059-53	9089-53	9079-53	
		100 - 110 mm	9059-54	9089-54	9079-54	
6 combinations		16 - 25 mm	9059-62	-	-	





Air-tight sleeve

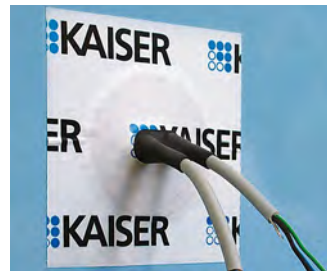
Air-tight sleeve for sealing conduit and cable entries in the interior of air-tight building shells.

- extremely strong adhesion
- For guaranteed air-tight feed-throughs, especially in the attic
- 10 types for different conduit and cable diameters
- Suitable for moisture barrier foils, sarking membranes, OSB boards *

air-tight

halogen-free

Examples of use



Measuring the air-tightness



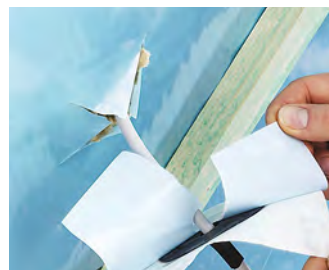
Processing instructions

Air-tight conduit entries can be made cleanly and easily by using the self-adhesive KAISER air-tight sleeves. The sleeves create faster, more stable and, above all, more air-tight transitions than improvised methods. Please ensure that the base is dry and free from dust and grease. Processing should be carried out at a temperature higher than -5°C , and full adhesive strength is achieved after 24 hours. The sleeves have an unlimited shelf life when stored cool and dry at room temperature. * For fibreboard, we recommend a pre-coat using primer

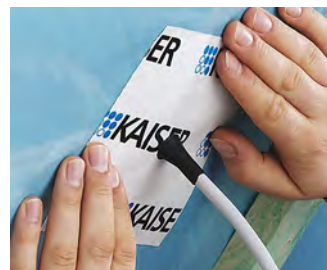
Installation



Push the sleeve over the cable or conduit.



Remove the foil from the sleeve.



Stick on the sleeve and press firmly on to the base, working outwards from the centre.

Air-tight sleeves for cables and conduits

- Continuous sealing by means of air-tight layers for penetration of cables
- extremely strong adhesion
- Temperature resistance -30°C to +80°C, in the feed-through area up to +120°C
- UV-resistant, halogen-free



Length x Width x Height	Number of cables/conduits	Air-tight	Diameter of cable / pipe	Art. No.	Inner packaging/shipping
150 x 150 x 30 mm	1 item	•	4 - 8 mm	9059-44	10 / 30
150 x 150 x 30 mm	2 item	•	4 - 8 mm	9059-45	10 / 30
150 x 150 x 30 mm	1 item	•	8 - 12 mm	9059-46	10 / 30
150 x 150 x 30 mm	2 item	•	8 - 12 mm	9059-47	10 / 30
150 x 150 x 30 mm	1 item	•	15 - 22 mm	9059-48	10 / 30
150 x 150 x 30 mm	2 item	•	15 - 22 mm	9059-55	10 / 30
150 x 150 x 30 mm	1 item	•	25 - 32 mm	9059-49	10 / 30
230 x 230 x 50 mm	1 item	•	42 - 55 mm	9059-51	- / 8
230 x 230 x 50 mm	1 item	•	50 - 75 mm	9059-52	- / 4
230 x 230 x 50 mm	1 item	•	75 - 90 mm	9059-53	- / 4
320 x 320 x 50 mm	1 item	•	100 - 110 mm	9059-54	- / 4

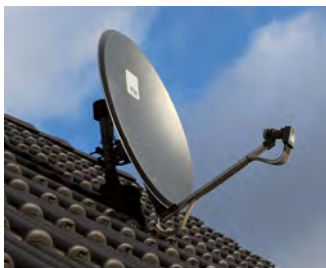
Multiple air-tight sleeves ECON®

Cable and conduit sleeve ECON® for reliable sealing of up to 6 cable or conduit entries through the air-tight building shell - ideal for digital satellite units.

- Flexible sealing of 1 to 6 cables or conduits
- Low space requirement, powerful adhesion
- Completely toolless wall installation
- Sealing even when cables are extremely kinked
- Unused entries are reserved for later installations



Examples of use



Connection of a digital satellite receiver unit.



4 coaxial cables are connected here for reception.



The mast which supports the parabolic mirror must also be incorporated in the equipotential bonding.



The cables are fed through the building's air-tight seal. This entry must be permanently sealed air-tight.

Sealing sleeves

Reliable sealing of installation feed-throughs

Installation



ECON® technology's toolless cable or conduit entry offers maximum ease of installation and permits fast processing.



Before the sleeve can be glued in position, make sure that the surface is free of dust. Then remove the protective foil,...

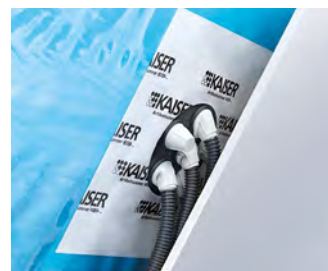


...glue the sleeve in position and thoroughly smooth it onto the surface, working from the inside to the outside.



The sleeves guarantee permanent sealing of entries, even when cables are extremely kinked. Retrofitting is easy.

Product advantages



Cable-sleeve ECON®

- 1-piece
- extremely strong adhesion
- Temperature resistance from -25°C to +80°C
- UV-resistant, halogen-free



3D animation

Length x Width x Height	230 x 230 x 25 mm
Number of cable entries	1 - 6
Cable diameter	4 - 11 mm
Art. No.	9059-61
Inner packaging/shipping	- / 5

Conduit-sleeve ECON®

- 1-piece
- extremely strong adhesion
- Temperature resistance from -25°C to +80°C
- UV-resistant, halogen-free



3D animation

Length x Width x Height	320 x 320 x 30 mm
Number of conduit entries	1 - 6
Conduit diameter	16 - 25 mm
Art. No.	9059-62
Inner packaging/shipping	- / 5

Fleece-butyl sealing sleeves

For permanent, secure sealing of installation penetrations in masonry, concrete or wood materials, etc. The highly-elastic sleeves are fitted with fleece-butyl flanges as plaster bases and provide maximum adhesion. Some surfaces must be pre-treated with KAISER primer.

- Permanently moisture-proof - for use indoors and outdoors
- The fleece sleeve can be plastered over, and is for use in plastered walls and behind composite thermal insulation systems
- Waterproofing effect with non-pressing water, e.g. against soil moisture



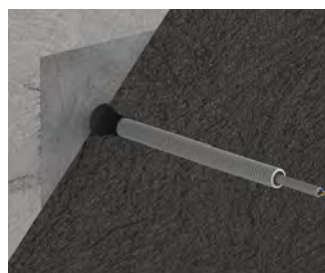
Installation



If necessary, pre-treat the base, pull the sleeve over the cable/conduit...



...remove the protective foil and press the sleeve into position.



The adhesive flange can be plastered over and ensures permanent sealing of the masonry penetration.

Note

To ensure secure adhesion of all KAISER air-tight sleeves, the bases must be free of dust and grease, and also dry and load-bearing. In particular, mineral and organic bases such as stone, concrete, plasterboard or fibreboard must be pre-treated with KAISER primer.

Fleece-butyl sealing sleeves

- For cables Ø 4 - 12 mm and conduits Ø 15 - 110 mm
- Fleece-butyl sealing sleeve can be plastered over
- adhesive
- 1-piece



Length x Width x Height	Number of cables/conduits	Air-tight	Diameter of cable / pipe	Art. No.	Inner packaging/shipping
150 x 150 x 30 mm	1 item	•	4 - 8 mm	9089-44	10 / 30
150 x 150 x 30 mm	2 item	•	4 - 8 mm	9089-45	10 / 30
150 x 150 x 30 mm	1 item	•	8 - 12 mm	9089-46	10 / 30
150 x 150 x 30 mm	2 item	•	8 - 12 mm	9089-47	10 / 30
150 x 150 x 30 mm	1 item	•	15 - 22 mm	9089-48	10 / 30
150 x 150 x 30 mm	2 item	•	15 - 22 mm	9089-55	10 / 30
150 x 150 x 30 mm	1 item	•	25 - 32 mm	9089-49	10 / 30
230 x 230 x 50 mm	1 item	•	42 - 55 mm	9089-51	- / 4
230 x 230 x 50 mm	1 item	•	50 - 75 mm	9089-52	- / 4
230 x 230 x 50 mm	1 item	•	75 - 90 mm	9089-53	- / 4
320 x 320 x 50 mm	1 item	•	100 - 110 mm	9089-54	- / 4



Aluminium-butyl sealing sleeves

For permanent, secure sealing of installation penetrations through masonry, concrete or wooden materials. The highly-elastic sleeves are fitted with non-tear aluminium butyl adhesive flanges and provide maximum adhesion. Some surfaces must be pre-treated with KAISER primer.

- Permanently moisture-proof - for use indoors and outdoors
- Water-sealing effect with non-pressing water up to 0.02 bar
- Especially suitable for sealing in the cellar socle
- Large contact area to cables and conduits
- Anti-kink sleeve also permanently seals very kinked cables
- Completely toolless wall installation
- Extremely good adhesion



Installation



Pre-treat mineral bases and fibreboards with primer.



Pull the sleeve over the cable/conduit and remove the protective foil.



Press the adhesive flange of the sleeve firmly into position.

Aluminium-butyl sealing sleeves

- For cables Ø 4 - 12 mm and conduits Ø 15 - 110 mm
- pressing water up to 0.02 bar
- adhesive
- 1-piece



Length x Width x Height	Number of cables/ conduits	Air-tight	Diameter of cable / pipe	Art. No.	Inner packag- ing/shipping
150 x 150 x 30 mm	1 item	•	4 - 8 mm	9079-44	10 / 30
150 x 150 x 30 mm	2 item	•	4 - 8 mm	9079-45	10 / 30
150 x 150 x 30 mm	1 item	•	8 - 12 mm	9079-46	10 / 30
150 x 150 x 30 mm	2 item	•	8 - 12 mm	9079-47	10 / 30
150 x 150 x 30 mm	1 item	•	15 - 22 mm	9079-48	10 / 30
150 x 150 x 30 mm	2 item	•	15 - 22 mm	9079-55	10 / 30
150 x 150 x 30 mm	1 item	•	25 - 32 mm	9079-49	10 / 30
230 x 230 x 50 mm	1 item	•	42 - 55 mm	9079-51	- / 4
230 x 230 x 50 mm	1 item	•	50 - 75 mm	9079-52	- / 4
230 x 230 x 50 mm	1 item	•	75 - 90 mm	9079-53	- / 4
320 x 320 x 50 mm	1 item	•	100 - 110 mm	9079-54	- / 4

KAISER primer

KAISER primer is a high-quality, solvent-free coating which optimises adhesion for all KAISER sealing sleeves on absorbent, mineral surfaces, for example masonry, concrete, plasterboard or wood materials. The self-adhesive primer is water and heat resistant. It can also be used on Styrofoam, EPS or XPS etc.



Installation



The base must be dry and free of grease, oil and dust. Stir the primer thoroughly before working. Apply smoothly (apply twice to porous surfaces).



Before pressing the adhesive flange on, allow the primer to air until transparent. Thickened primer can be thinned with water.

KAISER primer

- The self-adhesive primer is water and heat resistant. It can also be used on Styrofoam, EPS, XPS etc.



Contents	250 ml
Art. No.	9000-02
Inner packaging/shipping	- / 1

Sound-insulation box



Sound reduction index R'_w up to
77 dB



Sound insulation box for use in walls with increased demands on sound protection. The solid box body with additional sound insulation sheathing absorbs and reflects sound, which prevents disturbances in adjacent rooms. Sound insulation is the same as if no installation boxes were installed.

- Maintains the wall's sound insulation protection
- Also for retrofitting
- Installation up to 5-unit combinations
- Also for opposing installation
- Can be used with sound protection cover as a junction box

Examples of use



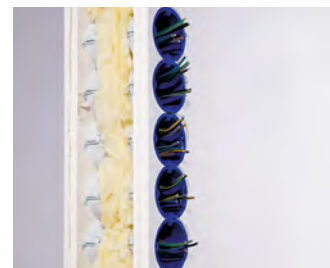
Example of installation of a switch/socket combination.



Use of an opposing sound insulation box.



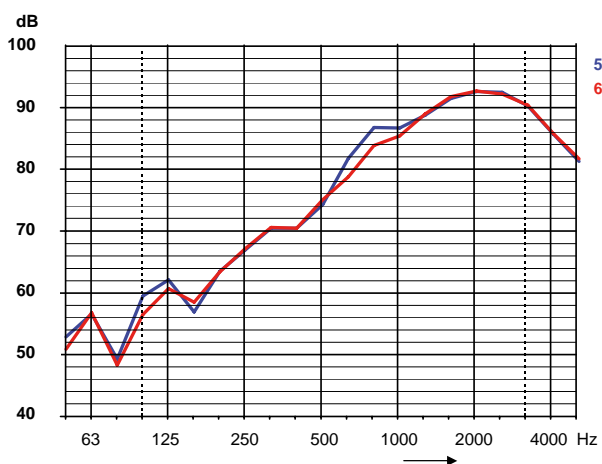
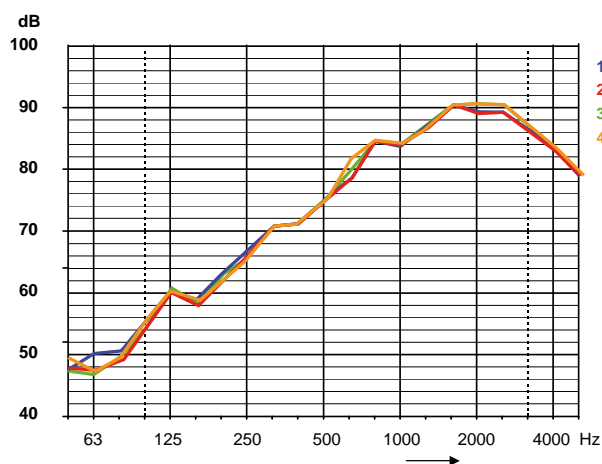
Use of a sound insulation box on one side of a double combination.



The sound insulation box can be used in up to five opposing combinations without weakening the sound insulation characteristics of the wall.

Comparison of sound insulation

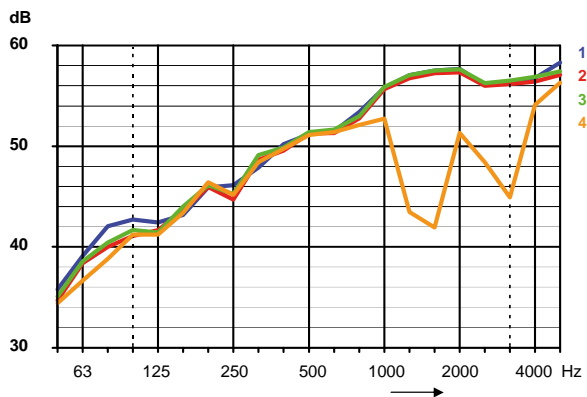
Lightweight wall (2-shell, each triple-boarded) with sound insulation one-gang junction boxes.



1 Wall, without installations, 77 dB | **2** Sound insulation box 9069-01, single, with accessory, 77 dB | **3** Sound insulation box 9069-01, single, with cover, 77 dB | **4** Sound insulation box 9069-01, 5-way, with accessory, 77 dB | **5** Wall, without installations, 78 dB | **6** with sound insulation electronics box, 9069-94/ 9069-74, 78 dB

Comparison of sound insulation

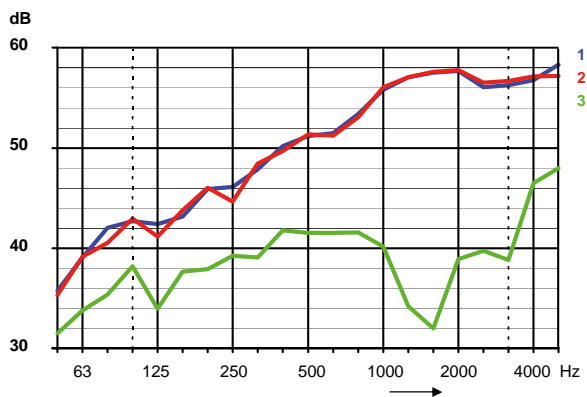
Lightweight wall (two-shell, double-boarded in each case) with sound insulation one-gang junction boxes.



1 Wall, with no installations, 54 dB | **2** Sound insulation box 9069-01, single, with accessory, 54 dB | **3** Sound insulation box 9069-01, single, with cover, 54 dB | **4** One-gang junction box 9064-01, single, with accessory, 48 dB

Comparison of sound insulation

Lightweight wall (two-shell, double-boarded in each case) with sound insulation one-gang junction boxes.



1 Wall, with no installations, 54 dB | **2** Sound insulation box 9069-01, fivefold, with accessory, 54 dB | **3** One-gang junction box 9064-01, fivefold, with accessory, 38 dB

Installation



Use a cutter (e.g. MULTI 4000: Art. No. 1084-10) to make a Ø 74 mm opening.



For combinations, cut off the marked edge strip.



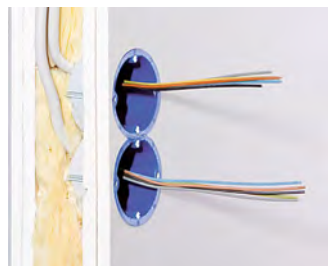
Installation then proceeds as with a conventional cavity wall box.



Secure and fast installation thanks to KAISER FX4 technology.



Accurate entries ensured by using the universal opening cutter (Art. No. 1085-80).



Combinations at a standard spacing of 71 mm.



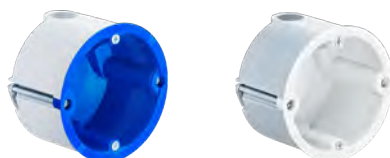
Tight and fully-insulated through-wiring is ensured by the support connector.




With the sound-insulation cover, the box can also be used as a junction box.

Sound-insulation box

- One-gang junction box for sound insulation walls in buildings
- Combination distance of 71 mm through single separation of the pre-embossed edge




3D animation

For panel thickness	7 - 40 mm	7 - 40 mm
Depth	54,5 mm	54,5 mm
Cut hole Ø	74 mm	74 mm
Fixing screw spacing	60 mm	60 mm
Cable entries of up to Ø 11.5 mm	4	4
Support connectors for each package	5	5
Halogen-free	-	•
for sound insulation walls up to	77 dB	77 dB
	•	•
Art. No.	9069-01	9069-77
Inner packaging/shipping	10 / 100	10 / 100

Sound insulation cover

- for sound insulation box
- Sound insulation function in conjunction with sound insulation box



Diameter	92 mm
Halogen-free	•
	•
Art. No.	1184-69
Inner packaging/shipping	10 / 100

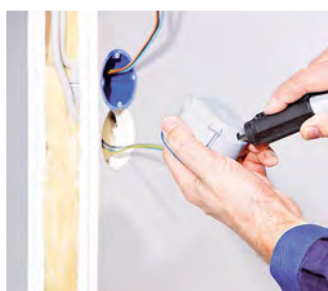
Support connector

- for through-wiring of combinations to IP 3X standard air-tight
- for Art. No. 1555-51, 9069-01, 9069-77



Halogen-free	-	•
Art. No.	9060-88	9060-78
Inner packaging/shipping	25 / 100	25 / 100

Allocation table for universal opening cutters



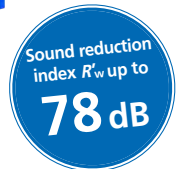
Cavity wall installation for sound insulation boxes		Ø setting
NYM cable	3 x 1,5 mm ²	8,5
	5 x 1,5 mm ²	9,5
	3 x 2,5 mm ²	9,5
Support connector	9060-88	Connector
	9060-78	Connector, halogen-free

You can create cable entries with the prescribed strain relief easily and to the exact required size with the universal opening cutter (Art No. 1085-80).

Sound insulation electronics box

Sound insulation electronics box for use in walls with increased demands on sound insulation. The sound insulation electronics box maintains the wall's sound insulation function and creates space for electronic switching devices, data boxes, cables and terminals. The electronics box makes possible population with cables and installation conduits up to M25.

- Maintains the wall's sound insulation protection
- Retrofitting is possible
- Also for use as a double box
- Extra-large terminal area for communications and network technology
- Additional space for electronic components (KNX actuators, relays, radio module, communications technology)



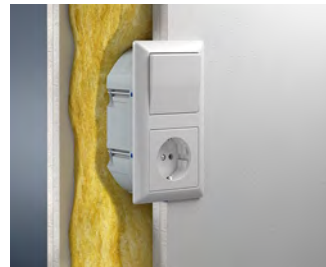
Examples of use



The electronics box provides space for all possible installations e.g. KNX actuators, Venetian blinds relays, alarm modules and many more.



Also ideal for network connections. The generous box volume offers sufficient space for cable reserves.



The electronics box can also be used as a double box, e.g. for switch and socket combinations.



The electronics box can easily be combined with the sound insulation device junction box.

Processing instructions



The electronics box provides 6 ways for conduit entry up to M25 and cable entry up to Ø 11.5 mm.



There are also 6 ways for cable entry up to Ø 11.5 mm.



By removing the cover...



...and the bridge can also be used as a double box.

Installation



Cut two installation openings using turbo cutter MULTI 4000 Ø 74 mm (Art. No. 1084-10) with a centre distance of 71 mm.



Removal of the bridge.



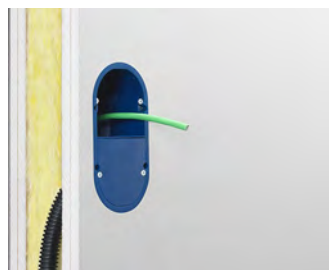
Using the KAISER universal opening cutter, cut an exact conduit or cable opening for air-tight installation.



Fitting the box using tried-and-tested FX4 technology.



The additional terminal space makes possible the fitting of various electronic components...



...and creates sufficient space for the cable reserve when communications and network boxes are installed.



By using support connectors, the box can be combined with itself or with the sound insulation box (Art. No. 9069-01).




The cover can also be fitted turned 180° and filled.

Sound insulation electronics box

- Electronics box for sound insulation walls in buildings
- Also for use as a double box
- For equipment inserts and electronic components
- Can be combined with each other and also with a sound insulation one-gang junction box



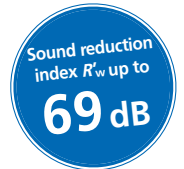
3D animation

For panel thickness	7 - 40 mm	7 - 40 mm
Depth	70 mm	70 mm
Cut hole Ø	2 x 74 mm	2 x 74 mm
Centre distance	71 mm	71 mm
Conduit entries for DIN EN conduits up to Ø 25 mm	4	4
Cable entries of up to Ø 11.5 mm	4	4
Halogen-free	-	•
for sound insulation walls up to	78 dB	78 dB
	•	•
Art. No.	9069-94	9069-74
Inner packaging/shipping	5 / 50	5 / 50

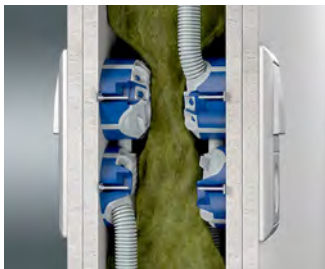
Sound-insulation box 68

Thanks to their solid box body in combination with the sound-absorbing surface on the base of the box, sound insulation 68 one-gang and one-gang junction boxes guarantee the wall's sound insulation. This function is completely maintained even with directly opposing installation. The easy opening process and the 68 mm installation opening ensure fast mounting and also easy retrofitting in existing electrical installations.

- Maintains the wall's sound insulation protection
- Also for retrofitting
- For Ø 68 mm installation openings
- For directly opposing installation
- Easy entry for cables up to Ø 11.5 mm and conduits up to Ø M25



Examples of use



For sound insulation walls with a sound insulation value of up to 69 dB.



Also for directly opposing installation up to a 5-way combination.



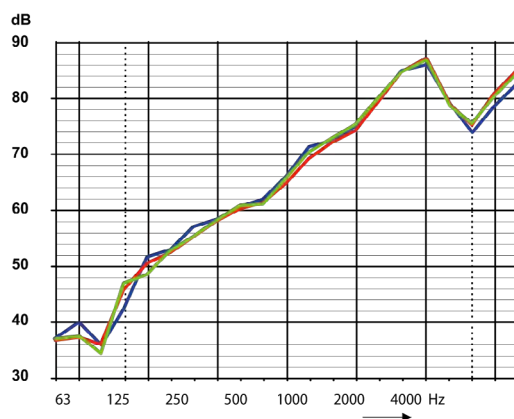
Can be combined with one-gang and one-gang junction boxes.



With a sound insulation cover (Art. No. 1184-69), it can also be used as a junction box.

Comparison of sound insulation

Lightweight wall (2-layer, each triple-boarded)



1 Wall, without installations, 69 dB. | **2** Sound insulation box 9069-03 / 9069-75, single, with accessory, 69 dB. | **3** Sound insulation box 9069-04 / 9069-76, single, with accessory, 69 dB. | **4** The solid box body and the sound-absorbing surface on the base of the box guarantee sound insulation up to 69 dB. | **5** Sound-absorbing strips on the box edge to reduce structure-borne sound. | **6** Easy opening of the conduit entry by means of pre-defined opening tab.

Sound insulation technology

for cavity wall installation

Processing instructions



Up to 6 Ø 4 - 11.5 mm cable entries and 2 conduit entries up to M25.



Easy cable and conduit entry with cable retention acc. to DIN EN 60670.

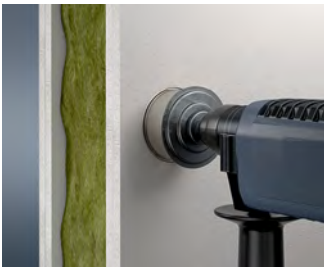


Easy opening of the conduit entry by means of pre-defined opening tab.



Fully-insulated through-wiring of one-gang and one-gang junction boxes using the support connector (Art. No. 9060-88).

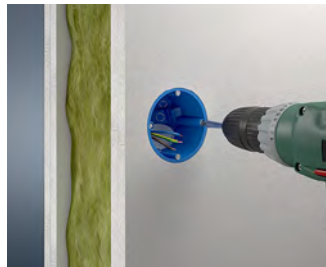
Installation



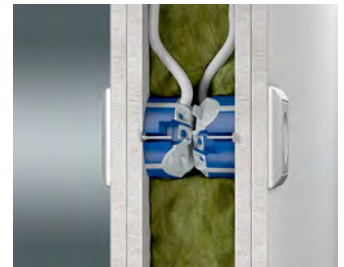
Cut Ø 68 mm installation opening using MULTI 4000 turbo cutter (Art. No. 1083-10). Cut combinations with a centre distance of 71 mm.



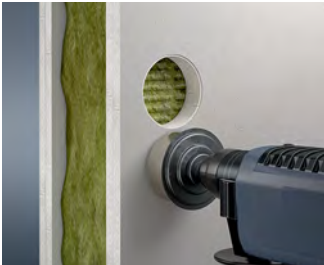
Easy opening for the installation of data and power cables or electrical installation conduits.



Fix the box using tried-and-tested KAISER FX4 technology.



Opposing installation - possible for one-gang boxes with a minimum wall thickness of 100 mm and one-gang junction boxes for a minimum of 125 mm.



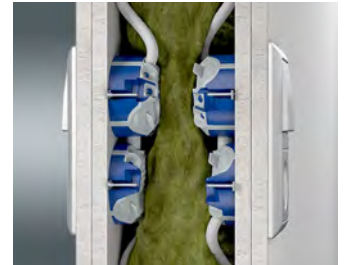
For combinations, create installation openings Ø 68 mm in centre distance 71 mm.



Conduit entry ensures tighter fit of the conduits to the boarding.



Ensure fully-insulated through-wiring by using support connector (Art. No. 9060-88).



One-gang boxes and one-gang junction boxes can be combined.

One-gang box sound insulation 68

- for sound insulation walls
- also for directly opposing installation
- minimum wall thickness 100 mm
- can be combined with each other and with the one-gang junction box





NEW

INNOVATION



3D animation

Depth	49 mm	49 mm
Cut hole Ø	68 mm	68 mm
Tube entries up to M25	2	2
Cable entries of up to Ø 11.5 mm	4	4
Support connectors for each package	5	5
Halogen-free	-	•
 / 	• / •	• / •
For panel thicknesses up to	40 mm	40 mm
for sound insulation walls up to	69 dB	69 dB
Art. No.	9069-03	9069-75
Inner packaging/shipping	10 / 100	10 / 100

One-gang junction box sound insulation 68

- for sound insulation walls
- also for directly opposing installation
- minimum wall thickness 125 mm
- combinable with each other and with the one-gang box





NEW

INNOVATION



3D animation

Depth	61 mm	61 mm
Cut hole Ø	68 mm	68 mm
Tube entries up to M25	2	2
Cable entries of up to Ø 11.5 mm	6	6
Support connectors for each package	5	5
Halogen-free	-	•
 / 	• / •	• / •
For panel thicknesses up to	40 mm	40 mm
for sound insulation walls up to	69 dB	69 dB
Art. No.	9069-04	9069-76
Inner packaging/shipping	10 / 100	10 / 100

Sound-insulation box 68 Flex

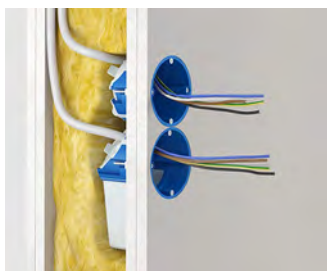


Thanks to its solid box body, in connection with the sound absorbing surface on the box base the Sound insulation 68 Flex electronics box guarantees the wall's sound insulation function. Additional insulating strips minimise body sound transfer via the component opening. Fast installation is ideal for modernising or extending existing systems. The flexible tunnel makes it easy to install, and creates space for electronic components, cable reserves and terminals.

- Maintains the wall's sound insulation protection
- For Ø 68 mm installation openings
- Additional sideways terminal compartment for communications and network technology
- Toolless cable and conduit entry
- Can be combined with support connectors, air-tight and fully-insulated



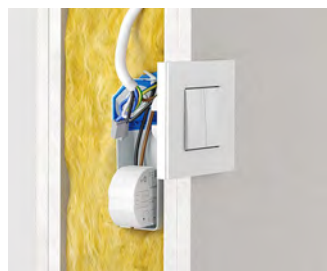
Examples of use



The combination with Sound insulation 68 one-gang and one-gang junction boxes is possible.



Additional space for connection terminals.

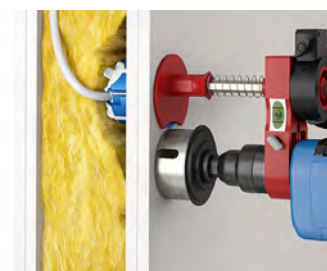


Accepts electronic components e.g. actuators.

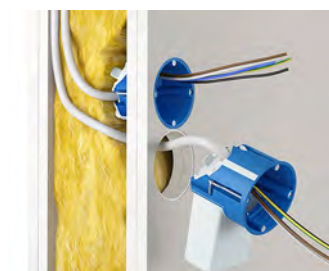


Space for cable reserves.

Installation



Cut Ø 68 mm installation opening; for refurbishing, using Profix.



Feed cable or conduit air-tight through the elastic sealing membrane



For easy installation, press the flexible tunnel into the box.



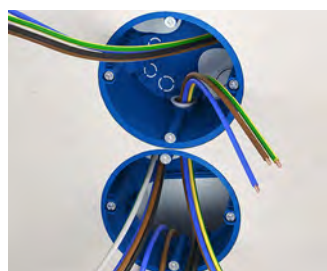
Insert the box into the component opening.



Tighten the box's lug screws and press the tunnel out.



Insert electronic components or cable reserves into the tunnel.

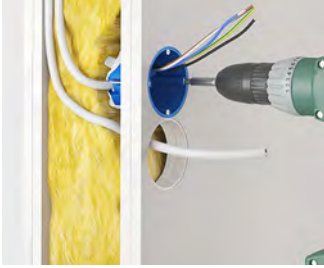


Through-wiring takes place by means of support connector (Art. No. 9060-98).

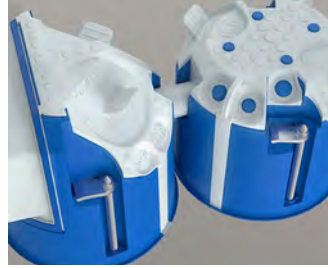


Guaranteed airtight - secure terminal compartment for electronic components.

Processing instructions



Existing Ø 68 mm installation openings can be used.



Air-tight and fully-insulated combination using support connector (Art. No. 9060-88).



Standardised cable retention. Elastic sealing membrane permits toolless cable entry...



...and conduit entries up to M25 in an air-tight version

Sound-insulation box 68 Flex



INNOVATION



Produkt-Film

- for sound insulation walls
- for accessories and electronic components
- Air-tight version with sealing membrane
- Elastic tunnel
- can be combined with sound insulation boxes 68



For panel thickness	7 - 30 mm
Length x Width x Depth	122 x 71 x 75 mm
Cut hole Ø	68 mm
Device screws +/-	2
Tube entries up to M25	2
Cable entries 3 x 2.5 mm ² or 5 x 1.5 mm ²	2
Cable entries 3 x 1.5 mm ²	2
Halogen-free	•
Air-tight	•
 / 	• / •
for sound insulation walls up to	68 dB
Art. No.	9068-94
Inner packaging/shipping	10 / 100



Safety for X-ray rooms. One-gang junction box for radiation protection walls.

KAISER's innovative radiation protection box protects against radiation used for medical purposes, e.g. in X-ray facilities. The high density of the radiation protection compound absorbs soft and hard X-rays. The box is especially suitable for lead-free radiation protection walls (e.g. Knauf Safeboard) and - because of its dose-reducing effect in the tube voltage range between 40 - 150 kV - guarantees a lead-equivalent value for the wall of up to 3 mm Pb even with opposing installation. In addition, the box can easily be used in lead-lined walls. In this case, the radiation protection box achieves a lead-equivalent value of 1.5 mm Pb with walls which are leadlined on one side.

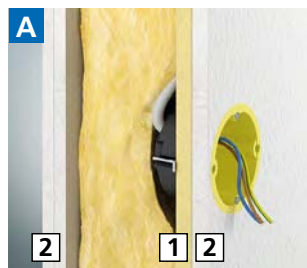
- Protection against X-rays
- Suitable for lead-free radiation protection walls
- Lead-free - no health risks
- Retrofitting is possible
- Fast installation without additional screening measures
- Opposing installation is possible
- Maintains the wall's sound insulation protection



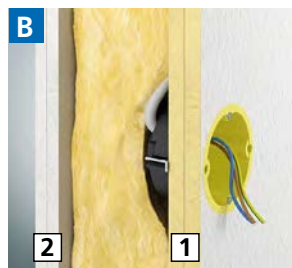
Use in lead-free radiation protection walls



1 lead-free radiation protection panel (e.g. Knauf Safeboard) 2 plasterboard panel



Lead equivalent: up to 0.6 mm Pb wall construction: 2 layers of boarding on both sides



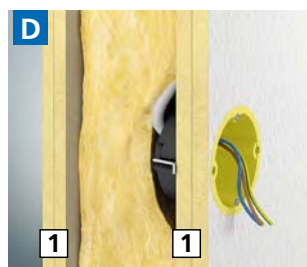
Lead equivalent: up to 1.1 mm Pb Wall construction: 2 layers of boarding on both sides



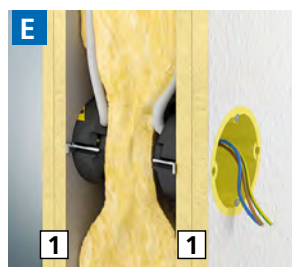
Lead equivalent: up to 1.75 mm Pb Wall construction: 2 layers of boarding on both sides

0,3 - 0,6	A
1,0 - 1,1	B
≤ 1,75	C
≤ 2,75	D
≤ 3,0	E

Lead equivalent in mm Pb / illustration



Lead equivalent: up to 2.75 mm Pb Wall construction: 2 layers of boarding on both sides



Two opposing radiation protection boxes achieve a lead equivalent of 3 mm Pb

Examples of use



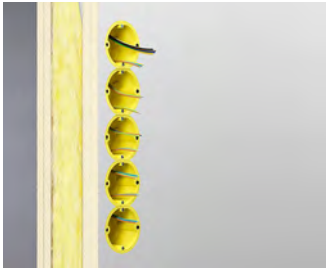
Example of installation of a switch/socket combination.



Installation of the radiation protection box in the wall.



Opposing use of the radiation protection box.



Use of the radiation protection box in a triple combination.

Proof of radiation protection

TÜV-Nord Ensys has demonstrated that in the tube voltage range between 40 and 150 kV, KAISER's lead-free radiation protection box achieves a lead equivalent value of 1.5 mm Pb. This is confirmed by comprehensive series of tests which preceded certification and demonstrated clearly that the wall's radiation protection is completely maintained in this area of application. The certificate can be downloaded as a pdf file from our website.



certified



Radiation protection

for cavity wall installation

Installation



Use a cutter (e.g. MULTI 4000: Art. No. 1084-10) to make a Ø 74 mm opening.



Installation then proceeds as with a conventional cavity wall box.



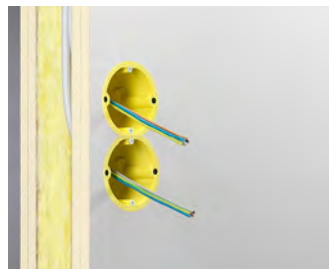
Secure and fast installation thanks to KAISER FX4 technology.



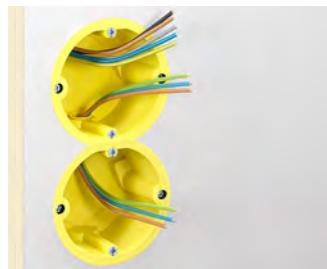
Accurate entries ensured by using the universal opening cutter (Art. No. 1085-80).



For combinations, cut off the marked edge strip.



Combinations at a standard spacing of 71 mm.



The fully-insulated through-wiring is carried out with the support connector.




Depending on the wall construction, the radiation protection box protects the wall up to a lead equivalent of 3 mm Pb.

Radiation protection one-gang junction box

- One-gang junction box for radiation protection boxes in buildings
- Combination distance of 71 mm through single separation of the pre-embossed edge



3D animation

For panel thickness	7 - 40 mm
Depth	58,5 mm
Cut hole Ø	74 mm
Fixing screw spacing	60 mm
Cable entries of up to Ø 11.5 mm	2
Support connectors for each package	3
Halogen-free	•
Lead-free	•
Lead equivalent value [mm Pb]	bis 3*
	•
Art. No.	9074-01
Inner packaging/shipping	5 / 10

Note

*Depending on the wall construction (see p. 98), lead equivalents up to 3 mm Pb can be achieved.

Support connector

- for through-wiring of combinations to IP 3X standard air-tight
- for Art. No. 9074-01



Art. No.	9060-74
Inner packaging/shipping	25 / 100

Allocation table for universal opening cutters



Cavity wall installation for radiation protection boxes		Ø setting
NYM cable	3 x 1.5 mm ²	9.5
	5 x 1.5 mm ²	10.5
	3 x 2.5 mm ²	9.5
Support connector	9060-74	Cut up to the marking of the connector entry

You can create cable entries with the specified strain relief easily and to the exact required size with the universal opening cutter (Art. No. 1085-80).

Radiation protection one-gang junction box for lead-lined radiation protection walls.

The KAISER radiation protection box for use in lead-lined walls protects against radiation used for medical purposes, e.g. in X-ray equipment. The radiation protection material with an integrated lead function component absorbs the dangerous X-ray radiation with a lead equivalent value of 2,5 mm Pb as effectively as 2,5 mm thick lead.



- Protection against X-rays
- For lead-lined radiation protection walls
- No health risks - no skin contact with lead function component
- Retrofitting is possible
- Fast installation without additional screening measures
- Maintains the wall's sound insulation protection



Examples of use



Example of installation of a switch/socket combination.



Using the radiation protection box in the wall.



Single-side use of the radiation protection box in a double combination.



Fitting a triple combination is also easy.

Proof of radiation protection

The German TÜV-Nord Ensys demonstrated that within a range of tube voltages between 90 and 150 kV, KAISER's radiation protection box with lead-function component achieves a lead equivalent of 2.5 mm Pb. This was confirmed by a series of comprehensive tests which preceded certification and it was clearly demonstrated that the wall's radiation protection in this range of applications is completely maintained.



certified

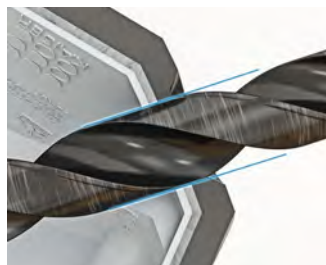
Installation



Use a cutter (e.g. MULTI 4000: Art. No. 1084-10) to make a Ø 74 mm opening.



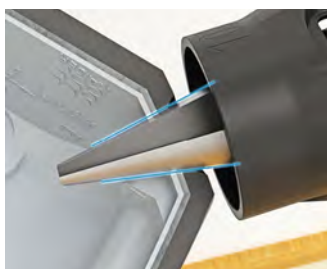
By using the HSS drill, it is easy for you to...



...to create an exact-fitting cable entry with the specified cable retention.



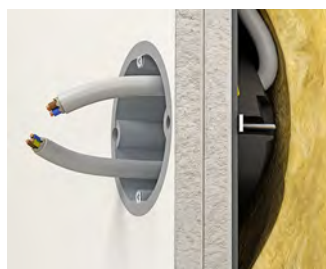
Use the universal opening cutter (Art. No. 1085-80) to cut the matching conical opening.



Details of suitable drill settings for the universal opening cutter in respect of cable sizes are shown in the table.



Insert the cables, then fit the box into the installation opening.

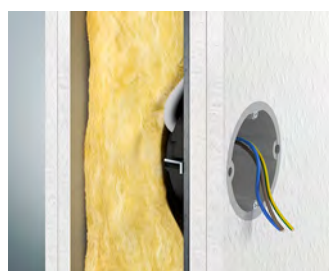


The one-gang junction box is now ready for use.

Use in lead-lined radiation protection walls



2 lead-lined plasterboard panels; 3 plasterboard panels




Up to 2.5 mm Pb on both sides, 2-layer boarding, lead-lining on one side.

Radiation protection one-gang junction box

- One-gang junction box for lead-lined radiation protection walls in buildings
- Combination distance of 71 mm through single separation of the pre-embossed edge



3D animation

For panel thickness	7 - 40 mm
Depth	58,5 mm
Cut hole Ø	74 mm
Fixing screw spacing	60 mm
Cable entries of up to Ø 11.5 mm	2
Support connectors for each package	3
Halogen-free	•
Lead equivalent value [mm Pb]	2,5
	•
Art. No.	9074-03
Inner packaging/shipping	5 / 10

Support connector

- for through-wiring of combinations to IP 3X standard air-tight
- For Art. Nos. 1159-90, 1555-51, 9069-03, 9069-04 and 9074-03



Art. No.	9060-88
Inner packaging/shipping	25 / 100



Cavity wall installation for radiation protection boxes		Ø setting	HSS drill Ø
NYM cable	3 x 1,5 mm ²	9,5	8,0
	5 x 1,5 mm ²	9,5	9,5
	3 x 2,5 mm ²	9,5	9,5
	5 x 2,5 mm ²	Connector	9,5
Support connector	9060-88	Cut up to the marking of the connector entry.	12

Making an exact-fitting cable entry with the specified cable retention is easy - just use an HSS drill together with the universal opening cutter (Art. No. 1085-80).
The matching drills and universal opening cutter settings are shown in the tables.

Screened one-gang junction box



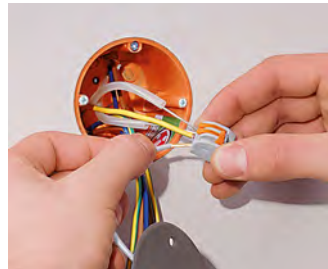
Screened one-gang junction box for cavity wall installation. The conductive coating suppresses interference with a high alternating field component, whether radiated or received.

- For environmentally-safe electrical installation, biological construction
- With screening and potential conductivity
- The functional earth of the box must only be connected to the potential equalisation and not to the equipment grounding conductor (PE conductor)

Installation



Remove cable sheath and screen with AMZ 2 (Art. No. 1190-02). Fit bare tracer wire with transparent insulating hose.



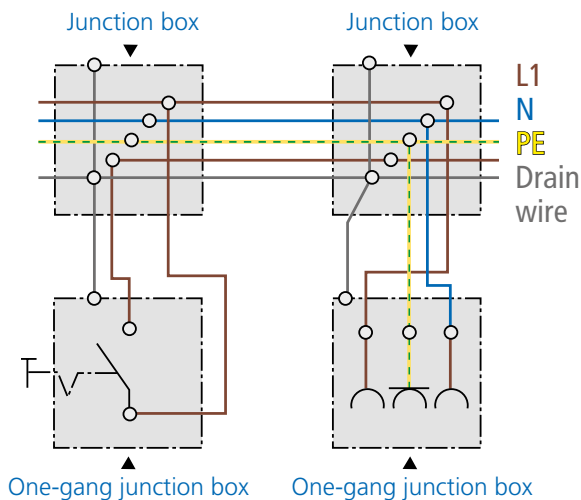
Connect functional earth of the box to tracer wires of screened cable.



As a junction box, connect the box cover's functional earth to the tracer wires of the cables.



Attach cover to box with device screws.



Technical processing instructions/standards

- dimensions in accordance with German DIN 49073
- for rooms used for medical purposes, environmentally-friendly construction, etc.
- the conductive coating suppresses interference with a high alternating field component, whether radiated or received
- The functional earth of the box must only be connected to the potential equalisation and not to the equipment grounding conductor (PE conductor)
- Not suitable for use in X-ray or radiation rooms!

Screened one-gang box / one-gang junction box

- with screening and potential downlead



For panel thickness	7 - 40 mm	0,2 - 40 mm	7 - 40 mm
Depth	47 mm	61 mm	68 mm
Cut hole Ø	68 mm	68 mm	68 mm
Device screws	2	2	2
Break-out openings Ø 20 mm	2	4	4
Cable entries 3 x 2.5 mm ² or 5 x 1.5 mm ²	2	2	2
Cable entries 3 x 1.5 mm ²	2	4	4
Cable entries for low voltages	2	2	2
Art. No.	9063-88	9068-88	9064-88
Inner packaging/shipping	10 / 100	10 / 100	10 / 100

Screened cover

- for making screened one-gang junction boxes
- for one-gang junction boxes Art. No. 9064-88 and Art. No. 1555-88



Diameter	80 mm
Screw spacing	60 mm
Art. No.	1164-88
Inner packaging/shipping	10 / 100

Screened junction casing

- for cavity wall and flush-mounting installation
- with screened cover
- With Ø 3.2 x 15 mm cover screws
- protection class IP 3X



Length x Width x Depth	107 x 107 x 53 mm
Cut hole Ø	4 x 35 mm
Break-out openings Ø 20 mm	8
Cable entries for NYM and low-voltage cabling	•
For terminals up to	4 mm ²
Art. No.	9195-88
Inner packaging/shipping	- / 10

Note

Other installation boxes/housings with screening available on request. Please use our radiation protection box in X-ray areas or areas with ionising radiation.

Screws

- for one-gang boxes and one-gang boxes for cavity walls
- for the following articles: 9062-..., 9063-..., 9064-..., 9066-..., 9067-01, 9068-..., 9071-..., 9073-..., 9075-..., 9192-..., 9195-..., 9196-..., 9197-..., 9248-..., 9300-..., 9098-77, 9263-..., 9264-..



Length	44,5 mm
Screws Ø	3 mm
Art. No.	2445-25
Inner packaging/shipping	100 / 2000

Metal lugs for screws

- for one-gang boxes and one-gang boxes for cavity walls
- for the following articles: 9061-..., 9062-..., 9063-..., 9064-..., 9066-..., 9067-01, 9068-..., 9071-..., 9073-..., 9075-..., 9148-00, 9195-..., 9248-..., 9300-..., 9098-77, 9263-..., 9264-..



Length x Width	7 x 13 mm
Art. No.	2445-50
Inner packaging/shipping	100 / 2000

Device screws +/-

NEW

- self-tapping Ø 3.2 mm
- Countersunk head with PZ1/S combination drive
- surface double-treated
- corrosion-resistant in accordance with German DIN VDE standard



Length	15 mm	20 mm	25 mm	40 mm
Art. No.	2472-15	2472-20	2472-25	2472-40
Inner packaging/shipping	100 / 1000	100 / 1000	100 / 1000	100 / 1000

Sealing screws

- in pure brass
- self-tapping Ø 3.2 mm
- with cross-hole in the screw head through which sealing wire can be pulled



Length	15 mm	40 mm
Art. No.	2444-15	2444-40
Inner packaging/shipping	100 / 1000	100 / 1000

Junction casings and boxes

Junction casings in all sizes and for almost any kind of installations. This product range features practical housing sizes as well as a robust housing design which is perfect for building sites.

- As central junction casings for star-shaped cable laying
- Easy to rewire when changing the way rooms are used
- With separator walls for safe separation of electrical circuits
- Create precise wall openings using the drilling template supplied
- End cover with screw fastening for VDE-compliant installation



Installation



Stick drilling template (supplied) to wall. Open four corners with cutter. Cut out edges with cutter or fretsaw.



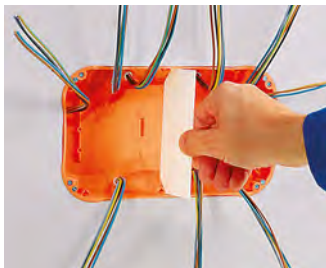
Cut out intermediate parts with cutter or fretsaw.



Break out pre-cut holes, feed in cables, insert casing and attach with the FX4-screws.



Fasten inserted box or casing with FX4 fast screw attachment.



For separation of several electrical circuits, up to three separator walls can be installed, depending on the size of the box.



Junction casings provide a lot of installation space and, with the corresponding covers, ensure VDE-compliant installation.



Junction casings

for cavity wall installation

Junction casing

- for installation: DIN terminal strips, TS 35 standard rails for terminal strips, etc., terminal blocks up to 16 mm²
- with drilling template (supplied)
- including cover





Length x Width x Depth	105 x 105 x 53 mm	105 x 105 x 53 mm	165 x 165 x 72 mm	165 x 165 x 72 mm
Cut hole Ø	4 x 35 mm	4 x 35 mm	4 x 68 mm	4 x 68 mm
with 4 screw domes	•	•	-	-
Break-out openings Ø 20 mm	8	8	8	8
Break-out openings Ø 25 mm	-	-	2	2
Break-out openings Ø 32 mm	-	-	2	2
Cable entries for NYM and low-voltage cabling	•	•	•	•
For terminals up to	4 mm ²	4 mm ²	16 mm ²	16 mm ²
Halogen-free	-	•	-	•
use separator wall for maximum of 2 electrical circuits	•	•	•	•
 / 	• / •	• / •	• / •	•
Art. No.	9195-91	9195-77	9196-91	9196-77
Inner packaging/shipping	- / 10	- / 10	- / 10	- / 10

Junction casing

- for installation: DIN terminal strips, TS 35 standard rails for terminal strips, etc., terminal blocks up to 16 mm²
- with drilling template (supplied)
- including cover




Length x Width x Depth	240 x 140 x 72 mm	240 x 140 x 72 mm	235 x 205 x 72 mm	235 x 205 x 72 mm
Cut hole Ø	4 x 68 mm	4 x 68 mm	4 x 68 mm	4 x 68 mm
Break-out openings Ø 20 mm	8	8	8	8
Break-out openings Ø 25 mm	2	2	2	2
Break-out openings Ø 32 mm	2	2	2	2
Cable entries for NYM and low-voltage cabling	•	•	•	•
For terminals up to	16 mm ²	16 mm ²	16 mm ²	16 mm ²
Halogen-free	-	•	-	•
Maximum of 3 electrical circuits with separator walls	•	•	•	•
 / 	• / •	•	• / •	• / •
Art. No.	9192-91	9192-77	9197-91	9197-77
Inner packaging/shipping	- / 10	- / 10	- / 10	- / 10

Junction box Ø 120 mm

- receptacle for TS 35 standard rail
- Make cut hole with Variocut 1089-00 in fully extended position or bi-metallic cutter 1082-20
- including cover



Depth	65 mm	65 mm
Cut hole Ø	120 mm	120 mm
Break-out openings Ø 20 mm	4	4
Break-out openings Ø 25 mm	2	2
Cable entries for NYM and low-voltage cabling	•	•
For terminals up to	4 mm ²	4 mm ²
Halogen-free	-	•
	•	•
For max. 2 electrical circuits through separator wall Art. No. 9073-20	•	•
Art. No.	9073-01	9073-78
Inner packaging/shipping	- / 10	- / 10

Potential equalisation casing 10²

- for bathrooms or similar
- with potential equalisation rail, protected against corrosion
- with 4 screw domes
- With Ø 3.2 x 15 mm cover screws
- including cover



Length x Width x Depth	105 x 105 x 53 mm
Cut hole Ø	4 x 35 mm
Connections for 6–16 ² circular conductors (also uncut)	1
Connections for 1.5–10 ² cables	6
Art. No.	9195-73
Inner packaging/shipping	- / 10

Note

Other earthing products can be found at our website.

Replacement cover

- flat cover edge
- surface roughened
- countersunk for screw heads



For casing size - cavity wall boxes	105 x 105 mm	165 x 165 mm	238 x 142 mm	235 x 205 mm
For casing size - flush-mounting boxes	107 x 107 mm	159 x 159 mm	240 x 142 mm	238 x 208 mm
For casing size - concrete construction boxes	128 x 128 mm	180 x 180 mm	-	250 x 220 mm
Fireproof	850 °C	850 °C	850 °C	850 °C
Art. No.	1095-93	1096-93	1092-93	1097-93
Inner packaging/shipping	10 / 500	10 / 200	- / 5	5 / 100

Junction casings

for cavity wall installation

Replacement cover for junction boxes Ø 120 mm

- flat cover edge
- surface roughened
- countersunk for screw heads



Halogen-free	-	•
For Art. No.	9073-01/-91	9073-78/-77
Art. No.	9073-93	9073-79
Inner packaging/shipping	- / 10	- / 10

Separator walls

- to separate electrical circuits



for casing size	105 x 105 mm	165 x 165 mm	240 x 140 mm	235 x 205 mm
Art. No.	9195-20	9196-20	9192-20	9197-20
Inner packaging/shipping	- / 10	- / 10	- / 10	- / 10

Separator wall

- to separate electrical circuits
- for junction boxes Ø 120 mm



Art. No.	9073-20
Inner packaging/shipping	- / 10

Universal installation housings

Universal installation housings for a wide range of device installations always ensure optimum space for all kinds of devices. The intelligent housing design ensures stability and a secure fit in the wall.

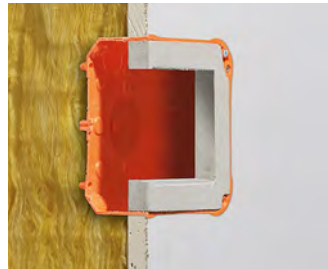
- For displays, LED lamps and much more
- For installing almost all shapes and sizes
- Mineral fibreboard allows individual installation opening
- With FX4 quick assembly technology



Installation



Mark installation opening and cut with a fretsaw.



Insert cables or conduits, feed housing into wall and install with FX4-quick-assembly technology.



Lightly smooth edges with filler (use plastic-based filler).



Cover with wallpaper etc. and install the required device.

Mounting instructions



Use only screws that go into but not through the mineral fibreboard when attaching the device (e.g. SPAX countersunk head screw 3.5 x 15 mm)!

Note

Observe the maximum stroke length of the saw blade when sawing the installation opening.

Universal installation housings

for cavity wall installation

Universal installation housing with mineral fibreboard

- with mineral fibreboard for cutting out individual installation holes
- with drilling template (supplied)
- all-round groove denotes the maximum opening dimension



Length x Width x Depth	105 x 105 x 53 mm	105 x 105 x 53 mm	165 x 165 x 72 mm	165 x 165 x 72 mm
Cut hole Ø	4 x 35 mm	4 x 35 mm	4 x 68 mm	4 x 68 mm
maximum opening size	70 x 70 mm	70 x 70 mm	110 x 110 mm	110 x 110 mm
For devices with an installation depth of max.	40 mm	40 mm	50 mm	50 mm
Break-out openings Ø 20 mm	8	8	8	8
Break-out openings Ø 25 mm	-	-	2	2
Break-out openings Ø 32 mm	-	-	2	2
Cable entries for NYM and low-voltage cabling	•	•	•	•
Halogen-free	-	•	-	•
Art. No.	9195-22	9195-27	9196-22	9196-27
Inner packaging/shipping	- / 10	- / 10	- / 10	- / 10

Universal installation housing with mineral fibreboard

- with mineral fibreboard for cutting out individual installation holes
- with drilling template (supplied)
- all-round groove denotes the maximum opening dimension



Length x Width x Depth	240 x 140 x 72 mm	240 x 140 x 72 mm	235 x 205 x 72 mm	235 x 205 x 72 mm
Cut hole Ø	4 x 68 mm	4 x 68 mm	4 x 68 mm	4 x 68 mm
maximum opening size	170 x 105 mm	170 x 105 mm	190 x 150 mm	190 x 150 mm
For devices with an installation depth of max.	55 mm	55 mm	50 mm	50 mm
Break-out openings Ø 20 mm	8	8	8	8
Break-out openings Ø 25 mm	2	2	2	2
Break-out openings Ø 32 mm	2	2	2	2
Cable entries for NYM and low-voltage cabling	•	•	•	•
Halogen-free	-	•	-	•
Art. No.	9192-22	9192-27	9197-22	9197-27
Inner packaging/shipping	- / 10	- / 10	- / 10	- / 10

Sound insulation technology

For international projects, we offer a large range of products which meet the relevant national standards and regulations.

- Dimensions and approvals based on national standards
- Suitable installation tools
- Many combination options



One-gang box - Swiss standard

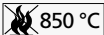

- cutting hole Ø 83 mm with template (included)
- for plate thickness 7 - 40 mm
- for assembling combinations, centre distance 60 mm
- 8 break-out openings Ø 20 mm



One-gang box for Swiss accessories ECON®

- cutting hole Ø 83 mm with template (included)
- for plate thickness 7 - 40 mm
- for assembling combinations, centre distance 60 mm



Length x Width x Depth	83 x 83 x 65 mm	65 x 83 x 83 mm
Cut hole Ø	83 mm	83 mm
Conduit entries M20	4	4
Conduit entries M25	4	-
Combination	1x1	1x1
CE /  850 °C	• / •	-
	•	-
Art. No.	9098-77	9298-21
Inner packaging/shipping	20 / 100	20 / 100

Bi-metallic cutter

- for Swiss cavity wall boxes
- hexagonal shank spanner size 10 mm
- fits all electric drills with 13 mm chuck



Cut hole Ø	83 mm
Depth of cutting hole	38 mm
For Quickbox Ø 83 mm	•
Art. No.	1082-84
Inner packaging/shipping	1 / 10

Sound insulation box for Swiss accessory combinations



- One-gang boxes for sound insulation walls in buildings
- Maintains the wall's sound insulation protection
- also for opposing installation
- for plate thickness 7 - 40 mm
- for device screws Ø 3 mm
- max. tightening torque 0.5 Nm



Length x Width x Depth	Drill Ø	Combination	CE	§	850 °C	Art. No.	Inner packaging/shipping
83 x 83 x 50 mm	83 mm	1x1	•	•	•	9798-77	10 / 100
145 x 83 x 50 mm	83 mm	2x1	•	•	•	9798-77.02	- / 5
205 x 83 x 50 mm	83 mm	3x1	•	•	•	9798-77.03	- / 5
145 x 145 x 50 mm	83 mm	2x2	•	•	•	9798-77.04	- / 5
205 x 145 x 50 mm	83 mm	3x2	•	•	•	9798-77.06	- / 5

Sound insulation box for Swiss accessory combinations



- One-gang boxes for sound insulation walls in buildings
- Maintains the wall's sound insulation protection
- also for opposing installation
- for plate thickness 7 - 40 mm
- for device screws Ø 3 mm
- max. tightening torque 0.5 Nm
- Pipes must be sealed with sealing plugs!





Length x Width x Depth	Cut hole Ø	Tube entries up to M25	Combination	Art. No.	Inner packaging/shipping
83 x 83 x 73.5 mm	83 mm	2	1x1	9799-77	10 / 100
145 x 83 x 73.5 mm	83 mm	2	2x1	9799-77.02	- / 5
205 x 83 x 73.5 mm	83 mm	2	3x1	9799-77.03	- / 5
145 x 145 x 73.5 mm	83 mm	4	2x2	9799-77.04	- / 5
205 x 145 x 73.5 mm	83 mm	4	3x2	9799-77.06	- / 5

One-gang box (Belgian standard)



- with holding ring



For panel thickness	7 - 35 mm
Depth	45 mm
Diameter	70 mm
Break-out openings Ø 16 mm	2
Break-out openings Ø 20 mm	2
Cable entries	6
Cable entries for low voltages	2
 / 	• / •
Art. No.	205
Inner packaging/shipping	10 / 100

Installation in clinics and high-hygiene areas

Hospitals and similar institutions have particular requirements with regard to hygiene standards (German Federal Health Journal 31, no. 7). In rooms which are supplied with filtered air, e.g. operating theatres or intensive care units, particle-protected installation must be guaranteed in accordance with clean-room and hygiene requirements. The uncontrolled exchange of air must be avoided. As these areas are often made with cavity wall constructions, these requirements also affect the electrical installations. KAISER's air-tight cavity wall systems comply fully with the legal requirements.



Halogen-free cavity wall boxes/fire resistance

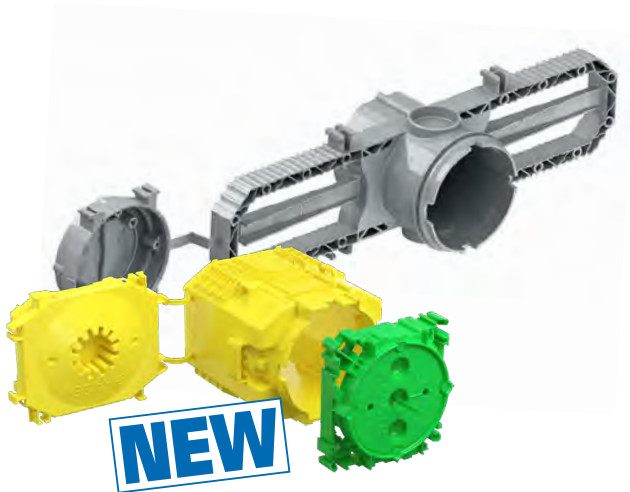
All KAISER boxes and casings for cavity wall mounting as well as several accessory parts are available as halogen-free products.

- Fire-resistant up to 850°C.
- Heat-resistant up to 105°C.
- Electrically well-insulated, shock and pressure-resistant.
- There are no chemical reactions which cause the oxygen to be bound.
- No corrosive substances such as hydrochloric acid gas or hydrogen bromide are released.



The identifying feature of these products is that they are available in white.

Cavity wall boxes and casings with the VDE symbol have been tested for fire resistance in a glow wire test at 850°C in accordance with VDE 0471/DIN EN 60695-2-11. This test must demonstrate that a fire cannot start in the cavity wall boxes if a fault occurs in the electrical installation. In addition, always ensure compliance with the current fire prevention measures for wall constructions.



On-site mixed concrete

- Complete systems for on-site mixed concrete B1
- Sophisticated colour system for easy assignment of the system components
- Prefix® installation technology for fast, easy installation facing the opposing formwork without support
- Wide range of fixing options to the formwork



Precast concrete

- Complete systems for precast concrete B2
- Conduit connectors for toolless conduit connection and for damping the conduit vibrations during the compacting process
- Excellent time-saving by using a small number of universal B² system components for installation in horizontal precast concrete



International

- International products for accessory installation according to national norms






Cable routing, conduit routing and sealing systems






- Practical solutions for wall-to-ceiling transitions
- Safe, visible and certified protection by using KAISER sealing systems for cables, conduits, cable and conduit bundles



Tools

- Professional system tools for quick, safe installation work
- Comprehensive system accessories

	On-site mixed concrete B¹ Fixing to the working formwork 		Prefabrication B² Installation in horizontal prefabrication 	International Installation of international accessories 
For installation accessories				
One-gang boxes	p. 157	-	p. 197	p. 206
One-gang junction boxes	p. 158	p. 171	p. 197	p. 206
Large conduit boxes	p. 158	-	p. 197	-
Perilex® one-gang boxes	p. 161	-	-	-
CEE one-gang boxes	p. 161	-	-	-
Electronics boxes	p. 163	-	-	-
Two-gang junction boxes	p. 163	-	-	-
Universal installation housings	p. 192	p. 191	-	-
For cable exits				
Wall light connection	p. 159	p. 171	-	-
Luminaire connection	p. 173	-	p. 172	-
Luminaire connection and junction	p. 172	-	p. 172	-
For cable connections				
Junction boxes	p. 160	-	-	-
Junction casings	p. 165/207	-	-	p. 206
Potential equalisation casings	p. 166	-	-	-
Accessories				
Fixing	p. 164/183	p. 164	p. 199	p. 164/183
Support	p. 167	-	p. 200	p. 167
Sealing of electrical installations (air-tight and smoke-tight)	p. 302/111/30	p. 302/111/30	p. 302/111/30	-
Plaster compensation	-	-	p. 199	-
End cover	p. 211	-	p. 211	-

Cable and conduit entry systems Product overview					
	Transitions  <p>p. 179</p>	Exits  <p>p. 184</p>	Conduit supports  <p>p. 186</p>	Wire-pull casings  <p>p. 187</p>	Sealings in fire-protection ceilings and walls  <p>p. 286</p>
Conduit sizes					
Ø 20 mm	•	•	•	•	•
Ø 25 mm	•	•	•	•	•
Ø 32 mm	•	•	•	•	•
Ø 40 mm	•	•	•	•	•
Ø 50 mm	-	-	-	•	•
Ø 63 mm	-	-	-	•	•
Cables/cable bundle	-	-	-	-	•

Processing in on-site mixed concrete



Concrete walls can be made using vertical or horizontal formwork. Horizontal formwork has only one formwork side, but vertical formwork has both working and opposing formwork.



Free-standing reinforcement is always used when formwork elements are installed on other sites and can only be provided later.



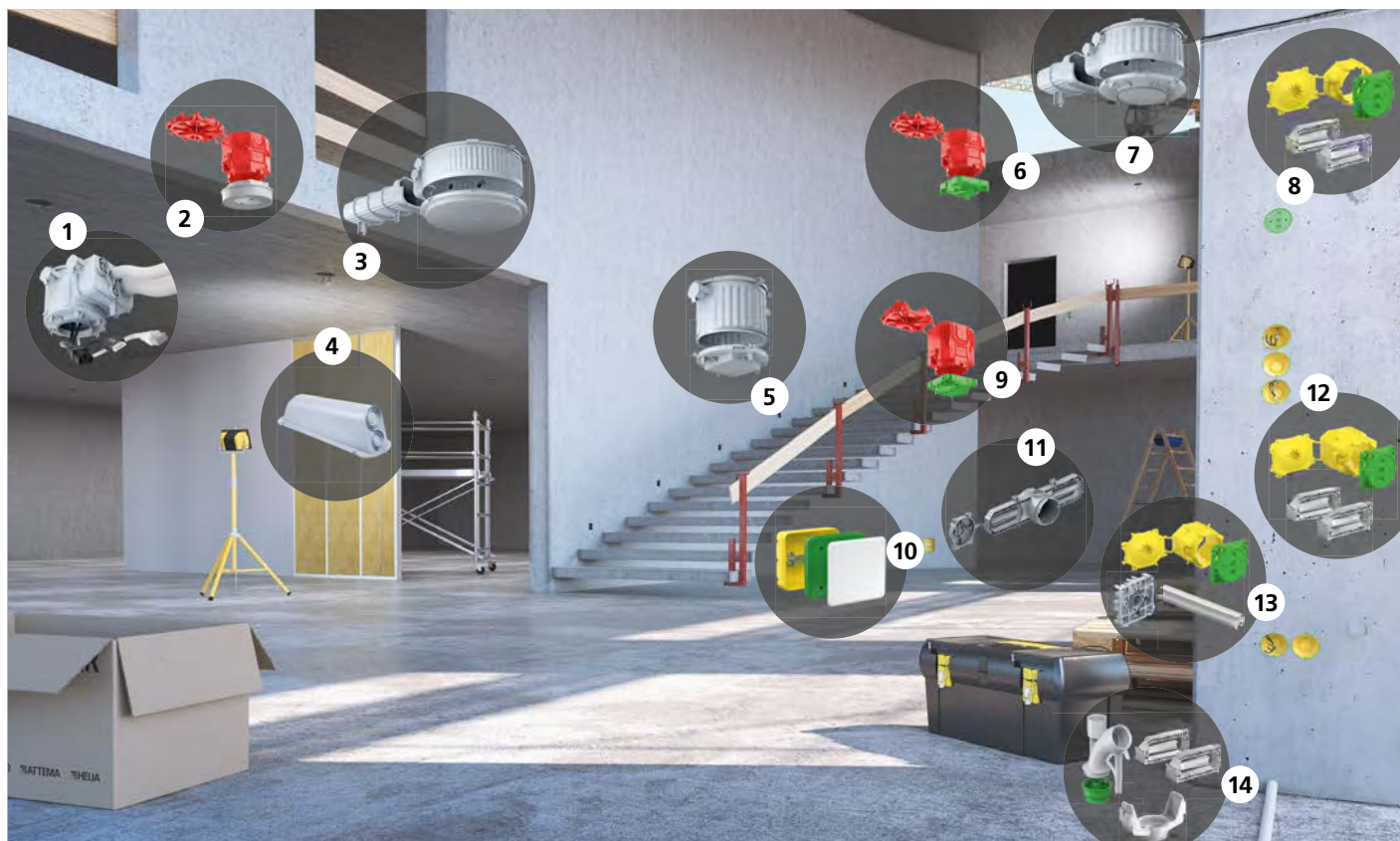
Sliding or travelling formwork is used vertically to manufacture high buildings, and horizontally e. g. for road surfaces and concrete protective walls.



The slow sliding or travelling of the formwork ensures constant construction progress.

Installation in on-site mixed concrete


The KAISER concrete construction system. For all concrete construction processes and systems. It offers a comprehensive product range with many wall and ceiling boxes as well as practical solutions for wall and ceiling transitions.




1 HaloX® 100 Multi-conduit entry | **2** B¹ universal ceiling exit | **3** HaloX® 250 with tunnel 325 for on-site mixed concrete, HaloX® 250 universal front part | **4** Formwork protection | **5** HaloX® 100 for on-site mixed concrete, HaloX® 100 front part, square | **6** B¹ ceiling junction box | **7** HaloX® 180 with tunnel 190 for on-site mixed concrete, HaloX® 180 facing concrete front part | **8** B¹ one-gang box, B¹ Prefix® system wing set | **9** B¹ large conduit ceiling junction box | **10** Potential equalisation casing 16² | **11** Prefix® concrete building box 35 | **12** B¹ large conduit one-gang junction box, B¹ Prefix® system wing set | **13** B¹ one-gang junction box, Abutment, Support conduit Ø 20 mm | **14** Wall and ceiling transition 30°, B¹ Prefix® system wing set, B¹ Prefix® wall exit adapter Ø 25 mm

The KAISER colour system.


The different colours used for individual components make correct installation easy.




Green: Front parts for fixing to the formwork.



Yellow: Box and casing rear parts for wall installation.

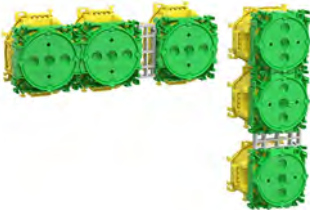


Red: Box rear parts for ceiling installation.

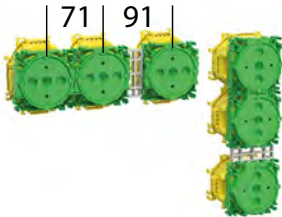


Grey: Intermediate parts and fixing accessories.


Combination in accordance with DIN




For multiple combinations, many of the B¹ wall applications can be combined in two directions with the standardised combination distance of 71 mm (DIN490759).



By using distance piece 91 (Art. No. 1259-04), the combination distances for communications connections can be increased in 20 mm steps to 91 mm, 111 mm etc.










The B¹ one-gang-box, B¹ one-gang junction box, B¹ large conduit one-gang junction box and the B¹ electronics box...



...can be fitted sturdily and securely to both the front part and the box body.

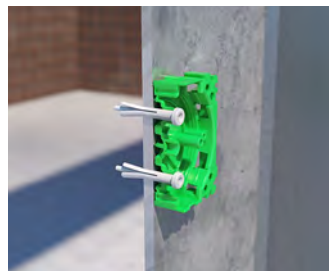
Ways of attaching to various types of formwork

Product description	For wood formwork		For steel formwork				
	 Nail Ø 2 mm	 M6 threaded dowel	 Expanding dowel	 Magnet	 Adhesive foil	 M6 weld-on screw	 Hot glue
Wall and ceiling box	•	•	•	•		•	•
Boxes*	•	•	•		•	•	•
Bushes	•						•
transitions	•						•
Abutment	•	•	•		•	•	•
Ceiling strips	•						•
Conduit and cable distance spacer	•	•	•				•

Fixing and alignment of the front part



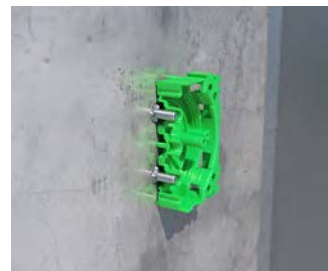
Fixing with steel nails.



Fixing with KAISER expanding dowels (Art. No. 1217-02).



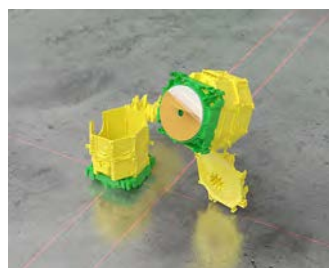
Fixing with threaded dowels.



Fixing with weld-on screws.



Fixing with KAISER magnet (Art. No. 1261-81).



Fixing with adhesive foil (Art. No. 1219-00).



Fixing with hot glue.



Exact alignment using the centre marking.

Mounting on the working formwork



Fix the front part to the working formwork.



Open the conduit entry.

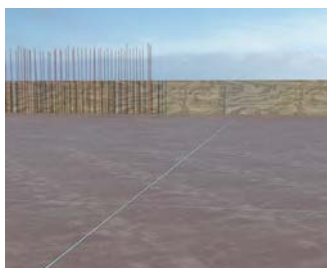


Latch the rear part with conduit onto the front part, then pour concrete.



Open the concrete construction boxes or casings, then install the accessories or covers.

Mounting on the ceiling formwork



Determine the exact position of the ceiling boxes using a chalked string or a mason's lacing cord.



The flat front part allows easy fixing to the ceiling formwork before the reinforcement bars are fitted.



The conduit entries are above the bottom layer of reinforcement – no need to cut the reinforcement bars.

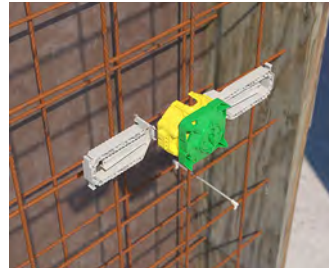


The advantage of the new cable entry is that inserting empty conduits for multiple ceiling junction boxes in one line can take place by simple laying of the installation conduit without cutting it before.

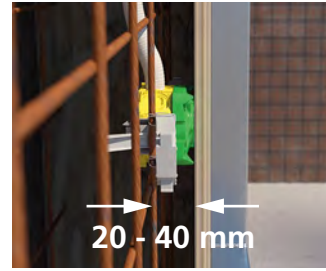
Installation facing the opposing formwork side using B¹ Prefix[®] system wings



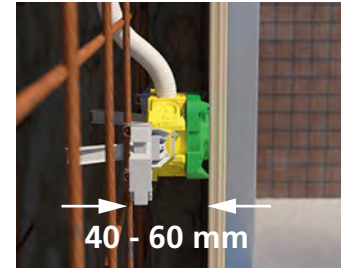
Prepared working formwork with reinforcement from the opposing formwork side.



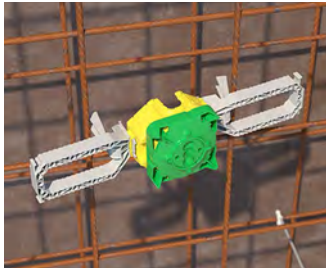
Now insert the B¹ Prefix[®] system wings from the rear into the slots on the box body,...



...taking into consideration the planned concrete covering of the reinforcement. The B¹ Prefix[®] system wings...



...can be used for concrete coverings of 20 - 40 mm and 40 - 60 mm.



All B¹ wall applications can quickly and easily be pre-fixed in the reinforcement using Prefix[®] installation technology...



...and fixed in position using tie wires. A one-gang box fixed to the reinforcement should, when fitted, protrude by 5 - 20 mm from the wall thickness.



With the new B¹ Prefix[®] wall exit adapter, Ø 20 mm, Ø 25 mm and Ø 32 mm wall exits can now,...



...using Prefix[®] installation technology, be easily mounted facing the opposing formwork side.

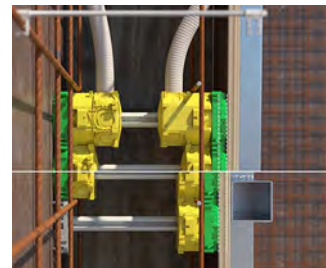
Installation facing the opposing formwork side using support element



To determine the length of the support element, simply position the required one-gang boxes opposite each other and measure the distance between them.



The required support element length can then easily be measured using the markings provided on the B¹ one-gang box and then sawn off.

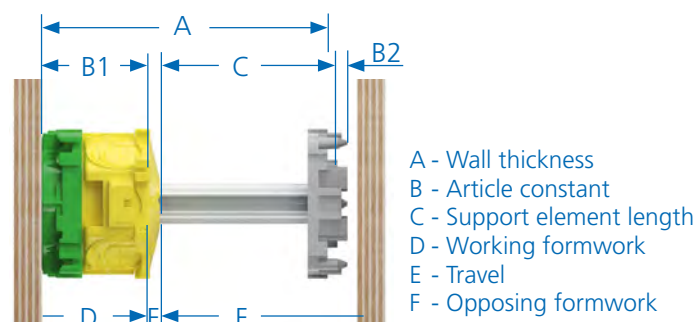


The prepared B¹ one-gang box protrudes by approx. 5 - 10 mm out of the planned wall thickness, so the unit tenses between the working formwork and opposing formwork when the formwork is closed.



The integrated spring travel in the rear part of the B¹ one-gang box compensates construction tolerances e. g. the "breathing" of the formwork during concreting, and holds the B¹ one-gang box securely in position.

Calculation for the supporting elements



Length of the support elements. (e.g. vertical formwork)

General formula:	$C = A - (B1 + B2)$
Wall thicknesses:	A = 200 mm
Article constants for one-gang box 1255-01:	B1 = 40 mm
Article constants for abutments 1210-02:	B2 = 5 mm
Length support element	$C = 200 \text{ mm} - (40 \text{ mm} + 5 \text{ mm})$
	C = 155 mm

Important: Take formwork inaccuracies as opposed to planned wall thickness into account! Always specify length of support elements accurately in mm when ordering!

Product description	Art. no.	Standard article thickness "B"	
		Vertical	Horizontal
B ¹ one-gang box	1255-01	40	46
B ¹ one-gang junction box	1265-01	72	78
B ¹ large conduit one-gang junction box	1260-01	87	93
B ¹ electronics box	1268-01	72	78
B ¹ double one-gang junction box	1269-01	72	78
B ¹ wall light connection box	1248-01	40	46
B ¹ universal wall exit	1248-03	48	54
Junction casings	1295-02/73	58	64
Junction casings	1296-02	64	70
Junction casings	1297-02/75	60	66
PERILEX® one-gang box	1276-40	45	51
CEE one-gang box	1275-40	45	51
Junction box	1276-70/-71	45	51
Abutment	1210-02	5	7
Abutment with adhesive	1205-02	5	7
One-gang box	1223-41	44	50
Two-gang box	1224-41	47	53
Box for Italian / American standard	1200-00	39	45
Universal installation housings	1223-22	57	63
Universal installation housings	1224-22	60	66
Universal installation housings	1295-22	71	77
Universal installation housings	1296-22	77	83
Universal installation housings	1297-22	73	79
Wall and ceiling transition 30°	1202-04	62	62
Wall and ceiling transition 30°	1202-34	62	62
Wall and ceiling transition 30°	1202-29	62	62

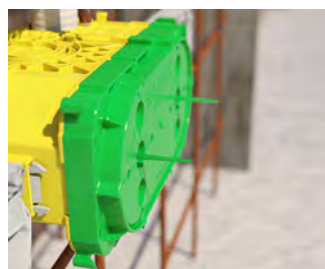
Signal bristle for locating cans that are too deep



Especially with installations which are prepared facing the opposing formwork side, whether using Prefix® or support technology and consequently not securely connected to the formwork,...



...building and manufacturing tolerances may result in one-gang boxes being recessed in the on-site concrete wall.



The signal bristles on the front parts of the B¹ series...



...are in contact with the formwork when it moves and show the position of the one-gang box in the wall surface.

The new conduit entry technology



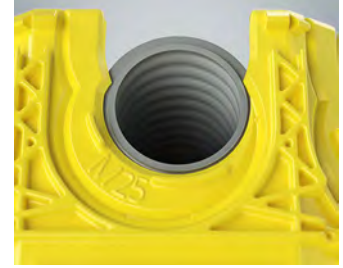
With all B¹ articles, the secure conduit connection takes place by means of innovative combination conduit entries – broken out using combination pliers – for conduit sizes Ø 20/25...



...or Ø 32/40. These guarantee a secure connection for all the standard sheathed and non-sheathed conduits for installation work in concrete.



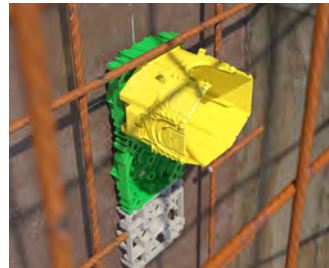
In order to hold the non-sheathed installation conduits securely in position, the conduit entries have depth stops which prevent insertion too far of the conduits.



The entries contain suitable conduit supports which hold the conduits securely during laying in the entry.



Use standard combination pliers to break out the required exact-fitting conduit connection opening with a fast bending movement...



...by positioning the pliers on the marked break-off edge for the required conduit size and breaking out with a bending movement.



The conduit can now be inserted easily and with minimum force. How far the conduit is inserted into the one-gang box...



...can be set here as required. The integrated pre-fixing system holds the inserted conduits in position and simplifies the process.



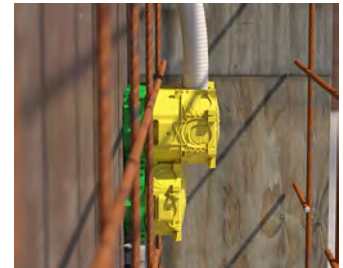
The conduit entries also allow additional uncut conduits to be laid continuously into the entries.



After a final visual check of the conduits, close the rear cover of the B¹ one-gang box using hand pressure. At the same time, this provides secure conduit retention.



The conduit entries are arranged in such a way that they lie behind the first layer of reinforcement – no conduit entries are blocked by reinforcement bars...



...so there is no need for time-consuming cutting of the reinforcement bars.

Installation with cable



The integrated centre marks in the area of the conduit entries ensure secure positioning of the entry with no slipping.



Use the universal opening cutter (Art. No. 1085-80) to cut the precise required openings for cables or wires.

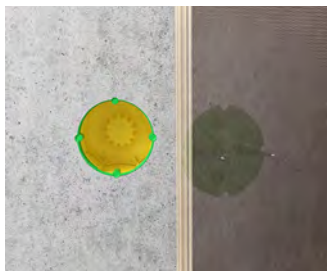


The required cables or wires can then be inserted, and appropriate cable reserves can be fitted in the one-gang box.



After all cables/wires have been inserted, close the rear part of the box using hand pressure: installation is complete.

Electrical Installation



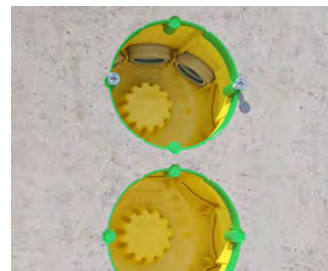
As the formwork is removed, B¹ one-gang boxes fixed to the working formwork are opened.



The signal bristles on the front parts of the B¹ series indicate the position of the B¹ one-gang boxes in the wall surface.



Easy opening with a central hammer blow exposes the box opening and the exact installation opening acc. to DIN 49073.



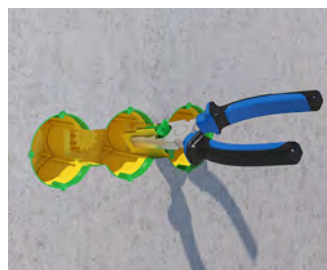
During laying work, if the conduits were only inserted two grooves deep into the B¹ one-gang box, it is not necessary to shorten the conduit.



The connecting of sockets, for example, can be carried out in three different ways. A support connector can be opened subsequently in the central area of the one-gang junction box...



...or the opposite conduit entries in the rear area of the one-gang junction box can be used as support connectors.



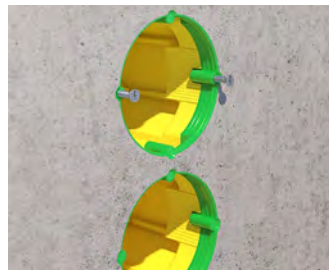
In addition, it is possible to break out the separator wall between the combined one-gang junction boxes by using combination pliers and a bending movement...



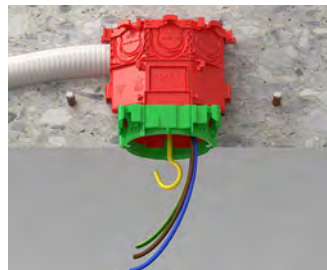
...which allows the fast, easy laying of the connection cables for pre-wired accessories such as sockets without the need to feed them through a support connector.



Generous installation space for easy fitting of cables, connection terminals and installation accessories.



Four closed screw domes and two expanding claw fields ensure precisely aligned fixing of the installation accessories.



The light hook slot in the B¹ ceiling boxes guarantees secure fixing by means of light hooks acc. to DIN EN 60670 (50N).

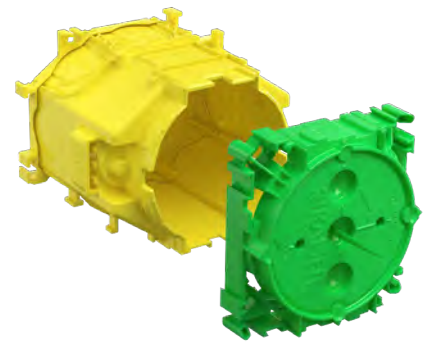


The universal screw-on surfaces allow fast, easy accessory installation – no need for drilling and dowels.

B¹ one-gang box and B¹ one-gang junction boxes

B¹, the new on-site mixed concrete range of products for electrical installation work. In addition to the tried-and-tested system features such as the flat front part, sturdy fixing domes and the support element slot with a sprung box base, the new B¹ range has innovative conduit entries, sturdy slots for the new B¹ Prefix® system wing range, and also bridges – which can be broken out later if required – for connecting accessories in combinations.

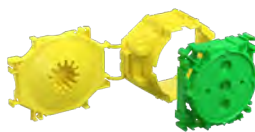
- Suitable for all types of formwork
- Slot for Prefix® system wing set
- For sturdy combination over the complete box body with the standardised 71 mm combination distance
- Innovative conduit entries for fast fitting on the building site
- Signal bristles for easy location with installations on the opposing formwork side
- Plenty of installation space
- Installation of pre-wired installation accessories with multiple combinations, because the bridge can be broken out later



NEW

B¹ one-gang box

- with 4 screw domes and 2 expanding claw fields
- 2-part with moulded-on rear part
- 2 slots for B¹ Prefix® system wings
- rear part of box with holder for support element
- Suitable for all types of formwork
- standardised combination distance 71 mm



NEW

INNOVATION



3D animation

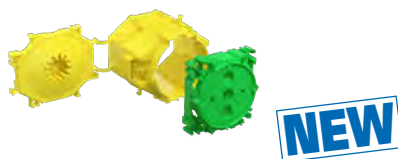
Length x Width x Depth	94 x 75 x 59 mm
Installation opening Ø	60 mm
Break-out openings for DIN EN Ø 20/25 mm conduits	6
Markings for cables up to Ø 16 mm	6
Number of parts	2
/	• / •
Art. No.	1255-01
Inner packaging/shipping	20 / 200

One-gang boxes, One-gang junction boxes

for on-site mixed concrete

B¹ one-gang junction box



- with 4 screw domes and 2 expanding claw fields
- 2-part with moulded-on rear part
- 2 slots for B¹ Prefix® system wings
- rear part of box with holder for support element
- Suitable for all types of formwork
- standardised combination distance 71 mm



INNOVATION

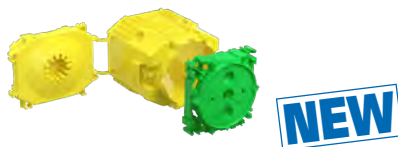


3D animation

Length x Width x Depth	94 x 75 x 91 mm
Installation opening Ø	60 mm
Break-out openings for DIN EN Ø 20/25 mm conduits	7
Markings for cables up to Ø 16 mm	7
Number of parts	2
 / 	• / •
Art. No.	1265-01
Inner packaging/shipping	20 / 100

B¹ large conduit one-gang junction box



- with 4 screw domes and 2 expanding claw fields
- 2-part with moulded-on rear part
- 2 slots for B¹ Prefix® system wings
- rear part of box with holder for support element
- Suitable for all types of formwork
- standardised combination distance 71 mm



INNOVATION

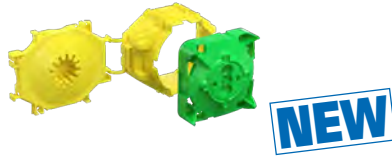


3D animation

Length x Width x Depth	94 x 75 x 106 mm
Installation opening Ø	60 mm
Break-out openings for DIN EN Ø 32/40 mm conduits	3
Markings for cables up to Ø 16 mm	3
Number of parts	2
 / 	• / •
Art. No.	1260-01
Inner packaging/shipping	20 / 100

B¹ wall light connection box



- space for 3 terminal blocks and associated cables
- 2-part with moulded-on rear part
- 2 slots for B¹ Prefix® system wings
- rear part of box with holder for support element
- Suitable for all types of formwork



INNOVATION



3D animation

Length x Width x Depth	94 x 75 x 59 mm
Installation opening Ø	35 mm
Break-out openings for DIN EN Ø 20/25 mm conduits	6
Markings for cables up to Ø 16 mm	6
Number of parts	2
 / 	• / •
Art. No.	1248-01
Inner packaging/shipping	20 / 200

B¹ universal wall exit

- Accessory mounting without drilling or dowels
- space for 3 terminal blocks and associated cables
- Grey front part design for facing concrete applications
- 2-part with moulded-on rear part
- 2 slots for B¹ Prefix® system wings
- rear part of box with holder for support element
- Suitable for all types of formwork
- available from June 2020



INNOVATION



3D animation

Length x Width x Depth	95 x 90 x 67 mm
Installation opening Ø	45 mm
Break-out openings for DIN EN Ø 20/25 mm conduits	6
Markings for cables up to Ø 16 mm	6
Number of parts	2
Art. No.	1248-03
Inner packaging/shipping	20 / 200

Note

According to DIN VDE 0100, Part 559, feed lines for wall lights must terminate in connection boxes. Wall light connection boxes must have at least one option for attaching wall lights. According to DIN VDE 60670, wall and ceiling luminaire connection boxes must provide enough room for 3 individual terminals or be fitted with a 3-pole connector.

One-gang boxes, One-gang junction boxes

for on-site mixed concrete

One-gang box

- with 4 screw domes and 2 expanding claw fields
- suitable for all types of formwork
- combinations have fully-insulated cable transitions
- standardised combination distance 71 mm



Depth	41 mm
Installation opening Ø	60 mm
Markings for cables and DIN EN conduits to Ø 16 mm	2
Number of parts	2
Art. No.	1255-43
Inner packaging/shipping	10 / 100

Junction box

- cover screw distance 67 mm
- suitable for all types of formwork



Depth	66 mm	66 mm
Installation opening Ø	70 mm	70 mm
Markings for cables and DIN EN conduits up to Ø 25 mm	•	•
Rear part with holder for support element	•	•
Number of parts	2	2
with cover and cover screws	•	-
Art. No.	1276-70	1276-71
Inner packaging/shipping	10 / 100	10 / 100

One-gang box PERILEX®

- device screws distance 67 mm
- with 2 countersunk device screws Ø 4 mm, length 16 mm
- for use with 16 A PERILEX® inserts
- suitable for all types of formwork



Depth	66 mm
Installation opening Ø	70 mm
Markings for cables and DIN EN conduits up to Ø 25 mm	•
Rear part with holder for support element	•
Number of parts	2
Art. No.	1276-40
Inner packaging/shipping	10 / 100

One-gang box CEE

- device screws distance 67 mm
- With sealing ring for protection class IP 34 and 2 raised head 4 mm Ø device screws, length 20 mm
- for use with 16A CEE equipment inserts
- suitable for all types of formwork



Depth	66 mm
Installation opening Ø	70 mm
Markings for cables and DIN EN conduits up to Ø 25 mm	•
Rear part with holder for support element	•
Number of parts	3
Art. No.	1275-40
Inner packaging/shipping	10 / 100

FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

SURFACE

CABLE GLANDS

TOOLS

SERVICE



B¹ Electronics box and B¹ two-gang junction box

The B¹ electronics box and B¹ two-gang junction box are especially suitable for installations in on-site mixed concrete vertical formwork. The electronics box provides plenty of space for accessory installations, and additional space for devices such as switch actuators or other components for smart home applications. The relevant separator wall allows the standardised installation of bus and operating voltages in a single box. Two-gang junction boxes allow the installation of block and pre-wired accessories, and provide space for the assembly of cable for multimedia connections.

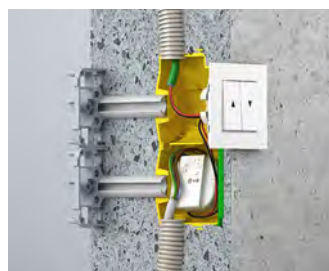
- Plenty of space for accessories and cables
- Separator wall for the standardised incorporation of two voltage types
- Flat front part for fast, easy nailing
- Innovative conduit entries for fast fitting on the building site
- Slot for Prefix® system wing set
- Spring travel ensures secure fit in standing formwork



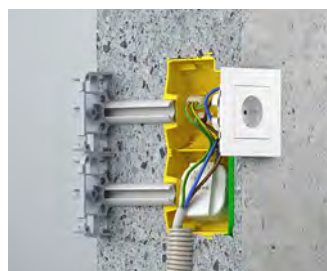
Examples of applications for the B¹ electronics box



By inserting the separator wall, two different voltage types can be fitted in a standardised way in the B¹ electronics box. In addition, they provide a generously-sized installation space...



...for the decentral installation of, for example, small window actuators for controlling Venetian blinds and heating in the external wall.

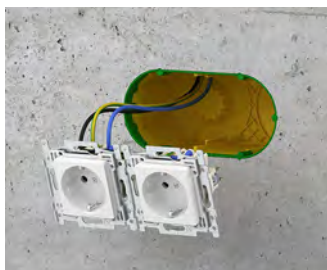


Thanks to the B¹ electronics box, it is easy to install radio-controlled actuators etc. without putting excessive strain on cables or accessories.



Network connection boxes can be used while maintaining the cable bending radii and with the best possible data transfer speeds.

Examples of applications for the B¹ two-gang junction box



Thanks to its large installation opening without a central bridge, the B¹ two-gang junction box allows...



...the use of pre-wired accessories, pre-wired block inserts and many more.



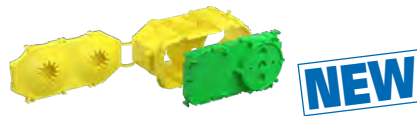
It also provides an easy-to-use basis for the installation of multi-media connection boxes. The very large installation compartment has plenty of space for configuring cables.



Reserve cables and connection plugs can easily be inserted into the box and are then concealed behind the installation accessories.

B¹ electronics box



- with separator wall for separating electrical circuits
- with 4 screw domes
- Suitable for all types of formwork
- 2-part with moulded-on rear part
- 2 slots for B¹ Prefix® system wings
- rear part of box with holder for support element
- standardised combination distance 71 mm



INNOVATION



3D animation

Length x Width x Depth	160 x 75 x 91 mm
Installation opening Ø	60 mm
Break-out openings for DIN EN Ø 20/25 mm conduits	7
Break-out openings for DIN EN Ø 32/40 mm conduits	2
Markings for cables up to Ø 16 mm	7
Number of parts	9
 / 	• / •
Art. No.	1268-01
Inner packaging/shipping	5 / 50

B¹ Two-gang junction box



- 6 screw domes
- Suitable for all types of formwork
- 2-part with moulded-on rear part
- 2 slots for B¹ Prefix® system wings
- rear part of box with holder for support element
- standardised combination distance 71 mm



INNOVATION



3D animation

Length x Width x Depth	160 x 75 x 91 mm
Installation opening Ø	60 x 131 mm
Break-out openings for DIN EN Ø 20/25 mm conduits	7
Break-out openings for DIN EN Ø 32/40 mm conduits	2
Markings for cables up to Ø 16 mm	7
Number of parts	9
 / 	• / •
Art. No.	1269-01
Inner packaging/shipping	5 / 50

Distance piece 91

- for separate covers for antenna sockets in combinations with sockets without electric shock protection
- Centre distance 91 mm
- for multiple row combinations
- fits one-gang boxes, one-gang junction boxes, abutments



Length	60 mm
Art. No.	1259-04
Inner packaging/shipping	10 / 100



NEW

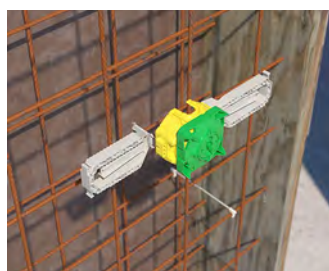
B¹ Prefix[®] system wings

The B¹ Prefix[®] system wing allows fast, easy fixing to the reinforcement. This means optimal installation on the opposing formwork side and for free-standing reinforcement, and also for sliding or travelling formwork constructions. All wall applications in the new B¹ range have slots for the locking of two Prefix[®] system wings. This ensures fast, easy installation on the opposing formwork side.

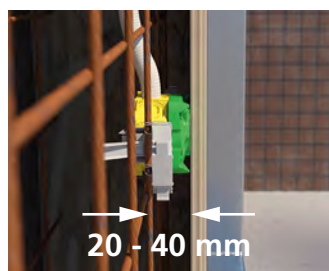
- Fast, easy installation directly onto the opposing formwork without support element and abutment
- Prefixing using Prefix[®] installation technology leaves both hands free for attaching with wires
- A pronounced corrugated profile and additional fixing opportunities for secure fixing using tie wires
- Combinable when using wall and ceiling transitions
- For facing concrete installation to the opposing formwork
- Suitable for 20 - 60 mm concrete covers



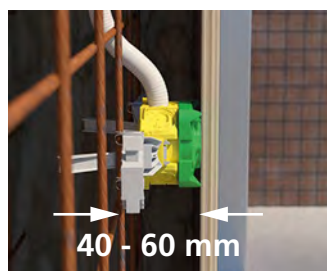
Mounting



Connect the B¹ Prefix[®] system wings to the slot of the B¹ one-gang box which you are installing.



During installation, the front side of the B¹ one-gang box must protrude from the wall thickness by between 5 and 20 mm. This ensures optimal pressure on the opposing formwork.



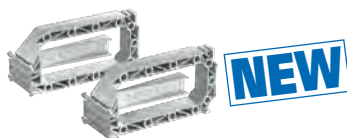
If the B¹ one-gang box is less than the required wall thickness: Turn the B¹ Prefix[®] system wing by 180°, connect it again to the B¹ one-gang box, pre-fix the box...



...to the reinforcement and, using both hands, secure to the reinforcement by means of tie wires.

B¹ Prefix[®] system wing set

- allows fastening to the reinforcement
- Pre-fixable using B¹ Prefix[®] mounting technology
- For use with the following articles:
- B¹ one-gang box
- B¹ one-gang junction box
- B¹ large conduit one-gang junction box
- B¹ electronics box
- B¹ two-gang junction box
- B¹ wall light connection box
- B¹ universal wall exit
- B¹ Prefix[®] adapter Ø 20, Ø 25 and Ø 32 mm



INNOVATION



3D animation

Length x Width x Depth	103 x 49 x 36 mm
For concrete coverings of	20 - 60 mm
Number of wings	2
Art. No.	1211-00
Inner packaging/shipping	50 / 350

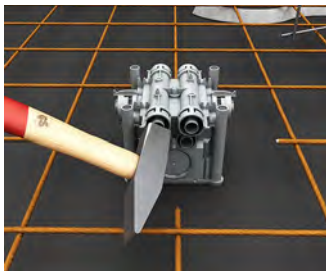
Junction casings

Junction casings in all sizes and for almost any kind of installations. This product range features practical housing sizes as well as a robust housing design which is perfect for building sites.

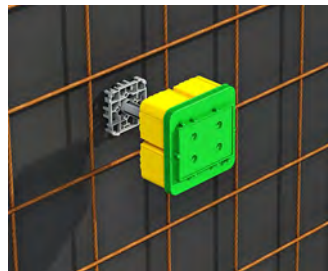
- As central junction casings for star-shaped cable laying.
- Easy to rewire when changing the way rooms are used.
- Separator walls to separate electrical circuits.
- End cover with screw attachment for VDE-compliant installation.



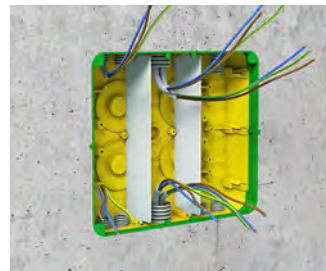
Processing instructions



Open the universal conduit entry with one hammer blow.



The junction casing and the support on the working formwork create a stable unit.



KAISER junction casings offer plenty of space for electrical installation according to DIN 18015-3.



Separator walls ensure that electrical circuits are safely separated.

Junction casing

- for terminals up to 16 mm²
- suitable for all types of formwork
- rear parts of casing with holder for support element
- for loose terminals up to 4 mm²




Length x Width x Depth	128 x 128 x 80 mm	180 x 180 x 84 mm	250 x 220 x 82 mm
use separator wall for maximum of 2 electrical circuits	-	•	-
Maximum of 3 electrical circuits with separator walls	-	-	•
Number of parts	2	2	2
Entry fields	8	8	8
possible DIN EN conduit sizes per entry field: 4 x 16 mm Ø, 3 x 20 mm Ø, 1 x 25 mm Ø, 1 x 32 mm Ø, 1 x 40 mm Ø	•	-	-
possible DIN EN conduit sizes per entry field: 4 x 16 mm Ø, 4 x 20 mm Ø, 1 x 25 mm Ø, 1 x 32 mm Ø, 1 x 40 mm Ø	-	•	-
possible DIN EN conduit sizes per entry field: 6 x 16 mm Ø, 3 x 20 mm Ø, 2 x 25 mm Ø, 1 x 32 mm Ø, 1 x 40 mm Ø	-	-	•
	•	•	•
Art. No.	1295-02	1296-02	1297-02
Inner packaging/shipping	- / 10	- / 10	- / 5

Potential equalisation casing 10² and 16²

- with potential equalisation rail, protected against corrosion
- for bathrooms or similar
- including cover



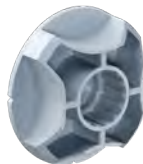
Length x Width x Depth	250 x 220 x 82 mm	128 x 128 x 80 mm
Cables 1.5–10 ²	-	6
Cables up to 16 ² , single and stranded wire	7	-
Circular conductors Ø 8–10 mm	1	-
Circular conductor 6–16 ²	-	1
Flat strip up to 30 mm wide	1	-
Entry fields	8	8
possible DIN EN conduit sizes per entry field: 4 x 16 mm Ø, 3 x 20 mm Ø, 1 x 25 mm Ø, 1 x 32 mm Ø, 1 x 40 mm Ø	-	•
possible DIN EN conduit sizes per entry field: 6 x 16 mm Ø, 3 x 20 mm Ø, 2 x 25 mm Ø, 1 x 32 mm Ø, 1 x 40 mm Ø	•	-
	•	-
Art. No.	1297-75	1295-73
Inner packaging/shipping	- / 1	- / 10

Note

Other earthing products can be found at our website.

Abutment for adhesive foil

- for support element 20 mm Ø
- fixing to formwork using 1219-00 adhesive foil



Art. No.	1205-02
Inner packaging/shipping	- / 250

Abutment

- for support element 20 mm Ø
- can be combined with itself, with one-gang boxes, one-gang junction boxes, junction casing, universal installation housings and distance pieces 91
- attachment to formwork using expanding dowels, nails or screws



Art. No.	1210-02
Inner packaging/shipping	- / 250

Support conduit Ø 20 mm



Length	Art. No.	Inner packaging/shipping
≤ 40 mm	1212-04	- / 1
41 - 60 mm	1212-06	- / 1
61 - 80 mm	1212-08	- / 1
81 - 100 mm	1212-10	- / 1
101 - 120 mm	1212-12	- / 1
121 - 140 mm	1212-14	- / 1
141 - 160 mm	1212-16	- / 1
161 - 180 mm	1212-18	- / 1
181 - 200 mm	1212-20	- / 1
1.000 mm	1212-98	- / 80
3.000 mm	1212-99	- / 1



Note

On request we can supply support conduits with Ø 20 mm for wiring through the support element.

Flush mounted socket

- for wood and steel formwork in on-site mixed concrete as well as flush-mounting (masonry) installations
- with inner fitting cover as adhesive attachment surface
- for vertical formwork attached with adhesive, the casings must be secured with the telescopic support 9957
- for loose terminals up to 4 mm²



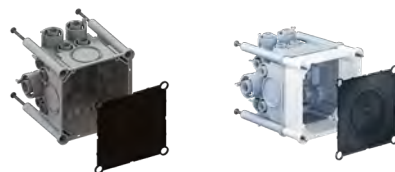
Length x Width x Depth	115 x 115 x 76 mm	115 x 115 x 101 mm	115 x 115 x 150 mm
Break-out openings Ø 20 mm	16	16	16
Combination conduit entries M20/25	4	8	8
Number of nails	4	4	4
CE /  650 °C	• / •	• / •	• / •
	•	•	•
Art. No.	9909.01	9908.01	9908.21
Inner packaging/shipping	- / 50	- / 20	- / 5

Junction casings and accessories

for on-site mixed concrete

Junction casing

- for wood and steel formwork in on-site mixed concrete as well as flush-mounting (masonry) installations
- with inner fitting cover as adhesive attachment surface
- for vertical formwork attached with adhesive, the casings must be secured with the telescopic support 9957
- for loose terminals up to 4 mm²



Length x Width x Depth	115 x 115 x 105 mm	115 x 115 x 150 mm
Break-out openings Ø 20 mm	12	12
Combination conduit entries M20/25	4	4
Combination conduit entries M25/32	2	2
Number of nails	4	4
CE / 650 °C	• / •	• / •
	•	•
Art. No.	9907	9907.21
Inner packaging/shipping	- / 20	- / 5

Top frame for flush mounted socket

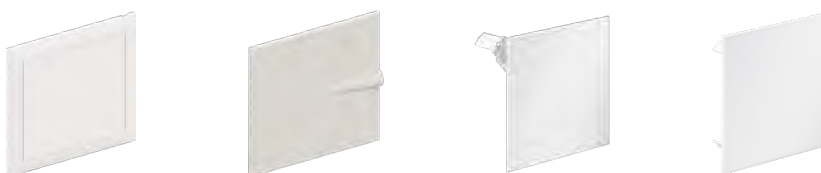
- increases the front-to-back size of the box or for insulated ceilings
- multiple extensions possible
- with 2 fixing screws



Length x Width x Depth	115 x 115 x 13 mm	115 x 115 x 12 mm	115 x 115 x 45 mm
Number of screws	-	2	2
CE /	• / •	• / •	• / •
850 °C	•	•	•
Art. No.	9908.68	9907.68	9907.68.45
Inner packaging/shipping	- / 10	- / 10	- / 5

Plug-in cover

- smooth surface with rounded edge



Length x Width x Height	130 x 130 x 7 mm	130 x 130 x 3.5 mm	130 x 130 x 3.5 mm	130 x 130 x 3.5 mm
Colour	RAL 9010	RAL 9010	RAL 9010	RAL 9010
CE /	• / •	• / •	• / •	• / •
850 °C	•	•	•	•
Art. No.	9909.22	9909.20	9909.10	9909.12
Inner packaging/shipping	- / 10	- / 10	- / 10	- / 10

Screw-in cover

- smooth surface with rounded edge



Length x Width x Height	130 x 130 x 3.5 mm
Number of plastic screws	4
Art. No.	9909.02 S
Inner packaging/shipping	- / 10

Waterproof cover

- Anodized aluminium
- with full-surface neoprene seal, thickness 4 mm
- cover fastening with 4 screws, (included), non-rusting



Length x Width x Height	130 x 130 x 1.5 mm
Screws	4x, Ø 4x35
Art. No.	9909.03
Inner packaging/shipping	- / 100

Adhesive foil

- for anti-shock fixing of boxes and casings in horizontal formwork
- for vertical formwork, additional support by means of support element and abutments is necessary
- for degreasing formwork
- double-sided adhesion



Art. No.	1219-00
Inner packaging/shipping	200 / 1000

FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

SURFACE

CABLE GLANDS

TOOLS

SERVICE



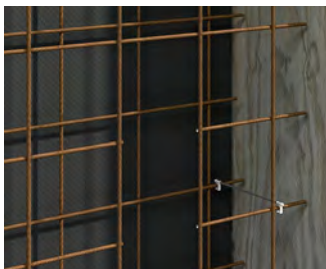
Prefix® concrete building box for attaching to the reinforcement

Concrete building boxes with Prefix® installation technology and two integrated front parts ensure an additional improvement during fitting to the formwork. The Prefix concrete building boxes can be pre-fitted using spring-loaded installation clamps. A peripheral, pronounced corrugated profile along the installation clamps for use with tie wires prevents slipping during fixing. If extreme loads are expected, additional opportunities for attaching tie wires exist along the mounting profile. Together with a more compact form, this simplifies working, which ensures exact positioning of the box and a clean wall appearance.

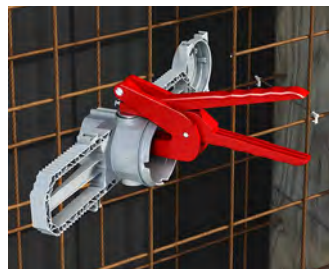
- Fast, easy installation directly onto the opposing formwork without support element and abutment
- Prefixing using Prefix® installation technology leaves both hands free for attaching with wires
- A pronounced corrugated profile and additional fixing opportunities for secure fixing using tie wires
- Suitable for 20 - 60 mm concrete covers
- For facing concrete installation to the opposing formwork
- Can be combined to create standardised stable multiple combinations



Installation



Prepared working formwork with reinforcement from the opposing formwork side.



It is easy to make conduit entries using KAISER punch pliers...



...or cut with the KAISER opening cutter.



Markings on the front part and box ensure correct assembly of the box.



Insert the conduit, then quickly and easily pre-fit the box in the reinforcement using Prefix® installation technology.



The Prefix® concrete building box is now pre-fitted, and you have both hands free...



...for fast, secure attachment to the reinforcement using wires.



For use on both sides for 20 mm to 60 mm concrete covers.

Prefix® concrete building box for attaching to the reinforcement

for on-site mixed concrete

Note

According to DIN VDE 0100, Part 559, feed lines for wall lights must terminate in connection boxes. Wall light connection boxes must have at least one option for attaching wall lights. According to DIN VDE 60670, wall and ceiling luminaire connection boxes must provide enough room for 3 individual terminals or be fitted with a 3-pole connector.

Example of installation on a 24 cm wall



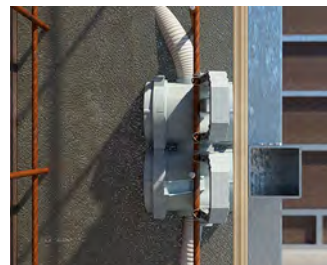
Pre-fix the one-gang junction box to the reinforcement using Prefix® technology, and check the wall thickness on the front side.



The front side of the one-gang junction box must protrude between 5 mm and 20 mm outside the wall thickness. This creates optimal pressure on the opposing formwork.



Prefix® concrete building box 60 one-gang junction box and Prefix® concrete building box 35 wall light connection box for fixing to the reinforcement.



Installation situation between the formwork units. The opposing formwork presses the Prefix® concrete building box back to the wall area, which ensures exact positioning and a clean wall appearance

Prefix® concrete building box 60

- One-gang junction box for attaching to the reinforcement
- One-piece with moulded-on front part
- With 4 screw domes and 2 expanding claw fields on each opening side
- combinations have fully-insulated cable transitions
- standardised combination distance 71 mm



3D animation

Width x Depth	95 x 290 mm
Installation opening Ø	60 mm
for concrete covers	20-60 mm
Markings for cables and DIN EN conduits up to Ø 25 mm	6
	•
Art. No.	1211-61
Inner packaging/shipping	25 / 50

Prefix® concrete building box 35

- Wall-light connection box for attachment to the reinforcement.
- One-piece with moulded-on front part



3D animation

Width x Depth	95 x 290 mm
Exit opening Ø	35 mm
for concrete covers	20-60 mm
Markings for cables and DIN EN conduits up to Ø 25 mm	6
	•
Art. No.	1211-36
Inner packaging/shipping	25 / 50



NEW

B¹ ceiling junction box

The new B¹ ceiling boxes simplify installation on the ceiling formwork. The innovative conduit entries allow the easy laying of the conduits in multiple ceiling boxes arranged in a row without the need for cutting during laying work. The higher conduit entries make additional cut-outs of the reinforcement bars unnecessary, and speeds up the fitting of empty conduits on the ceiling.

- Suitable for all types of formwork
- Flat front part makes possible the trouble-free fitting of the reinforcement bars on the ceiling formwork
- Innovative conduit entries for fast fitting on the building site
- Plenty of installation space
- Fitting of a light hook acc. to DIN EN 60670
- The tried-and-tested KAISER colour system ensures fast testing of the installation

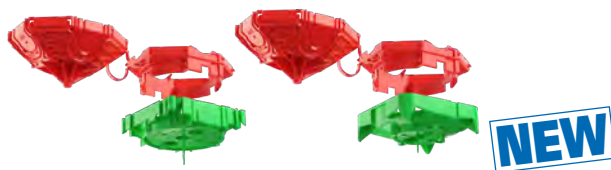


B¹ domed box 45°

- Box rear part with slot for light hook acc. to DIN EN 60670 (50 N)
- 2-part with moulded-on rear part
- Suitable for all types of formwork
- Suitable light hooks:
- 30 mm / Art. No. 1225-30
- 40 mm / Art. No. 1225-40
- 60 mm / Art. No. 1225-60



3D animation



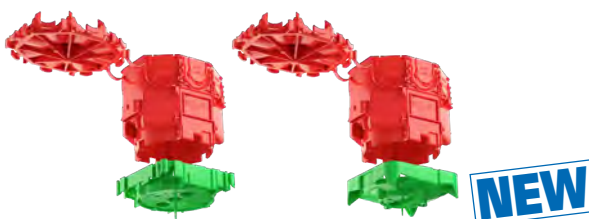
Length x Width x Depth	75 x 85 x 64 mm	75 x 85 x 64 mm
Installation opening Ø	60 mm	35 mm
Break-out openings for DIN EN Ø 20/25 mm conduits	4	4
Markings for cables up to Ø 16 mm	4	4
Number of parts	2	2
/	• / •	• / •
Art. No.	1249-11	1249-12
Inner packaging/shipping	20 / 200	20 / 200

B¹ ceiling junction box

- Box rear part with slot for light hook acc. to DIN EN 60670 (50 N)
- 2-part with moulded-on rear part
- Suitable for all types of formwork
- Suitable light hooks:
- 100 mm / Art. No. 1225-10
- 120 mm / Art. No. 1225-12
- 140 mm / Art. No. 1225-14



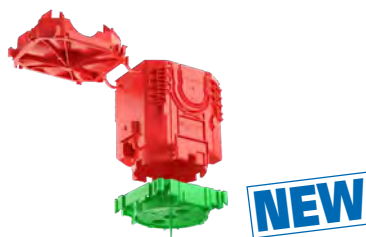
3D animation



Length x Width x Depth	94 x 75 x 95 mm	94 x 75 x 95 mm
Installation opening Ø	60 mm	35 mm
Break-out openings for DIN EN Ø 20/25 mm conduits	7	7
Markings for cables up to Ø 16 mm	7	7
Number of parts	2	2
/	• / •	• / •
Art. No.	1265-11	1265-12
Inner packaging/shipping	20 / 100	20 / 100

B¹ large conduit ceiling junction box



- Box rear part with slot for light hook acc. to DIN EN 60670 (50 N)
- 2-part with moulded-on rear part
- Suitable for all types of formwork
- Suitable light hooks:
- 100 mm / Art. No. 1225-10
- 120 mm / Art. No. 1225-12
- 140 mm / Art. No. 1225-14



INNOVATION



3D animation

Length x Width x Depth	94 x 75 x 110 mm
Installation opening Ø	60 mm
Break-out openings for DIN EN Ø 32/40 mm conduits	3
Markings for cables up to Ø 16 mm	3
Number of parts	2
 / 	• / •
Art. No.	1260-11
Inner packaging/shipping	20 / 100

B¹ universal ceiling exit 45°

- Accessory mounting without drilling or dowels
- Box rear part with slot for light hook acc. to DIN EN 60670 (50 N)
- Grey front part design for facing concrete applications
- 2-part with moulded-on rear part
- Suitable for all types of formwork
- available from June 2020



INNOVATION



3D animation

Length x Width x Depth	90 x 90 x 72 mm
Installation opening Ø	45 mm
Break-out openings for DIN EN Ø 20/25 mm conduits	4
Markings for cables up to Ø 16 mm	4
Number of parts	2
Art. No.	1249-13
Inner packaging/shipping	20 / 200

B¹ universal ceiling exit

- Accessory mounting without drilling or dowels
- Box rear part with slot for light hook acc. to DIN EN 60670 (50 N)
- Grey front part design for facing concrete applications
- 2-part with moulded-on rear part
- Suitable for all types of formwork
- available from June 2020



INNOVATION



3D animation

Length x Width x Depth	100 x 90 x 103 mm
Installation opening Ø	45 mm
Break-out openings for DIN EN Ø 20/25 mm conduits	7
Markings for cables up to Ø 16 mm	7
Number of parts	2
Art. No.	1265-13
Inner packaging/shipping	20 / 100


Ceiling boxes, Ceiling junction boxes

for on-site mixed concrete

Slab ceiling large box 115

- Installation height 115 mm, with metal nut M5 for light hook (min. hook length: 115 mm + plaster thickness)
- with screw-down cover for onsite fitting of conduits
- suitable for all types of formwork
- maximum light hook load to DIN EN 60670 100 N (10 kg)



Exit opening Ø	60 mm
Depth	115 mm
Diameter	102 mm
Markings for cables and DIN EN conduits up to Ø 25 mm	8
Markings for cables and DIN EN conduits up to Ø 32 mm	4
Number of parts	3
	•
Art. No.	1227-50
Inner packaging/shipping	- / 100

Slab ceiling box for retrofitting

- for retrofitting on the building site
- installation height 100 mm, with metal nut M5 for light hook (min. hook length 95 mm + plaster thickness)



Depth	100 mm
Number of parts	2
required drilling hole	65 mm
Art. No.	1247-01
Inner packaging/shipping	- / 100

Light hook

- for retrofitting ceiling boxes (EN 60670)
- maximum light hook load to DIN EN 60670 100 N (10 kg)
- with M5 thread, fully-insulated



Length of shank	Diameter hook	Overall length	Thread length	Art. No.	Inner packaging/shipping
30 mm	26 mm	55 mm	10 mm	1226-30	- / 150
55 mm	26 mm	81 mm	10 mm	1226-55	- / 150
65 mm	26 mm	91 mm	10 mm	1226-65	- / 150
75 mm	26 mm	101 mm	10 mm	1226-75	- / 150
85 mm	26 mm	112 mm	10 mm	1226-85	- / 100
95 mm	26 mm	121 mm	10 mm	1226-95	- / 100
105 mm	26 mm	132 mm	10 mm	1226-97	- / 100
115 mm	26 mm	143 mm	10 mm	1226-98	- / 100
125 mm	26 mm	151 mm	10 mm	1226-99	- / 100

Universal ceiling and wall exit

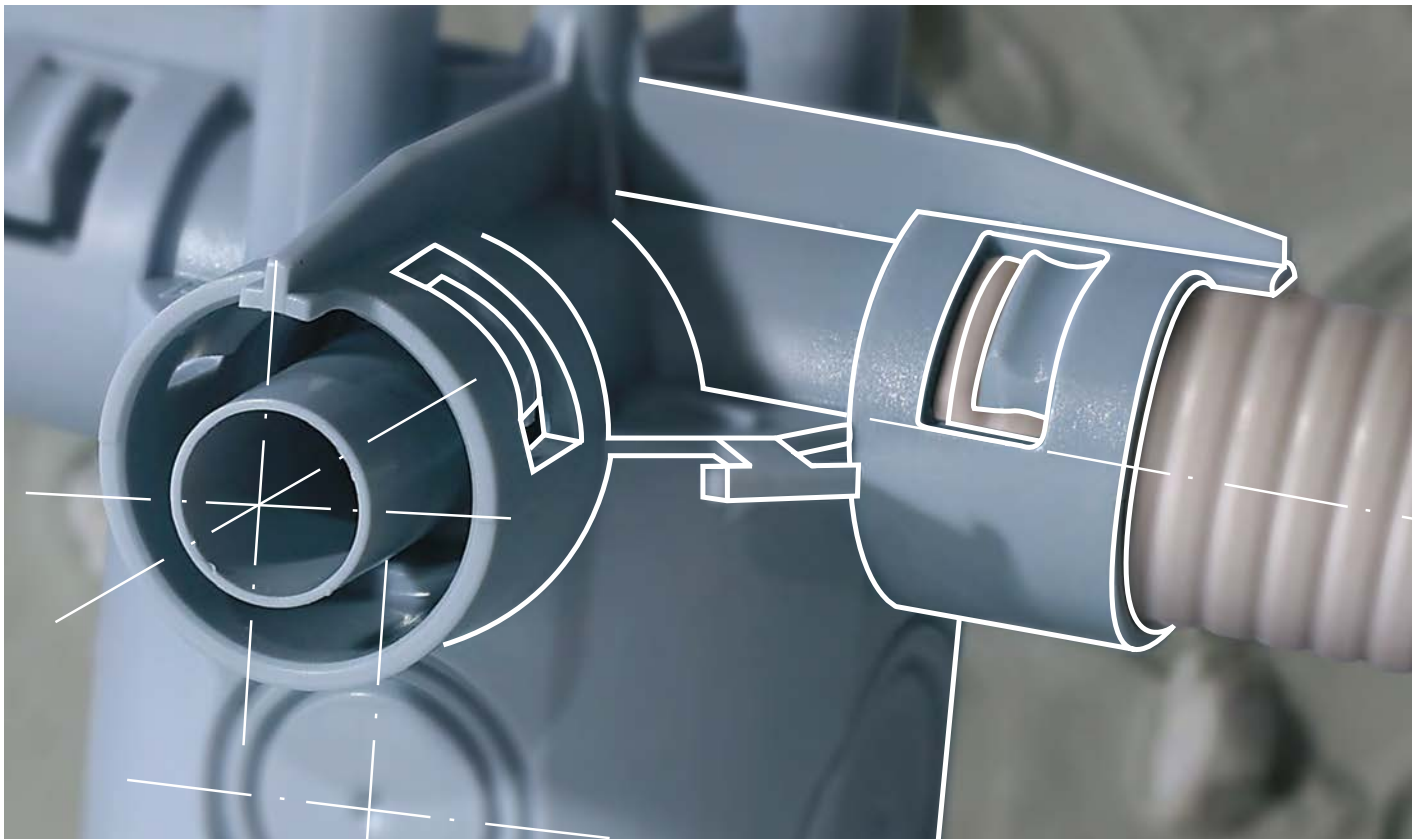
Universal ceiling and wall exit with KSK technology for especially quick and safe installation. The universal Ø 85 mm screw-on surface permits the clean installation of luminaires, smoke detectors etc. without the need for drilling.

- Open the conduit entry with a hammer blow
- Combination entry for two conduit sizes
- Thanks to the integrated conduit stopper, it is not necessary to shorten the conduit inside.
- Clean installation of accessories on the universal screw-on surface without the need for drilling or using dowels



KSK TECHNOLOGY

KSK technology, KAISER impact coupling for quick, secure and variable conduit entry in concrete construction. Crimped or unsheathed installation conduits with diameters of 20 or 25 mm can be inserted securely and accurately in a single action. You can open the KSK technology with a single hammer blow offering an integrated conduit limit and extension lock for both conduit sizes.



Universal screw-on surface

The screws for the attachment of the device can be easily screwed into the universal mounting plate.

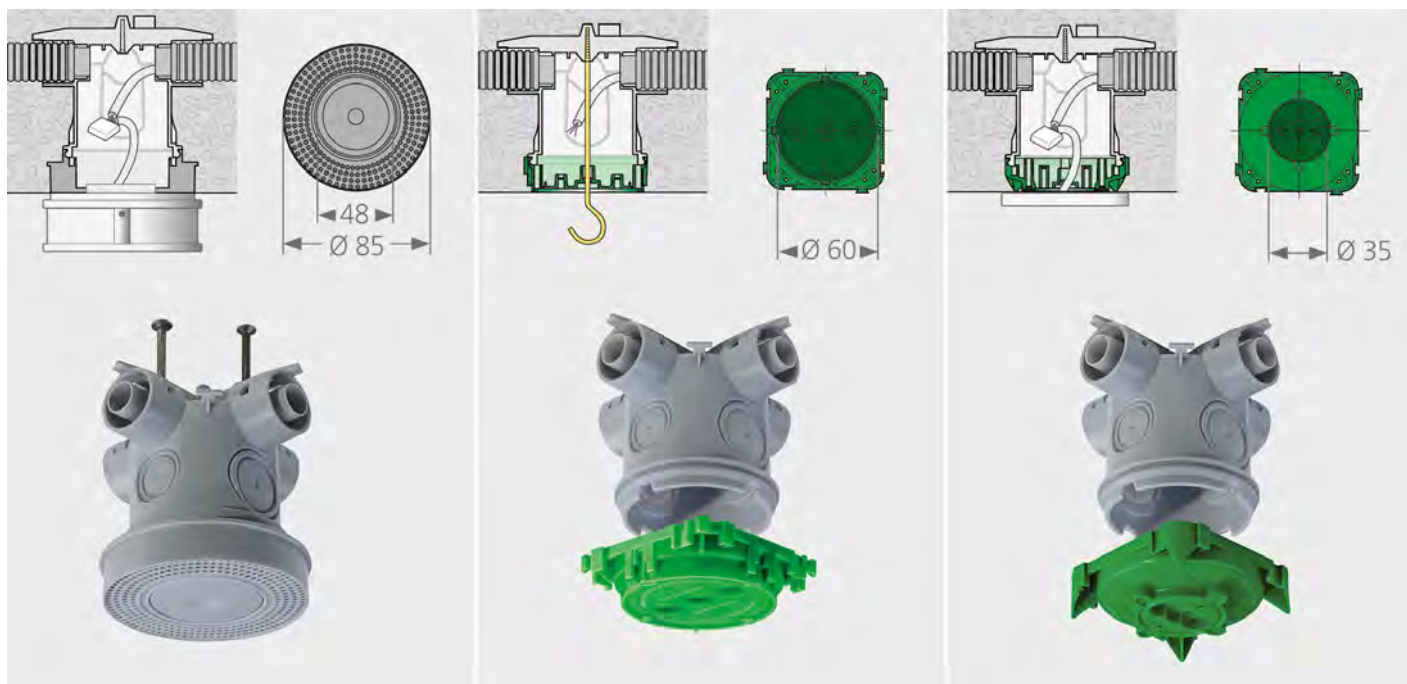


Ceiling boxes and accessories

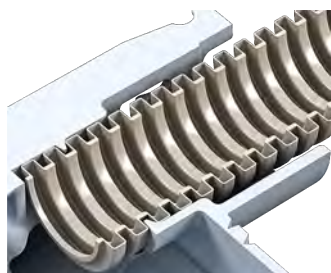
for on-site mixed concrete / prefabrication

Front parts

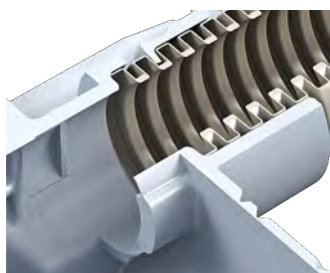
The different front parts offer exit openings of $\varnothing 35$, $\varnothing 48$ or $\varnothing 60$ mm and allow the attachment of a fully-insulated light hook according to DIN EN 60670-21.



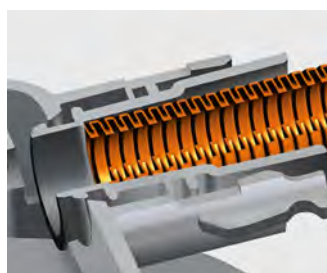
Combi-entry



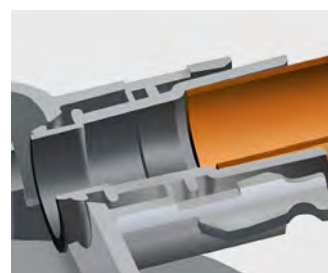
M20 combi-entry



M25 combi-entry



5/8" combi-entry



3/4" combi-entry

Installation



The front part with screw-on surface (Art. No. 1245-60) offers quick and secure support for accessories.



Open the universal conduit entry with one hammer blow.



You can now insert up to four conduits (M20 or M25).



The front part with screw-on surface (Art. No. 1245-60) offers quick and secure hold for accessories.

Universal ceiling and wall exit

- Conduit entry limit to prevent the need for inside shortening of the conduit
- Complies with product standard EN 60670-21 (suspension load) with our hook bolts 1225-xx
- max. suspension load 50 N (5 kg)



Exit opening Ø	48 mm
Depth	105 mm
M20/M25 impact couplings	4
Number of parts	1
Number of nails	2
CE / §	• / •
Outer diameter	85 mm
M25/M32 break-out opening	2
M20/M25 break-out opening	2
650 °C	•
Art. No.	9959
Inner packaging/shipping	- / 25

Ceiling junction box

- Conduit entry limit to prevent the need for inside shortening of the conduit
- suitable for all types of formwork
- max. light hooks load in accordance with DIN EN 60670 (50 N)



Exit opening Ø	60 mm	35 mm
Depth	99 mm	99 mm
M20/M25 impact couplings	4	4
Number of parts	2	2
Screw domes for device attachment	4	-
CE / OVE	• / •	• / •
M25/M32 break-out opening	2	2
M20/M25 break-out opening	2	2
650 °C	•	-
Art. No.	1245-63	1245-62
Inner packaging/shipping	10 / 100	10 / 100

Light hooks, self-tapping

- for retrofitting ceiling boxes (EN 60670)
- with self-forming thread (similar to German DIN 7998) fully-insulated
- Resistance to tension 2500 V tested
- Load according max. 5 kg





Length of shank	Art. No.	Inner packaging/shipping
30 mm	1225-30	- / 100
40 mm	1225-40	- / 100
60 mm	1225-60	- / 100
80 mm	1225-80	- / 100
100 mm	1225-10	- / 50
120 mm	1225-12	- / 50
140 mm	1225-14	- / 50

Ceiling and wall exit

- for light hook attachment
- 2 entries (support shape) parallel to formwork level for 20 mm or 25 mm DIN EN conduits
- with formwork closing cover for one conduit entry

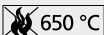



Length x Width x Depth	90 x 45 x 50 mm
Ceiling exit (CE) Ø	30 mm
Combination conduit entries M20/25	2
CE /  650 °C	• / •
	•
Art. No.	9951
Inner packaging/shipping	- / 50

Ceiling exit

- for light hook attachment and clamping material holder (box shape)
- with large attachment surface for smoke or motion detectors under the ceiling (no need for dowels)
- 4 entries (support shape) parallel to formwork level, 2 entries (support shape) 30° to formwork level, for 20 mm Ø DIN EN conduit



Depth	69 mm
Break-out openings Ø 20 mm	8
CE /  650 °C	• / •
Outer diameter	85 mm
	•
Art. No.	9955
Inner packaging/shipping	- / 50

Signal cover

- for wall and ceiling lights connection boxes
- for Art. Nos. 1248-40, 1245-62, 1248-50, 1248-44, 1264-50, 1211-36



For installation opening	35 mm
Art. No.	1181-35
Inner packaging/shipping	- / 50

End and transition bushes, Wall and ceiling transitions 30°

End and transition bushes and wall and ceiling transitions 30° for securing a continuous empty conduit system at transition points. The very small design of the end and transition bushes allows the feeding of empty conduits even between close-fitting reinforcement bars without the need for time-consuming work. The optimal radius of the wall and ceiling transitions and the exact-fitting conduit holders prevent abutment edges at transitions. This ensures the flexible feeding of cables from both directions.

- Small design for easy installation between close-fitting reinforcement bars
- Optimal transition radius - easy cable insertion
- Installation on the opposing formwork with support element and abutment
- 2-piece design with secure catch mechanism
- Easy removal of the plaster skin
- Small visible area - clean wall and ceiling appearance



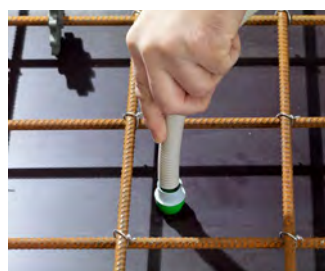
End and transition bushes installation



The flat front part ensures easy fixing with only one nail.



The new snap-in connection provides a safe connection between the front and rear parts.



Now insert the empty conduit into the bush holder as far as the stop.

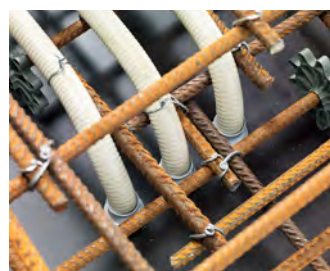


The surrounding conduit lock retains the conduit securely in the holder and ensures the correct function of the empty conduit system.

Advantages - End and transition bushes



The new design makes it very easy to feed conduits...



...even between close-fitting reinforcement bars.



The small design also allows many exits on a small wall or ceiling area.



After striking the formwork, there is only a minimal visible area in the concrete.

Wall-ceiling transitions, ceiling strips, conduit supports, sealing plugs for on-site mixed concrete

Wall and ceiling transition 30° installation



The flat front part ensures easy fixing with only one nail.



The new snap-in connection provides a safe connection between the front and rear parts.



Now insert the empty conduit into the bush holder as far as the stop.



The surrounding conduit lock retains the conduit securely in the holder and ensures the correct function of the empty conduit system.

Advantages - Wall and ceiling transitions 30°



The support element holder for the new wall and ceiling transitions now allows...



...installation on the opposing formwork with support element and abutment.



After striking the formwork, use a screwdriver for fast, easy opening of the plaster skin.



The optimal radius of the new transitions makes it easy to pull cables in.

End and transition bushing

- for connecting conduits or as ceiling exit
- closed off on formwork side with plaster skin
- suitable for all types of formwork



3D animation

Height	32 mm	36 mm	41 mm
Diameter	30 mm	35 mm	41 mm
DIN EN conduit Ø	20 mm	25 mm	32 mm
Number of parts	2	2	2
Visible area Ø	23 mm	28 mm	35 mm
Art. No.	1204-24	1204-34	1204-29
Inner packaging/shipping	50 / 500	25 / 100	25 / 100

End and transition bushes

- for connecting conduits or as ceiling exit
- closed off on formwork side with plaster skin
- suitable for all types of formwork



Length x Width x Height	95 x 65 x 70 mm
DIN EN conduit Ø	40 mm
Number of parts	1
Visible area Ø	95 x 65 mm
Art. No.	1203-28
Inner packaging/shipping	10 / 40

Wall and ceiling transition 30°

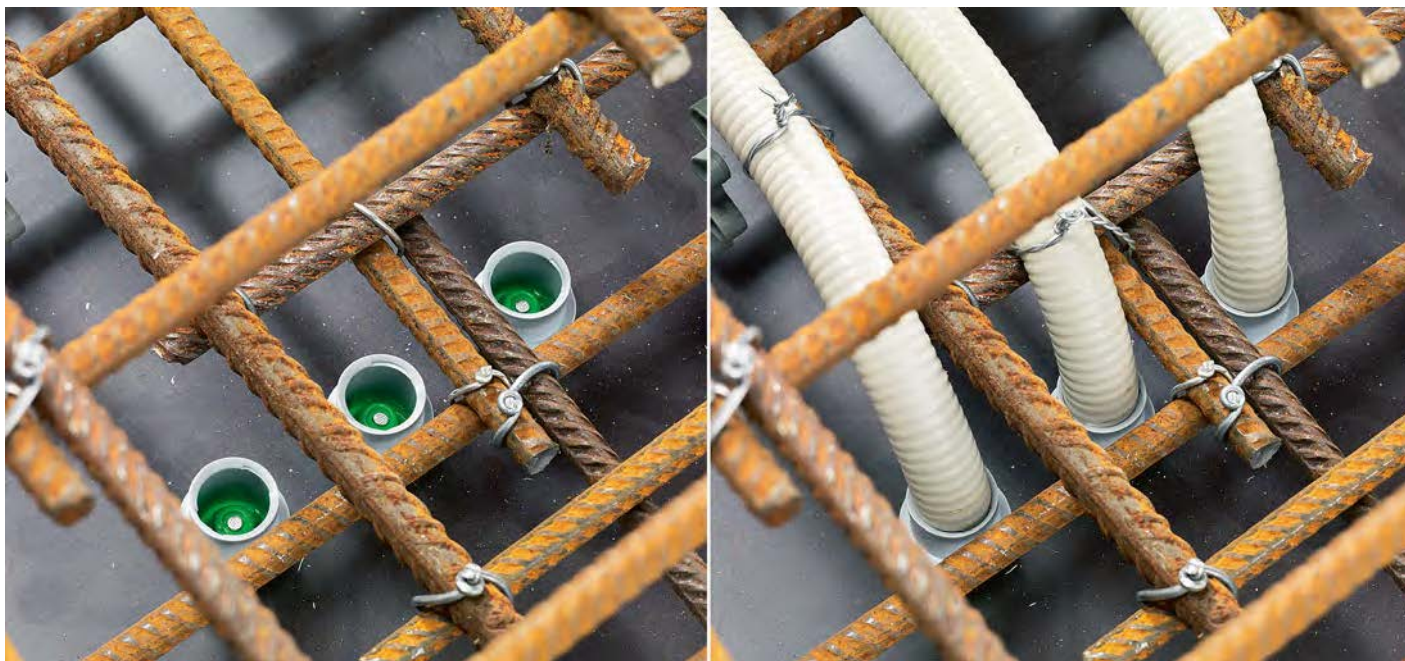
- for connecting conduits or as ceiling exit
- closed off on formwork side with plaster skin
- suitable for all types of formwork



3D animation

Length x Width x Height	70 x 30 x 77 mm	72 x 35 x 78 mm	80 x 41 x 83 mm
DIN EN conduit Ø	20 mm	25 mm	32 mm
Number of parts	2	2	2
Visible area Ø	23 mm	28 mm	35 mm
Art. No.	1202-04	1202-34	1202-29
Inner packaging/shipping	25 / 250	25 / 100	25 / 100

Examples of use





B¹ Prefix[®] wall exit adapter

By using the B¹ Prefix[®] wall exit adapters, the end and transition bushes and the wall and ceiling transition 30° can quickly and easily be fixed to the reinforcement for the opposing formwork side. They are fitted with two sturdy facing slots for locking the new Prefix[®] system wings together.

- Fast, easy installation directly onto the opposing formwork without support element and abutment
- For facing concrete installation to the opposing formwork



Methods of fixing



Lock the B¹ Prefix[®] wall exit adapter in the required size - Ø 20 mm, Ø 25 mm or Ø 32 mm – between the front and rear part.



Now connect the B¹ Prefix[®] system wings to the Prefix[®] wall exit adapter in accordance with the concrete covering planned for the reinforcement.



Use Prefix[®] installation technology for fast, easy pre-fixing of the wall exit to the reinforcement...



...and, using both hands, secure to the reinforcement by means of tie wires.

B¹ Prefix[®] wall exit adapter Ø 20 mm

- Allows fixing to the reinforcement
- 2 slots for B¹ Prefix[®] system wings
- For use with the following articles:
- End and transition bush / Art. No. 1204-24
- Wall and ceiling transition 30° / Art. No. 1202-04



3D animation

For concrete coverings of	20 - 60 mm
Art. No.	1211-20
Inner packaging/shipping	25 / 100

B¹ Prefix[®] wall exit adapter Ø 25 mm

- Allows fixing to the reinforcement
- 2 slots for B¹ Prefix[®] system wings
- For use with the following articles:
- End and transition bush / Art. No. 1204-34
- Wall and ceiling transition 30° / Art. No. 1202-34



3D animation

For concrete coverings of	20 - 60 mm
Art. No.	1211-25
Inner packaging/shipping	25 / 100

B¹ Prefix® wall exit adapter Ø 32 mm

- Allows fixing to the reinforcement
- 2 slots for B¹ Prefix® system wings
- For use with the following articles:
- End and transition bush / Art. No. 1204-29
- Wall and ceiling transition 30° / Art. No. 1202-29



INNOVATION

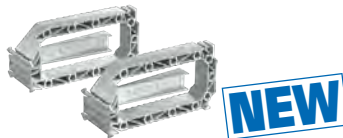


3D animation

For concrete coverings of	20 - 60 mm
Art. No.	1211-32
Inner packaging/shipping	25 / 100

B¹ Prefix® system wing set

- allows fastening to the reinforcement
- Pre-fixable using B¹ Prefix® mounting technology
- For use with the following articles:
- B¹ one-gang box
- B¹ one-gang junction box
- B¹ large conduit one-gang junction box
- B¹ electronics box
- B¹ two-gang junction box
- B¹ wall light connection box
- B¹ universal wall exit
- B¹ Prefix® adapter Ø 20, Ø 25 and Ø 32 mm



INNOVATION



3D animation

Length x Width x Depth	103 x 49 x 36 mm
For concrete coverings of	20 - 60 mm
Number of wings	2
Art. No.	1211-00
Inner packaging/shipping	50 / 350

FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

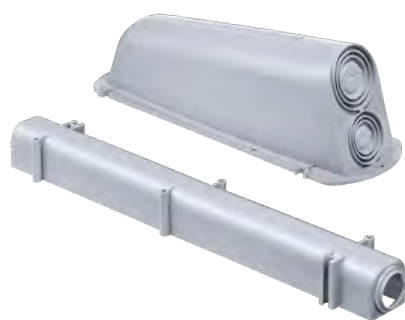
FIRE PROTECTION

SURFACE

CABLE GLANDS

TOOLS

SERVICE



Ceiling strips

Ceiling strips for intermediate wall feeds, as ceiling exit or for connecting installation conduits. The elongated shape allows for compensation of big tolerances for lightweight intermediate wall feeds.

- For DIN EN conduits Ø 20 to Ø 25 mm
- Large tolerance compensation
- Exiting of two conduits at one exit site
- Can be combined for more than one adjacent exit
- Space for conduit ends for extending with conduit bushes



Installation



Position the ceiling strip on the formwork and fix with nails.



The ceiling strips can easily be combined, and offer exact, parallel exits.



Ceiling strip (Art. No. 4558) can be occupied on two sides using DIN EN conduits Ø 20 or Ø 25 mm.



After striking of the formwork, ceiling strip (Art. No. 4552) can easily be removed from the concrete ceiling and re-used for more installations.

Ceiling strip (ceiling exit)

- ceiling exit for intermediate wall feed, exit or conduit connector
- accepts large tolerance compensation
- open on formwork side
- Use wire-pull casing and junction casing 9914.01 for DIN EN conduits up to Ø 63 mm




Length x Width x Depth x Height	138 x 36 x 29 mm	138 x 36 x 29 mm	306 x 40 x 29 mm	270 x 90 x 82 mm
For conduits to DIN EN outer Ø	20 mm	25 mm	-	-
Combination conduit entries M20/25	-	-	2	-
Combination conduit entries M20/25/32	-	-	-	1
Combination conduit entries M25/32/40	-	-	-	1
Number of nails	-	-	4	-
650 °C	-	-	•	•
Art. No.	1283-33	1283-34	4558	4552
Inner packaging/shipping	25 / 100	25 / 100	- / 50	- / 10

Formwork protection Speedy

- set of 5-pieces
- connectable
- lamella entry
- Pressure during conduit entry
- Hinged cover for increased stability and save formwork removal

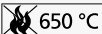


Length x Width x Depth	180 x 34 x 34 mm	-
 650 °C	•	•
Art. No.	4551.14	4551
Inner packaging/shipping	- / 50	- / 50

Ceiling strip 25° (ceiling exit)

- with 4 nails 3 x 50 mm
- accepts large tolerance compensation
- open on formwork side
- 25° conduit entry for laying conduit on the first reinforcement level
- for intermediate wall feed

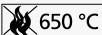


Length x Width x Depth	300 x 45 x 65 mm
Combination conduit entries M20/25	1
Number of nails	4
 650 °C	•
Art. No.	4555
Inner packaging/shipping	- / 50

Conduit supports

- for secure fixing of conduits from concrete ceiling
- Prevents conduits from kinking




Length x Width x Height	130 x 132 x 210 mm	300 x 300 x 300 mm
DIN EN conduit Ø	16-40 mm	-
Steel diameter Ø	-	8 mm
 650 °C	•	-
Art. No.	4560	11021
Inner packaging/shipping	- / 50	- / 25

Conduit bend support

- Prevents conduits from kinking



Length x Width x Height	170 x 107 x 225 mm
Number of nails	3
Radius	160
 650 °C	•
Art. No.	4561
Inner packaging/shipping	- / 25

Conduit sealing cap

- for sealing off conduits
- halogen-free

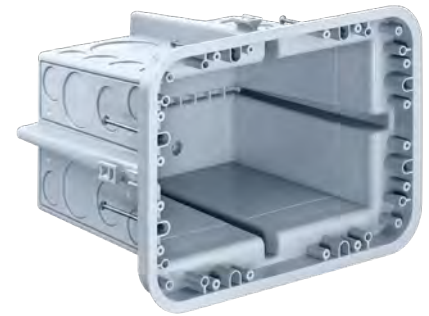


DIN EN conduit Ø	20 mm	25 mm	32 mm
Art. No.	1273-43	1273-44	1273-45
Inner packaging/shipping	100 / 1000	50 / 250	50 / 250

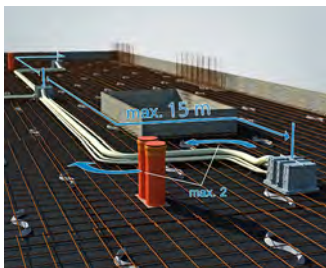
Wire-pull casings

KAISER wire-pull casings ensure expert cable routing through conduit networks. According to DIN 18015-1, conduit lengths of more than 15 m and with more than two bends require wire-pull casings that allow cables to be added or retrofitted at any time. Wire-pull casings provide multiple conduit entry options and maximum free space to ensure a continuous cable network, including with subsequent changes to the electrical installation.

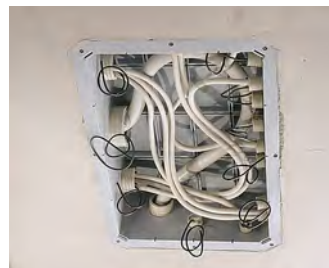
- Quick and secure installation with pre-installed nails
- Clean stripping where exposed concrete is required
- High dimensional stability, no internal support required
- Multiple conduit entry options
- Stackable



Examples of use



According to DIN 18015-1, pull-wire boxes are required for conduit sections of more than 15 m in length or when more than 2 bends are present.



KAISER wire-pull casings provide maximum room for the pulling and retrofitting of cables.



In case of sub-ceiling insulation, the wire-pull casing can be extended via intermediate frames



Also suitable for wall mounting - to be fastened to the reinforcement via Prefix® installation technology.

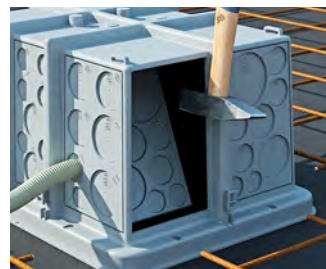
Processing instructions



Fastening to the ceiling formwork occurs by means of 8 pre-installed nails. The nail domes have a predetermined breaking point, so that the nails are removed together with the formwork removal.



The conduit entries can easily be opened using a step drill or hammer and screwdriver.



If multiple different conduits are entered, the side walls can be removed with a hammer.



Additional metal plates ensure secure fixing to the reinforcement via tie wires.



Wire-pull casings

for on-site mixed concrete

Wire-pull casing

- for wood and steel formwork in on-site mixed concrete as well as flush-mounting (masonry) installations
- for vertical formwork attached with adhesive, the casings must be secured with the telescopic support 9957
- End cover (plastic): fire resistance 750°C





Length x Width x Depth	175 x 120 x 64 mm	170 x 115 x 95 mm	250 x 105 x 94 mm
Break-out openings Ø 20 mm	2	2	-
Combination conduit entries M20/25	14	14	26
Combination conduit entries M20/25/32	4	6	2
Combination conduit entries M40/50/63	-	-	2
Number of nails	4	4	4
CE /  650 °C	• / •	• / •	• / •
	•	•	•
Art. No.	9912.01	9911.01	9914.01
Inner packaging/shipping	- / 5	- / 5	- / 10

Wire-pull casing

- for wood and steel formwork in on-site mixed concrete as well as flush-mounting (masonry) installations
- for vertical formwork attached with adhesive, the casings must be secured with the telescopic support 9957
- Optional accessories: plaster cover, end cover, Prefix® installation set
- Simple mounting in wall using Prefix® installation technology



3D animation

Length x Width x Depth	250 x 180 x 120 mm	250 x 180 x 185 mm
Tube entries up to M20	-	4
Tube entries up to M25	12	20
Tube entries up to M32	8	8
Tube entries up to M40	4	8
Tube entries up to M50	-	4
Extensive pull-out apertures	8	8
Intake for Prefix	4	4
Number of nails	8	8
CE /  650 °C	• / •	• / •
	•	•
Art. No.	9916	9916.21
Inner packaging/shipping	- / 10	- / 5

Wire-pull casing

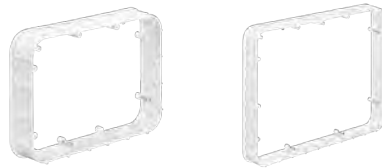
- for wood and steel formwork in on-site mixed concrete as well as flush-mounting (masonry) installations
- for vertical formwork attached with adhesive, the casings must be secured with the telescopic support 9957
- Optional accessories: plaster cover, end cover, set of Prefix® wings
- Simple mounting in wall using Prefix® installation technology



3D animation

Length x Width x Depth	400 x 300 x 120 mm	400 x 300 x 220 mm
Tube entries up to M25	16	24
Tube entries up to M32	8	20
Tube entries up to M40	2	20
Tube entries up to M50	8	12
Tube entries up to M63	-	4
Extensive pull-out apertures	10	10
Intake for Prefix	6	6
Number of nails	8	8
CE / 650 °C	• / •	• / •
	•	•
Art. No.	9917	9917.21
Inner packaging/shipping	- / 10	- / 5

Heightening frame for transition box



Length x Width x Depth	246 x 176 x 45 mm	397 x 297 x 45 mm
CE /	• / •	• / •
For type number	9916 / 9916.21	9917 / 9917.21
850 °C	•	•
Art. No.	9916.68	9917.68
Inner packaging/shipping	- / 5	- / 5

Plaster cover

- For installation on opposing formwork without support



Length x Width x Height	242 x 172 x 1 mm	390 x 290 x 1 mm
For type number	9916 / 9916.21	9917 / 9917.21
Art. No.	9916.06	9917.06
Inner packaging/shipping	- / 30	- / 30

Wire-pull casings

for on-site mixed concrete

Screw-in cover

- smooth surface with rounded edge
- including 4 screws



Length x Width x Height	270 x 200 x 5 mm	420 x 320 x 5 mm	262 x 112 x 5 mm	185 x 130 x 3.5 mm
Colour	RAL 9010	RAL 9010	RAL 9010	RAL 9010
Screws	4	6	-	4
CE / S	• / •	• / •	• / •	• / •
For type number	9916 / 9916.21	9917 / 9917.21	9914.01	-
850 °C	•	•	•	•
Art. No.	9916.02	9917.02	9914.02	9911.02
Inner packaging/shipping	- / 100	1 / 50	- / 180	- / 5

Cover

- smooth surface with rounded edge
- suitable for Art. Nos. 9912.01 and 9911.01



Length x Width x Height	185 x 130 x 3.5 mm
Colour	RAL 9010
CE / S	• / •
850 °C	•
Art. No.	9911.12
Inner packaging/shipping	- / 5

Waterproof cover

- Anodized aluminium
- with full-surface elastomer sealing
- including stainless steel screws for cover fastening



Length x Width x Height	270 x 200 x 2 mm	420 x 320 x 2 mm	265 x 115 x 2 mm	186 x 130 x 1.5 mm
Screws	4	8	4	4x, Ø 4x35
For type number	9916 / 9916.21	9917 / 9917.21	9914.01	-
Art. No.	9916.03	9917.03	9914.03	9911.03
Inner packaging/shipping	- / 50	- / 20	- / 50	- / 50








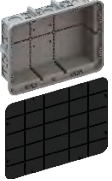


Assembly system Prefix®

Prefix® installation system for wire-pull casings for easy, fast installation on the opposing formwork without support. The wings are simply snapped into place. The spring-loaded clamps exert a strong force on the opposing formwork, thereby ensuring exact fitting of the wire-pull casing and a clean wall appearance.

- Fast, easy installation directly onto the opposing formwork without support element and abutment
- Prefixing using Prefix® installation technology leaves both hands free for attaching with wires
- For facing concrete installation to the opposing formwork



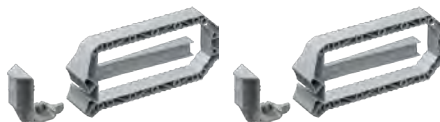
Required wings and adapters per product

								
	9922	9924.40	9924	9926	9928	9929	9916*	9917*
	2	4	4	4	4	4	-	-
	2	4	4	4	4	4	4	4

* For Prefix® applications, please order the cover separately: 9916.06 / 9917.06

Prefix® assembly kit

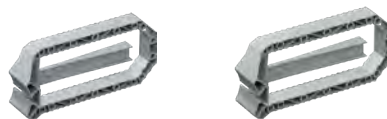
- Set consisting of wing and adapter




Number of wings and adapters	2	4
Art. No.	9940.22	9940.44
Inner packaging/shipping	- / 10	- / 5

Set of Prefix® wings

- allows fastening to the reinforcement



Length x Width x Height	137 x 59 x 16 mm	137 x 59 x 16 mm
Number of wings	2	4
	-	•
Art. No.	9940.20	9940.40
Inner packaging/shipping	- / 10	- / 5



Universal installation housings

Universal installation housing for the installation of almost any types and shapes of accessories in concrete walls and ceilings. The housing system consists of nine different installation housings and an extensive range of accessories.

- For displays, LED lamps and much more
- For installing almost all shapes and sizes
- For installation on walls and ceilings
- For on-site mixed concrete and prefabrication
- For horizontal and vertical formwork and masonry



Examples of use



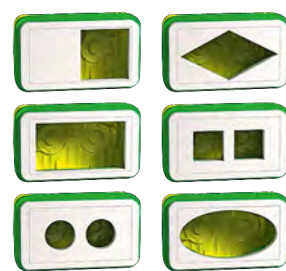
The housing in the concrete is flush-mounted with the mineral fibreboard. The groove in the mineral fibreboard determines the maximum fitting area.



The support in the installation housing prevents it being pressed inward while the concrete is being cast.



Use only screws that go into but not through the mineral fibreboard when attaching the device (e.g. SPAX countersunk head screw 3.5 x 15 mm)!



The front panels are easy to process, and almost any shape can be cut out.

Note

The listed wall thickness refers to walls without a fire-protection function. For fire-protection walls: remaining wall thickness = min. 60 mm. For use with halogen luminaires, note maximum output (see product details)

Universal installation housing with mineral fibreboard

- 2-part, consisting of housing and front ring with mineral fibreboard
- all-round groove denotes the maximum opening dimension
- for loudspeakers, displays and LED lamps



Length x Width x Depth	90 x 90 x 70 mm	150 x 90 x 70 mm	128 x 128 x 86 mm
Installation opening	40 x 40 mm	100 x 40 mm	75 x 50 mm
Device installation depth	60 mm	60 mm	65 mm
Ceiling thickness	>= 140 mm	>= 140 mm	>= 140 mm
Wall thickness	>= 110 mm	>= 110 mm	>= 120 mm
suitable for horizontal formwork	•	•	•
suitable for vertical formwork	•	•	•
Art. No.	1223-22	1224-22	1295-22
Inner packaging/shipping	- / 10	- / 10	- / 10

Universal installation housing with mineral fibreboard

- 2-part, consisting of housing and front ring with mineral fibreboard
- all-round groove denotes the maximum opening dimension
- incl. internal support element to stabilise the housing

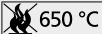


Length x Width x Depth	180 x 180 x 90 mm	250 x 220 x 90 mm
Installation opening	120 x 100 mm	200 x 145 mm
Device installation depth	65 mm	65 mm
Ceiling thickness	≥ 140 mm	≥ 140 mm
Wall thickness	≥ 120 mm	≥ 120 mm
suitable for horizontal formwork	•	•
suitable for vertical formwork	•	•
Art. No.	1296-22	1297-22
Inner packaging/shipping	- / 10	- / 5

Universal installation housing with mineral fibreboard

- suitable for installation in horizontal and vertical formwork and in masonry
- 2 parts, consisting of housing and mineral fibreboard
- Optional accessory: set of Prefix® wings



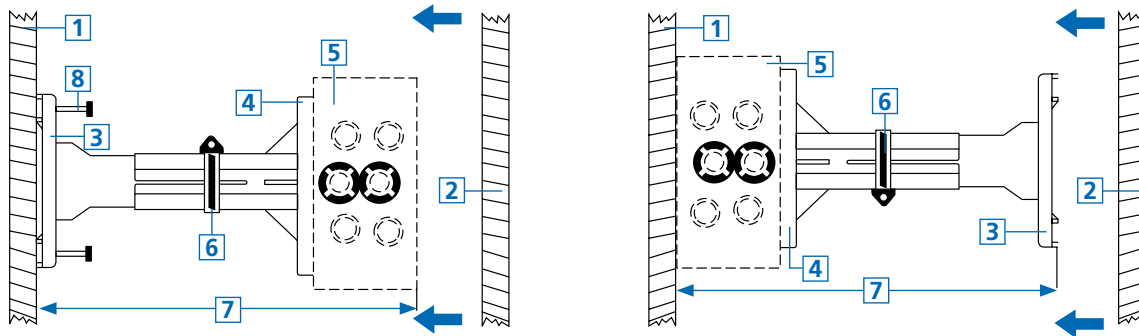
Length x Width x Depth	258 x 188 x 135 mm	258 x 188 x 200 mm	408 x 308 x 135 mm	408 x 308 x 235 mm
Installation opening	194 x 124 mm	194 x 124 mm	344 x 234 mm	344 x 234 mm
Device installation depth	105 mm	180 mm	115 mm	215 mm
Ceiling thickness	≥ 180 mm	≥ 240 mm	≥ 180 mm	≥ 280 mm
Wall thickness	≥ 180 mm	≥ 240 mm	≥ 180 mm	≥ 280 mm
Tube entries up to M20	•	4	•	•
Tube entries up to M25	12	20	16	24
Tube entries up to M32	8	8	8	20
Tube entries up to M40	4	8	2	20
Tube entries up to M50	•	4	8	12
Tube entries up to M63	•	•	•	4
Extensive pull-out apertures	8	8	•	10
Number of nails	8	8	8	8
max. output halogen luminaires	1x35 W QR-CBC, 1x50 W Alu	1x50 W QR-CBC, 1x75 W Alu	1x50 W QR-CBC, 1x75 W Alu	1x75 W QR-CBC, 2x50 W QR-CBC, 2x75 W Alu
 650 °C	•	•	•	•
Art. No.	1298-37	1298-38	1297-34	1297-35
Inner packaging/shipping	- / 10	- / 10	- / 4	- / 4

Universal installation housings

for concrete ceilings and walls

Support technology for boxes and installation housings

Support technology with telescope support: junction casings and installation housings can also be mounted on both formwork sides during vertical production. This is achieved either by fixing them directly on to the working formwork or by using the telescopic support equipment. If the junction casing is directly attached to the working formwork or if extreme loads are expected (e.g. if the block of concrete is at a great height), extra support is recommended using the telescope support.



1 Working formwork | 2 Opposing formwork | 3 Base plate | 4 Supporting plate | 5 Junction casing | 6 Hose clamp | 7 Wall thickness +2 cm | 8 Nail

Adjusting the telescope support to different wall thicknesses



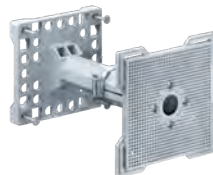
Wall thickness up to 20 cm. Shorten the 8-sided conduit on base and supporting plate to the necessary length. Wall thickness 20 to 25 cm. Adjust the telescope support to the necessary length.


Note

When the formwork is closed, the telescope support and the casing are held between the walls of the formwork. The preset excess length of 2 cm ensures sufficient pressure for a secure fit. Always tighten hose clamp fully!

Telescope support

- for support of all casings (99xx.xx without support element attachment) in vertical wooden formwork
- base plate attached with 4 nails (included)
- casing attached by screwing onto supporting plate
- adjustable size without extensions for wall thicknesses of 135 to 205 mm + casing height. Adjustable size of 195 to 265 mm + casing height using extensions included in delivery.



Length x Width x Height	110 x 110 x 150-300 mm
Number of nails	4
 650 °C	•
Art. No.	9957
Inner packaging/shipping	- / 10

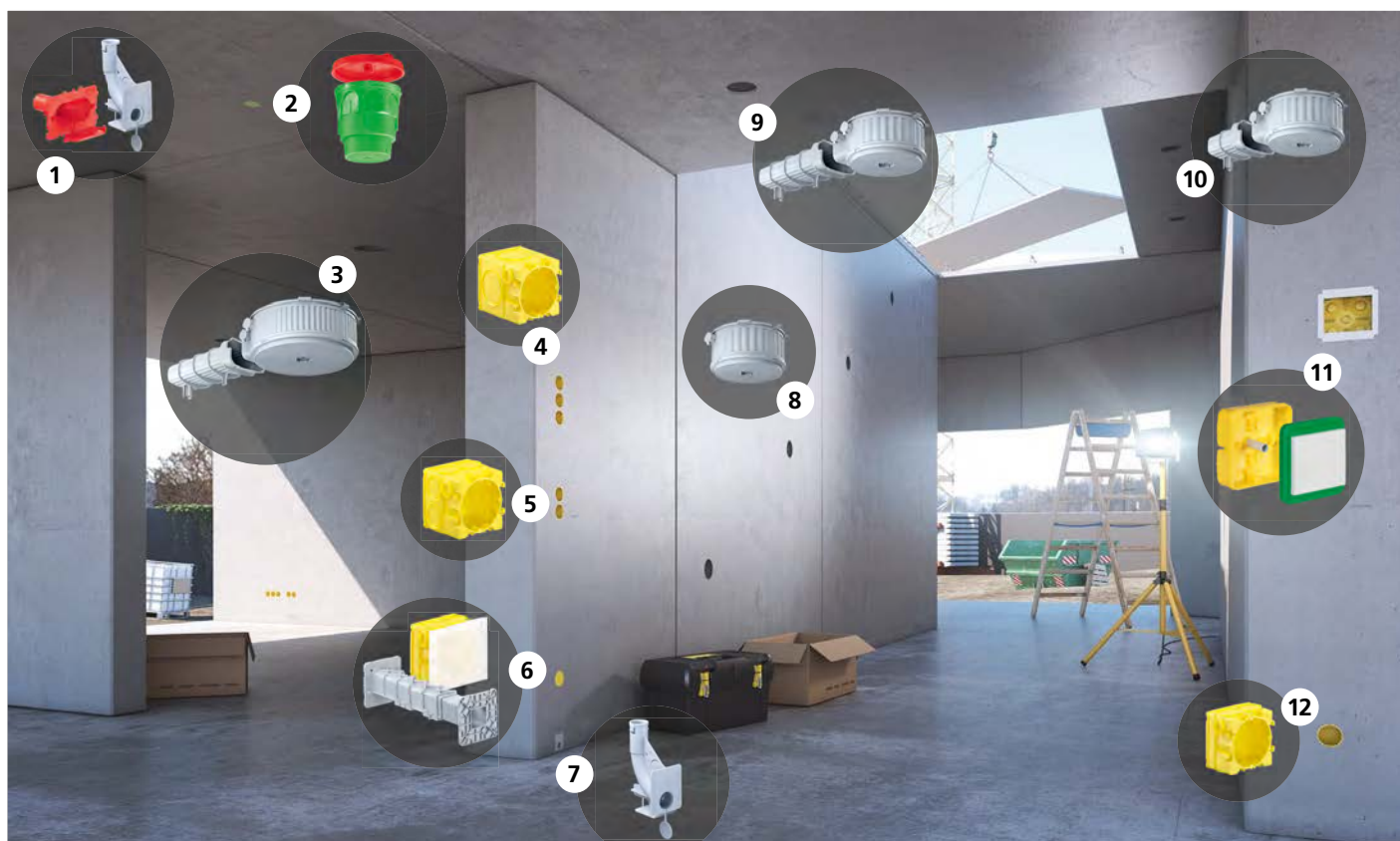
B2 system

B2 system for installation in horizontal prefabrication. All installation requirements can be met with a few components. The one-gang boxes are adhesive and the accessories provide a practice-oriented product range.

- Extremely time-saving
- One-piece unit
- Available with or without plaster skin
- Available prefabricated with special adhesive – no glue residues when removing from formwork
- Easy-clip stacking of combinations or opposing boxes



The KAISER product range for prefabrication



1 Wall and ceiling transition 90°, Oval funnel | **2** Slab ceiling large box 105 | **3** HaloX® 250 with tunnel for precast concrete for magnet attachment | **4** One-gang junction box without plaster skin with a depth of 83.5 mm | **5** One-gang junction box without plaster skin with a depth of 68.5 mm | **6** One-gang junction box without plaster skin, with special adhesive, Universal extension element 175 to 300 mm | **7** Wall and ceiling transition 90° | **8** HaloX® 180 for precast concrete for magnet attachment | **9** HaloX® 180 / 250 for precast concrete for magnet attachment | **10** HaloX® 180 with tunnel for precast concrete for magnet attachment | **11** Universal installation housing with mineral fibreboard | **12** One-gang junction box without plaster skin with a depth of 48.5 mm

One-gang junction boxes and system components

for horizontal prefabrication

Mounting options



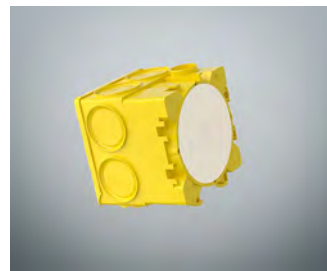
The KAISER special adhesive is factory-applied (not for Art. No. 1264-61).



The KAISER adhesive foil is suitable for one-gang junction boxes with plaster skin.



The KAISER B2 magnet is secure and reusable with boxes without plaster skin.



The hot glue is suitable for all versions with plaster skin.

Conduit connector Ø 20/25



With built-in conduit lock designed especially for corrugated conduits.



Clip the conduit connector to the one-gang junction box.



Press the connector downwards and completely punch out the feed-through.



Insert the conduit into the connector.

Note

The large number of markings for DIN EN conduits or conduit connectors with Ø 16, 20, 25, 32 or 40 mm permits a wide range of feed-throughs and offers a large number of combination possibilities for conduits and installation boxes.

Conduit connector Ø 32/40 mm



With built-in conduit lock designed especially for corrugated conduits.



Insert the tip of the conduit connector in the marked position.



Turn the conduit connector with pressure against the one-gang box until the feed-through is cut out.



Clip the connector into place, insert the conduit into the connector.

Conduit connector 60°



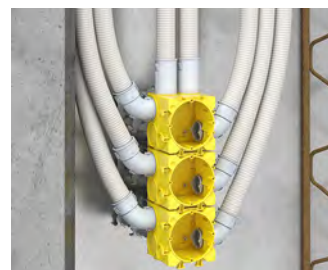
Latching of the two halves of the 60° conduit connector.



Insert the point of the 60° conduit connector at the required conduit entry and turn until the feed-through is cut out.



Insert the conduit into the latched-in 60° conduit connector.





3-way combination with inserted conduits in the wall area.

One-gang junction box with plaster skin

- 4 screw domes, distance 60 mm
- can be attached to formwork using special adhesive, adhesive foil, magnet or hot glue





3D animation

Depth	48,5 mm	68,5 mm	83,5 mm
Diameter	60 mm	60 mm	60 mm
Markings for cables and DIN EN conduits to Ø 16 mm	4	4	2
Markings for cables and DIN EN conduits up to Ø 25 mm	4	8	-
Markings for cables and DIN EN conduits to Ø 32/40 mm	-	-	4
 / 	• / •	• / •	• / •
Art. No.	1262-60	1263-60	1264-60
Inner packaging/shipping	- / 100	- / 100	- / 100

One-gang junction box with plaster skin and special adhesive

- 4 screw domes, distance 60 mm
- Attachment to formwork via special adhesive is possible



Depth	48,5 mm	68,5 mm
Diameter	60 mm	60 mm
Markings for cables and DIN EN conduits to Ø 16 mm	4	4
Markings for cables and DIN EN conduits up to Ø 25 mm	4	8
With special adhesive	•	•
 / 	• / •	• / •
Art. No.	1262-70	1263-70
Inner packaging/shipping	- / 100	- / 100



One-gang junction boxes and system components

for horizontal prefabrication

One-gang junction box without plaster skin

- 4 screw domes, distance 60 mm
- Attachment to formwork by means of a magnet (1261-80)





Depth	48,5 mm	68,5 mm	83,5 mm
Diameter	60 mm	60 mm	60 mm
Markings for cables and DIN EN conduits to Ø 16 mm	4	4	2
Markings for cables and DIN EN conduits up to Ø 25 mm	4	8	-
Markings for cables and DIN EN conduits to Ø 32/40 mm	-	-	4
 / 	• / •	• / •	• / •
Art. No.	1262-61	1263-61	1264-61
Inner packaging/shipping	- / 100	- / 100	- / 100

One-gang junction box without plaster skin, with special adhesive

- 4 screw domes, distance 60 mm
- Attachment to formwork via special adhesive is possible



Depth	48,5 mm	68,5 mm
Diameter	60 mm	60 mm
Markings for cables and DIN EN conduits to Ø 16 mm	4	4
Markings for cables and DIN EN conduits up to Ø 25 mm	4	8
With special adhesive	•	•
 / 	• / •	• / •
Art. No.	1262-71	1263-71
Inner packaging/shipping	- / 100	- / 100

Conduit connector

- for punching out markings without tools
- accepts rigid and flexible DIN EN conduits



DIN EN conduit Ø	20 mm	25 mm	32 mm	40 mm
Art. No.	1261-20	1261-25	1261-32	1261-40
Inner packaging/shipping	- / 100	- / 100	- / 100	- / 100

Conduit connector 60°

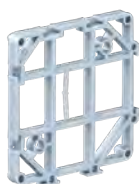
- space-saving entry of conduits in confined spaces, e.g. door and window areas
- for punching out markings without tools
- for fitting flexible DIN EN conduits 25 mm



Art. No.	1266-25
Inner packaging/shipping	- / 100

Distance piece 142

- for connecting to all one-gang junction boxes at 142 mm centre distance
- for separate covering, e.g. low-voltage in combinations with sockets with protection against accidental contact.
- also for overhead boxes
- with push-stud connector for extension elements



Art. No.	1261-18
Inner packaging/shipping	- / 50

Magnet

- for fixing terminals in the box
- for shockproof fixing of one-gang junction boxes in horizontal formwork
- Adhesive force 900 N
- after striking of the formwork, the magnet remains on the formwork table
- Centering for correct positioning in the case of automated manufacture



NEW

Art. No.	1261-81
Inner packaging/shipping	- / 5

Plaster compensation ring

- for latching on the one-gang junction box
- screw distance to equipment attachment 60 mm
- with moulded-in plaster skin to prevent ingress of cleaning material



Height	14,5 mm
Diameter	60 mm
Art. No.	1261-60
Inner packaging/shipping	25 / 250

FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

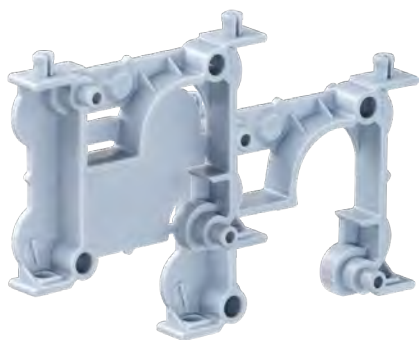
FIRE PROTECTION

SURFACE

CABLE GLANDS

TOOLS

SERVICE



10–100 mm extension element

Extension element for bridging wall thicknesses and supporting one-gang junction boxes during installation on the opposing formwork. Bridging of up to 100 mm (plus box dimensions) can be underpinned securely in increments of 10 or 50 mm.

- For installation of overhead one-gang junction boxes
- Fitting height: vertical 50 mm, horizontal 10 mm
- can be attached to one-gang junction boxes or abutment using push-stud conduit connector
- Clip the connector into place, insert the conduit into the connector.



Processing instructions



Connected crossways, the elements provide stable and non-distorting support.



A wide range of possibilities for adjusting the installation height.



Different installation heights can be created in 10 mm increments.



The abutment is needed for upper boxes as a starter element on the formwork table. It is available with or without special adhesive and can be combined with extension elements and one-gang junction boxes.

Extension element 10 to 50 mm

- for fitting of overhead one-gang junction boxes at greater heights
- can be attached to one-gang junction boxes or abutment using push-stud conduit connector



Installation heights, horizontal	10 mm
Installation heights, vertical	50 mm
Art. No.	1261-10
Inner packaging/shipping	- / 50

Abutment

- for fitting of overhead one-gang junction boxes at greater heights
- for fixing to formworks

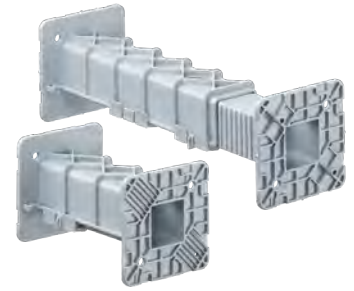


With special adhesive	-	•
Art. No.	1261-11	1261-72
Inner packaging/shipping	- / 50	- / 50

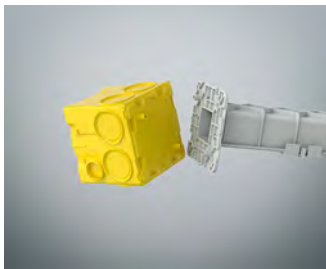
Universal extension element from 105 mm

Universal extension element for bridging wall thicknesses of more than 105 mm and supporting one-gang boxes during installation on the opposing formwork. Thanks to the various sizes, heights of 105 mm up to 300 mm (plus box dimensions) can be bridged in increments of 5 mm.

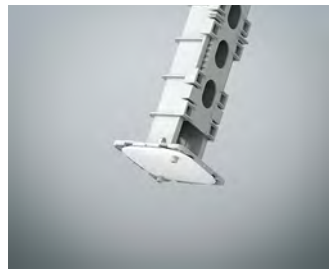
- For installation of overhead one-gang junction boxes
- Height adjustable in increments of 5 mm
- Can be attached to one-gang junction boxes using push-button connection



Processing instructions



Connect the universal extension element and the one-gang junction box using the push-button connection.



Attach the universal extension element to the formwork table with hot glue.



The correct height is achieved by simply assembling the two halves.

Note

For lengths of less than 105 mm, the two parts are simply shortened and put back together again.

Universal extension element

- for fitting of overhead one-gang junction boxes at greater heights
- height adjustable in increments of 5 mm



Length (+ box installation height)	105 - 170 mm	175 - 300 mm	105 - 170 mm	175 - 300 mm
attached using hot glue on formwork table	•	•	-	-
can be attached to one-gang junction boxes or abutment using push-stud conduit connector	-	-	•	•
Art. No.	1261-06	1261-07	1261-08	1261-09
Inner packaging/shipping	- / 50	- / 50	- / 50	- / 50



Large slab ceiling

Large slab ceiling box for factory installation in prefabricated ceilings. The large slab ceiling boxes are already integrated in the ceilings when these arrive at the building site. This permits fast on-site laying of empty conduits.

- Large adhesive area with rough surface structure for a secure fit on the formwork table
- Installation height guarantees optimal transport conditions for prefabricated ceilings
- Quick-release cover for fast cutting of conduit entries using punch pliers
- Integrated cap nut M5 ensures secure fitting of a light hook.



Slab ceiling large box 115


- for factory fitting
- Installation height 115 mm, with metal nut M5 for light hook (min. hook length: 115 mm + plaster thickness)
- with screw-down cover for onsite fitting of conduits
- suitable for all types of formwork
- maximum light hook load to DIN EN 60670 100 N (10 kg)



Slab ceiling large box 105

- for factory fitting
- installation height 105 mm, with metal nut M5 for light hook (min. hook length 105 mm + plaster thickness)
- for space frame heights up to 11 cm (incl. distance pieces)
- with screw-down cover for onsite fitting of conduits
- suitable for all types of formwork
- maximum light hook load to DIN EN 60670 100 N (10 kg)



Exit opening Ø	60 mm	60 mm
Depth	115 mm	105 mm
Markings for cables and DIN EN conduits up to Ø 25 mm	8	8
Markings for cables and DIN EN conduits up to Ø 32 mm	4	-
Number of parts	2	2
especially suitable for hot glue attachment	•	•
	•	•
Art. No.	1227-55	1227-54
Inner packaging/shipping	- / 100	- / 100

Light hook

- for retrofitting ceiling boxes (EN 60670)
- maximum light hook load to DIN EN 60670 100 N (10 kg)
- with M5 thread, fully-insulated



Length of shank	105 mm	115 mm	125 mm
Diameter hook	26 mm	26 mm	26 mm
Overall length	132 mm	143 mm	151 mm
Thread length	10 mm	10 mm	10 mm
Art. No.	1226-97	1226-98	1226-99
Inner packaging/shipping	- / 100	- / 100	- / 100

Wall and ceiling transition

Wall and ceiling transition for uninterrupted conduit connections and wall and ceiling exits. The exact distance to the formwork edgings can be set and fixed in 5 mm increments with the integrated measurement strip.

- For secure conduit connections on prefabricated concrete elements
- For fitting to formwork edging
- For rigid and flexible DIN EN conduits Ø 25 mm
- For locating exact height thanks to integrated measurement strip



Installation



The exact position is achieved with the help of the measurement strip and by gluing it to the formwork edging.



The moulded closing cover protects the opening against dirt and concrete. Simply open it prior to installation.



Insert the conduit into the clean installation opening.



Wall exit of a prefabricated wall as transition to the filigree ceiling.

Wall and ceiling transition

- for fitting to formwork edging
- with moulded-in measurement strip to achieve the exact installation height in 5 mm steps
- with closing cover to prevent ingress of material



DIN EN conduit Ø	25 mm	25 mm
With special adhesive	-	•
Art. No.	1261-12	1261-73
Inner packaging/shipping	- / 100	- / 100



90° wall and ceiling transition

90° wall and ceiling transition for uninterrupted conduit connections and wall and ceiling exits. The 90° bend makes it much easier to pull the cables through at a later stage.

- For secure conduit connections on prefabricated concrete elements
- For fitting to formwork edging
- For rigid and flexible DIN EN conduits
- Upper conduit entry above the filigree ceiling, for laying conduits on the building site



Processing instructions



The 90° bend ensures clean transitions and easy cable routing. Just glue the wall and ceiling transition to the formwork edging.



The clip nose is used for securing corrugated conduits with Ø 20 or Ø 25 mm.



Two integrated closing covers protect against dirt and concrete penetration.



Wall and ceiling transition 90°

- for easier drawing of cable through 90° bends
- for fitting to formwork edging
- accepts rigid and flexible DIN EN conduits
- with closing cover to protect against foreign bodies



DIN EN conduit Ø	20 mm	25 mm
Art. No.	1261-16	1261-14
Inner packaging/shipping	- / 100	- / 100

Oval funnel

The oval funnel simplifies the exact joining of prefabricated concrete elements with integrated installation conduits. It guarantees safe conduit entry and provides a tolerance compensation of 1 cm or 2 cm during installation.

- Tolerance compensation when joining the concrete elements
- For industrially prefabricated ceiling and wall elements as well as on-site mixed concrete
- For secure connection of installation conduits on transitions of prefabricated concrete elements
- Precise joining of electrical installation conduits
- Tolerance compensation: 2 cm in longitudinal direction and 1 cm in transverse direction.



Tolerance compensation when joining the concrete elements



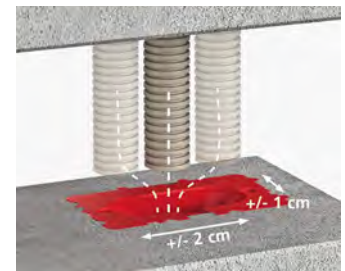
Compensation in longitudinal direction ± 20 mm.



Compensation in transverse direction ± 10 mm.



Wall-ceiling transition 90° using the oval funnel.



Oval funnel

- for the simple connection of DIN EN conduits with tolerance compensation for wall-wall and wall-ceiling transitions
- for installation on the transition edge
- accepts rigid and flexible DIN EN conduits
- with closing cover to prevent ingress of material



DIN EN conduit Ø	20 mm	25 mm
Art. No.	1261-42	1261-43
Inner packaging/shipping	- / 100	- / 100

International products

for accessory installation in accordance with national standards



International products

For international projects, we offer a large range of products which meet the relevant national standards and regulations.

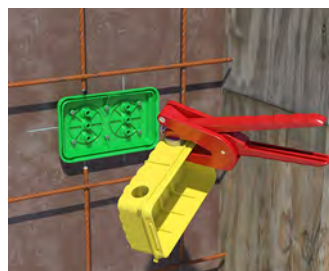
- Dimensions and approvals based on national standards
- Suitable installation tools
- Many combination options



Installation



Fix the front part to the formwork (nail or screw fitting).



Make conduit entry (punch pliers or universal opening cutter).



Insertion of the conduits through exact openings.



Easy installation via snap-in connection.



Tie lugs provide additional security if extreme loads are expected.

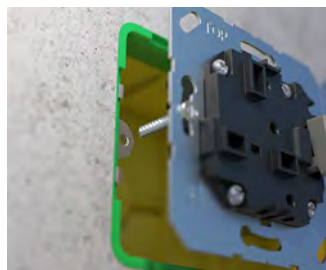
Examples of use



Open the concrete construction boxes and fit the accessory.



Easy to click the slide nuts into place...



...and position the accessories exactly.

One-gang box (Italian and American standard)


- for 3 modules in monoblock construction (single row)
- installation opening 60 x 90 mm



One-gang box (Italian and American standard)

- Screw spacing device 2 x 83.5 mm, for installing Italian and American inserts
- for 2x3 modules in monoblock construction (double row)
- installation opening 72 x 105 mm



Length x Width x Depth	100 x 68 x 55 mm	128 x 128 x 80 mm
Screw spacing	83 mm	-
Markings for cables and DIN EN conduits up to Ø 25 mm	8	-
Number of parts	2	2
Entry fields	8	8
possible DIN EN conduit sizes per entry field: 4 x 16 mm Ø, 3 x 20 mm Ø, 1 x 25 mm Ø, 1 x 32 mm Ø, 1 x 40 mm Ø	-	•
	-	•
Art. No.	1200-00	1295-02
Inner packaging/shipping	- / 100	- / 10

One-gang box for 1 gang British accessories

- equipment can be aligned at any time by using to M 3.5 slide nuts
- Certified to BS 4662



One-gang box for 2 gang British accessories

- equipment can be aligned at any time by using to M 3.5 slide nuts
- Certified to BS 4662



Length x Width x Depth	89 x 89 x 60 mm	149 x 89 x 60 mm
Screw spacing	60,3 mm	120,6 mm
Installation opening	68 x 68 mm	68 x 128 mm
Markings for cables and DIN EN conduits up to Ø 32 mm	4	6
Number of parts	2	2
Art. No.	1223-41	1224-41
Inner packaging/shipping	- / 100	- / 100

Slide nuts for British accessories inserts

- 2 items required per one-gang box
- for clipping into equipment one-gang boxes 1223-41/1224-41
- protected against corrosion







Art. No.	1224-99
Inner packaging/shipping	- / 100

One-gang box combinations (Swiss standard)

- incl. stabilising cover






Length x Width x Depth	78 x 78 x 58 mm
Break-out openings Ø 20 mm	9
Combination conduit entries M20/25	2
 / 	• / •
Number of nails	•
 650 °C / 	• / •
Art. No.	9918
Inner packaging/shipping	- / 50

Flush-mounted box

- Nail channels used for Prefix® connection
- Increased stability
- External nailing points
- With partitions and stabilization covers
- for device screws Ø 3 mm
- max. tightening torque 0.5 Nm



NEW

Length x Width x Depth	137 x 77 x 70 mm	197 x 77 x 70 mm	257 x 77 x 70 mm
Conduit entries M20	6	6	6
Conduit entries M25	6	6	6
Combination	2x1	3x1	4x1
Combination conduit entries M20/25	2	2	2
 /  650 °C	• / •	• / •	• / •
Drilling Center max. Ø 40 mm	--	2	4
	•	•	•
Art. No.	9902.22	9902.23	9902.24.40
Inner packaging/shipping	- / 48	- / 28	- / 20

Flush-mounted box

NEW



- Nail channels used for Prefix® connection
- Increased stability
- External nailing points
- With partitions and stabilization covers
- for device screws Ø 3 mm
- max. tightening torque 0.5 Nm



Length x Width x Depth	137 x 137 x 70 mm	197 x 137 x 70 mm	257 x 137 x 70 mm	197 x 197 x 70 mm
Conduit entries M20	8	8	8	8
Conduit entries M25	8	8	8	8
Combination	2x2	3x2	4x2	3x3
Combination conduit entries M20/25	4	4	4	4
CE, 650 °C	• / •	• / •	• / •	• / •
Drilling Center max. Ø 40 mm	--	2	4	4
Ⓢ	•	•	•	•
Art. No.	9902.24	9902.26	9902.28	9902.29
Inner packaging/shipping	- / 12	- / 8	- / 8	- / 8

Prefix® wings for flush-mounted box

NEW



- allows fastening to the reinforcement
- Fast, easy installation directly onto the opposing formwork without support element and abutment
- Prefixing using Prefix® installation technology leaves both hands free for attaching with wires



Length x Width x Height	150.1 x 59 x 16 mm	150.1 x 59 x 16 mm
Number of wings	4	12
650 °C	•	•
Art. No.	9940.25	9940.50
Inner packaging/shipping	- / 5	- / 10

FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

SURFACE

CABLE GLANDS

TOOLS

SERVICE

Prefix® concrete building box

- Fast, easy installation directly onto the opposing formwork without support element and abutment
- Prefixing using Prefix® installation technology leaves both hands free for attaching with wires
- Can be combined to create standardised stable multiple combinations
- for device screws Ø 3 mm
- max. tightening torque 0.5 Nm



3D animation




Exit opening Ø	30 mm
Depth	97 mm
Combination	1x1
  650 °C	• / •
	•
Art. No.	9940
Inner packaging/shipping	- / 10

Prefix® 2.0 concrete construction box

- + 54 % more volume
- Extended assortment 1x1, 2x1 NUP, 3 x 1 NUP
- Extremely stable design



NEW

Depth	90 mm	90 mm	90 mm
Combination	1x1	2x1 NUP	3x1 NUP
Break-out openings Ø 20 mm	8	16	24
Break-out openings Ø 25 mm	8	16	24
Combination conduit entries M20/25	4	4	4
  650 °C	• / •	• / •	• / •
Drill holes M32	4	4	4
Opening wall outlet	30	30 mm	30
	•	•	•
Art. No.	9941	9941.25	9941.35
Inner packaging/shipping	- / 15	- / 5	- / 5

Separator walls

- for separating junction casings from electrical circuit
- can be retrofitted
- halogen-free



for casing size	180 x 180 mm	250 x 220 mm
Art. No.	1296-20	1297-20
Inner packaging/shipping	- / 10	- / 10

Cover

- flat cover edge
- surface roughened
- countersunk for screw heads




For casing size - concrete construction boxes	128 x 128 mm	180 x 180 mm	250 x 220 mm
For casing size - flush-mounting boxes	107 x 107 mm	159 x 159 mm	238 x 208 mm
For casing size - cavity wall boxes	105 x 105 mm	165 x 165 mm	235 x 205 mm
Fireproof	850 °C	850 °C	850 °C
Art. No.	1095-93	1096-93	1097-93
Inner packaging/shipping	10 / 500	10 / 200	5 / 100

Universal VDE cover

- for all one-gang, one-gang junction and junction boxes
- with central exit for light hook
- flat cover edge
- surface roughened



Diameter	92 mm	92 mm
Screw spacing	60 / 67 mm	60 / 67 mm
Halogen-free	-	•
Fireproof	850 °C	850 °C
	•	•
Art. No.	1184-90	1184-77
Inner packaging/shipping	25 / 250	25 / 250

Universal waterproof cover

- central entry with stoppers
- for countersunk screws Ø 4 mm



Diameter	90 mm
Screw spacing	67 mm
Halogen-free	•
Fireproof	850 °C
Art. No.	1174-99
Inner packaging/shipping	- / 10

End covers and separator walls

for on-site mixed concrete

Plug-in cover

- with central plug-in connector
- for Art. Nos. 1245-60/-62/-63 and 1246-57
- for mounting wood screw Ø 3.5 mm, head Ø 6.5 - 7 mm, attach centrally in cover exit
- screw not included



Height	5 mm
Diameter	98 mm
Colour	RAL 9010
CE / S	• / •
850 °C	•
Art. No.	11081
Inner packaging/shipping	- / 10

Plug-in cover with cable outlet

- with central plug-in connector
- for Art. Nos. 1245-60/-62/-63 and 1246-57
- for mounting wood screw Ø 3.5 mm, head Ø 6.5 - 7 mm, attach centrally in cover exit
- screw not included



Height	5 mm	22 mm
Diameter	98 mm	80 mm
Colour	RAL 9010	RAL 9010
CE / S	• / •	• / •
850 °C	•	•
Art. No.	11082	11088
Inner packaging/shipping	- / 10	- / 10

Cover with mounting ring

- can also be used as cover for reserve conduit exits
- attach the mounting ring (included) to the exit and place the end cover in position (bayonet fitting)
- for Art. Nos. 1245-60/-62/-63 and 1246-57



Height	15 mm
Outer diameter	100 mm
Art. No.	10100
Inner packaging/shipping	- / 10

Conduit and cable distance support

- attachment to formwork using expanding dowels, nails or screws
- halogen-free



Conduit and cable distance piece for 1270-00	-	•
For fixing cable and conduit to formwork	•	-
Art. No.	1270-00	9060-95
Inner packaging/shipping	- / 1000	1000 / 30000

Plug-in cover

- breakout openings for wiring and light hook
- plug-in depth min. 3 mm max. 15 mm



Diameter	35 mm	60 mm
Art. No.	1148-93	1259-96
Inner packaging/shipping	25 / 100	25 / 250

Expanding dowel

- for quick fixing to steel formwork
- 1-piece in plastic
- for boxes, casings, bushes etc.
- drill hole size required Ø 5.5 mm



Diameter	5,5 mm
Art. No.	1217-02
Inner packaging/shipping	500 / 2500

Magnet

- for anti-shock fixing of boxes in horizontal formwork
- for vertical formwork, additional support by means of support element and abutments is necessary
- for degreasing formwork
- for all boxes with Ø 60 mm opening, except for the boxes from the B² range



Diameter	60 mm
Art. No.	1220-02
Inner packaging/shipping	- / 5

FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

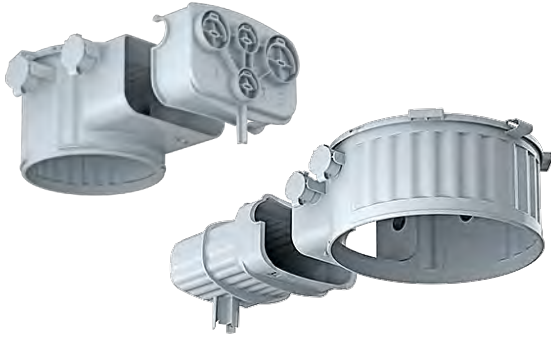
FIRE PROTECTION

SURFACE

CABLE GLANDS

TOOLS

SERVICE



Installation housings for concrete construction

- Free space for luminaires and loudspeakers in concrete ceilings and walls
- Modular and flexible for all installation diameters and depths
- For on-site mixed concrete and precast concrete
- Optional for facing concrete
- Toolless combination entry for M20/M25 conduits – can be reclosed
- Optimal thermal management because of maximum contact surface to the concrete
- Shape-retaining, resilient - easy to process
- All housings are available with and without a tunnel
- Housings and front parts are friction-locked and stable with each other and can also be freely aligned at a later date















Installation housing for walls and ceilings

- Free space for luminaires and loudspeakers
- Prevent latent fire hazard
- Verifiable, permanent maintenance of airtightness according to DIN 18015-5 or DIN 4102-7
- Systems for new construction and renovation



Fire protection housing

- Safe, certified fire protection housing for built-in luminaires and loudspeakers in fireproof ceilings.
- Integrated fire-retardant coating in fire-protection ceilings maintains the ceiling's fire-resistance class F30 (EI30).
- Prevents the spreading of fire and smoke, which secures escape routes
- Suitable for fire stress from above and below

Concrete construction					
	HaloX® 100  p. 218	HaloX® 100 Multi-conduit entry  p. 218	HaloX® 180  p. 218	HaloX® 250  p. 218	KompaX®1/ KompaX®2  p. 239
Installation dimensions for luminaire, loudspeaker					
max. installation diameter luminaire/loudspeaker	100 mm	100 mm	180 mm	250 mm	300 mm
max. installation depth luminaire/loudspeaker	110 mm	110 mm	110 mm	110 mm	110 mm
Use in facing concrete	•	•	•	•	•
For universal installation Ø	•	•	•	•	•
Conduit entries up to M40	-	•	-	-	-
Installation option					
Ceiling installation	•	•	•	•	•
Wall installation	•	•	•	•	-
Concreting method					
On-site mixed concrete	p. 220	p. 220	p. 220	p. 220	p. 239
Precast concrete	-	-	p. 234	p. 234	p. 239
Walls and ceilings					
	ThermoX® LED for rigid and pivoting LED built-in luminaires  p. 254	ThermoX® for low-voltage and high-voltage built-in luminaires  p. 260	Spacer for luminaires, loudspeaker and presence detectors  p. 266	EnoX® for halogen spot-lights, LED luminaires and displays  p. 257	Installation housing ThermoX® Iso + for LED luminaires up to 8 Watt  p. 62
Product details					
Installation under the air-tight level	•	•	•	•	-
Installation inside the air-tight level	•	•	-	•	-
Installation in the insulated level	-	-	-	-	•
Housing height	70/95 mm	90 mm	40 - 100 mm	60 mm	100 - 160 mm
max. installation diameter luminaire/loudspeaker	70/81 mm	up to max. 86 mm	68 - 80 mm	up to max. 120 mm	up to max. 86 mm
max. installation depth luminaire/loudspeaker	60/85 mm	65/70 mm	95 mm	57 mm	70 - 130 mm
Installation options					
Retrofitting	•	•	•	-	-
Wall installation	-	-	-	•	-
Ceiling installation	•	•	•	•	•
Fire protection					
	FlamoX® – for luminaires and loudspeakers  p. 303  p. 303				
Installation dimensions for luminaires and loudspeakers					
max. installation diameter luminaire/loudspeaker	100 mm		180 mm		
For universal installation diameters	•		•		
max. installation depth luminaire/loudspeaker	100 mm		150 mm		
Installation options					
Retrofitting	•		•		
In self-supporting sub-ceilings EI30/F30	•		•		
Installation without additional suspension	•		•		
Installation without additional fire-protection materials or sealing compounds	•		•		



HaloX®

Free space for planning, installation
and ambience.

One system for all situations



HaloX® for on-site mixed concrete

The modular housing system for ceilings and walls is available in three housing sizes with fixed or variable installation diameters up to 250 mm even for facing concrete requirements.

p. 220



HaloX® for precast concrete

The modular housing system for walls and ceilings is available in two housing sizes with fixed or variable installation diameters up to 250 mm (up to 210 mm with tolerance compensation).

p. 234



HaloX® for retrofitting

HaloX® for the retrofitting of installation housings in slab ceilings and solid ceilings. After a core drilling has been made, the housings can be expanded in accordance with the ceiling thickness.

p. 231

One system for all situations – for fitting in on-site mixed concrete, the front parts can be nailed to the working formwork. Prefix® installation sets are available for fixing to the opposing formwork. For pre-cast concrete, the housings can be fitted using glue or a magnet.

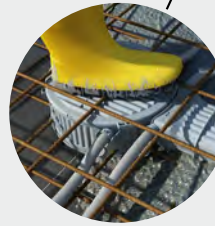


Combination entry for M20/M25 conduits – toolless opening technology with secure conduit retention and depth stop with no need for internal shortening of the conduits. Can be repopulated for later alterations or incorrect population.



Shape-retaining and loadable.

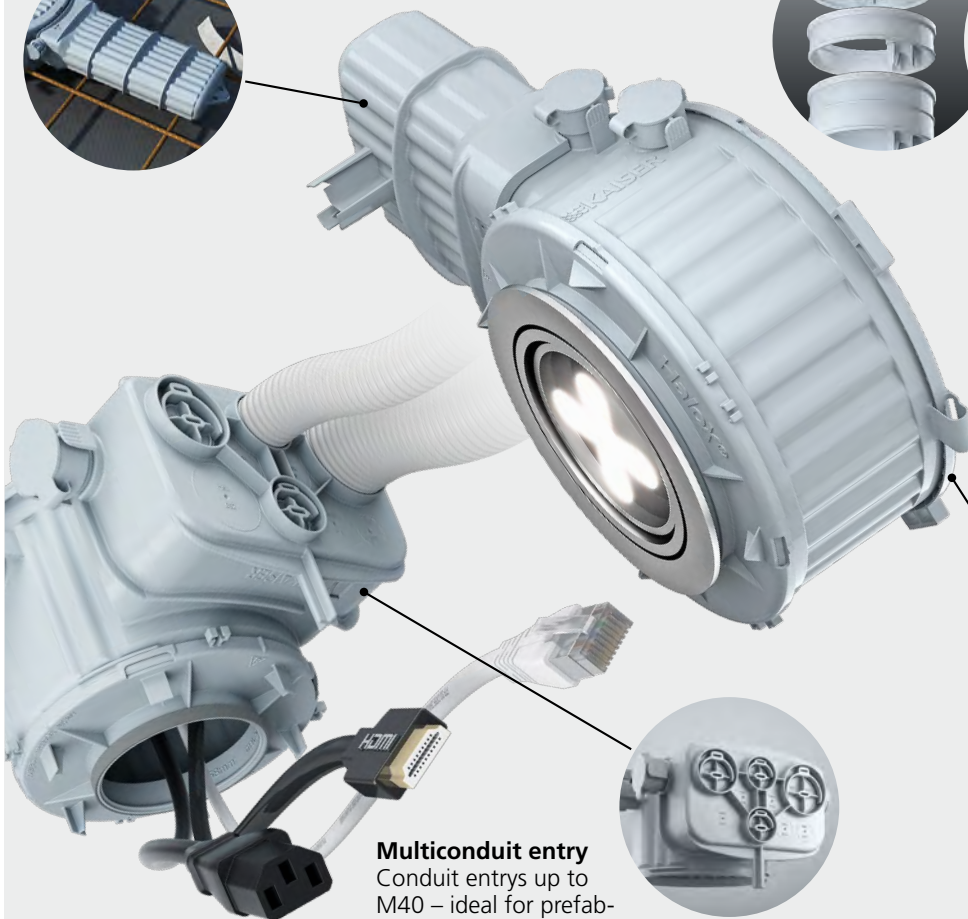
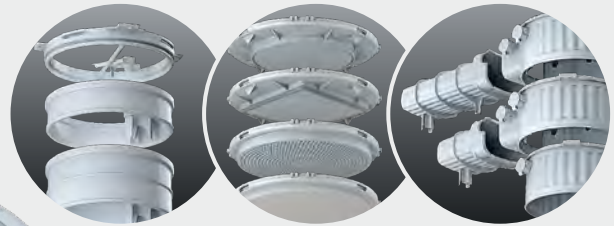
Compact housing with stabilising wave profile provides the necessary stability during concreting – even under extreme loads.



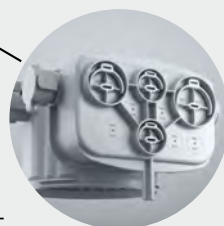
Pressure-resistant tunnel for holding operating devices. Minimal effect on the statics – no reinforcement cuts required in the tunnel area



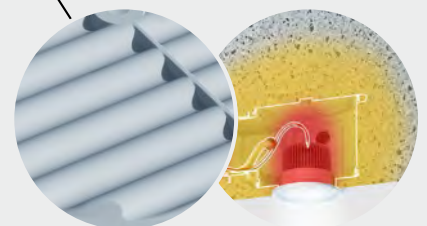
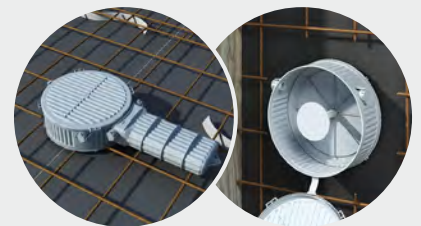
Continuous housing system – modular, flexible for luminaires and loudspeakers in all heights and with installation diameters up to 250 mm.



Multiconduit entry
Conduit entries up to M40 – ideal for prefabricated cables.



For ceilings and walls



Wave-shaped surface profile ensures maximum housing surface for optimal heat dissipation via the concrete



HaloX® concrete installation housing

The new HaloX® housing system offers space for new light or sound in concrete ceilings and walls. Shape-retaining, loadable and in a modular design, the HaloX® system provides a secure installation compartment for loudspeakers and luminaires with LED, halogen or compact fluorescent lamps. Round, square or universal front parts ensure that any device up to a ceiling cut-out of 250 mm can be installed, even when facing concrete is required. Optional extension rings provide more space for greater installation depths. The toolless combination entry for M20/M25 conduits is easy to internal and, even with incorrect occupancy, is easily closed again. It provides secure conduit retention with depth stop, so there is no need for later internal shortening of the conduits.

- For on-site mixed concrete and precast concrete - for wall and ceiling
- For luminaires and loudspeakers with installation diameters up to 250 mm
- All housings available with and without a tunnel
- Toolless opening technology for entries M20/M25
- Optimal thermal management on the basis of maximum surface contact to the concrete
- Minimal effect on the statics - no cuts to the reinforcement required in the tunnel area



Application



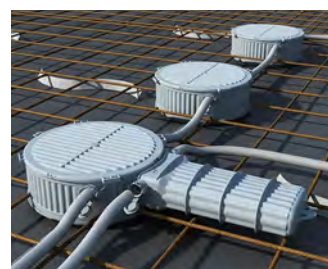
HaloX® with innovative toolless opening technology.



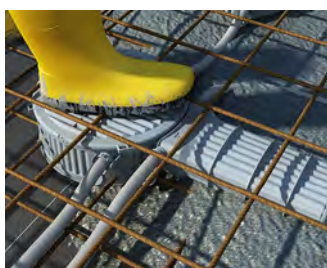
Toolless combination entry M20/M25 - secure with high retention force. No internal shortening of conduits is necessary.



HaloX® housings are available with and without a tunnel - in all sizes



Shape-retaining, loadable and easily fitted. Safe place for new light or sound.



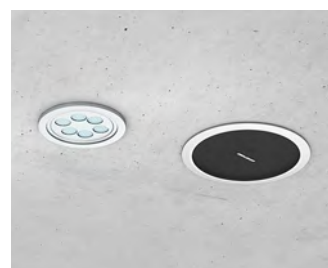
Shape-retaining, resilient and easy to process. HaloX® ensures a secure place for new light or modern sound.



Minimal effect on the statics – no additional cuts to the reinforcement in the area of the tunnel as it has a clearance of 40 mm to the formwork.



The high contact surface of the housings conducts the heat directly away via the concrete and in this way prevents excessively high temperatures in the housing.

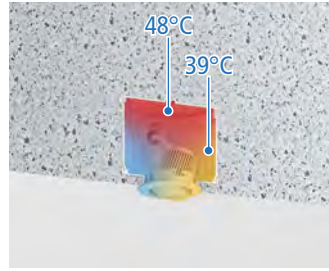


HaloX® creates a secure installation compartment for luminaires and loudspeakers in concrete ceilings and walls.

Temperature management for HV LED and LV LED luminaires



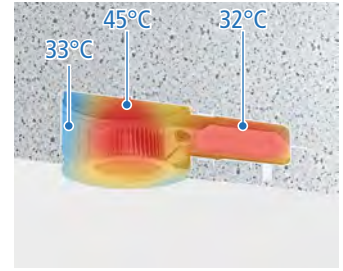
230V built-in LED luminaire with 68 mm installation diameter



Temperature profile 230V built-in LED luminaire max. 20 W



LV LED luminaire installation diameter 140 mm

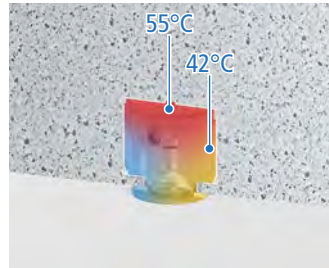


Temperature profile LV LED luminaire max. 35 W

Temperature management for HV halogen and TC luminaires



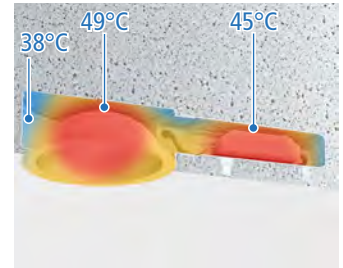
230V built-in luminaire with 100 mm installation diameter



Temperature profile HV halogen luminaire max. 75 W (230V)

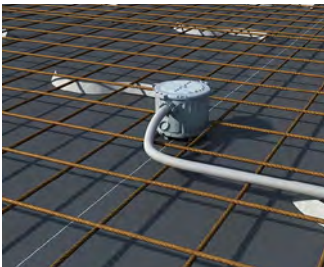


Installation downlight TC-TEL 2 x 26 W with installation diameter of 215 mm



Temperature profile installation downlight TC-TEL with 2 x 26 W

Connection conditions and switching examples for LED and LV halogen luminaires



Connection and conduit entry for a 230V LED luminaire

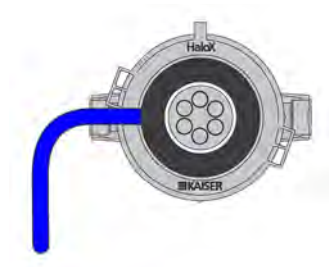
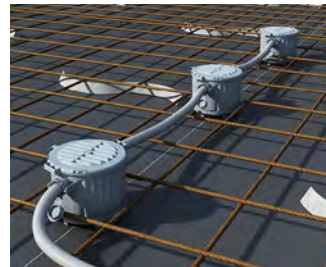


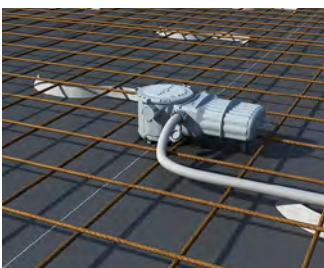
Diagram of single circuit



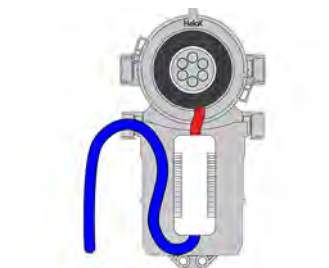
Group switching HV halogen luminaires



Schematic diagram of group switching



Connection and conduit entry LED luminaire with operating device.



Schematic diagram of luminaire with driver

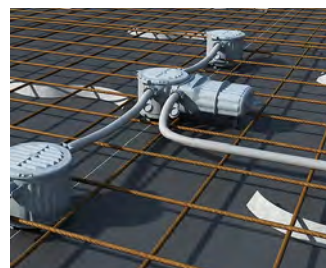
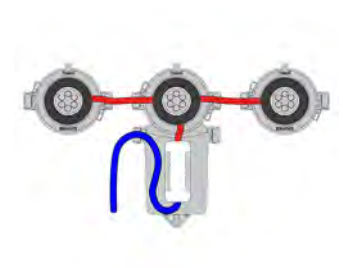


Diagram of group switching with one driver for more than one luminaire



Schematic diagram of group switching with an operating device.

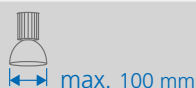
HaloX® system overview for on-site mixed concrete

for luminaires and loudspeakers

System overview of HaloX® for on-site mixed concrete

1 Installation space for luminaires / loudspeakers and operating devices

without additional space for operating devices



HaloX® 100
1281-00
p. 225



HaloX® 180
1282-00
p. 225



HaloX® 250
1283-00
p. 225



Additional space for operating devices



bis max. 150 x 90 x 50 mm*

HaloX® 100 with tunnel 190
1281-30
p. 225



HaloX® 180 with tunnel 190
1282-30
p. 225



Additional space for larger operating devices



bis max. 280 x 90 x 50 mm*

HaloX® 180 with tunnel 325
1282-40
p. 225



HaloX® 250 with tunnel 325
1283-40
p. 225



For prefabricated cables
Conduits up to M40

HaloX® 100 multi-conduit entry
1281-15
p. 226



* max. dimension of operating devices must be checked depending on the installation opening

2 Installation diameter for luminaires/loudspeakers



round
Front parts round

Ø 68 - 100 mm
p. 226

Ø 100 - 180 mm
p. 228

Ø 180 - 250 mm
p. 229



square
Front parts square

68x68 - 75x75 mm
p. 227

—

—



Facing concrete: round
Front parts with elastomer seal for facing concrete

Ø 68 - 100 mm
p. 227

Ø 100 - 180 mm
p. 228

Ø 180 - 250 mm
p. 229



Facing concrete: square
Front parts square with elastomer seal for facing concrete

68x68 - 75x75 mm
p. 227

—

—



universal
Universal front part plastic or mineral fibreboard

Ø max. 100 mm
p. 228

Ø max. 180 mm
p. 228

Ø max. 250 mm
p. 229

specific
Individual Styrofoam moulded parts (optional for facing concrete)

p. 230/246

p. 230/246

p. 230/246

3 Installation depth



Installation height
> 110 mm



Extension rings 10/25/50 mm
1281-21/25/50 | p. 230/232/233



Extension rings 25/50 mm
1282-25/50 | p. 230/238



Extension rings 25/50 mm
1283-25/50 | p. 230/238

4 Accessories for wall installation



Wall installation in vertical formwork



Prefix® installation set for fixing to the reinforcement
1299-65 | p. 230



Wall installation set for fitting in vertical formwork
1299-60...64 | p. 230



Prefix® installation set for fixing to the reinforcement
1299-66 | p. 230

Concrete installation housing HaloX® (on-site mixed concrete)

The shape-retaining HaloX® system has a modular design for fitting in on Site mixed concrete. Three housing diameters with a large number of round, square and universal front parts allow the integration of luminaires and loudspeakers up to an installation diameter of 250 mm, including in facing concrete. With a tunnel, the system provides sufficient space for the fitting of operating devices such as LED drivers. Optional extension rings increase the installation depth. All front parts are moisture-repellent and can be positioned exactly and nailed-on even before the first reinforcement is laid. Housings and front parts are firmly and stably latched together and can still be aligned as required afterwards. By means of the toolless, opening technology with M20/M25 combination entry, conduits can be inserted quickly and easily and even if the population is incorrect, the entry can easily be closed again. It provides secure conduit retention with a depth stop, so there is no need for later internal shortening of the conduits. After casting, front parts with a defined installation diameter can be opened with a targeted blow of the hammer. The front parts for universal opening dimensions can be plastered locally or plastered over. Then cut the required installation opening using standard cutting tools e.g. MULTI 4000.

- For walls and ceilings
- Housings and front parts are latched together securely and sturdily and can also be aligned later as required
- All housing sizes are available with and without a tunnel
- Toolless opening technology for entries M20/M25
- Optimal thermal management on the basis of maximum surface contact to the concrete
- Minimal effect on the statics - no cuts to the reinforcement required in the tunnel area



System HaloX® for on-site mixed concrete

for luminaires and loudspeakers

Ceiling installation



Nail the front part onto the formwork. After latching the housing on, it can be turned by 360° for alignment.



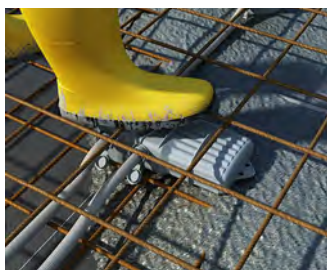
Minimal effect on the statics – no additional cuts to the reinforcement in the area of the tunnel as it has a clearance of 40 mm to the formwork.



By using an intermediate ring, the installation depth can be increased above or underneath the housing.



Toolless combination entry of M20/M25 conduits with conduit stop - no later shortening of the conduits.



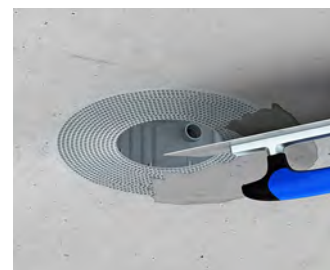
Sturdy and shape-retaining fitting.



After striking the formwork, open the front part with one hammer blow (e.g. Art. No. 1282-65).



Easy and variable creation of the installation opening in the universal front part with (e.g. Art. No. 1083-10).



When the universal front part (e.g. Art. No. 1281-10) is used, smooth the edge area.

Wall installation



Use nails to fasten the front part to the formwork.



When using the housing with a tunnel, align it vertically downwards.



When installing HaloX® 180/250 in addition use wall installation kit (Art. No. 1299-xx).

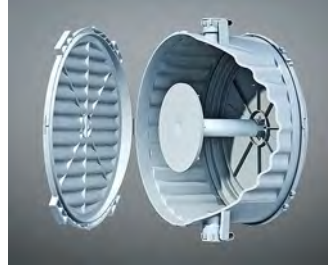


Toolless combination entry for conduits M20/M25.

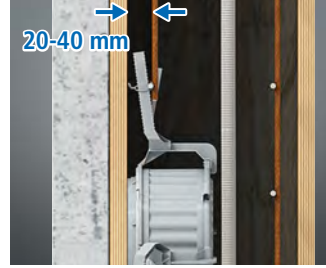
Wall-mounting fixing opposing formwork



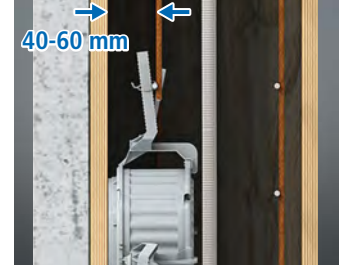
For fitting to the opposing formwork, Prefix® installation sets (Art. No. 1299-65) for HaloX® 100 and (Art. No. 1299-66) for HaloX® 180/250 are available as an option.



When fitting HaloX® 180/250, also use wall installation kit (Art. No. 1299-60).



The Prefix® installation clamps can be latched-on on both sides and are suitable for concrete coverings of 20-40 mm...



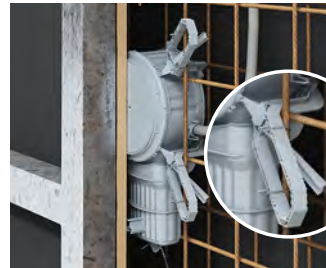
...and 40-60 mm.



Following pre-fixing by using Prefix® installation clamps, both your hands are free to carry out fast, secure fixing to the reinforcement using tie wires.



Now the housing with conduits M20/M25 can be populated – no tools necessary.



Concrete cover after installation with catch mechanism Prefix® installation clamps for 20-40 mm concrete covering.



Concrete covering after installation with catch mechanism Prefix® installation clamps for concrete covering 40-60 mm.

Wall luminaire installation



The concreting process can start after positioning of the opposing formwork.



After striking the formwork, open the front part with one hammer blow (e.g. Art. No. 1282-65).



Easy and variable cutting of the installation opening in the universal front part (e.g. with Art. No. 1089-00).



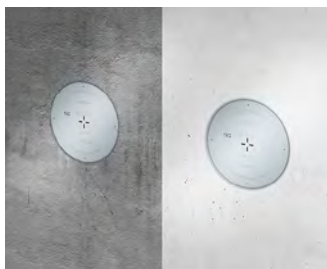
If a universal front part (e.g. Art. No. 1281-10) is used, apply plaster as necessary.

System HaloX® for on-site mixed concrete

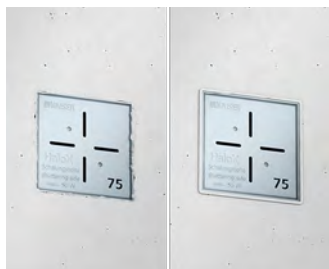
for luminaires and loudspeakers

Processing information: Variants | front parts | facing concrete

Front parts with defined exit sizes are available for all housing sizes, including for facing concrete. Styrofoam mouldings are available for individual installation openings in almost any shape; universal mouldings are suitable for variable or as-yet-undefined ceiling exits.



Round front parts with and without elastomer seal.



Square front parts with and without elastomer seal.



Styrofoam mouldings for individual cut-outs in any shape and size (with and without elastomer seal).



Universal front parts for variable or as-yet-undefined ceiling exits.

Position/alignment and wall installation



The snap-in front parts permit a change to the position of the tunnel after nailing.



For wall installation (housing Ø 180 and Ø 250), use installation set for inner-side support in order to guarantee the secure installation compartment.

Extension rings

Intermediate rings are available to enlarge the installation compartment



HaloX® Ø 100: front-side extension 25 or 50 mm (Art. No. 1281-21, -25, -50).



HaloX® Ø 180: front-side extension 25 or 50 mm (Art. No. 1282-25, -50)



HaloX® Ø 180: rear-side extension 25 or 50 mm (Art. No. 1282-25, -50)



HaloX® Ø 250: extension 25 or 50 mm front or rear (Art. No. 1283-25, -50)

HaloX® (on-site mixed concrete)

NEW

INNOVATION



3D animation

- Toolless combination entry for M20/M25 conduits
- Conduit entry limit to prevent the need for inside shortening of the conduit



System	HaloX® 100	HaloX® 180	HaloX® 250
Ceiling exit (CE) Ø	0-100 mm	0-180 mm	0-250 mm
Max. installation depth luminaire / loud-speaker	110 mm	110 mm	110 mm
LED wattage max.	20 Watt	35 Watt	45 Watt
Lamp wattage max.	50 Watt	75 Watt	100 Watt
Housing diameter Ø	130 mm	210 mm	280 mm
Depth incl. front part	120 mm	120 mm	120 mm
Combination entry for M20/M25 conduits	2	2	2
Art. No.	1281-00	1282-00	1283-00
Inner packaging/shipping	- / 10	- / 10	- / 10

HaloX® with transformer tunnel (on-site mixed concrete)

NEW

INNOVATION



3D animation

- Toolless combination entry for M20/M25 conduits
- Conduit entry limit to prevent the need for inside shortening of the conduit
- No reinforcement cuts in tunnel section area



System	HaloX® 100	HaloX® 180	HaloX® 180	HaloX® 250
Ceiling exit (CE) Ø	0-100 mm	0-180 mm	0-180 mm	0-250 mm
Max. installation depth luminaire / loud-speaker	110 mm	110 mm	110 mm	110 mm
LED wattage max.	20 Watt	35 Watt	35 Watt	45 Watt
Lamp wattage max.	50 Watt	75 Watt	75 Watt	100 Watt
Housing diameter Ø	130 mm	210 mm	210 mm	280 mm
Depth incl. front part	120 mm	120 mm	120 mm	120 mm
Tunnel length	190 mm	190 mm	325 mm	325 mm
Tunnel width	140 mm	140 mm	140 mm	140 mm
Tunnel height	85 mm	85 mm	85 mm	85 mm
Combination entry for M20/M25 conduits	4	4	4	4
Art. No.	1281-30	1282-30	1282-40	1283-40
Inner packaging/shipping	- / 10	- / 10	- / 10	- / 10

System HaloX® for on-site mixed concrete

for luminaires and loudspeakers

HaloX® 100 Multi-conduit entry

- 4 M20/M25 combination entries with toolless opening technology
- Multi-conduit entry up to M40 with secure conduit retention
- Minimal effect on statics - no cuts to the reinforcement
- Shape-retaining, loadable and easily fitted
- Suitable with all HaloX 100 front parts



INNOVATION



3D animation

Ceiling exit (CE) Ø	0-100 mm
Max. installation depth luminaire / loud-speaker	110 mm
LED wattage max.	20 Watt
Lamp wattage max.	50 Watt
Housing diameter Ø	130 mm
Depth incl. front part	120 mm
Combination entry for M20/M25 conduits	6
Combination entry for M25/M32 conduits	1
Combination entry for M32/M40 conduits	1
Cable entries up to Ø 32 mm	1
Cable entries up to Ø 16 mm	4
Art. No.	1281-15
Inner packaging/shipping	- / 10

HaloX® 100 Multi-conduit entry



4 toolless combination entries M20/M25.



Integrated conduit retention.



Multi-conduit entry up to M40.



Ideal for multimedia applications through multi-pipe entries up to M40.

HaloX® 100 front parts

- Suitable for housing with Art. No. 1281-XX and 1290-30



Ceiling exit (CE) Ø	Min. luminaire covering Ø	Art. No.	Inner packaging/shipping
68 mm	75 mm	1281-01	- / 10
75 mm	82 mm	1281-02	- / 10
80 mm	87 mm	1281-03	- / 10
85 mm	92 mm	1281-04	- / 10
90 mm	97 mm	1281-05	- / 10
95 mm	102 mm	1281-06	- / 10
100 mm	107 mm	1281-07	- / 10

HaloX® 100 front parts for facing concrete

- in facing concrete version
- elastomer seal with flexible sealing edge
- prevents ingress of concrete, discolouring and sand blast dust
- for exact flush finishes in facing concrete without additional reworking
- Suitable for housing with Art. No. 1281-XX and 1290-30



Ceiling exit (CE) Ø	Min. luminaire covering Ø	Art. No.	Inner packaging/ shipping
68 mm	80 mm	1281-61	- / 8
75 mm	87 mm	1281-62	- / 8
80 mm	92 mm	1281-63	- / 8
85 mm	97 mm	1281-64	- / 8
90 mm	102 mm	1281-65	- / 8
95 mm	107 mm	1281-66	- / 8
100 mm	112 mm	1281-67	- / 8

HaloX® 100 front parts, square

- Suitable for housing with Art. No. 1281-XX and 1290-30



Ceiling exit (CE) Ø	68 x 68 mm	75 x 75 mm
Min. luminaire covering	75 x 75 mm	82 x 82 mm
Art. No.	1281-08	1281-09
Inner packaging/shipping	- / 10	- / 10

HaloX® 100 front parts, square for facing concrete

- in facing concrete version
- elastomer seal with flexible sealing edge
- prevents ingress of concrete, discolouring and sand blast dust
- Suitable for housing with Art. No. 1281-XX and 1290-30



Ceiling exit (CE) Ø	68 x 68 mm	75 x 75 mm
Min. luminaire covering	80 x 80 mm	94 x 94 mm
Art. No.	1281-68	1281-69
Inner packaging/shipping	- / 8	- / 8

System HaloX® for on-site mixed concrete

for luminaires and loudspeakers

HaloX® 100 universal front parts

· Suitable for housing with Art. No. 1281-XX and 1290-30



Ceiling exit (CE) Ø	0-100 mm	0-100 mm
Universal plastic panel	•	-
Universal mineral fibreboard	-	•
Art. No.	1281-10	1281-11
Inner packaging/shipping	- / 10	- / 8

HaloX® 180 front parts

· Suitable for housing with Art. No. 1282-XX



Ceiling exit (CE) Ø	Min. luminaire covering Ø	Art. No.	Inner packaging/shipping
100 mm	107 mm	1282-01	- / 10
110 mm	117 mm	1282-02	- / 10
125 mm	132 mm	1282-03	- / 10
145 mm	152 mm	1282-04	- / 10
160 mm	167 mm	1282-05	- / 10
180 mm	187 mm	1282-06	- / 10

HaloX® 180 front parts for facing concrete

· Suitable for housing with Art. No. 1282-XX



Ceiling exit (CE) Ø	Min. luminaire covering Ø	Art. No.	Inner packaging/shipping
100 mm	112 mm	1282-61	- / 10
110 mm	122 mm	1282-62	- / 10
125 mm	137 mm	1282-63	- / 10
145 mm	157 mm	1282-64	- / 10
160 mm	172 mm	1282-65	- / 10
180 mm	192 mm	1282-66	- / 10

HaloX® 180 universal front parts

· Suitable for housing with Art. No. 1282-XX



Ceiling exit (CE) Ø	0-180 mm	0-180 mm
Universal plastic panel	•	-
Universal mineral fibreboard	-	•
Art. No.	1282-10	1282-11
Inner packaging/shipping	- / 10	- / 10

HaloX® 250 front parts

· Suitable for housings with Art. No. 1283-XX



Ceiling exit (CE) Ø	Min. luminaire covering Ø	Art. No.	Inner packaging/ shipping
180 mm	187 mm	1283-01	- / 10
190 mm	197 mm	1283-02	- / 10
200 mm	207 mm	1283-03	- / 10
215 mm	222 mm	1283-04	- / 10
240 mm	247 mm	1283-05	- / 10
250 mm	257 mm	1283-06	- / 10

HaloX® 250 front parts for facing concrete

· Suitable for housings with Art. No. 1283-XX



Ceiling exit (CE) Ø	Min. luminaire covering Ø	Art. No.	Inner packaging/ shipping
180 mm	192 mm	1283-61	- / 10
190 mm	202 mm	1283-62	- / 10
200 mm	212 mm	1283-63	- / 10
215 mm	227 mm	1283-64	- / 10
240 mm	252 mm	1283-65	- / 10
250 mm	262 mm	1283-66	- / 10

HaloX® 250 universal front parts

· Suitable for housings with Art. No. 1283-XX



Ceiling exit (CE) Ø	0-250 mm	0-250 mm
Universal plastic panel	•	-
Universal mineral fibreboard	-	•
Art. No.	1283-10	1283-11
Inner packaging/shipping	- / 10	- / 10

Replacement mineral fibreboard for HaloX Ø 100, 180 and HaloX Ø 250

· for front parts with Art. Nos. 1281-11, 1282-11 and 1283-11



System	HaloX® 100	HaloX® 180	HaloX® 250
Art. No.	1281-27	1282-27	1283-27
Inner packaging/shipping	- / 10	- / 10	- / 10

System HaloX® for on-site mixed concrete

for luminaires and loudspeakers

Styrofoam moulded parts

- For individual installation openings (round, square)
- With maximum diameter up to 300 mm and max. height up to 50 mm
- for Kompax® with elastomer seal
- For all housings with Art. No. 12XX-XX



Art. No. 1292-90

Extension rings HaloX®

- To increase installation depth



System	Height	Max. installation depth luminaire / loudspeaker	For Art. No.	Art. No.	Inner packaging/shipping
HaloX® 100	10 mm	+ 10 mm	1281-xx/1290-30	1281-21	- / 10
HaloX® 100	25 mm	+ 25 mm	1281-xx/1290-30	1281-25	- / 10
HaloX® 100	50 mm	+ 50 mm	1281-xx/1290-30	1281-50	- / 10
HaloX® 180	25 mm	+ 25 mm	1282-xx	1282-25	- / 10
HaloX® 180	50 mm	+ 50 mm	1282-xx	1282-50	- / 10
HaloX® 250	25 mm	+ 25 mm	1283-xx	1283-25	- / 10
HaloX® 250	50 mm	+ 50 mm	1283-xx	1283-50	- / 10

Installation set for wall installation

- Installation kit for wall installation in vertical formwork
- 2-piece, consists of support element and seating bearing
- For HaloX Ø 210 (1282-XX) and HaloX Ø 280 (1283-XX)



For luminaire or loudspeaker installation height	Art. No.	Inner packaging/shipping
100 mm	1299-60	- / 1
125 mm	1299-61	- / 1
150 mm	1299-62	- / 1
175 mm	1299-63	- / 1
200 mm	1299-64	- / 1

Prefix® installation set

- Installation set for wall installation
- for fixing to the opposing formwork



for HaloX® 100	•	-
for HaloX® 180/250	-	•
Art. No.	1299-65	1299-66
Inner packaging/shipping	- / 1	- / 1

System overview of HaloX® for retrofitting



Installation diameter for luminaire/
loudspeaker max. 100 mm

1 Installation space for luminaires / loudspeakers and operating devices

without additional space for operating devices



Slab ceiling

Solid ceiling



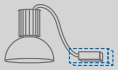
**HaloX® 100
installation set**
1281-20 | p. 232



HaloX® 100
1281-00 | p. 225

**HaloX® housing for core drillings
in solid ceilings**
1290-30 | p. 233

Additional space for operating devices



up to 150 x 90 x 50 mm*



**HaloX® 100
installation set**
1281-20 | p. 232



**HaloX® 100
with tunnel 190**
1281-30 | p. 225



**HaloX® 100
installation set**
1281-20 | p. 232



**HaloX® 100
multi-conduit
entry**
1281-15 | p. 226

For prefabricated cables

Conduits up to M40

2 Thickness of the slab ceiling

Thickness of the slab ceiling > 50 mm



**Extension rings
10/25/50 mm**
1281-21/25/50
p. 230/232/233

* max. dimension of operating
devices must be checked
depending on the installation
opening

3 Installation diameters for luminaires/loudspeakers



round
Front parts round



Ø 68 - 100 mm
p. 226



square
Front parts square



68x68 - 75x75 mm
p. 227



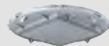
Facing concrete: round
Front parts round with elastomer
seal for facing concrete



Ø 68 - 100 mm
p. 227



Facing concrete: square
Front parts square with elastomer
seal for facing concrete



68x68 - 75x75 mm
p. 227



universal
Universal front part plastic (a)
or mineral fibreboard (b)



Ø max. 100 mm
p. 228

specific
Individual Styrofoam moulded parts
(optional for facing concrete)



p. 230/246

4 Installation depth



Installation height > 110 mm



**Extension rings
10/25/50 mm**
1281-21/25/50 | p. 230/232/233

HaloX® 100 installation kit



HaloX® 100 installation kit can be retrofitted in existing slab ceilings (50 mm thickness and greater) with or without transformer tunnel.

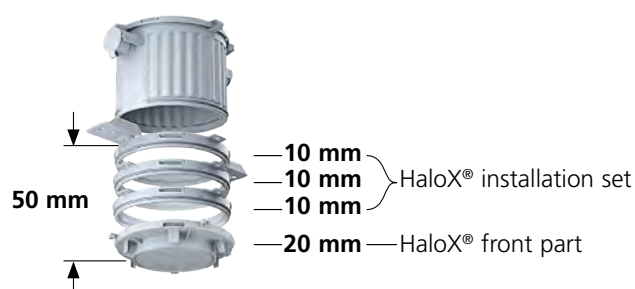
- For retrofitting in slab ceilings
- Minimal effect on statics
- Large selection of opening sizes up to Ø 100 mm
- Extension rings for bridging the slab ceiling element and for increasing the luminaire installation depth



Note



For slabs thicker than 50 mm, the housing can be expanded in 10/25/50 mm steps using the extension rings.



HaloX® installation kit mounting



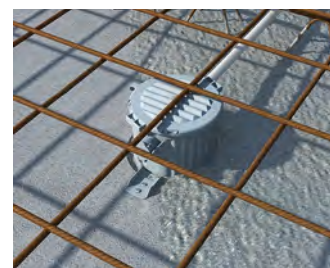
Cut drilling hole (Ø 150–160 mm) in the slab ceiling.



Combine the extension ring and front part to correspond to the ceiling thickness and installation depth.



Attach the housing and place in the drilling hole, mark and fasten. Install the conduit in the KSK entry.



If necessary, secure the fixed housing with wire to the reinforcement.

HaloX® 100 installation kit

- for retrofitting of HaloX®-O housings into slab ceilings
- required hole size Ø 150-160 mm



System	HaloX® 100	HaloX® 100
Height	30 mm	10 mm
Max. installation depth luminaire / loud-speaker	-	+ 10 mm
For Art. No.	1281-xx	1281-xx/1290-30
Art. No.	1281-20	1281-21
Inner packaging/shipping	- / 10	- / 10

Order front part separately

For retrofitting

HaloX® concrete installation housing for solid concrete ceilings can be inserted into existing and retrofitted drilling holes.

- For retrofitting in solid ceilings
- Minimal effect on statics
- Quick installation with snap-in connections
- Robust construction, ideal for use on building sites
- Large selection of opening sizes up to Ø 100 mm



Installation



Use the universal opening cutter to make accurate conduit entries for the appropriate conduit sizes.



Join the housing components to correspond to the ceiling thickness and installation depth.



Now insert the complete housing, including the installation, into the opening or drilling hole. Then...



...fill the free space with concrete and compact it. A formwork board fitted underneath prevents the concrete from running out.

HaloX® housing for drilling holes in solid ceilings

- for retrofitting in solid ceilings
- required hole size Ø 150-160 mm
- Take into consideration the ceiling thickness - at least 3 cm concrete cover is needed on top of the box



Diameter	130 mm
Ceiling exit (CE) Ø	0-100 mm
LED wattage max.	20 Watt
Lamp wattage max.	50 Watt
Depth incl. front part	133 mm
Art. No.	1290-30
Inner packaging/shipping	- / 10

HaloX®-O extension rings

- for increasing luminaire fitting depth
- to be clipped between the front part and the housing
- multiple extensions possible



System	HaloX® 100	HaloX® 100	HaloX® 100
Height	10 mm	25 mm	50 mm
Max. installation depth luminaire / loud-speaker	+ 10 mm	+ 25 mm	+ 50 mm
For Art. No.	1281-xx/1290-30	1281-xx/1290-30	1281-xx/1290-30
Art. No.	1281-21	1281-25	1281-50
Inner packaging/shipping	- / 10	- / 10	- / 10

HaloX® system overview for precast concrete

for luminaires and loudspeakers

System overview of HaloX® for precast concrete

1 Installation compartment for luminaires / loudspeakers and operating devices

without additional space for operating devices

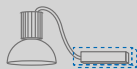


Additional space for operating devices



up to max. 150 x 90 x 50 mm*

Additional space for larger operating devices



up to max. 280 x 90 x 50 mm*



max. 140 mm
(with tolerance compensation)
max. 180 mm
(without tolerance compensation)

Adhesive attachment
one-piece housing with universal mineral fibre-board

Magnet attachment
one-piece housing with universal plastic plate for the magnet recess



max. 210 mm
(with tolerance compensation)
max. 250 mm
(without tolerance compensation)

Adhesive attachment
one-piece housing with universal mineral fibre-board

Magnet attachment
one-piece housing with universal plastic plate for the magnet recess

HaloX® magnet
1299-67 | p. 238

HaloX® magnet
1299-67 | p. 238



HaloX® 180
1282-71 | p. 236



HaloX® 180
1282-74 | p. 237



HaloX® 250
1283-71 | p. 236



HaloX® 250
1283-74 | p. 237



HaloX® 180 with tunnel 190
1282-72 | p. 236



HaloX® 180 with tunnel 190
1282-75 | p. 237



HaloX® 250 with tunnel 325
1283-73 | p. 236



HaloX® 250 with tunnel 325
1283-76 | p. 237

2 Installation depth



Installation height > 110 mm



Extension rings 25/50 mm
1282-25/50 | p. 230/238



Extension rings 25/50 mm
1283-25/50 | p. 230/238

3 Accessories for wall installation



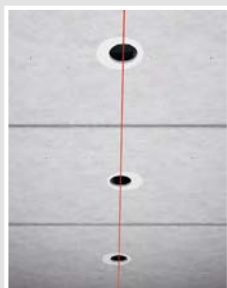
Wall installation in vertical formwork



Wall installation set for fitting in vertical formwork
1299-60...64 | p. 230

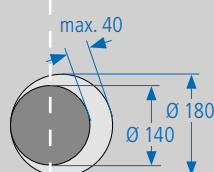
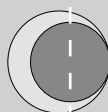
* max. dimension of operating devices must be checked depending on the installation opening

Tolerance compensation

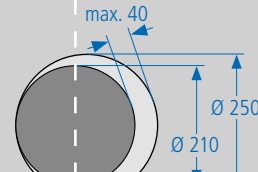


Depending on the installation diameter, at a later date you can correct inaccuracies which occurred during the laying of the slab ceilings. Use the KAISER VARIOCUT hole cutter to make accurate installation openings in the front parts.

HaloX® 180



HaloX® 250



HaloX® concrete installation housing (precast concrete)

System HaloX® is designed as a single piece for fitting in precast concrete. The housings can easily be aligned on the formwork table by means of markings on the housing. The housing with pre-fitted mineral fibreboard allows easy glueing and the housings can be turned by 360° on the formwork table even after glueing. Housings with pre-fitted front parts to hold the magnet (Art. No. 1299-67) are available for magnet attachment. Laying tolerances which may occur during the fitting of panel elements are compensated for via the housing sizes in connection with a variable cut-out area. Because of the compact dimensions of the housings, the reinforcement can easily be placed around the housing. For luminaires or loudspeakers with installation depths equal to or greater than 110 mm, the installation compartment of the HaloX® housings can be increased on the on-site concrete building site by means of extension rings. The fitting of the conduits on-site takes place without the need for tools for M20/M25 conduits without any internal shortening of the conduits.

- For precast concrete slab ceilings and wall elements.
- 3 housing sizes with and without tunnel
- Single-part housings with integrated mineral fibreboard for easy adhesive fixing
- One-part housings with plastic panel for magnet attachment
- Toolless opening technology for entries M20/M25
- Compensation for laying tolerances on the concrete building site
- Optimal thermal management on the basis of maximum surface contact to the concrete



Installation



Mounting of the single-piece housing with mineral fibreboard...



...fitting of the one-part housing by means of magnet (Art. No. 1299-67).



Prefabricated element with integrated HaloX® housings is laid on concrete building site.



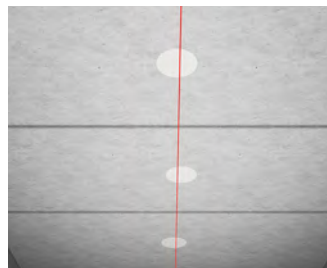
Subsequent adjustment of the housing height on the building site.



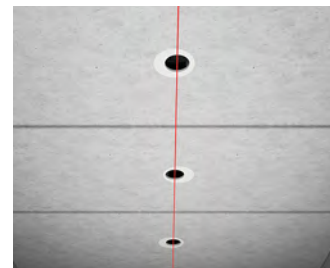
Toolless combination entry of M20/M25 conduits with conduit stop - no later shortening of the conduits.



After fitting of the conduits, concreting on the planned ceiling thickness takes place with the on-site mixed concrete process.



Panel element laying tolerances can be compensated for using the universal front parts (see system overview).



Cut the installation opening e.g. with the MULTI 4000 (Art. No. e.g. with 1083-10).

HaloX® system for precast concrete

for luminaires and loudspeakers

HaloX® 180 / 250 for precast concrete for adhesive attachment

NEW

INNOVATION



3D animation

- One-part housing with integrated mineral fibreboard
- Toolless combination entry for M20/M25 conduits
- Conduit entry limit to prevent the need for inside shortening of the conduit



System	HaloX® 180	HaloX® 250
Ceiling exit (CE) Ø	0-180 mm	0-250 mm
Max. installation depth luminaire / loud-speaker	110 mm	110 mm
LED wattage max.	35 Watt	45 Watt
Lamp wattage max.	75 Watt	100 Watt
Housing diameter Ø	210 mm	280 mm
Depth incl. front part	120 mm	120 mm
Combination entry for M20/M25 conduits	2	2
Art. No.	1282-71	1283-71
Inner packaging/shipping	- / 10	- / 10

HaloX® 180 / 250 with transformer tunnel (for precast concrete)

NEW

INNOVATION



3D animation

- One-part housing with integrated mineral fibreboard
- Toolless combination entry for M20/M25 conduits
- Conduit entry limit to prevent the need for inside shortening of the conduit



System	HaloX® 180	HaloX® 180	HaloX® 250
Ceiling exit (CE) Ø	0-180 mm	0-180 mm	0-250 mm
Max. installation depth luminaire / loud-speaker	110 mm	110 mm	110 mm
LED wattage max.	35 Watt	35 Watt	45 Watt
Lamp wattage max.	75 Watt	75 Watt	100 Watt
Housing diameter Ø	210 mm	210 mm	280 mm
Depth incl. front part	120 mm	120 mm	120 mm
Tunnel length	190 mm	325 mm	325 mm
Tunnel width	140 mm	140 mm	140 mm
Tunnel height	85 mm	85 mm	85 mm
Combination entry for M20/M25 conduits	4	4	4
Art. No.	1282-72	1282-73	1283-73
Inner packaging/shipping	- / 10	- / 10	- / 10

HaloX® 180 / 250 for precast concrete for magnet attachment

NEW

INNOVATION



3D animation

- One-part housing for holding the HaloX® magnet Art. No. 1299-67
- Toolless combination entry for M20/M25 conduits
- Conduit entry limit to prevent the need for inside shortening of the conduit



System	HaloX® 180	HaloX® 250
Ceiling exit (CE) Ø	0-180 mm	0-250 mm
Max. installation depth luminaire / loud-speaker	110 mm	110 mm
LED wattage max.	35 Watt	45 Watt
Lamp wattage max.	75 Watt	100 Watt
Housing diameter Ø	210 mm	280 mm
Depth incl. front part	120 mm	120 mm
Combination entry for M20/M25 conduits	2	2
Art. No.	1282-74	1283-74
Inner packaging/shipping	- / 10	- / 10

HaloX® 180 / 250 with tunnel for precast concrete for magnet attachment

NEW

INNOVATION



3D animation

- One-part housing for holding the HaloX® magnet Art. No. 1299-67
- Toolless combination entry for M20/M25 conduits
- Conduit entry limit to prevent the need for inside shortening of the conduit



System	HaloX® 180	HaloX® 180	HaloX® 250
Ceiling exit (CE) Ø	0-180 mm	0-180 mm	0-250 mm
Max. installation depth luminaire / loud-speaker	110 mm	110 mm	110 mm
LED wattage max.	35 Watt	35 Watt	45 Watt
Lamp wattage max.	75 Watt	75 Watt	100 Watt
Housing diameter Ø	210 mm	210 mm	280 mm
Depth incl. front part	120 mm	120 mm	120 mm
Tunnel length	190 mm	325 mm	325 mm
Tunnel width	140 mm	140 mm	140 mm
Tunnel height	85 mm	85 mm	85 mm
Combination entry for M20/M25 conduits	4	4	4
Art. No.	1282-75	1282-76	1283-76
Inner packaging/shipping	- / 10	- / 10	- / 10

HaloX® system for precast concrete

for luminaires and loudspeakers

Extension rings HaloX®

- To increase installation depth



System	HaloX® 180	HaloX® 180	HaloX® 250	HaloX® 250
Height	25 mm	50 mm	25 mm	50 mm
Max. installation depth luminaire / loud-speaker	+ 25 mm	+ 50 mm	+ 25 mm	+ 50 mm
For Art. No.	1282-xx	1282-xx	1283-xx	1283-xx
Art. No.	1282-25	1282-50	1283-25	1283-50
Inner packaging/shipping	- / 10	- / 10	- / 10	- / 10

HaloX® magnet for HaloX® 180 / 250

- For housings with Art. Nos. 1282-74/75/76 and 1283-74/76



NEW

INNOVATION

Art. No.	1299-67
Inner packaging/shipping	- / 10

Replacement mineral fibreboard for HaloX® 180, HaloX® 250

- Replacement mineral fibreboard 1282-27 for housings with Art. No. 1282-71/72/73
- Replacement mineral fibreboard 1283-27 for housing with Art. No. 1283-71/73



System	HaloX® 180	HaloX® 250
Art. No.	1282-27	1283-27
Inner packaging/shipping	- / 10	- / 10

Note

Housings with Art. Nos. 1282-76 and 1283-76 must be secured in the tunnel area against floating!



Peripheral bridges on the tunnel provide additional protection against possible floating. Rebars can be laid on these and tightened together with the reinforcement.



Alternatively, tie lugs fitted at the end of the tunnel provide additional protection against the possible floating of the tunnel in precast concrete.

KompaX® system overview

The KompaX® system is made up of various components which can be individually assembled according to use. Select the required components as follows:

1 Accessory type/ application



- Built-in luminaires or loudspeakers + additional components (e.g. ballast device)
- Ceiling exits Ø 160–300 mm



- Built-in luminaires or loudspeakers + additional components (e.g. ballast device)
- Ceiling exits Ø 100–200 mm

2 Installation depth



3 Ceiling type

4 Ceiling exit

Variable opening and
tolerance compensation
by means of mineral
fibreboard

Variable opening
through the use of
individual front
parts

**On-site mixed
concrete**

Slab ceilings
for installation in
concrete factories

**On-site mixed
concrete**

Slab ceilings
for installation in
concrete factories



*) for 200 mm and greater, please contact us



KompaX[®]1 concrete installation housing

KompaX[®]1 housing system for fitted downlights and loudspeakers in concrete ceilings with wide range of accessories for almost all applications. Height-adjustable using intermediate frames. The various front parts make it extremely practical.

- Housing system for fitted downlights and loudspeakers
- For on-site mixed concrete and prefabrication
- For precise installation openings from Ø 160–300 mm
- For device installation depths up to 200 mm*
- For ceiling thicknesses from 180–300 mm*
- Tolerance compensation during slab ceiling installation



Technical processing instructions/standards

- for ceiling thicknesses from 18 up to 30 cm. Please contact us if the ceiling thickness is greater than 30 cm.
- use only certified (EN 60598) luminaires which are suitable for direct installation on normally flammable materials
- luminaire installation heights up to 200 mm; please contact us for heights greater than 200 mm
- allows installation of additional lighting or loudspeaker accessories, EIB components, emergency supply units, etc.

Luminaire selection

Built-in installation downlights with TC lamps, lamp output max. 90 W* (e.g. 3 x TC-D 26 W or 2 x TC-T 42 W). Use only built-in luminaires tested to EN 60598-1 suitable for installation on normally flammable building materials. Luminaire installation depth without intermediate frame max. 100 mm. Luminaire installation depth with intermediate frame max. 200 mm. (*Even higher system performance is possible with an intermediate frame)

Note

*For installation depths > 200 mm and ceiling thicknesses > 300 mm, please contact us. Telephone: +49 (0)2355.809.61

KompaX[®]1 housing for on-site mixed concrete

- installation height for built-in luminaires or loudspeakers max. 100 mm
- consists of front and rear parts
- only in combination with front rings 1293-16 up to 1293-71, in facing concrete with front rings 1293-80 to 1293-87
- incl. support elements for installation heights 100/150/200 mm



3D animation

Length x Width x Depth	585 x 440 x 131 mm
Ceiling exit (CE) Ø	160-300 mm
LED wattage max.	45 Watt
Lamp wattage max.	90 Watt
Art. No.	1293-00
Inner packaging/shipping	- / 5

KompaX®1 housing for on-site mixed concrete with mineral fibreboard

- for variable ceiling cut-outs up to 300 mm
- installation height for built-in luminaires or loudspeakers max. 100 mm
- consists of front ring, assembled mineral fibreboard and rear part
- incl. support elements for installation heights 100/150/200 mm



3D animation

Length x Width x Depth	585 x 440 x 131 mm
Ceiling exit (CE) Ø	0-300 mm
LED wattage max.	45 Watt
Lamp wattage max.	90 Watt
Art. No.	1293-27
Inner packaging/shipping	- / 5

Accessories: KompaX® (1+2) replacement mineral fibreboard, Page 245

KompaX®1 housing for slab ceilings

- for factory fitting
- installation height for built-in luminaires or loudspeakers max. 100 mm
- consists of front part, fitted mounting ring and rear part
- for ceilings of 18 cm total thickness upwards
- incl. support elements for installation heights 100/150/200 mm



Length x Width x Depth	585 x 440 x 131 mm
Ceiling exit (CE) Ø	0-300 mm
LED wattage max.	45 Watt
Lamp wattage max.	90 Watt
Art. No.	1293-15
Inner packaging/shipping	- / 5

KompaX®1 housing for slab ceilings with mineral fibreboard

- for factory fitting
- for variable ceiling cut-outs up to 300 mm
- installation height for built-in luminaires or loudspeakers max. 100 mm
- consists of front ring, assembled mineral fibreboard and rear part
- for ceilings of 18 cm total thickness upwards
- incl. support elements for installation heights 100/150/200 mm



Length x Width x Depth	585 x 440 x 131 mm
Ceiling exit (CE) Ø	0-300 mm
LED wattage max.	45 Watt
Lamp wattage max.	90 Watt
Art. No.	1293-28
Inner packaging/shipping	- / 5

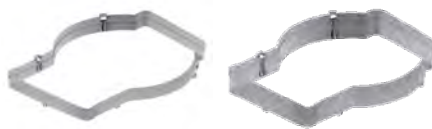
Accessories: KompaX® (1+2) replacement mineral fibreboard, Page 245

KompaX®1 system for concrete ceilings

for luminaires and loudspeakers

KompaX®1 intermediate frame

- is clipped between the front and rear part of the KompaX® 1 housing



Increasing installation height	25 mm	50 mm
with support elements for installation heights of 125/175 mm	•	-
Art. No.	1293-13	1293-14
Inner packaging/shipping	5 / 10	5 / 10

KompaX®1 front rings

- Other dimensions and shapes (for ceiling exit) are available for fast delivery in the form of Styrofoam moulded parts.



Height	Ceiling exit (CE) Ø	Min. luminaire covering Ø	Art. No.	Inner packaging/shipping
14 mm	160 mm	167 mm	1293-16	- / 10
14 mm	165 mm	172 mm	1293-66	- / 10
14 mm	180 mm	187 mm	1293-18	- / 10
14 mm	190 mm	197 mm	1293-19	- / 10
14 mm	200 mm	207 mm	1293-20	- / 10
14 mm	215 mm	222 mm	1293-71	- / 10
14 mm	240 mm	247 mm	1293-24	- / 10
14 mm	300 mm	307 mm	1293-30	- / 10

KompaX®1 front rings in facing concrete version

- elastomer seal with flexible sealing edge
- prevents ingress of concrete, discolouring and sand blast dust
- for exact flush finishes in facing concrete without additional reworking



Height	Ceiling exit (CE) Ø	Min. luminaire covering Ø	Art. No.	Inner packaging/shipping
14 mm	160 mm	172 mm	1293-80	- / 10
14 mm	165 mm	177 mm	1293-81	- / 10
14 mm	180 mm	192 mm	1293-82	- / 10
14 mm	190 mm	202 mm	1293-83	- / 10
14 mm	200 mm	212 mm	1293-84	- / 10
14 mm	215 mm	227 mm	1293-85	- / 10
14 mm	240 mm	252 mm	1293-86	- / 10
14 mm	300 mm	312 mm	1293-87	- / 10

KompaX®2 concrete installation housing

KompaX®2 housing system for fitted downlights and loudspeakers in concrete ceilings with wide range of accessories for almost all applications. Height-adjustable using intermediate frames. The various front parts make it extremely practical.

- Housing system for fitted downlights and loudspeakers
- For on-site mixed concrete and prefabrication
- For precise installation openings from Ø 100–200 mm
- For device installation depths up to 200 mm*
- For ceiling thicknesses from 180–300 mm*
- Tolerance compensation during slab ceiling installation



Luminaire selection

Built-in installation downlights with TC lamps, lamp output max. 90 W* (e.g. 3 x TC-D 26 W or 2 x TC-T 42 W). Use only built-in luminaires tested to EN 60598-1 suitable for installation on normally flammable building materials. Luminaire installation depth without intermediate frame max. 100 mm. Luminaire installation depth with intermediate frame max. 200 mm. (*Even higher system performance is possible with an intermediate frame)

Technical processing instructions/standards

- for ceiling thicknesses from 18 up to 30 cm. Please contact us if the ceiling thickness is greater than 30 cm.
- use only certified (EN 60598) luminaires which are suitable for direct installation on normally flammable materials
- luminaire installation heights up to 200 mm; please contact us for heights greater than 200 mm
- allows installation of additional lighting or loudspeaker accessories, EIB components, emergency supply units, etc.

Note

*For installation depths > 200 mm and ceiling thicknesses > 300 mm, please contact us. Telephone: +49 (0)2355.809.61

KompaX®2 housing for on-site mixed concrete

- installation height for built-in luminaires or loudspeakers max. 100 mm
- consists of front and rear parts
- only in combination with front rings 1292-01 up to 1293-66, in facing concrete with front rings 1292-80 to 1293-84
- incl. support elements for installation heights 100/150/200 mm



3D animation

Length x Width x Depth	470 x 290 x 131 mm
Ceiling exit (CE) Ø	100-200 mm
LED wattage max.	45 Watt
Lamp wattage max.	52 Watt
Art. No.	1292-00
Inner packaging/shipping	- / 10

KompaX[®]2 housing for on-site mixed concrete with mineral fibreboard

- for variable ceiling cut-outs up to 180 mm
- installation height for built-in luminaires or loudspeakers max. 100 mm
- consists of front ring, assembled mineral fibreboard and rear part
- incl. support elements for installation heights 100/150/200 mm



3D animation

Length x Width x Depth	470 x 290 x 131 mm
Ceiling exit (CE) Ø	0-180 mm
LED wattage max.	45 Watt
Lamp wattage max.	52 Watt
Art. No.	1292-27
Inner packaging/shipping	- / 10

Accessories: KompaX[®] (1+2) replacement mineral fibreboard, Page 245

KompaX[®]2 housing for slab ceilings

- for factory fitting
- installation height for built-in luminaires or loudspeakers max. 100 mm
- consists of front part, fitted mounting plate and rear part
- for ceilings of 18 cm total thickness upwards
- incl. support elements for installation heights 100/150/200 mm



Length x Width x Depth	470 x 290 x 131 mm
Ceiling exit (CE) Ø	0-200 mm
LED wattage max.	45 Watt
Lamp wattage max.	52 Watt
Art. No.	1292-35
Inner packaging/shipping	- / 10

KompaX[®]2 housing for slab ceilings with mineral fibreboard

- for factory fitting
- for variable ceiling cut-outs up to 180 mm
- installation height for built-in luminaires or loudspeakers max. 100 mm
- consists of front ring, assembled mineral fibreboard and rear part
- for ceilings of 18 cm total thickness upwards
- incl. support elements for installation heights 100/150/200 mm



Length x Width x Depth	470 x 290 x 131 mm
Ceiling exit (CE) Ø	0-180 mm
LED wattage max.	45 Watt
Lamp wattage max.	52 Watt
Art. No.	1292-28
Inner packaging/shipping	- / 10

Accessories: KompaX[®] (1+2) replacement mineral fibreboard, Page 245

KompaX®2 intermediate frame

- is clipped between the front and rear part of the KompaX®2 housing



Increasing installation height	25 mm	50 mm
with support elements for installation heights of 125/175 mm	•	-
Art. No.	1292-13	1292-14
Inner packaging/shipping	5 / 10	5 / 10

KompaX®2 front rings

- Other dimensions and shapes (for ceiling exit) are available for fast delivery in the form of Styrofoam moulded parts.



Height	Ceiling exit (CE) Ø	Min. luminaire covering Ø	Art. No.	Inner packaging/shipping
14 mm	100 mm	107 mm	1292-01	- / 10
14 mm	125 mm	132 mm	1292-06	- / 10
14 mm	145 mm	152 mm	1292-10	- / 10
14 mm	160 mm	167 mm	1293-16	- / 10
14 mm	165 mm	172 mm	1293-66	- / 10
14 mm	180 mm	187 mm	1293-18	- / 10
14 mm	190 mm	197 mm	1293-19	- / 10
14 mm	200 mm	207 mm	1293-20	- / 10

KompaX®2 front rings in facing concrete version

- elastomer seal with flexible sealing edge
- prevents ingress of concrete, discolouring and sand blast dust
- for exact flush finishes in facing concrete without additional reworking



Height	Ceiling exit (CE) Ø	Min. luminaire covering Ø	Art. No.	Inner packaging/shipping
14 mm	100 mm	112 mm	1292-80	- / 10
14 mm	125 mm	137 mm	1292-81	- / 10
14 mm	145 mm	157 mm	1292-82	- / 10
14 mm	160 mm	172 mm	1293-80	- / 10
14 mm	165 mm	177 mm	1293-81	- / 10
14 mm	180 mm	192 mm	1293-82	- / 10
14 mm	190 mm	202 mm	1293-83	- / 10
14 mm	200 mm	212 mm	1293-84	- / 10

Replacement mineral fibreboards for KompaX®1,2



For Art. No.	1293-27	1293-28	1292-27	1292-28
Art. No.	1293-97	1293-98	1292-97	1292-98
Inner packaging/shipping	- / 5	- / 5	- / 5	- / 5



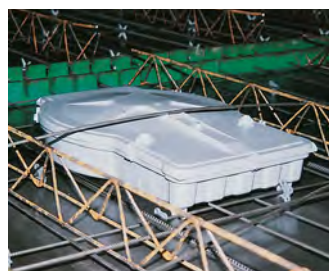
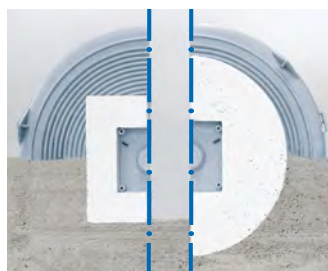
Styrofoam moulded parts

KompaX® housing with Styrofoam moulded part for customised solutions. The mouldings are available in any shape (round, square, rectangular or triangular) and in various thicknesses or to suit your specific needs. They can be supplied ready-mounted to the housing or provided separately. A facing concrete version is also available. The Styrofoam moulded parts for facing concrete have an additional elastomer sheath, and its elasticity prevents the dry concrete from cracking.

- For individual installation openings
- Any shape possible (for round, square, rectangular and other installation openings)
- For on-site mixed concrete and prefabrication
- Prevents discolouring and sand blast dust in facing concrete version
- For exact flush finishes in facing concrete without reworking

Planning instruction

Almost every conceivable shape can be realised using the Styrofoam moulded parts. The maximum dimensions of the front parts (diameter/diagonals) result from the maximum dimensions of the respective housing front rings. Please note that the clamping range of luminaires and loudspeakers must be at least the thickness of the Styrofoam moulded parts plus 8 mm. In the case of Styrofoam moulded parts with a thickness of > 20 mm, take into account the support provided.



KompaX® Styrofoam moulded parts for ceiling exit (CE)

- all sizes and shapes which deviate from the existing KompaX® front rings for ceiling exits are available as Styrofoam moulded parts
- all Styrofoam facing concrete parts are also available in facing concrete design on request.
- the Styrofoam moulded parts can be attached to the housing before delivery or supplied separately with the housings
- Required ceiling cut-out up to max. Ø 300 mm and max. height 50 mm for round, square or rectangular installation openings. Other shapes possible on request.



Art. No.

1292-90

Conduit stopper

Conduit stoppers for secure, precise positioning of installation conduits in installation housings. They prevent conduits from being inserted too far and prevent them from falling out, even under extreme load.

- Guarantees concrete-tight connection of DIN EN conduits
- prevents conduits from being inserted too far
- Prevents conduits from slipping out under high load
- Threaded connecting pieces for inch conduits in conduit stoppers



Installation



Use the universal opening cutter to make accurate conduit entries (Ø 21 mm).



Simply push flexible Ø 20 or Ø 25 mm DIN EN conduits into the conduit stopper.



This technology guarantees secure and tight conduit entry in all housings.



For Ø 5/8" or Ø 3/4" conduits, insert the threaded connecting piece into the conduit stopper.

Conduit stopper

- for luminaire or loudspeaker housings
- prevents conduits from being inserted too far
- secures conduit against falling out even under extreme load
- required opening Ø in the housing tunnel: 21 mm (cut using universal opening cutter Art. No. 1085-80)



For conduits to DIN EN outer Ø	20 mm	25 mm
Art. No.	1274-20	1274-25
Inner packaging/shipping	25 / 100	25 / 100

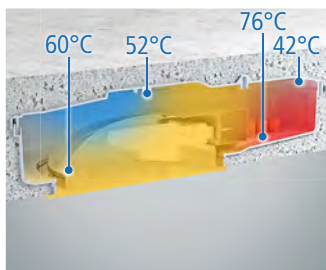
Threaded connecting pieces for inch conduits

- for insertion of smooth and corrugated 5/8" and 3/4" conduits
- in 1274-20 and 1274-25 conduit stoppers

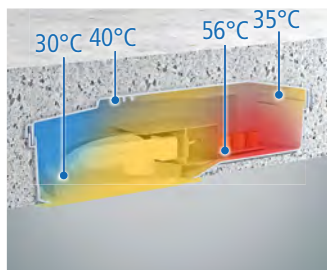


for inserting smooth and corrugated conduits	5/8", 3/4"
Art. No.	1074-04
Inner packaging/shipping	20 / 100

Temperature profile KompaX®1, 2



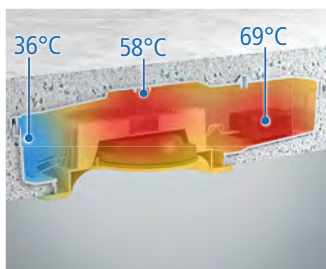
3 x TC-D 26 W, sealed version of luminaires (matt safety glass disc)



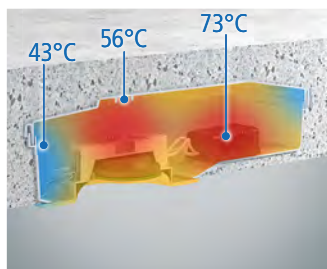
2 x TC-D 18 W, sealed version of luminaires (matt safety glass disc)



Temperature profile KompaX®1, 2



LED (45 W)



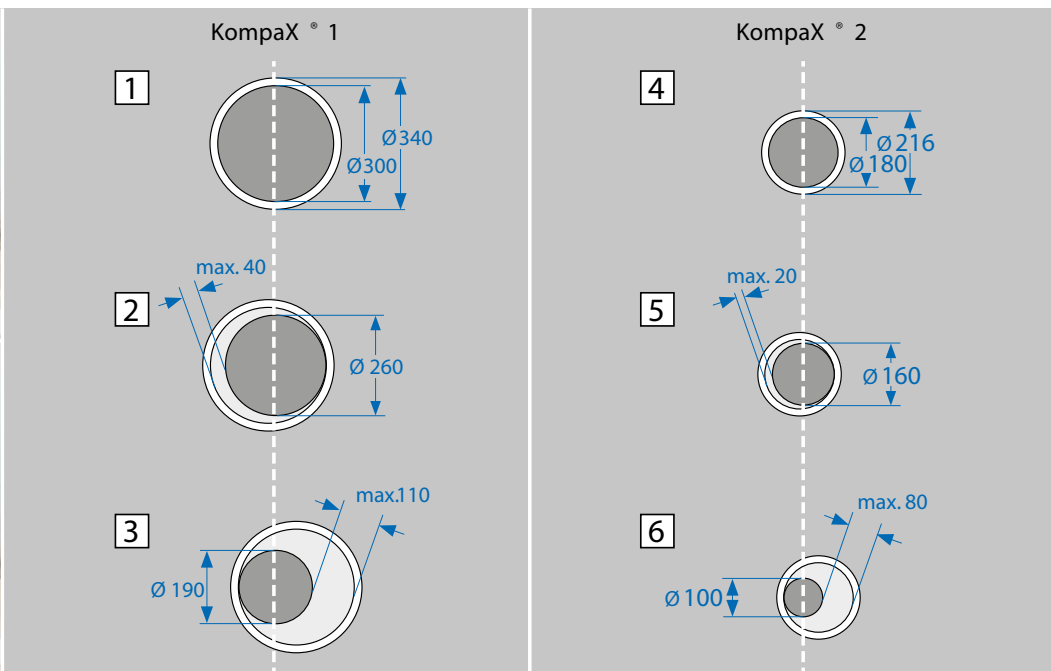
LED (41 W)



Note

Because of the considerable undershooting of the limit temperatures, higher system performance is possible. If you have questions, please contact our technical department (0049.2355.80961).

KompaX® tolerance compensation with mineral fibreboard



1 = CE max. 300 mm without tolerance compensation | **2** = CE max. 260 mm with 40 mm tolerance compensation (2 x 20 mm) | **3** = CE max. 190 mm with 110 mm tolerance compensation (2 x 55 mm) | **4** = CE max. 180 mm without tolerance compensation | **5** = CE max. 160 mm with 20 mm tolerance compensation (2 x 10 mm) | **6** = CE max. 100 mm with 80 mm tolerance compensation (2 x 40 mm)

Front rings for facing concrete

Front rings with elastomer sheathing for sharp outline ceiling cut-outs in facing concrete. The elasticity of the sheathing prevents the dry concrete from cracking.

- For exact flush finishes in facing concrete without reworking
- Prevents ingress of concrete
- Prevents discolouring and sand blast dust
- As a Styrofoam moulded part for round, square, rectangle and other installation openings



For perfect results, make sure the housing fits correctly, e.g. by bracing on the formwork and inserting an additional joist to restrict the formation of cracks.



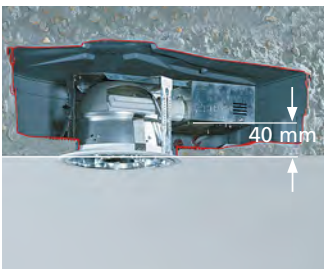
without elastomer seal



with elastomer seal

Installation notes

For installation of luminaires with an asymmetrical equipment carrier (e.g. for ballast devices) or loudspeakers with audio processors or similar, the distance between the bottom edge of the accessory and the bottom edge of the concrete ceiling must be at least 40 mm.



Reducing the ceiling exit (CE) with front rings

If the required ceiling exit is smaller than the front ring used, please remove the cast-in front ring after removing the formwork, insert a smaller front ring or cut out the required dimension. Prime the remaining surface around the ceiling exit using for example thinned Styrofoam adhesive or Beto-Kontakt, and smooth it off.

KompaX® housing with mineral fibreboard

KompaX® housing with mineral fibreboard permits variable, neutral shape and accurate cut-outs for luminaires and loudspeakers. Inaccuracies arising during the installation of industrially prefabricated slab ceiling elements can be corrected using the mineral fibreboard. The mineral fibreboard always offers sufficient opportunities for adjustment. Depending on the installation diameter, you can retrospectively correct inaccuracies arising during the assembly or installation of slab ceilings.

- For luminaires and loudspeakers
- Accurate, variable installation openings
- Any cut-out shape possible
- Tolerance compensation during slab ceiling installation

Installation in on-site mixed concrete ceilings (KompaX®1,2)

Clip the front ring onto the housing and open the required conduit or cable entries. Position the prepared housing and fasten to the formwork using 4 nails. Feed in the conduits and insert the supplied support conduit (KompaX®1 and 2 only). If necessary, fit the intermediate frame, then clip in the rear part. To prevent upward movement, fasten the housing to the reinforcement using wires or cable ties. The ceiling can now be cast. After removing the formwork, use a fretsaw to saw into the visible front part to enable the luminaire or the loudspeaker to be fitted.



Clip the front ring onto the housing.



Attach the housing with 2 intermediate frames and a support conduit to the formwork.



Also secure the housing to the reinforcement.



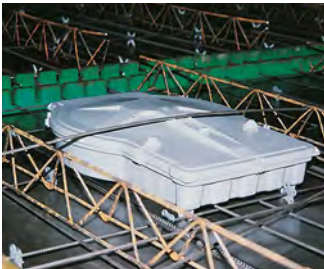
Secure and firm seating of housings during concreting.



Open front part using a fretsaw.

Installation in slab ceilings

Pre-assembly in the concrete factory. Fasten the housing to the formwork table by applying at least four adhesive points to the housing (adhesive foil or hot glue). To prevent upward movement, fasten the housing to the reinforcement with wires or cable ties or by sliding steel bridges under the space frame. Then concrete up.



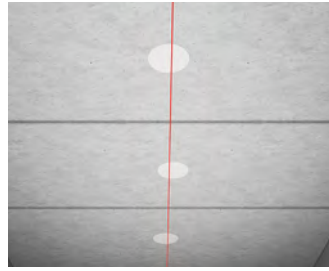
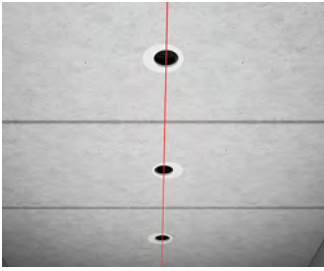
Final assembly on-site

After removing the installation instructions and the support elements, make the required openings for cables and conduits. If the installation height needs to be increased, fit the intermediate frames. With KompaX®1 and 2, insert the matching support element before closing the housing again. Concreting can now take place.



Final assembly using mineral fibreboard

In the case of housings with mineral fibreboard, the ceiling cut-outs are marked out correctly aligned. Then cut installation openings through the mineral fibreboard and the housing base. Now fit the installation devices without any further reworking (smooth the surface if necessary).



Final assembly using mounting ring

For housings with installation rings, remove the formwork and all fixing screws and simply pull out the mounting rings or plates. Now mark the precise position of the installation openings so that the matching front rings can be inserted or screwed on. Prime the remaining surface between the concrete edge and front ring using thinned Styrofoam adhesive, e.g. Beto-Kontakt, and smooth it off. Use the fretsaw to cut the installation diameter. After plastering and/or painting the ceiling, install the luminaires or loudspeakers.



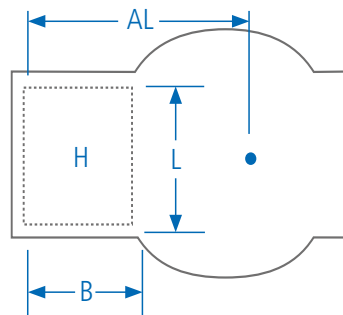
KompaX® for on-site mixed concrete and prefabrication (slab ceilings)



Installation dimensions KompaX®1 and 2

When installing luminaires, loudspeakers or electronic components in KompaX® housings, use the data provided by the luminaire or loudspeaker manufacturer to guide you. For the KompaX® housing, the following installation dimensions apply (excluding intermediate frame):

Housing	Installation depth	AL	L	B	H
KompaX® 1	100	330	270	160	60
KompaX® 2	100	290	190	160	60



Constructional information on concrete ceilings

To install KAISER installation housings in concrete, please refer to our work instructions and our installation instructions.

1. Statics

The dimensions of the universal housings ensure that they have only a small effect on the statics of concrete ceilings. However, when using this housing, always consider its effects on the static calculations. All values regarding number, size and distance between centres of the housings as well as the fire protection class of the ceiling must be agreed with the structural engineer.

Further points to be taken into account are:

- the housings must be arranged in line with the stress support axis of the reinforcement.
- the distance between centres of the housings must be at least 3 times the housing dimensions.
- supplementary reinforcement (joint beam) must be provided for all housings that break into the existing reinforcement if the statics calculations show that it is required.

2. Fire protection

Fire protection and the fire protection class of a concrete ceiling are only minimally affected by the fitting of luminaire and loudspeaker housings. From the technical fire protection viewpoint, no limitations are necessary on the axial spacing of HaloX® and KompaX® housings in F30 ceilings. In F90 ceilings the axial spacing of HaloX® housings should be at least 1 m and of KompaX® housings 1.3 m. Additional reinforcement must be put in place next to the housings.

The following table gives an overview of the necessary minimum thicknesses of ceilings and walls for fire protection classes F30 and F90.

All data is based on installation heights of the housing without intermediate frames or extension rings. Use float plaster or plaster of class A building materials. A technical fire protection certification can be provided on request.

3. Transmission of sound

KompaX® housings do not generally resonate since they are never fully open. The solid seating in the concrete ceiling does not amplify any vibrations which are registered. Please contact us if you require technical sound transmission certification.

4. Heat conduction/Heat protection

Heat from luminaires and loudspeakers built into HaloX® or KompaX® housings has little or no effect on the concrete and statics of a ceiling. Compared to metal concrete housings, the reflection of heat from the luminaires or loudspeakers is considerably lower. This improves the efficiency and working life of the luminaires and other operating components.

The creation of heat bridges leading to the 'dew point' being reached is avoided by the use of underfloor noise insulation panels and a top plaster layer or through heat insulating measures.

5. Electrical installation

In principle, only VDE approved luminaires and VDE approved fittings should be used; luminaires must conform to DIN VDE 0711/EN60598. The builder of the system retains responsibility for the selection of suitable equipment such as luminaires, ballast devices, loudspeakers or transformers, their materials and their correct installation according to the technical safety standards for installation, lighting and loudspeakers. The manufacturer reserves the right to make changes to the materials, design and product range.

Housing volume (dm³)					
	HaloX® 100	HaloX® 180	HaloX® 250	KompaX® 1	KompaX® 2
Housing	1.2	3.3	6.1	18	10
with tunnel 190	2.4	4.5	-	-	-
with tunnel 325	-	5.3	8.1	-	-
Volume increase with the use of extension rings/intermediate frames in dm³					
Extension ring/intermediate frame 10	0.11	-	-	-	-
Extension ring/intermediate frame 25	0.28	0.8	1.5	5	2.5
Extension ring/intermediate frame 50	0.56	1.6	3.0	10	5

Fire protection – minimum concrete covering according to fire resistance class

	KompaX® 1/2	HaloX® 100/180/250
EI 30 ceiling plastered		
EI 30 ceiling unplastered		
EI 60 ceiling plastered		
EI 60 ceiling unplastered		
EI 90 ceiling plastered		
EI 90 ceiling unplastered		



Installation housing ThermoX® Iso +

Installation housing for the secure and heat-bridge-free installation of rigid and swivelling built-in LED luminaires or other installation accessories in insulated ceilings. The housing protects the surrounding insulation material against the high operating temperatures of the LED luminaire and protects the LED luminaire itself against dirt. The integrated insulation element reliably prevents heat bridges.



Installation housing ThermoX® LED

ThermoX® LED installation housing for the airtight installation of rigid and pivoting LED built-in luminaires in different ceiling constructions. The housing protects the surrounding material (vapour barrier foil, insulation etc.) against the high operating temperatures and the LED luminaires themselves from contamination, and creates an airtight separation. In combination with the thermal separation between luminaire and operating device, in this way a maximum operating lifetime is obtained.

- For installation in insulated hollow ceilings
- Retrofitting from underneath
- Toolless installation of the housing
- Guarantees airtight installation
- Rear surface structure ensures optimal heat management
- Permanent and secure retention of the luminaire in the housing

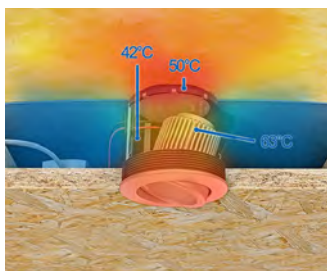


Examples of use

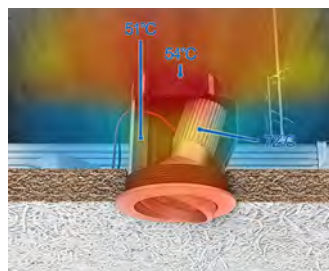
ThermoX® LED installation housings can be installed in slab and tiled ceilings and in seamless sub-ceiling constructions made of plaster-board, mineral fibreboard, MdF board and plywood with wooden frame and exposed insulation.



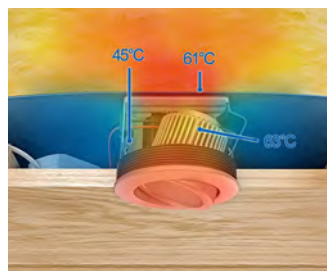
Temperature profiles ThermoX® LED (room temperature 25°C)



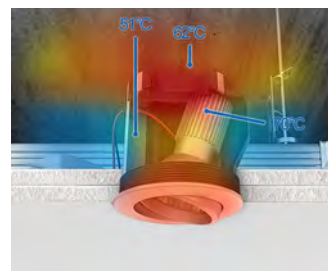
ThermoX® LED 9320-10 LED
6.6 W



ThermoX® LED 9320-11 LED
9 W



ThermoX® LED 9320-20 LED
8 W

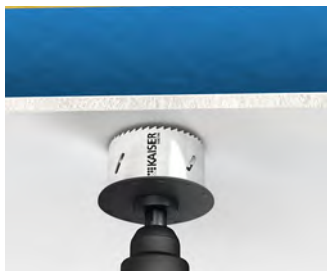


ThermoX® LED 9320-21 LED
10 W

Air-tight installation and fire-preventive protection

The ThermoX® LED housing protects the surrounding material against the extremely high temperatures that may occur during the operation of LED lamps. The housing must be installed without any surrounding insulating material coating. This protective measure can be taken both for new constructions and for retrofitting. The LED housing allows for air-tight installation because it does not destroy the vapour barrier foil that contributes to the air-tight building shell. Because of their air tightness, LED housings are also suitable for use in all suspended ceiling systems where uncontrolled air exchange is to be avoided (e.g. climate or cooling ceilings) and dustproof installation needs to be achieved (e.g. prevention of dust particles due to material removal).

Installation



Make cut opening (e.g. with turbo cutter MULTI 4000 – Art. No. 1084-10).



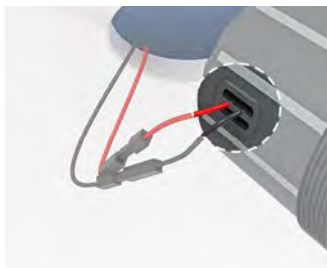
To expand existing installation openings from Ø 68 mm to Ø 74 mm using centering insert (Art. No. 1083-99).



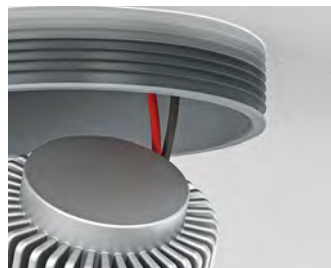
Installation of the operating device (driver).



Feed connector from below through the entry of the LED installation housing.



Connection of the plug-in contacts. Feed the sealing element round the cable and insert into the opening.



Installation of the ThermoX® LED housing in the installation opening.



Inserting the spotlight into the housing.



Rear surface structure minimises pressure on the vapour barrier and ensures optimal heat dissipation.



Processing instructions



Guaranteed air tightness even when the fixing springs are expanded.



Expanding pockets ensure secure fit for the built-in luminaire.



Swivel pocket permits targeted alignment of the built-in luminaire

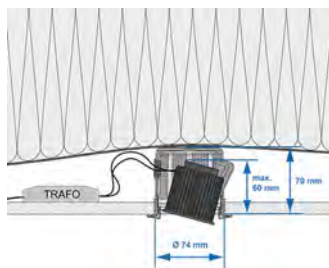


For ceiling-flush installation of ThermoX® LED (DA 86), use bi-metal cutter Ø 86 mm (Art. No. 1087-86).

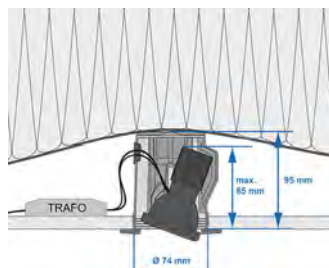
System ThermoX® LED for insulated hollow ceilings

for built-in LED luminaires

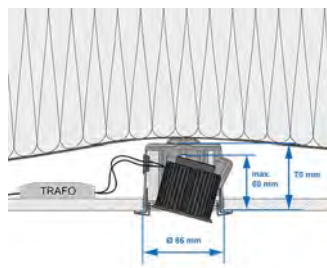
Installation notes



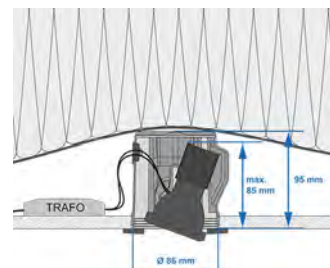
Art. No. 9320-10 ThermoX® LED, Ø 74 x 70 mm



Art. No. 9320-11 ThermoX® LED, Ø 74 x 95 mm



Art. No. 9320-20 ThermoX® LED, Ø 86 x 70 mm



Art. No. 9320-10 ThermoX® LED, Ø 86 x 95 mm

Technical processing instructions/standards

- use only certified (EN 60598) luminaires which are suitable for direct installation on normally flammable materials

ThermoX® LED housing

- for rigid and pivoting LED luminaires
- circumferential airtight sealing lip
- Swivel trough for alignment of the luminaire



3D animation



Depth	75 mm	95 mm	75 mm	95 mm
installation from front, cut hole Ø	74 mm	74 mm	86 mm	86 mm
Cable entries	1	3	3	3
max. installation depth for the LED luminaires	60 mm	85 mm	60 mm	85 mm
max. lamp output	6,6 Watt	9 Watt	8 Watt	10 Watt
max. ceiling exit (DA) Ø	70 mm	70 mm	81 mm	81 mm
Art. No.	9320-10	9320-11	9320-20	9320-21
Inner packaging/shipping	- / 10	- / 10	- / 10	- / 10

Air-tightness certificate

Guaranteed airtight housing for the energy-efficient electrical installation of luminaires. The appropriate certificate can be obtained from us or downloaded from our website.



EnoX® installation housing

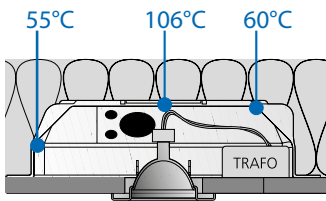
EnoX® housing for luminaires and other devices in ceilings and walls which are produced in a lightweight design with an air-tight building shell. Variable installation space when there is insufficient room to install electrics in the insulation level.

- Air-tight installation in line with EnEV energy-saving ordinance.
- No additional installation level is necessary
- For ceilings and walls in renovated and new buildings
- Toolless cable and conduit entry
- Thermally-protected installation space 300 x 200 x 55 mm
- ECON® technology for air-tight and toolless insertion
- FX4 technology for fast cavity wall installation

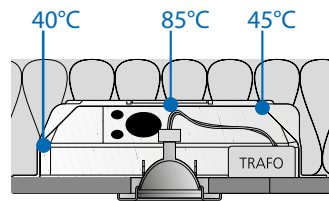


Installation technology for low-voltage luminaires

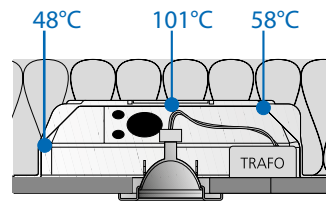
Temperature profile for room temperature 23°C



Low-voltage 35 W cool beam



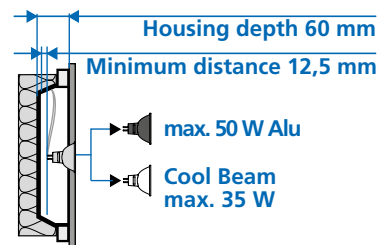
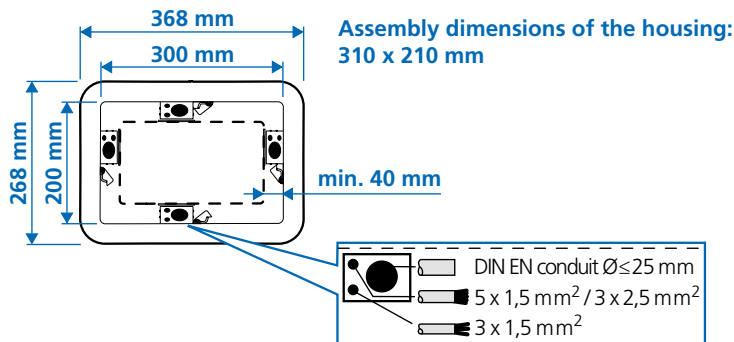
Low-voltage 35 W Alu



Low-voltage 50 W Alu



Example of installation



Technical processing instructions / standards

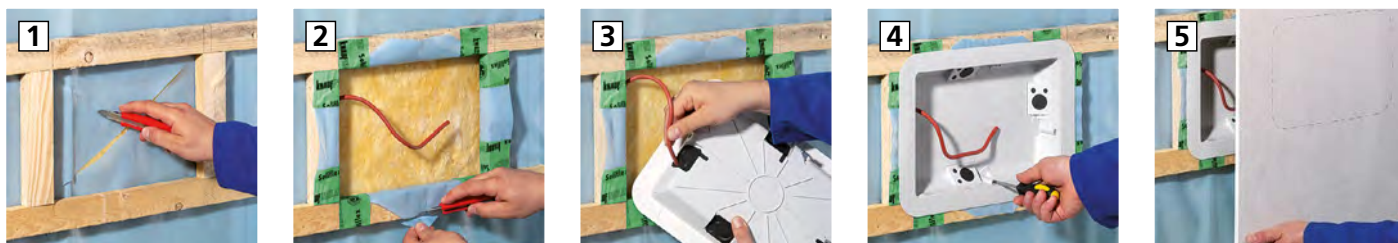
- use only certified (EN 60598) luminaires which are suitable for direct installation on normally flammable materials
- only for insulation material with heat resistance > 250 °C
- use only tested heat-resistant cables (N2 GMH 2G) and temperature-resistant terminals (e.g. T100)
- use of electrical safety transformers up to 105 VA
- max. 35 W Cool-Beam, 50 W aluminium reflector, 6.6 W LED luminaires

Mounting instructions

The EnoX® housing is installed within or on the rafters using the timber or metal joist. In accordance with the cavity wall box principle, the housing is fixed to the joist or to an OSB panel using the FX4 strap fastening system. The cut-off moisture barrier is made air-tight again using sealing adhesive foil or the KAISER sealing foam frame. Before attaching the boarding, completely remove the moisture barrier foil from the housing interior. Together with the moisture barrier, the EnoX® housing now forms one unit to ensure air-tight installation in accordance with the EnEV energy-saving ordinance.



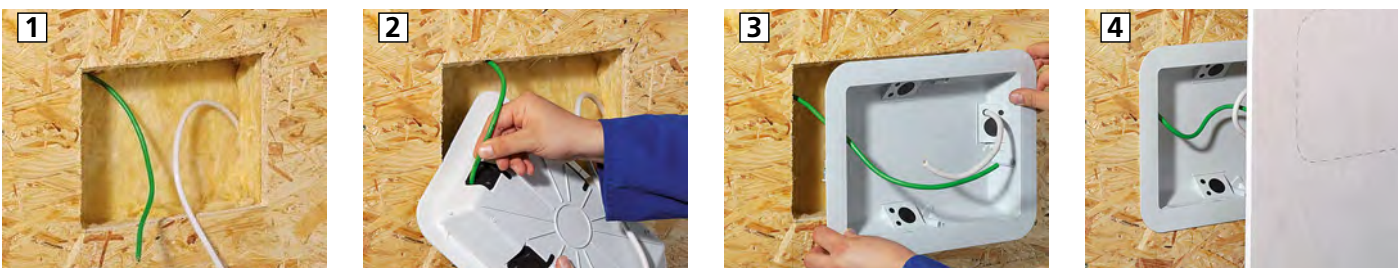
Timber joist on the rafter



Timber joist inside the rafter



Installation using OSB panel.



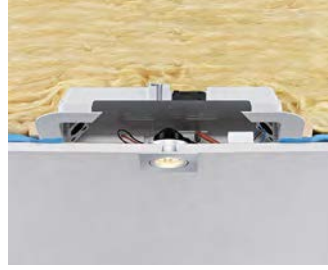
Making the installation opening for luminaires



Installation technology



In sloping roofs, for example, EnoX® acts as an air seal and creates a flexible space for the electrical installation in the insulation base.



Application example: LED luminaires

EnoX® - luminaire and loudspeaker housing

- for installing luminaires, loudspeakers, displays and much more
- Minimum distance inside: min. 40 mm all round
- integrated stress relief (retention force) in accordance with DIN VDE 0606 / DIN EN 60670-1
- only for insulation material with heat resistance > 250 °C
- use only tested heat-resistant cables (N2 GMH 2G) and temperature-resistant terminals (e.g. T100)
- for installation devices up to LxW 120 x 220 mm or Ø 120 mm
- Heat distortion resistant to 220°C
- with 4 screws (FX4)



Length x Width x Depth	368 x 268 x 60 mm
Length on the inside	300 mm
Width on the inside	200 mm
Depth on the inside	57 mm
Conduit entries for DIN EN conduits up to Ø 25 mm	4
Cable entries 3 x 2.5 mm² or 5 x 1.5 mm²	4
Cable entries 3 x 1.5 mm²	4
Art. No.	9350-21
Inner packaging/shipping	- / 10

EnoX® sealing foam frame

- for fixing onto the EnoX® housing
- for sealing the moisture barrier to the housing



Art. No.	9350-99
Inner packaging/shipping	- / 10



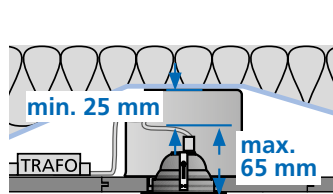
ThermoX® installation housing

ThermoX® installation housing for installing halogen and pivoting recessed LED luminaires in various ceiling structures. The housing protects the surrounding material (moisture barrier foil, insulation etc.) from the lamp's extreme operating temperatures and creates an air-tight closure.

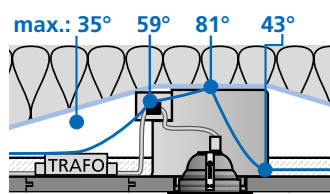
- Installation housing for halogen luminaires (low voltage and high voltage)
- Fire-preventive and air-tight
- For insulated hollow ceilings
- Two different front part types
- Integrated transformer closing cap
- Ceiling exits (CE) up to Ø 86 mm
- Installation from either above or below



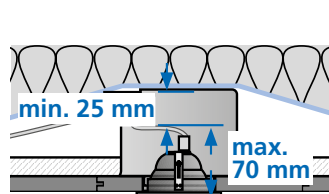
Installation technology for low-voltage and high-voltage luminaires



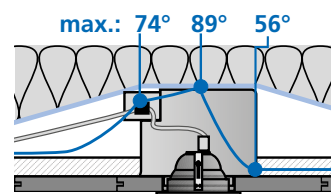
Usable lamps: Cool-Beam max. 20 W, aluminium reflector max. 35 W



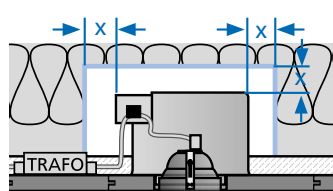
Aluminium reflector 35 W



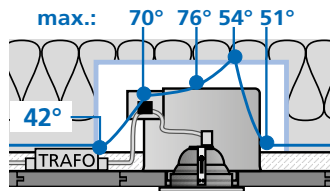
Usable lamps: Cool-Beam max. 20 W, aluminium reflector max. 35 W



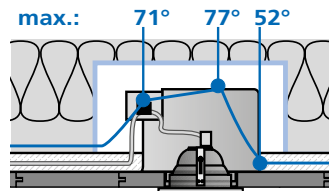
Aluminium reflector 35 W



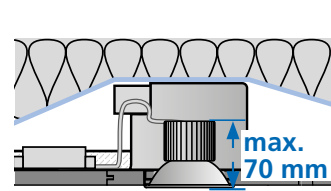
Usable lamps with „x“: Cool-Beam max. 35 W, aluminium reflector max. 50 W



Aluminium reflector 50 W



Aluminium reflector 50 W

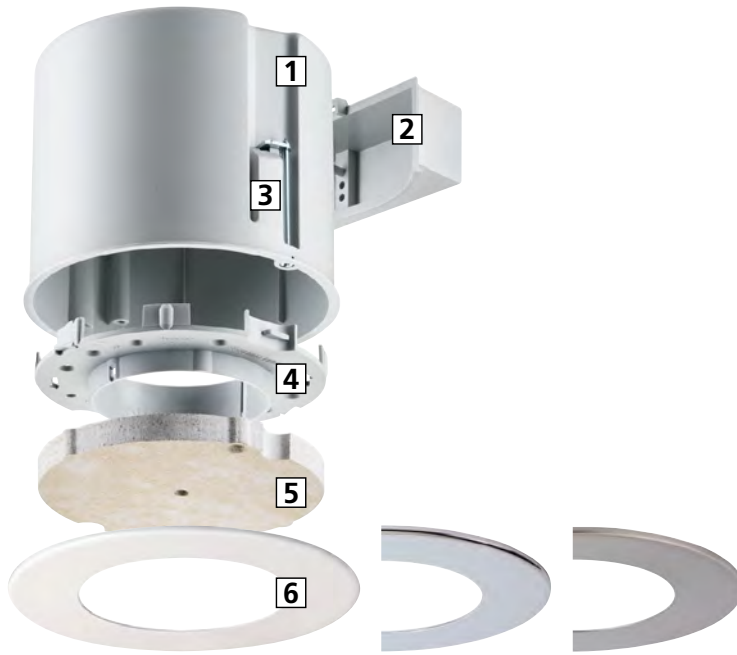


up to 6.6 W / ET max. 70 mm

Technical processing instructions / standards

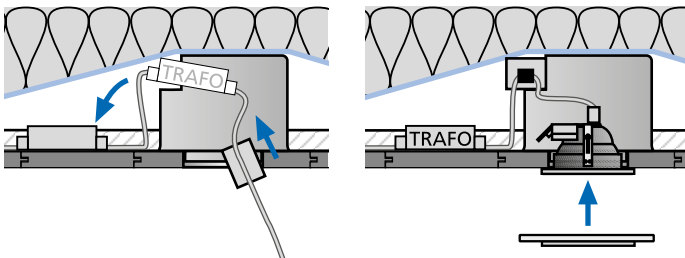
- use only certified (EN 60598) luminaires which are suitable for direct installation on normally flammable materials
- use heat-resistant cable for the SEC side
- electronic safety transformers up to 105 VA can be used. Dimensions max. 123 x 37 x 26 mm. A rounded shape is advantageous for installation and removal (e.g. PC mouse shape)
- Use heat-resistant terminals (e.g. T100)
- Distance of holder and cable to the housing min. 10 mm

System components



1 Housing | **2** Closing cap of the operating device opening | **3** Quick fastening FX4 for cavity wall installation | **4** Front part with bayonet fitting (both sides can be used) | **5** Mineral fibre front part (for variable installation openings up to Ø 86) | **6** Decorative covering Ø 125 (white, similar to RAL 9016, chrome-plated, matt nickel or gold-plated)

Transformer and luminaire installation



Push the transformer through...
insert the closing cap...

...install luminaires and fit
decorative covering if used.
Finished.

Air-tight installation and fire-preventive protection

ThermoX® protects the surrounding material against the extreme temperatures that can occur with halogen luminaires or LED lamps (over 200 °C). DO NOT install the housing if it is wrapped in insulating material! The distance from the holder and cable to the housing must be at least 25 mm. This protective measure can be taken both in new buildings and later in existing ones for refurbishing work. ThermoX® makes possible air-tight installation as it does not destroy the moisture barrier foil that contributes to the air-tight building shell. Thanks to its air tightness, the ThermoX® housing is also suitable for all suspended ceiling systems where an uncontrolled exchange of air is to be avoided (e.g. air-conditioning or cooling ceilings) and dust-tight installation must be achieved (e.g. prevention of dirt particles caused by material removal).

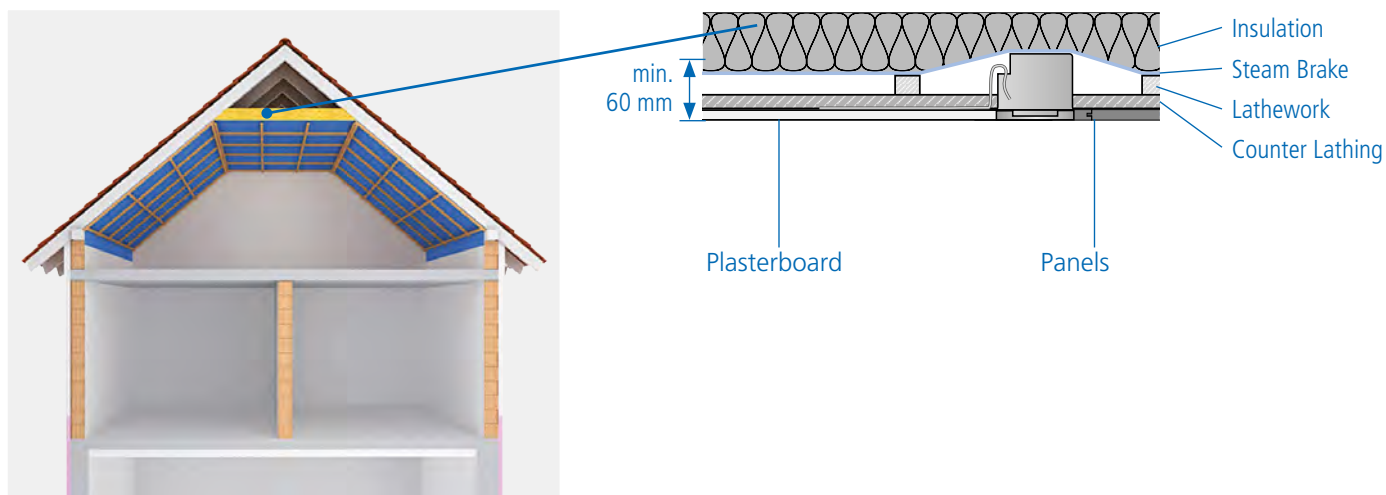
ThermoX® system for insulated hollow ceilings

for halogen and LED built-in luminaires

Mounting option



ThermoX® - installation instruction



Processing instructions



Use the universal opening cutter to make the precise and air-tight opening for the cable entry in the transformer flap.



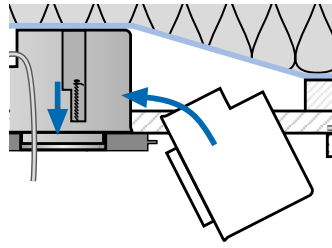
The terminal is fitted firmly in the transformer closing flap so it is protected against the heat from the lamp.



For transformer maintenance, the transformer cap can be removed with a screwdriver or long-nosed pliers even after installation.

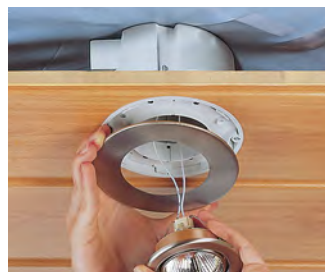
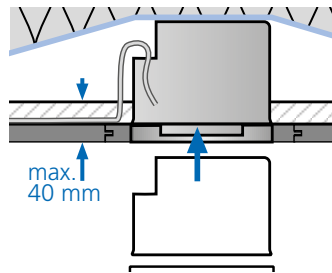
Slab ceiling / Installation from above: during ceiling installation

Cut the installation opening and insert the housing from above. The shape of the front part ensures a secure and precise fit in the boarding. After the luminaire has been installed, the opening is completely concealed.



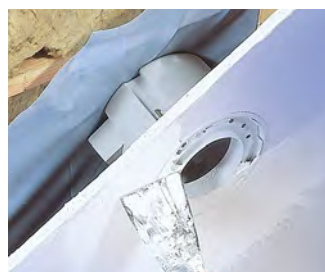
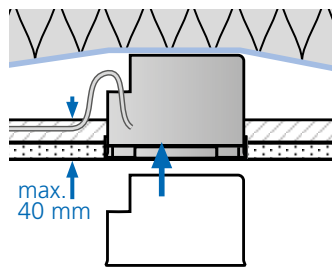
Slab ceilings / Installation from below: retrofitting

Cut an installation opening, insert the housing from below and fix in place with a fast screw attachment. The housing is attractively concealed by the KAISER decorative covering and the luminaire.



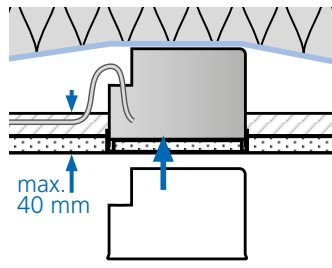
Plasterboard / Installation from below: retrofitting / smoothing

Before installation, check the required installation depth! Cut the installation opening, chamfer the bottom edge of the installation opening. Insert the housing from below and fix in place with a fast screw attachment.



Plasterboard / Installation from below: retrofitting with mineral fibreboard

Cut and chamfer the installation opening. Insert the housing from below and fix in place with a fast screw attachment. Mark opening for luminaires and cut. Smooth the joint or simply wallpaper the surface.



ThermoX® system for insulated hollow ceilings

for halogen and LED built-in luminaires

ThermoX® housing for low and high-voltage luminaires

- for halogen luminaires and pivoting LED luminaires
- max. installation height for low-voltage luminaire 65 mm, HV luminaire 70 mm
- Heat distortion resistant to 220°C
- lamp wattage LV: max. 35 W with AL reflector / 20 W Cool-Beam
- lamp wattage for HV luminaires max. 35 W with AL reflector (socket GU 10)
- max. LED lamp output 6.6 W
- Front can be used on both sides



For panel thickness	7 - 40 mm	7 - 40 mm	7 - 40 mm
Depth	90 mm	90 mm	90 mm
Ceiling exit (CE) Ø	68 mm	75 mm	82 mm
installation from front, cut hole Ø	120 mm	120 mm	120 mm
installation from rear, cut hole Ø	74 mm	79 mm	86 mm
Art. No.	9300-01	9300-02	9300-03
Inner packaging/shipping	- / 10	- / 10	- / 10

ThermoX® universal housing with mineral fibreboard

- saves time - no plastering; close joint gap if necessary
- ceiling exit (CE) up to Ø 86 mm possible
- Heat distortion resistant to 220°C
- max. installation height for low-voltage luminaire 65 mm, HV luminaire 70 mm
- lamp wattage LV: max. 35 W with AL reflector / 20 W Cool-Beam
- lamp power for HV luminaires max. 35 W with AL reflector (base GU 10) / 20 W Cool-Beam
- max. LED lamp output 6.6 W



For panel thickness	7 - 40 mm
Depth	90 mm
Ceiling exit (CE) Ø	0-86 mm
installation from front, cut hole Ø	120 mm
Art. No.	9300-22
Inner packaging/shipping	- / 10

ThermoX® individual front rings

- for retrofitting or as spare part



Ceiling exit (CE) Ø	68 mm	75 mm	82 mm
Art. No.	9300-41	9300-42	9300-43
Inner packaging/shipping	- / 10	- / 10	- / 10

ThermoX® universal front ring

- for retrofitting or as spare part
- Universal front ring



Ceiling exit (CE) Ø	0-86 mm
Art. No.	9300-93
Inner packaging/shipping	- / 10

ThermoX® Decorative coverings

- metal with galvanised or powder coating
- only for interiors
- minimum diameter of the luminaire 79 mm with ceiling exit Ø 68 and 75 mm
- Minimum diameter of luminaire covering 86 mm with ceiling exit Ø 82 mm



Ceiling exit (CE) Ø	Colour	Outer diameter	Art. No.	Inner packaging/shipping
68 + 75 mm	white	125 mm	9301-01	- / 10
68 + 75 mm	chrome	125 mm	9301-02	- / 10
68 + 75 mm	matt nickel	125 mm	9301-03	- / 10
82 mm	white	125 mm	9301-11	- / 10
82 mm	chrome	125 mm	9301-12	- / 10
82 mm	matt nickel	125 mm	9301-13	- / 10





NEW

Spacer

The spacer for the installation of swivelling built-in halogen and LED luminaires in various ceiling constructions. The housing ensures the necessary distance between the luminaire and the surrounding material. In this way, materials such as the moisture barrier and insulation are efficiently protected against the luminaire's high operating temperatures. This protective measure can be provided for both new buildings and retrofitting work. The housing is suitable for installation diameters between 68 and 80 mm, and can be adapted for use with different installation heights from 40 to 100 mm. After installation, the spacer stands securely on the boarding. This means that the installation diameter is fully retained and guarantees a secure fit.

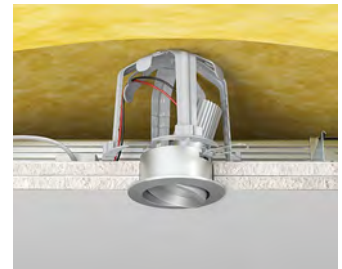
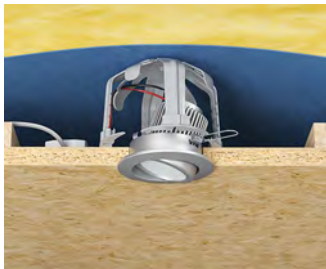
- Installation in Ø 68 – 80 mm openings
- Maximum flexibility: Installation height from 100 – 40 mm
- Independent of boarding material and thickness
- Secure fit by means of installation on the ceiling
- Use with all standard LV / HV / LED lamps



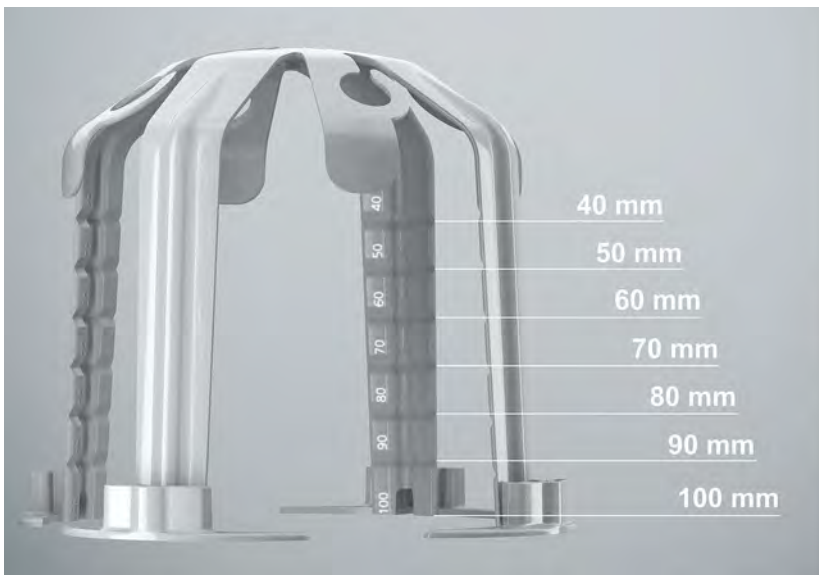
**ONE
FOR ALL**

Examples of use

The spacer for installing luminaires in insulated hollow ceilings can be used in panelled and coffered ceilings as well as in jointless false ceiling constructions made of plasterboard, mineral fibre boards, MDF and chipboard.



Spacer installation height from 100 to 40 mm and installation diameter from 68 to 80 mm



Mounting



Make the cut opening.



Toolless breaking-off of the feet.



Setting the required height of 100 - 40 mm by breaking off the feet.



Pushing-on of the legs.



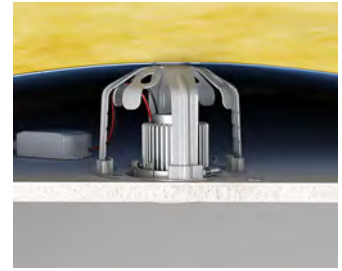
Four loops for secure cable routing.



Installation in Ø 68 - 80 mm openings.



Installation of the luminaire.



Housing stands securely on the ceiling boarding and creates the necessary spacing to the insulation.

Spacer

- for installation in insulated hollow ceilings
- retrofitting from below
- toolless mounting
- For Ø 68 - 80 mm installation openings
- height adjustable from 100 - 40 mm



NEW

INNOVATION



3D animation

Depth	100 - 40 mm
installation from front, cut hole Ø	68 - 80 mm
max. installation depth for the LED luminaires	95 mm
max. ceiling exit (DA) Ø	80 mm
Cable entries max.	4
Art. No.	9310-10
Inner packaging/shipping	- / 10

Note

When using the spacer and adjusting the installation height, the installation/application instructions of the luminaire used must be observed.



Fire protection boxes

- Safe, visibly-certified fire protection
- HWD fire-protection boxes for fire-protection walls and ceilings and shipbuilding walls
- Smoke-proof and halogen-free
- Also suitable for subsequent installation



Sealings

- Safe, visible and certified protection by using KAISER sealing systems for cables, conduits, cable and conduit bundles
- Independent sealing of joints and gaps between cables without filling and smoothing
- Europe-wide approval for fire sealings



Fire protection housing

- Secure fire-protection housing for built-in luminaires and loudspeakers in fire-protection ceilings.
- Integrated fire-retardant coating in fire protection ceilings maintains the ceiling's fire-resistance class F30 (EI30).
- Prevent the spreading of fire and smoke, which secures escape routes
- Suitable for fire stress from above and below

	Fire protection boxes	Shipbuilding boxes	Sealings	Fire protection housings	
					
For installation accessories					
One-gang boxes	p. 275/280	p. 284	-	-	
One-gang junction boxes	p. 272/275/280	p. 285	-	-	
One-gang boxes for thin boarding	-	p. 284	-	-	
One-gang junction boxes for thin boarding	-	p. 285	-	-	
Electronics box	p. 278	-	-	-	
For cable exits					
Luminaire connection boxes	p. 282	-	-	-	
For luminaires and loudspeakers					
Fire protection housings	-	-	-	p. 303	
Housings for preventive fire protection in insulated ceilings	-	-	-	p. 254	
Feed-throughs					
Feed-through of cables	-	-	p. 289	-	
Feed-through of conduits	-	-	p. 290	-	
Feed-through of bundled cables and conduits	-	-	p. 291	-	
Field of application					
Wall	•	•	•	-	
Ceiling	•	-	•	•	
Accessories					
Fixing	p. 138	p. 138	-	-	
Sealing of electrical installation conduits (air-tight and smoke-tight)	p. 302/111/30	p. 302/111/30	p. 302/111/30	p. 302/111/30	
Support connectors	p. 275/92/108/122	p. 275/92/108/122	-	-	
End cover	p. 282	p. 282	-	-	

FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

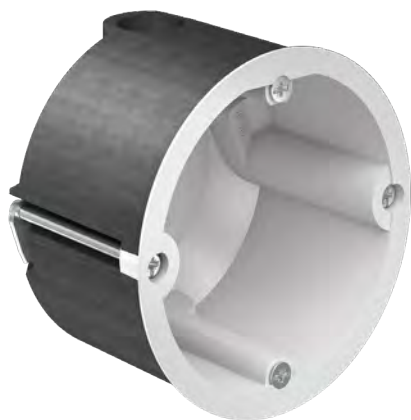
FIRE PROTECTION

SURFACE

CABLE GLANDS

TOOLS

SERVICE



Intelligent fire-protection technology

AFS (Active-Fire-Stop) technology activates the fire-retardant coating immediately in the event of a fire, which intumesces and reliably closes off the installation opening. This guarantees maintenance of the fire-protection class of the ceilings or walls (up to E120) in spite of the installation openings.

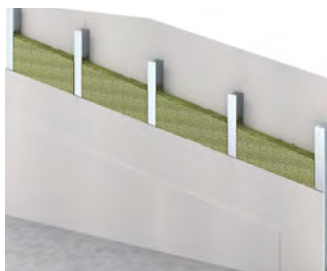
- Fire protection — without encasing
- Smokeproof and halogen-free
- For walls and ceilings
- For buildings and ship construction
- Maintains the wall's sound insulation protection

DIBt approval
General type
approval

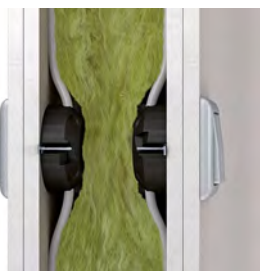


Fire-protection walls

Fire-protection walls with fire resistance class EN 13501-2 are single or double shell, non load-bearing, internal separator walls with wall thicknesses of 100 mm or above. The insulating material used is defined in accordance with EN 13501 part 1. 2 x 12.5 mm GKF plaster-board fire protection panels are often used as boarding. According to DIN 4102, the installation of opposing standard cavity wall boxes is not permitted, and the installation of single installation boxes is only permitted depending on the melting point, the gross density and the thickness of the insulating material. This means that an on-site enclosure is required, e.g. with plaster, fibre silicate or similar. In addition, with solid constructions, ensure that there is a remaining wall thickness of 60 mm behind flush-mounting boxes installed on one side or between flush-mounting boxes with opposing installation.

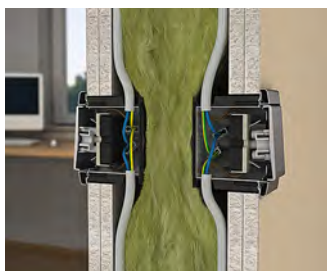


Installation of F90 metal stud walling in compliance with DIN 4102, Part 4



Construction of an EI 90 solid wall made of sand-lime bricks (11.5 cm thick)

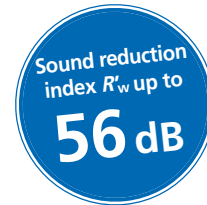
Reaction of the fire-retardant coating if a fire breaks out



Flush-mounting fire-protection box

In solid construction EI30 - EI120 fire-protection walls, the fire-protection box receives the fire-protection period classification instead of fitted electrical installations. Even if the minimum wall thickness of 60 mm is not achieved in single-sided installation, or even in directly opposing installation, the fire-protection box ensures secure and smokeproof room separation. In the event of a fire, the integrated fire-retardant coating quickly and reliably seals the installation opening, so preventing smoke and flue gas from spreading. At the same time, the risk of the fire spreading because the remaining wall is not thick enough is prevented.

- For EI30-EI120 fire-protection walls
- For minimum remaining wall thicknesses ≤ 60 mm
- Also for directly opposing installation
- Variable combination connection piece for conduits up to M25
- With fire-protection cover can be used as a junction box
- Maintains the wall's sound insulation protection



Examples of use



For EI30-EI120 fire-protection walls.



For one-sided (minimum remaining wall thicknesses ≤ 60 mm) and for directly opposing installation.



Installation also possible in combinations.



With fire-protection cover (Art. No. 1184-94) can also be used as a junction box.

Processing instructions



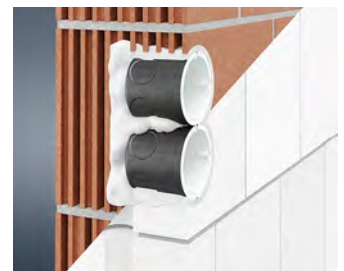
The flush-mounting fire-protection box provides 6 entry options for conduits up to M25 and cables up to $\varnothing 11.5$ mm



The combination connection piece ensures a stable connection for combinations and makes possible the entry of conduits up to M25.

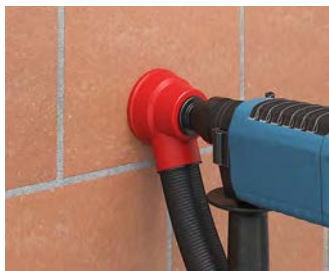


Fire protection is guaranteed with directly opposing installation and with less than the minimum remaining wall thickness.



The flush-mounting fire-protection box can be fitted in all fire-protection walls e.g. made of cellular concrete, sand-lime or vertically perforated chamber stones.

Installation



Cut a Ø 82 mm installation opening using a grinding head (e.g. Art. No. 1088-02).



Make exact cable and conduit entries with the universal opening cutter (Art. No. 1085-80).



For combinations, the one-gang junction boxes are securely joined to each other by means of the connector.



Fixing simply with plaster or mortar. Special fire-protection mortar is not necessary.



Sturdy support connectors make possible standardised combination distance of 71 mm.



Smokeproof and fully-insulated through-wiring takes place by means of the support connector



Example of installation of a combination.





With the fire-protection cover (Art. No. 1184-94), the box can also be used as a junction box.

Flush-mounting fire-protection box

- for EI30 - EI120 fire-protection walls
- also for minimum remaining wall thickness ≤ 60 mm
- also for directly opposing installation
- with 4 screw domes and 2 expanding claw fields



INNOVATION

Depth	60 mm
Installation opening Ø	60 mm
Tube entries up to M25	6
Cable entries of up to Ø 11.5 mm	6
Halogen-free	•
ETA approval	ETA-18-0091
 / 	• / •
for sound insulation walls up to	56 dB
Art. No.	1564-01
Inner packaging/shipping	10 / 100

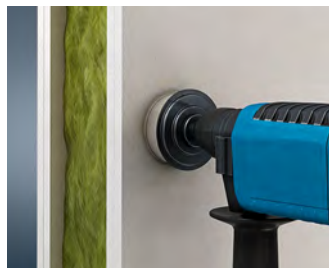
Fire protection cavity wall box

HWD 90 cavity wall boxes for EI30-EI120 fire-protection walls ensure certified and fire-protection compliant electrical installation. Intelligent AFS technology reacts immediately to fire and heat and automatically seals the installation opening. This guarantees the fire resistance class of the fire-protection wall and secures escape routes. Use in all fire-protection walls and the fire-resistance duration of up to 120 minutes ensures maximum flexibility, even when the planning is changed. At the same time, it also maintains the wall's sound insulation requirements.

- For EI30-EI120 fire-protection walls
- Maintains the wall's sound insulation protection
- Also suitable for retrofitting
- With fire-protection cover can be used as a junction box
- Also for directly opposing installation



Installation



Cut installation opening Ø 74 mm using the turbo cutter MULTI 4000 (Art. No. 1084-10).



The exact opening for the cable is created smokeproof with the KAISER universal opening cutter Art. No. 1085-80. Set the opening cutter to Ø 8.5 for 3 x 1.5², to Ø 9.5 for 5 x 1.5² and to Ø 9.5 for 3 x 2.5².



Fixing of the boxes with tried-and-tested cavity wall technology using KAISER FX4 technology.



The fully-insulated through-wiring of one-gang junction boxes with each other is created using the support connector (Art. No. 9060-78).

Installation in installation shafts

The HWD 90 cavity wall boxes can also be used in shaft walls for fire protection purposes. The cavity wall boxes fulfil the requirements in combinations of up to five. The boxes are installed from the front in the same way as during conventional wall installation - also during retrofitting.

- I30: without insulation material
- I60: Insulating material EN 13501 part 1
- I90: Rockwool/Termarock 100



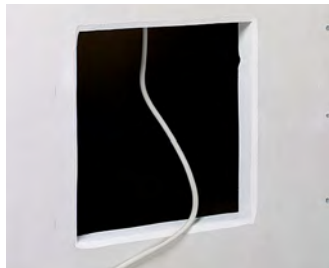
Retrofitting in installation shafts

The HWD 90 cavity wall boxes can also be retrofitted in installation shafts (shaft walls). Since retrofitting partly requires adding mineral wool to the opening, a cut-out of at least 300 x 300 mm is needed to make space for perfect installation. Use the following cut-out dimensions for the relevant combinations:

- 1-time: 300 x 300 mm
- 2 to 3-times: 300 x 400 mm
- 4 to 5 times: 300 x 600 mm



Make a 300x300 to 300x600 mm cut-out (see above). The insert dimension of the additional mineral wool section must be at least 25 mm larger on all sides.



Chamfer the edges on all sides for subsequent filling.



Insert CW profile and attach by screwing quick-fastening screws through the boarding.



Feed the insert into additional mineral wool into the shaft with the upper CW profile.



Fasten insert in lower attached CW profile and attach by screwing quick fastening screws through the boarding.



Added mineral wool in CW profiles (rear view).



Add boarding section (according to Fig. 1) and attach on CW profile.



Seal chamfered boarding on transition to wall using KAISER fire-protection putty (Art. No. 9400-05).



Smooth out using filler to allow the second boarding to be inserted flush to the wall.



Make a Ø 74 mm installation opening and insert the HWD 90 cavity wall box.



Typical installation using KAISER FX4 technology.



Then fill the chamfer of the second boarding layer.

Note


In addition to the general building approvals issued by the DiBt (German Institute of Building Technology), we can, upon request, provide you with the test report for approval in Austria issued by the „IBS Prüfinstitut für Brandschutztechnik und Sicherheitsforschung in Linz.“

One-gang box HWD 90

- for fire-protection walls EI30 - EI20
- also for installation shafts/installation channels I30 - I90



3D animation

For panel thickness	7 - 40 mm
Depth	44 mm
Cut hole Ø	74 mm
Cable entries of up to Ø 11.5 mm	2
Halogen-free	•
DIBt approval	Z-19.21-1788
Combination distance through single separation of the pre-embossed edge	71 mm
for sound insulation walls up to	77 dB
	•
Art. No.	9463-01
Inner packaging/shipping	10 / 100



Accessories: Fire-protection cover HWD 30-120, Page 282

One-gang junction box HWD 90

- for fire-protection walls EI30 - EI20
- also for installation shafts/installation channels I30 - I90



3D animation

For panel thickness	7 - 40 mm
Depth	54,5 mm
Cut hole Ø	74 mm
Cable entries of up to Ø 11.5 mm	4
Support connectors for each package	5
Halogen-free	•
DIBt approval	Z-19.21-1788
Combination distance through single separation of the pre-embossed edge	71 mm
alternatively cable entry for three-phase alternating current of up to 5 x 2.5 mm possible	•
for sound insulation walls up to	77 dB
 	• / •
Art. No.	9464-01
Inner packaging/shipping	10 / 100

Support connector

- for through-wiring of combinations to IP 3X standard air-tight
- smoke-tight
- for Art. No. 9464-01, 9464-15, 9464-50



Halogen-free	•
Art. No.	9060-78
Inner packaging/shipping	25 / 100

Fire-protection box HWD 90 for Swiss accessories



3D animation

- for EI 30 - EI 90 fire-protection walls
- VKF Approval 26831
- also for opposing installation
- for plate thickness 7 - 40 mm
- matching plug-in cover for Art. No. 9498-77 New Look one Art. No. 9919.10
- for device screws Ø 3 mm
- max. tightening torque 0.5 Nm
- Pipes must be sealed with sealing plugs!



Length x Width x Depth	Cut hole Ø	Tube entries up to M25	Combination	Art. No.	Inner packaging/shipping
83 x 83 x 73.5 mm	83 mm	2	1x1	9499-77	10 / 100
145 x 83 x 73.5 mm	83 mm	2	2x1	9499-77.02	- / 5
205 x 83 x 73.5 mm	83 mm	2	3x1	9499-77.03	- / 5
145 x 145 x 73.5 mm	83 mm	4	2x2	9499-77.04	- / 5
205 x 145 x 73.5 mm	83 mm	4	3x2	9499-77.06	- / 5

Fire-protection box HWD 90 for Swiss accessories



3D animation

- for EI 30 - EI 90 fire-protection walls
- VKF approval 21042
- also for opposing installation
- for plate thickness 7 - 40 mm
- matching plug-in cover for Art. No. 9498-77 New Look one Art. No. 9919.10
- for device screws Ø 3 mm
- max. tightening torque 0.5 Nm

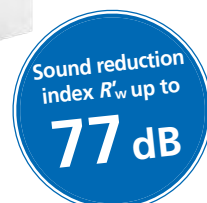


Length x Width x Depth	83 x 83 x 50 mm	145 x 83 x 50 mm	205 x 83 x 50 mm
Cut hole Ø	83 mm	83 mm	83 mm
Combination	1x1	2x1	3x1
CE / VKF AEAJ	• / •	•	•
850 °C / E190	• / •	•	•
Ⓢ	•	•	•
Art. No.	9498-77	9498-77.02	9498-77.03
Inner packaging/shipping	10 / 100	- / 5	- / 5

Electronics box HWD 90

The HWD 90 electronics box maintains the wall's fire resistance class (EI30 - EI120) and creates installation space for electronic switch devices, data boxes, cables and terminals. The electronics box allows population with cables and also with installation conduits up to M25.

- For EI30-EI120 fire-protection walls
- Retrofitting is possible
- Also for use as a double box
- Extra-large terminal area for communications and network technology
- Additional space for electronic components (KNX actuators, relays, radio module, communications technology)
- Maintains the wall's sound insulation protection



Examples of use



The electronics box provides space for all possible installations e.g. KNX actuators, Venetian blinds relays, alarm modules and many more.



Also ideal for network connections. The generous box volume offers sufficient space for cable reserves.



The electronics box can also be used as a double box, e.g. for switch and socket combinations.



The electronics box can easily be combined with the one-gang junction box HWD 90.

Processing instructions



The electronics box provides 6 ways for conduit entry up to M25 and cable entry up to Ø 11.5 mm.

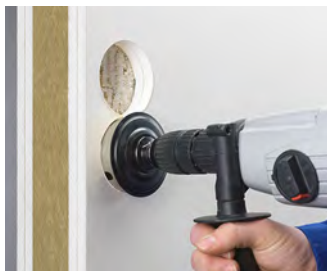


By removing the cover...



...and the bridge can also be used as a double box.

Installation



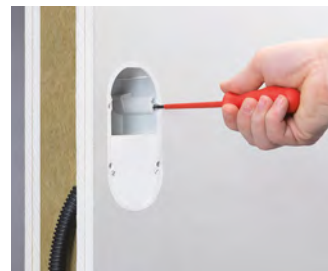
Cut two installation openings using turbo cutter MULTI 4000 Ø 74 mm (Art. No. 1084-10) with a centre distance of 71 mm.



Removal of the bridge.



Using the KAISER universal opening cutter or a step drill or reamer, cut an exact conduit or cable opening for smoke-tight installation.



Fitting the box using tried-and-tested FX4 technology.



The additional terminal space makes possible the fitting of various electronic components...



...and sufficient space for the cable reserve when communications and network boxes are installed.



By using support connectors, the box can be combined with itself or with a one-gang junction box (Art. No. 9464-01).



The cover can also be turned by 180° and mounted and filled. This will reduce any possible switching sounds.

Electronics box HWD 90

- For cables and conduits up to M25
- Also for use as a double box
- For EI30-EI120 fire-protection walls
- minimum wall thickness 100 mm
- For equipment inserts and electronic components
- Tunnel twin-chamber box with enclosed separator wall and cover that can be wallpapered over.
- Can be combined with each other and also with HWD 90 one-gang junction boxes



3D animation

For panel thickness	7 - 40 mm
Depth	70 mm
Cut hole Ø	2 x 74 mm
Centre distance	71 mm
Conduit entries for DIN EN conduits up to Ø 25 mm	4
Cable entries up to Ø 13.5 mm	4
Halogen-free	•
DIBt approval	Z-19.21-2064
CE / VDE	• / •
for sound insulation walls up to	77 dB
Art. No.	9462-94
Inner packaging/shipping	5 / 50

Fire-protection cavity wall box

Fire-protection boxes are given the same period of fire resistance in fire-protection walls EI30 - EI90 in spite of fitted electrical installations and ensure secure, smokeproof room separation. In the event of a fire, an integrated fire retardant quickly and reliably closes the installation opening and prevents flames and flue gases from escaping. This ensures that lives are saved and material goods are efficiently protected.

- For fire-protection walls EI30-EI90
- Maintains the wall's sound insulation protection
- Retrofitting is possible
- For Ø 68 mm component openings
- For directly opposing installation
- Break-out cable entry
- With fire-protection cover can be used as a junction box



Examples of use



For EI30-EI90 fire-protection walls



Also for directly opposing installation

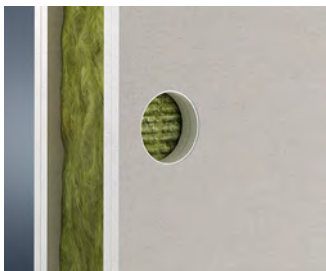


Combinations possible up to 5-way combinations of one-gang boxes and one-gang junction boxes.



With a fire-protection cover, it can also be used as a junction box

Processing instructions



Can be used in Ø 68 mm installation openings



Simple break-out cable entry with cable retention acc. to DIN EN 60670

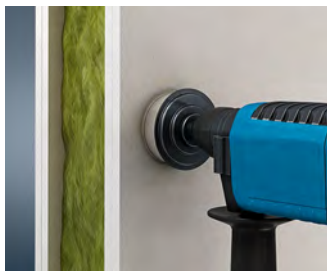


Up to 6 opportunities for cable entries for sheathed cables with external diameters of 4 - 11.5 mm



Fully-insulated through-wiring of one-gang boxes and one-gang junction boxes with the support connector (Art. No. 9060-68).

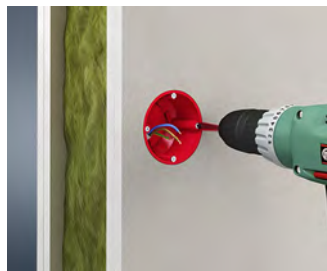
Installation



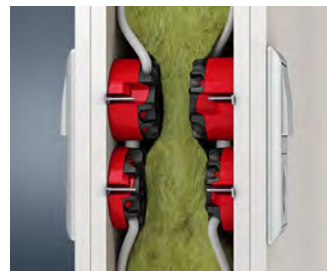
Cut Ø 68 mm installation opening with turbo cutter Multi 4000 (Art. No. 1083-10).



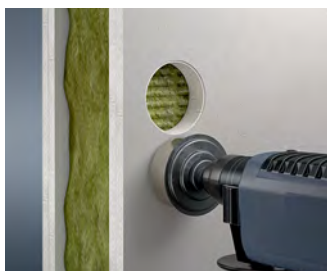
Break out closing of the cable entry for sheathed cables up to 5x2.5² or communication cables



Fitting the box using tried-and-tested KAISER FX4 technology.



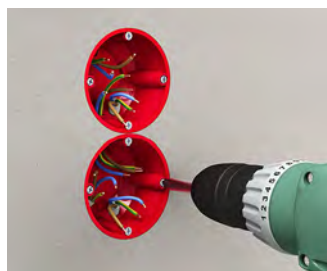
Opposing installation of one-gang boxes in a wall thickness of 100 mm and higher and of one-gang junction boxes in a wall thickness of 125 mm and higher is possible.



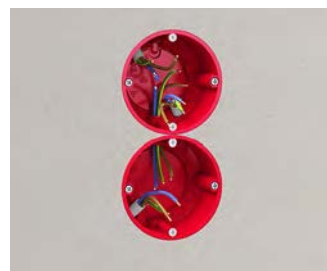
For combinations, create installation openings Ø 68 mm in centre distance 71 mm.



Insert cables.



Fixing the boxes in the installation opening.



Using support connector (Art. No. 9060-68), make fully-insulated through-wiring.

One-gang box HWD 68

- for EI 30 - EI 90 fire-protection walls
- also for directly opposing installation
- minimum wall thickness 100 mm
- can be combined with each other and with the one-gang junction box





One-gang junction box HWD 68

- for EI 30 - EI 90 fire-protection walls
- also for directly opposing installation
- minimum wall thickness 125 mm
- combinable with each other and with the one-gang box



3D animation



Depth	49 mm	62 mm
Cut hole Ø	68 mm	68 mm
Support connectors for each package	5	5
Halogen-free	•	•
DIBt approval	Z-19.21-2321	Z-19.21-2321
 / 	• / •	• / •
Cable entries of up to Ø 11.5 mm	6	6
for sound insulation walls up to	69 dB	69 dB
For panel thicknesses up to	40 mm	40 mm
Art. No.	9463-02	9464-02
Inner packaging/shipping	10 / 100	10 / 100

Support connector

- for through-wiring of combinations to IP 3X standard air-tight
- smoke-tight
- for Art. Nos. 9463-02, 9464-02, 9069-03, 9069-04



Art. No.	9060-68
Inner packaging/shipping	25 / 100

Ceiling box HWD 30

HWD 30 ceiling box guarantees F30 to F90 fire protection. If a fire starts, the integrated fire-retardant coating immediately generates foam and seals the opening in the ceiling. Even when retrofitted, the HWD30 ceiling box provides protection.

- For F30-F90 fire protection ceilings
- Encasing is not necessary
- For installation of smoke detectors, motion detectors, etc.
- With a fire-protection cover, can be used as a ceiling junction box
- Also suitable for retrofitting



Examples of use

The HWD 30 ceiling box also lets you install for example presence and smoke detectors or LED emergency route lighting in fire-protection ceilings without endangering the fire resistance class.



Processing instructions



Without mineral wool, the installation corresponds to fire resistance class F30.



If mineral wool in accordance with EN 13501 part 1 is used, the installation will withstand a fire up to fire resistance class F60, and with Rockwool/Termarock 100 up to fire resistance class F90.

Allocation table for universal opening cutters



Cavity wall installation for HWD 90 fire protection boxes		Ø setting
NYM cable	3 x 1.5 mm ²	8.5
	5 x 1.5 mm ²	9.5
	3 x 2.5 mm ²	9.5
Support connector	9060-78	Connector

You can create smoke-tight cable entries with the prescribed strain relief easily and to the exact required size with the universal opening cutter (art no. 1085-80).

Fire-protection ceiling boxes with sound insulation function

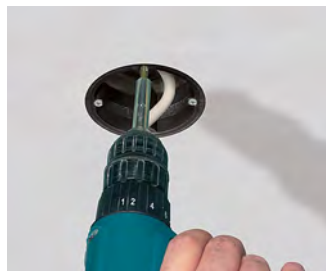
Installation



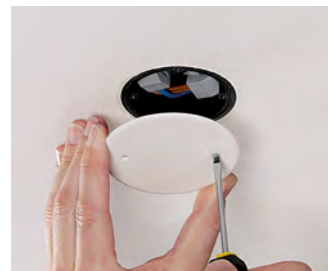
Cut installation opening
Ø 74 mm using the turbo
cutter MULTI 4000 (Art. No.
1084-10).



Cut the exact opening for the
cable with the KAISER universal
opening cutter.



Fixing of the boxes with
tried-and-tested cavity wall
technology using KAISER FX4
technology.



The fire-protection cover for
F30 ceilings has fire resistance
class F30, for F90 ceilings it has
fire resistance class F90.

Ceiling box HWD 30



- for fire protection ceilings F30-F90
- For F30 non-insulated fire-protection ceilings
- For F60 fire-protection ceilings backed with mineral insulation materials in compliance with EN 13501 part 1
- for F90 fire-protection ceilings with Rockwool/Termarock 100



Ceiling junction box HWD 30

- for fire protection ceilings F30-F90
- For F30 non-insulated fire-protection ceilings
- For F60 fire-protection ceilings backed with mineral insulation materials in compliance with EN 13501 part 1
- for F90 fire-protection ceilings with Rockwool/Termarock 100



Depth	44 mm	54,5 mm
Cut hole Ø	74 mm	74 mm
Fixing screw spacing	60 mm	60 mm
Cable entries of up to Ø 11.5 mm	2	4
Halogen-free	•	•
DIBt approval	Z-19.21-1788	Z-19.21-1788
 / 	• / •	• / •
Art. No.	9463-50	9464-50
Inner packaging/shipping	10 / 100	10 / 100

Fire-protection cover HWD 30-120

- For one-gang boxes/one-gang junction boxes and ceiling boxes HWD 90, HWD B15, HWD 30 and HWD 68
- Fire resistance class in accordance with ceiling or wall protection (EI30-EI120)
- EI30-EI120 function in conjunction with the one-gang box/one-gang junction box HWD 90
- EI30 function in conjunction with ceiling junction box HWD 30
- EI30-EI60 function in connection with one-gang/one gang junction box HWD 68



DIBt approval	Z-19.21-1788
	•
Art. No.	1184-94
Inner packaging/shipping	10 / 100

HWD B15 cavity wall box for shipbuilding walls

HWD B15 cavity wall box for category B15 partitions reacts to a fire very quickly. The integrated fire-retardant coating intumesces and reliably seals the installation opening. The HWD B15 cavity wall boxes protect against fire and smoke in the fire-protection zone and preserve the B15 function of the fire-protection wall for at least 30 minutes of flames.

- For category B15 partitions
- Encasing is not necessary
- With fire-protection cover can be used as a junction box
- Also suitable for retrofitting



Certified and designed for fast installation

Expensive and time-consuming encasing, i.e. metal, is avoided with the HWD B15 cavity wall box. The user is guaranteed a certified and fast installation.



Installation in mineral-based walls



In walls with mineral-based materials, working with the cutter (Art. No. 1084-10) is quick and simple. It cuts the required Ø 74 mm wall hole and creates the basis for an exact box installation that is flush to the wall.



Occupancy can be for a max. of four entries of up to Ø 13 mm as well as for flame-retardant cables in accordance with UL-VO. Use the KAISER universal opening cutter to cut the openings for the cable entry.



Fit the HWD B15 cavity wall box in the wall using FX4 screws.



For board thicknesses from 0.2 to 40 mm.

FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

SURFACE

CABLE GLANDS

TOOLS

SERVICE

Fire-protection boxes

for shipbuilding walls

Installation in metal-covered walls



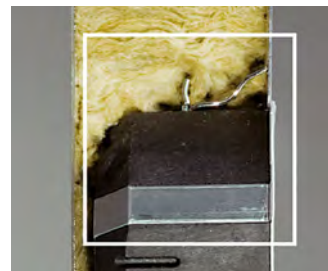
Cut the installation opening in metal plates with the cutter (Art. No. 1083-74).



Open the cable entry with the KAISER universal opening cutter.



Fit the HWD B15 cavity wall box in the wall using FX4 screws.



For thin boarding, one-gang boxes and one-gang junction boxes attached by straps are available for a clamping range of 0.2 mm and higher.

Combinations



It is very easy to combine one-gang junction boxes. After cutting the cutting holes (Ø 74 mm) at a standard distance (71 mm), remove the marked area of the holding ring.




The fully-insulated through-wiring of one-gang junction boxes with each other is created using the support connector (Art. No. 9060-78).



One-gang box HWD B15

· for shipbuilding walls in the category B 15 interface




For panel thickness	7 - 40 mm	0,2 - 40 mm	7 - 40 mm	0,2 - 40 mm
Depth	44 mm	44 mm	40 mm	40 mm
Cut hole Ø	74 mm	74 mm	74 mm	74 mm
Fixing screw spacing	60 mm	60 mm	60 mm	60 mm
Conduit entries up to Ø 13 mm	4	4	4	4
Halogen-free	•	•	•	•
Combination distance through single separation of the pre-embossed edge	71 mm	71 mm	71 mm	71 mm
CE / 	• / •	• / •	• / •	• / •
Art. No.	9463-15	9463-14	9461-15	9461-14
Inner packaging/shipping	10 / 100	10 / 100	10 / 100	10 / 100

One-gang junction

box HWD B15

· for shipbuilding walls in the category B 15 interface



For panel thickness	7 - 40 mm	0,2 - 40 mm
Depth	54,5 mm	54,5 mm
Cut hole Ø	74 mm	74 mm
Fixing screw spacing	60 mm	60 mm
Conduit entries up to Ø 13 mm	4	4
Support connectors for each package	5	5
Halogen-free	•	•
Combination distance through single separation of the pre-embossed edge	71 mm	71 mm
CE / 	• / •	• / •
Art. No.	9464-15	9464-14
Inner packaging/shipping	10 / 100	10 / 100





Sealing systems in fire-protection walls

Sealings in fire-protection walls are needed when cables or conduits must be fed through walls with a specific fire resistance class. To retain the relevant rating, expert sealing of the opening is needed. KAISER sealings maintain the wall's fire resistance classes (EI30-EI90).

halogen-
free

Europe-wide
ETA Certificate



The German Institute for Construction Technology (DIBt) has officially confirmed it: KAISER fire sealings are ideal for professional electrical installations in fire-protection walls. KAISER has received Europe-wide European Technical Assessment for the cable sealing system „System LS 90“, the conduit sealing system „System RS 90“ and box sealing system „System DS 90“. The fire sealings are certified for installation in drywalls, solid masonry and concrete construction walls. Non-destructive retrofitting is easy. Each of the tested products maintains the wall's fire resistance class and does not release any hazardous materials. This means that KAISER fire sealings allow fast, professional and - in every respect – safe sealing in fire-protection walls.

- Entries and feed-throughs in drywalls in accordance with DIN EN 1364-1
- Feed-throughs in solid masonry walls in accordance with DIN 1053
- Feed-throughs in concrete walls in accordance with DIN 1045



Cable sealing system LS 90, conduit sealing system RS 90

Pipe and fire-retardant systems for safe closure of passages and entrances in fire-protection walls. The certified retardants are quick and easy to install and can even be superimposed on cables and pipes retrospectively.

- Secure, visible, certified fire sealings
- For wall feed-throughs and entries
- Without filling and smoothing
- Automatic sealing of the joints
- For cables from Ø 5 - 15 mm
- For conduits M16 - M25

halogen-free

Europe-wide
ETA Certificate



Sound reduction
index R'_w up to
76 dB

Populating the sealing system



The cable sealing system LS 90 is suitable for all cable cross-sections from 5 – 15 mm (up to 5 x 2.5²).



The conduit sealing system RS 90 can accommodate the following conduit sizes: M16, M20 and M25.



The conduit sealing system RS 90 can also be used as a re-seal seal. For this purpose, the conduits must be sealed with KAISER sealing plugs.



Conduit sealing system RS 90 with M16, M20 and M25 conduits.

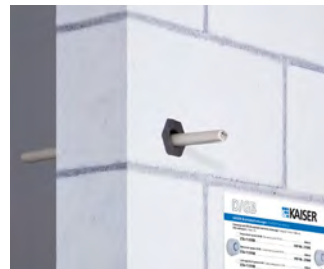
Examples of applications for cable sealing system LS 90



Wall feed-through in plasterboard fire-protection wall.



Wall entry in plasterboard fire-protection wall.



Wall feed-through in a sand-lime brick fire-protection wall.



Wall feed-through in concrete fire-protection wall.

Sealing systems in fire-protection walls

Technical information

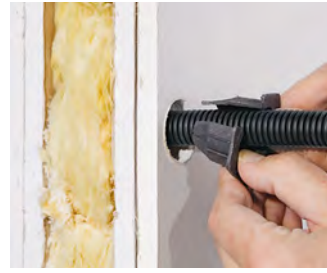
Cable and conduit sealing systems provide tested safety for cavity wall, masonry or concrete constructions.



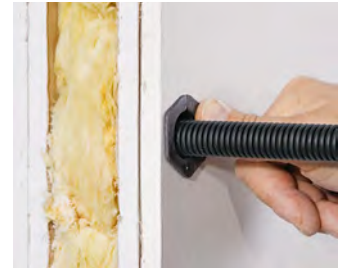
The installation openings can be made in solid walls using conventional drills (20 mm or 32 mm) or in plasterboard walls using a drill or cutter (Art. No. 1082-10) (35 mm).



The cable and conduit sealing systems are manufactured from a permanently durable and flexible material.



By opening the cable and conduit sealing, it can easily be placed around the cable or conduit.



KAISER seals ensure room separation without the need for additional filler.

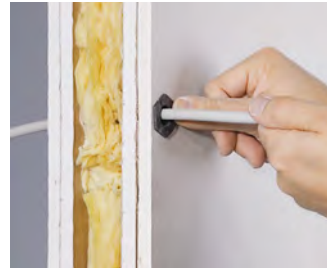
Installation of cable sealing system LS 90 in cavity walls



Cut an installation opening Ø 20 mm using a cutter (e.g. KAISER hardened metal cutter Art. No. 1088-06) or drill.



To install, open the sealing sideways and slide it over the cable.

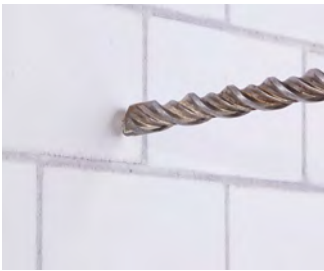


Press both sides of the sealing into each opening.



The cable sealings can be arranged vertically or horizontally to form a group with a centre distance of 50 mm.

Mounting cable sealing system LS 90 in solid walls



Make an installation opening using a Ø 20 mm drill.



Open the side of the cable sealing system LS 90, slide it over the cable and press into the opening.



Attach the identification tag.



Officially required identification of the cable sealing.

Cable sealing system LS 90

- for EI 30 - EI 90 fire-protection walls
- for wall entries and feed-throughs
- without use of fire-protection foam or putty
- made of intumescent material
- automatic room separation of the installation opening
- unlimited building material shelf life



3D animation

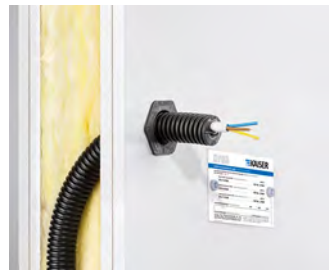
Min. wall thickness	100 mm
Installation opening (cavity wall)	20 mm
Installation opening (masonry)	20 mm
for cables	5 - 15 mm
ETA approval	ETA-17-0449
CE	•
for sound insulation walls up to	76 dB
Art. No.	9459-01
Inner packaging/shipping	10 / 100

Accessories: Sealing identification tag DE/GB/FR/IT, Page 302

Examples of applications for conduit sealing system RS 90



Wall feed-through in plaster-board fire-protection wall.



M16 - M25 wall entry, in plaster-board fire-protection wall with M25 conduit.



Wall feed-through in sand-lime brick fire-protection wall.



Wall feed-through in concrete fire-protection wall.

Installation of conduit sealing system RS 90 in cavity walls.



Cut a 35 mm installation opening using e.g. the KAISER MULTI 4000 cutter (Art. No. 1082-10).



To install, open the sealing sideways and slide over the conduit.

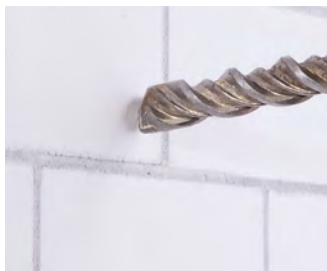


Press both sides of the sealing into each opening.



The conduit sealings can be arranged vertically or horizontally to form a group with a centre distance of 50 mm.

Installation of conduit sealing system RS 90 in solid walls



Make an installation opening using a Ø 32 mm drill.



Remove the strap for mounting in masonry (only when installing a conduit sealing in a masonry wall).



After installing the sealing, apply the identification tag.



The sealings can be used in masonry and concrete walls.

Conduit sealing system RS 90

- for EI 30 - EI 90 fire-protection walls
- for wall entries and feed-throughs
- without use of fire-protection foam or putty
- made of intumescent material
- automatic room separation of the installation opening
- unlimited building material shelf life



3D animation

Min. wall thickness	100 mm
Installation opening (cavity wall)	35 mm
Installation opening (masonry)	32 mm
for conduits	M16 - M25
ETA approval	ETA-17-0449
CE	•
for sound insulation walls up to	76 dB
Art. No.	9459-02
Inner packaging/shipping	10 / 100

Accessories: Sealing identification tag DE/GB/FR/IT, Page 302

Box sealing system DS 90 / 74 mm

The box sealing system DS 90 / 74 mm for cables, cable bundles and conduits. The fire-proof and smoke-proof box sealing is quick and easy to install and can also be retrofitted on cables and conduits. The easy-to-fit product offers certified safety and ensures the fire resistance class of the wall (EI30-EI90).

- Secure, visible, certified fire sealings
- For wall feed-throughs and entries
- Automatic sealing of the joints and gaps between cables - no filling and smoothing
- Non-destructive retrofitting
- For cable bundles or individual installation conduits

halogen-free

DIBt approval
General type approval

Europe-wide
ETA Certificate



Sound reduction
index R'_w up to
77 dB



Populating the sealing system



The box sealing system DS 90 / 74 mm provides space for single cables and bundles up to full population.



By choosing individual configurations, power and communication cables can be separated into groups.



The box sealing system DS 90 / 74 mm can be used with all standard sheathed cables currently found in Europe.



Spare sealing, conduits up to M40 and combination of NYM cables.

Examples of use



Use the two-part box sealing system DS 90 / 74 mm to create wall entries and feed-throughs.



Horizontal and vertical arrangement with a centre distance of 91 mm is permissible.



The box sealing system DS 90 / 74 can also be used as a spare seal (empty).



The sealing can accommodate conduits of up to M40.

Note

Cable population of the box sealing system DS 90 / 74 mm with all sheathed cable types recognised in Europe e.g. installation cables, data cables, telecommunication cables or fibre optic cables, as wiring bundles or as individual cables. Cable bundles can be populated up to $\varnothing \leq 40$ mm, with a maximum diameter of ≤ 15 mm for a single cable. Single cables can be used up to $\varnothing \leq 21$ mm.

FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

SURFACE

CABLE GLANDS

TOOLS

SERVICE

Sealing systems in fire-protection walls

Technical information



For use as a spare sealing (empty) for future installations.



Self-explanatory installation based on the tried-and-tested cavity wall box principle.



Easy insertion of the sealing cylinder into the installation opening.



Automatic room separation - no gaps or filling of joints.

Non-destructive retrofitting of individual cables



Loosen the sealing element by turning it a quarter of a turn and open it.



Open the sealing element and remove it.



Insert the new cables.



Place the sealing element around the cable, close it and secure it with a 1/4-turn clockwise.

Installation

The box sealing system DS 90 / 74 mm consists of two parts which easily fit together.



Cut an installation opening using a Ø 74 mm cutter (e.g. MULTI 4000: Art. No. 1084-10).



Place the two-part sealing cylinder around the cables and press together.



Press the sealing cylinder into the installation opening.



Fasten by tightening the screws (same procedure as for cavity wall boxes).



Place the sealing element around the cables and close it.



Place the sealing element on the seal cylinder and secure it with a 1/4-turn (bayonet fitting).



After installing the sealing, apply the identification tag.



This ensures sealing and the necessary room separation.

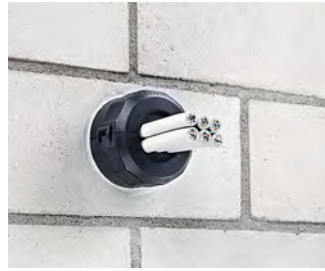
Installation of box sealing system DS 90 / 74 mm in masonry



Cut an installation opening depending on wall thickness with an 82 mm diamond grinding head or with a core drill.



Press the sealing cylinder into the installation opening with plaster, mortar or quick cement and feed the cable through.



Place the sealing element on the seal cylinder and secure it with a 1/4-turn (bayonet fitting).



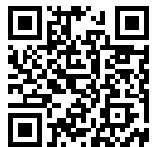
Horizontal and vertical arrangement with a centre distance of 91 mm is permissible.

Installation of box sealing system DS 90 / 74 mm in concrete walls



Box sealing system DS 90 / 74 mm

- for EI 30 - EI 90 fire-protection walls
- for wall entries and feed-throughs
- attachment using tried-and-tested FX4 metal plate screws
- with integrated sealing inserts
- ensures smoke-tight room separation (seals against cold smoke)
- unlimited building material shelf life

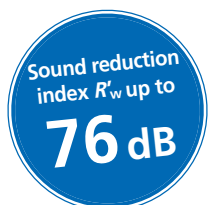


3D animation

Cut hole Ø	74 mm
Min. wall thickness	100 mm
Cable entries	•
DIBt approval	Z-19.53-2189
CE	•
for sound insulation walls up to	77 dB
Art. No.	9459-03
Inner packaging/shipping	10 / 100

Accessories: Sealing identification tag DE/GB/FR/IT, Page 302

Box sealing system DS 90 / 120 mm



The new box sealing system DS 90 / 120 mm covers an additional range of applications in building fire protection. The increased diameter makes it possible to use a larger number of cables and electrical installation conduits and also greater diameters. With this system, it is also possible to mix the installation of conduits and cables. In addition, full population, as with the DS 90 / 74 mm, allows use of the system in all fields of building technology. Because no additional materials are used, non-destructive retrofitting is also possible. The tried-and-tested screw fixing permits clean, safe and secure installation.

- Secure, visible, certified fire sealings
- Seals wall feed-throughs
- Automatic sealing of the joints and gaps between cables - no filling and smoothing
- Non-destructive retrofitting
- Also for mixed population of bundles of cables and conduits



Examples of use



Can also be used as a reserve sealing.



Full population with sheathed cables up to Ø 29 mm.



Mixing of cables and conduits.



Horizontal alignment is possible with a distance of 50 mm.

Technical information DS 90 / 120 mm



Lamellae arranged on the inside of the sealing cylinder ensure fast closing if a fire breaks out.



The sealing element with integrated cooling ribs guarantees clean cable and conduit routing.



Easy insertion of the sealing cylinder into the installation opening.



Automatic room separation - no gaps or filling of joints.

Population of box sealing system DS 90 / 120 mm



Mixed population of sheathed cables and conduits.



Can also be used as a reserve sealing.



Full population with sheathed cables up to Ø 29 mm and conduits up to M63.



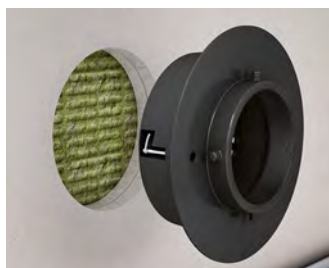
Installation conduits can be fitted as reserve conduits.

Installation

The box sealing system DS 90 / 120 consists of two parts which easily fit together.



Cut installation opening with a cutter Ø 120 mm (e.g. bi-metal-cutter Art. No. 1082-20).



Press the sealing cylinder into the installation opening.



Fix sealing cylinder by tightening the screws (same procedure as with cavity wall boxes).



Feed sheathed cables and conduits through the sealing cylinder.



Close conduit ends smoke-tight (e.g. with KAISER sealing plugs).



Fit the two-part sealing element round the bundle, close it and connect it to the sealing cylinder by means of the bayonet fitting.



The sealing and the necessary room separation can also be used as a reserve sealing.



Horizontal alignment of the sealings is possible with a clearance of 50 mm.

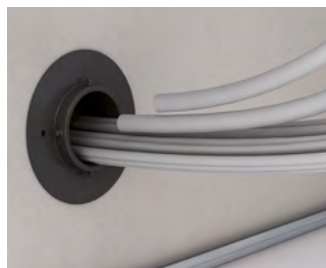
Non-destructive retrofitting of single cables and conduits



Loosen the sealing element by turning it a quarter of a turn and open it.



Open the sealing element and remove it.



Insert the new cables and conduits.



Fit the sealing element and secure with a 1/4 turn to the right.

Installation of box sealing system DS 90 / 120 mm in masonry



Cut installation opening - depending on wall thickness - with a core drill 150 mm.



Using plaster, mortar or fast cement, press the sealing cylinder into the installation opening and feed the cables or conduits through.



The sealing collar ensures tight room separation, even when openings are not clean, and prevents plaster, mortar or fast cement from being pressed out.



Place the sealing element on the sealing cylinder and secure it with a 1/4-turn (bayonet fitting).

Installation of box sealing system DS 90 / 120 mm in concrete walls



Table of max. external diameter of sheathed cables (NYM cables)

The table shows examples of cables which can be used on the basis of the maximum permitted diameter. The main factor is the minimum stated standard diameter acc. to DIN VDE 0250-204.

5 x 6 ²	3 x 10 ²	5 x 10 ²	4 x 16 ²	5 x 25 ²	4 x 35 ²	7 x 2,5 ²
Ø 14,5 - 17,5 mm	Ø 14,7 - 17,7 mm	Ø 17,7 - 21,3 mm	Ø 19,0 - 23,0 mm	Ø 25,7 - 31,1 mm	Ø 25,7 - 31,1 mm	Ø 12,6 - 15,2 mm

Two box sealing systems DS 90 / 120 are required feed-throughs in a fire-protection wall.

Box sealing system DS 90 / 120 mm

- for EI 30 - EI 90 fire-protection walls
- attachment using tried-and-tested FX4 metal plate screws
- with integrated sealing inserts
- ensures smoke-tight room separation (seals against cold smoke)
- unlimited building material shelf life



3D animation

Cut hole Ø	120 mm
Min. wall thickness	100 mm
Cable entries	•
DIBt approval	Z-19.53-2188
CE	•
for sound insulation walls up to	76 dB
Art. No.	9459-04
Inner packaging/shipping	- / 4



Ceiling penetration sealing systems DS 90 / 120 mm and DS 90 / 74 mm

KAISER ceiling penetration sealing systems DS 90 / 120 mm and DS 90 / 74 mm ensure that the ceiling maintains fire-resistance class EI30-EI90. To efficiently prevent the spread of fire and flue gases through cable penetrations and electrical installation conduits through concrete or cellular concrete ceilings, their fire sealing must have the same fire-resistance class as the ceiling. The ceiling penetration sealing system DS 90 accomplishes this easily, quickly and reliably.

- Secure, visible, certified fire sealings
- Sealing especially for ceiling penetrations
- Automatic sealing without filling or smearing
- Non-destructive retrofitting
- Also for mixed population of bundles of cables and conduits
- Easy and quick installation from above

halogen-free

DIBt approval
General type
approval

Europe-wide
ETA Certificate



Examples of use



Use in EI30–EI90 concrete ceilings.



Use in EI30–EI90 cellular concrete ceilings.



Mixed population of cables and conduits up to maximum population. They can also be arranged as groups with a distance of 205 mm (DS 90 / 120 mm) or 125 mm (DS 90 / 74 mm).



Mixed population of cables and conduits up to maximum population.

Population of ceiling penetration sealing system DS 90 / 120 mm and DS 90 / 74 mm



Mixed population of sheathed cables and conduits.



Can also be used as a reserve sealing.



Maximum population with sheathed cables Ø 29 mm and conduits up to M63.



Maximum population with sheathed cables Ø 15 mm and conduits up to M40.

Technical information on ceiling sealing system DS 90 / 120 mm and DS 90 / 74 mm



Divisible installation sleeve with edge protection made of intumescent material.



Retaining springs for quick and secure installation from above.



Cut-outs for receiving the metal plates and for fastening the box sealing system



Divisible installation sleeve for retrofitting of existing cables and conduits.



Making for the location of the screws.



Sealing flange ensures a clean and smoke-tight room separation of the component opening.



For core drill holes Ø 150 mm (DS 90 / 120 mm) and Ø 100 mm (DS 90 / 74 mm).



Two ceiling penetration sealing systems for different applications.

Installation

Installation is identical for ceiling penetration sealing systems DS 90 / 120 and DS 90 / 74 mm, except for the differences in the dimensions.



Making a core drill hole 150 mm or 100 mm.



Insert the installation sleeve from the upper side of the ceiling



Feed sheathed cables and/or conduits through the installation sleeve.



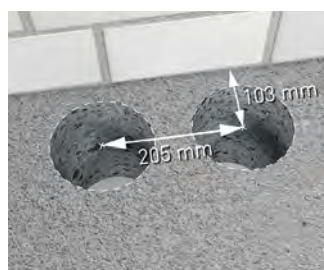
Place sealing cylinder around the cables or conduits and insert into the installation sleeve.



Align plate screws of the sealing cylinder with the markings and tighten.



Place sealing cylinder around the cables or conduits and then snap into place with the sealing cylinder.



The ceiling penetration sealing systems can also be arranged as a group with a distance of 205 mm or 125 mm.

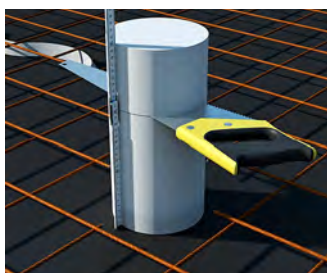


Ceiling penetration sealing systems in concrete or cellular concrete ceilings of 150 – 300 mm ceiling thickness have been approved for use.

Sealing systems in fire-protection walls

Formwork body

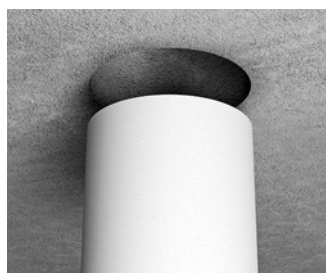
For preparation of installation in concrete ceilings, KAISER provides a formwork unit for matching cut-outs.



Adapt formwork unit to the ceiling thickness by cutting it to length.



Fix formwork unit with tie wire to the reinforcement.



After formwork removal, remove the formwork unit from the component opening without leaving any residues.

Non-destructive retrofitting of single cables and conduits



Loosen the sealing element by turning it a quarter of a turn and open it.



Open the sealing element and remove it.



Insert the new cables and conduits.



Turn sealing element around, lock and fix by applying a quarter turn to the right.

Table of max. external diameter of sheathed cables (NYM cables)

The table shows examples of cables which can be used on the basis of the maximum permitted diameter. The main factor is the minimum stated standard diameter acc. to DIN VDE 0250-204.

5 x 6 ²	3 x 10 ²	5 x 10 ²	4 x 16 ²	5 x 25 ²	4 x 35 ²	7 x 2,5 ²
Ø 14,5 - 17,5 mm	Ø 14,7 - 17,7 mm	Ø 17,7 - 21,3 mm	Ø 19,0 - 23,0 mm	Ø 25,7 - 31,1 mm	Ø 25,7 - 31,1 mm	Ø 12,6 - 15,2 mm



Ceiling penetration sealing system DS 90 / 74 mm

- for fire protection ceilings EI30 - EI90
- Easy installation without filling
- Installation on the upper side of the ceiling
- creates a smoke-tight room separation



3D animation

Installation opening Ø	100 mm
Ceiling thickness	150 - 300 mm
Cable entries	•
DIBt approval	Z-19.53-2189
CE	•
PVC conduits up to	M40
Art. No.	9459-05
Inner packaging/shipping	1 / 12

Ceiling penetration sealing system DS 90 / 120 mm

- for fire protection ceilings EI30 - EI90
- Easy installation without filling
- Installation on the upper side of the ceiling
- creates a smoke-tight room separation



3D animation

Installation opening Ø	150 mm
Ceiling thickness	150 - 300 mm
Cable entries	•
DIBt approval	Z-19.53-2188
CE	•
PVC conduits up to	M50
Art. No.	9459-06
Inner packaging/shipping	- / 1

Formwork body

- creates matching component openings
- suitable for ceiling penetration sealing systems DS 90 / 74 mm
- for ceiling thicknesses 150 - 300 mm



Formwork body

- creates matching component openings
- suitable for ceiling penetration sealing systems DS 90 / 120 mm
- for ceiling thicknesses 150 - 300 mm



Diameter	100 mm	150 mm
Ceiling thickness	150 - 300 mm	150 - 300 mm
Art. No.	9473-95	9473-96
Inner packaging/shipping	- / 8	- / 6

Sealing identification tag

- universal seal identification tag
- for all KAISER sealings
- can be filled out
- in plastic, with 2 x 4.5 mm drill holes



German	•	•
English	•	•
French	•	•
Dutch	-	•
Italian	•	-
Art. No.	9473-91	9473-92
Inner packaging/shipping	10 / 10	10 / -

Sealing plug

Sealing plugs 16-20

- for sealing electrical installation conduits
- ECON® technology for easy cable entry
- permanently flexible plastic



3D animation

Sealing plug	M16	M20
DIN EN conduit Ø	16 mm	20 mm
Art. No.	1040-16	1040-20
Inner packaging/shipping	25 / 100	25 / 100

Sealing plugs 25-40

- for sealing electrical installation conduits
- ECON® technology for easy cable entry
- permanently flexible plastic



3D animation

Sealing plug	M25	M32	M40
DIN EN conduit Ø	25 mm	32 mm	40 mm
Art. No.	1040-25	1040-32	1040-40
Inner packaging/shipping	25 / 100	25 / 50	- / 25



Fire-stop box FlamoX®

FlamoX® installation housings for luminaires and loudspeakers protect lives and material goods if a fire breaks out. In luminaire and loudspeaker installations in fire-protection ceilings, the integrated fire-retardant coating gives the housings the fire-protection class F30 (EI30) of the ceiling. They prevent fire and flue gases from spreading, so they secure escape routes in buildings. FlamoX® fire-protection housings provide certified security.

- Safe, certified fire-protection housings for built-in luminaires and loudspeakers
- Fast, easy fitting from the underside of the ceiling
- Suitable for fire resistance from above and below
- Installation without additional suspension
- No use of additional fire protection materials or sealing compounds



Functioning of the fire-retardant coating in the event of fire (fire load from below)



Functioning of the fire-retardant coating if a fire breaks out (fire load from above)



Examples of use



Fire-stop housing for recessed luminaires...



...and for loudspeakers.



Mounting in suspended fire-protection ceilings F30.



Available in two sizes for a range of uses.

FlamoX® system for hollow ceilings - fire protection class F30 Housings

For LV/HV and energy-saving luminaires and loudspeakers

Note

FlamoX® housings are tested fire-protection housings for the fire-protection sealing of built-in luminaires and loudspeakers in independent, two-layer suspended F30 fire-protection ceilings made of plasterboard fire-protection panels with or without insulation. The ETA-certified (European Technical Assessment) housings are approved for fireloads from above and below. The FlamoX® housings were tested according to DIN EN 1363-1 and DIN EN 1366-3, so they can be installed in ceiling systems which were built according to DIN 4102-4 or DIN EN 1364-2 or have certification in the form of a general building approval certificate.

Technical information



Fixing lugs with hole structure for fast, easy screw fitting to the fire-protection ceiling.



Interior consisting of a fire-retardant-forming fire-protection material and, in the event of a fire, automatically closing plate.



Two cable entries for sheathed cables up to Ø 13.5 mm external diameter and two conduit entries for conduits up to M25.



Bendable retention lugs for optional suspension in ceiling profiles.

Installation



After determining the position of the luminaire, use the template to mark the screw positions and the cut-out...



...then create the cut-out for the housing and retain for future use.



Open cable and conduit entries and use the universal opening cutter (Art. No. 1085-80) to cut matching entries.



Insert the housing into the component opening and align it.



Fix housing to the fire-protection ceiling using quick-fastening screws...



...then chamfer the cut-out made previously and fix with dry-wall screws.



Create the component opening for luminaire or loudspeaker.



Plastering of the Joints.

FlamoX® system for hollow ceilings - fire protection class F30 Housings

For LV/HV and energy-saving luminaires and loudspeakers

FlamoX® fire-protection housing

- for luminaires and loudspeakers
- Smokeproof and halogen-free
- for fire loads from above and below
- made of galvanised sheet metal with lining
- made of fire-resistant coating



INNOVATION



3D animation

For panel thickness	2 x 12,5 mm	2 x 12,5 mm
Length x Width x Height	240 x 190 x 100 mm	320 x 270 x 150 mm
Exit opening Ø	100 mm	180 mm
Max. luminaire or loudspeaker installation height	100 mm	150 mm
Tube entries up to M25	2	2
Cable entries up to Ø 13.5 mm	2	2
Halogen-free	•	•
LED luminaires	14 Watt	34 Watt
Halogen luminaires	50 Watt	75 Watt
ETA approval	applied for	applied for
CE	•	•
Installation height	150 mm	250 mm
Art. No.	9435-04	9435-03
Inner packaging/shipping	- / 1	- / 1

FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

SURFACE

CABLE GLANDS

TOOLS

SERVICE



IP68BOX Outdoor Installation Set

Unpack, install, ready: complete cast resin package, fast initial operation. Watertight, unprotected outdoor installation. Including 2-component PUR cast resin in a mixing bag. When creating unprotected outdoor installations, it is important to manufacture a reliable and secure connection which will last for many years. For example, vibrations in the ground caused by traffic shouldn't affect the connection, which is designed for long-term operation – and this can be guaranteed with cast resin. Time-saving, too, because after the backfilling process, the IP68BOX can be buried and energised.

- Junction box IP65 (filled with the casting compound IP68)
- 2-component PUR cast resin in a mixing bag
- 3 M25 cable glands, clamping range Ø 11-17 mm
- Processing temperature: 0 to +35°C
- Operating temperature: -40° to +70°C



Processing instructions



Lay the underground cable and the cable junction box only in accordance with the legal regulations at the stipulated depth.



Remove separating strips, mix material for 3 - 4 minutes. (Bag contains 394ml, suitable for one box filling.)



Pour the casting compound into the cable junction box. Fill to 2 mm below the top edge of the cable junction box.



After closure (cover and sealing cap), the IP68BOX can be covered with earth and the power can be switched on.

Examples of use



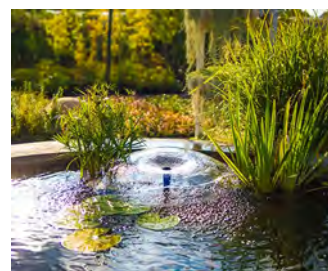
For watertight, unprotected outdoor installation.



For outdoor areas.

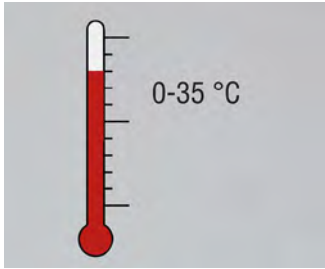


For lights.



For pond biospheres.

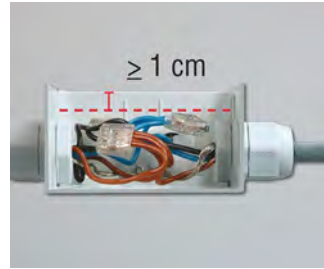
Installation



Processing temperature: 0° to +35°C.



Cable gland M25 Clamping area Ø 11 - 17 mm. Use casting compound only in a dry cable junction box.



Many options for cable entry. 8 entries / exits from 4 directions M20/M25, max. conductor cross-section 6 mm².



Important: Use under water is only possible if the article was installed in accordance with the instructions and the casting compound has hardened for more than one hour.

IP68BOX Outdoor Installation Set

INNOVATION



- Junction box IP65 (filled with the casting compound IP68)
- 2-component PUR cast resin in a mixing bag
- Max. conductor cross-section 6 mm²
- Nominal insulation voltage Ui: 690 V
- Connection terminals for flexible earth leads
- Sealing cap for ventilation
- Protective gloves
- mixed and solid cast resin can be disposed of in household waste



Length x Width x Depth	95 x 95 x 55 mm
Entries M20 / M25	8
Cable gland M25	3
Halogen-free	•
Protection class	IP 65/ IP 68
Art. No.	2521
Inner packaging/shipping	- / 10





Syntec® Plastic

- Optimum quality and suitability for practical use
- Perfectly-matched range for the trade's everyday needs



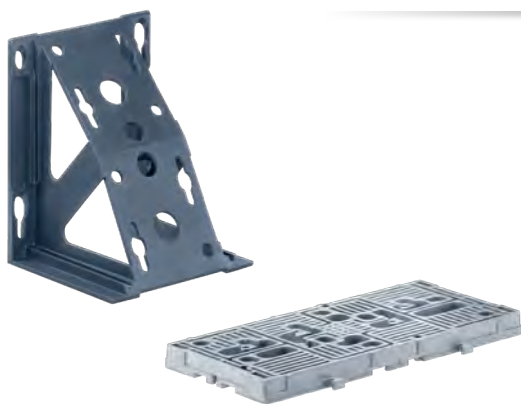
Syntec® brass

- Sturdy and reliable - tried-and-tested millions of times
- Perfectly-matched range for the trade's everyday needs



Accessories for Syntec®

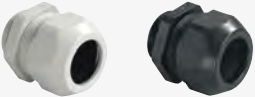


- Accessories for plastic and brass cable glands



MontaX

- Mounting plate for fixing accessories and components
- Many more than 200 fixing options

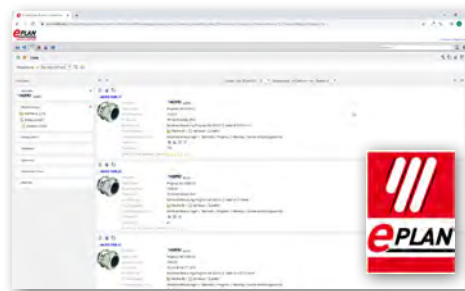
Syntec® cable glands with lamellar technology

	Connection threads		
	metric short	metric long	
Synthetic one-piece sealing ring 	p. 311	p. 312	
Synthetic with anti-kink one-piece sealing ring 	p. 313	see catalogue AGRO Cable glands	
Brass one-piece sealing ring 	p. 315	p. 315	

Accessories for Syntec® cable glands

	Counternuts	Closing screws	
Synthetic 	p. 316		p. 317
Brass 	p. 316		p. 317

- Comprehensive overall programme with more than 3,500 products in our special cable gland catalogue or at www.kaiser-elektro.de
- Implementation of individual customer solutions
- CAD data



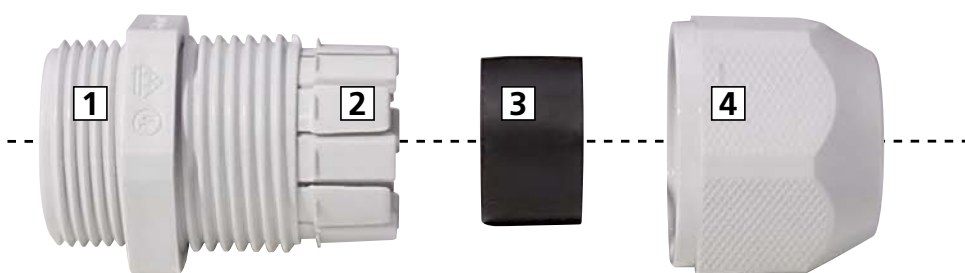
As an addition to our cable gland range, digital planning data are now also available in the EPLAN Data Portal



SYNTEC® synthetic cable gland

SYNTEC® synthetic cable gland with innovative lamellar technology including movable jointed lamellae and compression nuts for everyday use (cannot be overtightened).

- Made from high-quality, weather-resistant polyamide
- With short and long metric entry thread
- Standard/reducing sealing rings
- With environmentally resistant TPE sealing ring
- High level of strain relief and simultaneous distortion protection
- In two colours (light grey, black) from stock, other colours on request
- Good chemical resistance
- Protection class IP 68, waterproof
- Tested acc. to EN 62444



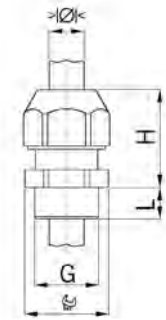
1 Lower part | 2 Lamellae | 3 Sealing ring | 4 Push-down nut

The nut's large-area hexagon always provides a safe and firm grip when turned by hand and tightened with the tool.



Short entry thread metric

Material: Polyamide PA 6
 Properties: halogen-free
 Strain relief: Version A acc. to EN 62444
 Operation temperature: -30 °C / +100 °C
 Protection class: IP 68
 Sealing ring: TPE or CR (Neoprene)



Light grey RAL 7035
 One-piece sealing ring

G	>Ø1< min mm	>Ø2< max mm	Ø mm	H mm	L mm	Art. No.	
M12x1.5	2.5	6.5	15	21	6	1555.12.06	100
M16x1.5	2.0	6.0	19	25	8	1555.17.06	50
M16x1.5	5.0	10.0	19	25	8	1555.17.10	50
M20x1.5	3.5	8.0	24	29	9	1555.20.08	50
M20x1.5	7.0	13.0	24	29	9	1555.20.13	50
M25x1.5	5.0	11.0	29	38	10	1555.25.11	25
M25x1.5	10.0	17.0	29	38	10	1555.25.17	25
M32x1.5	17.0	25.0	42	36	10	1555.32.25	20

Available on request:
 Dark grey RAL 7001

Black RAL 9005
 One-piece sealing ring

G	>Ø1< min mm	>Ø2< max mm	Ø mm	H mm	L mm	Art. No.	
M12x1.5	2.5	6.5	15	21	6	1545.12.06	100
M16x1.5	2.0	6.0	19	25	8	1545.17.06	50
M16x1.5	5.0	10.0	19	25	8	1545.17.10	50
M20x1.5	3.5	8.0	24	29	9	1545.20.08	50
M20x1.5	7.0	13.0	24	29	9	1545.20.13	50
M25x1.5	5.0	11.0	29	38	10	1545.25.11	25
M25x1.5	10.0	17.0	29	38	10	1545.25.17	25
M32x1.5	17.0	25.0	42	36	10	1545.32.25	20



SYNTEC



SYNTEC



FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

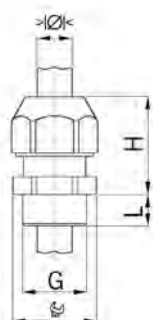
SURFACE

CABLE GLANDS

TOOLS

SERVICE

Long entry thread metric



Material: Polyamide PA 6
 Properties: halogen-free
 Strain relief: Version A acc. to EN 62444
 Operation temperature: -30 °C / +100 °C
 Protection class: IP 68
 Sealing ring: TPE or CR (Neoprene)



SYNTEC



Light grey RAL 7035
 One-piece sealing ring

G	>Ø< min mm	>Ø< max mm	H mm	L mm	Art. No.	
M12x1.5	2.5	6.5	15	21	1555.12.1.06	100
M16x1.5	2.0	6.0	19	25	1555.17.1.06	50
M16x1.5	5.0	10.0	19	25	1555.17.1.10	50
M20x1.5	3.5	8.0	24	29	1555.20.1.08	50
M20x1.5	7.0	13.0	24	29	1555.20.1.13	50
M25x1.5	5.0	11.0	29	38	1555.25.1.11	25
M25x1.5	10.0	17.0	29	38	1555.25.1.17	25
M32x1.5	17.0	25.0	42	36	1555.32.1.25	20
M40x1.5	22.0	33.0	53	48	1555.40.1.33	10
M50x1.5	28.0	38.0	60	48	1555.50.1.38	5
M63x1.5	32.0	44.0	65	49	1555.63.1.44	5

Available on request:

Dark grey RAL 7001



SYNTEC

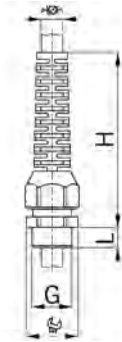


Black RAL 9005
 One-piece sealing ring

G	>Ø< min mm	>Ø< max mm	H mm	L mm	Art. No.	
M12x1.5	2.5	6.5	15	21	1545.12.1.06	100
M16x1.5	2.0	6.0	19	25	1545.17.1.06	50
M16x1.5	5.0	10.0	19	25	1545.17.1.10	50
M20x1.5	3.5	8.0	24	29	1545.20.1.08	50
M20x1.5	7.0	13.0	24	29	1545.20.1.13	50
M25x1.5	5.0	11.0	29	38	1545.25.1.11	25
M25x1.5	10.0	17.0	29	38	1545.25.1.17	25
M32x1.5	17.0	25.0	42	36	1545.32.1.25	20
M40x1.5	22.0	33.0	53	48	1545.40.1.33	10
M50x1.5	28.0	38.0	60	48	1545.50.1.38	5
M63x1.5	32.0	44.0	65	49	1545.63.1.44	5

Short entry thread metric

Material: Polyamide PA 6
 Properties: halogen-free
 Strain relief: Version A acc. to EN 62444
 Operation temperature: -30 °C / +100 °C
 Protection class: IP 68
 Sealing ring: CR (neoprene)



Light grey RAL 7035
 One-piece sealing ring

G	$\begin{array}{c} > \varnothing < \\ \text{min mm} \end{array}$	$\begin{array}{c} > \varnothing < \\ \text{max mm} \end{array}$	$\begin{array}{c} \text{mm} \\ \text{mm} \end{array}$	H	L	Art. No.	
M12x1.5	2.5	6.5	15	54	6	1576.12.06	50
M16x1.5	4.0	8.0	19	64	6	1576.17.08	50
M20x1.5	3.0	7.0	24	88	8	1576.20.07	50
M20x1.5	5.5	12.0	24	88	8	1576.20.12	50


Available on request:
 Dark grey RAL 7001



SYNTEC with anti-kink protection



Black RAL 9005
 One-piece sealing ring

G	$\begin{array}{c} > \varnothing < \\ \text{min mm} \end{array}$	$\begin{array}{c} > \varnothing < \\ \text{max mm} \end{array}$	$\begin{array}{c} \text{mm} \\ \text{mm} \end{array}$	H	L	Art. No.	
M12x1.5	2.5	6.5	15	54	6	1546.12.06	50
M16x1.5	4.0	8.0	19	64	6	1546.17.08	50
M20x1.5	3.0	7.0	24	88	8	1546.20.07	50
M20x1.5	5.5	12.0	24	88	8	1546.20.12	50



SYNTEC with anti-kink protection



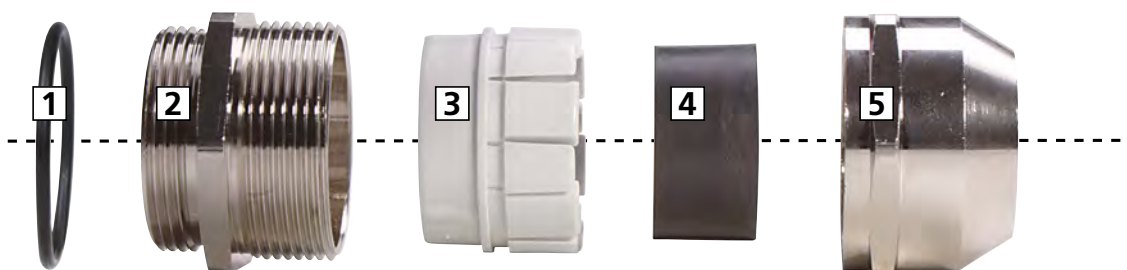


SYNTEC® brass cable gland

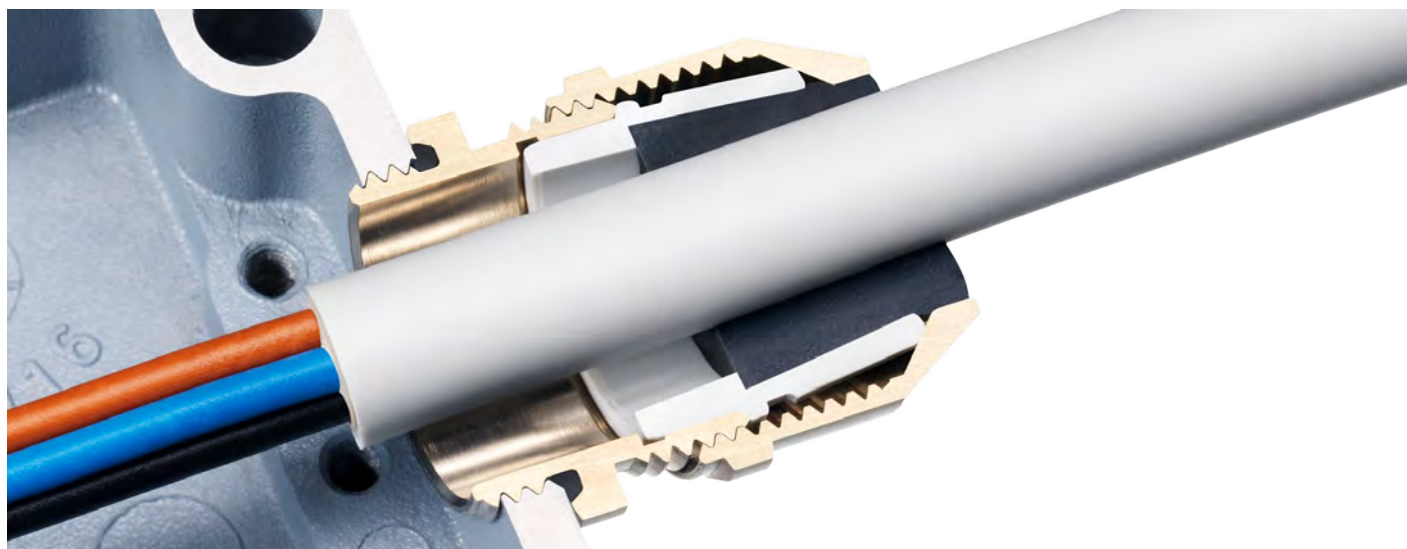
SYNTEC® brass cable gland with innovative lamella technology including movable jointed lamellae and overtightening-protected cap nuts for every-day use.

- Lamellae insert made from high-quality polyamide
- With short and long metric entry thread
- With environmentally resistant TPE sealing ring
- Standard/reducing sealing rings
- High level of strain relief and simultaneous distortion protection.
- Protection class IP 68, waterproof
- Tested acc. to EN 62444
- Good chemical resistance

halogen-
free



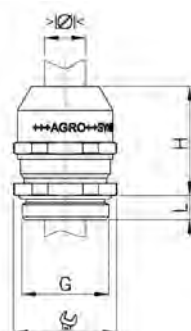
1 O-Ring | 2 Lower part | 3 Lamellar insert | 4 Sealing ring | 5 Push-down nut



Cable glands Syntec® nickel-plated brass with lamellar technology

Short entry thread metric

Material: Nickel-plated brass
 O-ring: NBR
 Strain relief: Version A acc. to EN 62444
 Operation temperature: -40 °C / +100 °C
 Protection class: IP 68
 Sealing ring: TPE
 Lamellar insert: Polyamide PA 6



One-piece sealing ring
 not overall length insulated

G	$\begin{matrix} >10< \\ \text{min mm} \end{matrix}$	$\begin{matrix} >10< \\ \text{max mm} \end{matrix}$	$\begin{matrix} \text{mm} \\ \text{mm} \end{matrix}$	H mm	L mm	Art. No.	
M12x1.5	1.0	5.0	15	17	5	1045.12.050	50
M12x1.5	3.0	7.0	15	17	5	1045.12.070	50
M16x1.5	2.0	6.0	18	20	5	1045.17.060	50
M16x1.5	4.5	10.0	18	20	5	1045.17.100	50
M20x1.5	3.5	8.0	22	25	6	1045.20.080	50
M20x1.5	7.0	13.0	22	25	6	1045.20.130	50
M25x1.5	5.0	11.0	28	31	7	1045.25.110	25
M25x1.5	10.0	17.0	28	31	7	1045.25.170	25
M32x1.5	7.0	15.0	36	33	8	1045.32.150	25
M32x1.5	13.0	21.0	36	33	8	1045.32.210	25
M40x1.5	15.0	23.0	46	40	8	1045.40.230	10
M40x1.5	19.0	28.0	46	40	8	1045.40.280	10
M50x1.5	20.0	29.0	55	40	9	1045.50.290	5
M50x1.5	25.0	35.0	55	40	9	1045.50.350	5
M63x1.5	28.0	39.0	70	43	10	1045.63.390	5
M63x1.5	35.0	48.0	70	43	10	1045.63.480	5

Available on request:

Entry thread Pg



SYNTEC MS



Long entry thread metric

One-piece sealing ring
 not overall length insulated

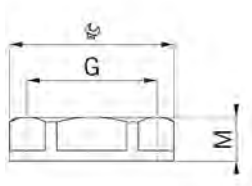
G	$\begin{matrix} >10< \\ \text{min mm} \end{matrix}$	$\begin{matrix} >10< \\ \text{max mm} \end{matrix}$	$\begin{matrix} \text{mm} \\ \text{mm} \end{matrix}$	H mm	L mm	Art. No.	
M12x1.5	1.0	5.0	15	17	12	1145.12.050	50
M12x1.5	3.0	7.0	15	17	12	1145.12.070	50
M16x1.5	2.0	6.0	18	20	12	1145.17.060	50
M16x1.5	4.5	10.0	18	20	12	1145.17.100	50
M20x1.5	3.5	8.0	22	25	12	1145.20.080	50
M20x1.5	7.0	13.0	22	25	12	1145.20.130	50
M25x1.5	5.0	11.0	28	31	12	1145.25.110	25
M25x1.5	10.0	17.0	28	31	12	1145.25.170	25
M32x1.5	7.0	15.0	36	33	15	1145.32.150	25
M32x1.5	13.0	21.0	36	33	15	1145.32.210	25
M40x1.5	15.0	23.0	46	40	15	1145.40.230	10
M40x1.5	19.0	28.0	46	40	15	1145.40.280	10
M50x1.5	20.0	29.0	55	40	15	1145.50.290	5
M50x1.5	25.0	35.0	55	40	15	1145.50.350	5
M63x1.5	28.0	39.0	70	43	15	1145.63.390	5
M63x1.5	35.0	48.0	70	43	15	1145.63.480	5
M63x1.5	44.0	55.0	80	43	15	1145.63.550	5



SYNTEC MS



Entry thread metric



Material: Polyamide PA 6
 Execution: Hexagonal design with flange
 Properties: halogen-free
 Operation temperature: -30 °C / +100 °C



Light grey RAL 7035

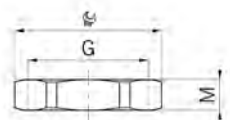
M mm	G	 mm	Art. No.	
5.0	M12x1.5	17	8255.12	100
5.0	M16x1.5	22	8255.17	100
6.0	M20x1.5	27	8255.20	100
6.7	M25x1.5	33	8255.25	100
7.9	M32x1.5	42	8255.32	50
8.4	M40x1.5	48	8255.40	50
9.9	M50x1.5	59	8255.50	10
11.0	M63x1.5	73	8255.63	10



Black RAL 9005

M mm	G	 mm	Art. No.	
5.0	M12x1.5	17	8245.12	100
5.0	M16x1.5	22	8245.17	100
6.0	M20x1.5	27	8245.20	100
6.7	M25x1.5	33	8245.25	100
7.9	M32x1.5	42	8245.32	50
8.4	M40x1.5	48	8245.40	50
9.9	M50x1.5	59	8245.50	10
11.0	M63x1.5	73	8245.63	10

Entry thread metric



Material: Nickel-plated brass
 Execution: Hexagonal design
 Operation temperature: -40 °C / +200 °C



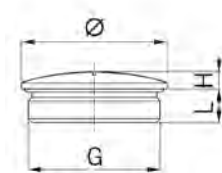
Metric thread

M mm	G	 mm	Art. No.	
3.0	M12x1.5	15	8000.12	100
3.0	M16x1.5	19	8000.17	100
3.5	M20x1.5	24	8000.20	100
4.0	M25x1.5	30	8000.25	50
4.0	M32x1.5	36	8000.32	25
5.0	M40x1.5	46	8000.40	25
5.5	M50x1.5	55	8000.50	10
6.0	M63x1.5	70	8000.63	10

1 = Metric coarse-pitch thread

Entry thread metric

Material: Polyamide PA 6
 Operation temperature: -30 °C / +100 °C
 Protection class: IP 54
 Further protection: IP 68, if the entry thread is sealed



Light grey RAL 7035
 without O-Ring

Ø mm	G	H mm	L mm	Art. No.	
15	M12x1.5	4.5	6	8855.12	100
20	M16x1.5	4.5	6	8855.17	100
24	M20x1.5	4.5	6	8855.20	100
30	M25x1.5	5.0	8	8855.25	100
37	M32x1.5	5.5	8	8855.32	50
46	M40x1.5	6.0	8	8855.40	50
56	M50x1.5	6.0	10	8855.50	10
70	M63x1.5	6.0	12	8855.63	10



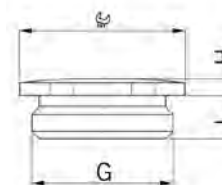
Black RAL 9005
 Entry thread metric
 without O-Ring

Ø mm	G	H mm	L mm	Art. No.	
15	M12x1.5	4.5	6	8845.12	100
20	M16x1.5	4.5	6	8845.17	100
24	M20x1.5	4.5	6	8845.20	100
30	M25x1.5	5.0	8	8845.25	100
37	M32x1.5	5.5	8	8845.32	50
46	M40x1.5	6.0	8	8845.40	50
56	M50x1.5	6.0	10	8845.50	10
70	M63x1.5	6.0	12	8845.63	10



Short entry thread metric

Material: Nickel-plated brass
 Operation temperature: -40 °C / +200 °C
 Protection class: IP 54
 Further protection: IP 68, if the entry thread is sealed



Hexagonal design
 without O-Ring

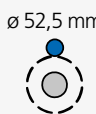







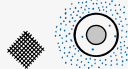






G	Ø mm	H mm	L mm	Art. No.	
M12x1.5	14	2.5	5	8745.12	100
M16x1.5	18	2.5	5	8745.17	100
M20x1.5	22	2.5	6	8745.20	100
M25x1.5	27	3.0	7	8745.25	50
M32x1.5	34	3.5	8	8745.32	25
M40x1.5	42	4.0	8	8745.40	25
M50x1.5	52	4.0	9	8745.50	10
M63x1.5	65	4.0	10	8745.63	10



Progress® multiLAYER, universal cable gland with maximum clamping range



Products	Nickel-plated brass	PA	TPE	CR
Description	CuZn39Pb3 Copper/zinc alloy Galvanically nickel-plated surface	Polyamide PA 6	Thermoplastic elastomer	Chloroprene rubber
Colour		As per catalogue	Black	Black
Corrosive properties Chem. resistance	Good resistance in dry atmospheres, fresh water, steam, mineral oils, fuels, coolants/lubricants and various organic emulsions	Resistant to diluted organic acids, lyes, aqueous solutions of inorganic salts, mineral oils, fuels, cooling/cutting oils	Resistant to diluted acids and lyes, aqueous solutions of inorganic salts	Resistant to diluted acids and lyes, aqueous solutions of inorganic salts, mineral oils, cooling/cutting oils
Limited or no resistance	Sea water, brackish water, damp atmospheres, acids, lyes, chloride, ammoniac	Mineral acids, concentrated organic acids, formic acid, phenols, halogens	Concentrated acids and lyes, solvents	Concentrated acids and lyes, fuels, solvents, hot water, ozone
Weather-resistance	Very good weather and ageing resistance	Good weather resistance	Good weather, ozone and ageing resistance	Good weather resistance
Constant thermal values	-40°C/+200°C	-30°C/+100°C	-40°C/+100°C	-30°C/+100°C
Combustibility	Not combustible	UL 94 V-2 halogen-free	Comparable to UL 94 HB halogen-free	Comparable to UL 94 V-2 halogen-free

1st digit Degree of protection against contact/foreign body protection		2nd digit Degree of protection against ingress of water	
IP testing		IP testing	
	0 No protection		0 No protection
 <p>ø 52,5 mm</p>	1 Protection against ingress of solid foreign bodies larger than 50 mm (unintentional touching by hand).		1 Protection against water dripping from above.
 <p>ø 12,5 mm</p>	2 Protection against ingress of solid foreign bodies larger than 12 mm (touching with fingers).		2 Protection against dripping water falling at an angle of up to 15°.
 <p>ø 2,5 mm</p>	3 Protection against ingress of solid foreign bodies larger than 2.5 mm (touching with tools, wires etc. thicker than 2.5 mm).		3 Protection against spray falling at any angle up to 60°.
 <p>ø 1 mm</p>	4 Protection against ingress of solid foreign bodies larger than 1 mm (touching with tools, wires etc. thicker than 1 mm).		4 Protection against splashes from any direction.
	5 Complete protection against contact. Protection against harmful dust deposits — penetration of dust is not completely prevented.		5 Protection against jets of water from any direction.
	6 Complete protection against contact. Protection against dust penetration.		6 Protection against temporary flooding e.g. by high seas.
			7 Protection against submersion in water at a specified pressure for an unspecified time.
			8 Protection against submersion in water at increased pressure for an unspecified time.
			9K Protection against the penetration of water during high-pressure (80-100 bars), high-temperature washdown applications (80° C)

Note

IP***: Protection class in accordance with EN 60529 up to 1000 V » and 1500 V = (UTE Standard C 200 10) or acc. to DIN 40059-9 We carry out tests for protection class IPx8 (pressure water) with a test plug, which does not provide any information about the maximum pressure with a cable. Please contact us if you want us to calculate this value in our laboratory using your cable.

MontaX mounting plate



MontaX mounting plate for attaching all types of devices and components in building interiors. May be used in plant engineering, machine construction and switchboard plants and for heating, ventilation and air conditioning applications, etc.

- More than 200 attachment possibilities
- Secure and fast installation of many devices



Processing instructions

May be arranged to form large mounting surfaces with an infinite number of threaded attachment points or also as a mounting rail for devices on a distribution panel. The mounting magnet is secured beneath the mounting plate. The plates can then be placed wherever devices need to be attached.



MontaX mounting plate

- over 200 fixing methods for accessories
- Injection-moulded connectors allow surfaces to be joined together effortlessly to form larger units
- Mounting plate can be split into two identical halves
- Attachment to cable ducts, round or square conduits, TS 35 standard profiles, etc.
- Magnet attached for adjustable mounting



Length x Width x Height	180 x 90 x 13 mm
Art. No.	2000-00
Inner packaging/shipping	- / 10

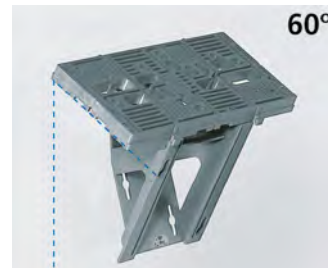
MontaX mounting angle

MontaX mounting angle for secure attachment in almost all orientations and angles. With only one element, the MontaX mounting angle gives you 200 attachment possibilities in four different angular positions on standard profiles, square or round conduits, steel beams etc.

- For easy visual inspection of counters, indicator light etc.
- For easy and safe operation of switches etc.
- No voltage transfer as all plastic



Processing instructions



Mounting angle for MontaX

- for 30°, 45°, 60° & 90° angular attachment of MontaX to vertical axis
- simple straightening and attaching with 4.5 mm Ø raised head screws through keyholes
- mounting plate can be attached using self-tapping 3.9 mm Ø flat-head screws in mounting grooves



Art. No.	2000-80
Inner packaging/shipping	- / 5

MontaX - Magnet

- for adjustable mounting
- comes with fixing screw

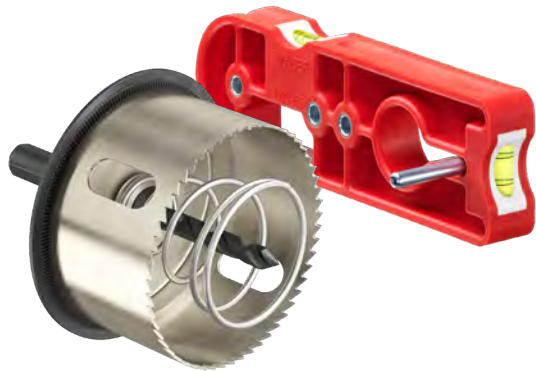


Art. No.	2000-90
Inner packaging/shipping	- / 5



Flush-mounted

- Grinding heads for flush-mounted installation
- Excellent time-saving and durability
- Professional system tools for fast, safe and secure installation work



Cavity wall

- Cavity wall cutters
- Professional system tools for fast, secure and safe installation
- Tried-and-tested quality and technology



Concrete construction

- Professional system tools for fast, secure and safe installation
- Perfectly-matched for the processing and installation of KAISER electrical installation systems

	<div> Diamond grinding head for dust extraction Diamond grinding head Turbo cutter MULTI 4000 MULTI 2000 HM Hardened metal cutter Hardened metal cutter Hardened metal cutter for sheet metal boarding Hardened metal cutter for composite thermal insulation systems Ø 20 mm Standard cutter Bi-metallic cutter Ø 120 mm VARIOCUT universal hole cutter 24-68 VARIOCUT universal hole cutter 65-120 </div>												
	p. 324	p. 325	p. 329	p. 332	p. 334	p. 334	p. 327	p. 327	p. 333	p. 334	p. 336	p. 336	
Material	Recommended RPM												
Plasterboard	-	-	1,000		-	-	1,000	500	1,000	500	800 - 1,400	700 - 1,400	
Plywood (up to V20), uncoated	-	-	600	600	-	-	800	450	-	450	800 - 1,400	800 - 1,400	
Plywood, coated	-	-	-	450	-	-	700	400	-	450	800 - 1,400	800 - 1,400	
OSB Boards	-	-	-	650 ¹	-	-	600	400	-	-	300 - 400 ¹	200 - 400 ¹	
Wood, soft	-	-	850	850	-	-	1,000	500	850	550	800 - 1,400	800 - 1,400	
Wood, hard	-	-	-	650	-	-	600	400	-	450	800 - 1,400	800 - 1,400	
Laminated material (Pertinax etc.)	-	-	-	450	-	-	500	350	-	450	-	-	
Mineral fibreboard	-	-	-	600	-	-	800	500	-	500	800 - 1,400	800 - 1,400	
MDF boards	-	-	-	-	700	-	-	-	-	450	800 - 1,400	800 - 1,400	
Sheet steel	-	-	-	-	-	150 ²	-	-	-	200 ²	300 - 600 ³ Ø 20 - 64 mm	200 - 600 ³ Ø 65 - 120 mm	
Aluminium sheet	-	-	-	-	-	350	-	-	200	-	300 - 600 ³ Ø 20 - 64 mm	200 - 600 ³ Ø 65 - 120 mm	
Multiplex boards	-	-	-	-	700	-	-	-	-	-	-	-	
Panels	-	-	-	-	-	-	-	-	-	-	800 - 1,400 ⁴	700 - 1,400 ⁴	
Ceiling modules	-	-	-	-	-	-	-	-	-	-	800 - 1,400	800 - 1,400	
Wall tiles	-	-	-	-	-	-	-	-	-	-	400 ⁴	250 ⁴	
Hard rubber	-	-	-	-	-	-	-	-	-	-	1,200 ⁵	1,200 ⁵	
Solid masonry (lime sand brick, Poroton, Ytong and many more)	1,600 - 2,000	1,600 - 2,000	-	-	-	-	-	-	-	-	-	-	
Insulated and plastered external facade	-	-	-	-	-	-	1,000	500	-	-	-	-	
Technical requirement													
Required drill output	1,000 W	1,000 W	600 W	600 W	600 W	1,000 W	600 W	600 W	600 W	600/ 1,000 W	max. 700 W	max. 700 W	
Cut hole Ø													
20 mm	-	-	-	-	-	-	•	-	-	-	-	-	
35 mm	-	-	•	-	-	-	-	-	-	-	-	-	
68 mm	•	•	•	•	•	•	-	•	•	-	-	-	
74 mm	-	-	•	•	-	•	-	-	-	-	-	-	
82 mm	•	•	-	-	-	-	-	-	-	-	-	-	
120 mm	-	-	-	-	-	-	-	-	-	•	-	-	
Variable 24 - 68 mm	-	-	-	-	-	-	-	-	-	-	•	-	
Variable 65 - 120 mm	-	-	-	-	-	-	-	-	-	-	-	•	
Technical characteristics													
with dust extraction	-	-	-	-	-	-	-	-	-	-	•	•	
with direct collet	•	•	-	-	-	-	-	-	-	-	-	-	
with drill chuck collet	•	•	•	•	•	•	•	•	•	•	•	•	
with drill depth limit	-	-	-	-	-	-	-	-	•	-	-	-	
Accessories (optional)													
Dust extraction	324	•	-	-	-	-	-	-	-	-	-	-	
ProfiX distance cutter	331	-	-	•	•	•	•	-	-	•	-	-	
ProfiX distance cutter with dust extraction	331	-	-	•	•	•	•	-	-	•	-	-	
Centring aid	328	-	-	-	-	-	-	•	-	-	-	-	
Centering aid Multi 4000	330	-	-	•	-	-	-	-	-	-	-	-	

¹ Ventilate frequently; ² Use cutting oil; ³ up to 1 mm; ⁴ with restrictions; ⁵ up to 10 mm



Diamond grinding head and drilling template

Diamond grinding head for precise and quick installation openings for one-gang boxes and one-gang junction boxes in all types of walls. Clean and low-dust handling due to dust extraction.

- Quick creation of installation openings in all types of walls
- For electric drills with direct attachment or 13 mm chuck
- With optional dust extraction
- Drilling template for exact marking of the centering hole

Installation



Pre-drilling. Create centering hole at a combination distance for multiple boxes using drilling template.



Fit diamond grinding head and diamond cut Ø 68 mm or Ø 82 mm holes.



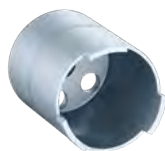
Chisel out drilled core.



Clean and even installation openings for quick further processing with plaster or KLEMMFIX®.

Diamond grinding head with dust extractor

- Thread to screw on the direct or chuck attachment M18 x 1.5



3D animation

Drill Ø	82 mm	68 mm
Cutting depth	max. 70 mm	max. 70 mm
Art. No.	1088-02	1088-03
Inner packaging/shipping	- / 10	- / 10

Dust extraction with direct attachment / Chuck attachment

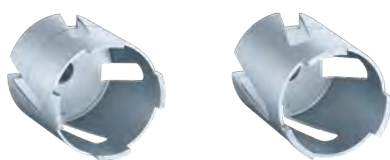
- for diamond grinding head with Ø 82 or Ø 68 mm
- Fits vacuum cleaner hoses from Ø 31 - 36 mm



Thread for Bosch and Flex	5/8"	-	-
UN thread	-	M18 x 2,5	-
Chuck attachment with hexagonal spanner	-	-	12 mm
Art. No.	1088-21	1088-16	1088-41
Inner packaging/shipping	- / 1	- / 1	- / 1

Diamond grinding head without dust extractor

- Thread to screw on the direct or chuck attachment M18 x 1.5



3D animation

Drill Ø	82 mm	68 mm
Cutting depth	max. 70 mm	max. 70 mm
Art. No.	1088-00	1088-01
Inner packaging/shipping	- / 10	- / 10

Direct attachment / Chuck attachment

- for screwing onto the electric drill spindle



Thread for Bosch and Flex	5/8"	-	-
UN thread	-	M18 x 2,5	-
Chuck attachment with hexagonal spanner	-	-	12 mm
Art. No.	1088-20	1088-15	1088-40
Inner packaging/shipping	- / 1	- / 1	- / 1

Centering drill

- for all direct and chuck attachments
- with hardened metal cutter
- Drill length: 125 mm



Diameter	6 mm
Art. No.	1088-30
Inner packaging/shipping	- / 1

Drilling template

- for vertical and horizontal pre-drilling of combination distances
- 71 mm for standard combinations
- 91 mm for separate covers on low-voltage devices
- with hardened drilling bushes
- with fold-out guide pin for first drill hole



3D animation

Art. No.	1190-65
Inner packaging/shipping	- / 1



Spirit level cover

Spirit level cover for quick and exact positioning of one-gang boxes and one-gang junction boxes in the masonry.

- For all KAISER one-gang boxes and one-gang junction boxes
- Guaranteed horizontal or vertical fit of the screw domes
- Quick assembly in a single action

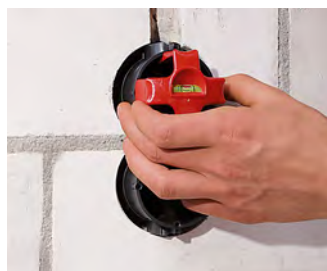
Installation



Prepare the wall opening with plaster as usual.



Insert the spirit level cover into the upper box.



Push the box combination into the wall opening and align.



The spirit level immediately indicates the perfect fit.

Spirit level cover

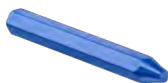
- Box spirit level
- To straighten one-gang boxes and one-gang junction boxes for horizontal and vertical assembly with plaster



Art. No.	1190-60
Inner packaging/shipping	5 / 100

Marking chalk

- for marking of switch symbols and wiring instructions
- colour: blue, waterproof



Art. No.	1190-55
Inner packaging/shipping	- / 12

Hardened metal cutter Ø 20 mm for KAISER mini equipment carrier



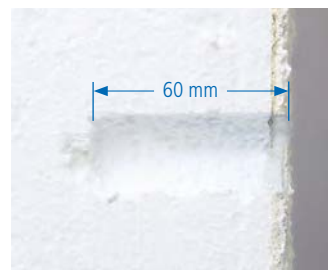
The hardened metal cutter Ø 20 mm with hardened metal cutters for exact installation openings. (Art. No. 1088-06).



By simply unscrewing the cutter head, the drilled core can be removed quickly using a centering drill.

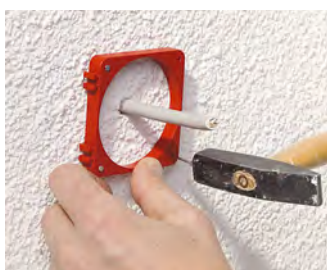


The drilling depth stop ensures that only the amount of insulation material is removed which is necessary to secure the mini equipment carrier.



The insulating capacity remains intact despite the installation opening.

Hardened metal cutter 180 for one-gang junction boxes ECON® Styro55 and ECON® Iso +



If a cable is present, you can drill 68 mm installation openings using the hardened metal cutter 180.



The centering aid Ø 68 mm and depth stop on the cutter ensure a precise opening without damaging the existing cable.



The depth stop ensures minimal interference with the insulation, which prevents the creation of heat bridges.



KAISER carbide metal cutter 180 with depth stop, (Art. No. 1088-07).

Processing instructions

Make sure that the cable has been fed through the insulation material panel. The hardened metal cutter 180 must not be used with cables which are directly under the plaster layer of the external insulation.

Hardened metal cutter Ø 20 mm

- Making installation openings in existing composite thermal insulation systems or lightweight walls
- Ø 20 mm, for the KAISER mini equipment carrier and for KAISER cable seals
- with bit stop to prevent heat bridges
- with centering drill for precise positioning
- fits all battery-powered drills and electric drills with 10 mm chuck
- removable cutter head for easy removal of the drilled core



3D animation



Hardened metal cutter 180

- Creating installation openings in existing thermal insulation composite systems for an existing cable
- for ECON® Styro55 one-gang junction boxes
- fits all electric drills with 10 mm chuck
- with bit stop to prevent heat bridges
- 2 centering aids Ø 68 mm (Art. No. 1090-68) for exact cutter guiding



3D animation



Length	80 mm	180 mm
Drill Ø	20 mm	68 mm
Cutting depth	max. 60 mm	max. 70 mm
Art. No.	1088-06	1088-07
Inner packaging/shipping	- / 48	- / 1

Flush-mounting and masonry tools

for masonry installation

Technical information on centering aid Ø 68 mm



KAISER centering aid Ø 68 mm for nailing on (Art. No. 1090-68).



For combinations position the centering aid at a distance of 71 mm.



Use KAISER tool Styro55 for fast, easy fitting of the swivels.



KAISER setting tool ECON® Iso + and Styro55 (Art. No. 1090-22).

Centering aid Ø 68 mm

- for exact installation openings in existing composite thermal insulation system and wood fibre insulation boards
- Exact guiding of the hardened metal cutter 180 (Art. No. 1088-07)
- can be combined for standard combinations of 71 mm
- for attachment and exact positioning on the composite thermal insulation system and wood fibre insulation boards



Diameter	68 mm
Art. No.	1090-68
Inner packaging/shipping	10 / 100

Setting tool ECON® Iso + / ECON® Styro 55

- for fast and secure attaching of the ECON® Iso + and ECON® Styro55 one-gang junction box



Art. No.	1090-22
Inner packaging/shipping	10 / 100

Turbo cutter MULTI 4000

MULTI 4000 turbo cutter for faster cutting speeds, due to new geometry with especially high endurance in three different sizes. Advantages compared to previous model (MULTI 2000):

- 40% faster due to new cutting geometry
- 20% higher endurance than conventional cutters
- With countersink hole cutter and plate ejector
- Cutting diameter 35 mm/68 mm/74 mm
- Specially for plasterboard, softwood/plywood boards



Technical information on MULTI 4000 turbo cutter



Turbo cutter MULTI 4000

- high cutting power
- precise cut for circular drilled holes
- high radial runout accuracy
- Removable countersink hole cutters
- fits all electric drills with 13 mm chuck



3D animation

Cut hole Ø	35 mm	68 mm	74 mm
Depth of cutting hole	36 mm	36 mm	36 mm
with countersink hole saw, without plate ejector	•	-	-
with countersink hole cutter and plate ejector	-	•	•
Art. No.	1082-10	1083-10	1084-10
Inner packaging/shipping	- / 10	- / 10	- / 10

Cutter head MULTI 4000

- high cutting power
- precise cut for circular drilled holes
- high radial runout accuracy



Cut hole Ø	35 mm	68 mm	74 mm
Depth of cutting hole	36 mm	36 mm	36 mm
without ejector of the drilling core	•	-	-
with plate ejector	-	•	•
Art. No.	1082-09	1083-09	1084-09
Inner packaging/shipping	- / 5	- / 5	- / 5

Cavity wall tools

for cavity wall installation

Countersink hole cutter MULTI 4000

- for flush-mounting box and casing installation
- inductively hardened



Cut hole Ø	35 mm	68 mm	74 mm
Art. No.	1082-05	1083-05	1084-05
Inner packaging/shipping	- / 1	- / 1	- / 1

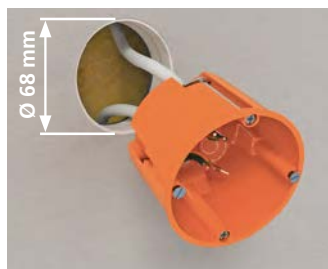
MULTI 4000 cutter set

- stable plastic case
- Contents: 3 Multi 4000 cutters with countersink hole cutter, Ø 35, 68, 74 mm (1082/83/84-10), 1 set of insulation stripping pliers for NYM cables
- Accessories: folding rule, drilling template, pencil



Art. No.	1083-20
Inner packaging/shipping	- / 1

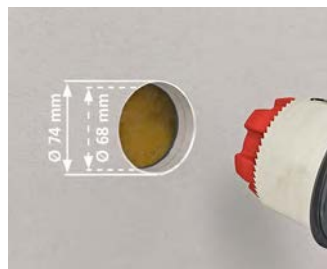
Centering insert 68/74 mm – operation



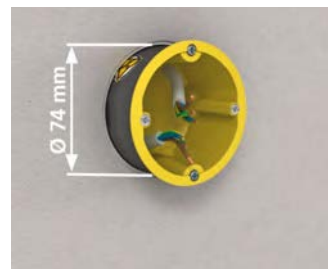
The traditional box is removed from the Ø 68 mm installation opening



Centering insert 68/74 (Art. No. 1083-99) is inserted into the existing opening together with the Ø 74 mm cutter (e.g. MULTI 4000, Art. No. 1084-10).



The existing opening can easily be expanded to Ø 74 mm



Now the traditional installation box can be replaced by a sound insulation, fire protection or radiation protection box.

Centering insert 68/74

- for expanding existing installation openings from Ø 68 mm to Ø 74 mm
- Exact guide for cavity wall cutter MULTI 4000
- for single and multi-layer boarded light-weight walls



Diameter	68 mm
Art. No.	1083-99
Inner packaging/shipping	10 / 100

INNOVATION

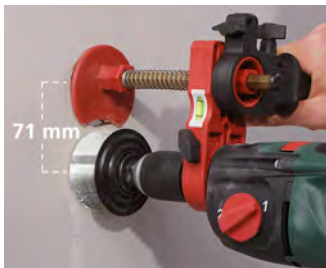
Spacing cutter, Profix

Profix, the bit for electric drills for quick and precise cutting of Ø 68 mm installation openings at the standard distance. Can be used in cut openings or existing cavity wall boxes. Available with and without dust extractor.

- With three spirit levels for exact insertion of horizontal and vertical combinations
- Standard distance of 71 mm or 91 mm without time-consuming measuring and marking
- For expansion of existing cavity wall box combinations
- For electric drills with Ø 43 mm clamping collar
- centering plate can also be used in existing cavity wall boxes for the expansion of existing equipment



Distance cutter Profix – operation



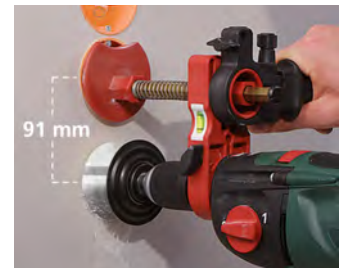
Distance 71 mm: Cut first opening as usual. Insert centering plate into first opening and cut second opening.



Adjust from 71 to 91 mm: Pull back clip nose with spring and turn centering plate by 180°.



Move centering plate to new position and lock centering plate.



Distance 91 mm: Insert centering plate into existing hole or box, align and cut additional opening.

Spacing cutter, Profix

- for the cutting of cavity wall installation openings with dimensionally accurate combination distances of 71 mm, optionally adaptable to a distance of 91 mm, for horizontal and vertical combinations



3D animation

Up to 13 mm chuck	•	-	•	-
for SDS-plus quick-change chuck	-	•	-	•
with dust extractor	-	-	•	•
Art. No.	1083-25	1083-28	1083-27	1083-29
Inner packaging/shipping	- / 10	- / 1	- / 1	- / 1

Cavity wall box template

- for marking cutting-out distances for combinations
- standard combination distance 71 mm to German DIN 49 075 as well as 91 mm distance for separate covers for low-voltage equipment



Art. No.	1085-99
Inner packaging/shipping	- / 100

MULTI 2000 HM

- Carbide tipped cutter head and countersink hole cutter
- extremely powerful
- very long operating life
- Removable countersink hole cutters
- fits all electric drills with 13 mm chuck



Cut hole Ø	68 mm	74 mm
Depth of cutting hole	36 mm	36 mm
with countersink hole cutter and plate ejector	•	•
Art. No.	1083-70	1084-70
Inner packaging/shipping	- / 10	- / 10

MULTI 2000 HM cutting head

- hardened metal tipped
- extremely powerful
- very long operating life



Cut hole Ø	68 mm	74 mm
with plate ejector	•	•
Art. No.	1083-69	1084-69
Inner packaging/shipping	- / 10	- / 10

MULTI 2000 HM countersink hole cutter

- hardened metal tipped
- for flush-mounting box and casing installation



Cut hole Ø	68 mm	74 mm
Art. No.	1083-65	1084-65
Inner packaging/shipping	- / 1	- / 1

Collets

- for cutters Art. Nos. 1082-10, 1083-10, 1084-10, 1083-70, 1082-20, 1084-00, 1084-70



for 10 mm chuck with twist drill	•	-	-
for 13 mm chuck with twist drill	-	•	-
for SDS-plus quick-change chuck without twist drill	-	-	•
Art. No.	1083-31	1083-32	1083-35
Inner packaging/shipping	- / 1	- / 1	- / 1

Twist drill

- Cylindrical shank with clamping surface
- for clamping spigots Art. Nos. 1083-31, 1083-32, 1083-35

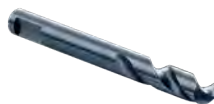


Plate ejector

- Mounting instructions: fit cutter, pull out old ejector using tool. Use tool to press new ejector over collar on base of cutter
- for Art. Nos. 1083-10, 1083-70, 1084-00, 1084-10, 1084-70



Diameter	6 mm	-
Art. No.	1083-30	1083-37
Inner packaging/shipping	- / 5	- / 5

Standard cutter

- without countersink
- with saw blade Art. No. 1086-09
- with twist drill with hexagonal shank



Cut hole Ø	68 mm
Depth of cutting hole	18 mm
Art. No.	1086-00
Inner packaging/shipping	- / 10

Saw blades

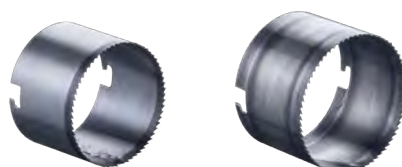
- closed version
- hardened cutting teeth
- for Art. No. 1086-00



Cut hole Ø	35 mm	68 mm	74 mm
Depth of cutting hole	18 mm	18 mm	18 mm
Art. No.	1085-09	1086-09	1087-09
Inner packaging/shipping	- / 5	- / 5	- / 5

Saw blades

- closed version
- hardened cutting teeth
- for Art. No. 1086-00



Cut hole Ø	68 mm	74 mm
Depth of cutting hole	40 mm	40 mm
Art. No.	1086-08	1087-08
Inner packaging/shipping	- / 4	- / 4

Countersink hole cutter

- for flush-mounting box and casing installation
- inductively hardened
- for Art. No. 1086-00



Twist drill

- with hexagonal shank
- with clamping faces for 18 and 40 mm cutting depths
- for Art. No. 1086-00



Diameter	-	8 mm
for cut hole Ø	68 mm	-
Art. No.	1086-05	1086-30
Inner packaging/shipping	- / 1	- / 5

Hardened metal cutter

- specially for sheet planking made of unalloyed/alloyed steels, non-ferrous metals
- Tapered centering drill for exact drilling



Cut hole Ø	68 mm	74 mm
Depth of cutting hole	15 mm	60 mm
Art. No.	1083-95	1083-74
Inner packaging/shipping	- / 10	- / 1

Hardened metal cutter

- specially for hard wood materials, plywood, MDF and OSB boards
- no clogging due to large chip space
- long service life
- Replacement drill (not shown) Art. No. 1083-53
- Removable countersink hole cutters
- fits all electric drills with 13 mm chuck



Cut hole Ø	68 mm
Depth of cutting hole	55 mm
with countersink hole saw	•
Art. No.	1083-51
Inner packaging/shipping	- / 10

Bi-metallic cutter Ø 120 mm

- fits all electric drills with 13 mm chuck
- for cavity wall junction boxes Art. Nos. 9073-01/-77 and 9273-91/-77



Cut hole Ø	120 mm
Depth of cutting hole	40 mm
for frontal fitting of ThermoX® Art. No. 9300-01/-02/-03/-22	•
Art. No.	1082-20
Inner packaging/shipping	- / 1

Bi-metal cutter for ThermoX® housings

- fits all electric drills with 13 mm chuck



Cut hole Ø	74 mm	79 mm	86 mm	120 mm
Depth of cutting hole	-	-	-	40 mm
for rear fitting of ThermoX® (ceiling exit 68 mm)	•	-	-	-
for rear fitting of ThermoX® (ceiling exit 75 mm)	-	•	-	-
for rear fitting of ThermoX® (ceiling exit 82 mm)	-	-	•	-
for frontal fitting of ThermoX® Arti. No. 9300-01/-02/-03/-22	-	-	-	•
Art. No.	1084-00	1082-79	1082-86	1082-20
Inner packaging/shipping	- / 10	- / 1	- / 1	- / 1

Bi-metallic cutter Ø 86 mm

- Removable countersink hole cutters
- with twist drill with hexagonal shank
- fits all electric drills with 10 mm chuck
- for flush-ceiling installation of ThermoX® LED housing (DA 86), Art. No. 9320-20, 9320-21



Cut hole Ø	86 mm
Depth of cutting hole	38 mm
with countersink hole saw	•
Art. No.	1087-86
Inner packaging/shipping	- / 1



VARIOCUT

VARIOCUT universal hole cutter for clean circular cut-outs in cavity wall materials. The hardened metal cutter inserts can cut variable openings with a cutting depth of 45 mm.

- Making clean circular cut-outs using protective cover with dust extractor
- For light installation openings and circular cut-outs 24-120 mm in diameter
- Continuously adjustable cutter inserts
- centering cutter aid making it easy to guide the centering drill

Operation



Set and lock required diameter and prescribed cutting depth.



Mark the centre point for drilling (use centering cutter if necessary). Set appropriate speed on electric drill. Pre-drill plates to Ø 6 mm before cutting.



Use VARIOCUT centering drill. Start drilling, push the protective cover down flat on the surface and cut opening applying light pressure.



As soon as a hole has been drilled, turn off the electric drill immediately. Wait until the machine has fully stopped before removing the VARIOCUT and removing the cut-out material.

VARIOCUT universal hole cutter for cavity wall building materials

- with hardened metal cutter inserts



3D animation

Cut hole Ø	24 - 68 mm	65 - 120 mm
Depth of cutting hole	45 mm	45 mm
for frontal fitting of ThermoX® Arti. No. 9300-01/-02/-03/-22	-	•
for cavity wall junction box Art. No. 9073-01/-77/-78/-91	-	•
Art. No.	1089-10	1089-00
Inner packaging/shipping	- / 5	- / 5

VARIOCUT box

- robust metal case
- Contents: 1 VARIOCUT 1089-00 (Ø 65-120 mm), 1 cutter unit 1089-01 (Ø 24-68 mm), 1 cutter centering aid 1089-31 (incl. 10 adhesive foils)



Art. No.	1089-25
Inner packaging/shipping	- / 1

Cutter unit for cavity wall building materials

- for VARIOCUT universal hole saw
- for light installation openings and circular cut-outs of any kind



Cut hole Ø	24 - 68 mm	65 - 120 mm
Art. No.	1089-01	1089-02
Inner packaging/shipping	- / 1	- / 1

Cutter unit for metal

- for VARIOCUT universal hole saw
- for thickness up to 1 mm
- for light installation openings and circular cut-outs of any kind



Cut hole Ø	20 - 64 mm	61 - 116 mm
Art. No.	1089-91	1089-92
Inner packaging/shipping	- / 1	- / 1

Hardened metal cutter inserts

- For VARIOCUT cutting unit



For cavity wall building materials	•	-
For metal	-	•
Art. No.	1089-33	1089-34
Inner packaging/shipping	- / 1	- / 1

Twist drill for VARIOCUT

- for VARIOCUT universal hole saw
- with clamping shank



Diameter	6 mm
Art. No.	1089-30
Inner packaging/shipping	- / 5

Cutter centering aid

- centering aid for VARIOCUT
- for hard-to-work materials
- for Ø 6 mm drills
- with 10 pieces of adhesive foil



Adhesive foil

- for locating centering aid Art. No. 1089-31
- double-sided adhesion
- for multiple use



Art. No.	1089-31	1219-10
Inner packaging/shipping	- / 1	- / 1



Universal opening cutter

Universal opening cutter for creating exact openings for cable and conduit entries in plastics. Creating exact openings for boxes and housings always results in exact air-tight, smoke-tight and concrete-tight entries.

- For conduit and cable entries
- For air-tight and smoke-tight openings
- For strain-relieved openings
- For all types of plastic

Operation



Depending on the use, find the required diameter in the corresponding table and locate on tool.



Press snap-in button. Turn the handle and push to required position until the arrow point is visible in the opening. Turn handle back and click into place.



Push the point into the housing and cut out required opening by turning to the right.



TIP: To cut several openings or work with hard plastic, you can fit the opening cutter on the 1/4" bit of a battery-powered drill.

Assignment table for universal cavity wall opening cutter

Air-tight cavity wall installation		Ø setting
NYM cable	3 x 1.5 mm ²	7.5
	4 x 1.5 mm ²	8.5
	5 x 1.5 mm ² ; 3 x 2.5 mm ²	9.5
	7 x 1.5 mm ² ; 5 x 2.5 mm ²	10.5
Low-voltage cables	Integrated heavy current and MSR-Bus cable (N)Y(Y(St)Y)M-J 3 x 1.5 mm ²	10.5
	EDP cable, S/STP 4 x 2 AWG23/1	7.5
	EDP cable, 100 Mb, S/STP 4 x 2 x AWG23/1	6.0
	Coaxial cable, double screening	6.0
	Coaxial cable, single screening	5.0
	BUS cable YCYM 2 x 2 x 0.8	5.0
	Screened EDP cable, plus external screening	5.0
	Cable for telephone and signal transmission with screening	4.0
	Telephone cable without screening	4.0
Support connector	9060-98	Connector
Flexible conduits (crimped) in acc. with DIN EN 60423	DIN EN 16 - Ø 16 mm	14.0
	DIN EN 20 - Ø 20 mm	17.0
	DIN EN 25 - Ø 25 mm	21.0
Cavity wall installation for fire-protection boxes HWD 30, HWD 90 and HWD B15		Ø setting
NYM cable	3 x 1.5 mm ²	8.5
	5 x 1.5 mm ²	9.5
	3 x 2.5 mm ²	9.5

Assignment table for universal concrete construction opening cutter

Concrete construction		Ø setting*
NYY cable	3 x 1.5 mm ²	10.5
	4 x 1.5 mm ²	10.5
	5 x 1.5 mm ² ; 3 x 2.5 mm ²	10.5
	7 x 1.5 mm ² ; 5 x 2.5 mm ²	14.5
Conduits flexible (corrugated) in acc. with DIN EN 60423	DIN EN 20 — Ø 20 mm	19.5
	DIN EN 25 — Ø 25 mm	22.5
Conduits flexible (corrugated with smooth sheath) in acc. with DIN EN 60423	DIN EN 20 — Ø 20 mm	19.0
	DIN EN 25 — Ø 25 mm	22.5

Universal opening cutter for plastics

- for manufacture of exact entry size
- for low-voltage wiring of Ø 4 - 7.5 mm
- for sheathed cabling up to 5 x 2.5 or 7 x 1.5
- for cable NYY up to 5 x 2.5
- for DIN EN conduits (flexible) with outer Ø of up to 20/25 mm
- with 1/4" chuck size for battery-powered drills



3D animation

For exact openings	4 - 22,5 mm
Art. No.	1085-80
Inner packaging/shipping	- / 10

AMZ 2 stripping pliers

- for longer cables: integrated knife for longitudinal cutting
- ergonomic design - easy-to-use
- hardened and polished cutting knife



3D animation

For stripping NYM cables	3 x 1,5, 5 x 2,5 mm²
Art. No.	1190-02
Inner packaging/shipping	- / 10

Hole punch and expanding dowel fitting tool

- for concrete construction installation
- for fixing to steel formwork with expanding dowel 1217-02
- for all boxes, casings, bushes, etc.



Length	150 mm	340 mm
Art. No.	1284-62	1284-63
Inner packaging/shipping	- / 1	- / 1

Nail inserter

- for concrete construction installation
- for fixing to wooden formwork with steel nails max. head Ø 4 mm
- for all boxes, casings, bushes, etc.



3D animation

Length	150 mm	340 mm
Art. No.	1284-69	1284-68
Inner packaging/shipping	- / 1	- / 1

Punch pliers

- for concrete construction installation
- for exact entries for cables and conduits
- with plate ejector
- punch bits exchangeable



3D animation

DIN EN conduit Ø	20 mm	25 mm
Art. No.	1286-33	1286-34
Inner packaging/shipping	- / 1	- / 1

Punch bit inserts for punch pliers

- consists of cutter plate and cutting punch, hardened and polished



DIN EN conduit Ø	20 mm	25 mm
Art. No.	1285-33	1285-34
Inner packaging/shipping	- / 1	- / 1

Reamer

- for concrete construction installation
- for enlarging pre-cut holes



DIN EN conduit Ø	25 mm	32 mm	40 mm
Art. No.	1284-34	1284-35	1284-36
Inner packaging/shipping	- / 1	- / 1	- / 1

Step drill

- for concrete construction installation
- for manufacturing conduit entry openings
- can be adapted for battery-powered drills



3D animation

DIN EN conduit Ø	10 - 40 mm
Art. No.	1284-32
Inner packaging/shipping	- / 10

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Energy efficiency. Electrical installation for energy-saving buildings.

- Air-tight installation according to EnEV
- Installation on or in insulated external facades



Fire protection. Box, housing and sealing systems for fire protection walls and ceilings

- Fire protection – without encasing
- Smokeproof and halogen-free
- For buildings and ship construction



Sound insulation technology – sound insulation boxes for use in walls with increased demands on sound insulation.

- Maintains the wall's sound insulation function
- Also for retrofitting



Radiation protection technology - radiation protection boxes and housings for use in lead-free and lead-containing radiation protection walls.

- Protection against X-rays
- Retrofitting is possible
- Fast installation without additional screening measures



The fastest cavity wall installation of all time. FX⁴ technology.

- 40% faster installation
- High level of self-locking



Lead-free

Use of lead-free materials.



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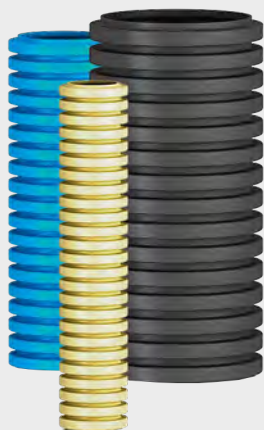
FIRE PROTECTION

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Conduits and cables

DIN 60423 contains the dimensions for electrical conduits. DIN EN 61386 regulates the designations and characteristics. This standard contains specific information about the dimensions, designations and qualities of the conduits. Seven different external diameters are available – suitable for any kind of installation from flush-mounting to concrete construction: outer Ø 16, 20, 25, 32, 40, 50 and 63 mm.

The following conduit types and cables can be used for each individual type of construction:

Flush-mounting (masonry) construction

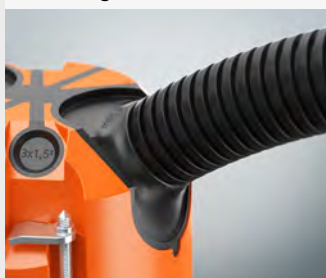


Manufacturer's designation of conduits, e.g.

Fränkische Rohrwerke:	FBY-EL (flexible) FBY-EL-F (smooth, flexible)
Hegler:	Heglerflex EYL (flexible) Heglerplast EL (rigid)
PIPELIFE:	FB-E-L (flexible) IPM-E-LF (rigid)

Cavity wall construction

The following are permitted: wires and cables without a protective conduit if their sheaths are made from flame-resistant plastic, e.g. PVC for sheathed NYM wires. Flat-lead cables are not permitted. For lighter design conduits - class 2 (min. pressure resistance 320 N/5cm) or higher, and if additionally fire-protected, cable of type HO7V... (insulated individual leads) and sheathed cables e.g. NYM can be used.



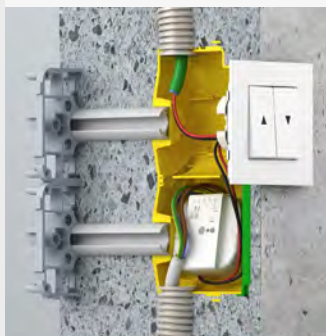
Manufacturer's designation of conduits, e.g.

Fränkische Rohrwerke:	FBY-EL-F (flexible) FFKu-EL-F-HO (flexible)
Hegler:	Heglerflex-EYLF (flexible) Heglerflex-EL (flexible) Heglerplast-EL (rigid)
PIPELIFE:	FB-E-LF (flexible) KuMS-E-MF (flexible)

Concrete construction

The following are permitted: cables without a protective conduit, e.g. NYY or NYZXY. Feed-throughs or connections at joints (e.g. wall-ceiling) can only be made in accordance with DIN EN 60670 in concrete construction installation boxes or casings if the outer sheath of the cables or wires has been removed.

For medium-design conduits - class 3 (min. pressure resistance 750 N/5 cm) or higher, cables of type HO7V... (insulated individual leads) or sheathed cables, e.g. NYM can be used.



Manufacturer's designation of conduits, e.g.

Fränkische Rohrwerke:	FFKuS-EM-F (flexible) FFKuS-EM-F105 (flexible)
Hegler:	Heglerflex-ESPM (flexible) Heglerflex-ESPM105 (flexible) Heglerplast-EPKM (rigid)
PIPELIFE:	Ku-P-AS-E-MF-105 (flexible) RP-E-SF-UV (flexible) KuMS-E-MF (flexible) PSM-v-E-SF (rigid)

Since there are currently no definitions contained in the standard for minimum pressure resistance that relate to the type of installation, the manufacturer's specifications must be followed, especially for concrete constructions.

Note: The maximum temperature of the pouring process for our concrete building installation boxes with VDE certification is -5 to 90°C.

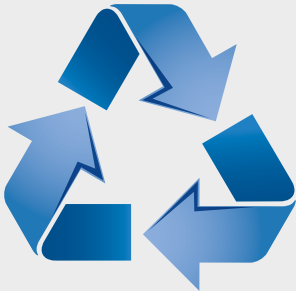
Smart building system technology (KNX, LON...)

Special one-gang boxes (electronic boxes) for installation in flush-mounting and cavity walls are shown in the appropriate product sections.








Disposal

KAISER products are not subject to the regulations relating to the disposal of electrical/electronic waste, so currently they do not need to be marked accordingly. KAISER's trade partners in Germany (electrical wholesalers) offer the installer and/or end user a packaging return service (= returning it for recycling).



Fire resistance acc. to DIN EN 60670

The test takes place acc. to DIN EN 60695 T. 2-11.
It is carried out as a glow wire test at the following test temperatures.

650°C	U	Flush-mounting	
650°C	B	Concrete construction	
650°C	I	In plaster	
650°C / 850°C		Covers	 / 
850°C	H	Cavity wall	
850°C	i	Terminals	



Electrical installations in hygienically important areas such as hospitals, medical practices, ambulances, outpatient clinics, etc.

For reasons of cost, the interiors of such buildings are often built using lightweight or plaster-board materials. The resulting cavities can very easily become a refuge for harmful insects. Because of the almost total gas proofness, the air-tight versions of the cavity wall boxes prevent both transfer of bacteria caused by insects and undesirable intake or outflow of filtered air (for example in operating theatres or intensive care units). A corresponding certificate of proof is available on request.



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Maintaining functionality of cables and wiring systems

Functionality is maintained in an electrical system when, during a fire test, no short circuit and no interruption to current flow take place in the cable/wiring system.

Maintenance of functionality is divided into classes from E30 - E90 in accordance with DIN 4102 T.12. This means that the systems must be able to withstand fire for a period of between 30 and 90 minutes. The materials used for these measures must be made of non-flammable materials (materials class A).



One-gang junction boxes

In addition to space for equipment, one-gang junction boxes have space for at least 3 connection terminals. All KAISER one-gang junction boxes can be used as a junction box if a screw-on cover with fire resistance of 650°/850°C according to DIN EN 60670 is used as a junction box.




Halogen-free materials (preventive fire protection)

In order to prevent injury to persons or property damage, the use of halogen-free materials may be specified. All KAISER flush-mounting and concrete installation boxes, casings, luminaires and loudspeaker housings are halogen-free. Boxes and casings for cavity wall installation as well as several accessory parts are available as halogen-free articles in the product range.



Cavity wall boxes

According to DIN EN 60670, cavity wall boxes are subject to special safety tests and must be marked with the symbol .



Combinations

Combinations for multiple masking frames of the accessories are created by lining up one-gang boxes and/or one-gang junction boxes.

The combination spacing for this is 71 mm according to DIN 49075.

Combinations of 3-phase and low voltage devices, for example antenna sockets, can be used together only when sockets with electric shock protection are used.

If sockets without electric shock protection are used (these may still be available), then they must have separate covers. The distance between the installation boxes is normally 91 mm (more if necessary) and is created by using distance pieces or suitable tools.

Light hooks

According to **DIN EN 60670 P. 21 / DIN VDE 0100 P. 559**, hanging appliances for luminaires, e.g. light hooks, must be able to carry 50 N or a safety load of five times the specified weight of the light.



Equipotential bonding

Every building must have a main equipotential bonding point. In accordance with DIN VDE 0100 T.701, rooms with baths or showers and covered swimming baths must have additional equipotential bonding.

To ensure easy accessibility for later disconnection and measurement, it is advisable to place the additional equipotential bonding point in an appropriate housing containing an equipotential bonding terminal strip. In accordance with DIN VDE 0100 Part 710, rooms used for medical purposes must have special equipotential bonding installed.



Protection of plasterwork

According to DIN 18382, protection of an installation and any equipment necessary to provide protection of the installation are additional responsibilities of the installation engineer providing this service. Installation boxes are normally closed off with so-called plaster or signal covers.



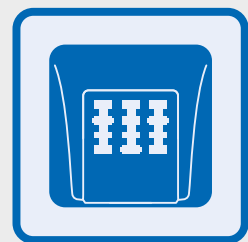
Areas to be protected

When installation boxes are installed in bathrooms etc., the requirements of DIN VDE 0100 P.701 must be met.



Telephone boxes

In accordance with standard datasheet FTZ 731 TR1 of the German Federal Telecommunications Office in Darmstadt, only one-gang boxes conforming to DIN 49073 may be used for installing telecommunications inserts.





Environmental friendliness - RoHS

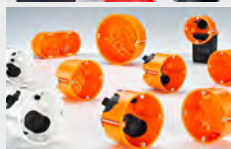
Restriction on the use of certain hazardous substances according to EU directive 2002/95/EC (RoHS) and EU directive 76/769/EWG: The materials which we supply comply with the valid "Directives for the use of harmful substances" and satisfy the legal regulations regarding the putting into circulation of substances.

Emissions are not known in normal use.



Flush-mounting product range:

Impact-resistant polystyrene-polyethylene



Cavity wall product range:

Polypropylene



Concrete construction product range:

Polyethylene



Lights and loudspeaker housing product range:

Polyethylene/Polyamide, galvanised steel plate, fire retardant coating



Fire-protection product range:

Galvanised sheet steel, fire-retardant coating



Cable glands:

Polyamide, nickel-plated brass



Wall light connection boxes

According to DIN VDE 0100 Part 559, wall light connection boxes must be used wherever feed wiring for wall lights terminates. KAISER wall light connection boxes have space for at least 3 terminal blocks and a reserve cable, with a screw attachment for fitting luminaires.

Additional technical information on our solutions and products is available on our website.

The builder of the installation retains responsibility for selection of suitable box types or housings and for their correct installation according to technical safety standards. (See table on page 180 for overview of test markings) Any technical advice given by us is according to the best of our current knowledge and is without responsibility on our part. This also applies to any protective rights of third parties.

Max. number of terminals per one-gang box, one-gang junction box, junction box and junction casing, according to DIN EN 60670

For safety reasons (prevention of overheating in junction boxes) the DIN EN 60670 standard limits the number of terminals and conductors in a junction box.

A certain cubic volume is required for every terminal pole (terminal volumetric unit). This volume includes the space for the connection terminals, conductors and for movement of wiring in the junction box.

Max. no. of terminals. Values in () are with equipment fitted

Art. No.	Wire cross-section (in mm ²)					
	1.5	2.5	4	6	10	16
10...						
1050-00	6	5				
1051-00	6	5				
1055-..	6	5				
1056-..	6	5				
1068-02	9 (7)	7 (6)	6 (4)			
1068-21	9 (7)	7 (5)	6 (4)			
1069-02	8(7)	6 (5)				
1081-..	6	6				
1092-..	18	15	12	8	6	5
1094-..	9	7	5			
1095-..	11	9	7	5		
1096-..	18	15	12	8	6	5
1097-..	18	15	12	8	6	5

11...						
1159-90	6	5				
1172-..	6	5				

12...						
1211-36	7	6				
1211-61	7 (5)	6 (4)				
1227-50	11	9				
1227-55	10	8				
1245-62	7	5				
1245-63	7	5	4			
1248-..	6	5				
1249-11	5	4				
1249-12	5	3				
1248-55	4	3				
1255-01	6 (5)	5				
1255-43	6	5				
1255-45	6	5				
1260-01	10(8)	8(6)	6(5)			
1260-11	10(8)	8(6)	6(5)			
1262-..	7 (4)	6(5)	5 (4)			
1263-..	8 (7)	6(5)	5 (4)			
1264-60/61	8 (7)	6 (5)	5 (4)			
1265-01	10(8)	8(6)	6(5)			
1265-11	10(8)	8(6)	6(5)			
1265-12	10	8	6			
1265-13	10	8	6			
1268-01	11 (9)	9 (7)	8 (6)			
1269-01	11 (9)	9 (7)	8 (6)			
1276-70	8	6	5			
1295-02	18	15	12	8		
1296-02	18	15	12	8	6	5
1297-02	18	15	12	8	6	5
9907	17	14	11	7	5	4
9908.21	18	15	12	8	6	5
9916	18	15	12	8	6	5
9917	18	15	12	8	6	5
9914.01	18	15	12	8	6	5
9917.21	18	15	12	8	6	5
9916.21	18	15	12	8	6	5
9909.01	12	10	8	5	4	3
9908.01	17	10	11	7	5	4
9911.01	18	15	12	8	6	5
9912.01	18	15	12	8	6	5



Art. No.	Wire cross-section (in mm ²)					
	1.5	2.5	4	6	10	16
15...						
1550-..	6 (5)	5 (4)				
1551-..	6 (5)	5 (4)				
1555-..	6 (5)	5 (4)				
1555-21	7 (5)	5 (4)				
1556-21	7 (5)	5 (4)				
1556-..	6 (5)	5 (4)				
1572-02	8	6	5			
1569-01	6 (3)	4				

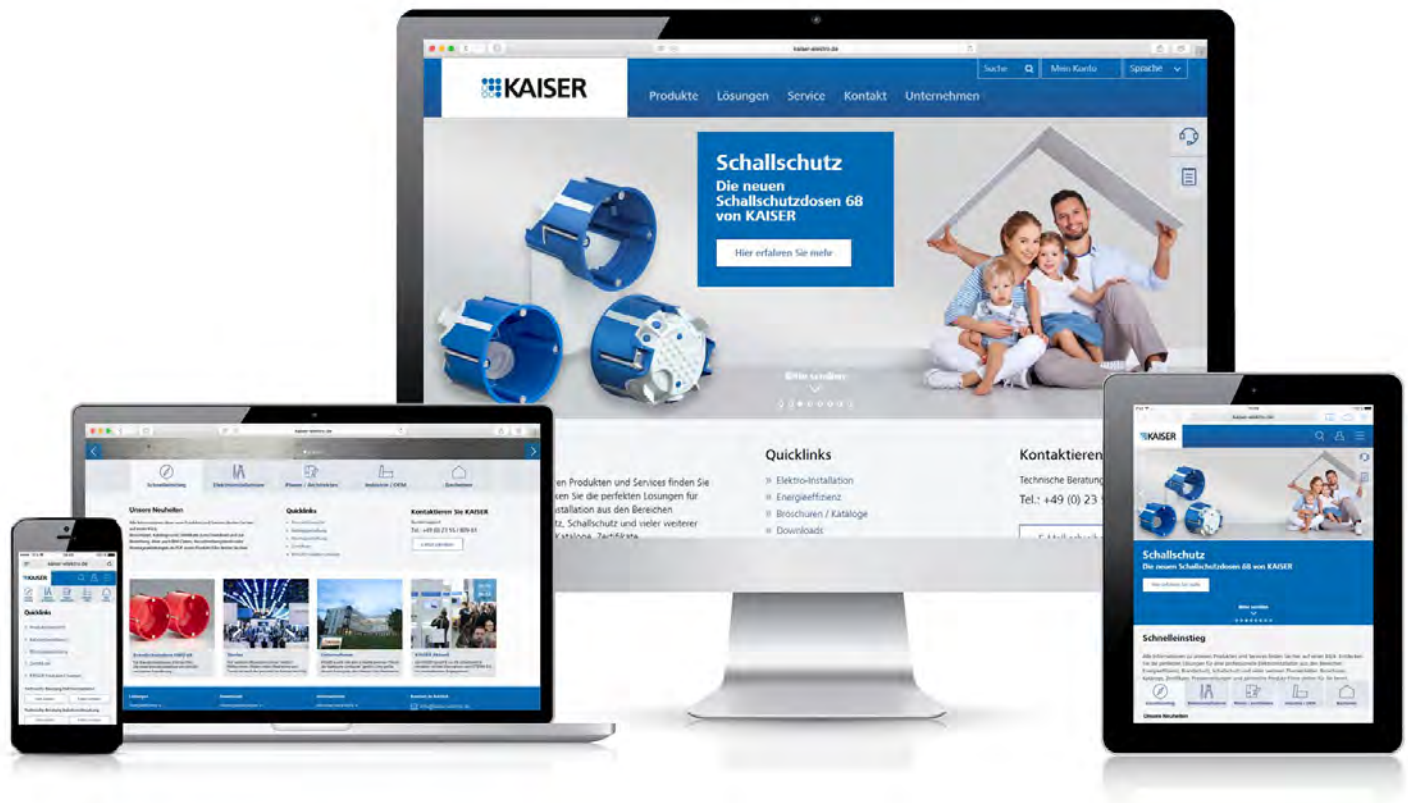
16...						
1656-02	9 (6)	7 (5)				
1656-21	9 (7)	7 (5)	6 (4)			

17...						
1756-02						

90...						
9061-..	5	4				
9062-..	10 (7)	8 (5)	6			
9062-74/94	10 (12)	8 (10)	6 (8)	5 (6)	4 (5)	
9062-21	10	8	6			
9062-94	12 (10)	10 (8)	8 (6)	6 (5)	5 (4)	
9063-..	6	5				
9063-50	6	5				
9064-..	7 (5)	5 (4)				
9064-..	6 (4)	4 (3)				
9068-01/79	6 (3)	5				
9068-04/74	6	5				
9068-03/76	7 (5)	5 (4)				
9068-94	7(7)	6(6)	5(4)			
9069-01	6 (3)	4				
9069-94	6 (5)	5 (4)				
9071-..	7	5				
9073-..	11	9	7			
9074-01	6 (3)	4				
9074-03	6 (3)	4				

91...						
9192-..	18	15	12	8	6	5
9195-..	10	8	6	5		
9196-..	18	15	12	8	6	5
9197-..	18	15	12	8	6	6

92...						
9263-..	6	5				
9264-..	7 (5)	5 (4)				
9462-94	6 (5)	5 (4)				
9463-01	4	3				
9464-01	6 (3)	4				
9464-15	6 (3)	4				
9273-91/77	12	10	8			
9266-22/77	7 (5)	5 (4)				
9268-94/74	7 (7)	6 (6)	5 (4)			
9252-22	9(7)	7(5)	5(4)	4(3)		
9252-78	9(7)	7(5)	5(4)	4(3)		
9253-22	11(9)	9(7)	7(6)	5(4)	4(3)	
9253-78	11(9)	9(7)	7(6)	5(4)	4(3)	
9254-22	14(12)	11(10)	9(8)	6(5)	4(4)	3(3)
9254-78	14(12)	11(10)	9(8)	6(5)	4(4)	3(3)
9280-22	8(6)	6(5)				
9280-78	8(6)	6(5)				




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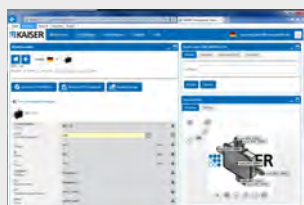
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In order to ensure optimal support for our customers and partners in the planning and execution of projects in the building construction, civil engineering and mechanical engineering sectors, KAISER works closely with leading platforms in the BIM and CAD data sector and tender texts and specifications. As a supplement to our cable gland portfolio digital planning data are now also available in EPLAN Data Portal available.

At www.kaiser-elektro.de, kaiser.partcommunity.com, www.ausschreiben.de and www.eplandataportal.de/agro find detailed tender texts and BIM and CAD data about KAISER products in many file formats. You can download them directly and integrate them seamlessly in your work process.



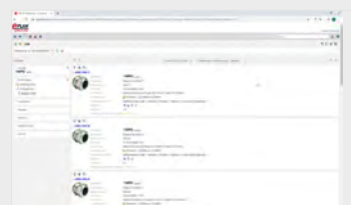
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www.eplandataportal.de/agro

Article master data and prices

The article master data and prices of our products can be found in the download section of our website. Our article master data are available in the following formats: ETIM, Eldanorm, Datanorm and Excel.

The product pictures linked in the master data can be directly downloaded as a zipped folder in JPG and TIF formats.

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Product training

















We regularly organise training courses on KAISER product and system solutions. We can also offer such courses at your premises if you wish. Please contact us for further information.

















Active partnership and cooperation means that we accompany our "product cycle" from determining requirements up to the next generation. We are at your side in everything to do with building installation. We accompany you in the planning phases, we develop functioning solutions together with you, giving you advice on all matters of installation, including on the building site, and we provide you with the right tools at all times. Our digital and printed media answer many of your questions and provide realistic information and solutions.



















KAISER products are manufactured in accordance with DIN, VDE, EN and IEC regulations. Insofar as required by regulations, approval certificates from the VDE Testing and Certification Centre as well as a number of other European testing centres have been issued for the products contained in this catalogue.

	Germany	VDE VERBAND DER ELEKTROTECHNIK ELEKTRONIK INFORMATIONSTECHNIK	
	Austria	ÖSTERREICHISCHER VERBAND FÜR ELEKTROTECHNIK	
	Belgium	COMITE ELECTROTECHNIQUE BELGE asbl	
	Czech Republic	ELEKTROTECHNICKÝ REPUBLIK ZKUSEBNÍ ÚSTAV	
	Hungary	MAGYAR ELÉKTROTECHNIKAI ELLENŐRZŐ INTÉZET	
	Slovenia	SLOVENSKI INSTITUT ZA KAKOVOST IN MEROSLOVJE	
	Switzerland	VERBAND FÜR ELEKTRO-, ENERGIE- UND INFORMATIONSTECHNIK	
	UK	BRITISH STANDARD	

Art. No.							
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1048-00	•						
1050/51	•			•			
1055-04	•			•			
1055-21	•			•			
1055-62	•			•			
1056-04	•			•			
1056-21	•						
1056-62	•			•			
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1081-06	•						
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1211-36	•						
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1227-50	•			•			
1227-54	•						

Art. No.							
1227-55	•						
1245-	•						
1248-01	•		•	•			
1248-40	•				•		
1248-44					•		
1248-50	•				•		
1248-55	•				•		
1249-11 /12	•		•				
1249-44					•		
1249-50	•				•		
1255-40	•				•		
1255-43					•		
1255-45					•		
1260-01	•		•	•			
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1297-02	•						
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1297-98							
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The 2018 ZVEI (= Association of the Electrical Engineering and Electronics Industry) version of the "General Terms and Conditions of Delivery of the ZVEI for Products and Services – Green Terms of Delivery" (hereinafter "Green Terms of Delivery" - downloadable from our www.kaiser-elektro.de website) shall apply to all our commercial relationships with our customers, in addition to the following supplementary terms and conditions of KAISER GmbH & Co.KG. In the event of unintended contradictions, our supplementary terms and conditions have priority.

The customer's differing, conflicting or supplementary terms and conditions shall only become an integral part of the contract insofar as we have expressly consented to their validity. This consent requirement applies in all cases, for example even if being aware of the customer's general terms and conditions of business we carry out the delivery to him without reservation.

1. Orders, scope of the deliveries and services

The customer's order for the goods is deemed to be a binding contract offer. Insofar as nothing further arises from this order, we are entitled to accept this contract offer within 4 weeks of receiving it. Acceptance can be declared either in writing (e.g. by confirmation of order) or by delivery of the goods to the customer.

The scope of the deliveries or services shall be determined by the mutual written declarations (Article I no. 1 of the "Green Terms of Delivery"). In addition to the "Green Terms of Delivery", the following applies: If a contract has been concluded without the presence of such mutual declarations, either the supplier's or service provider's (hereinafter: supplier) written confirmation of order is decisive, and if no such confirmation has taken place, the customer's written order. Individual agreements concluded with the purchaser on a case-by-case basis (including side agreements, supplements and amendments) take precedence in all cases. Subject to proof to the contrary, a written contract or our written confirmation is decisive for the content of such agreements.

2. Prices, terms and conditions of payment

Further to Article II of the "Green Terms of Delivery", the following applies:

The catalogue prices are recommended retail prices in Euro and exclusive of sales tax. The prices for brass products are subject to certain variations which follow the relevant DEL quotations. These prices are based on a DEL quotation of 150 Euro for Ms58. An upward or downward change to this quotation of more than 15 Euro will be invoiced with a 5% surcharge or 5% reduction. The basis for the surcharge or reduction will be the DEL quotation on the date on which we receive the order. Our current product prices - without taking into account any possible surcharge or discount - can be found on: www.kaiser-elektro.org/preise. Unless otherwise agreed, terms of payment are 3% discount for payment within 10 days / 30 days net, in each case from the date the invoice is issued.

3. Sales tax

1. The customer assures the correctness of the details of his address and his sales tax identification number. If a consignment is considered taxable as a result of deficiencies in the address or sales tax identification number, the customer shall reimburse the tax which we are to pay.

2. In the case of a sales tax-free intra-Community delivery in accordance with §§ 4 Nr. 1 lit. b) i.V.m. § 6 a UStG, the customer is obliged to provide certification of arrival which corresponds to the principles of § 17a UStDV. If following our request the customer fails to meet his obligation within 30 days, he can be invoiced subsequently for the sales tax. Ownership of the purchase object is retained prior to receipt of the certification of arrival or retrospective payment of the sales tax. Retention of title in accordance with Article III of the ZVEI's incorporated "Green Terms of Delivery" and para. 4 of these additional conditions is not affected by this.

4. Retention of title

The following applies in addition to Article III of the "Green Terms of Delivery": The supplier must be informed accordingly if external warehouse facilities are to be used for goods delivered under retention of title. When such goods are delivered, the warehouse company must be informed in writing that the goods in question are the property of the supplier and are only being stored with the warehouse company on the proviso that it does not acquire a lien on the goods.

5. Shipping

The prices shall apply for terms and condition ex works for the acceptance of sealed shipping cartons for which no packaging costs are charged. If packing units are broken open, and irrespective of the value of the order, a surcharge of 5 Euro will be levied for each shipping unit. Orders for sealed delivery within the Federal Republic of Germany which have a net value of 800 EUR or shall be delivered franco domicile. For small orders with a net order value of less than 100 EUR we charge a processing fee of 25 EUR. On request, and at the customer's expense, the supplier will insure the consignment against breakage, transport and fire damage.

6. Returns

Goods may only be returned in exceptional circumstances and must first be approved by us. The customer's legal right of rescission is not affected by this. If we are not notified in advance, returns will not be accepted by our distribution warehouses and shall be returned at the consignor's expense. Our conditions on return can be found at www.kaiser-elektro.org/retouren.

7. Liability for defects

Articles VIII to XII in the "Green Terms of Delivery" of the ZVEI apply in respect of our liability for defects of quality and title.

8. Place of performance, choice of law and place of jurisdiction

1. The place of performance for our deliveries and any supplementary performance is Schalksmühle.
2. The laws of the Federal Republic of Germany, excluding the rules of uniform international law, and in particular UN sales law, apply to these supplementary terms and conditions and the contractual relationship between ourselves and the customer.
3. If the customer is a merchant within the meaning of the commercial code, a legal entity under public law or a public law body, the sole – including international place of jurisdiction for all disputes arising directly or indirectly from the contractual relationship is our headquarters in Schalksmühle. The same applies if the customer is an entrepreneur within the meaning of § 14 BGB. However, in all cases we are also entitled to bring an action at the place of performance of the delivery obligation in accordance with these General Terms and Conditions or an overriding individual agreement or at the customer's general place of jurisdiction. Overriding legal provisions, in particular in respect of exclusive competence, are not affected.

General information

1. The issue of this catalogue renders all previous editions null and void.
2. This edition contains only KAISER standard product ranges. Special product ranges and developments are available on request.
3. KAISER catalogues in other languages are available on request.
4. Technical advice provided by us is to the best of our knowledge and is deemed to be non-binding information. The installer of electrical installation systems is responsible for the selection of suitable installation boxes, their materials, and for performing installation in a safety-related manner.
5. The English-language version of this contract is provided for information purposes only. Only the German-language version is valid in a court of law.

Date: 02/2018

Errors and technical modifications excepted.

The current terms and conditions of delivery and payment can be found on our website: www.kaiser-elektro.de

We guarantee quality

References

KAISER installation systems provide you with versatile free space for planning creativity and technical installations of all kinds. KAISER product and system solutions are suitable for all types of buildings. Architects and planners trust in our product know-how which is as innovative, trendsetting and consistent as the properties in which it finds its function.

Decades of experience and the knowledge gained from discussions with users and installers give you the flexibility you need on a daily basis for your planning and installation work. We guarantee that you will work with high-quality products as they are subject to continuous improvement with regard to rising standards in the markets and installation practices.

UPPER WEST Tower | Berlin



Tech Gate | Vienna, Austria



KAISER inside!

Since 1904, KAISER has been developing and manufacturing, in Germany, high-quality electrical installation products for flush-mounting, cavity wall and concrete construction installations. KAISER's innovative ideas and solutions can be found in many important buildings round the world.

For example, also in the UPPER WEST Tower in the capital, in Vienna's "Tech Gate" office building, in Nuremberg's riot police accommodation building and also in Weber-Haus energy-efficient houses.

The Australians also appreciate KAISER quality, and in their new yacht, "Silver Loft", they are incorporating the HWD B15, which is certified for shipbuilding.

Silver Loft



Modern energy-efficient house



© WeberHaus

More about our business sectors:

- Energy efficiency
- Fire protection
- Concrete construction
- Sound insulation
- Radiation protection
- Refurbishing
- Cable glands

at www.kaiser-elektro.de

Trust through experience.



Riot police building | Nuremberg

© Staatliches Bauamt Erlangen-Nürnberg



Headquarters: KAISER
Schalksmühle, Germany

As an innovative manufacturer of products and system solutions, the KAISER Group is one of Europe's leading companies in the field of professional electrical installations. With an international distribution network and subsidiaries AGRO in Switzerland, HELIA in Belgium and ATTEMA in the Netherlands, we are always there for our customers. The close collaboration between the four companies creates substantial synergies to the benefit of our partners in trade, commerce and industry.

Creating the future together.

The KAISER, AGRO, HELIA and ATTEMA brands always provide you with installation solutions which satisfy market requirements. In this way, they give you effective support for your daily tasks. Thanks to the on-going and future-oriented product innovations, our four strong brands ensure that you are always up-to-date with the latest technology – today and in future.

AGRO

Hunzenschwil, Switzerland



ATTEMA

Gorinchem, The Netherlands



HELIA

Bornem, Belgium



To ensure that, in addition to our promises of delivery, you can always rely on our guaranteed product quality, together with our subsidiaries we are a member of many relevant associations and cooperations.

We are integrated in an international network of partnerships, so we always know what the market wants.



The **"Elektromarken. Starke Partner."** (= Electrical brands. Strong partners) of the 17 leading manufacturers of brand-name products combines the reliable competence with the tried-and-tested quality of the German electrical sector. This is supported not least by an incomparable range of operations centred around high-quality products and services for the electrical trade.
www.elektromarken.de



The **ELEKTRO+** initiative provides builders and specialists with neutral information for the planning and carrying out of electrical installations, for both new installations and modernisation.
www.elektro-plus.com



The **Exportinitiative Energieeffizienz** (= Energy Efficiency Export Initiative) was set up by the Federal Government. In the context of energy efficiency, it supports German suppliers who export products and services.
www.efficiency-from-germany.info



Working closely with well-known companies, **ETIM** develops and distributes a classification model for the electrical industry.
www.etim.de



Der **Gemeinsame Ausschuss Elektronik im Bauwesen** (= German Joint Committee for Electronics in Construction) promotes the use of data processing in the building construction industry, taking into consideration the common language of all those involved in the building sector.
www.gaeb.de



VDE – these three letters stand for one of the big European associations for sectors and professions in the fields of electrical and information technology. It is a forum of international experts on science, standardisation and product testing.
www.vde.com



The **VEG** is the professional association of the electrical wholesalers in Germany. According to the statutes, the association's aims are the protection, awareness and promotion of the general non-material and financial interests of its members.
www.veg.de



The **ZVEH** represents the financial and political interests of around 76,000 electrical and information technology companies, both nationally and internationally.
www.zveh.de



The **ZVEI** is one of Germany's most important industrial associations. It represents the interests of a high-tech sector with a product portfolio which is very wide-ranging and extremely dynamic.
www.zvei.org



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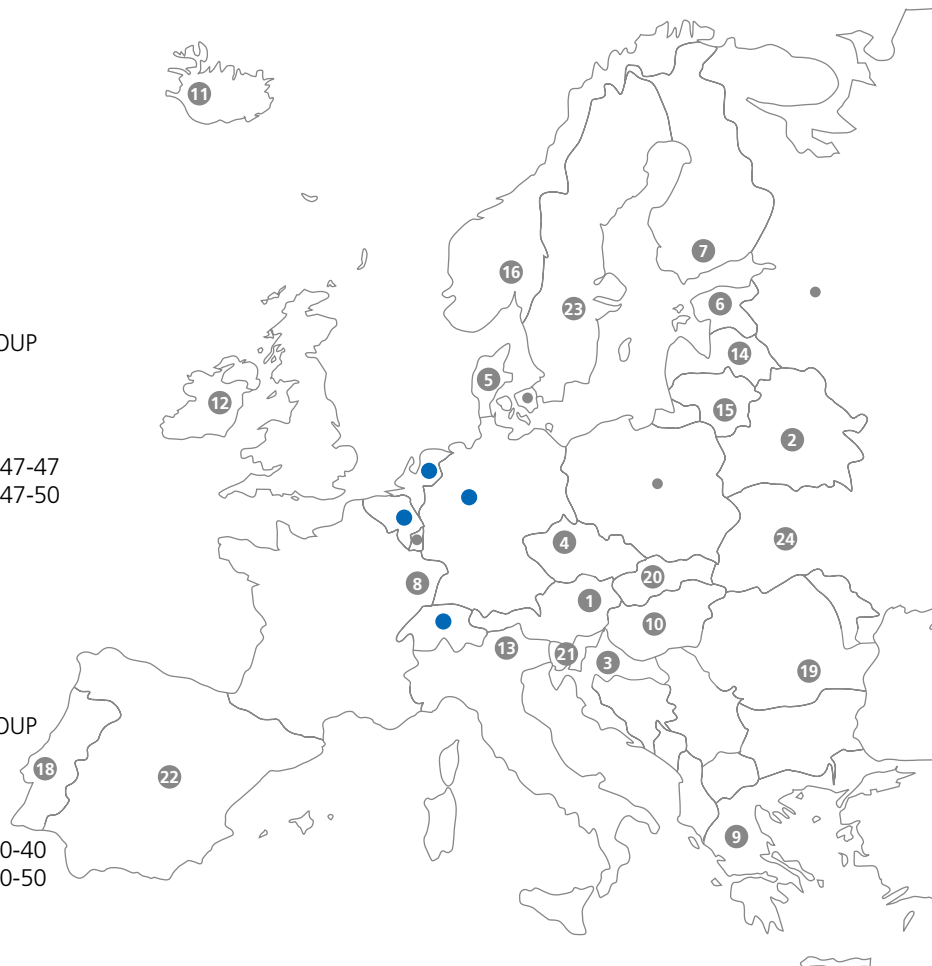
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KAISER – Further supply sources

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Please contact us for further information

Updated information can be found on our homepage: www.kaiser-elektro.de

Systems and solutions for the professional electrical installation.

Since 1904, KAISER has developed and manufactured systems and products as a basis for good installation. Planners and users benefit internationally from the practical solutions for their daily operations in all areas of installation.



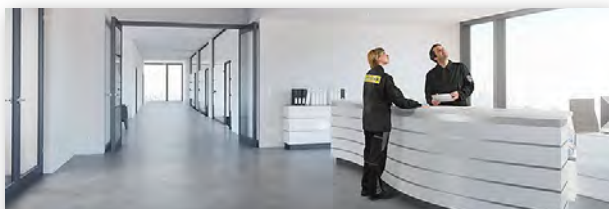
Energy efficiency

Innovative KAISER products support you in satisfying the requirements of the EU guidelines and the national regulations such as the Energy Conservation Regulations (EnEV).



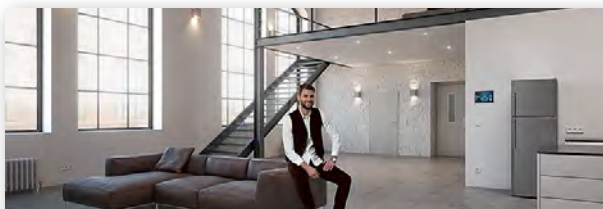
Radiation protection

The use of the new radiation protection boxes maintains the wall's radiation protection without the need for any additional screening measures.



Fire protection

KAISER fire protection systems offer you reliable protection for electrical installations in fire protection walls and ceilings.



Building

KAISER has matching product system solutions which are used safely, consistently and in accordance with building-site practices for redeveloping, renovating and modernising work.



Sound insulation

KAISER's innovative sound insulation boxes ensure the structural requirements for sound insulation walls, even with pre-fitted installations.



Concrete construction

Complete systems for on-site mixed concrete and pre-fabrication. Perfectly optimised for electrical installation work of the specialist trade.

Technical information and advice

You will find more information about products, system solutions and communication media on our website:

www.kaiser-elektro.de

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