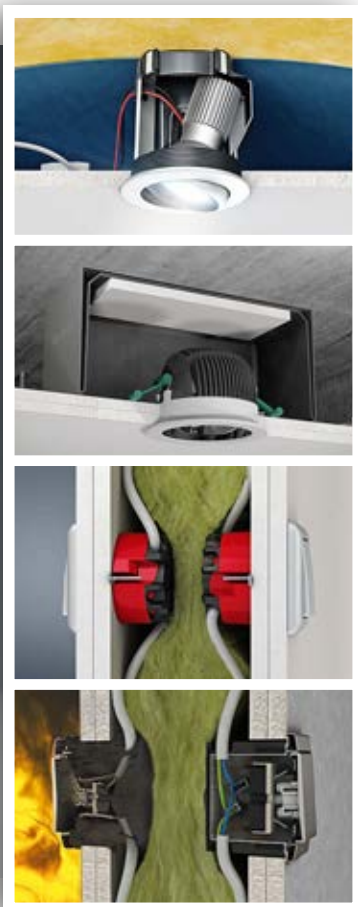


# KAISER Electrical installation

Boxes, housings and systems

3.0



The basis for good installation

 **KAISER**



The KAISER group is a third-generation, family-run company which has always put its faith in tradition and progress. We are an innovative leader in the field of electrical installation products, and our aim is always to be there for our customers with top-quality ideas and solutions, consistently one step ahead of the sector. Highly-qualified, experienced employees guarantee the excellent quality which KAISER offers. Our partners in specialist trades and industry can always put their faith in our ability to develop innovative products for today's and tomorrow's markets. This also applies to customer-oriented service and the ability to supply as and when required – factors which distinguish a strong electrical brand.




















Ulrich Kaiser

KAISER GmbH & Co. KG

Burkard Kaiser

CEO

KAISER GmbH & Co. KG

<h2>Flush-mounting / masonry</h2> <p>The classic installation range.</p> <div>    </div>	14		FLUSH-MOUNTING
<h2>Cavity wall</h2> <p>For all types of cavity wall. Air-tight and halogen-free. Solutions for sound insulation and radiation protection walls</p> <div>     </div>	72		CAVITY WALL
<h2>Concrete construction</h2> <p>For on-site mixed and prefabricated concrete. For ceilings and walls.</p> <div>  </div>	126		CONCRETE
<h2>Installation housings</h2> <p>For ceilings and walls. For luminaires, loudspeakers, displays, etc..</p> <div>  </div>	180		HOUSINGS
<h2>Fire protection</h2> <p>Box, housing and sealing systems for fire-protection walls and ceilings.</p> <div>   </div>	228		FIRE PROTECTION
<h2>Cable glands</h2> <p>The Syntec® professional product range in all sizes. Plastic and brass.</p>	268		CABLE GLANDS
<h2>Tools</h2> <p>Top-quality system tools for professional electrical installation</p>	282		TOOLS
<h2>Service</h2> <p>Easy to find. From communication to the article number.</p>	302		SERVICE





## Energy efficiency.

**Building technology which satisfies tomorrow's needs** must not only orientate itself towards the wishes of the users as regards architecture and functionality, but also satisfy specific building regulations – most of all with regard to energy. This is where EU directives and national regulations – for example the German EnEV, the Energy-Saving Ordinance - specify what needs to be done.

**Innovative and highly-efficient KAISER products** support you in minimising energy consumption in buildings. In this way, you meet the legal requirements, and the users benefit from considerably lower energy costs. For more information, please see our "Energy efficiency" brochure and our website at [www.kaiser-elektro.de](http://www.kaiser-elektro.de).



**With our products** we play our part in meeting the demand for an airtight building shell, for example with our airtight cavity wall and flush-mounting boxes, sealing sleeves and installation housings which use ECON technology. Our wide range of products offers ideal, tried and tested solutions for almost all installation tasks and situations.



**Many KAISER products** are designed specifically for use in insulated external facades. They are ideal for fitting to composite thermal insulation systems – including retrofitting – and guarantee heat bridge-free electrical installation.

The internal insulation box makes possible a heat bridge-free electrical installation with proven protection against moisture damage in combination with internal insulation systems.







## Fire protection.



**Preventative fire protection measures** help to save lives and minimise damage in serious situations. Above all, it is necessary to guarantee that fire protection devices function correctly, that the escape routes can be used, and that there is always access for rescue services.

**KAISER fire protection systems** offer you reliable solutions for electrical installations in fire protection walls and ceilings. They operate automatically and maintain the required fire resistance classes. For more information, please see our special "Fire protection" brochure or our website at [www.kaiser-elektro.de](http://www.kaiser-elektro.de).

**KAISER fire sealing systems** offer secure, safe, visible and certified protection for cables, conduits and bundled cables and conduits. Here, too, tried and tested KAISER AFS technology ensures that if a fire breaks out, the sealings intumesce immediately and seal the installation opening tight against fire and smoke. In this way, the fire sealings maintain the wall's fire resistance class, so guaranteeing effective fire protection.



**Our certified fire-protection boxes and housings** prevent fire and smoke from spreading. Thanks to intelligent AFS technology, the products react directly to fire or heat by automatically sealing every installation opening. In addition, when installing switches and sockets in fire protection walls, or luminaires and loudspeakers in fire protection ceilings, encasing is not necessary.





## Sound insulation.

**Sound insulation walls** play a very important role in ensuring that people feel comfortable in buildings, because they make possible peace and quiet, intimacy, familiarity and the feeling of security. These factors are just as important in the private sector as in public and commercial buildings – for example in schools, hospitals, retirement homes, doctors' practices, hotel rooms or conference rooms. But also in terraced houses or apartment blocks, sound insulation walls create peace and quiet, and also privacy. For more information on this topic, please see our "Sound insulation" brochure or our website at [www.kaiser-elektro.de](http://www.kaiser-elektro.de).

**KAISER's innovative sound insulation boxes** ensure the constructional demands made of sound insulation walls, even with fitted installations. The specially-developed solid box body with sound insulation sheathing almost completely absorbs and reflects sound.

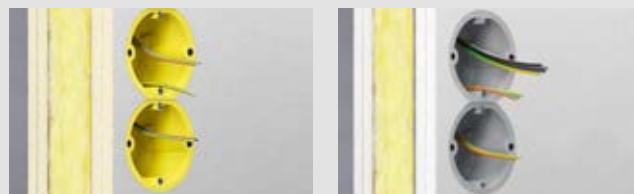
The **sound insulation box** can be fitted as an opposing, up to 5-way combination without any weakening of the wall's sound insulation. The **sound insulation electronics box** provides installation space for electronic switch devices, or it can be used as a double box.



## Radiation protection.

Building construction measures in the field of radiation protection are employed in hospitals, doctors' practices and in all medical facilities in which X-ray and gamma radiation equipment is used. In all of these, electrical installations in radiation protection walls represent a special challenge, because they are not permitted to have any effect on the specified radiation protection values. For more information on this, please see our special "Radiation protection" brochure or our website at [www.kaiser-elektro.de](http://www.kaiser-elektro.de).

**KAISER radiation protection boxes** ensure that the function of radiation protection walls is fully maintained even when installations are fitted – and without any additional screening methods. The boxes – which we supply for both lead-free and lead-lined radiation protection walls – can now also be retrofitted without any problems.





## Refurbishing.

**Electrical installation work which is carried out in connection with the redeveloping, renovating or modernising** of existing buildings is becoming more and more important. The main reason for this is new regulations such as the energy pass, and fire protection or sound insulation measures. The communication systems of the future, and the subject of accessibility, also increasingly represent a challenge for architects, planners and fitters.

**When you use KAISER's practical product system solutions** for fire protection, energy efficiency and sound insulation, you are always on the safe side. The matching installation products completely satisfy the legal, standards-related and technical challenges which must be met during the redeveloping, renovating and modernising of existing building stocks.



## AGRO cable glands.

**AGRO cable glands made of plastic or brass** represent the best possible quality and suitability for practical use. The innovative complete programme offers you everything you need for professional cable entries. The product range includes cable glands for everyday installation work, and also specific products, for example EMC or Ex-cable glands, elbow cable glands, and universal cable entries. A comprehensive range of accessories completes the portfolio.

**Our practical range of cable glands** provides you with the right product for almost every task, or an individually developed solution for trade and industry. For more information on our complete range, with more than 3,500 products, please see our special "AGRO Cable glands" catalogue or our website at [www.kaiser-elektro.de](http://www.kaiser-elektro.de).







## Improved quality of life instead of noise. **Flush-mounting sound insulation box.**

**Sound insulation box** for use in masonry walls with increased demands on sound protection. The sturdy box body with additional sound protection sheathing reduces sound transfer to neighbouring rooms. This retains the wall's sound protection function as if there were no installation boxes and no weak points in the wall.



## Perfect insulation and moisture regulation. **Internal insulation box.**

**One-gang junction box** for electrical installations for the permanently safe and heat bridge-free installation of switches and other devices in internally-insulated external walls. For an optimal indoor climate with proven protection against moisture damage. For use in many internal insulation systems.



**B+B** PRODUKT DES  
JAHRES 2016



## Heat bridge-free electrical installation in externally-insulated facades. **System equipment carrier.**

**The new system equipment carrier** is designed so that it integrates perfectly in the external insulation and becomes part of the composite thermal insulation system. This means that no heat bridges can arise. Ideal for the permanent fixing of external luminaires, motion detectors, sockets, door communication systems and much more. Weight-bearing loads up to 10 kg are not a problem.



## Flexible installation space. Fast installation. Electronics box ECON® Flex.



**Air-tight electronics box ECON® Flex** with ECON® technology for energy-efficient electrical technology in accordance with EnEV and for installation under clean room or enhanced hygiene conditions. Fast installation is ideal for modernising or expanding existing installations. The flexible tunnel allows fast wall installation and creates generous installation for electronic components, cable reserves and terminals.



## Airtight installation of LED built-in luminaires. Installation housing ThermoX® LED.



**The installation housing ThermoX® LED** is available in three new sizes and with new functions. Now there are housings with an installation depth of 70 or 95 mm and with a ceiling exit of 70 or 81 mm diameter.



Innovative expanding pockets guarantee a secure fit for the built-in luminaire. Additional cable entries for sheathed cables ensure greater flexibility during installation.



**DESIGN PLUS**

powered by: **light+building**

**Easy with the system:** An overall programme consisting of various systems is available for the installation of luminaires, displays and loudspeakers in insulated hollow ceilings. They protect the surrounding material (moisture barrier foil, insulation, etc.) against the high operating temperatures of luminaires and create an air-tight closure. The ThermoX® system is preferred for the installation of halogen luminaires. For LED luminaires the ThermoX® LED system is used for the installation of rigid and swivelling LED luminaires. The EnoX® system provides sufficient space for the fitting of displays, loudspeakers or other devices and can be used, air-tight, in insulated hollow ceilings or walls.



p. 231



## For solid construction fire-protection walls. Flush-mounting fire-protection box.

In solid construction EI30-EI120 fire-protection walls, the **fire-protection box** maintains the fire-resistance duration for integrated electrical installations. Even if the minimum required wall thickness of 60 mm is not reached in single-sided or even directly-opposing installation, the flush-mounting fire-protection box ensures safe and smokeproof room separation.



p. 233



## For safe classes up to EI120. Cavity wall box HWD 90.

**Cavity wall box HWD 90** for EI30-EI120 fire-protection walls. Suitable for many types of wall construction, with or without suitable wool. In addition to the fire-protection characteristics, it also maintains the sound-protection characteristics of the relevant wall. This means that it retains not only all the comfortable features of the relevant wall construction but also guarantees all the safety requirements for use in escape routes, in this way helping to save lives.

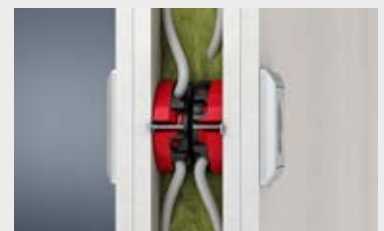


p. 239



## For safe classes up to EI90. Fire-protection box HWD 68.

In fire-protection walls EI30-EI90, **fire-protection boxes HWD 68** maintain the fire-resistance duration when electrical installations are fitted. In the event of a fire, an integrated fire-retardant coating quickly and reliably closes the installation opening and prevents the spreading of flames and smoke gases. Toolless cable entry, a cut hole diameter of 68 mm and the easy combination of one-gang and one-gang junction boxes contribute to fast, easy installation.





## Stay flexible. Easy, safe, all the time. Ceiling penetration sealing systems DS 90/74 mm and DS 90/120 mm.



**KAISER ceiling penetration sealing systems 90/74 mm and DS 90/120 mm** guarantee secure maintenance of the ceiling's fire-resistance class of EI30-EI90. They efficiently prevent the spreading of fire and smoke gases for entries of cable and electrical installation conduits through concrete or cellular concrete ceilings. At all times, their innovative construction makes possible easy, toolless, fast retrofitting or removal of cabling.



## Prevents the spreading of fire and smoke gases. Fire-protection housing FlamoX®.



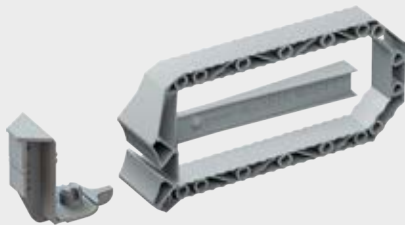
**FlamoX® installation housings** for luminaires and loudspeakers protect life and property in the event of a fire. The integrated fire-retardant coating ensures that the housings maintain ceiling fire-resistance class F30 (EI30) when luminaires and loudspeakers are fitted in fire-protection ceilings. They prevent the spreading of fire and smoke gases, securing escape routes in buildings. FlamoX® fire-protection housings provide certified protection and are easy, safe and reliable to install.





## Large-volume wire-pulling aid. **Wire-pull casing.**

**KAISER wire-pull casings** make possible professional cable entries through conduit networks. According to DIN 18015-1, conduit lengths which exceed 12 m or have more than two bends require wire-pull casings which allow the later pulling-through or retrofitting of cables. KAISER wire-pull casings offer a wide range of conduit entry opportunities and maximum terminal compartment space, even when later changes to the electrical installation take place.



## For wire-pull casings and universal installation housings. **Prefix® installation system.**

Fast installation on the opposing formwork without a support element. Prefix® wings are easily snapped into position. The spring-loaded installation clamps apply high pressure to the opposing formwork, so they ensure an exact fit for the wire-pull casings and a clean wall appearance for facing concrete.



A full range of equipment is available for installing on the reinforcement. The Prefix® system is used for the installation of wire-pull casings and universal housings in various sizes. Prefix® concrete building boxes are available as a one-gang junction box or wall light connection box. They can be combined with each other and used for concrete cover of 20-60 mm.



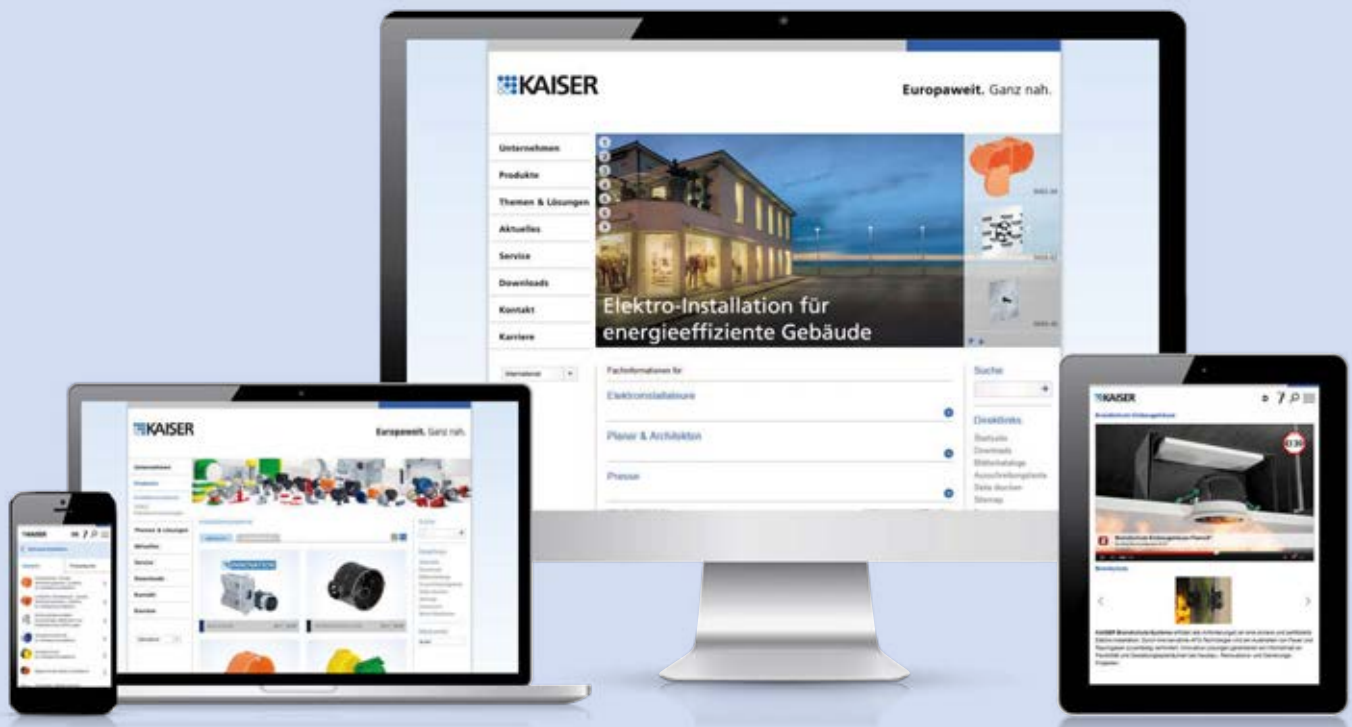
More information:  
[www.kaiser-elektro.de](http://www.kaiser-elektro.de)



## Prevention of the formation of condensation by means of pressure and temperature compensation. **AGRO pressure balance and drainage elements.**

High humidity, differences in temperature and pressure often result in condensation in closed housings. The installation of **AGRO pressure balance elements** ensures optimal pressure compensation and constant ventilation to minimise condensation. Even with a very wide range of environmental conditions, they make possible efficient drainage and safe operation of the installation.





**Twenty-four hours a day, KAISER's [www.kaiser-elektro.de](http://www.kaiser-elektro.de) website** offers the latest information on our products, systems and services. Exciting new KAISER products, together with a varied and attractive offer of information:

- Online product catalogue with many functions for everyday tasks
- Download and request brochures, catalogues, installation instructions and much more
- Information about seminars, trade fairs and events
- Technical application advice
- Marketing and service numbers
- Sources of supply
- Article master data and prices
- Tenders



**One picture is worth more than 1000 words.**



For all the products near to which you see the  icon, on our [www.kaiser-elektro.de](http://www.kaiser-elektro.de) website and our [www.youtube.de/kaiserelektro](http://www.youtube.de/kaiserelektro) channel, we present informative films which show the installation and function of many products and system solutions. The QR codes give you fast, easy access via your smartphone. Try them out! You can find the QR codes in our catalogues and brochures.



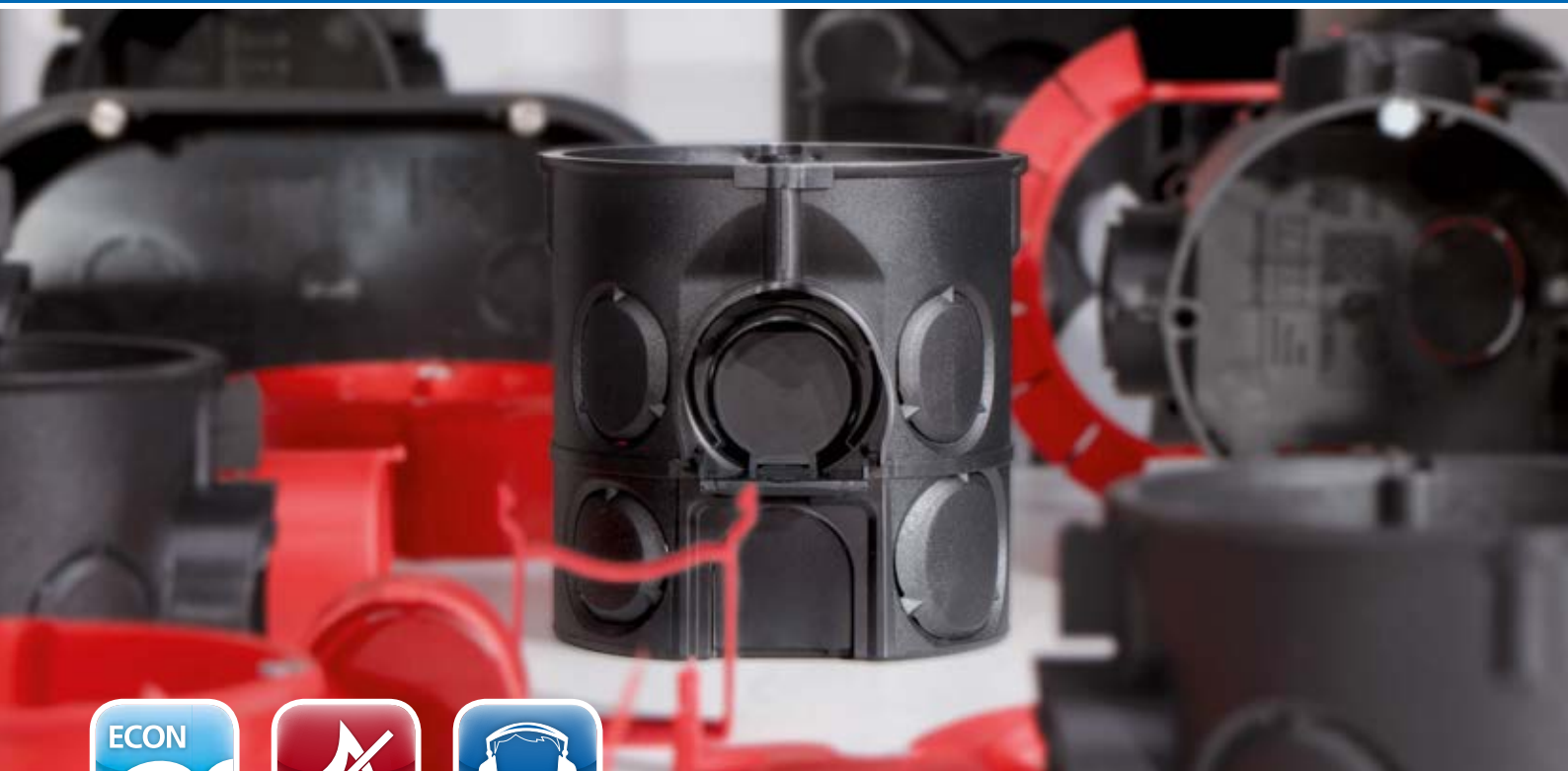
**KAISER App. The latest information, always available.**

Even when you are travelling, the KAISER app provides you with all the information you need about our products, new developments and company. The contents were prepared especially for use on mobile devices such as smartphones or tablets.

Available free of charge for Apple iOS in the AppStore, and for Android via GooglePlay.



# Flush-mounting installation



## The most important advantages at a glance:

- Complete system for all flush-mounting and masonry applications
- UP-Plus technology with combination connection pieces M20/M25 and up to 15% more installation space
- Installation solutions for insulated external facades (composite thermal insulation systems)
- Air-tight installation in accordance with EnEV energy-saving ordinance
- ECON technology: air-tight one-gang boxes and one-gang junction boxes for toolless cable and conduit entries
- Air seal sleeves for air-tight feed-through of cables and conduits
- Fire-protection products for flush-mounting and masonry applications
- Universal installation housing with mineral fibre-board for all standard accessory sizes (e.g. displays, LED luminaires and many more)
- Plasterless mounting with Klemmfix®
- Easy locating of boxes and casings by using signal covers
- International products for accessory installation in accordance with national standards
- Environmentally-friendly installation solutions
- Professional system tools for fast and secure installation
- Wide range of system accessories
- Halogen-free



Product film  
[www.kaiser-elektro.org/flushmounting](http://www.kaiser-elektro.org/flushmounting)









## Flush-mounting | Product lines

Basic installation	p. 16
Electronics box	p. 18
Air-tight versions	p. 22
Luminaire connection boxes, ceiling exits	p. 34
Screened electrical installation	p. 35
Sound insulation technology	p. 19
Plasterless installation with Klemmfix®	p. 37
Sealing sleeves	p. 93
Accessories	p. 38
Junction casings	p. 41
Universal installation housings	p. 44
Internal insulation system	p. 46
Installation systems for insulated external facades	p. 50
International products	p. 69
Fire-protection products for flush-mounting/ masonry applications	p. 231

Tools for flush-mounting installation can be found in the "Tools" section starting on page 284



	Basic installation	Energy saving air-tight	Sound Insulation	Insulated interior wall	Screened Environmentally-friendly	Fire-protection buildings
						
<b>For installation accessories</b>						
One-gang boxes	p. 17	p. 22			-	-
One-gang junction boxes	p. 17	p. 23	p. 21 <b>NEW</b>	p. 48 <b>NEW</b>	p. 36	p. 232 <b>NEW</b>
One-gang boxes for nailing	p. 29	-			-	-
Two-gang junction boxes	p. 29	p. 25			-	-
Electronics boxes	p. 18	p. 25			-	-
Perilex® one-gang boxes	p. 31	-			-	-
One-gang boxes CEE	p. 31	-			-	-
Universal installation housings	p. 45	-			-	-
<b>For cable exits</b>						
Wall light connection	p. 34	-			-	-
Luminaire connection	p. 34	-			-	-
<b>For cable and conduit feed-throughs</b>						
Sealings	-	p. 93			-	-
Sealing sleeves	-	-			-	p. 246
<b>For cable connections</b>						
Junction boxes	p. 32	-			-	-
Junction casings	p. 41	-			p. 36/113	-
Potential equalisation casings	p. 43	-			-	-
<b>Accessories</b>						
Fixing	p. 38	p. 38			-	-
Retrofitting sealing (air-tight)	p. 26/92	-			-	-
Sealing of electrical installation conduits (smoke-tight and air-tight)	-	p. 27			-	p. 28/261/92
Plaster compensation	p. 39	p. 39			-	-
Plaster protection	p. 38	p. 38			-	-
End cover	p. 39/177/90	p. 39/177/90			p. 36/113	-

FLUSH-MOUNTING








CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

## Installation on or in insulated external facades | Product overview

	Universal equipment carrier	Universal equipment carrier with combination insert	Telescope equipment carrier	Telescope switch box	Mini equipment carrier	ISO box set	One-gang junction box ECON® Styro55
							
	p. 50	p. 54	p. 58	p. 58	p. 63	p. 61	p. 66
<b>Installation option</b>							
Prepared installation	•	•	•	•	-	•	-
Retrofitting	-	-	-	-	•	-	•
<b>Application</b>							
External 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

CABLE GLANDS

TOOLS

SERVICE

# One-gang boxes, One-gang junction boxes

for flush-mounting installation



## 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



**UPPLUS**

### 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 (1159-34) ensures an exact and safe distance of 91 mm.



The tunnel connector (1159-36) permits fully-insulated floor through-wiring.

### 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. Put 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



**UPPLUS**


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
	•	•
<b>Art. No.</b>	<b>1055-04</b>	<b>1056-04</b>
Inner packaging/shipping	25 / 500	25 / 500

## One-gang junction box

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



**UPPLUS**


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
	•	•
<b>Art. No.</b>	<b>1555-04</b>	<b>1556-04</b>
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



**UPPLUS**

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
	•
<b>Art. No.</b>	<b>1069-02</b>
Inner packaging/shipping	10 / 100

# One-gang boxes, One-gang junction boxes

for flush-mounting installation



## 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



**UPPLUS**

### 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



**UPPLUS**

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

## Flush-mounting one-gang junction box sound insulation 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 with a switch-socket combination.



Use of an opposing sound insulation box.



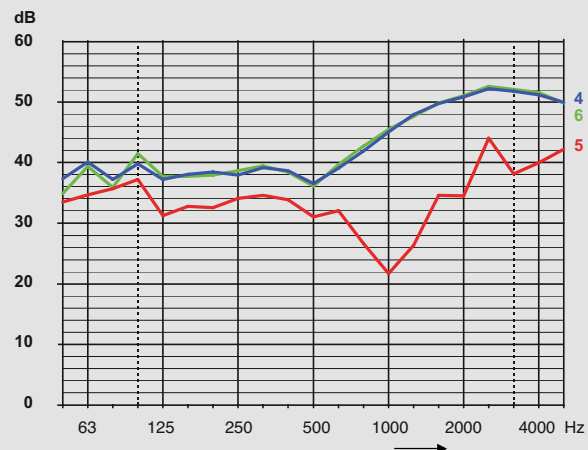
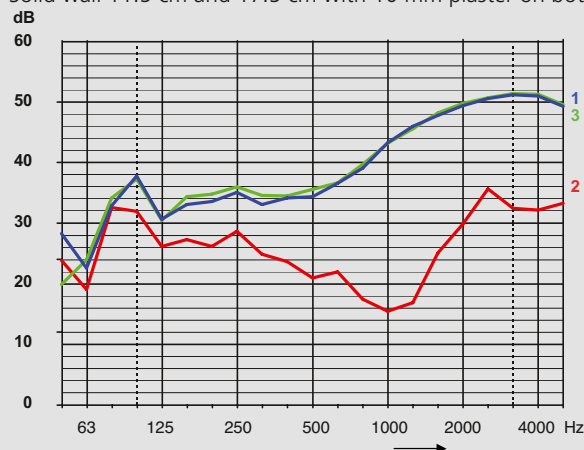
Cables up to Ø 11.5 mm and conduits up to M25 can be fed into the sound insulation box.



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, 55 dB | 5 with one-gang junction box 1569-01, 55 dB | 6 With one-gang junction box type 1569-01, 55 dB



# One-gang boxes, One-gang junction boxes

for flush-mounting installation

## Installation



Make a Ø 82 mm cut hole with a grinding head (e.g. 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 with a switch-socket combination.



With the sound insulation cover, 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 5-way combination.

## Allocation table for universal opening cutters



Flush-Mounting installation for sound insulation boxes		Ø setting
<b>NYM cable</b>	3 x 1.5 mm <sup>2</sup>	7.5
	4 x 1.5 mm <sup>2</sup>	8.5
	5 x 1.5 mm <sup>2</sup> ; 3 x 2.5 mm <sup>2</sup>	9.5
	7 x 1.5 mm <sup>2</sup> ; 5 x 2.5 mm <sup>2</sup>	10.5
<b>Low-voltage cables</b>	Integrated high voltage and MSR-Bus cable (N)Y(YStY)M-J 3 x 1.5 mm <sup>2</sup>	10.5
	EDV cable, S/STP 4 x 2 AWG23/1	7.5
	EDV 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
	EDV cable screened, plus outer screening	5.0
	Cable for telephone and signal transmission with screening	4.0
	Telephone cable without screening	4.0
<b>Support connector</b>	9060-98	Connector
<b>Conduits according to DIN EN 60423 flexible (curled)</b>	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).

## INNOVATION

### Flush-mounting sound insulation box

- 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



3D animation

<b>Depth</b>	<b>60 mm</b>
Installation opening	60 mm
Cable entries of up to Ø 11.5 mm	6
Tube entries up to M25	6
<b>Art. No.</b>	<b>1569-01</b>
Inner packaging/shipping	10 / 100

### Sound insulation cover

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



## SOUND INSULATION

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

# One-gang boxes, One-gang junction boxes

for flush-mounting installation



## 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®.

- Air-tight design with 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



Vertical draughts occur in hollow chamber blocks. The UP boxes with ECON technology prevent air from escaping through the one-gang boxes.



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.

### One-gang box ECON® 10

- Air-tight design with 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	•	•
	•	•
<b>Art. No.</b>	<b>1055-21</b>	<b>1056-21</b>
Inner packaging/shipping	25 / 500	25 / 500



## One-gang junction box ECON® 15

- Air-tight design with sealing membranes
- 4 screw domes, 2 expanding claws 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
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	•	•
	•	•
<b>Art. No.</b>	<b>1555-21</b>	<b>1556-21</b>
Inner packaging/shipping	25 / 250	25 / 250

## Entries for conduits and DIN EN conduits



# One-gang boxes, One-gang junction boxes

for flush-mounting installation



## 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 on which the interior plaster forms the air-tight closure on the room side. The electronics box ECON® 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 two-gang junction box ECON® makes it easier than ever to install special accessories. The big 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.



# One-gangboxes, One-gang junction boxes

for flush-mounting installation

## Processing instructions



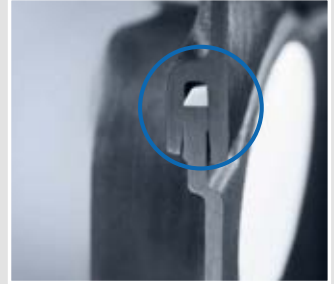
The permanently elastic sealing membrane used in ECON® technology guarantees the air-tight connection of cables up to Ø 11 mm, and conduits up to Ø 25 mm.



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®

- Separator wall to separate electrical circuits
- Air-tight design with sealing membranes
- 4 screw domes



### Two-gang junction box ECON®

- Air-tight design with sealing membranes
- 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
	•	•
<b>Art. No.</b>	<b>1068-21</b>	<b>1656-21</b>
Inner packaging/shipping	10 / 100	10 / 100



# One-gang boxes, One-gang junction boxes

for flush-mounting installation



## 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.

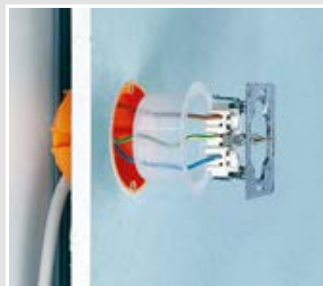
- Ensures later air-tight closing of one-gang boxes and one-gang junction boxes
- Toolless connection wire penetration is possible
- Guarantees later and permanent air-tightness



### 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 mm<sup>2</sup>.



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

### Sealing inserts

- for retrofit sealing (air-tightness) of existing one-gang boxes or one-gang junction boxes without flush-mounting removal (masonry) and cavity walls
- permanently flexible plastic



#### AIR-TIGHT

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

## Sealing plugs 16-40

for electrical installation conduits

Sealing plugs with ECON® technology for sealing all standard electrical installation conduits in one-gang 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 reinforcing ribs, 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



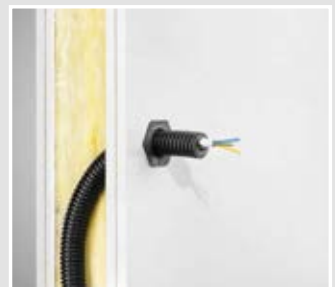
The long sealing plug with three sealing lips and different widths adapts itself perfectly to the installation conduit...



... 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.

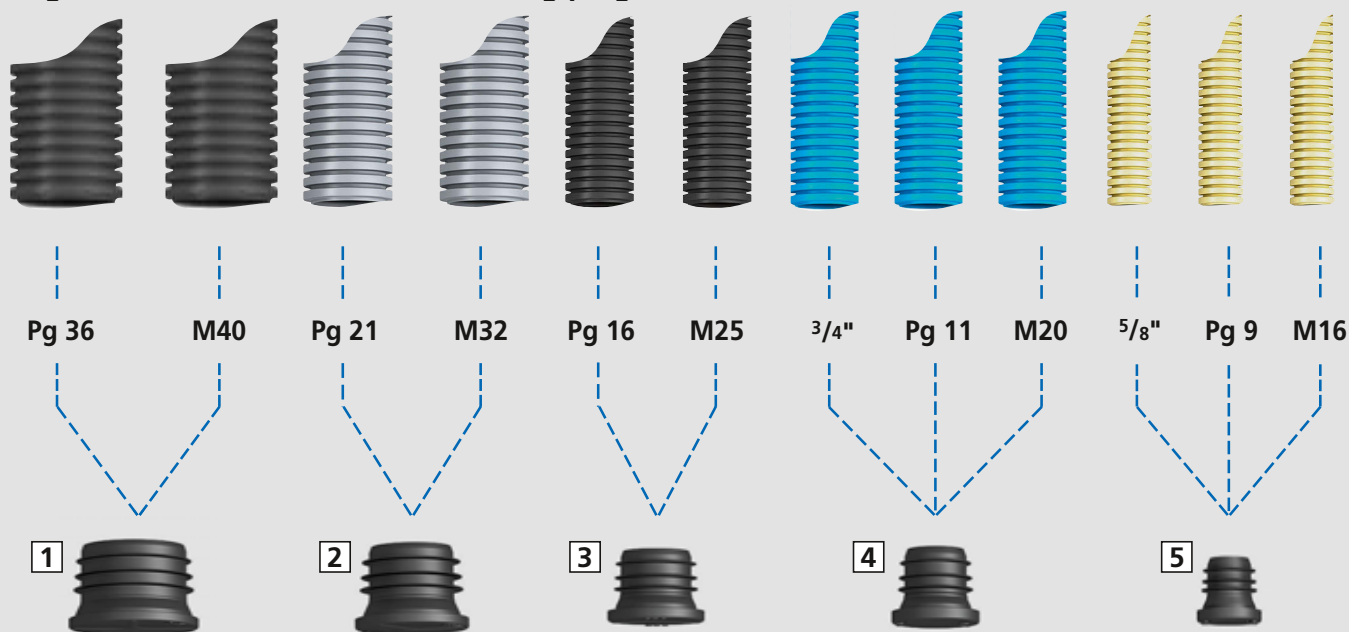


For installations in the field of fire protection, the sealing plug closes the conduit ends and ensures smoke-tight room separation.

# 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



# One-gangboxes, One-gang junction boxes

for flush-mounting installation

## 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)
- use separator wall to separate electrical circuits Art. No. 1656-22 (not illustrated)
- dimensions in accordance with German DIN 49073
- for use as a junction box cover Art. no. 9062-90 is additionally needed




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

FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

CABLE GLANDS

TOOLS

SERVICE


# One-gang boxes, One-gang junction boxes

for flush-mounting installation

## 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
	•	•
<b>Art. No.</b>	<b>1555-62</b>	<b>1556-62</b>
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
	•	•
<b>Art. No.</b>	<b>1050-00</b>	<b>1051-00</b>
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



<b>Depth</b>	<b>63 mm</b>	<b>63 mm</b>
Installation opening	60 mm	60 mm
Device screws	-	2
Conduit entries M20	13	13
	•	•
<b>Art. No.</b>	<b>1550-00</b>	<b>1551-00</b>
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



<b>Depth</b>	<b>48 mm</b>
Screw spacing	67 mm
Installation opening	70 mm
Device screws	2
Conduit entries M20	8
<b>Art. No.</b>	<b>1076-04</b>
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



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



<b>Depth</b>	<b>36 mm</b>
Opening	70 mm
Conduit entries M20	8
For 6 terminals 1.5 mm² or 5 terminals 2.5 mm²	•
<b>Art. No.</b>	<b>1172-62</b>
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



<b>Depth</b>	<b>36 mm</b>	<b>36 mm</b>	<b>36 mm</b>
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® (1159-12)	•	•	•
With cover and 2 cover screws	-	-	•
	-	-	•
<b>Art. No.</b>	<b>1172-02</b>	<b>1172-08</b>	<b>1172-92</b>
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



<b>Depth</b>	<b>36 mm</b>	<b>36 mm</b>	<b>36 mm</b>	<b>36 mm</b>
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	-	4-pole	5-pole	6-pole
without terminal block	•	-	-	-
	•	-	-	-
<b>Art. No.</b>	<b>1172-09</b>	<b>1172-04</b>	<b>1172-05</b>	<b>1172-06</b>
Inner packaging/shipping	25 / 100	10 / 100	10 / 100	- / 100



## Junction box

- for 8 terminals 1.5 mm<sup>2</sup>, for 6 terminals 2.5 mm<sup>2</sup> or for 5 terminals 4 mm<sup>2</sup>
- without cover and cover screws
- For M16/M20 conduits




<b>Depth</b>	<b>56 mm</b>
Opening	70 mm
M16-20 combination conduit entry	14
<b>Art. No.</b>	<b>1572-02</b>
Inner packaging/shipping	10 / 250

## In-plaster junction box

- for flat multi-lead wiring (NYIF) 1.5 and 2.5 mm<sup>2</sup>
- 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



<b>Depth</b>	<b>16 mm</b>	<b>16 mm</b>
Opening	80 mm	80 mm
Terminal block, no. of poles	4	5
	•	•
<b>Art. No.</b>	<b>1081-04</b>	<b>1081-05</b>
Inner packaging/shipping	25 / 250	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 1048-00 and 9148-00
- with 2 x 15 mm cover screws



**Length x Width** 75 x 40 mm

**Art. No.** 1148-90

Inner packaging/shipping 25 / 250

### Ceiling light 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

Light hook length 55 mm

Ceiling exit (CE) Ø 35 mm

Conduit entries M20 1

•

**Art. No.** 1248-55

Inner packaging/shipping - / 100

### Ceiling exit bush

- for multi-lead wiring (NYIF) 1.5 mm<sup>2</sup> and 2.5 mm<sup>2</sup>
- 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 viable 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 to 84 mm) with the diamond grinding head.



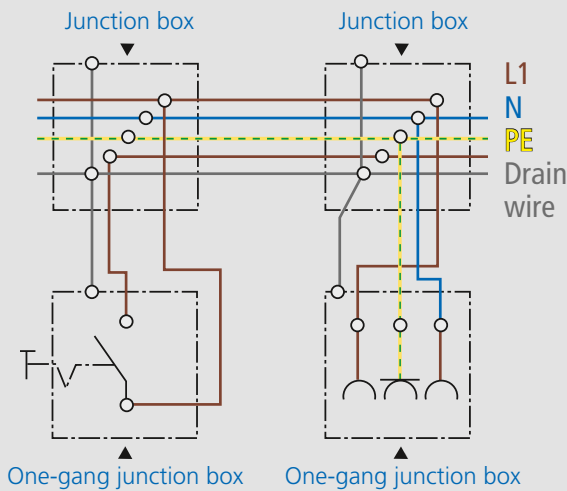
Remove cable sheath and screen with AMZ 2 Art. No. 1190-02. Fit bare tracer wire with transparent insulating hose.



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 box / one-gang junction box

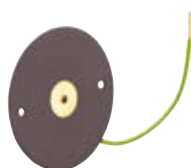
- with screening and functional earthing of the box
- dimensions in accordance with German DIN 49073
- protection class IP 2X



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

## Screened cover

- for making screened one-gang junction boxes
- for one-gang junction boxes 9064-88 and 1555-88



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

## Screened junction casing

- for cavity wall and flush-mounting installation
- with screened cover
- with 2 x 15 mm cover screws
- protection class IP 3X



<b>Length x Width x Depth</b>	<b>107 x 107 x 53 mm</b>
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 <sup>2</sup>
<b>Art. No.</b>	<b>9195-88</b>
Inner packaging/shipping	- / 10

## Note

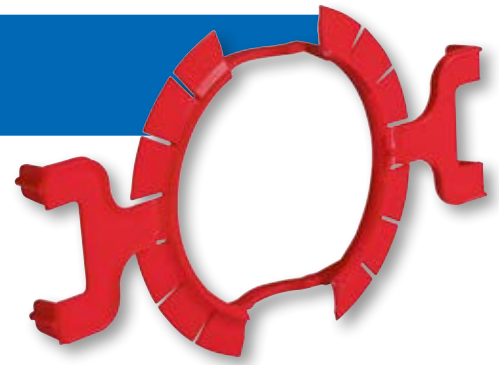
Other installation boxes/housings with screening available on request. Please use our radiation protection box in X-ray areas or areas with ionising radiation.



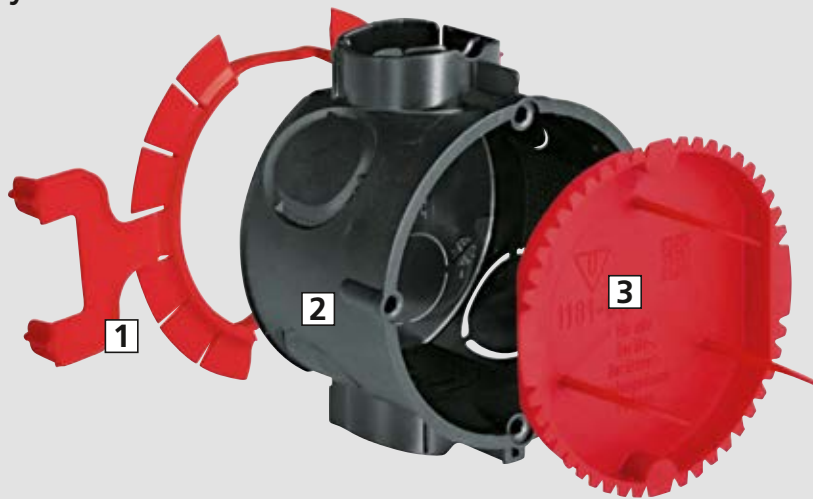
## Plaster-free mounting with KLEMMFIX®

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. The special plastic remains tough but elastic
- 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 with 500 N (50 kg) tension force 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.

# Accessories

for flush-mounting installation

## KLEMMFIX®

- for fitting boxes without plaster
- in openings made with Ø 82 mm hole saw
- for all types of masonry



**For one-gang boxes and one-gang junction boxes 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 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 1048-00 - - •

**Art. No.** **1181-94** **1181-95** **1181-48**

Inner packaging/shipping - / 50 - / 50 - / 100

## Distance supports

- For separate covers, e.g. antenna sockets, telephone boxes or EDP connection boxes with sockets which are not touch-safe.



**UPPLUS**

**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

UPPLUS




<b>Art. No.</b>	<b>1159-36</b>
Inner packaging/shipping	- / 10

## Plaster compensation ring

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




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
	•	•	•	•
<b>Art. No.</b>	<b>1155-61</b>	<b>1155-62</b>	<b>1155-71</b>	<b>1155-72</b>
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
	•	•
<b>Art. No.</b>	<b>1184-90</b>	<b>1184-77</b>
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
Fireproof	850 °C
<b>Art. No.</b>	<b>1174-99</b>
Inner packaging/shipping	- / 10

# Accessories

for flush-mounting installation

## Spring cover

- with permanent elastic spring



with board Ø	72 mm	85 mm	95 mm
for boxes Ø	60 mm	70 mm	80 mm
<b>Art. No.</b>	<b>1159-25</b>	<b>1174-25</b>	<b>1184-25</b>
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



<b>Length</b>	<b>15, 25, 40 mm</b>
Filled with device screws, 100 of each	•
<b>Art. No.</b>	<b>2471-91</b>
Inner packaging/shipping	- / 8

## Device screws

- self-tapping Ø 3.2 mm
- surface double-treated
- corrosion-resistant in accordance with German DIN VDE standard



<b>Length</b>	<b>15 mm</b>	<b>20 mm</b>	<b>25 mm</b>	<b>40 mm</b>
<b>Art. No.</b>	<b>2471-15</b>	<b>2471-20</b>	<b>2471-25</b>	<b>2471-40</b>
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



<b>Length</b>	<b>15 mm</b>	<b>40 mm</b>
<b>Art. No.</b>	<b>2444-15</b>	<b>2444-40</b>
Inner packaging/shipping	- / 100	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.

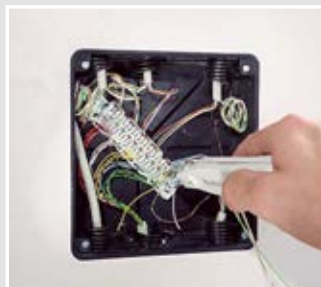
- As central junction casings for star-shaped cable laying
- Easy to rewire when changing the way rooms are used
- With separator walls to separate electrical circuits
- For installation of DIN terminal strips, TS 35 standard rails for terminal blocks, LSA+ terminal strips etc.
- End cover with screw 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 (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 mm<sup>2</sup>, 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 <sup>2</sup>	4 mm <sup>2</sup>
Halogen-free	-	•
	•	-
<b>Art. No.</b>	<b>1094-91</b>	<b>1094-01</b>
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 mm<sup>2</sup>, 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 <sup>2</sup>	6 mm <sup>2</sup>	16 mm <sup>2</sup>	16 mm <sup>2</sup>
Halogen-free	-	•	-	•
	•	-	•	-
<b>Art. No.</b>	<b>1095-91</b>	<b>1095-01</b>	<b>1096-91</b>	<b>1096-01</b>
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 mm<sup>2</sup>, 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 <sup>2</sup>	16 mm <sup>2</sup>
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	•	-
	•	•
<b>Art. No.</b>	<b>1092-90</b>	<b>1097-92</b>
Inner packaging/shipping	- / 10	- / 10

## Potential equalisation casing 10<sup>2</sup> and 16<sup>2</sup>

- 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 <sup>2</sup> , single and stranded wire	-	7
Circular conductors Ø 8–10 mm	-	1
Circular conductor 6–16 <sup>2</sup> , also uncut	1	-
Cables 1.5–10 <sup>2</sup> (for bathrooms or similar)	6	-
Flat strip up to 30 mm wide	-	1
<b>Art. No.</b>	<b>1095-73</b>	<b>1097-75</b>
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
<b>87 x 87 mm</b>	-	-	650 °C	<b>1094-13</b>	10 / 450
<b>107 x 107 mm</b>	-	-	650 °C	<b>1095-13</b>	10 / 500
<b>159 x 159 mm</b>	-	-	650 °C	<b>1096-13</b>	10 / 200
<b>107 x 107 mm</b>	107 x 107 mm	128 x 128 mm	850 °C	<b>1095-93</b>	10 / 500
<b>159 x 159 mm</b>	165 x 165 mm	180 x 180 mm	850 °C	<b>1096-93</b>	10 / 200
<b>240 x 142 mm</b>	240 x 142 mm	-	850 °C	<b>1092-93</b>	- / 5
<b>238 x 208 mm</b>	238 x 208 mm	250 x 220 mm	850 °C	<b>1097-93</b>	5 / 100
<b>240 x 284 mm</b>	-	-	850 °C	<b>1092-95</b>	- / 5

## Separator walls

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



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

# Universal installation housings

for flush-mounting installation



## 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 permits almost all conceivable installation openings



### 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	-
<b>Art. No.</b>	<b>1094-22</b>	<b>1095-22</b>	<b>1096-22</b>
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	-
<b>Art. No.</b>	<b>1092-27</b>	<b>1092-28</b>	<b>1097-28</b>
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](http://www.myhousing.eu)





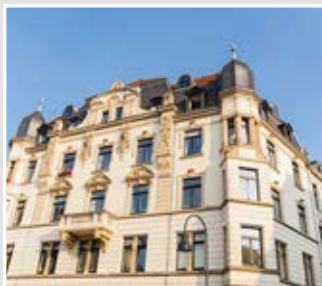
## Internal insulation box

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

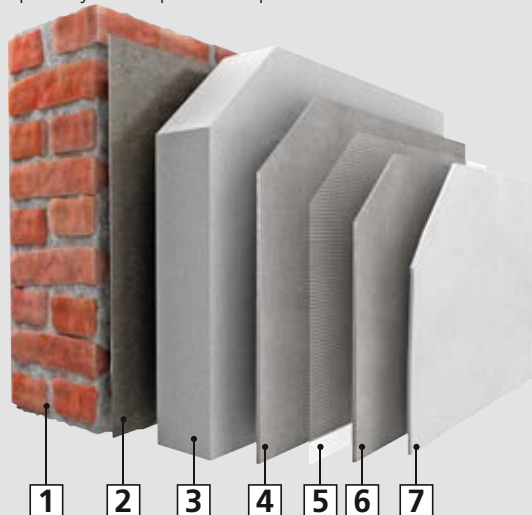


Suitable for e.g. diffusion-open insulation systems in mineral insulation materials



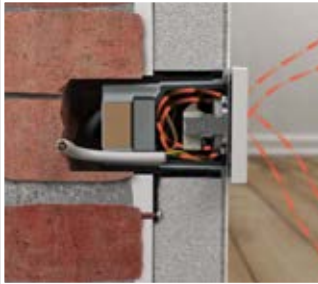
Can be used in existing masonry of different insulation thicknesses

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.



Make exact and airtight cable entry with 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 systems

## for insulated internal walls

### Installation



Determine insulation thickness, adjust fastening plates of the adapter



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



Define location on the wall and mark it.



Insert cable on rear side of adapter, attach 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

### INNOVATION

#### Internal insulation box

- One-gang junction box for insulated internal walls
- including attachment adapter
- rear cable entries
- peripheral airtight sealing lip
- can be combined with each other



3D animation



<b>Depth</b>	<b>90 mm</b>
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
<b>Art. No.</b>	<b>1159-90</b>
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



<b>Adapter dimensions (LxWxD)</b>	<b>75 x 81 x 100 mm</b>
for insulation thicknesses	30-100 mm
<b>Art. No.</b>	<b>1159-91</b>
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 and 9074-03



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

## Allocation table for universal opening cutters



HSS drill	Ø setting	
NYM cable	3 x 1.5 mm <sup>2</sup>	8.0
	5 x 1.5 mm <sup>2</sup>	9.5
	3 x 2.5 mm <sup>2</sup>	9.5



Universal opening cutter	Ø setting	
Support connector	9060-88	14





## 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

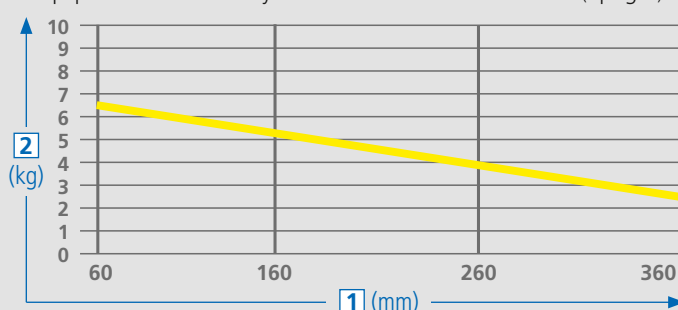
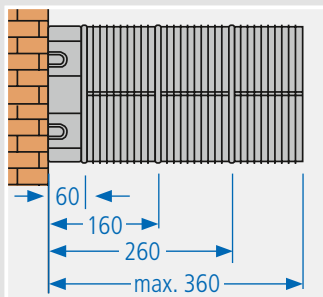
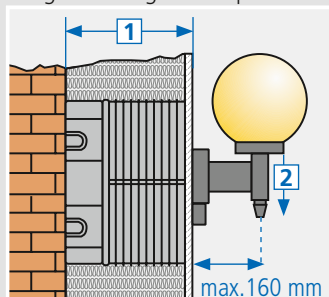


### Examples of use



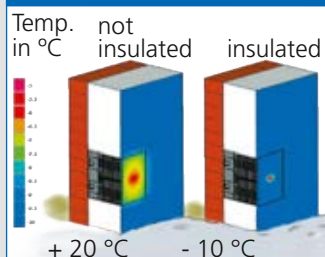
### Processing instructions

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



1 External insulation - insulation thickness | 2 Permissible load

### Heat bridge calculation



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 <sup>2</sup> ]	not insulated [m <sup>2</sup> ]
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 (1159-26), use the rear markings to make the installation opening for the insertion 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 (max. 360 mm) using extension elements 1159-27
- can be reduced in 10 mm steps
- With pre-cut rock wool parts through which the equipment carrier can be fed



<b>Length x Width x Height</b>	<b>220 x 100 x 60-160 mm</b>
Combination conduit entries M20/25	6
<b>Art. No.</b>	<b>1159-24</b>
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



<b>Length x Width x Depth</b>	<b>220 x 100 x 100 mm</b>
<b>Art. No.</b>	<b>1159-27</b>
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 ...



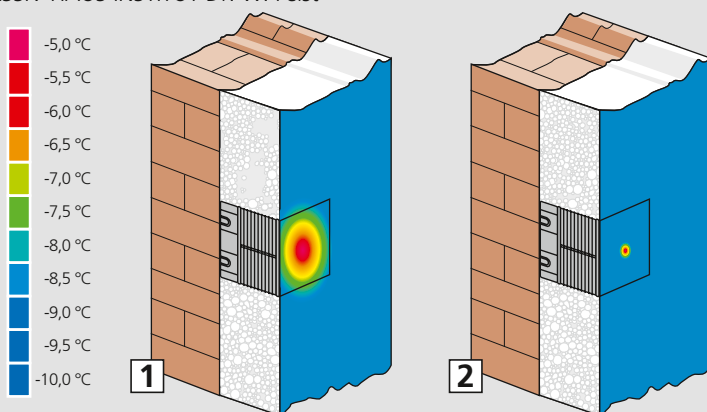
... and also permits future expansion without damaging the facade.



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





## 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 etc.
- 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

<b>Length x Width x Depth</b>	<b>220 x 100 x 160 mm</b>
Insulation thickness	60 - 160 mm
DIN EN conduit Ø	max. 25 mm
Cable entries	max. Ø 15 mm
<b>Art. No.</b>	<b>1159-26</b>
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



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



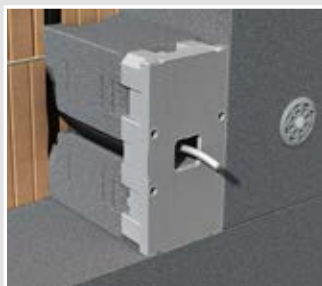
## System equipment carrier

The new system equipment carrier is designed to fit perfectly into the external insulation and becomes part of the composite thermal insulation system. This reliably prevents heat bridges. The equipment carrier is fitted in the same way as the insulation: With a single hammer blow, drive the impact dowel (included) through the specified guide into the masonry – this anchors the equipment carrier securely and permanently. Ideal for sturdy fixing of external luminaires, sockets, door intercom systems and many more. 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

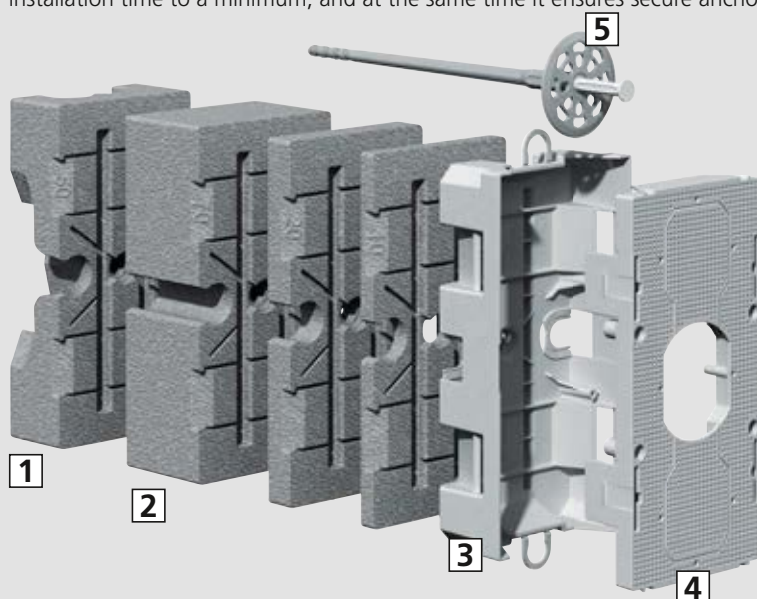


### Examples of use



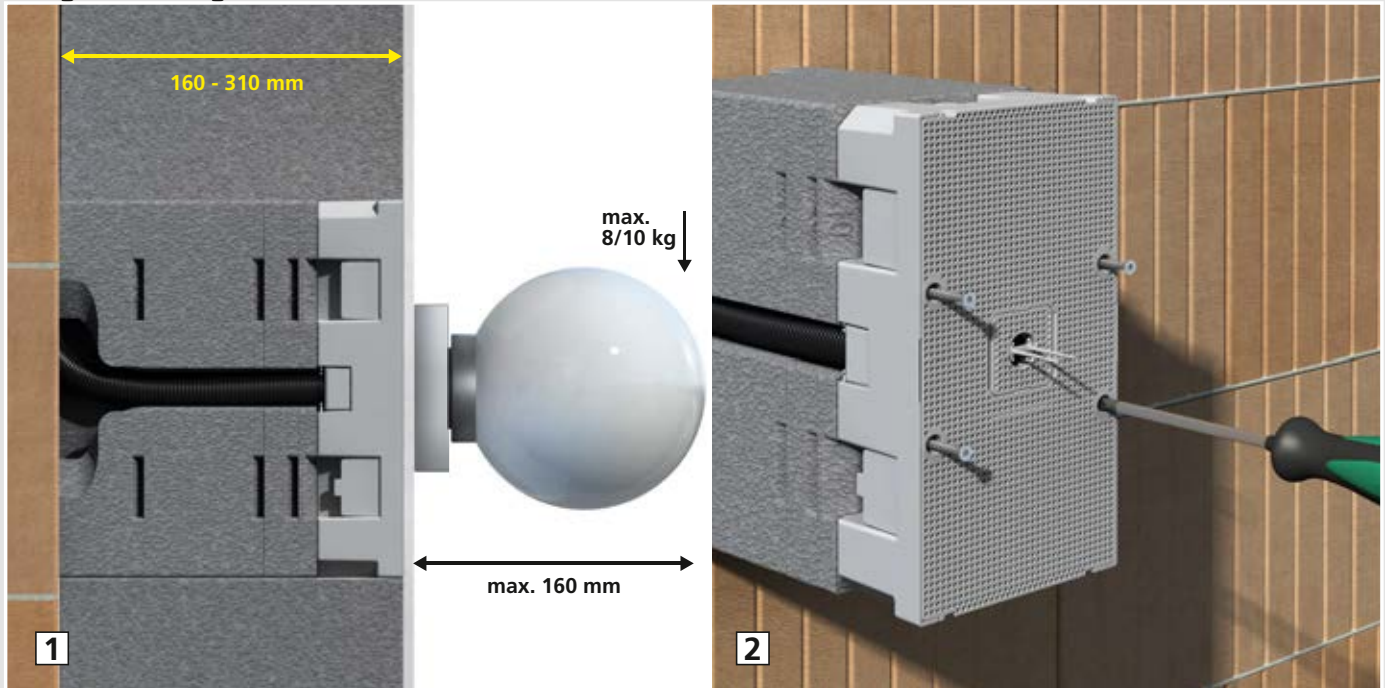
### Versatile in use

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



1 Basic element | 2 Intermediate elements | 3 Housing base | 4 Front plate | 5 Impact dowel

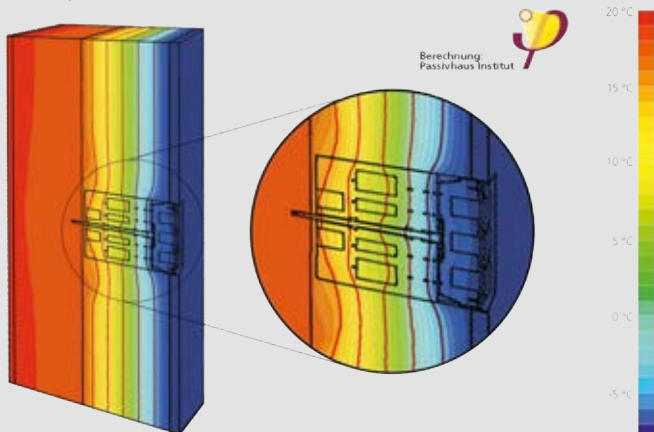
## Weight-bearing loads



**1** Weight-bearing loads – independently of the insulation thickness: For an overhang of 160 mm and insulation thickness 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  $\psi_{WB} < 0,01 \text{ W/K}$  and meets the requirements of a heat bridge-free facade.

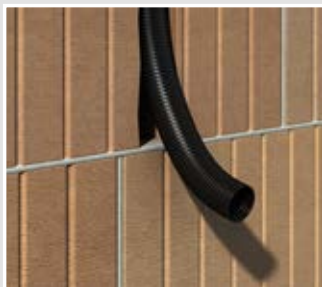




# Installation systems

for insulated exterior facades

## Installation



Masonry with conduit exit



Adapt equipment carrier to insulation thickness by selecting suitable components.



Drill a Ø 8 mm hole, and depth = overlength of dowel + 10 mm.



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



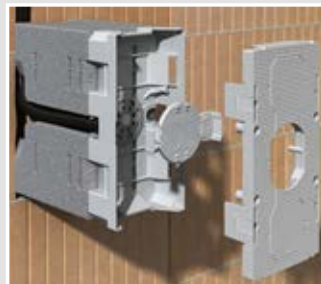
Depending on the length of the dowel, it must protrude from the equipment carrier by at least 30 mm.



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.



Click the selected front part into position. The conduit ends are covered.

## Tips and tricks



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



and break out the perforated entry next to the dowel cover.



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

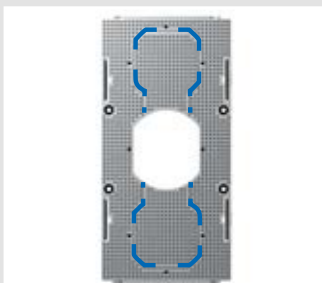


and fit a sealing plug to the conduit.

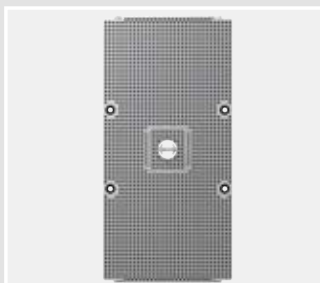
## Combinations with front panels



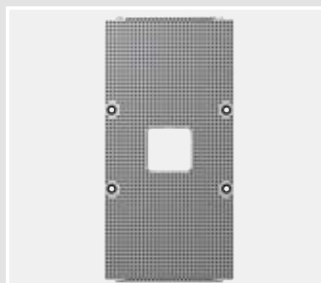
Multiple accessories front panel (Art. 9966.31 and 9966.32); opening Ø 1 x 68 mm



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



Delivery status 9966.21 and 9966.22, universal mounting plate.



Universal mounting plate with broken-out exit for luminaires.

## INNOVATION

### System equipment carrier 160 – 240 mm

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



Length x Width x Height	220 x 110 x 160-240 mm	220 x 110 x 160-240 mm
Combination	1x1 / 2x1 / 3x1	Luminaire outlet / mounting plate
Combination conduit entries M20/25	2	2
Halogen-free	•	•
Impact dowel	1 x 190, 1 x 230 mm	1 x 190, 1 x 230 mm
CE	•	•
Art. No.	9966.31	9966.21
Inner packaging/shipping	- / 5	- / 5

## INNOVATION

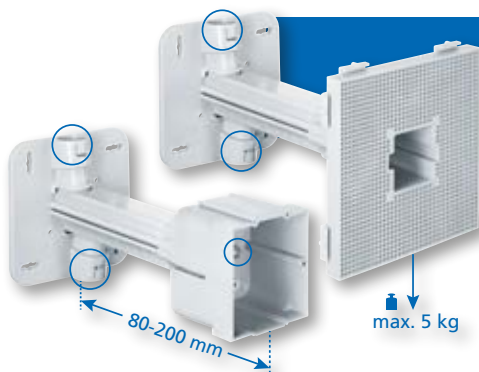
### System equipment carrier 240 – 310 mm

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



Length x Width x Height	220 x 110 x 240-310 mm	220 x 110 x 240-310 mm
Combination	1x1 / 2x1 / 3x1	Luminaire outlet / mounting plate
Combination conduit entries M20/25	2	2
Halogen-free	•	•
Impact dowel	1 x 270, 1 x 310 mm	1 x 270, 1 x 310 mm
CE	•	•
Art. No.	9966.32	9966.22
Inner packaging/shipping	- / 5	- / 5





## Telescope equipment carrier and switch box.

For the safe installation of luminaires, motion detectors and many other accessories in and on insulated external 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 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.

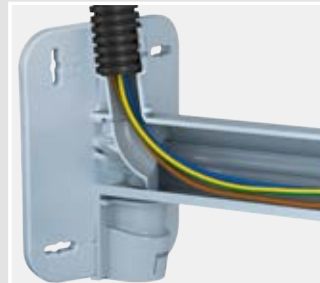
## Product advantages



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.



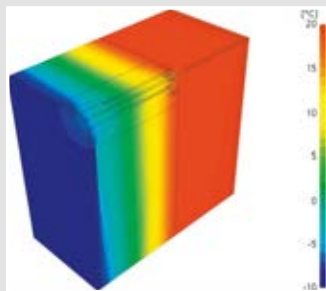
Luminaires and many other accessories are easily fitted in the mounting plate through the plaster using screws up to 4 mm Ø.

## Front fixing of telescope equipment carrier and box

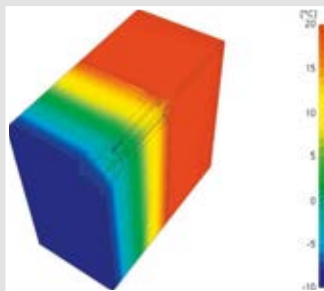


## Heat bridge calculation / weight-bearing load

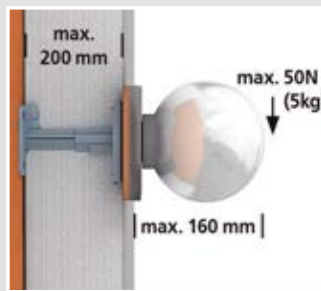
A heat bridge analysis produced by the Passivhaus Institut Dr. Feist, Darmstadt, showed that heat conductivity is only changed to a negligible extent and consequently it is demonstrated that no heat bridges result. When the space between the basic carrier and mounting plate / one-gang box is filled with 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.

## INNOVATION

### 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



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

## INNOVATION

### 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)



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

**Accessories:** Combination one-gang box, page 60

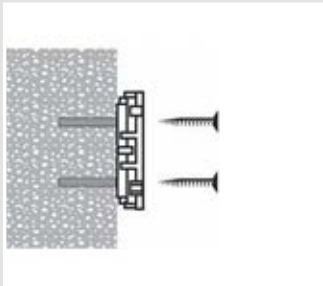
## ISO box set

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

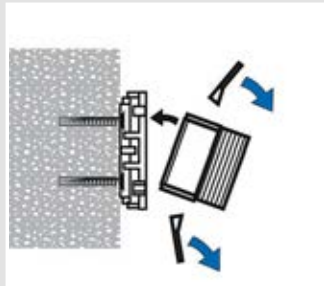
- For securely attaching switches, sockets etc. in the external insulation
- Can be extended as required
- High torsional strength, and can be combined by means of snap-in connector
- Guaranteed standard combination distance of 71 mm



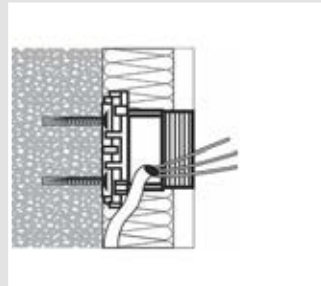
### Installation



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 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 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





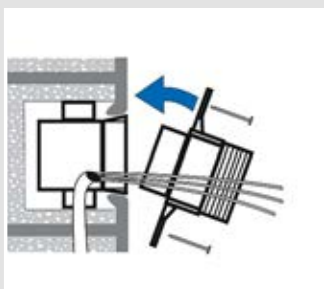
## UP extension ring

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

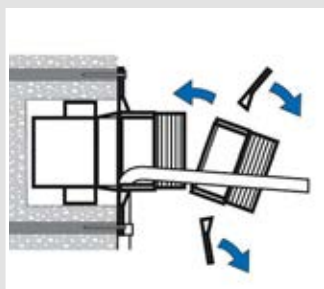
- For extending existing one-gang boxes
- Can be attached on top of existing one-gang boxes and one-gang junction boxes
- For securely attaching switches, sockets etc.
- Can be extended as required
- High torsional strength, and can be combined by means of snap-in connector
- Guaranteed standard combination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



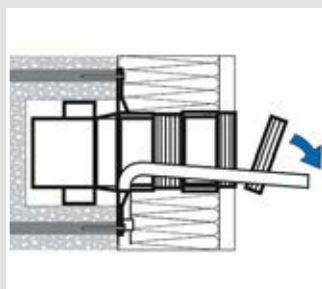
### Installation



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, secure with additional 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 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 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. 2471-40



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 external 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



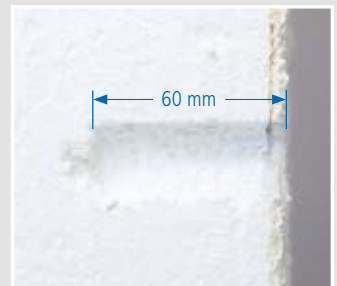
The hardened metal cutter Ø 20 mm with hardened metal cutters for exact installation openings. Art. No. 1088-06



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.



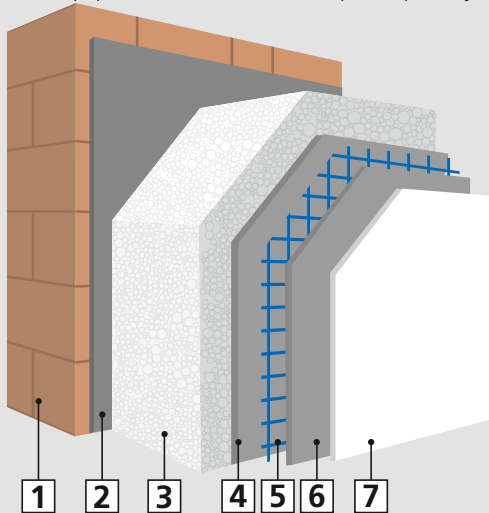
The insulating capacity remains intact despite the installation opening.

# Installation systems

## for insulated exterior facades

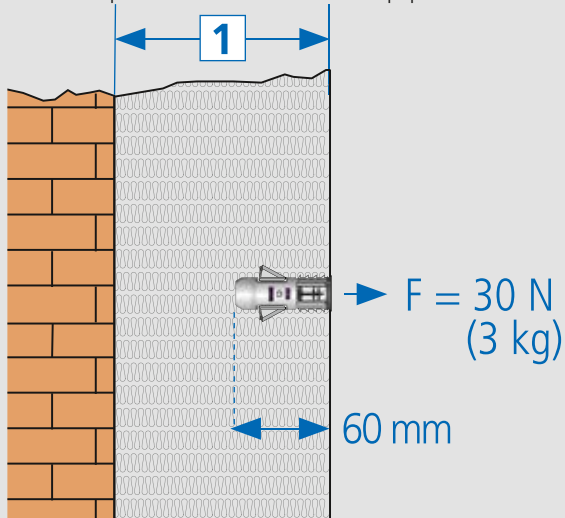
### Structure of an organic WDVS

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

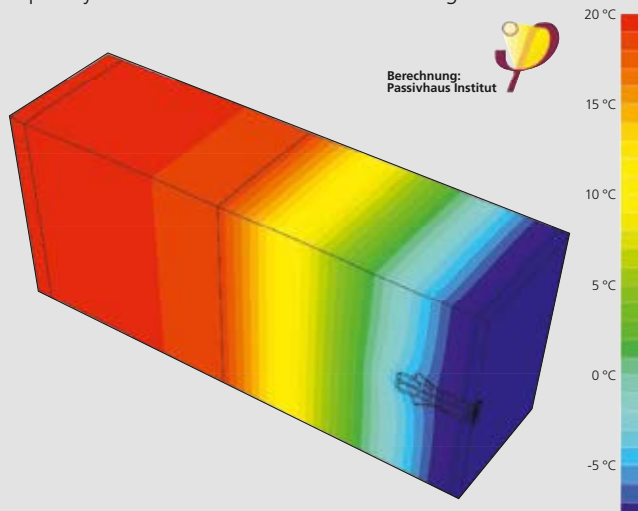
Maximum pull-out force for the mini equipment carrier.



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 no heat bridges result. 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



<b>Length</b>	<b>60 mm</b>
Installation opening	Ø 20 mm
<b>Art. No.</b>	<b>1159-50</b>
Inner packaging/shipping	10 / 100
<b>Accessories:</b> Hardened metal cutter 20 mm, page 287	



## 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 external 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.

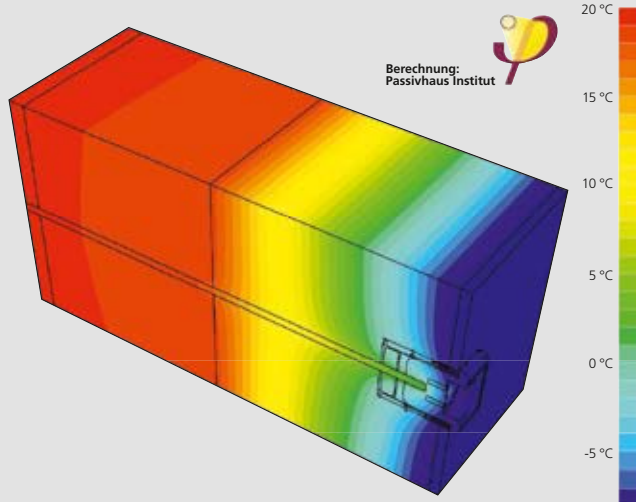


The all-round sealing lip seals the EIFS, so no moisture can penetrate.



## 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 into the installation opening.



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



Use KAISER tool Art. No. 1090-21 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 KALSER support connector.



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

## INNOVATION


### One-gang junction box ECON® Styro55

- 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



3D animation



<b>Depth</b>	<b>60 mm</b>
Installation opening	68 mm
Device screws	2
Tool-free cable entries up to Ø 15 mm	2
	•
<b>Art. No.</b>	<b>1555-51</b>
Inner packaging/shipping	10 / 100

**Accessories:** Hardened metal cutter 180 , page 287; Centering aid Ø 68 mm, page 288; Styro55 tool, page 288

## 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



FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

CABLE GLANDS

TOOLS


SERVICE

### INNOVATION

#### Q-range® one-gang boxes

- For masonry installation
- With screw domes
- Also for claw fixing
- 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 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
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
	•	•	•	•
<b>Art. No.</b>	<b>7500</b>	<b>7650</b>	<b>7501</b>	<b>7651</b>
Inner packaging/shipping	10 / 100	10 / 100	10 / 100	10 / 100

### INNOVATION

#### Q-range ECON® one-gang box

- Air-tight design with sealing membranes
- For screw and clamp fixing
- 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



<b>Length x Width x Depth</b>	<b>60 x 60 x 50 mm</b>
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
<b>Art. No.</b>	<b>752</b>
Inner packaging/shipping	10 / 100

# International products

for accessory installation in accordance with national standards

## INNOVATION

### Q-up®

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



<b>Art. No.</b>	<b>994</b>
Inner packaging/shipping	10 / 100

## INNOVATION

### Q-signal®

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



<b>Art. No.</b>	<b>975</b>
Inner packaging/shipping	10 / 100

### One-gang box - Swiss standard

- suitable for screw or claw fixing of accessories
- with injection-moulded signal cover
- for assembling combinations, centre distance 60 mm
- low-lying plaster grips



<b>Depth</b>	<b>59 mm</b>
Diameter	71 mm
Break-out openings Ø 20 mm	10
Combination conduit entries M20/25	1
<b>CE</b>	•
<b>Art. No.</b>	<b>9921</b>
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



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

## Signal cover

· for one-gang box 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

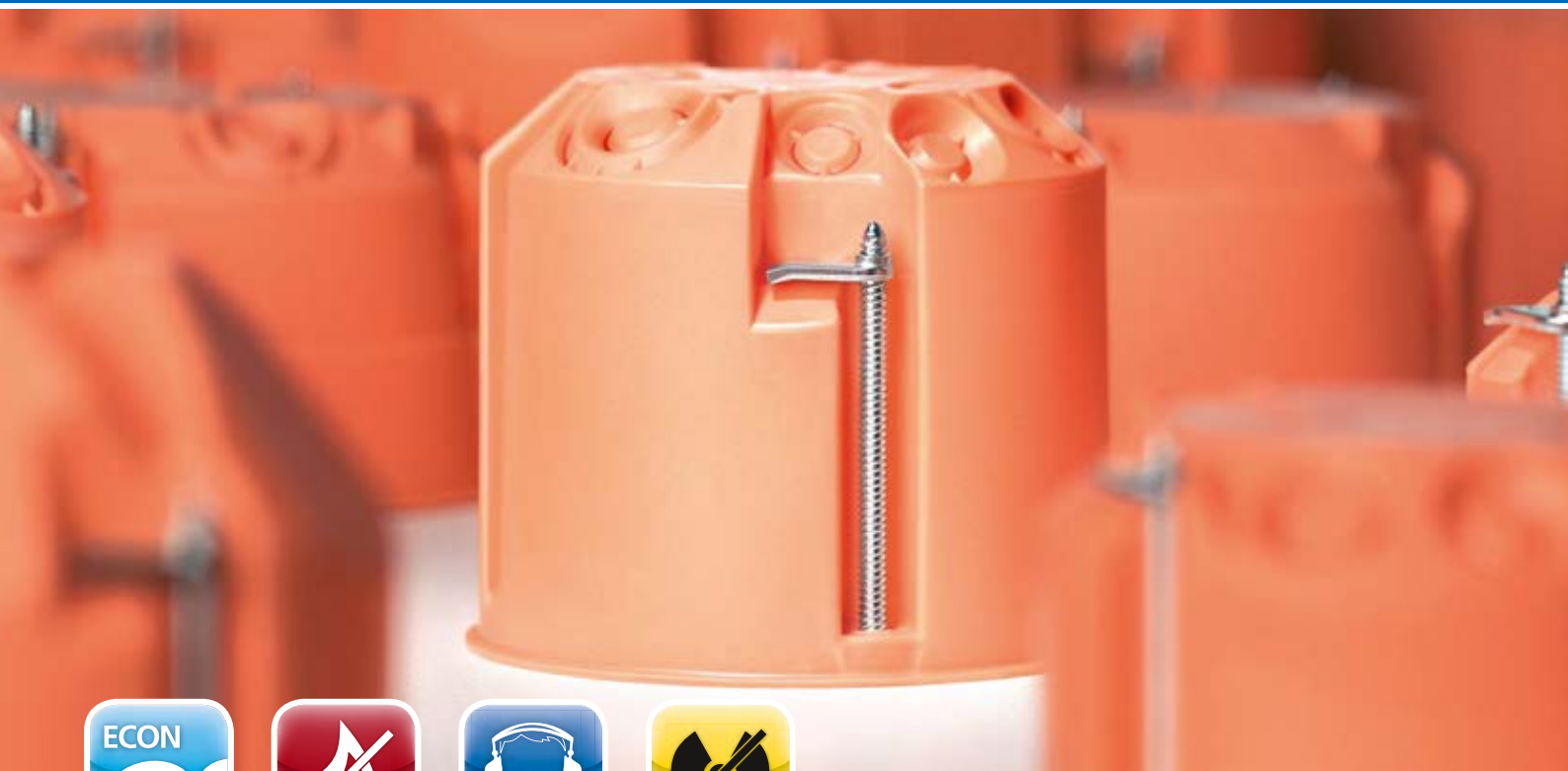
## One-gang box acc. to EN 60670 and OVE

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



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

# Cavity wall installation



## The most important advantages at a glance:

- Complete system for all cavity wall applications
- FX<sup>4</sup> quick assembly technology for time-saving installation
- Air-tight installation in accordance with EnEV energy-saving ordinance.
- ECON-technology: Air-tight one-gang boxes and one-gang junction boxes for toolless cable and conduit entries
- HWD fire protection boxes for **fire-protection walls** and ceilings and also shipbuilding walls
- Secure, visible and certified protection without smoothing or filling by using KAISER sealing systems for cables and conduits
- Sound insulation boxes for use in **sound insulation walls**
- Radiation protection boxes for use in lead-containing and lead-free **radiation protection walls**
- Universal installation housings with mineral fibreboard for all standard accessory types (e.g. displays, LED luminaires and many more)
- International products for accessory installation in accordance with national standards
- Air-tight sleeves for air-tight feed-through of cables and conduits
- Professional system tools for fast, secure installation
- Wide range of system accessories
- Halogen-free product range



Product film  
[www.kaiser-elektro.org/cavitywall](http://www.kaiser-elektro.org/cavitywall)











## Cavity wall | Product lines

Basic installation	p. 74
Air-tight installation	p. 82
Air-tight sleeves	p. 95
AFS intelligent fire-protection technology	p. 230
Sound insulation technology	p. 101
Screening and potential conductivity	p. 112
Radiation protection technology	p. 106
Screws, metal plates	p. 114
Junction casings and boxes	p. 115
Universal installation housings	p. 119
International products	p. 121

Tools for cavity wall installation can be found in the "Tools" section starting on page 289.





	Basic installation	Energy saving Air-tight	Sound insulation	Radiation protection	Screened Environmen- tally-friendly	International products	Fire protection Buildings	Ship- building
								
<b>For installation accessories</b>								
One-gang boxes	p. 75	p. 83	-	-	-	p. 121	NEW p. 235 / 240	p. 244
One-gang junction boxes	p. 75	p. 84	p. 103	p. 108	p. 112	p. 121	NEW p. 235 / 240	p. 245
One-gang boxes for thin boarding	p. 76	-	-	-	-	-	-	p. 244
One-gang junction boxes for thin boarding	p. 77	-	-	-	-	-	-	p. 245
One-gang junction boxes for solid wood	p. 88	-	-	-	-	-	-	-
Two-gang junction boxes	p. 76	NEW p. 78 / 86	-	-	-	-	-	-
Electronics boxes	p. 78	p. 78 / 86	p. 105	-	-	-	p. 238	-
Perilex® one-gang boxes	p. 77	-	-	-	-	-	-	-
CEE one-gang boxes	p. 77	p. 88	-	-	-	-	-	-
Universal installation housings	p. 119	-	-	-	-	-	-	-
<b>Versions</b>								
Available halogen-free	•	•	•	•	-	•	•	•
<b>For cable exits</b>								
Wall light connection boxes	p. 79	p. 89	-	-	-	-	-	-
Luminaire connection boxes	p. 80	-	-	-	-	-	p. 242	-
<b>For cable entries</b>								
Air-tight sleeves	-	p. 95	-	-	-	-	-	-
Sealings	-	-	-	-	-	-	p. 246	-
<b>For cable connections</b>								
Junction boxes	p. 77	-	-	-	-	-	-	-
Junction casings	p. 116	-	-	-	p. 36/113	-	-	-
Potential equalisation casings	p. 117	-	-	-	-	-	-	-
<b>Accessories</b>								
Fixing	p. 114	p. 114	p. 114	-	p. 114	p. 114	p. 114	p. 114
Retrofitting sealing (air-tight)	p. 26/92	-	-	-	-	-	-	-
Sealing of electrical installations (air-tight and smoke-tight)	-	p. 28/261/92	-	-	-	-	p. 28/261/92	-
Plaster compensation	p. 81	p. 81	-	-	-	-	-	-
Support connector	p. 81	p. 90	p. 103	p. 109	-	-	p. 235	p. 235
End cover	p. 81	p. 91	p. 21/103	-	p. 36/113	-	p. 242	p. 242

FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

CABLE GLANDS

TOOLS

SERVICE

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

for cavity wall installation



## FX4 technology - the fastest means of screw attachment

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

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



### Processing instructions

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



Standard screw



KAISER standard



Example of use for universal housing



Example of use for EnoX housing

### 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

## One-gang box

· with holding ring



For panel thickness	7 - 40 mm	7 - 40 mm	7 - 28 mm	7 - 28 mm
Depth	47 mm	47 mm	35 mm	35 mm
Cut hole Ø	68 mm	68 mm	68 mm	68 mm
Device screws	2	2	2	2
Break-out openings Ø 20 mm	2	2	-	-
Cable entries 3 x 2.5 mm <sup>2</sup> or 5 x 1.5 mm <sup>2</sup>	2	2	-	-
Cable entries 3 x 1.5 mm <sup>2</sup>	2	2	4	4
Cable entries for low voltages	2	2	-	-
Support connectors for each package	7	7	-	-
Halogen-free	-	•	-	•
/	• / •	• / -	- / -	- / -
<b>Art. No.</b>	<b>9063-01</b>	<b>9063-77</b>	<b>9061-00</b>	<b>9061-77</b>
Inner packaging/shipping	25 / 250	25 / 250	25 / 250	25 / 250

**Accessories:** Support connector, page 90

## One-gang junction box

· with holding ring



For panel thickness	7 - 40 mm	7 - 40 mm
Depth	61 mm	61 mm
Cut hole Ø	68 mm	68 mm
Device screws	2	2
Break-out openings Ø 20 mm	4	4
Cable entries 3 x 2.5 mm <sup>2</sup> or 5 x 1.5 mm <sup>2</sup>	2	2
Cable entries 3 x 1.5 mm <sup>2</sup>	4	4
Cable entries for low voltages	2	2
Support connectors for each package	7	7
Halogen-free	-	•
/	• / •	• / -
<b>Art. No.</b>	<b>9064-01</b>	<b>9064-77</b>
Inner packaging/shipping	25 / 250	25 / 250

**Accessories:** Support connector, page 90

FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

CABLE GLANDS

TOOLS

SERVICE



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

for cavity wall installation

## Two-gang junction box

- for 2 electrical inserts or 1 block insert
- can also be used as a one-gang junction box (incl. 2 device inserts)
- use separator wall to separate electrical circuits Art. No. 9062-22 (not illustrated)
- 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
Break-out openings Ø 20 mm	6	6
Cable entries 3 x 1.5 mm <sup>2</sup>	6	6
Halogen-free	-	•
 / 	• / •	• / -
<b>Art. No.</b>	<b>9062-02</b>	<b>9062-77</b>
Inner packaging/shipping	10 / 100	10 / 100

**Accessories:** Connecting clip for stacking boxes, page 79

## One-gang box for thin boardings

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



For panel thickness	0,5 - 40 mm	0,5 - 40 mm
Depth	41 mm	41 mm
Cut hole Ø	68 mm	68 mm
Device screws	2	2
Break-out openings Ø 20 mm	2	2
Cable entries 3 x 1.5 mm <sup>2</sup>	4	4
Halogen-free	-	•
	•	•
<b>Art. No.</b>	<b>9068-04</b>	<b>9068-74</b>
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 holding ring



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

## 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	•	•	-	-
/	• / •	• / -	• / -	• / -
<b>Art. No.</b>	<b>9067-01</b>	<b>9067-77</b>	<b>9075-01</b>	<b>9075-77</b>
Inner packaging/shipping	10 / 100	10 / 100	10 / 100	10 / 100

## Junction box

- with universal VDE cover 1184-90
- 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
Halogen-free	-	•
	•	•
<b>Art. No.</b>	<b>9071-01</b>	<b>9071-77</b>
Inner packaging/shipping	10 / 100	10 / 100

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

for cavity wall installation



## 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



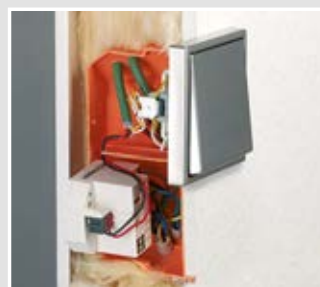
Using turbo cutter Multi 4000 Ø 68 mm (Art. No. 1083-10), cut two installation openings with centre distance 71 mm.



You can create a cable entry that is made precisely for air-tight installation with the KAISER universal opening cutter (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.

### Electronics box

- air-tight version with additional sealing lip
- tunnel twin-chamber box with separator wall and cover that can be wallpapered (cover can be turned through 180° and plastered to reduce any switching noise).
- 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	•	•
	•	•
<b>Art. No.</b>	<b>9062-94</b>	<b>9062-74</b>
Inner packaging/shipping	10 / 100	10 / 100

**Accessories:** Connecting clip for stacking boxes, page 79

## Cover ready for papering and filling

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



## 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	-	-
Break-out openings Ø 20 mm	1	-	-
Cable entries 3 x 1.5 mm <sup>2</sup>	2	1	1
Halogen-free	-	-	•
Air-tight	-	•	•
If necessary use screw cover 1148-90	•	-	-
 / 	• / •	- / -	- / -
<b>Art. No.</b>	<b>9148-00</b>	<b>9248-01</b>	<b>9248-77</b>
Inner packaging/shipping	25 / 100	25 / 100	25 / 100

## Cover

- for wall light connection boxes 1048-00 and 9148-00
- with 2 x 15 mm cover screws



**Length x Width** 75 x 40 mm

**Art. No.** 1148-90

Inner packaging/shipping 25 / 250

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

for cavity wall installation

## Ceiling light 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.



<b>For panel thickness</b>	<b>7 - 40 mm</b>
Depth	47 mm
Cut hole Ø	68 mm
Break-out openings Ø 20 mm	2
Cable entries 3 x 2.5 mm <sup>2</sup> or 5 x 1.5 mm <sup>2</sup>	2
Cable entries 3 x 1.5 mm <sup>2</sup>	2
<b>Art. No.</b>	<b>9063-50</b>
Inner packaging/shipping	- / 10

## Light hook

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





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

## Junction box

- for 10 terminals 1.5 mm<sup>2</sup>, for 8 terminals 2.5 mm<sup>2</sup> or for 6 terminals 4 mm<sup>2</sup>
- use separator wall to separate electrical circuits Art. No. 9062-22 (not illustrated)
- including cover



<b>For panel thickness</b>	<b>7 - 40 mm</b>
Depth	47 mm
Cut hole Ø	2 x 68 mm
Centre distance	71 mm
Break-out openings Ø 20 mm	6
Cable entries 3 x 1.5 mm <sup>2</sup>	6
 / 	• / •
<b>Art. No.</b>	<b>9062-21</b>
Inner packaging/shipping	10 / 100
<b>Accessories:</b> Replacement cover, page 81	



## Replacement cover

· for junction box 9062-21



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

## Plaster compensation ring

- 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



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

## Support connector

· for through-wiring of combinations to IP 3X standard



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

## Compensation ring

- for all Ø 68 mm cavity wall boxes
- for oversize drill holes
- compensation up to Ø 71 mm
- can also be used for combinations where the formed surfaces are located next to each other



<b>Art. No.</b>	<b>9060-40</b>
Inner packaging/shipping	25 / 250

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



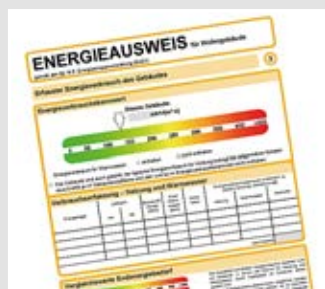
## Air-tight cavity wall installation

Air-tight cavity wall boxes with ECON technology for energy-efficient electrical installation according to EnEV and for installation in accordance with clean-room and hygiene requirements. The elastic ECON technology sealing membrane permits air-tight electrical installation.

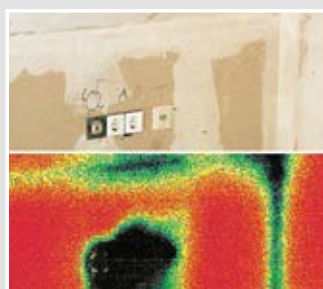
- Elastic sealing membrane for guaranteed air-tightness
- Innovative clamp technology with integrated cable retention
- Tool-free cable and conduit entry
- Air-tight, combined with support connector (9060-98)



### 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 KAI-SER 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/m² a	73 kW h/m² a	15 kW h/m² a	8.3 kW h/m² a	0 kW h/m² a

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

for cavity wall installation

## Processing instructions

Air-tight cavity wall box with ECON technology for energy-efficient electrical installation in accordance with the German Energy Saving Ordinance (EnEV), as well as for installation under clean-room or hygiene conditions. The elastic ECON technology sealing membrane permits electrical installation acc. to EnEV.



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.



The integrated, innovative clamp technology easily meets the requirements of the specified integrated cable retention (acc. to DIN VDE 0606 / DIN EN 60670)



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.

## One-gang box ECON® 63

- Air-tight design with sealing membranes
- fully-insulated air-tight through-wiring in combinations of boxes and one-gang junction boxes for switches and sockets through support connectors
- tool-free cable or conduit entries
- integrated strain relief of NYM cables, self-locking of conduits



For panel thickness	7 - 40 mm	7 - 40 mm
Depth	48 mm	48 mm
Cut hole Ø	68 mm	68 mm
Device screws	2	2
Conduit entries M20	2	2
Cable entries 3 x 2.5 mm <sup>2</sup> or 5 x 1.5 mm <sup>2</sup>	2	2
Cable entries 3 x 1.5 mm <sup>2</sup>	2	2
Support connectors for each package	7	7
Halogen-free	-	•
Air-tight	•	•
VE / OVE	• / •	• / •
<b>Art. No.</b>	<b>9263-21</b>	<b>9263-77</b>
Inner packaging/shipping	25 / 250	25 / 250

**Accessories:** Support connector, page 90

FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

CABLE GLANDS

TOOLS

SERVICE

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

## One-gang junction box ECON® 64

- Air-tight design with sealing membranes
- fully-insulated air-tight through-wiring in combinations of boxes and one-gang junction boxes for switches and sockets through support connectors
- tool-free cable or conduit entries
- integrated strain relief of NYM cables, self-locking of conduits



For panel thickness	7 - 40 mm	7 - 40 mm
Depth	61 mm	61 mm
Cut hole Ø	68 mm	68 mm
Device screws	2	2
Conduit entries 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	•	•
/	• / •	• / •
<b>Art. No.</b>	<b>9264-21</b>	<b>9264-77</b>
Inner packaging/shipping	25 / 250	25 / 250

**Accessories:** Support connector, page 90

## Installation of cavity wall boxes, air-tight version

Installation of cavity wall boxes, air-tight version



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.

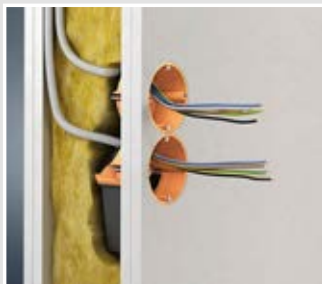
## Electronics box ECON® Flex

Air-tight electronics box ECON® Flex 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 expanding existing systems. The elastic tunnel makes it easy to install, and creates space for electronic components, cable reserves and terminals.

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



### Examples of use



Combination with ECON® cavity wall boxes is possible.



Additional space for connection terminals

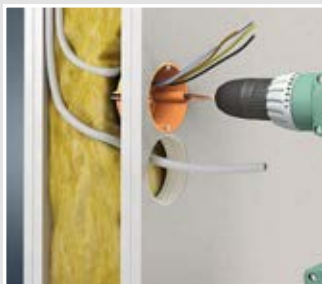


Accepts electronic components e.g. actuators



Space for cable reserves.

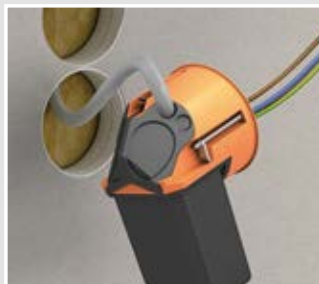
### Processing instructions



Existing Ø 68 mm installation openings can be used.



Airtight and fully-insulated combination by means of support connectors Art. No. 9060-98



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

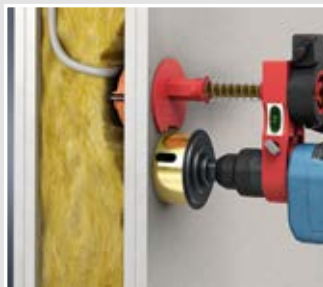


... and conduit entries up to M25 in an airtight version

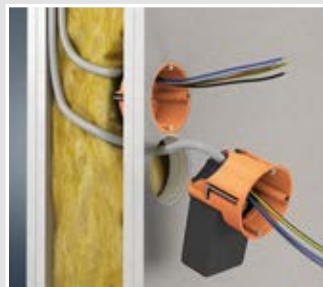


# Air-tight one-gang boxes, one-gang junction boxes, accessories for cavity wall installation

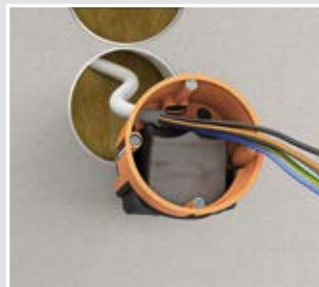
## Installation



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



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



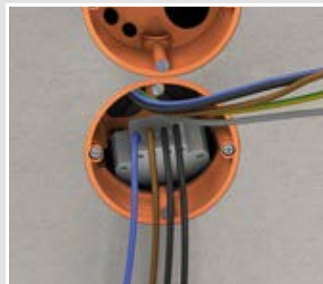
For easy installation, fold in the elastic tunnel



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 connectors Art. No. 9060-98.



Guaranteed airtight - secure terminal compartment for electronic components.

## INNOVATION



### Electronics box ECON® Flex

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



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
Cable entries 3 x 2.5 mm <sup>2</sup> or 5 x 1.5 mm <sup>2</sup>	2	2
Cable entries of up to Ø 11.5 mm	2	2
Halogen-free	-	•
Air-tight	•	•
Tube entries up to M25	2	2
 / 	• / •	• / •
<b>Art. No.</b>	<b>9268-94</b>	<b>9268-74</b>
Inner packaging/shipping	10 / 100	10 / 100

## One-gang box for thin boardings

- for boardings that do not permit stepped face cutting
- in combinations, only use the support connector if boxes are equal in height
- with holding ring



For panel thickness	0,5 - 40 mm	0,5 - 40 mm
Depth	47 mm	47 mm
Cut hole Ø	68 mm	68 mm
Device screws	2	2
Cable entries up to max. Ø 25 mm can be made using universal opening cutter 1085-80	•	•
Halogen-free	-	•
Air-tight	•	•
	•	•
<b>Art. No.</b>	<b>9068-01</b>	<b>9068-79</b>
Inner packaging/shipping	10 / 100	10 / 100

## 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 made by means of universal opening cutter 1085-80	•	•
Halogen-free	-	•
Air-tight	•	•
/	• / •	• / -
<b>Art. No.</b>	<b>9066-01</b>	<b>9066-77</b>
Inner packaging/shipping	25 / 250	25 / 250

**Accessories:** Support connector, page 90



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

## 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



### AIR-TIGHT


Depth	65 mm
Cut hole Ø	68 mm
Cable or conduit entries to max. Ø 25 mm made by means of universal opening cutter 1085-80	•
Air-tight	•
 / 	• / •
<b>Art. No.</b>	<b>9066-12</b>
Inner packaging/shipping	25 / 250

## One-gang box CEE

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



### AIR-TIGHT

<b>For panel thickness</b>	<b>12,5 - 40 mm</b>	<b>12,5 - 40 mm</b>
Depth	50 mm	50 mm
Cut hole Ø	74 mm	74 mm
Screw spacing	67 mm	67 mm
Cable entries up to max. Ø 25 mm can be made using universal opening cutter 1085-80	•	•
Halogen-free	-	•
Air-tight	•	•
	•	•
<b>Art. No.</b>	<b>9075-12</b>	<b>9075-78</b>
Inner packaging/shipping	10 / 100	10 / 100

## Electronics box

- air-tight version with additional sealing lip
- tunnel twin-chamber box with separator wall and cover that can be wallpapered (cover can be turned through 180° and plastered to reduce any switching noise).
- 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	•	•
	•	•
<b>Art. No.</b>	<b>9062-94</b>	<b>9062-74</b>
Inner packaging/shipping	10 / 100	10 / 100

**Accessories:** Connecting clip for stacking boxes, page 79

## 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 <sup>2</sup>	1	1
Halogen-free	-	•
Air-tight	•	•
<b>Art. No.</b>	<b>9248-01</b>	<b>9248-77</b>
Inner packaging/shipping	25 / 100	25 / 100

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

## Junction box Ø 120 mm

- for 2 electrical circuits through separator wall 9073-20
- receptacle for TS 35 standard rail
- with holding ring
- Making the installation opening with bi-metal cutter 1082-20 or Variocut 1089-00



For panel thickness	7 - 40 mm	7 - 40 mm
Depth	65 mm	65 mm
Cut hole Ø	120 mm	120 mm
Cable or conduit entries to max. Ø 25 mm made by means of universal opening cutter 1085-80	•	•
Halogen-free	-	•
Air-tight	•	•
 / 	• / •	• / -
<b>Art. No.</b>	<b>9073-91</b>	<b>9073-77</b>
Inner packaging/shipping	- / 10	- / 10

## Support connector

- for through-wiring of combinations to IP 3X standard air-tight
- for Art. No. 9066-01/12, 9068-01, 9263-..., 9264-...




<b>Halogen-free</b>	-	•
Air-tight	•	-
<b>Art. No.</b>	<b>9060-98</b>	<b>9060-78</b>
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



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



## Universal waterproof cover

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



<b>Diameter</b>	<b>90 mm</b>
Screw spacing	67 mm
Fireproof	850 °C
<b>Art. No.</b>	<b>1174-99</b>
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



<b>Diameter</b>	<b>64 mm</b>
<b>Art. No.</b>	<b>1158-90</b>
Inner packaging/shipping	25 / 250

## 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 oversized 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-...



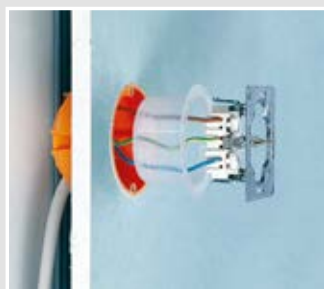
## AIR-TIGHT

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

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

## Sealing inserts

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



## Sealing inserts

- for retrofit sealing (air-tightness) of existing one-gang boxes or one-gang junction boxes without flush-mounting removal (masonry) and cavity walls
- permanently flexible plastic



### AIR-TIGHT

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

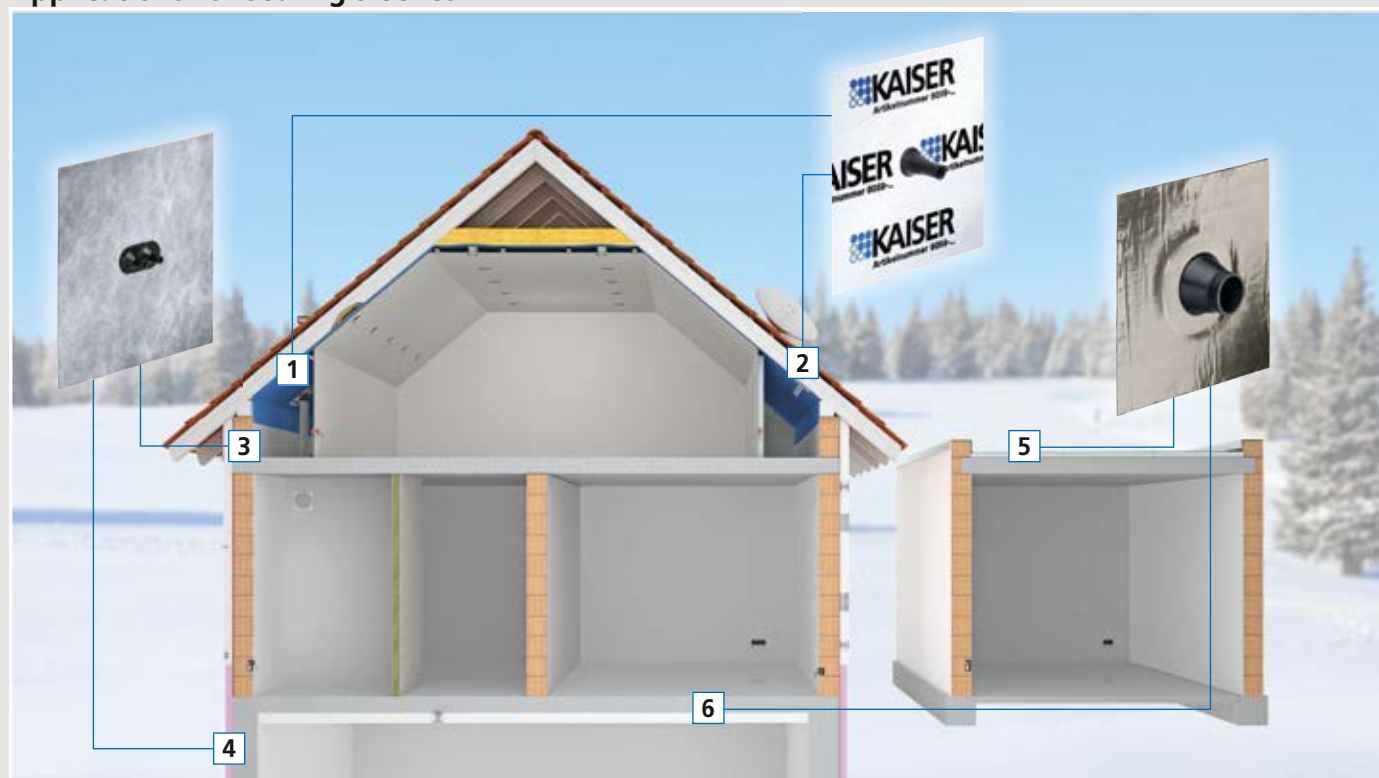
## Sealing sleeves

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 on-site processing. 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



### 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

# Sealing sleeves

Reliable sealing of installation feed-throughs.



Air-tight sleeve



Fleece-butyl  
sealing sleeve



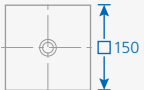
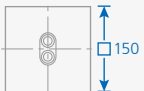
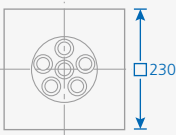
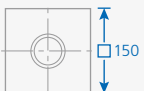
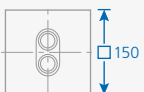
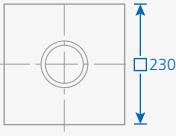
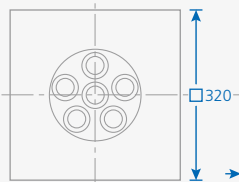
Aluminium butyl  
sealing sleeve

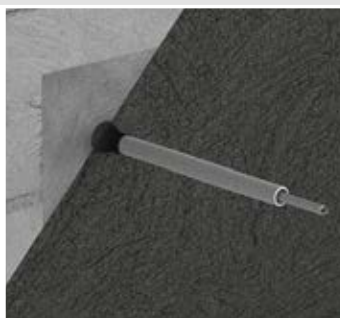
## Applications

Indoors

Indoors & outdoors

Indoors & outdoors

	L x B	H	Ø mm	Art. No.	Art. No.	Art. No.
<b>Cables</b> (coaxial, NYM, underground, solar, etc.)						
Single		150	4 - 8 mm	9059-44	9089-44	9079-44
			8 - 12 mm	9059-46	9089-46	9079-46
Double		150	4 - 8 mm	9059-45	9089-45	9079-45
			8 - 12 mm	9059-47	9089-47	9079-47
6 combinations		230	4 - 11 mm	9059-61	-	-
<b>Conduits</b> (electrical installation, waste water, ventilation, heating, etc.)						
Single		150	15 - 22 mm	9059-48	9089-48	9079-48
			25 - 32 mm	9059-49	9089-49	9079-49
Double		150	15 - 22 mm	9059-55	9089-55	9079-55
Single		230	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		320	16 - 25 mm	9059-62	-	-



## Air-tight sleeve

Air-tight sleeves 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 \*



### Examples of use



### Measuring the air-tightness



### Processing instructions

Air-tight conduit entries can be created cleanly and easily by using the self-adhesive KAISER air-tight sleeves. The sleeves covers 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. The process should be carried out at a temperature of more than -5°C. Full adhesive strength is achieved after 24 hours. The sleeves have an unlimited shelf life when stored at room temperature (cool and dry). \* For fibreboard, we recommend a pre-coat using primer

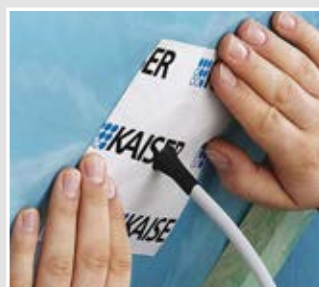
### Installation



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.



# Sealing sleeves

Reliable sealing of installation feed-throughs.

## 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 +90°C, in the feed-through area up to +120°C
- UV-resistant, halogen-free



### AIR-TIGHT

Length x Width x Height	Number of cables/conduits	Diameter of cable / pipe	Air-tight	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	7,5 - 12 mm	•	9059-46	10 / 30
150 x 150 x 30 mm	2 item	7,5 - 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



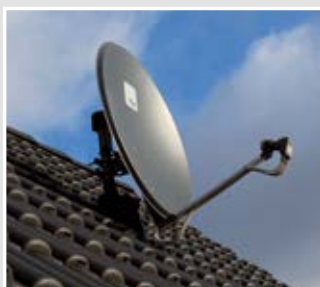
## Multiple air-tight sleeves ECON®

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.

## 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

<b>Length x Width x Height</b>	<b>230 x 230 x 25 mm</b>
Number of cable entries	1 - 6
Cable diameter	4 - 11 mm
<b>Art. No.</b>	<b>9059-61</b>
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

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

# Sealing sleeves

Reliable sealing of installation feed-throughs.



## 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



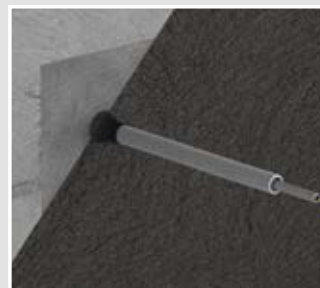
### Installation



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	Diameter of cable / pipe	Air-tight	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	Diameter of cable / pipe	Air-tight	Art. No.	Inner packaging/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



# Sealing sleeves

Reliable sealing of installation feed-throughs.



## 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 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 polystyrene, EPS, XPS etc.



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



## Sound-insulation box

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



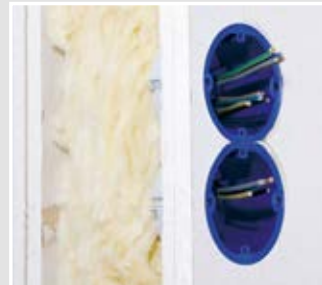
### Examples of use



Example of installation of a switch/socket combination.



Use of an opposing sound insulation box.



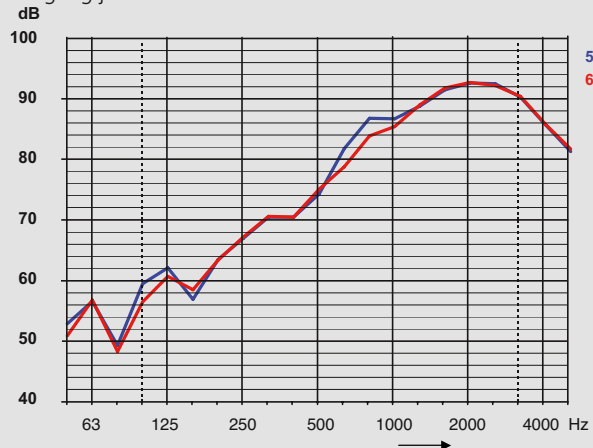
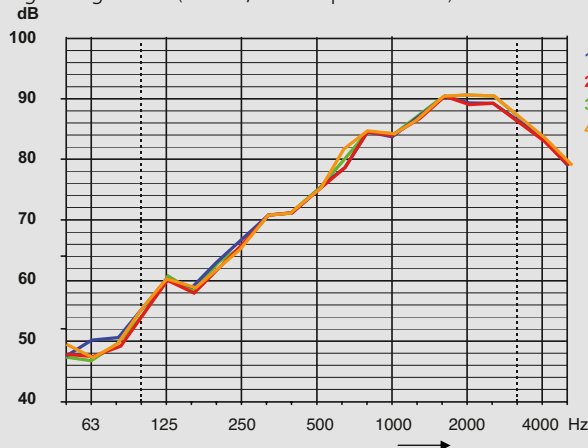
Use of a sound insulation box on one side of a double combination.



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.



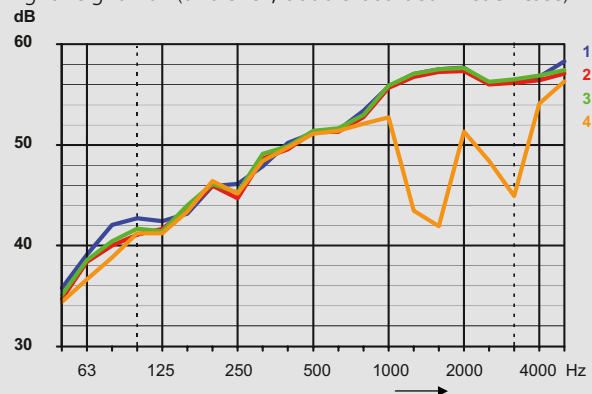
1 Wall, without installations, 77 dB | 2 Sound insulation box 9069-01, single, with accessory, 77 dB | 3 Sound insulation box 9069-01, single, with cover, 77 dB | 4 Sound insulation box 9069-01, 5-way, with accessory, 77 dB | 5 Wall, without installations, 78 dB | 6 with sound insulation electronics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

# Sound insulation technology

## for cavity wall installation

### Comparison of sound insulation

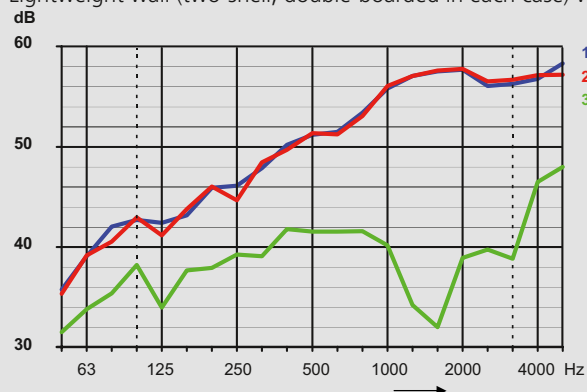
Lightweight wall (two-shell, double-boarded in each case) with sound insulation one-gang junction boxes.



**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: 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 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.



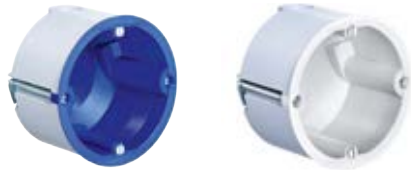
With the sound-insulation cover, the box can also be used as a junction box.

## 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



**SOUND INSULATION**



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	-	•
	•	•
<b>Art. No.</b>	<b>9069-01</b>	<b>9069-77</b>
Inner packaging/shipping	10 / 100	10 / 100

## Sound insulation cover

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

### SOUND INSULATION



<b>Diameter</b>	<b>92 mm</b>
Halogen-free	•
	•
<b>Art. No.</b>	<b>1184-69</b>
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



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

## Allocation table for universal opening cutters



Cavity wall installation for sound insulation boxes		Ø setting
<b>NYM cable</b>	3 x 1,5 mm <sup>2</sup>	8,5
	5 x 1,5 mm <sup>2</sup>	9,5
	3 x 2,5 mm <sup>2</sup>	9,5
<b>Support connector</b>	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



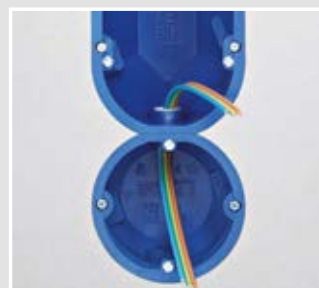
The electronics box provides space for all possible installations e.g. KNX actuators, Venetian blinds relays, alarm modules and many more.



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 area 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 a sound insulation box (Art. No. 9069-01).



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


## INNOVATION

### 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	-	•
	•	•
<b>Art. No.</b>	<b>9069-94</b>	<b>9069-74</b>
Inner packaging/shipping	5 / 50	5 / 50





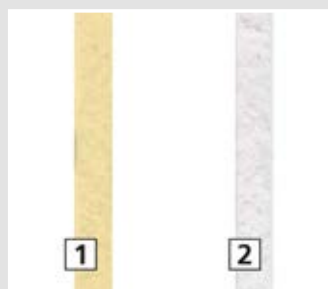
## Safety for X-ray rooms. One-gang junction box for radiation protection walls.

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



### Use in lead-free radiation protection walls



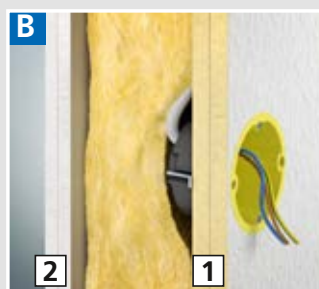
1 lead-free radiation protection panel (e.g. Knauf Safeboard)  
2 plasterboard panel

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



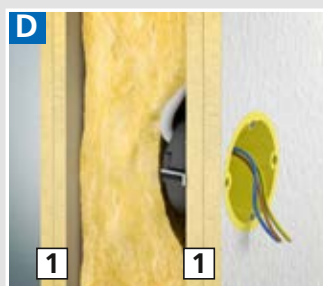
Lead equivalent: up to 0.6 mm Pb  
wall construction: 2 layers of boarding on both sides



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



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



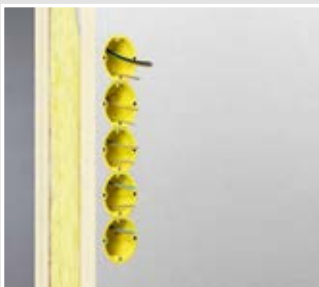
Example of installation of a switch/socket combination.



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



FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

CABLE GLANDS

TOOLS

SERVICE

# Radiation protection

## for cavity wall installation

### Installation



Use a cutter (e.g. Multi 4000: 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 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.

### INNOVATION

#### 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

**RADIATION PROTECTION**



**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\*

VDE •

**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 <sup>2</sup>	9.5
	5 x 1.5 mm <sup>2</sup>	10.5
	3 x 2.5 mm <sup>2</sup>	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



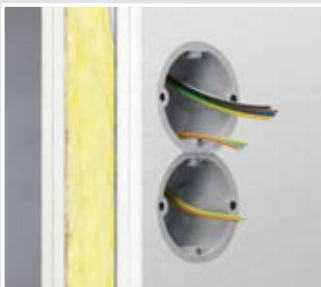
Examples of use



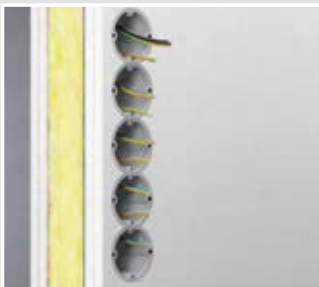
Example of installation of a switch/socket combination.



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.



# Radiation protection

## for cavity wall installation

### 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**

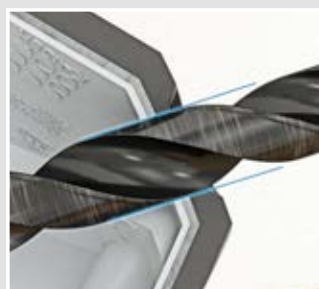
### Installation



Use a cutter (e.g. Multi 4000: 1084-10) to make a Ø 74 mm opening.



By using the HSS drill, it is easy ...



... 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.

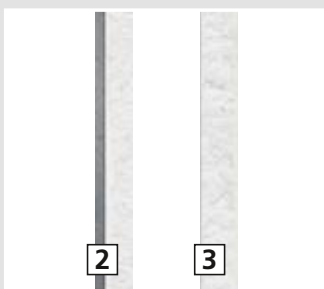


Insert the cables, then fit the box into the installation opening.

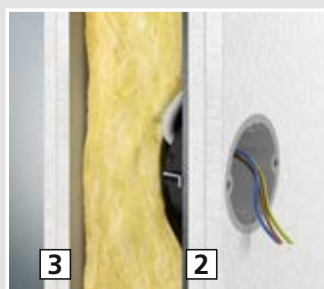


The one-gang junction box is now ready for use.

### 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



## INNOVATION

### 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

#### RADIATION PROTECTION



<b>For panel thickness</b>	<b>7 - 40 mm</b>
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
	•
<b>Art. No.</b>	<b>9074-03</b>
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 and 9074-03



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

### Assignment table for Universal opening cutter and HSS drill



Cavity wall installation for radiation protection boxes		Ø setting	HSS drill Ø
<b>NYM cable</b>	3 x 1,5 mm <sup>2</sup>	9,5	8,0
	5 x 1,5 mm <sup>2</sup>	9,5	9,5
	3 x 2,5 mm <sup>2</sup>	9,5	9,5
	5 x 2,5 mm <sup>2</sup>	Connector	9,5
<b>Support connector</b>	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.

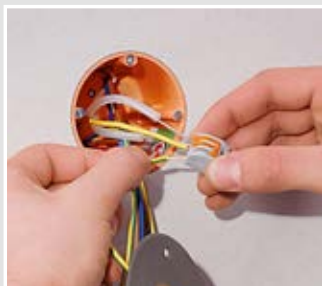
- Environmentally-safe construction for secure electrical installation
- With screening and potential conductivity
- The functional earth of the box must only be connected to the potential equalisation and not to the equipment grounding conductor (PE conductor)



### Installation



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



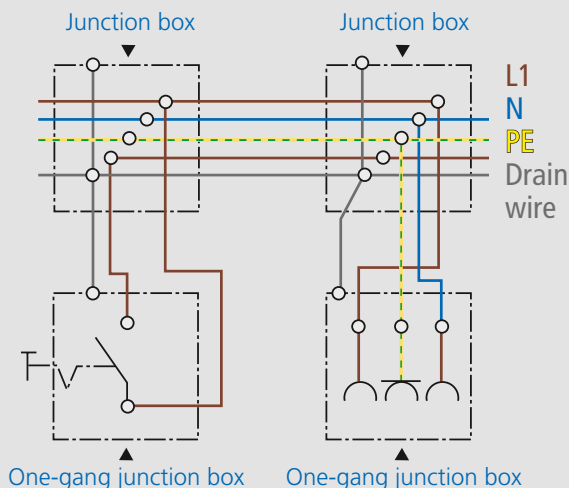
Connect functional earth of the box to tracer wires of screened cable.



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

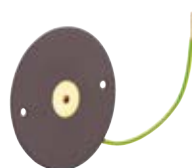
· with screening and potential download



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 <sup>2</sup> or 5 x 1.5 mm <sup>2</sup>	2	2	2
Cable entries 3 x 1.5 mm <sup>2</sup>	2	4	4
Cable entries for low voltages	2	2	2
<b>Art. No.</b>	<b>9063-88</b>	<b>9068-88</b>	<b>9064-88</b>
Inner packaging/shipping	10 / 100	10 / 100	10 / 100

## Screened cover

· for making screened one-gang junction boxes  
· for one-gang junction boxes 9064-88 and 1555-88



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

## Screened junction casing

· for cavity wall and flush-mounting installation  
· with screened cover  
· with 2 x 15 mm cover screws  
· protection class IP 3X



<b>Length x Width x Depth</b>	<b>107 x 107 x 53 mm</b>
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 <sup>2</sup>
<b>Art. No.</b>	<b>9195-88</b>
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.

FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

CABLE GLANDS

TOOLS

SERVICE

# Junction box, Accessories

for cavity wall installation

## 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-..



<b>Length</b>	<b>44,5 mm</b>
Screws Ø	3 mm
<b>Art. No.</b>	<b>2445-25</b>
Inner packaging/shipping	100 / 2000

## Metal plate

- 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-..



<b>Length x Width</b>	<b>7 x 13 mm</b>
<b>Art. No.</b>	<b>2445-50</b>
Inner packaging/shipping	100 / 2000

## Device screws

- self-tapping Ø 3.2 mm
- surface double-treated
- corrosion-resistant in accordance with German DIN VDE standard



<b>Length</b>	<b>15 mm</b>	<b>20 mm</b>	<b>25 mm</b>	<b>40 mm</b>
<b>Art. No.</b>	<b>2471-15</b>	<b>2471-20</b>	<b>2471-25</b>	<b>2471-40</b>
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



<b>Length</b>	<b>15 mm</b>	<b>40 mm</b>
<b>Art. No.</b>	<b>2444-15</b>	<b>2444-40</b>
Inner packaging/shipping	- / 100	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 or fretsaw.



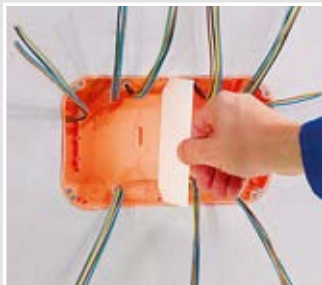
Cut out intermediate parts with cutter or fretsaw.



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 mm<sup>2</sup>
- with drilling template (supplied)
- including cover



Length x Width x Depth	107 x 107 x 53 mm	107 x 107 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 <sup>2</sup>	4 mm <sup>2</sup>	16 mm <sup>2</sup>	16 mm <sup>2</sup>
Halogen-free	-	•	-	•
use separator wall for maximum of 2 electrical circuits	•	•	•	•
/	• / •	• / -	• / •	• / -
<b>Art. No.</b>	<b>9195-91</b>	<b>9195-77</b>	<b>9196-91</b>	<b>9196-77</b>
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 mm<sup>2</sup>
- 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 <sup>2</sup>	16 mm <sup>2</sup>	16 mm <sup>2</sup>	16 mm <sup>2</sup>
Halogen-free	-	•	-	•
Maximum of 3 electrical circuits with separator walls	•	•	•	•
/	• / •	• / -	• / •	• / -
<b>Art. No.</b>	<b>9192-91</b>	<b>9192-77</b>	<b>9197-91</b>	<b>9197-77</b>
Inner packaging/shipping	- / 10	- / 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](http://www.myhousing.eu)



## 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 <sup>2</sup>	4 mm <sup>2</sup>
Halogen-free	-	•
For max. 2 electrical circuits through separator wall 9073-20	•	•
	•	•
<b>Art. No.</b>	<b>9073-01</b>	<b>9073-78</b>
Inner packaging/shipping	- / 10	- / 10

## Potential equalisation casing 10<sup>2</sup>

- for bathrooms or similar
- with potential equalisation rail, protected against corrosion
- with 4 screw domes
- with 2 x 15 mm cover screws
- including cover



Length x Width x Depth	107 x 107 x 53 mm
Cut hole Ø	4 x 35 mm
Connections for 6–16 <sup>2</sup> circular conductors (also uncut)	1
Connections for 1.5–10 <sup>2</sup> cables	6
<b>Art. No.</b>	<b>9195-73</b>
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 - flush-mounting boxes	107 x 107 mm	159 x 159 mm	240 x 142 mm	238 x 208 mm
For casing size - cavity wall boxes	107 x 107 mm	165 x 165 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
<b>Art. No.</b>	<b>1095-93</b>	<b>1096-93</b>	<b>1092-93</b>	<b>1097-93</b>
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



<b>Halogen-free</b>	-	•
For Art. No.	9073-01/91	9073-78/77
<b>Art. No.</b>	<b>9073-93</b>	<b>9073-79</b>
Inner packaging/shipping	- / 10	- / 10

## Separator walls

- to separate electrical circuits



<b>for casing size</b>	<b>107 x 107 mm</b>	<b>165 x 165 mm</b>	<b>240 x 140 mm</b>	<b>235 x 205 mm</b>
<b>Art. No.</b>	<b>9195-20</b>	<b>9196-20</b>	<b>9192-20</b>	<b>9197-20</b>
Inner packaging/shipping	- / 10	- / 10	- / 10	- / 10

## Separator wall

- to separate electrical circuits
- for junction boxes Ø 120 mm



<b>Art. No.</b>	<b>9073-20</b>
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.

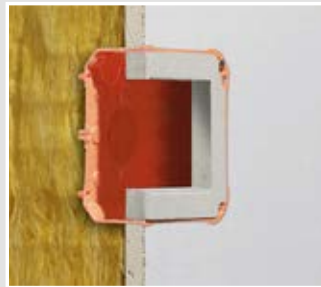
- For displays, LED lamps and much more
- For installing almost all shapes and sizes
- Mineral fibreboard permits almost all conceivable installation openings
- With FX4 quick assembly technology



### 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	107 x 107 x 53 mm	107 x 107 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	-	•	-	•
<b>Art. No.</b>	<b>9195-22</b>	<b>9195-27</b>	<b>9196-22</b>	<b>9196-27</b>
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	-	•	-	•
<b>Art. No.</b>	<b>9192-22</b>	<b>9192-27</b>	<b>9197-22</b>	<b>9197-27</b>
Inner packaging/shipping	- / 10	- / 10	- / 10	- / 10



## 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



### 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	83 x 83 x 65 mm
Cut hole Ø	83 mm	83 mm
Conduit entries M20	4	4
Conduit entries M25	4	-
Combination	1x1	1x1
CE	•	•
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	- / 10

# International products

for accessory installation in accordance with national standards

## INNOVATION

### Sound insulation box for Swiss accessories

- One-gang box for sound insulation walls in buildings
- Maintains the wall's sound insulation protection
- also for opposing installation
- for plate thickness 7 - 40 mm
- matching plug-in cover New Look one Art. No. 9919.10



<b>Length x Width x Depth</b>	<b>83 x 83 x 50 mm</b>
Drill Ø	83 mm
Combination	1x1
<b>CE</b>	•
<b>Art. No.</b>	<b>9798-77</b>
Inner packaging/shipping	10 / 100

## INNOVATION

### 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



<b>Length x Width x Depth</b>	<b>145 x 83 x 50 mm</b>	<b>205 x 83 x 50 mm</b>	<b>145 x 145 x 50 mm</b>	<b>205 x 145 x 50 mm</b>
Drill Ø	83 mm	83 mm	83 mm	83 mm
Combination	2x1	3x1	2x2	3x2
<b>CE</b>	•	•	•	•
<b>Art. No.</b>	<b>9798-77.02</b>	<b>9798-77.03</b>	<b>9798-77.04</b>	<b>9798-77.06</b>
Inner packaging/shipping	- / 5	- / 5	- / 5	- / 5

## INNOVATION

### 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



<b>Length x Width x Depth</b>	<b>83 x 83 x 73.5 mm</b>
Cut hole Ø	83 mm
Combination	1x1
Tube entries up to M25	2
<b>Art. No.</b>	<b>9799-77</b>
Inner packaging/shipping	10 / 100

## INNOVATION

### 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



<b>Length x Width x Depth</b>	<b>145 x 83 x 73.5 mm</b>	<b>205 x 83 x 73.5 mm</b>	<b>145 x 145 x 73.5 mm</b>	<b>205 x 145 x 73.5 mm</b>
Cut hole Ø	83 mm	83 mm	83 mm	83 mm
Combination	2x1	3x1	2x2	3x2
Tube entries up to M25	2	2	4	4
<b>Art. No.</b>	<b>9799-77.02</b>	<b>9799-77.03</b>	<b>9799-77.04</b>	<b>9799-77.06</b>
Inner packaging/shipping	- / 5	- / 5	- / 5	- / 5

## One-gang box (Belgian standard)

· with holding ring



<b>For panel thickness</b>	<b>7 - 35 mm</b>
----------------------------	------------------

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
--------------------------------	---



• / •

<b>Art. No.</b>	<b>205</b>
-----------------	------------

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 rooms or intensive care units, particle-protected installation must be guaranteed in accordance with clean-room and hygiene 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. The identifying feature of these products is that they are available in white.

- 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.



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.





## The most important advantages at a glance:

- Complete systems for on-site mixed concrete and prefabrication
- Sophisticated colour system for easy assignment of system components
- Extremely time-saving thanks to just a few universal B<sup>2</sup> system components for installation in horizontal prefabrications
- Innovative KSK technology allows conduit entry without special tools
- Wide range of mounting options on the formwork
- Prefix® installation technology for easy and quick installation on the opposing formwork without support
- Universal installation housings with mineral fibre-board for all standard device sizes (e.g. displays, LED luminaires and many more)
- Practical solutions for wall and ceiling transitions
- International products for accessory installation in accordance with national standards
- Professional system tools for fast, secure installation
- Wide range of system accessories
- Halogen-free



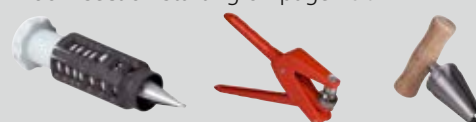
Product film  
[www.kaiser-elektro.org/concreteconstruction](http://www.kaiser-elektro.org/concreteconstruction)












## Concrete construction | Product lines

One-gang boxes, one-gang junction boxes for on-site mixed concrete	p. 132
Junction casings and accessories for on-site mixed concrete	p. 137
Ceiling boxes and accessories for on-site mixed concrete	p. 144
Wall-ceiling transitions, ceiling strips, conduit supports for on-site mixed concrete	p. 151
Wire-pull casings	p. 156
Universal installation housings	p. 161
B2 system for horizontal prefabrication	p. 164
International products	p. 174
End cover and separator walls	p. 177
Accessories for on-site mixed concrete	p. 179
Sealing systems in fire-protection walls and ceilings	p. 246

Tools for installation in concrete can be found in the "Tool" section starting on page 298.

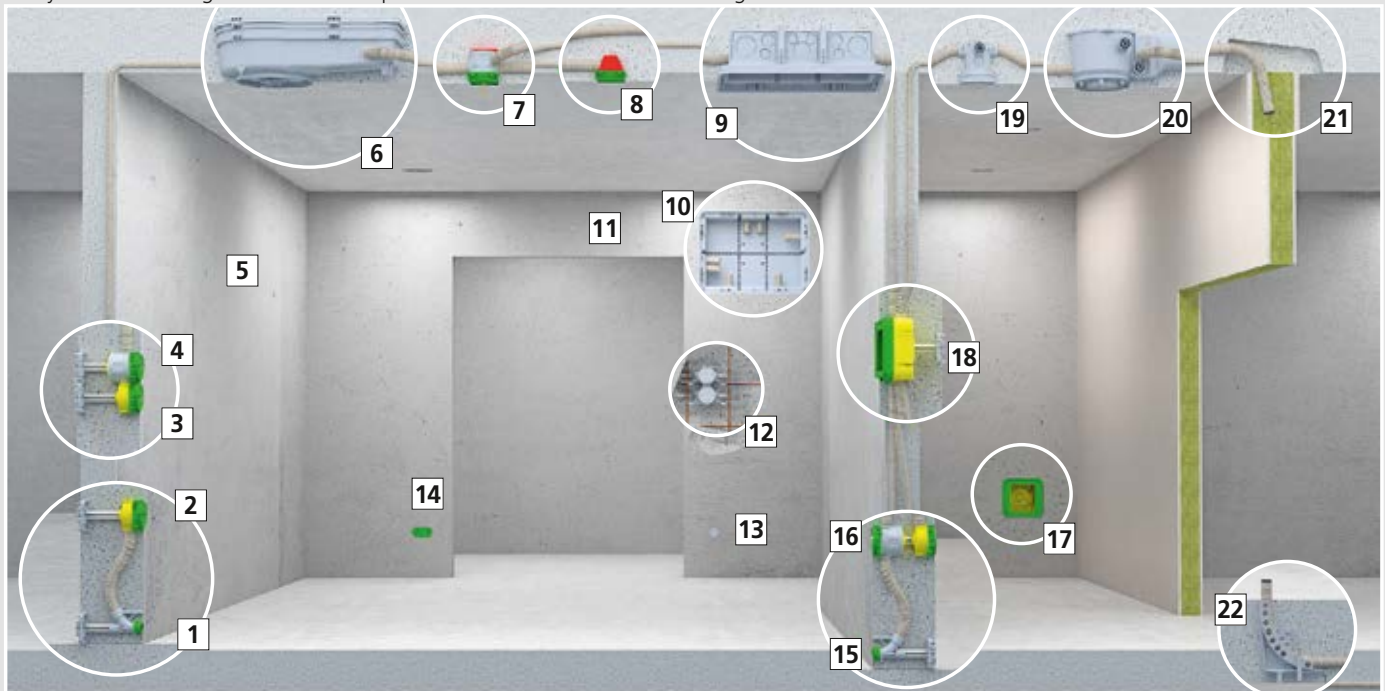


	<div>NEW</div> <div>On-site mixed concrete</div> <div>Fixing to the working formwork</div> <div>Fixing to the reinforcement</div> <div></div>		Prefabrication	International
			Installation in horizontal prefabrication	Installation of international accessories
				
For installation accessories				
One-gang boxes	p. 132	-	p. 165	p. 174
One-gang junction boxes	p. 133	p. 143	p. 165	p. 174
Large conduit boxes	p. 133	-	p. 165	-
Perilex® one-gang boxes	p. 134	-	-	-
CEE one-gang boxes	p. 134	-	-	-
Electronics boxes	p. 136 <div>NEW</div>			
Two-gang junction boxes	p. 136 <div>NEW</div>			
Universal installation housings	p. 161 <div>NEW</div>	p. 160 <div>NEW</div>	-	-
For cable exits				
Wall light connection	p. 133	p. 143	-	-
Luminaire connection	p. 145	-	p. 146/170	-
Luminaire connection and junction	p. 144	-	p. 146	-
For cable connections				
Junction boxes	p. 134	-	-	-
Junction casings	p. 137	-	-	p. 174
Potential equalisation casings	p. 140	-	-	-
Accessories				
Fixing	p. 179	p. 160 <div>NEW</div>	p. 166	p. 179
Support	p. 141	-	p. 168	p. 140
Sealing of electrical installations (air-tight and smoke-tight)	p. 28/261/92	p. 28/261/92	p. 28/261/92	-
Plaster compensation	-	-	p. 167	-
End cover	p. 177	-	p. 39/177/90	-

<b>Cable and conduit entry systems   Product overview</b>					
	<b>Transitions</b>  p. 151	<b>Exits</b>  p. 154	<b>Conduit supports</b>  p. 155	<b>Wire-pull casings</b> <b>NEW</b>  p. 156	<b>Sealings</b> in fire-protection ceilings and walls <b>NEW</b>  p. 246
<b>Conduit sizes</b>					
Ø 20 mm	•	•	•	•	•
Ø 25 mm	•	•	•	•	•
Ø 32 mm	•	•	•	•	•
Ø 40 mm	•	•	•	•	•
Ø 50 mm	-	-	-	•	•
Ø 63 mm	-	-	-	•	•
Cables/cable bundle	-	-	-	-	•

## 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 Wall and ceiling transition 30° with abutment and support element | 2 One-gang box for plug-in A.C. device | 3 One-gang box with abutment and support element | 4 One-gang junction box with abutment and support element | 5 Wall light connection box | 6 System Kompax® | 7 Ceiling junction box | 8 Ceiling box 45° | 9 Wire-pull casing | 10 Wire-pull casing | 11 Prefix concrete building box 35 | 12 Prefix concrete building box 60 | 13 Prefix concrete building box 60 | 14 Electronics box and two-gang junction box | 15 Wall and ceiling transition 30° with abutment and support element | 16 One-gang box and one-gang junction box with support element | 17 Potential equalisation casing | 18 Junction casing with abutment and support element | 19 Universal wall and ceiling exit | 20 System HaloX®-O | 21 Ceiling strip (ceiling exit) | 22 Conduit bend support

## Wall installation in on-site concrete



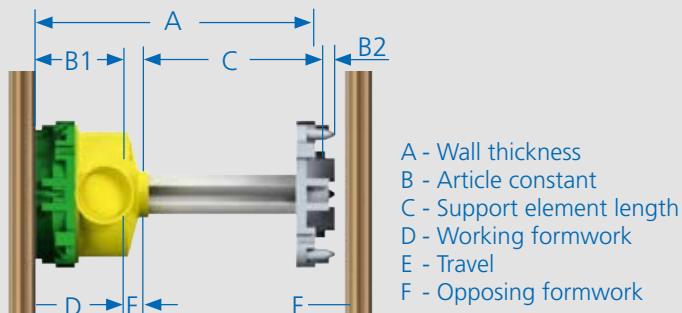
## Ceiling installation in on-site concrete



## 129



## 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 1255-40: B1 = 38 mm

Abutments 1210-02: B2 = 5 mm

**Length support element** C = 200 mm - (38 mm + 5 mm)

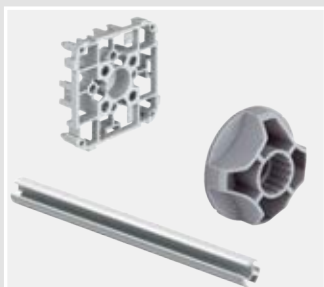
C = 157 mm

**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
One-gang box	1255-40	38	44
One-gang junction box	1265-40	62	68
Large conduit box	1260-40	59	65
Wall light connection box	1248-40	38	44
Electronics box	1268-40	75	81
Two-gang junction box	1269-40	75	81
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

## Support technology for one-gang and one-gang junction boxes

The stable support element with star-shaped cross-section and the abutment provide support in the case of boxes that are positioned opposite one another or located on the opposite side of the formwork. The built-in spring travel in installation boxes ensures a secure fit in the support.



Support element 1212-04 and abutment 1205-02 / 1210-02

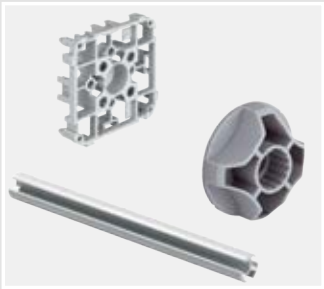




Support technology for boxes and installation housings



The telescope support is used to support opposing housings or housings on the other side of the formwork,



while the support element with star-shaped cross-section and the abutment are used in the case of junction casings with yellow rear part.











In this case, we offer moulded parts as an internal support element or styrofoam inserts that are adjusted precisely to the interior dimension of the boxes.



With this sturdy support technology, the spacing between the formworks can be maintained reliably and securely.



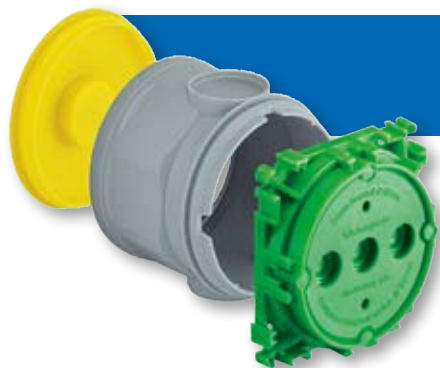
Ways of attaching to various types of formwork

Product description	For wood formwork			For steel formwork				
	 Nail Ø 2 mm	 Wood screw Ø 4 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	•	•	•	•				•

\*After removing the formwork, simply use pliers to pull out of the housing the nails used for fixing through the interior of the casings.

# One-gang boxes, One-gang junction boxes

for on-site mixed concrete



## One-gang and one-gang junction boxes

One-gang box and one-gang junction box for installation in vertical formwork. A modular programme with 2-piece or 3-piece boxes, which are easily nailed to the formwork with the flat front parts. The extra-flexible design ensures integrated spring travel and provides secure support between the formwork.

- Suitable for all types of formwork
- High torsional strength, can be combined with a standard distance of 71 mm
- Combinations have fully-insulated cable transitions
- Support in base of box does not block any conduit entry
- Integrated spring travel ensures secure support
- dimensions in accordance with German DIN 49073



### Installation



Attach front part to formwork.



Create a conduit or cable entry (punch pliers or opening cutter).



Clip rear part with conduit or cable to front part and concrete.



Open concrete building boxes or casings, then fit equipment or cover.

### 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	58 mm	41 mm
Installation opening Ø	60 mm	60 mm
Markings for cables and DIN EN conduits to Ø 16 mm	-	2
Markings for cables and DIN EN conduits up to Ø 25 mm	2	-
Rear part with holder for support element	•	-
Number of parts	2	2
	•	-
<b>Art. No.</b>	<b>1255-40</b>	<b>1255-43</b>
Inner packaging/shipping	10 / 250	10 / 100

## One-gang junction box

- with 4 screw domes and 2 expanding claw fields
- rear part of box with holder for support element
- suitable for all types of formwork
- combinations have fully-insulated cable transitions
- standardised combination distance 71 mm



Depth	82 mm	79 mm
Installation opening Ø	60 mm	60 mm
Markings for cables and DIN EN conduits up to Ø 25 mm	8	2
Markings for cables and DIN EN conduits up to Ø 32 mm	-	2
Number of parts	3	2
	•	•
<b>Art. No.</b>	<b>1265-40</b>	<b>1260-40</b>
Inner packaging/shipping	10 / 100	10 / 100


## 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.

## Wall light connection box

- space for 3 terminal blocks and associated cables
- not to be used as a junction box!
- suitable for all types of formwork



<b>Exit opening Ø</b>	<b>35 mm</b>
Depth	58 mm
Markings for cables and DIN EN conduits up to Ø 25 mm	2
Rear part with holder for support element	•
Number of parts	2
	•
<b>Art. No.</b>	<b>1248-40</b>
Inner packaging/shipping	10 / 100

# One-gang boxes, One-gang junction boxes

for on-site mixed concrete

## 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	•	-
<b>Art. No.</b>	<b>1276-70</b>	<b>1276-71</b>
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
<b>Art. No.</b>	<b>1276-40</b>
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

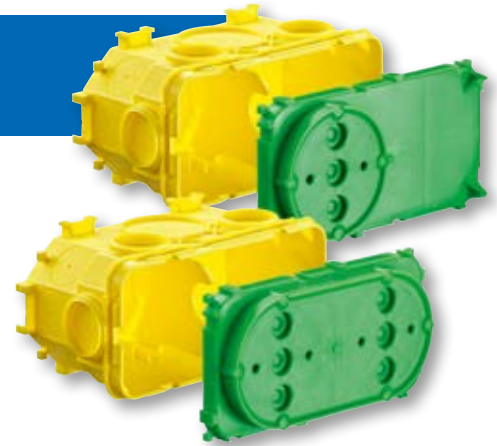


Depth	66 mm
Installation opening Ø	70 mm
Markings for cables and DIN EN conduits up to Ø 25 mm	•
Rear part with holder for support element	•
Number of parts	3
<b>Art. No.</b>	<b>1275-40</b>
Inner packaging/shipping	10 / 100

## Electronics box and two-gang junction box

The KAISER electronics box and two-gang junction box are ideal for installation in standing on-site mixed concrete formwork. The electronics box offers a generously-sized installation space, and additional space for switch actuators, other electronic components etc. The separator wall ensures standardised installation of bus and operating voltage in a single box. Two-gang junction boxes allow the installation of block and pre-wired accessories, and provide space for the assembling of cables for multi-media connections.

- Plenty of space for accessories and cables
- Separator wall for standardised fitting of two voltage types in one box
- Flat front part for simple and quick nailing
- Can be combined torsion-proof with full-insulated cable transition
- Support element does not block conduit entries
- Spring travel ensures secure fit in standing formwork



FLUSH-MOUNTING

CAVITY WALL

CONCRETE

### Examples of applications for the electronics box



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.

HOUSINGS

FIRE PROTECTION

### Examples of applications for the two-gang junction box



Thanks to its large installation opening without a central bridge, the 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.

CABLE GLANDS

TOOLS

SERVICE



# Electronics box and two-gang junction box

for on-site mixed concrete

## Installation



Flat front part for easy nailing



Use the KAISER punch pliers or the opening cutter to make exact cable or conduit entries.



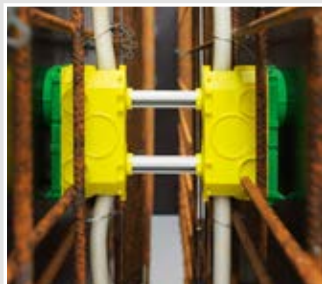
Easy fitting of cables and conduits through exact openings.



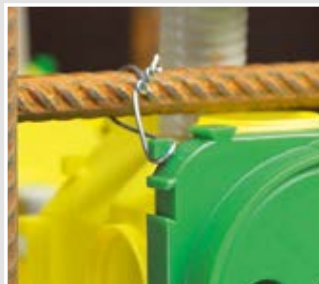
The snap-in connection ensures fast installation.



Opposing installation, cable entry behind the reinforcement.



Installation on opposing formwork is easy with the tried-and-tested KAISER support element. Also, the integrated spring travel ensures a secure fit and compensates for any dimensional tolerances.



Tie lugs provide additional security if extreme loads are expected.



Can be combined at the standardised combination distance of 71 mm or 91 mm with one-gang or one-gang junction boxes.

## INNOVATION

### Electronics box

- With separator walls to separate electrical circuits
- 4 screw domes
- suitable for all types of formwork
- combinations have fully-insulated cable transitions
- Can be combined at the standardised combination distance of 71 mm or 91 mm with one-gang or one-gang junction boxes.



### Two-gang junction box

- 6 screw domes
- suitable for all types of formwork
- combinations have fully-insulated cable transitions
- Can be combined at the standardised combination distance of 71 mm or 91 mm with one-gang or one-gang junction boxes.



#### Length x Width x Depth

145 x 74 x 94 mm

145 x 74 x 94 mm

Installation opening

60 mm

60 x 131 mm

Tube entries up to M25

16

8

Tube entries up to M40

2

2



Art. No.

1268-40

1269-40

Inner packaging/shipping

5 / 50

5 / 50

## 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.



FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

CABLE GLANDS

TOOLS

SERVICE

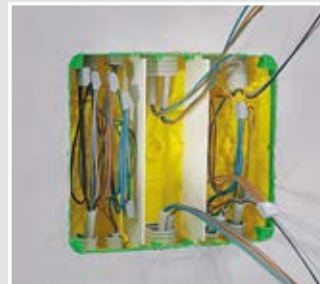
### Processing instructions



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 mm<sup>2</sup>
- suitable for all types of formwork
- rear parts of casing with holder for support element
- for loose terminals up to 4 mm<sup>2</sup>



Length x Width x Depth	128 x 128 x 80 mm	180 x 180 x 84 mm	250 x 220 x 82 mm
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	-	-	•
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
<b>Art. No.</b>	<b>1295-02</b>	<b>1296-02</b>	<b>1297-02</b>
Inner packaging/shipping	- / 10	- / 10	- / 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 mm<sup>2</sup>



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	•	•	•
Art. No.	9909.01	9908.01	9908.21
Inner packaging/shipping	- / 50	- / 20	- / 5

**Accessories:** Telescope support, page 163

## 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 mm<sup>2</sup>



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	•	•
Art. No.	9907	9907.21
Inner packaging/shipping	- / 20	- / 5

**Accessories:** Telescope support, page 163

## Upper frame

- extension size 12 - 45 mm
- for 2 screws
- multiple extensions possible



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	•	•	•
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	•	•	•	•
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

- aluminium (polished surface)
- with full-surface neoprene seal, thickness 4 mm
- cover fastening with 4 screws, 4 x 45 mm (included), non-rusting
- for Art. Nos. 9909.01, 9908.01, 9908.21, 9907



Length x Width x Height	130 x 130 x 1.5 mm
Screws	4
Art. No.	9909.03
Inner packaging/shipping	- / 100

# Junction casings and accessories

for on-site mixed concrete

## Potential equalisation casing 10<sup>2</sup> and 16<sup>2</sup>

- 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 <sup>2</sup>	-	6
Cables up to 16 <sup>2</sup> , single and stranded wire	7	-
Circular conductors Ø 8–10 mm	1	-
Circular conductor 6–16 <sup>2</sup>	-	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	•	-
<b>Art. No.</b>	<b>1297-75</b>	<b>1295-73</b>
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



<b>Art. No.</b>	<b>1205-02</b>
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



<b>Art. No.</b>	<b>1210-02</b>
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.

## 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



<b>Art. No.</b>	<b>1219-00</b>
Inner packaging/shipping	200 / 1000

## Distance piece 91

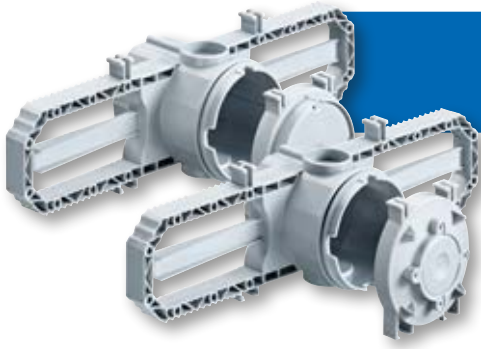
- for separate covers for antenna sockets in combinations with sockets without electric shock protection
- Centre distance 91 mm
- for multiple row combinations
- fits one-gang boxes, one-gang junction boxes, abutments



<b>Length</b>	<b>60 mm</b>
<b>Art. No.</b>	<b>1259-04</b>
Inner packaging/shipping	10 / 100

# Prefix® concrete building box for attaching to the reinforcement

for on-site mixed concrete



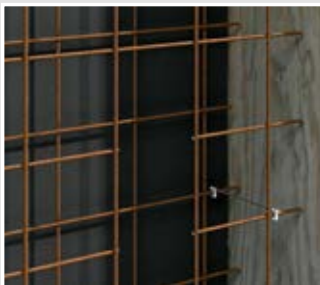
## Prefix® concrete building box for attaching to the reinforcement

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 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.

### 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.

# Prefix® concrete building box for attaching to the reinforcement

for on-site mixed concrete

## 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.

## 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

<b>Installation opening Ø</b>	<b>60 mm</b>
Depth x Width	95 x 290 mm
for concrete covers	20-60 mm
Markings for cables and DIN EN conduits up to Ø 25 mm	6



<b>Art. No.</b>	<b>1211-61</b>
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

<b>Exit opening Ø</b>	<b>35 mm</b>
Depth x Width	95 x 290 mm
for concrete covers	20-60 mm
Markings for cables and DIN EN conduits up to Ø 25 mm	6



<b>Art. No.</b>	<b>1211-36</b>
Inner packaging/shipping	25 / 50

FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

CABLE GLANDS

TOOLS

SERVICE

# Ceiling boxes and accessories

for on-site mixed concrete / prefabrication



## Ceiling junction box

Ceiling junction box to accommodate electrical connections. With the optional light hook, the box is also ideally suited for installing and attaching luminaires. The wide range of ceiling boxes permits almost all conceivable installations.

- Suitable for all types of formwork
- Flat front part for simple and quick nailing
- Integrated cap nut ensures secure fitting of an M5 light hook acc. to DIN EN 60670
- The colour system ensures that the installation can be checked quickly



### Processing instructions



Ceiling box 45° with light hook for fixing suspended luminaires.



Ceiling junction box with integrated M5 light hook acc. to DIN EN 60670.



You can very easily open slab ceiling boxes for filigree ceilings with the KAISER punch pliers.




The conduit is inserted tightly and accurately and the box is sealed with the cover.

### Ceiling junction box

- with M5 metal nut for light hook (hook length min. 85 mm + plaster thickness)
- suitable for all types of formwork
- maximum light hook load to DIN EN 60670 100 N (10 kg)




Exit opening Ø	35 mm	60 mm
Depth	82 mm	82 mm
Markings for cables and DIN EN conduits up to Ø 25 mm	8	8
Number of parts	3	3
	•	•
<b>Art. No.</b>	<b>1264-50</b>	<b>1265-50</b>
Inner packaging/shipping	10 / 100	10 / 100

## Ceiling large conduit box

- with M5 metal nut for light hook (hook length min. 75 mm + plaster thickness)
- especially suitable for hot glue attachment
- maximum light hook load to DIN EN 60670 100 N (10 kg)




<b>Exit opening Ø</b>	<b>60 mm</b>
Depth	79 mm
Markings for cables and DIN EN conduits up to Ø 25 mm	2
Markings for cables and DIN EN conduits up to Ø 32 mm	2
Number of parts	2
	•
<b>Art. No.</b>	<b>1260-50</b>
Inner packaging/shipping	10 / 100

## Ceiling box 45°

- with M5 metal nut for light hook (hook length min. 55 mm + plaster thickness)
- suitable for all types of formwork
- maximum light hook load to DIN EN 60670 100 N (10 kg)



<b>Exit opening Ø</b>	<b>35 mm</b>	<b>60 mm</b>
Depth	55 mm	55 mm
Markings for cables and DIN EN conduits up to Ø 25 mm	4	4
Number of parts	2	2
	•	•
<b>Art. No.</b>	<b>1248-50</b>	<b>1249-50</b>
Inner packaging/shipping	10 / 250	10 / 250

## Domed box 45°

- simple light or ceiling exit
- without hook attachment
- suitable for all types of formwork



<b>Exit opening Ø</b>	<b>35 mm</b>	<b>60 mm</b>
Depth	46 mm	46 mm
Markings for cables and DIN EN conduits up to Ø 25 mm	4	4
Number of parts	2	2
<b>Art. No.</b>	<b>1248-44</b>	<b>1249-44</b>
Inner packaging/shipping	10 / 100	10 / 100




# Ceiling boxes and accessories

for on-site mixed concrete / prefabrication

## 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)



<b>Exit opening Ø</b>	<b>60 mm</b>
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
	•
<b>Art. No.</b>	<b>1227-50</b>
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)



<b>Depth</b>	<b>100 mm</b>
Number of parts	2
required drilling hole	65 mm
<b>Art. No.</b>	<b>1247-01</b>
Inner packaging/shipping	- / 100

## Light hook

- for retrofitting ceiling boxes (DIN EN 60670)
- maximum light hook load to DIN EN 60670 100 N (10 kg)
- with M5 thread, fully-insulated



Length of shank	Diameter hook	Thread length	Overall length	Art. No.	Inner packaging/shipping
<b>30 mm</b>	26 mm	10 mm	71 mm	<b>1226-30</b>	- / 150
<b>55 mm</b>	26 mm	10 mm	81 mm	<b>1226-55</b>	- / 150
<b>65 mm</b>	26 mm	10 mm	91 mm	<b>1226-65</b>	- / 150
<b>75 mm</b>	26 mm	10 mm	101 mm	<b>1226-75</b>	- / 150
<b>85 mm</b>	26 mm	10 mm	112 mm	<b>1226-85</b>	- / 100
<b>95 mm</b>	26 mm	10 mm	121 mm	<b>1226-95</b>	- / 100
<b>105 mm</b>	26 mm	10 mm	132 mm	<b>1226-97</b>	- / 100
<b>115 mm</b>	26 mm	10 mm	143 mm	<b>1226-98</b>	- / 100
<b>125 mm</b>	26 mm	10 mm	151 mm	<b>1226-99</b>	- / 100

## Universal ceiling and wall exit

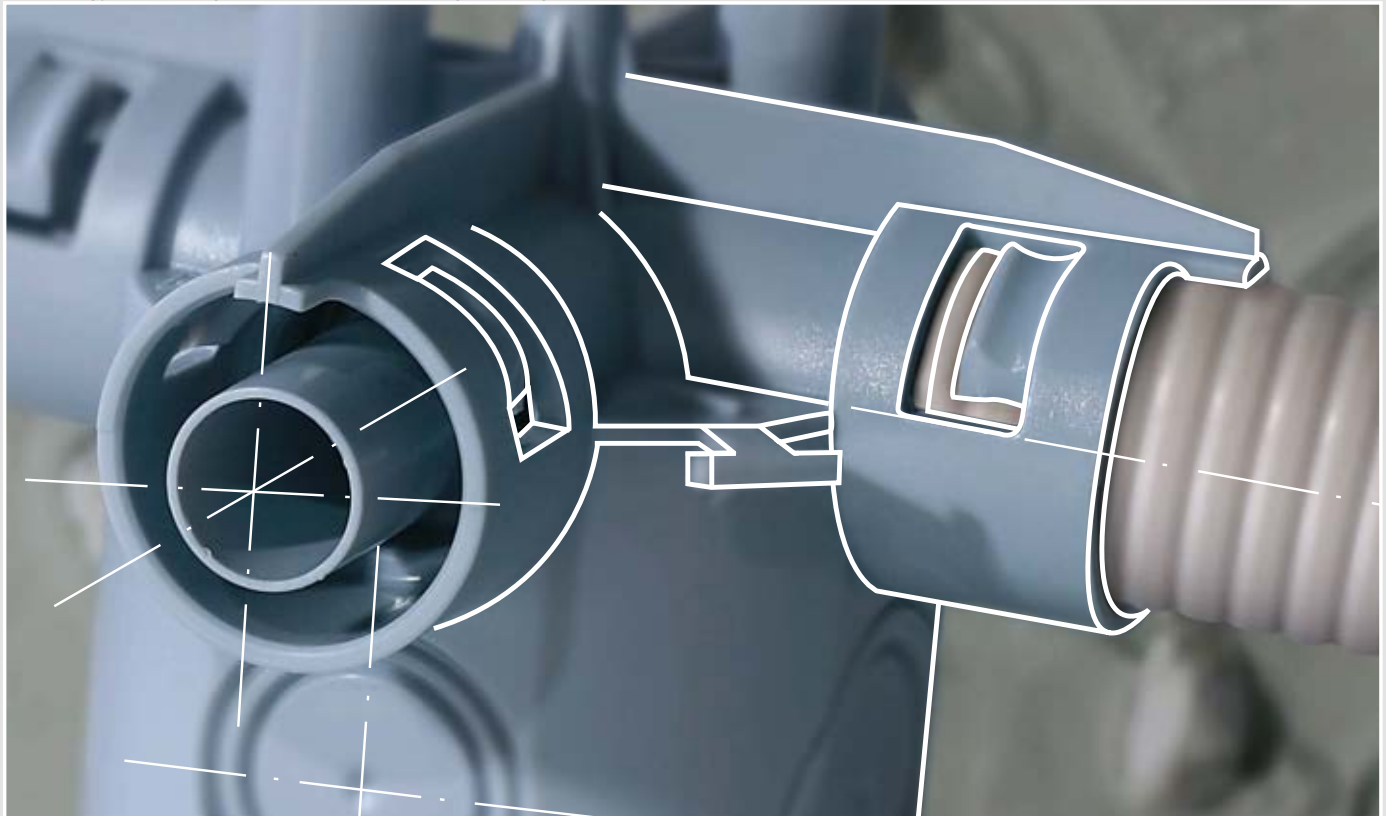
Universal ceiling and wall exit with KSK technology for especially quick and safe installation. The universal Ø 85 mm screw-on surface permits the clean installation of luminaires, smoke detectors etc. without the need for drilling.

- 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.



FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

CABLE GLANDS

TOOLS

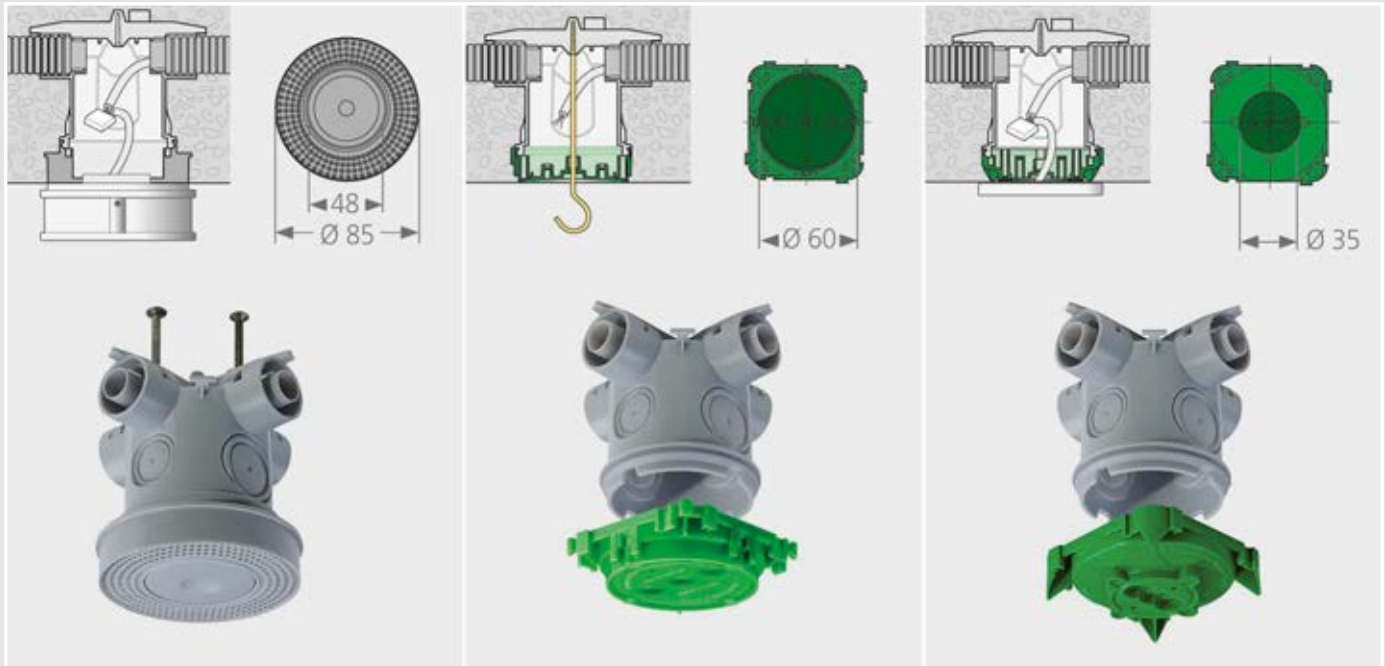
SERVICE

# Ceiling boxes and accessories

for on-site mixed concrete / prefabrication

## Front parts

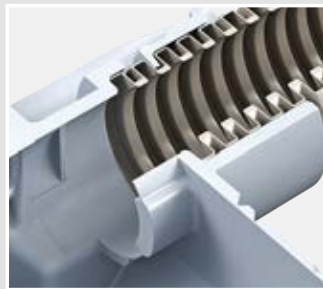
The different front parts offer exit openings of Ø 35, Ø 48 or Ø 60 mm and allow the attachment of a fully-insulated light hook according to DIN EN 60670-21.



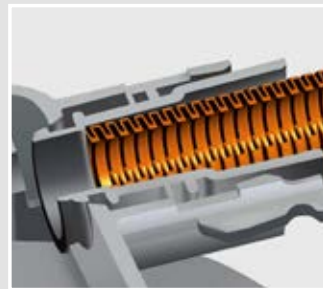
## Combi-entry



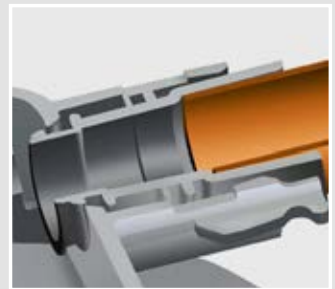
M20 combi-entry



M25 combi-entry



5/8" combi-entry



3/4" combi-entry

## Installation



The front part with screw-on surface (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 (1245-60) offers quick and secure hold for accessories.

## Universal ceiling and wall exit

- with universal screw-on surface Ø 85 mm
- Conduit entry limit to prevent inside shortening of the conduit
- 2 plaster compensation covers per pack
- suitable for all types of formwork



<b>Depth</b>	<b>105 mm</b>
Outer diameter	85 mm
Ceiling exit (CE) Ø	48 mm
M20/M25 impact couplings	4
Combination conduit entries M20/25	2
Combination conduit entries M25/32	2
Number of nails	2
<b>CE</b>	<b>•</b>
<b>Art. No.</b>	<b>9959</b>
Inner packaging/shipping	- / 25

## Ceiling junction box

- Conduit entry limit to prevent inside shortening of the conduit
- suitable for all types of formwork
- max. light hooks load in accordance with DIN EN 60670 (50 N)



<b>Exit opening Ø</b>	<b>60 mm</b>	<b>35 mm</b>
Depth	99 mm	99 mm
M20/M25 impact couplings	4	4
Number of parts	2	2
Screw domes for device attachment	4	-
M25/M32 break-out opening	2	2
M20/M25 break-out opening	2	2
<b>Art. No.</b>	<b>1245-63</b>	<b>1245-62</b>
Inner packaging/shipping	10 / 100	10 / 100

## Light hooks, self-tapping

- for retrofitting ceiling boxes (DIN EN 60670)
- with self-forming thread (similar to German DIN 7998) fully-insulated



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 boxes and accessories

for on-site mixed concrete / prefabrication

## 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



<b>Length x Width x Depth</b>	<b>90 x 45 x 50 mm</b>
-------------------------------	------------------------

Ceiling exit (CE) Ø	30 mm
---------------------	-------

Combination conduit entries M20/25	2
------------------------------------	---

<b>CE</b>	<b>•</b>
-----------	----------

<b>Art. No.</b>	<b>9951</b>
-----------------	-------------

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



<b>Depth</b>	<b>69 mm</b>
--------------	--------------

Outer diameter	85 mm
----------------	-------

Ceiling exit (CE) Ø	35 mm
---------------------	-------

Break-out openings Ø 20 mm	8
----------------------------	---

<b>CE</b>	<b>•</b>
-----------	----------

<b>Art. No.</b>	<b>9955</b>
-----------------	-------------

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



<b>For installation opening</b>	<b>35 mm</b>
---------------------------------	--------------

<b>Art. No.</b>	<b>1181-35</b>
-----------------	----------------

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



FLUSH-MOUNTING

CAVITY WALL

CONCRETE

### 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.

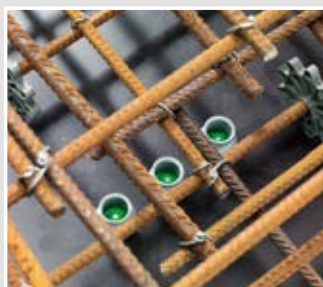


The surrounding conduit lock retains the conduit securely in the holder and ensures the correct function of the empty conduit system

HOUSINGS

FIRE PROTECTION

### 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.

CABLE GLANDS

TOOLS

SERVICE

# 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
<b>Art. No.</b>	<b>1204-24</b>	<b>1204-34</b>	<b>1204-29</b>
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



<b>Length x Width x Height</b>	<b>95 x 65 x 70 mm</b>
DIN EN conduit Ø	40 mm
Number of parts	1
Visible area Ø	95 x 65 mm
<b>Art. No.</b>	<b>1203-28</b>
Inner packaging/shipping	10 / 40

## Wall and ceiling transition 30°

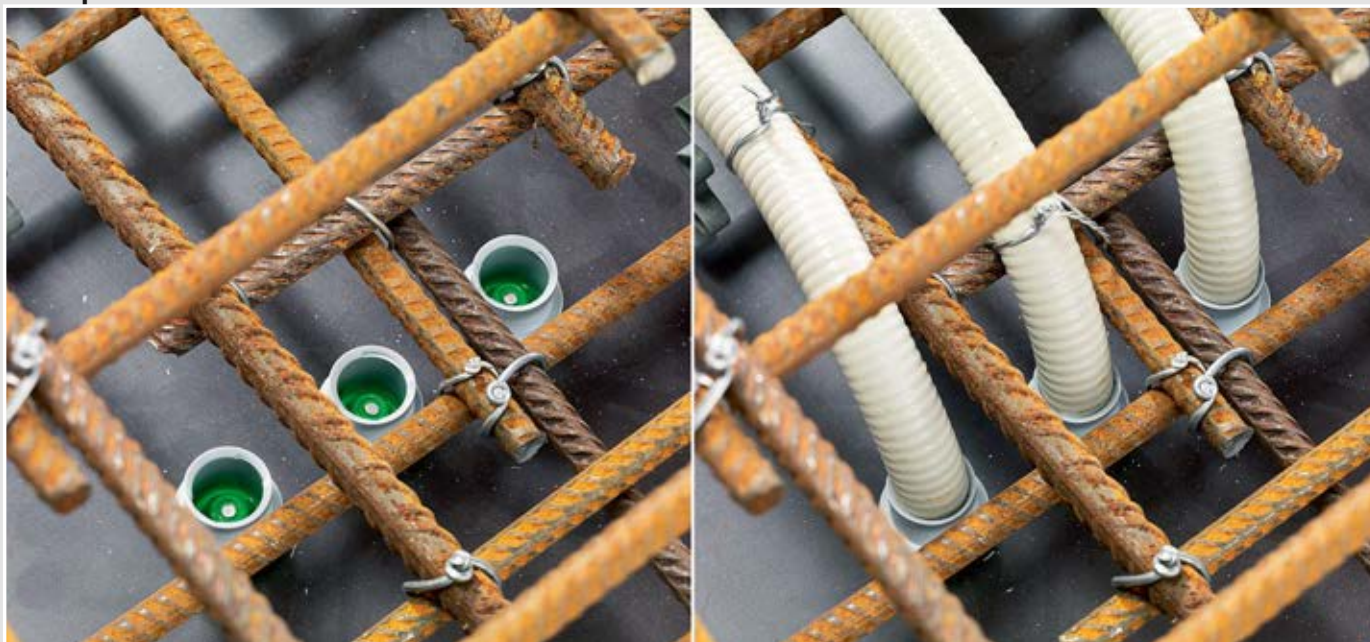
- for connecting conduits or as ceiling exit
- closed off on formwork side with plaster skin
- suitable for all types of formwork



3D animation

<b>Length x Width x Height</b>	<b>70 x 30 x 77 mm</b>	<b>72 x 35 x 78 mm</b>	<b>80 x 41 x 83 mm</b>
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
<b>Art. No.</b>	<b>1202-04</b>	<b>1202-34</b>	<b>1202-29</b>
Inner packaging/shipping	25 / 250	25 / 100	25 / 100

## Examples of use







## 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 40 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 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	-
<b>Art. No.</b>	<b>1283-33</b>	<b>1283-34</b>	<b>4558</b>	<b>4552</b>
Inner packaging/shipping	25 / 100	25 / 100	- / 50	- / 10

## 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



<b>Length x Width x Height</b>	<b>300 x 45 x 65 mm</b>
Combination conduit entries M20/25	1
Number of nails	4
<b>Art. No.</b>	<b>4555</b>
Inner packaging/shipping	- / 50

## Conduit supports

- for secure fixing of conduits from concrete ceiling
- Prevents conduits from kinking



<b>Length x Width x Height</b>	<b>130 x 132 x 210 mm</b>	<b>300 x 300 x 300 mm</b>
DIN EN conduit Ø	16-40 mm	-
Steel diameter Ø	-	8 mm
<b>Art. No.</b>	<b>4560</b>	<b>11021</b>
Inner packaging/shipping	- / 50	- / 25

## Conduit bend support

- Prevents conduits from kinking



<b>Length x Width x Height</b>	<b>170 x 107 x 225 mm</b>
Number of nails	3
Radius	160
<b>Art. No.</b>	<b>4561</b>
Inner packaging/shipping	- / 25

## Conduit sealing cap

- for sealing off conduits
- Halogen-free



<b>DIN EN conduit Ø</b>	<b>20 mm</b>	<b>25 mm</b>	<b>32 mm</b>
<b>Art. No.</b>	<b>1273-43</b>	<b>1273-44</b>	<b>1273-45</b>
Inner packaging/shipping	100 / 1000	50 / 250	50 / 250





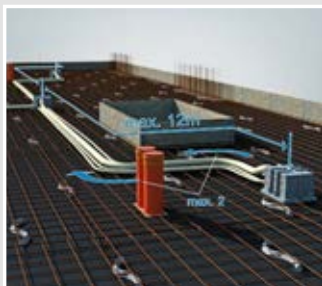
## Wire-pull casings

KAISER wire-pull casings ensure proper cable routing through conduit networks. According to DIN 18015-1, conduit lengths of more than 12 m and 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, also 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
- Simple mounting in wall via Prefix® installation technology
- Stackable



### Examples of use



According to DIN 18015-1, pull-wire boxes are required for conduit sections of more than 12 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 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	•	•	•
Art. No.	9912.01	9911.01	9914.01
Inner packaging/shipping	- / 5	- / 5	- / 10

## INNOVATION

## 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



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

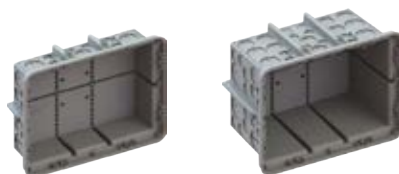
# Wire-pull casings

for on-site mixed concrete

## INNOVATION

### 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



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	• / •	• / •
	•	•
<b>Art. No.</b>	<b>9917</b>	<b>9917.21</b>
Inner packaging/shipping	- / 10	- / 5

## INNOVATION

### Upper frame

- Extension height 45 mm
- including 4 screws
- multiple extensions possible



Length x Width x Depth	246 x 176 x 45 mm	397 x 297 x 45 mm
For type number	9916 / 9916.21	9917 / 9917.21
CE /  850 °C	• / •	• / •
	•	•
<b>Art. No.</b>	<b>9916.68</b>	<b>9917.68</b>
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
<b>Art. No.</b>	<b>9916.06</b>	<b>9917.06</b>
Inner packaging/shipping	- / 30	- / 30

## 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
For type number	9916 / 9916.21	9917 / 9917.21	9914.01	-
CE /  850 °C	• / •	• / •	• / •	• / •
	•	•	•	•
<b>Art. No.</b>	<b>9916.02</b>	<b>9917.02</b>	<b>9914.02</b>	<b>9911.02</b>
Inner packaging/shipping	- / 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	•
<b>Art. No.</b>	<b>9911.12</b>
Inner packaging/shipping	- / 5

## Waterproof cover

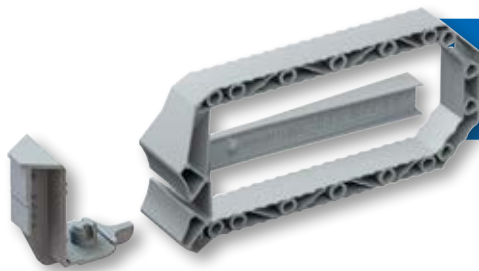
- Anodized aluminium
- with full-surface elastomer sealing
- including stainless steel screws for cover fastening



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	4
For type number	9916 / 9916.21	9917 / 9917.21	9914.01	-
<b>Art. No.</b>	<b>9916.03</b>	<b>9917.03</b>	<b>9914.03</b>	<b>9911.03</b>
Inner packaging/shipping	- / 50	- / 20	- / 50	- / 50

# Wire-pull casings

for on-site mixed concrete



## Assembly system Prefix®











for wire-pull casings

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

### INNOVATION

#### Prefix® assembly kit

· Set consisting of wing and adapter



3D animation

Number of wings and adapters	2	4
Art. No.	9940.22	9940.44
Inner packaging/shipping	- / 10	- / 5

### INNOVATION

#### Set of Prefix® wings

· allow fastening to the reinforcement



3D animation

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



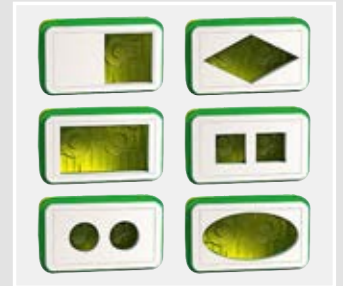
The housing in the concrete is flush-mounted with the mineral fibreboard. The groove in the mineral fibreboard determines the maximum mounting area.



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 vertical formwork	•	•	•
suitable for horizontal formwork	•	•	•
<b>Art. No.</b>	<b>1223-22</b>	<b>1224-22</b>	<b>1295-22</b>
Inner packaging/shipping	- / 10	- / 10	- / 10

# Universal installation housings

for concrete ceilings and walls

## 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 vertical formwork	•	•
suitable for horizontal formwork	•	•
<b>Art. No.</b>	<b>1296-22</b>	<b>1297-22</b>
Inner packaging/shipping	- / 10	- / 5

## INNOVATION

## 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
<b>Art. No.</b>	<b>1298-37</b>	<b>1298-38</b>	<b>1297-34</b>	<b>1297-35</b>
Inner packaging/shipping	- / 10	- / 10	- / 4	- / 4

## 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!

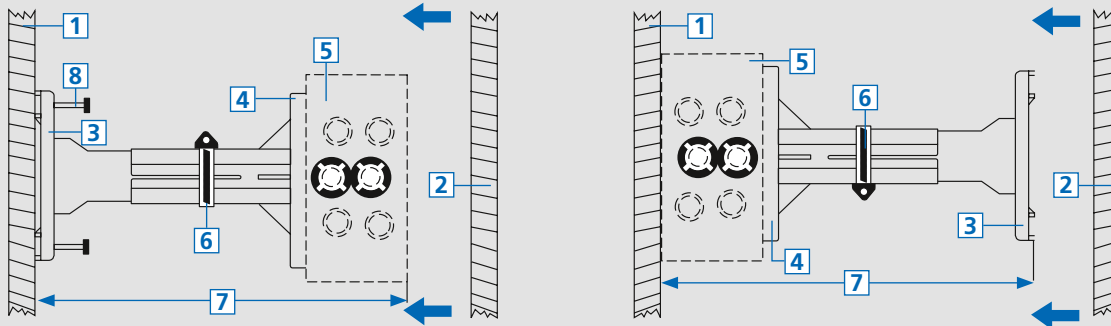
- A high-quality, flexible, plastic housing.
- Developed on the basis of our many years of experience in plastics technology.
- Whatever dimensions your product has, we will create the best possible shape!
- Look for yourself – it couldn't be easier!

Configure the housing you need  
the configurator on our website makes it possible: [www.myhousing.eu](http://www.myhousing.eu)



## 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.

Wall thickness 25 to 30 cm. Fit the included extension and 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!

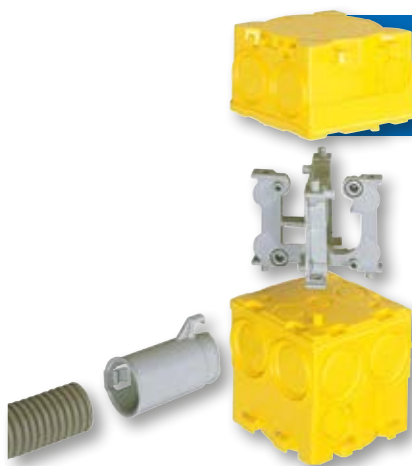
### Telescope support

- 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.



<b>Length x Width x Height</b>	<b>110 x 110 x 150-300 mm</b>
<b>Number of nails</b>	<b>4</b>
<b>Art. No.</b>	<b>9957</b>
<b>Inner packaging/shipping</b>	<b>- / 10</b>

# One-gang junction boxes and system components for horizontal prefabrication



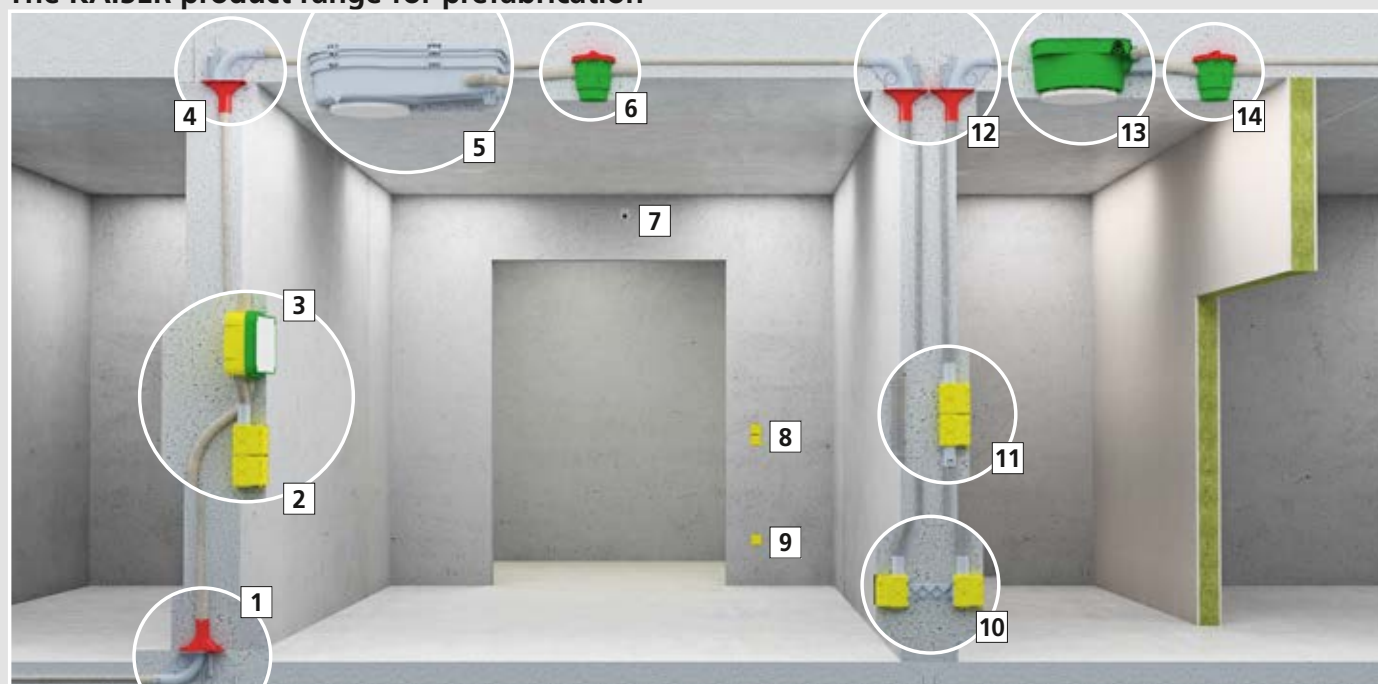
## B2 system for horizontal prefabrication

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-ceiling transition 90° and oval funnel | 2 B² one-gang junction boxes | 3 Universal installation housings | 4 Wall-ceiling transition 90° and oval funnel | 5 System KompaX® | 6 Slab ceiling large box 105 | 7 Wall-ceiling transition 90° as wall exit | 8 B² one-gang junction boxes | 9 B² one-gang junction box | 10 B² one-gang junction boxes with extension element | 11 B² one-gang junction boxes | 12 Wall-ceiling transition 90° and oval funnel | 13 System HaloX®-P | 14 Slab ceiling large box 105

### Mounting options



The KAISER special adhesive is factory-applied (not for 1264-61/62).



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.

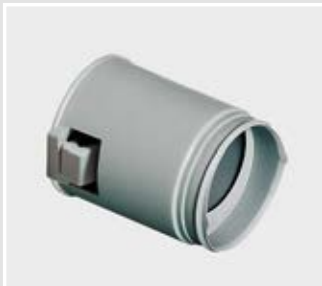


Insert the conduit into the connector.

### 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.

## 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
⊕ / ⊖	• / •	• / •	• / •
<b>Art. No.</b>	<b>1262-60</b>	<b>1263-60</b>	<b>1264-60</b>
Inner packaging/shipping	- / 100	- / 100	- / 100





# One-gang junction boxes and system components

for horizontal prefabrication

## 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	•	•
 / 	• / •	• / •
<b>Art. No.</b>	<b>1262-70</b>	<b>1263-70</b>
Inner packaging/shipping	- / 100	- / 100

## 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
 / 	• / •	• / •	• / •
<b>Art. No.</b>	<b>1262-61</b>	<b>1263-61</b>	<b>1264-61</b>
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	•	•
 / 	• / •	• / •
<b>Art. No.</b>	<b>1262-71</b>	<b>1263-71</b>
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

## 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 clamped attachment in box
- for anti-shock fixing of one-gang junction boxes in horizontal formwork
- adhesive force 900 N
- magnet remains on formwork table after removal of formwork. Not necessary to remove concrete separation material on formwork table.



Art. No.	1261-80
Inner packaging/shipping	- / 5

## Plaster compensation ring

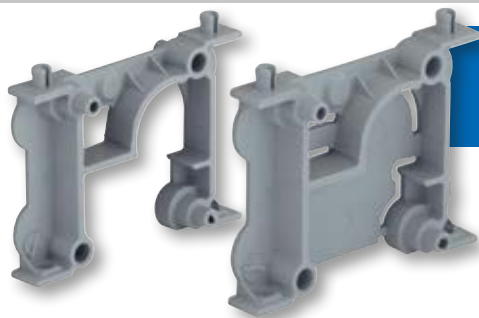
- for latching on the one-gang junction box
- screw distance to equipment attachment 60 mm
- with moulded-in plaster skin to prevent ingress of cleaning material



Height	14,5 mm
Diameter	60 mm
Art. No.	1261-60
Inner packaging/shipping	25 / 250

# One-gang junction boxes and system components

for horizontal prefabrication



## 10–100 mm extension element

Extension element for bridging wall thicknesses and supporting one-gang 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

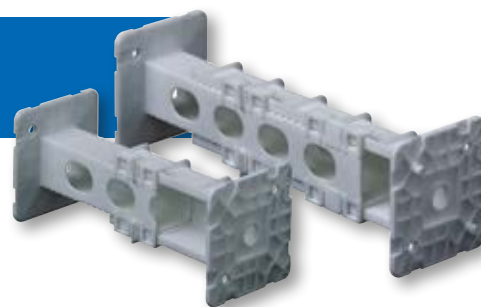


With special adhesive	-	•
Art. No.	1261-11	1261-72
Inner packaging/shipping	- / 50	- / 50

## 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	-	-	•	•
<b>Art. No.</b>	<b>1261-06</b>	<b>1261-07</b>	<b>1261-08</b>	<b>1261-09</b>
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	•	•
	•	•
<b>Art. No.</b>	<b>1227-55</b>	<b>1227-54</b>
Inner packaging/shipping	- / 100	- / 100

### Light hook

- for retrofitting ceiling boxes (DIN EN 60670)
- maximum light hook load to DIN EN 60670 100 N (10 kg)
- with M5 thread, fully-insulated



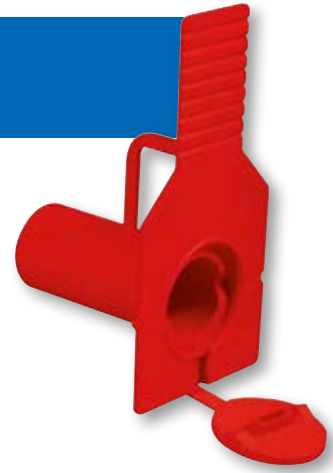
Length of shank	Diameter hook	Thread length	Overall length	Art. No.	Inner packaging/shipping
<b>105 mm</b>	26 mm	10 mm	132 mm	<b>1226-97</b>	- / 100
<b>115 mm</b>	26 mm	10 mm	143 mm	<b>1226-98</b>	- / 100
<b>125 mm</b>	26 mm	10 mm	151 mm	<b>1226-99</b>	- / 100



## 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	-	•
<b>Art. No.</b>	<b>1261-12</b>	<b>1261-73</b>
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

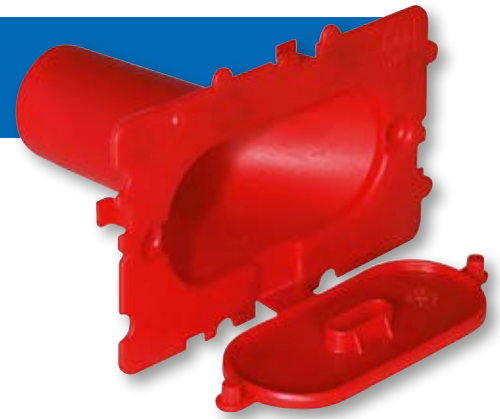


DIN EN conduit Ø	20 mm	25 mm
Art. No.	1261-16	1261-14
Inner packaging/shipping	- / 100	- / 100

## 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.



FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

CABLE GLANDS

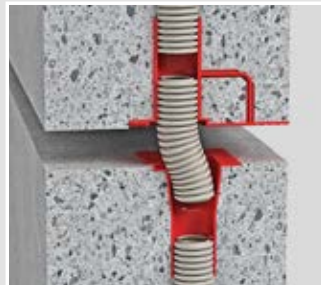
TOOLS

SERVICE

### Tolerance compensation when joining the concrete elements



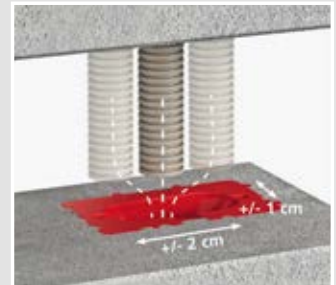
Compensation in longitudinal direction  $\pm 20$  mm.



Compensation in transverse direction  $\pm 10$  mm.



Wall-ceiling transition 90° using the oval funnel.



### Oval funnel

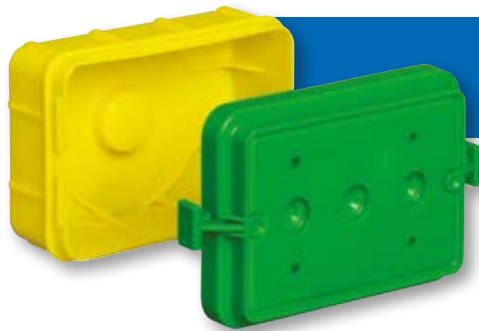
- for the simple connection of DIN EN conduits with tolerance compensation for wall-wall and wall-ceiling transitions
- for installation on the transition edge
- accepts rigid and flexible DIN EN conduits
- with closing cover to prevent ingress of material



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



### One-gang box (Italian and American standard)

- for 3 modules in monoblock construction (single row)
- installation opening 60 x 90 mm



<b>Depth</b>	<b>55 mm</b>
Screw spacing	83 mm
Markings for cables and DIN EN conduits up to Ø 25 mm	8
Number of parts	2
<b>Art. No.</b>	<b>1200-00</b>
Inner packaging/shipping	- / 100

### 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



<b>Length x Width x Depth</b>	<b>128 x 128 x 80 mm</b>
Number of parts	2
Entry fields	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	•
<b>Art. No.</b>	<b>1295-02</b>
Inner packaging/shipping	- / 10

### One-gang box

- equipment can be aligned at any time by using to M 3.5 slide nuts
- Certified to BS 4662



<b>Depth</b>	<b>60 mm</b>
Screw spacing	60,3 mm
Installation opening	68 x 68 mm
Markings for cables and DIN EN conduits up to Ø 32 mm	4
Number of parts	2
<b>Art. No.</b>	<b>1223-41</b>
Inner packaging/shipping	- / 100

### Two-gang box

- equipment can be aligned at any time by using to M 3.5 slide nuts
- Certified to BS 4662



<b>Depth</b>	<b>60 mm</b>
Screw spacing	120,6 mm
Installation opening	68 x 128 mm
Markings for cables and DIN EN conduits up to Ø 32 mm	6
Number of parts	2
<b>Art. No.</b>	<b>1224-41</b>
Inner packaging/shipping	- / 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



<b>Art. No.</b>	<b>1224-99</b>
Inner packaging/shipping	- / 100



# International products

for accessory installation in accordance with national standards

## One-gang box combinations (Swiss standard)

· incl. stabilising cover



Length x Width x Depth	78 x 78 x 58 mm	130 x 70 x 70 mm	196 x 70 x 55 mm	250 x 70 x 70 mm
Combination	-	2x1	3x1	4x1
Break-out openings Ø 20 mm	9	-	10	-
Combination conduit entries M20/25	2	8	4	22
CE	•	•	•	•
Art. No.	9918	9922	9923	9924.40
Inner packaging/shipping	- / 50	- / 50	- / 10	- / 25

## One-gang box combinations (Swiss standard)

· incl. stabilising cover



Length x Width x Depth	130 x 130 x 70 mm	190 x 130 x 70 mm	250 x 130 x 70 mm	190 x 190 x 70 mm
Combination	2x2	3x2	4x2	3x3
Combination conduit entries M20/25	16	20	24	24
CE	•	•	•	•
Art. No.	9924	9926	9928	9929
Inner packaging/shipping	- / 5	- / 5	- / 5	- / 5

## Prefix® concrete building box



3D animation

Exit opening Ø	30 mm
Depth	97 mm
Combination	1x1
CE /  650 °C	• / •
	•
Art. No.	9940
Inner packaging/shipping	- / 10

## Separator walls

- for separating junction casings from electrical circuit
- can be retrofitted
- Halogen-free



<b>for casing size</b>	<b>180 x 180 mm</b>	<b>250 x 220 mm</b>
<b>Art. No.</b>	<b>1296-20</b>	<b>1297-20</b>
Inner packaging/shipping	- / 10	- / 10

## Cover

- flat cover edge
- surface roughened
- countersunk for screw heads




<b>For casing size - flush-mounting boxes</b>	<b>107 x 107 mm</b>	<b>159 x 159 mm</b>	<b>238 x 208 mm</b>
For casing size - cavity wall boxes	107 x 107 mm	165 x 165 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
<b>Art. No.</b>	<b>1095-93</b>	<b>1096-93</b>	<b>1097-93</b>
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



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

## Universal waterproof cover

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



<b>Diameter</b>	<b>90 mm</b>
Screw spacing	67 mm
Fireproof	850 °C
<b>Art. No.</b>	<b>1174-99</b>
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



Length x Width x Height	- x - x 5 mm	86 x 86 x 4 mm
Diameter	98 mm	-
Colour	RAL 9010	RAL 9010
CE	•	•
Art. No.	11081	11086
Inner packaging/shipping	- / 10	- / 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	•	•
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

<b>Art. No.</b>	<b>1270-00</b>	<b>9060-95</b>
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



<b>Diameter</b>	<b>35 mm</b>	<b>60 mm</b>
<b>Art. No.</b>	<b>1148-93</b>	<b>1259-96</b>
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



<b>Diameter</b>	<b>5,5 mm</b>
<b>Art. No.</b>	<b>1217-02</b>
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 B<sup>2</sup> range



<b>Diameter</b>	<b>60 mm</b>
<b>Art. No.</b>	<b>1220-02</b>
Inner packaging/shipping	- / 5

# Concrete and cavity wall installation housings



## The most important advantages at a glance:

- Provides the scope and security for designing, planning and installing modern building technology
- For light, sound and other building functions
- Can be fitted in ceilings and walls
- Modular, universal, flexible
- Ideal for use with the products of leading manufacturers
- Housing systems for fire protection ceilings or energy-efficient buildings
- Shape retention and thermal safety according to the latest guidelines and standards
- Can be installed in prefabrications and with the on-site mixed concrete process or in facing concrete
- Innovative KSK technology allows conduit entry without special tools
- Wide range of system accessories
- Halogen-free



Product film  
[www.kaiser-elektro.org/installationhousing](http://www.kaiser-elektro.org/installationhousing)



## Concrete and cavity wall installation housings | Product lines





HaloX®-O system for on-site mixed concrete ceilings and walls	p. 182
HaloX®-P system for slab ceilings	p. 191
KompaX® system for on-site mixed concrete and slab ceilings	p. 197
KompaX® accessories	p. 208
Thermox® LED	p. 216
EnoX system for insulated cavity ceilings and cavity walls	p. 219
ThermoX® system for insulated cavity ceilings	p. 222
FlamoX® system for cavity ceilings fire-protection class F 30	p. 262

Tools for fitting installation housings in concrete can be found in the "Tools" section starting on page 298.










## Concrete installation housings

	 <b>System HaloX®</b> for halogen luminaires, LED luminaires and loud- speakers p. 182/191	 <b>System KompaX®1</b> for built-in downlights, LED luminaires and loudspeakers p. 198	 <b>System KompaX®2</b> for built-in downlights, LED luminaires and loudspeakers p. 201	 <b>System KompaX®3</b> for built-in downlights, LED luminaires and loudspeakers p. 204
<b>Ceiling exit</b>				
Ceiling exit (CE) Ø	up to 100 mm	160 - 300 mm	100 - 200 mm	100 - 200 mm
Use in <b>facing concrete</b>	•	•	•	•
For universal exit openings	•	•	•	•
<b>Installation option</b>				
Ceiling installation	•	•	•	•
Wall installation	•	-	-	•
<b>Concreting method</b>				
On-site mixed concrete	p. 182	p. 198	p. 201	p. 204
Prefabrication	p. 191	p. 199	p. 202	p. 205

## Installation housings for insulated cavity ceilings

	 <b>System ThermoX® LED</b> for rigid and pivoting LED built-in luminaires p. 216	 <b>System ThermoX®</b> for low-voltage and high-voltage built-in luminaires p. 222	 <b>System EnoX®</b> for halogen spotlights, LED luminaires and displays p. 219
<b>Product details</b>			
For installation level	•	•	-
For use without installation level	-	-	•
Housing height	70 / 95 mm	90 mm	60 mm
Ceiling exit (CE) Ø	70 / 81 mm	up to max. 86 mm	up to max. 120 mm
<b>Installation options</b>			
Retrofitting	•	•	-
Wall installation	-	-	•

## Installation housings for fire-protection ceilings

	 <b>System FlamoX®</b> for luminaires and loudspeakers p. 262	 <b>System FlamoX® E</b> for luminaires and loudspeakers p. 265
<b>Installation dimensions for luminaires and loudspeakers</b>		
Exit opening	bis max. 100 / 180 mm	bis max. 240 mm
For universal exit openings	•	•
Luminaire installation depth	up to max. 85 mm	up to max. 200 mm
<b>Installation</b>		
Retrofitting	• *)	• *)
In self-supporting sub-ceilings F30	•	•
In category I-III ceilings	•	•
Installation without additional suspension	•	-
Installation without additional fire-protec- tion materials or sealing compounds	•	-

\*) Weight forces must be adapted to match the ceiling type

# HaloX®-O system for on-site mixed concrete ceilings and walls

for halogen luminaires, LED luminaires and loudspeakers

## HaloX®-O system overview

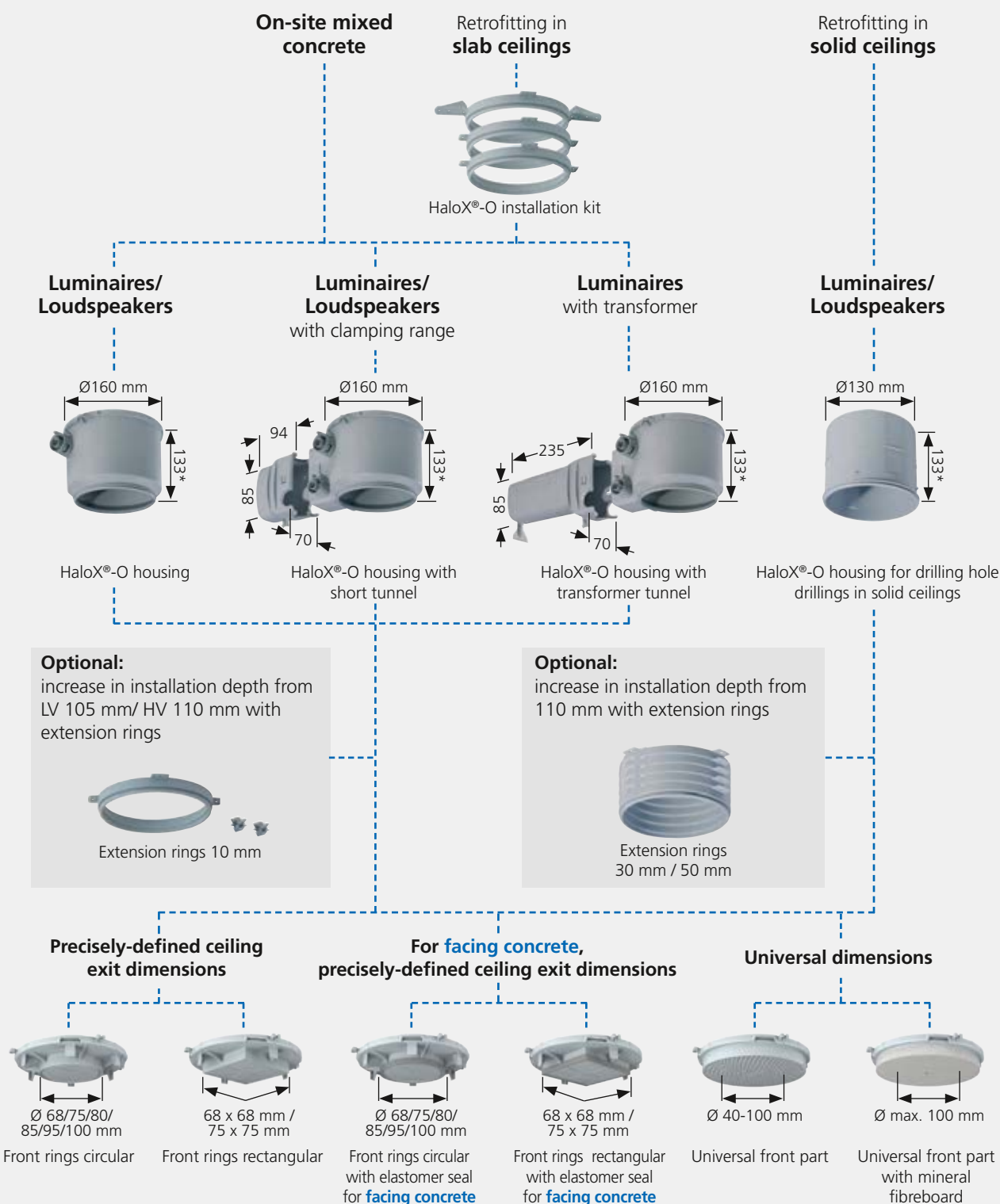
The HaloX®-O system is made up of various components which can be individually assembled according to use. Select the required components as follows:

### 1 Ceiling type and installation system

### 2 Accessory type/application

### 3 Installation depth

### 4 Ceiling exit



\*Dimensioning incl. front part

## HaloX®-O concrete installation housing

HaloX®-O concrete installation housing for halogen luminaires and loudspeakers. Round and square front parts, front parts with mineral fibre-boards, front parts for facing concrete, short tunnels, transformer tunnels and accessories permit a wide range of installation options.

- For ceilings of 16 cm thickness and greater
- 45% more volume than previous model
- HaloX® 40 tunnel for optimal statics
- Transformer flap protects from overheating
- For ceiling exits up to Ø 100 mm
- For fixed and swivelling luminaires



### Installation technology for low-voltage and high-voltage luminaires



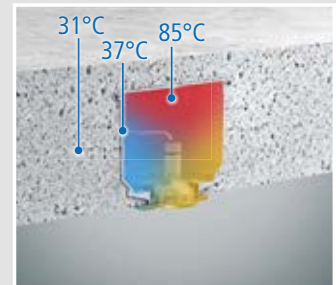
**Luminaire selection:**  
**halogen, low-voltage (12 V)**  
Installation depth: max.  
105 mm (without extension  
ring).



**Temperature profile:**  
**room temperature (23°C)**  
50 W QR-CBC 51 (cool beam  
with protective screen).



**Luminaire selection:**  
**halogen, high-voltage (230 V)**  
Installation depth max.  
110 mm (without extension  
ring).

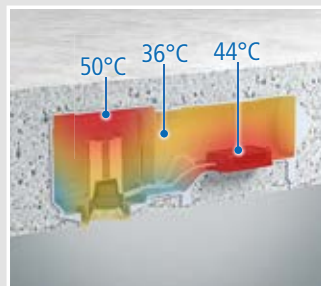


**Temperature profile:**  
**room temperature (23°C)**  
50 W lamp with GZ10/GU10  
base.

### Installation technology for LED luminaires



**Luminaire selection LED (17 W)**  
Installation depth  
max. 110 mm.



**Temperature profile:**  
**room temperature (23°C)**  
LED (17 W)



### Note

Because of the considerable undershooting of the limit temperatures, higher system performances are possible. If you have questions, please contact our technical department (0049.2355.80961).

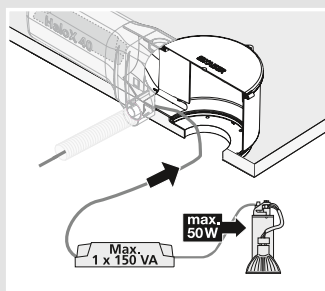
### Technical processing instructions/standards

- use only certified (EN 60598) luminaires which are suitable for direct installation on normally flammable materials
- use heat-resistant cable for the SEC side
- Use of electronic transformers (rounded shape) possible for opening size of Ø 68 mm or larger!
- Installation with front part only.

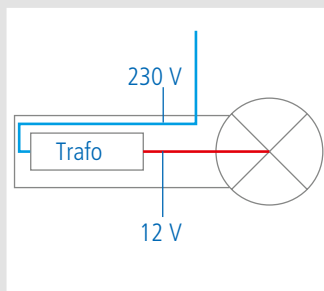
# HaloX®-O system for on-site mixed concrete ceilings and walls

for halogen luminaires, LED luminaires and loudspeakers

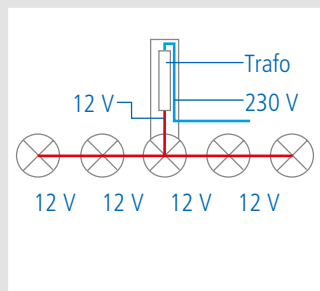
## Connection requirements and circuit examples for low-voltage luminaires



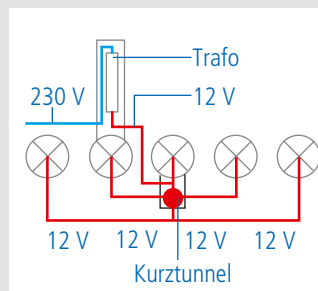
Insert transformer and close separator wall. Lamp power consumption must not exceed 50 W (e.g. QR CBC 51). PRI 200-250 mm NYM cable in tunnel possible SEC (N2GMH 2G) 200-250 mm.



1290-41, 1 x 50 W



With 3–5 junction points, no junction box is needed on the primary side because extra-low voltages and low voltages are safely isolated from each other. 1 x 1290-41, 4 x 1290-40, 5 x 20 W



Housing with transformer tunnel, 1 housing for connection of secondary side plus 3 luminaire housings. 1 x 1290-41, 1 x 1290-42 and 3 x 1290-40, 5 x 20 W

## Housing assembly



Use nails to fasten the front part to the formwork.



Fit the housing and open the KSK combination entry with one blow of the hammer.



Insert conduits (Ø 20 mm or Ø 25 mm) as far as they will go.

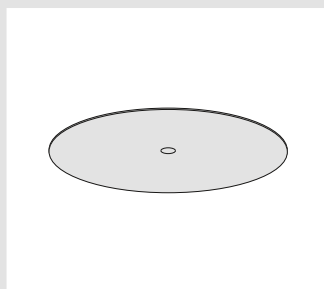


Then fasten the installed housing to the reinforcement with wires if necessary.

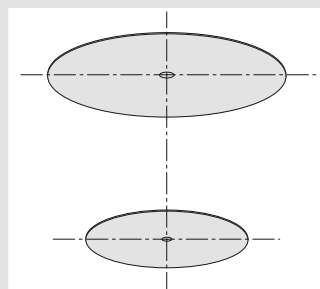
## Final assembly of front part with mineral fibreboard



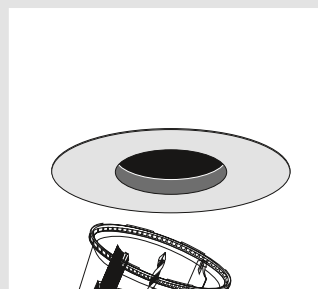
HaloX®-O front part with mineral fibreboard



After stripping, the mineral fibreboard is visible in the concrete ceiling



Mark centres of the cut-outs.



Cut the required ceiling cut-out using VARIOCUT or cavity wall cutter.

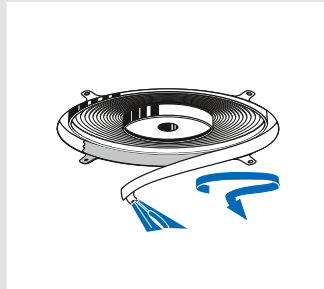
# HaloX®-O system for on-site mixed concrete ceilings and walls

for halogen luminaires, LED luminaires and loudspeakers

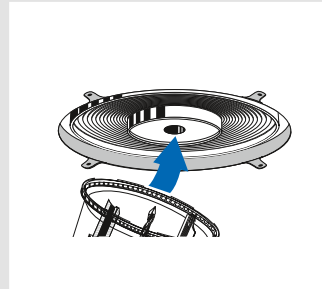
## Final assembly of universal front part



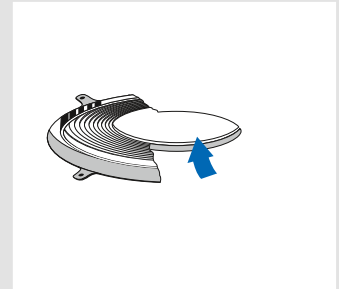
HaloX®-O universal front ring



After stripping, cut the outer edge of the front ring and pull off in the direction of the arrow.



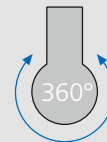
Make cut-out at the marked exit or for multi-purpose use with VARIOCUT. Ø: 40, 45, 50, 55, 60, 68, 75, 80, 85, 90, 95 and 100 mm.



Fill in or plaster pre-treated remaining surface (e.g. with thinned Styrofoam adhesive as primer) between concrete ceiling and cut-out. Then install luminaires.

## Transformer flap

The transformer flap guarantees thermal separation between the luminaire installation compartment and the transformer tunnel, and also protects the electronics against overheating.



Housings can be rotated by 360°

## HaloX®-O housing

- 1-piece
- Conduit entry limit to prevent inside shortening of the conduit



3D animation

<b>Depth incl. front part</b>	<b>133 mm</b>
Diameter	160 mm
max. installation height for low-voltage luminaires	105 mm
max. installation height for high-voltage luminaires	110 mm
Ceiling exit (CE) Ø	≤100 mm
M20/M25 impact couplings	2
Lamp wattage max.	50 Watt
<b>Art. No.</b>	<b>1290-40</b>
Inner packaging/shipping	- / 10

FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

CABLE GLANDS

TOOLS

SERVICE



# HaloX®-O system for on-site mixed concrete ceilings and walls

for halogen luminaires, LED luminaires and loudspeakers

## HaloX®-O housing with transformer tunnel

- with HaloX®40 tunnel for optimum statics
- 2 parts with snap-in connection
- Conduit entry limit to prevent inside shortening of the conduit
- Transformer tunnel for 1 electronic safety transformer up to 150 VA SELV, slim or rounded shape (e.g. PC mouse shape) with thermal separation from luminaire installation space
- NYM cables can be inserted into the transformer section
- use heat-resistant cable for the SEC side



## HaloX®-O housing with short tunnel

- 2 parts with snap-in connection
- combination entry with conduit entry limitation in order to prevent the conduit being shortened on the inside
- Short tunnel as terminal housing, etc., with thermal separation from luminaire installation space
- NYM cables can be inserted into the transformer section
- use heat-resistant cable for the SEC side



<b>Depth incl. front part</b>	<b>133 mm</b>	<b>133 mm</b>
Diameter	160 mm	160 mm
Length of transformer	235 mm	94 mm
Width of transformer	70 mm	70 mm
Depth of transformer tunnel	85 mm	85 mm
max. installation height for low-voltage luminaires	105 mm	105 mm
max. installation height for high-voltage luminaires	110 mm	110 mm
Ceiling exit (CE) Ø	<=100 mm	<=100 mm
M20/M25 impact couplings	4	4
Lamp wattage max.	50 Watt	50 Watt
<b>Art. No.</b>	<b>1290-41</b>	<b>1290-42</b>
Inner packaging/shipping	- / 10	- / 10

## Front parts for HaloX®-O



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®-O system for on-site mixed concrete ceilings and walls

for halogen luminaires, LED luminaires and loudspeakers

## HaloX®-O 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



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®-O front rings for square ceiling exit (CE)



Ceiling exit (CE) Ø	68 x 68 mm	75 x 75 mm
Min. luminaire covering Ø	75 x 75 mm	82 x 82 mm
Art. No.	1281-08	1281-09
Inner packaging/shipping	- / 10	- / 10

Front parts with an elastomer seal ensure sharp outline ceiling cutouts in facing concrete.



without elastomer seal



with elastomer seal

## HaloX®-O front parts for square ceiling exit (CE), for facing concrete

- in facing concrete version
- elastomer seal with flexible sealing edge
- prevents ingress of concrete, discolouring and sand blast dust



Ceiling exit (CE) Ø	68 x 68 mm	75 x 75 mm
Min. luminaire covering Ø	75 x 75 mm	82 x 82 mm
Art. No.	1281-68	1281-69
Inner packaging/shipping	- / 8	- / 8

# HaloX®-O system for on-site mixed concrete ceilings and walls

for halogen luminaires, LED luminaires and loudspeakers

## HaloX®-O universal front ring for ceiling exit (CE)

- variable ceiling exit (CE)
- ceiling exit fully variable up to Ø 100 mm
- flush finish with ceiling in facing concrete by filling in remaining surface (first treat remaining surface with e.g. diluted Styrofoam glue, Betokontakt)



<b>Ceiling exit (CE) Ø</b>	<b>40-100 mm</b>
----------------------------	------------------

<b>Art. No.</b>	<b>1281-10</b>
-----------------	----------------

Inner packaging/shipping	- / 10
--------------------------	--------

## HaloX®-O universal front ring for ceiling exit (CE)

- ceiling exit fully variable up to Ø 100 mm
- time-saving. No further working - surface may need to be smoothed
- Substitute mineral fibreboard for HaloX®-O (Art. No. 1299-27)



<b>Art. No.</b>	<b>1281-11</b>
-----------------	----------------

Inner packaging/shipping	- / 8
--------------------------	-------

## Replacement mineral fibreboard for HaloX®-O

- for Art. No. 1290-22



<b>Art. No.</b>	<b>1299-27</b>
-----------------	----------------

Inner packaging/shipping	- / 10
--------------------------	--------

# HaloX®-O system for on-site mixed concrete ceilings and walls

for halogen luminaires, LED luminaires and loudspeakers

## HaloX®-O installation kit

Retrofitting in slab ceilings

HaloX®-O installation kit can be retrofitted in finished slab ceilings (thickness of 50 mm and greater) with or without a transformer tunnel. Observe the ceiling thickness and the physical construction changes to the ceiling structure (e.g. fire protection and statics).

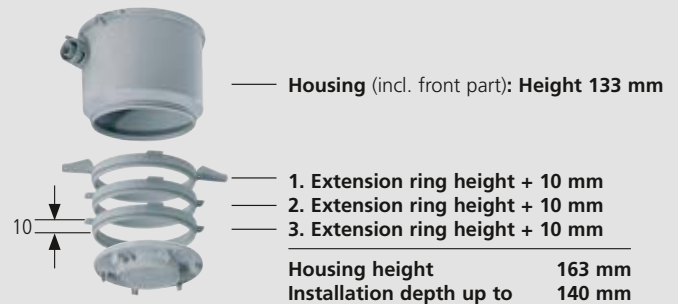
- For retrofitting in filigree ceilings
- Minimal interference with statics
- It is easy to make short-term planning changes
- Large selection of opening sizes up to Ø 100 mm
- Extension rings for bridging the slab ceiling element and for increasing the luminaire installation depth



### Note



For slabs thicker than 50 mm, the housing can be expanded in 10 mm steps using the extension ring.



### HaloX®-O installation kit assembly



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.



The fixed housing (fasten to the reinforcement with wires if necessary) now fits firmly and accurately.

### HaloX®-O Installation kit

- for retrofitting of HaloX®-O housings into slab ceilings
- required hole size Ø 150-160 mm



**Art. No.** 1290-11  
Inner packaging/shipping - / 10

# HaloX®-O system for on-site mixed concrete ceilings and walls

for halogen luminaires, LED luminaires and loudspeakers



## HaloX®-O in solid concrete ceilings

### Retrofitting into solid ceilings

HaloX®-O concrete installation housing for solid concrete ceilings can be inserted into existing and retrofitted drilling holes.

- For retrofitting in solid ceilings
- Minimal interference with 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 form-work board fitted underneath prevents the concrete from running out.

### HaloX®-O housing for drilling holes in solid ceilings

- for retrofitting in solid ceilings
- 1-piece
- 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



<b>Diameter</b>	<b>130 mm</b>
<b>Art. No.</b>	<b>1290-30</b>
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



<b>Height</b>	<b>10 mm</b>	<b>30 mm</b>	<b>50 mm</b>
Diameter	130 mm	130 mm	130 mm
with 2 distance pieces for tunnel support	•	-	-
<b>Art. No.</b>	<b>1290-14</b>	<b>1290-18</b>	<b>1290-19</b>
Inner packaging/shipping	- / 10	- / 10	- / 10



## HaloX®-P concrete installation housing

for slab ceilings/prefabrication

HaloX®-P concrete installation housing for halogen luminaires and loudspeakers in slab ceilings of 160 mm thickness and greater\*. The HaloX®-P system is versatile, stable and easy to install.

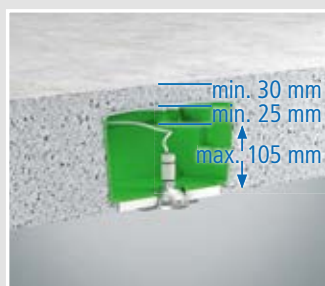
- For installation in concrete factories
- With KSK technology
- Transformer flap protects from overheating
- For ceiling exits up to Ø 100 mm with full measurement compensation



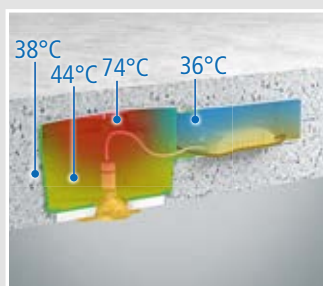
### Note

\* Overall thickness following completion of the ceiling when the concrete is mixed on site

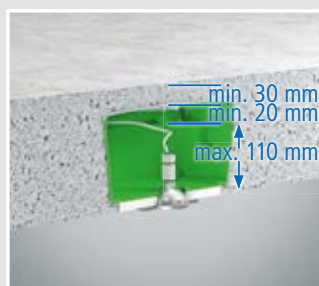
### Installation technology for low-voltage and high-voltage luminaires



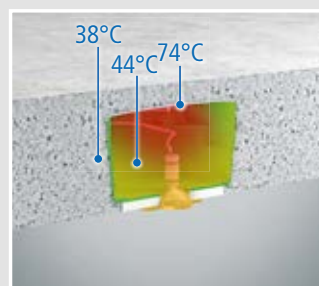
**Luminaire selection:**  
halogen, low-voltage (12 V)  
Installation depth max.  
105 mm.



**Temperature profile:**  
room temperature (23°C)  
50 W QR-CBC 51 (cool beam  
with protective screen).

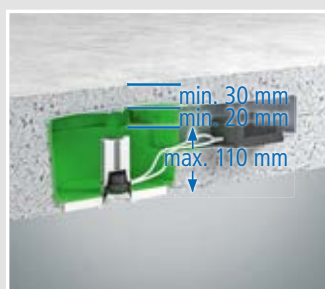


**Luminaire selection:**  
halogen, high-voltage  
(230 V)  
Installation depth max.  
110 mm.

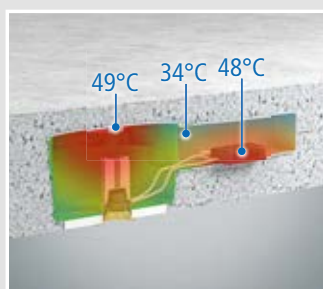


**Temperature profile:**  
room temperature (23°C)  
50 W lamp with GZ10/GU10  
base.

### Installation technology for LED luminaires



**Luminaire selection LED**  
(25 W)  
Installation depth max.  
110 mm.



**Temperature profile:**  
room temperature (23°C)  
LED (25 W)



### Note

Because of the considerable undershooting of the limit temperatures, higher system performances are possible. If you have questions, please contact our technical department (0049.2355.80961).

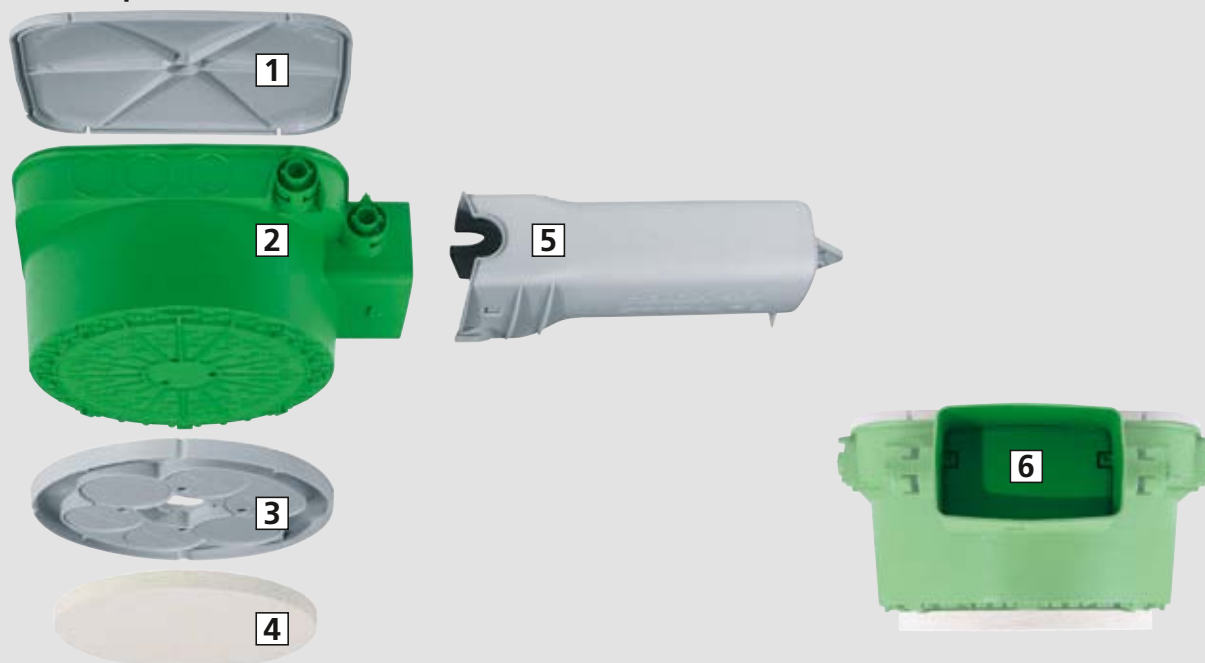
### Technical processing instructions/standards

- use only certified (EN 60598) luminaires which are suitable for direct installation on normally flammable materials
- use heat-resistant cable for the SEC side
- Use of electronic transformers (rounded shape) possible for opening size of Ø 68 mm or larger!
- Unevenness between plasterboard sheets in the slab ceiling can be compensated by cutting the openings with the VARIOCUT universal hole cutter.

# HaloX®-P system for slab ceilings

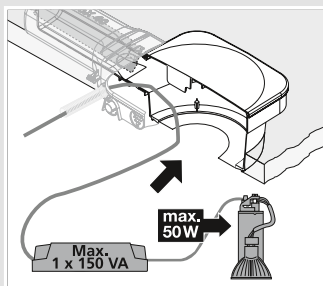
for halogen luminaires, LED luminaires and loudspeakers

## System components

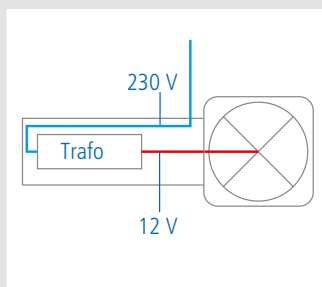


1 Rear part | 2 Housing | 3 Mounting plate | 4 Mineral fibreboard | 5 Transformer tunnel | 6 Transformer flap for thermal separation between luminaire installation area and transformer tunnel. Protects the electronic components against overheating.v

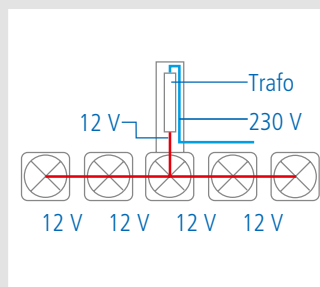
## Connection requirements and circuit examples for low-voltage luminaires



Insert transformer and close separator wall. Lamp power consumption must not exceed 50 W (e.g. QR CBC 51). PRI 200-250 mm NYM cable in tunnel possible SEC (N2GMH 2G) 200-250 mm.



1291-16/23/51, 1 x 50 W



1 x 1291-16/23/51 and 4 x 1291-15/22/50, 5 x 20 W

## Method 1: Installation with mineral fibreboard

This version is fixed to the formwork table and cast in in the concrete factory. After installation of the conduits and completion of the ceiling on the building site, mark out - correctly aligned - the ceiling cut-outs (CC). Then cut out the installation openings through the mineral fibreboard and the housing base. Luminaires and any necessary transformers can be fitted without further reworking (surface may need to be smoothed).



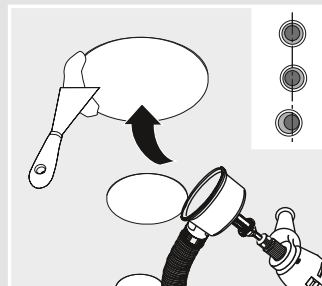
Installation in concrete factory: attach HaloX®-P housing with mineral fibreboard to formwork table using hot glue. Apply glue to at least 4 places!



On-site installation: open KSK technology with one blow of the hammer.



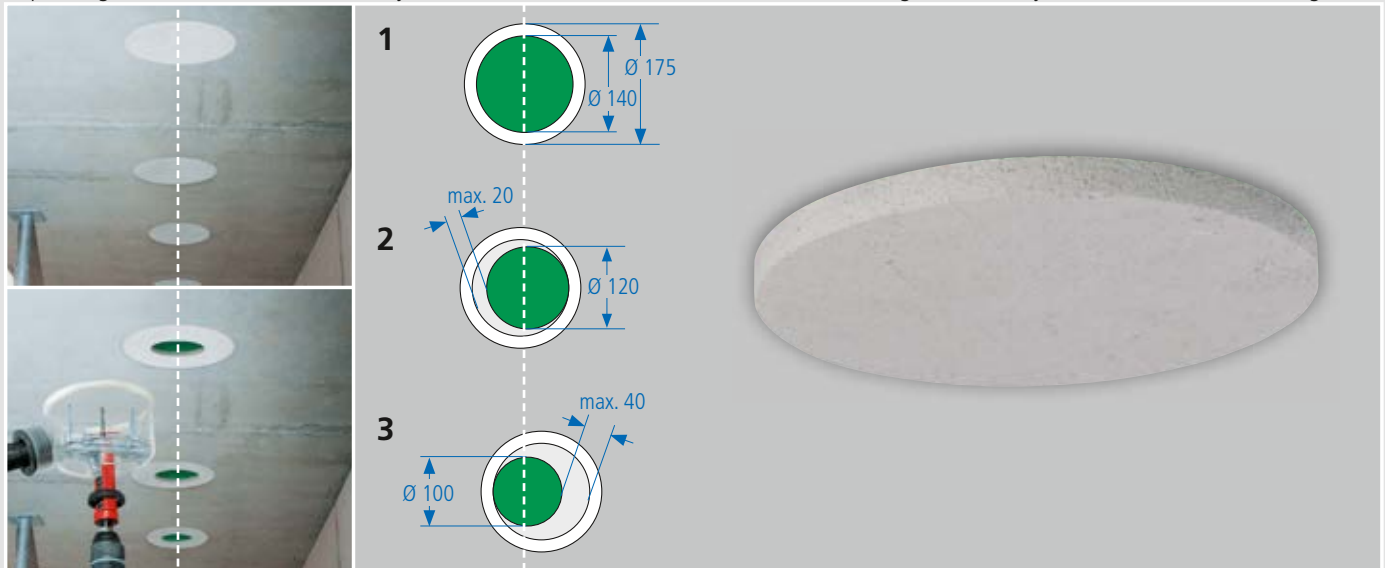
Insert conduits and concrete up.



Mark alignment and cut required installation opening in the board.

## HaloX®-P

The VARIOCUT universal hole cutter lets you cut variable installation openings in the mineral fibre front parts to the exact size required. Depending on the installation diameter, you can later correct inaccuracies which occur during the assembly or installation of slab ceilings.



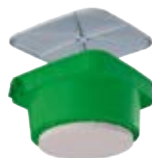
1 CE max. 140 mm without tolerance compensation | 2 CE max. 120 mm with 20 mm tolerance compensation (2 x 10 mm) | 3 CE max. 100 mm with 40 mm tolerance compensation (2 x 20 mm)

## Note

Rectangular or square ceiling exits can also be made. The max. permitted cut-out is based on the diagonal, which must not exceed the above diameters.

## HaloX®-P housing with mineral fibreboard

- Exit opening up to max. Ø 140 mm possible, for full tolerance compensation when installing slab ceiling elements up to Ø 100 mm
- 2-part
- saves time - no plastering; close joint gap if necessary
- Conduit entry limit to prevent inside shortening of the conduit



3D animation

**Length x Width x Depth** 226 x 226 x 133 mm

max. installation height for low-voltage luminaires 105 mm

max. installation height for high-voltage luminaires 110 mm

Ceiling exit (CE) Ø ≤ 100 mm

M20/M25 impact couplings 2

**Art. No.** 1291-22

Inner packaging/shipping - / 10

**Accessories:** Replacement mineral fibreboard, page 196

# HaloX®-P system for slab ceilings

for halogen luminaires, LED luminaires and loudspeakers

## HaloX®-P housing with mineral fibreboard and transformer tunnel

- 3-part
- Transformer tunnel for 1 electronic safety transformer up to 150 VA SELV, slim or rounded shape (e.g. PC mouse shape) with thermal separation from luminaire installation space
- NYM cables can be inserted into the transformer section
- saves time - no plastering; close joint gap if necessary
- Exit opening up to max. Ø 140 mm possible, for full tolerance compensation when installing slab ceiling elements up to Ø 100 mm



3D animation

<b>Length x Width x Depth</b>	<b>226 x 226 x 133 mm</b>
Length of transformer	235 mm
Width of transformer	85 mm
Depth of transformer tunnel	70 mm
max. installation height for low-voltage luminaires	105 mm
max. installation height for high-voltage luminaires	110 mm
Ceiling exit (CE) Ø	<= 100 mm
M20/M25 impact couplings	4
<b>Art. No.</b>	<b>1291-23</b>
Inner packaging/shipping	- / 10
<b>Accessories:</b> Replacement mineral fibreboard, page 196	





## Method 2: Installation with mounting plate

The housings are fixed to the formwork table and cast into the slab ceiling in the concrete factory. After installation of the conduit and completion of the ceiling on the building site, remove the mounting plates and mark out - correctly aligned - the ceiling cut-outs (CC). Then cut out the installation openings in the housing base and fill in the remaining backing surface.



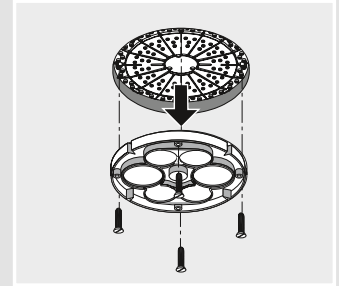
Attach HaloX®-P housing with mounting plate to the formwork table using at least 4 pieces of adhesive foil (1219-00).



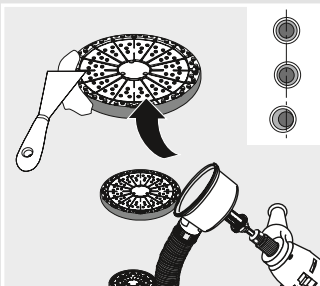
On-site installation: open KSK technology with one blow of the hammer.



Insert conduits and concrete up.



After completing the ceiling, unscrew the 4 fixing screws and remove the mounting plate.



Mark alignment and cut required installation opening in the board.



Clip the tunnel support onto the distance rod using the enclosed spacer.

## HaloX®-P Housing

- 2-part
- Exit opening up to max. Ø 140 mm possible, for full tolerance compensation when installing slab ceiling elements up to Ø 100 mm
- Make flush with ceiling by filling the remaining surface (pre-treat e.g. with diluted Styrofoam glue, Beto contact, etc.)
- Conduit entry limit to prevent inside shortening of the conduit



3D animation



### With mounting plate

Length x Width x Depth	226 x 226 x 133 mm	226 x 226 x 130 mm
Ceiling exit (CE) Ø	≤ 100 mm	≤ 100 mm
M20/M25 impact couplings	2	2
for fitting into existing on-site openings (without mounting plate)	-	•
<b>Art. No.</b>	<b>1291-15</b>	<b>1291-50</b>
Inner packaging/shipping	- / 10	- / 10



# HaloX®-P system for slab ceilings

for halogen luminaires, LED luminaires and loudspeakers

## HaloX®-P housing with transformer tunnel

- 3-part
- Exit opening up to max. Ø 140 mm possible, for full tolerance compensation when installing slab ceiling elements up to Ø 100 mm
- Transformer tunnel for 1 electronic safety transformer up to 150 VA SELV, slim or rounded shape (e.g. PC mouse shape) with thermal separation from luminaire installation space
- NYM cables can be inserted into the transformer section
- Make flush with ceiling by filling the remaining surface (pre-treat e.g. with diluted Styrofoam glue, Beto contact, etc.)



3D animation

### With mounting plate

Length x Width x Depth	226 x 226 x 133 mm	226 x 226 x 130 mm
Length of transformer	235 mm	235 mm
Width of transformer	85 mm	85 mm
Depth of transformer tunnel	70 mm	70 mm
M20/M25 impact couplings	2	2
for fitting into existing on-site openings (without mounting plate)	-	•
Ceiling exit (CE) Ø	<= 100 mm	<= 100 mm
<b>Art. No.</b>	<b>1291-16</b>	<b>1291-51</b>
Inner packaging/shipping	- / 10	- / 10

## Replacement mineral fibreboard

- for Art. Nos. 1291-22 and 1291-23



<b>Art. No.</b>	<b>1299-20</b>
Inner packaging/shipping	- / 10

## 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



- Built-in luminaires or loudspeakers
- Ceiling exits Ø 100–215 mm (prefabrication: Ø 100–200 mm)

### 2 Installation depth

**Optional:**  
increase in installation  
depth to max. 200 mm\*



Intermediate frame  
25/50 mm

**Optional:**  
increase in installation  
depth to max. 200 mm\*



Intermediate frame  
25/50 mm

**Optional:**  
increase in installation  
depth to max. 200 mm\*



Intermediate frame  
25/50 mm

### 3 Ceiling type

**On-site mixed  
concrete**

**Slab ceilings**  
for installation in  
concrete factories

**On-site mixed  
concrete**

**Slab ceilings**  
for installation in  
concrete factories

**On-site mixed  
concrete**  
(optional wall  
installation  
see below)

**Slab ceilings**  
for installation in  
concrete factories

### 4 Ceiling exit

Variable opening and  
tolerance compensation  
by means of mineral  
fibreboard

Variable opening by  
plastering the  
remaining surface

Variable opening  
through the use of  
individual front parts



1293-27



1293-28



1292-27



1292-28



1294-27



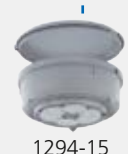
1294-28



1293-15



1292-35



1294-15



1293-00



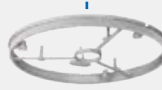
1292-00



1294-00



KompaX®  
front rings



KompaX®  
front rings with  
elastomer seal for  
**facing concrete**



Individual  
styrofoam  
moulded parts



Individual styrofoam  
moulded parts with  
elastomer seal for  
**facing concrete**



Replacement  
mineral  
fibreboards  
for KompaX®

**Optional for KompaX® 3:**



Installation kit for wall installa-  
tion in vertical formwork

\*) for 200 mm and greater, please contact us

FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

CABLE GLANDS

TOOLS

SERVICE

# KompaX® 1 system for concrete ceilings

for built-in luminaires and loudspeakers



## KompaX® 1 concrete installation housing for on-site mixed concrete and prefabrication (slab ceilings)

KompaX® 1 housing system for fitted downlights and loudspeakers in concrete ceilings with wide range of accessories for almost all applications. Height-adjustable with 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



### 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 better system performance is possible with an intermediate frame)

### Technical processing instructions/standards

- for ceiling thicknesses from 18 cm 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.
- asymmetric version for low-loss (VVG) and electronic (EVG) ballast devices

### 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

<b>Length x Width x Depth</b>	<b>585 x 440 x 131 mm</b>
Ceiling exit (CE) Ø	160-300 mm
Lamp wattage max.	90 Watt
<b>Art. No.</b>	<b>1293-00</b>
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 ≤ 300 mm

Lamp wattage max. 90 Watt

**Art. No.** 1293-27

Inner packaging/shipping - / 5

**Accessories:** Replacement mineral fibreboards for KompaX® 1,2,3, page 207

## 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 ≤ 300 mm

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 ≤ 300 mm

Lamp wattage max. 90 Watt

**Art. No.** 1293-28

Inner packaging/shipping - / 5

**Accessories:** Replacement mineral fibreboards for KompaX® 1,2,3, page 207

# KompaX® 1 system for concrete ceilings

for built-in 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	•	-
<b>Art. No.</b>	<b>1293-13</b>	<b>1293-14</b>
Inner packaging/shipping	5 / 10	5 / 10

## KompaX® 1 front rings for ceiling exit (CE)

- Other dimensions and shapes (for ceiling exit) are available for fast delivery in the form of Styrofoam moulded parts.



Ceiling exit (CE) Ø	Min. luminaire covering Ø	Height	Art. No.	Inner packaging/shipping
<b>160 mm</b>	167 mm	14 mm	<b>1293-16</b>	- / 10
<b>165 mm</b>	172 mm	14 mm	<b>1293-66</b>	- / 10
<b>180 mm</b>	187 mm	14 mm	<b>1293-18</b>	- / 10
<b>190 mm</b>	197 mm	14 mm	<b>1293-19</b>	- / 10
<b>200 mm</b>	207 mm	14 mm	<b>1293-20</b>	- / 10
<b>215 mm</b>	222 mm	14 mm	<b>1293-71</b>	- / 10
<b>240 mm</b>	247 mm	14 mm	<b>1293-24</b>	- / 10
<b>300 mm</b>	307 mm	14 mm	<b>1293-30</b>	- / 10

## KompaX® 1 front rings for ceiling exit (CE) in facing concrete design

- 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



Ceiling exit (CE) Ø	Min. luminaire covering Ø	Height	Art. No.	Inner packaging/shipping
<b>160 mm</b>	172 mm	14 mm	<b>1293-80</b>	- / 10
<b>165 mm</b>	177 mm	14 mm	<b>1293-81</b>	- / 10
<b>180 mm</b>	192 mm	14 mm	<b>1293-82</b>	- / 10
<b>190 mm</b>	202 mm	14 mm	<b>1293-83</b>	- / 10
<b>200 mm</b>	212 mm	14 mm	<b>1293-84</b>	- / 10
<b>215 mm</b>	227 mm	14 mm	<b>1293-85</b>	- / 10
<b>240 mm</b>	252 mm	14 mm	<b>1293-86</b>	- / 10
<b>300 mm</b>	312 mm	14 mm	<b>1293-87</b>	- / 10



## KompaX® 2 concrete installation housing

for on-site mixed concrete and prefabrication (slab ceilings)

KompaX® 2 housing system for fitted downlights and loudspeakers in concrete ceilings with wide range of accessories for almost all applications. Height-adjustable with 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 downlights with TC lamps, lamp output max. 52 W\* (e.g. 1 x TC-TEL 42 W or 2 x TC-D 26 W). Use only built-in luminaires tested to EN 60598-1 suitable for direct 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 better system performance is possible with an intermediate frame)

### Technical processing instructions/standards

- for ceiling thicknesses from 18 cm 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.
- asymmetric version for low-loss (VVG) and electronic (EVG) ballast devices

### 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



<b>Length x Width x Depth</b>	<b>470 x 290 x 131 mm</b>
Ceiling exit (CE) Ø	100-200 mm
Lamp wattage max.	52 Watt
<b>Art. No.</b>	<b>1292-00</b>
Inner packaging/shipping	- / 10

# KompaX®2 system for concrete ceilings

for built-in luminaires and loudspeakers

## 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 ≤ 180 mm

Lamp wattage max. 52 Watt

**Art. No.** 1292-27

Inner packaging/shipping - / 10

**Accessories:** Replacement mineral fibreboards for KompaX® 1,2,3, page 207

## 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 ≤ 200 mm

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 ≤ 180 mm

Lamp wattage max. 52 Watt

**Art. No.** 1292-28

Inner packaging/shipping - / 10

**Accessories:** Replacement mineral fibreboards for KompaX® 1,2,3, page 207

## 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	•	-
<b>Art. No.</b>	<b>1292-13</b>	<b>1292-14</b>
Inner packaging/shipping	5 / 10	5 / 10

## KompaX® 2 front rings for ceiling exit (CE)

- Other dimensions and shapes (for ceiling exit) are available for fast delivery in the form of Styrofoam moulded parts.



Ceiling exit (CE) Ø	Min. luminaire covering Ø	Height	Art. No.	Inner packaging/shipping
100 mm	107 mm	14 mm	1292-01	- / 10
125 mm	132 mm	14 mm	1292-06	- / 10
145 mm	152 mm	14 mm	1292-10	- / 10
160 mm	167 mm	14 mm	1293-16	- / 10
165 mm	172 mm	14 mm	1293-66	- / 10
180 mm	187 mm	14 mm	1293-18	- / 10
190 mm	197 mm	14 mm	1293-19	- / 10
200 mm	207 mm	14 mm	1293-20	- / 10

## KompaX® 2 front rings in exposed 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



Ceiling exit (CE) Ø	Min. luminaire covering Ø	Height	Art. No.	Inner packaging/shipping
100 mm	112 mm	14 mm	1292-80	- / 10
125 mm	137 mm	14 mm	1292-81	- / 10
145 mm	157 mm	14 mm	1292-82	- / 10
160 mm	172 mm	14 mm	1293-80	- / 10
165 mm	177 mm	14 mm	1293-81	- / 10
180 mm	192 mm	14 mm	1293-82	- / 10
190 mm	202 mm	14 mm	1293-83	- / 10
200 mm	212 mm	14 mm	1293-84	- / 10

# KompaX<sup>®</sup>3 system for concrete ceilings and walls

for built-in luminaires and loudspeakers



## KompaX<sup>®</sup> 3 concrete installation housing

for on-site mixed concrete and prefabrication (slab ceilings)

KompaX<sup>®</sup> 3 housing system for fitted downlights and loudspeakers in concrete ceilings and walls with wide range of accessories for practically all applications. Height-adjustable with intermediate frame. The various front parts make it extremely practical.

- Housing system for fitted downlights and loudspeakers
- For on-site mixed concrete and prefabrication
- For walls and ceilings
- For installation openings of Ø 100–215 mm (on-site mixed concrete) and/or of Ø 100–200 mm (prefabrication)
- For device installation depths up to 200 mm\*
- For ceiling and wall thicknesses of 160 mm and greater\*
- Tolerance compensation during slab ceiling installation



### Luminaire selection

Built-in downlights with TC lamps, lamps max. 52 W\* (e.g. 1 x TC 42 W or 2 x TC-D 26 W). Use only certified (VDE or EN 60598) luminaires or those marked with  $\nabla$  or  $\nabla\nabla$ . Luminaire installation depth excluding intermediate frame max. 100 mm. Luminaire installation depth including intermediate frame max. 200 mm. (\*Even better system performance is possible with intermediate frame)

### Technical processing instructions/standards

- use only certified (EN 60598) luminaires which are suitable for direct installation on normally flammable materials
- for ceiling thicknesses from 18 cm up to 30 cm. Please contact us if the ceiling thickness is greater than 30 cm.
- luminaire installation heights up to 200 mm; please contact us for heights greater than 200 mm

### Note

\*For installation depths > 200 mm and ceiling thicknesses > 300 mm, please contact us. Telephone: +49 (0)2355.809.61

### KompaX<sup>®</sup> 3 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 1293-71, in facing concrete with front rings 1292-80 up to 1293-85



3D animation



Depth	111 mm
Diameter	300 mm
Ceiling exit (CE) Ø	100-215 mm
Lamp wattage max.	52 Watt
Art. No.	1294-00
Inner packaging/shipping	- / 10

## KompaX® 3 housing for on-site mixed concrete with mineral fibreboard

- for variable ceiling cut-outs up to 200 mm
- installation height for built-in luminaires or loudspeakers max. 100 mm
- consists of front ring, assembled mineral fibreboard and rear part



3D animation

<b>Depth</b>	<b>111 mm</b>
Diameter	300 mm
Ceiling exit (CE) Ø	≤ 200 mm
Lamp wattage max.	52 Watt
<b>Art. No.</b>	<b>1294-27</b>
Inner packaging/shipping	- / 10

**Accessories:** Replacement mineral fibreboards for KompaX® 1,2,3, page 207

## KompaX® 3 housing for slab ceilings

- for factory fitting
- consists of front and rear parts
- installation height for built-in luminaires or loudspeakers max. 100 mm
- for ceilings of 160 mm total thickness and greater



<b>Depth</b>	<b>111 mm</b>
Diameter	300 mm
Ceiling exit (CE) Ø	≤ 200 mm
Lamp wattage max.	52 Watt
<b>Art. No.</b>	<b>1294-15</b>
Inner packaging/shipping	- / 10

## KompaX® 3 housing for slab ceilings with mineral fibreboard

- for factory fitting
- for variable ceiling cut-outs up to 200 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 160 mm total thickness and greater



<b>Depth</b>	<b>111 mm</b>
Diameter	300 mm
Ceiling exit (CE) Ø	≤ 200 mm
Lamp wattage max.	52 Watt
<b>Art. No.</b>	<b>1294-28</b>
Inner packaging/shipping	- / 10

**Accessories:** Replacement mineral fibreboards for KompaX® 1,2,3, page 207



# KompaX®3 system for concrete ceilings and walls

for built-in luminaires and loudspeakers

## KompaX® 3 intermediate frame

- is clipped between the front and rear part of the KompaX® 3 housing



Increasing installation height	25 mm	50 mm
Art. No.	1294-13	1294-14
Inner packaging/shipping	- / 10	- / 10

## KompaX® 3 front rings for ceiling exit (CE) or wall exit

- Other dimensions and shapes (for ceiling exit) are available for fast delivery in the form of Styrofoam moulded parts.



Ceiling exit (CE) Ø	Min. luminaire covering Ø	Height	Art. No.	Inner packaging/shipping
100 mm	107 mm	14 mm	1292-01	- / 10
125 mm	132 mm	14 mm	1292-06	- / 10
145 mm	152 mm	14 mm	1292-10	- / 10
160 mm	167 mm	14 mm	1293-16	- / 10
165 mm	172 mm	14 mm	1293-66	- / 10
180 mm	187 mm	14 mm	1293-18	- / 10
190 mm	197 mm	14 mm	1293-19	- / 10
200 mm	207 mm	14 mm	1293-20	- / 10
215 mm	222 mm	14 mm	1293-71	- / 10

## KompaX® 3 front rings in exposed 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



Ceiling exit (CE) Ø	Min. luminaire covering Ø	Height	Art. No.	Inner packaging/shipping
100 mm	112 mm	14 mm	1292-80	- / 10
125 mm	137 mm	14 mm	1292-81	- / 10
145 mm	157 mm	14 mm	1292-82	- / 10
160 mm	172 mm	14 mm	1293-80	- / 10
165 mm	177 mm	14 mm	1293-81	- / 10
180 mm	192 mm	14 mm	1293-82	- / 10
190 mm	202 mm	14 mm	1293-83	- / 10
200 mm	212 mm	14 mm	1293-84	- / 10
215 mm	227 mm	14 mm	1293-85	- / 10

## Replacement mineral fibreboards for KompaX® 1,2,3



For Art. No.	Art. No.	Inner packaging/ shipping
1293-27	1293-97	- / 5
1293-28	1293-98	- / 5
1292-27	1292-97	- / 5
1292-28	1292-98	- / 5
1294-27	1294-97	- / 5
1294-28	1294-98	- / 5

## Installation in on-site mixed concrete wall (KompaX® 3)

The stabilising installation kit also enables KompaX® 3 housing to be installed in the wall. The housing must be fastened to the working formwork using at least 4 nails (possibility of installation on the opposing formwork must be clarified on-site). Attach the installation kit and any necessary intermediate frame to the housing. For additional security, attach the housing by the three lugs to the formwork using tensioning wire or cable ties, or, in the case of facing concrete, to the reinforcement. After removing the formwork, use a fretsaw to saw into the visible front part and then remove the installation kit to enable the luminaire or the loudspeaker to be mounted.



Pre-mount the housing with the installation kit.



Fasten to the formwork using tensioning wire and nails.



After removing the formwork: remove the bridges and open the front part.



Luminaires or loudspeakers can be installed.



Note: For installation thicknesses of over 150 mm, use as few intermediate frames as possible.

## KompaX® 3 Installation kit for wall installation

- Installation kit for fitting into walls in vertical formwork for the KompaX® 3 housings
- 2-piece, consists of support element and seating bearing



For luminaire or loudspeaker installation height	Art. No.	Inner packaging/ shipping
100 mm	1294-91	- / 1
125 mm	1294-92	- / 1
150 mm	1294-93	- / 1
175 mm	1294-94	- / 1
200 mm	1294-95	- / 1



## 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 (created using universal opening cutter 1085-80)



For conduits to DIN EN outer Ø	20 mm	25 mm
<b>Art. No.</b>	<b>1274-20</b>	<b>1274-25</b>
Inner packaging/shipping	25 / 100	25 / 100

### Threaded connecting pieces for inch conduits

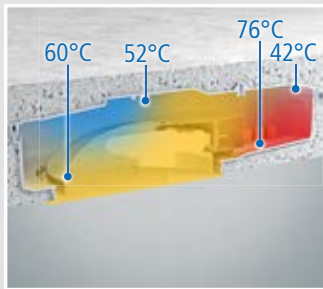
- for insertion of smooth and corrugated 5/8" and 3/4" conduits
- For use in HaloX®-O and HaloX®-P
- in 1274-20 and 1274-25 conduit stoppers



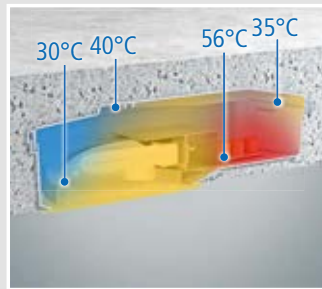
for inserting smooth and corrugated conduits	5/8", 3/4"
<b>Art. No.</b>	<b>1074-04</b>
Inner packaging/shipping	20 / 100

# KompaX® system - technical information

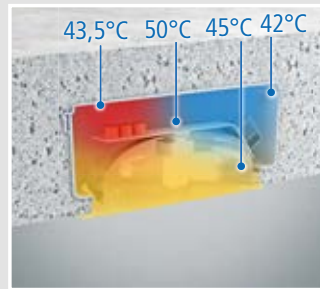
## Temperature profile KompaX® 1, 2, 3 (room temperature 22°C)



**KompaX® 1**  
3 x TC-D 26 W, sealed version  
of luminaires (matt safety glass  
disc)



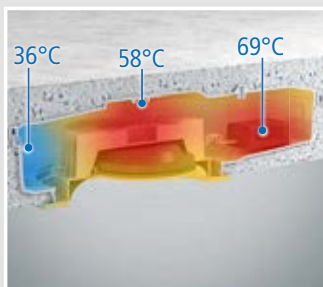
**KompaX® 2**  
2 x TC-D 18 W, sealed version  
of luminaires (matt safety glass  
disc)



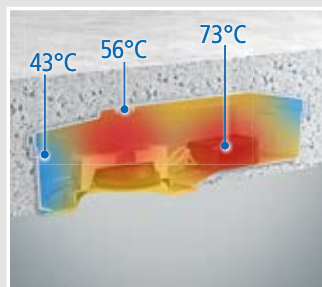
**KompaX® 3**  
1 x TC 42 W: sealed version of  
luminaires (matt safety glass  
disc)



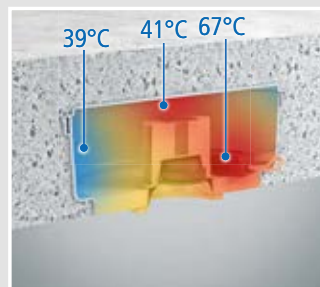
## Temperature profile KompaX® 1, 2, 3 (room temperature 22°C)



**KompaX® 1**  
LED (50 W)



**KompaX® 2**  
LED (41 W)



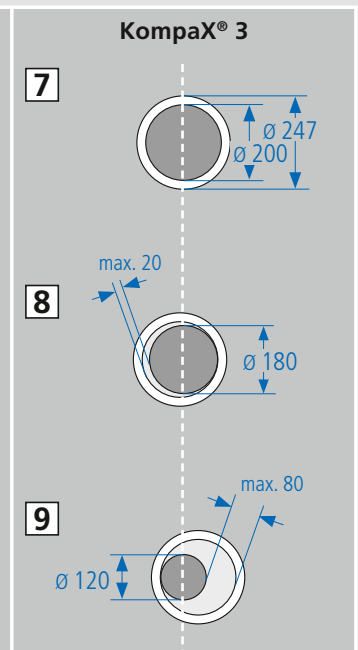
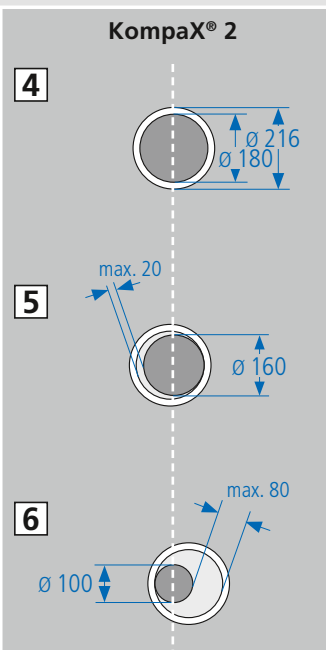
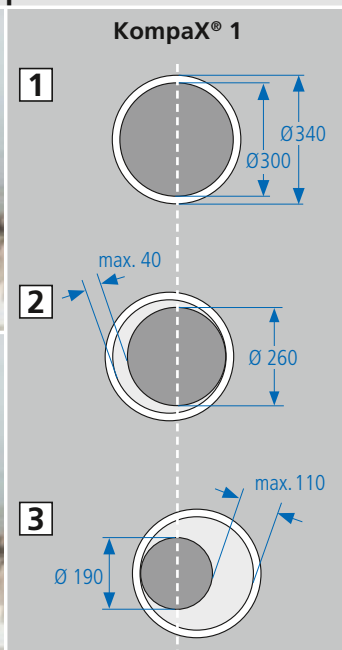
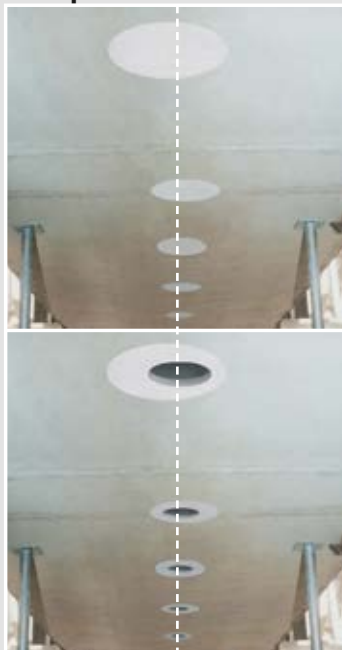
**KompaX® 3**  
LED (41 W)



### Note

Because of the considerable undershooting of the limit temperatures, higher system performances are 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) | 7 = CE max. 200 mm without tolerance compensation | 8 = CE max. 180 mm with 20 mm tolerance compensation (2 x 10 mm) | 9 = CE max. 120 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



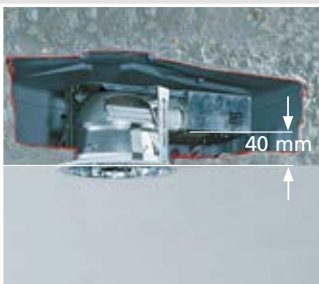
with elastomer seal



Examples of use

## Installation notes

For installation of luminaires with an asymmetrical equipment carrier (e.g. for ballast devices) or loudspeakers with audio processors etc., 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, 3)

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, mount the intermediate frame, then clip in the back 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 mounted.



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 element, 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 re-closing the housing. 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 corresponding front rings can be inserted or screwed on. Prime the remaining surface between concrete edge and front ring using thinned Styrofoam adhesive, e.g. Betokontakt, and smooth it off. Use the fretsaw to cut the installation opening. After plastering and/or painting the ceiling, install the luminaires or loudspeakers.



## KompaX® for on-site mixed concrete and prefabrication (slab ceilings)



FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

CABLE GLANDS

TOOLS

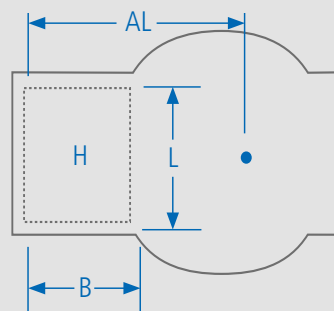
SERVICE



## Installation dimensions of 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



## Lamps

Options for using lamps

Lamp description	Short descriptions of the LBS (ZVEI)	Type of lamp	KompaX® 1	KompaX® 2	KompaX® 3
			max. power in watts		
<b>Compact fluorescent lights</b>	TC-S		≤ 90 W	≤ 52 W	≤ 52 W
	TC-L		≤ 90 W	≤ 52 W	≤ 52 W
	TC-D		≤ 90 W	≤ 52 W	≤ 52 W
	TC-T		≤ 90 W	≤ 52 W	≤ 52 W
	TC-F		≤ 90 W	≤ 52 W	≤ 52 W
	TC-DSE		≤ 90 W	≤ 52 W	≤ 52 W
	TC-DEL		≤ 90 W	≤ 52 W	≤ 52 W
	TC-TEL		≤ 90 W	≤ 52 W	≤ 52 W
	T16-R		≤ 90 W	≤ 52 W	≤ 52 W
<b>Halogen metal halide lamps</b>	HIT		≤ 70 W	≤ 70 W	≤ 70 W
	HIT-DE		≤ 150 W	≤ 150 W	
	HIT-CRI		≤ 70 W	≤ 70 W	≤ 70 W
	HIT-DE-CRI		≤ 150 W	≤ 150 W	
	HIT-CE		≤ 70 W	≤ 70 W	≤ 70 W
<b>Low voltage halogen</b>	QT 9		≤ 100 W	≤ 100 W	≤ 50 W
	QT 12		≤ 100 W	≤ 100 W	≤ 50 W
	QT 14		≤ 100 W	≤ 100 W	≤ 50 W
	QT 16		≤ 100 W	≤ 100 W	≤ 50 W
	QR-CBC		≤ 100 W	≤ 100 W	≤ 50 W
	QR-LP		≤ 100 W	≤ 100 W	≤ 50 W
<b>High voltage halogen</b>	QT 18		≤ 250 W	≤ 250 W	≤ 250 W
	QT 32		≤ 250 W	≤ 250 W	≤ 250 W
	QPAR		≤ 250 W	≤ 250 W	≤ 250 W
<b>LED</b>	all		LED	LED	LED

Higher wattages possible by using intermediate frames.  
Other lamp types on request.

## 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 on 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.






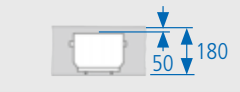
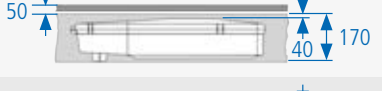


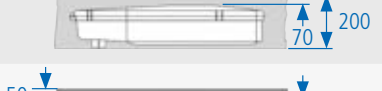

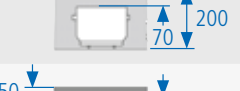
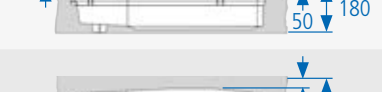
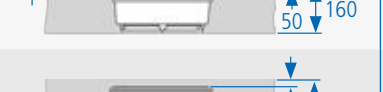

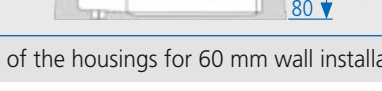
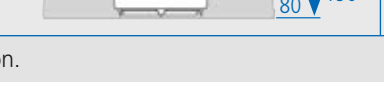
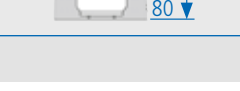
The creation of heat bridges leading to the 'dew point' being reached is avoided by the use of underfloor noise insulation panels and a top plaster layer or through heat insulating measures.

### 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)

	KompaX® 1	KompaX® 2	KompaX® 3
	18	10	5.6
<b>Volume increase by use of an intermediate frame, in dm³</b>			
Intermediate frame 25	5	2.5	1.4
Intermediate frame 50	10	5	2.8

	KompaX® 1/2	KompaX® 3*	HaloX®
EI 30 ceiling plastered			
EI 30 ceiling unplastered			
EI 60 ceiling plastered			
EI 60 ceiling unplastered			
EI 90 ceiling plastered			
EI 90 ceiling unplastered			

\*Minimum concrete covering of the housings for 60 mm wall installation.



# System ThermoX® LED for insulated hollow ceilings

For built-in LED luminaires



## 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

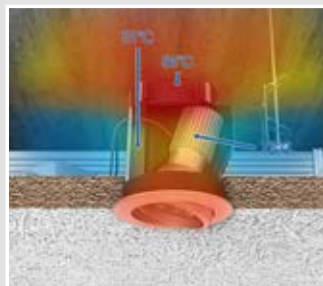
ThermoX® LED installation housings can be installed in slab and tiled ceilings and in seamless sub-ceiling constructions made of plasterboard, mineral fibreboard, Mdf board and plywood with wooden frame and exposed insulation.



### Temperature profiles ThermoX® LED (room temperature 25°C)



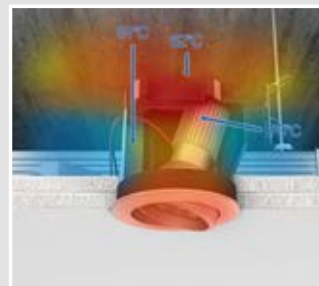
ThermoX® LED 9320-10  
LED 6.6 W



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 insulating material coating. This protective measure can be taken both for new constructions and for retrofittings. The LED housing allows for airtight installation because it does not destroy the vapour barrier foil that contributes to the airtight 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).

# System ThermoX® LED for insulated hollow ceilings

For built-in LED luminaires

## 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 (1083-99).



Installation of the operating device (driver).



Feed connector at the bottom through the bushing of the LED built-in 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 spread



Expanding pockets ensure secure fit for the built-in luminaire

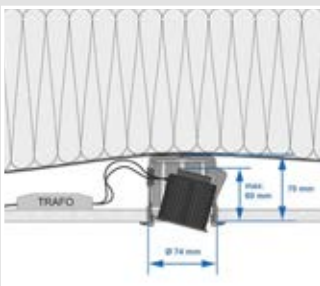


Swivel pocket permits targeted alignment of the built-in luminaire

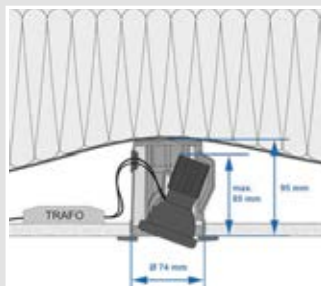


For ceiling-flush installation of ThermoX® LED (DA 86), use bi-metal cutter Ø 86 mm (Art. No. 1087-86)

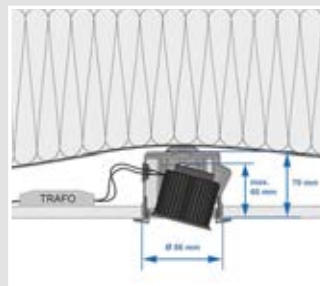
## Installation notes



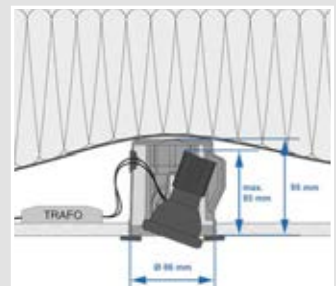
Art. No. 9320-10  
ThermoX® LED, 74 x 70 mm



Art. No. 9320-11  
ThermoX® LED, 74 x 95 mm



Art. No. 9320-20  
ThermoX® LED, Ø 86 x 70 mm



Art. No. 9320-10  
ThermoX® LED, 86 x 95 mm

# System ThermoX® LED for insulated hollow ceilings

For built-in LED luminaires

## Technical processing instructions/standards

- use only certified (EN 60598) luminaires which are suitable for direct installation on normally flammable materials

## INNOVATION

### ThermoX® LED housing

- for rigid and pivoting LED luminaires
- circumferential airtight sealing lip
- Swivel trough for alignment of the luminaire



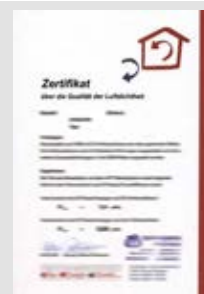
3D animation



Depth	70 mm	95 mm	70 mm	95 mm
installation from front, cut hole Ø	74 mm	74 mm	86 mm	86 mm
Cable entries	1	3	3	3
max. ceiling exit (DA) Ø	70 mm	70 mm	81 mm	81 mm
max. lamp output	6,6 Watt	9 Watt	8 Watt	10 Watt
max. installation depth for the LED luminaires	60 mm	85 mm	60 mm	85 mm
<b>Art. No.</b>	<b>9320-10</b>	<b>9320-11</b>	<b>9320-20</b>	<b>9320-21</b>
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

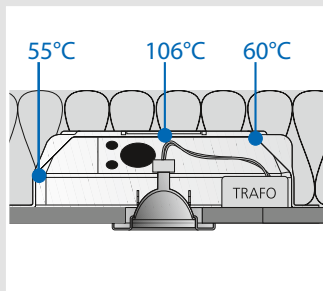
EnoX® housing for luminaires and other devices in ceilings and walls which are produced in a lightweight design with an air-tight building shell. Variable installation space when there is insufficient room to install electrics in the insulation level.

- 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
- Tool-free cable and conduit entry
- Thermally-protected installation space 300 x 200 x 55 mm
- ECON technology for air-tight and tool-free insertion
- FX4 technology for fast cavity wall installation

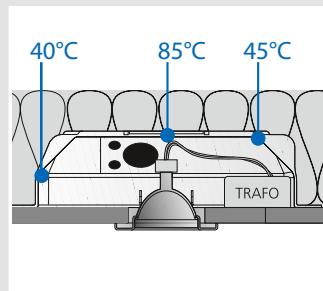


### Installation technology for low-voltage luminaires

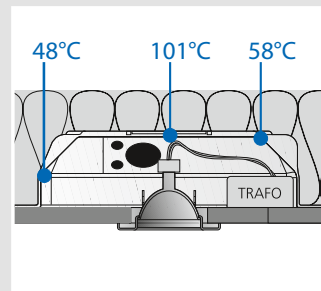
Temperature profile for room temperature 23°C



Low-voltage 35 W cool beam



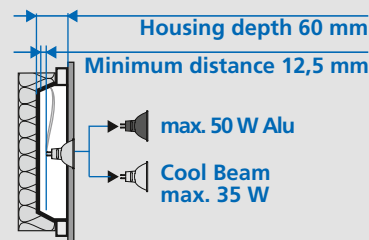
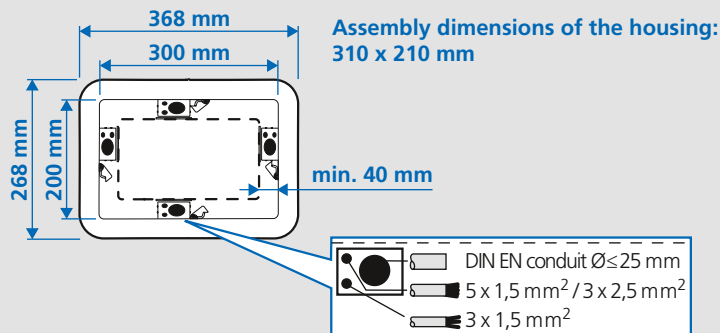
Low-voltage 35 W Alu



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



# System EnoX® for insulated hollow ceilings and cavity walls

## 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 out of the housing interior. When combined with the moisture barrier, the EnoX® housing now forms one unit to ensure air-tight installation in accordance with the EnEV energy-saving ordinance.



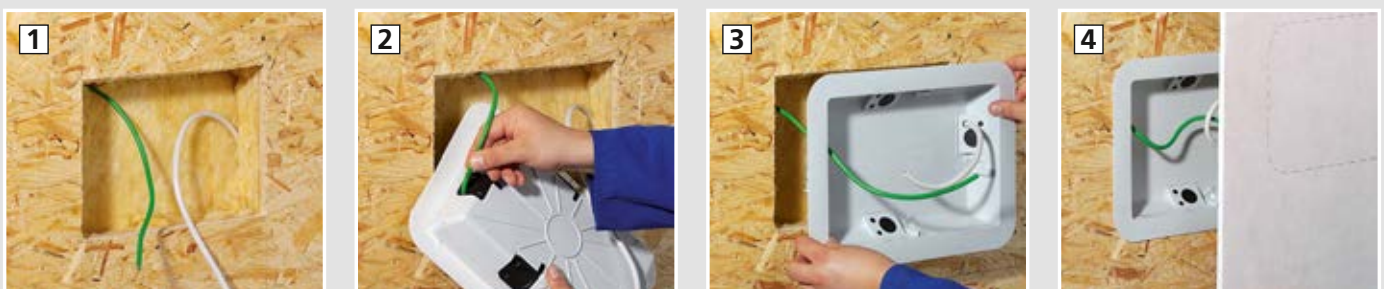
## Timber joist on the rafter



## 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)



<b>Length x Width x Depth</b>	<b>368 x 268 x 60 mm</b>
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 mm <sup>2</sup> or 5 x 1.5 mm <sup>2</sup>	4
Cable entries 3 x 1.5 mm <sup>2</sup>	4
<b>Art. No.</b>	<b>9350-21</b>
Inner packaging/shipping	- / 10

## EnoX® sealing foam frame

- for fixing onto the EnoX® housing
- for sealing the moisture barrier to the housing



**AIR-TIGHT**

<b>Art. No.</b>	<b>9350-99</b>
Inner packaging/shipping	- / 10

# ThermoX® system for insulated hollow ceilings

for halogen and LED built-in luminaires



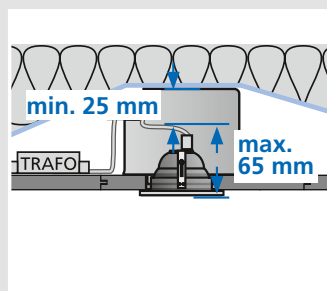
## ThermoX® installation housing

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.

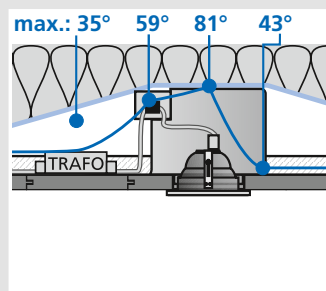
- Installation housing for halogen luminaires (low voltage and high voltage)
- Fire-preventive and air-tight
- For insulated hollow ceilings
- Two different front part types
- Integrated transformer closing cap
- Ceiling exits (CE) up to Ø 86 mm
- Installation from either above or below



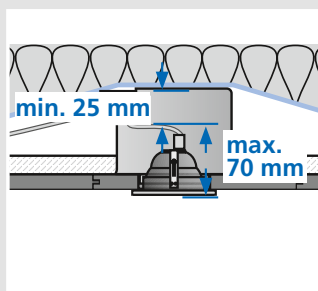
### Installation technology for low-voltage and high-voltage luminaires



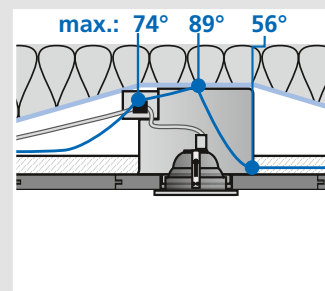
**Luminaire selection:**  
**halogen, low-voltage (12 V)**  
Usable lamps: cool beam max. 20 W, aluminium reflector max. 35 W



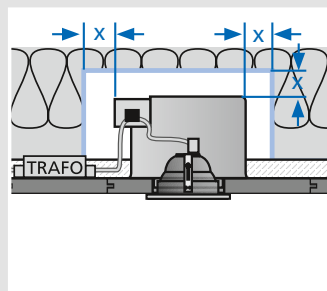
**Temperature profile:**  
**room temperature (23°C)**  
Aluminium reflector 35 W



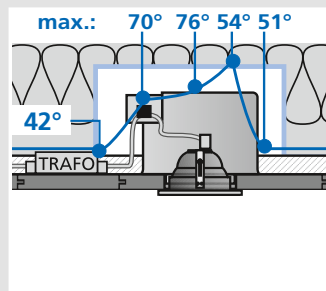
**Luminaire selection:**  
**halogen, high-voltage (230 V)**  
Usable lamps: cool beam max. 20 W, aluminium reflector max. 35 W



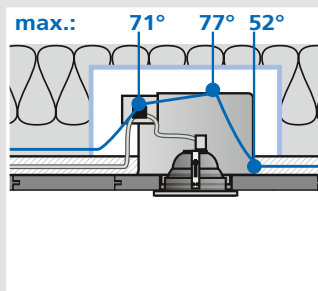
**Temperature profile:**  
**room temperature (23°C)**  
Aluminium reflector 35 W



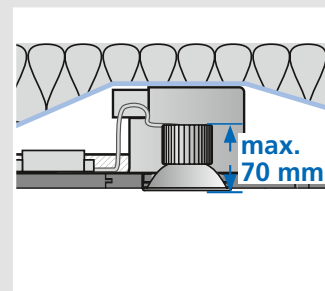
**Luminaire selection:**  
**halogen (12 V/high-voltage 230 V) x = min. 50 mm**  
Usable lamps with „x“: cool beam max. 35 W, aluminium reflector max. 50 W



**Temperature profile:**  
**halogen, low voltage (12 V)**  
Aluminium reflector 50 W



**Temperature profile,**  
**halogen, high voltage (230 V)**  
Aluminium reflector 50 W



**Use of pivoting LED built-in luminaires**  
up to 6.6 W/ET max. 70 mm

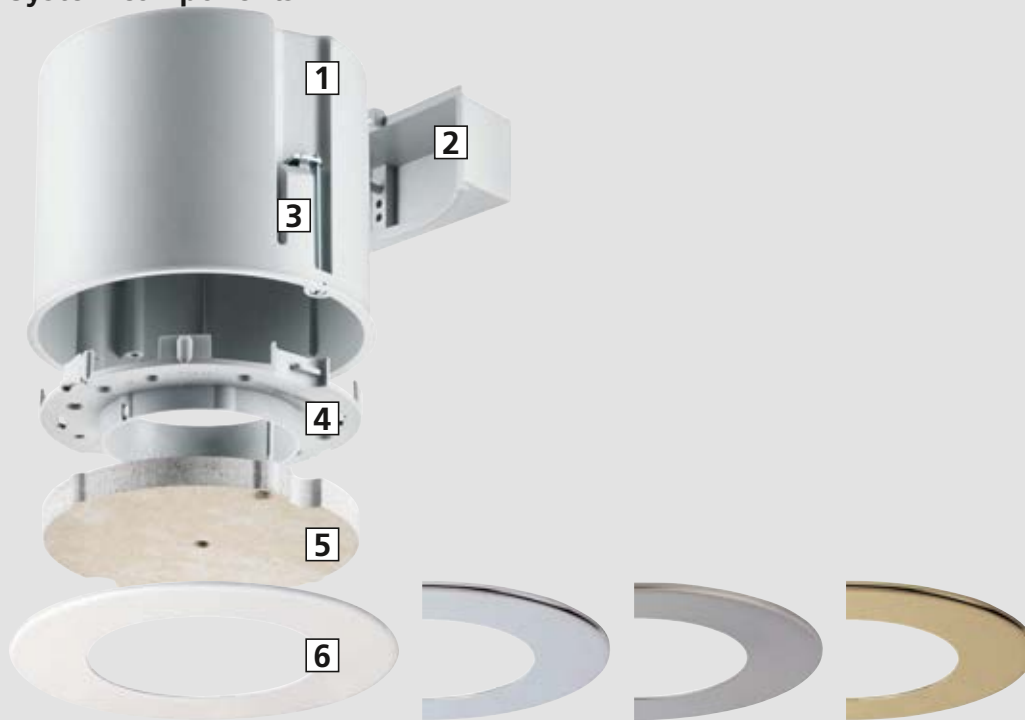
### Technical processing instructions/standards

- 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. T 100)
- Distance of holder and cable to the housing min. 10 mm

# ThermoX® system for insulated hollow ceilings

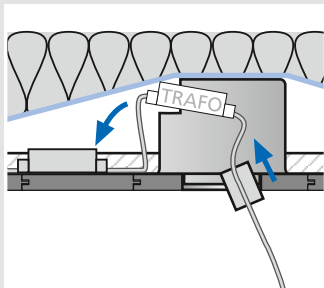
for halogen and LED built-in luminaires

## System components

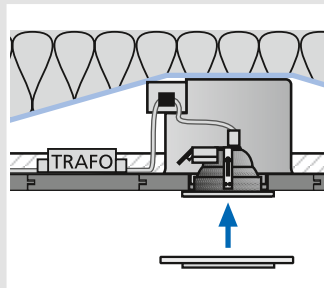


**1** Housing | **2** Closing cap of the operating device opening | **3** Quick fastening FX4 for cavity wall installation | **4** Front part with bayonet fitting (both sides can be used) | **5** Mineral fibre front part (for variable installation openings up to Ø 86) | **6** Decorative covering Ø 125 (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 (over 200°C). Never install the housing when 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. ThermoX® permits 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 is required (e.g. avoidance of dirt particles caused by material removal).

FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

CABLE GLANDS

TOOLS

SERVICE

# ThermoX® system for insulated hollow ceilings

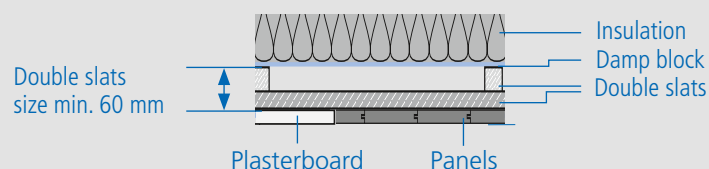
for halogen and LED built-in luminaires

## Mounting option



## Mounting instructions

ThermoX® installation housings can be fitted in slab or tiled ceilings, as well as in seamless sub-ceiling structures made of plasterboard, mineral fibreboard, MDF and plywood with cross-battening and a layer of insulation above. Installation can be carried out from above or below (e.g. retrofitting).



## Processing instructions



Use the universal opening cutter to make the precise and airtight 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.

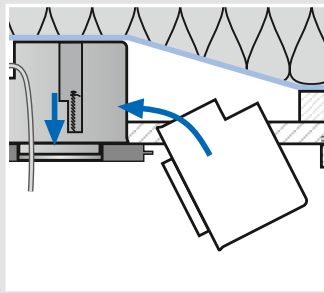


# ThermoX® system for insulated hollow ceilings

for halogen and LED built-in luminaires

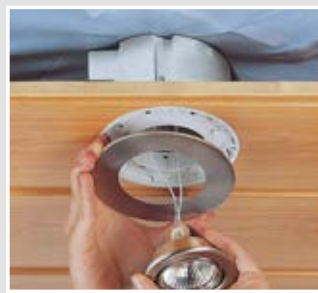
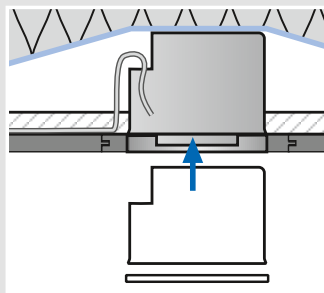
## Slab ceiling/installation from above: during ceiling installation

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.



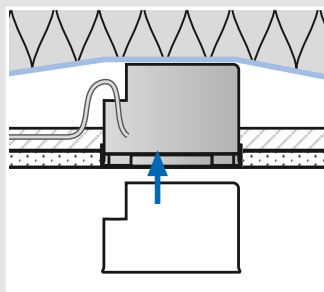
## Slab ceilings/installation from below: retrofitting

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.



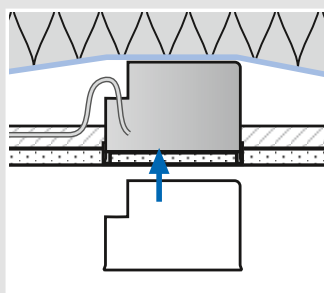
## Plasterboard/installation from below: retrofitting/smoothing

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.



FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

CABLE GLANDS

TOOLS

SERVICE



# 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



Depth	90 mm	90 mm	90 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
Ceiling exit (CE) Ø	68 mm	75 mm	82 mm
<b>Art. No.</b>	<b>9300-01</b>	<b>9300-02</b>	<b>9300-03</b>
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



Depth	90 mm
installation from front, cut hole Ø	120 mm
Ceiling exit (CE) Ø	<= 86 mm
<b>Art. No.</b>	<b>9300-22</b>
Inner packaging/shipping	- / 10

## ThermoX® individual front rings

- for retrofitting or as spare part



Ceiling exit (CE) Ø	68 mm	75 mm	82 mm
<b>Art. No.</b>	<b>9300-41</b>	<b>9300-42</b>	<b>9300-43</b>
Inner packaging/shipping	- / 10	- / 10	- / 10

## ThermoX® universal front ring

- for retrofitting or as spare part
- Universal front ring



Ceiling exit (CE) Ø	<= 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



Outer diameter	Ceiling exit (CE) Ø	Colour	Art. No.	Inner packaging/shipping
125 mm	68 + 75 mm	white	9301-01	- / 10
125 mm	68 + 75 mm	chrome	9301-02	- / 10
125 mm	68 + 75 mm	matt nickel	9301-03	- / 10
125 mm	68 + 75 mm	gold-plated	9301-04	- / 10
125 mm	82 mm	white	9301-11	- / 10
125 mm	82 mm	chrome	9301-12	- / 10
125 mm	82 mm	matt nickel	9301-13	- / 10
125 mm	82 mm	gold-plated	9301-14	- / 10





## The most important advantages at a glance:

- AFS - Active Fire Stop - guarantees fire protection
- Fire protection boxes HWD for fire protection walls and ceilings, and also shipbuilding walls
- Secure, visible and certified protection by using KAISER sealing systems for cables, conduits and bundled cables and conduits
- Automatic sealing of the joints and the gaps between cables - no filling and smoothing
- Europe-wide approval for fire sealings ETA-11/0188
- Smoke-tight and halogen-free
- Also for retrofitting
- No encasing necessary
- Reliable sealing of installation conduits by using KAISER sealing plugs






Product film  
[www.kaiser-elektro.org/fireprotection](http://www.kaiser-elektro.org/fireprotection)



## Fire protection | Product lines

Fire protection boxes EI30 - EI120	p. 231
Fire sealings for cavity walls, masonry and concrete	p. 246
Ceiling penetration seals	p. 257
Sealing plugs for easy sealing	p. 28/261/92
Fire protection boxes for ceilings EI30 - EI90	p. 241
Fire protection housings for luminaires and loudspeakers	p. 262
Installation housings for preventive fire protection in insulated ceilings	p. 216
Fire protection boxes for cabin walls in shipbuilding	p. 243
Tools for processing fire protection products can be found in the "Tools" section starting on page 284.	



	Fire protection boxes	Shipbuilding boxes	Sealings	Fire protection housings
				
<b>For installation accessories</b>				
One-gang boxes	p. 235 / 240	p. 244	-	-
One-gang junction boxes	p. 232 / 235 / 240	p. 245	-	-
One-gang boxes for thin boarding	-	p. 244	-	-
One-gang junction boxes for thin boarding	-	p. 245	-	-
Electronics box	p. 237	-	-	-
<b>For cable exits</b>				
Luminaire connection boxes	p. 242	-	-	-
<b>For luminaires and loudspeakers</b>				
Fire protection housings	-	-	-	p. 262
Housings for preventive fire protection in insulated ceilings	-	-	-	p. 216
<b>Feed-throughs</b>				
Feed-through of cables	-	-	p. 249	-
Feed-through of conduits	-	-	p. 250	-
Feed-through of bundled cables and conduits	-	-	p. 253	-
<b>Field of application</b>				
Wall	•	•	•	-
Ceiling	•	-	•	•
<b>Accessories</b>				
Fixing	p. 114	p. 114	-	-
Sealing of electrical installation conduits (air-tight and smoke-tight)	p. 28/261/92	p. 28/261/92	p. 28/261/92	p. 28/261/92
Support connectors	p. 235	p. 235	-	-
End cover	p. 242	p. 242	-	-

FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

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



### 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 plasterboard 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 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 fire protection walls EI30-EI120
- For minimum remaining wall thicknesses  $\leq 60$  mm
- Also for directly opposing installation
- Installation up to 5-unit combinations
- Variable combination connection piece for conduits up to M25
- With fire-protection cover can be used as a junction box



### Examples of use



For fire protection walls EI30-EI120



For one-sided (minimum remaining wall thicknesses  $\leq 60$  mm) and for directly opposing installation.



Installations possible up to 5-way combinations.



With fire-protection cover (1184-94) can also be used as a junction box.

### Processing instructions



The flush-mounting fire-protection box provides 6 entry opportunities for conduits up to M25 and cables up to Ø 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 fire-protection flush-mounting box can be installed in all fire-protection walls e.g. made of cellular concrete, sand-lime or vertically perforated chamber stones.

# Fire-protection boxes

## Installation



Make a Ø 82 mm cut hole with a grinding head (e.g. 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 5-way combination.



With the fire-protection cover (1184-94), the box can also be used as a junction box.


## INNOVATION

### Flush-mounting fire-protection box

- for fire-protection walls EI30 - EI120
- also for minimum remaining wall thickness ≤ 60 mm
- also for directly opposing installation
- with 4 screw domes and 2 expanding claw fields



3D animation

<b>Depth</b>	<b>60 mm</b>
Installation opening Ø	60 mm
Cable entries of up to Ø 11.5 mm	6
Halogen-free	•
Tube entries up to M25	6
ETA approval	applied for
 / 	• / •
<b>Art. No.</b>	<b>1564-01</b>
Inner packaging/shipping	10 / 100

## Cavity wall box HWD 90

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 fire-resistance duration 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 - EI20 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.



Attach 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 (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



FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

CABLE GLANDS

TOOLS

SERVICE

## 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.“

## 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 300 x 300 to 300 x 600 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.



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.



## One-gang box HWD 90

- for fire-protection walls EI30 - EI20
- also for installation shafts/installation channels I30 - I90



**FIRE-PROTECTION**



## One-gang junction box HWD 90

- for fire-protection walls EI30 - EI20
- also for installation shafts/installation channels I30 - I90



**FIRE-PROTECTION**



For panel thickness	7 - 40 mm	7 - 40 mm
Depth	44 mm	54,5 mm
Cut hole Ø	74 mm	74 mm
Cable entries of up to Ø 11.5 mm	2	4
Support connectors for each package	-	5
Halogen-free	•	•
DIBt approval	Z-19.21-1788	Z-19.21-1788
Combination distance through single separation of the pre-embossed edge	71 mm	71 mm
alternatively cable entry for three-phase alternating current of up to 5 x 2.5 mm possible	-	•
 / 	• / •	• / •
<b>Art. No.</b>	<b>9463-01</b>	<b>9464-01</b>
Inner packaging/shipping	10 / 100	10 / 100

**Accessories:** Fire-protection cover HWD 30-120, page 242; Support connector, page 235

## Support connector

- for through-wiring of combinations to IP 3X standard air-tight
- smoke-tight
- for Art. No. 9464-01, 9464-15, 9464-50



<b>Halogen-free</b>	•
<b>Art. No.</b>	<b>9060-78</b>
Inner packaging/shipping	25 / 100

## Fire-protection box HWD 90 for Swiss accessories

- for fire-protection walls EI 30 - EI 90
- 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



3D animation

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
<b>Art. No.</b>	<b>9498-77</b>	<b>9498-77.02</b>	<b>9498-77.03</b>
Inner packaging/shipping	10 / 100	- / 5	- / 5



## Fire-protection box HWD 90 for Swiss accessories

- for fire-protection walls EI 30 - EI 90
- 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



3D animation

Length x Width x Depth	83 x 83 x 73.5 mm	145 x 83 x 73.5 mm
Cut hole Ø	83 mm	83 mm
Combination	1x1	2x1
Tube entries up to M25	2	2
<b>Art. No.</b>	<b>9499-77</b>	<b>9499-77.02</b>
Inner packaging/shipping	10 / 100	- / 5

## Fire-protection box HWD 90 for Swiss accessories

- for fire-protection walls EI 30 - EI 90
- 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



3D animation

Length x Width x Depth	205 x 83 x 73.5 mm	145 x 145 x 73.5 mm	205 x 145 x 73.5 mm
Cut hole Ø	83 mm	83 mm	83 mm
Combination	3x1	2x2	3x2
Tube entries up to M25	2	4	4
<b>Art. No.</b>	<b>9499-77.03</b>	<b>9499-77.04</b>	<b>9499-77.06</b>
Inner packaging/shipping	- / 5	- / 5	- / 5

## Electronics box HWD 90

The HWD 90 electronics box maintains the wall's fire resistance class (EI30 - EI120) and creates 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 - EI20 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)



### 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.

# Fire-protection boxes

## 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 area 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 - EI20 fire-protection walls
- Minimum wall thickness 100 mm
- For equipment inserts and electronic components
- Can be combined with each other and also with HWD 90 one-gang junction boxes



3D animation



<b>For panel thickness</b>	<b>7 - 40 mm</b>
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	•
ETA approval	ETA-13/0128
 / 	• / •
<b>Art. No.</b>	<b>9462-94</b>
Inner packaging/shipping	5 / 50

## Fire-protection box cavity wall

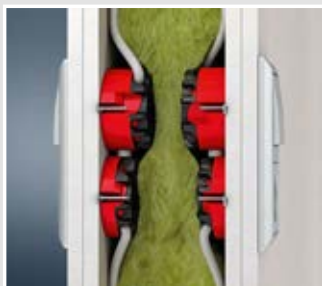
Fire-protection boxes are given the same period of fire resistance in fire-protection walls EI30 - EI90 in spite of fitted electrical installations and ensure secure, smokeproof room separation. In the event of a fire, an integrated fire retardant quickly and reliably closes the installation opening 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
- 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



### HWD 68

### Examples of use



For fire-protection walls EI30 - EI90



Also for directly opposing installation

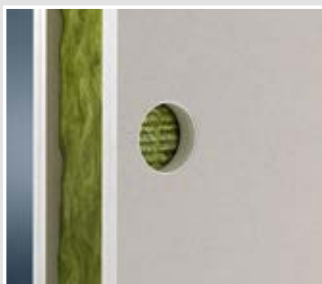


Combinations possible up to 5-way combinations of one-gang boxes and one-gang junction boxes



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

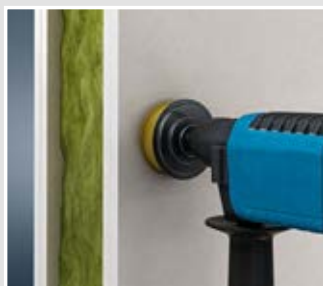


Up to 6 opportunities for cable entries for sheathed cables with external diameters of 4 - 11.5 mm



Fully-insulated through-wiring of one-gang boxes and one-gang junction boxes with the support connector (Art. No. 9060-68).

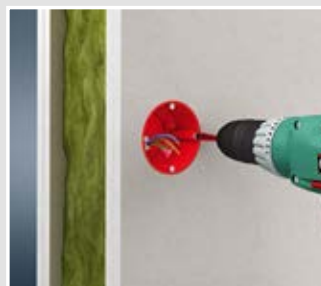
## Installation



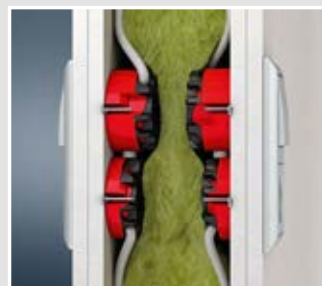
Create Ø 68 mm installation opening with turbo cutter Multi 4000 (Art. No. 1083-10).



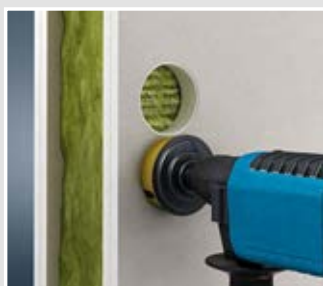
Break out closing of the cable entry for sheathed cables up to 5x2.5<sup>2</sup> or communication cables



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



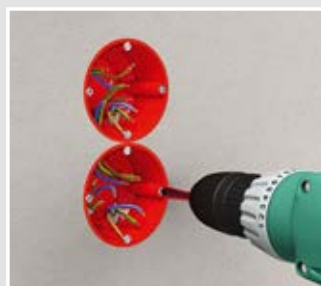
Opposing installation of one-gang boxes in a wall thickness of 100 mm and higher and of one-gang junction boxes in a wall thickness of 125 mm and higher is possible.



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.

## INNOVATION

### One-gang box HWD 68

- for fire-protection walls EI 30 - EI 90
- also for directly opposing installation
- Minimum wall thickness 100 mm
- Can be combined with each other and with the one-gang junction box



3D animation





### One-gang junction box HDW 68

- for fire-protection walls EI 30 - EI 90
- 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	•	•
ETA approval	applied for	applied for
For panel thicknesses up to	40 mm	40 mm
Cable entries of up to Ø 11.5 mm	6	6
 / 	• / •	• / •
<b>Art. No.</b>	<b>9463-02</b>	<b>9464-02</b>
Inner packaging/shipping	10 / 100	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



<b>Art. No.</b>	<b>9060-68</b>
Inner packaging/shipping	- / 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 or smoke detectors or LED emergency route lighting in fire-protection ceilings without changing 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 <sup>2</sup>	8.5
	5 x 1.5 mm <sup>2</sup>	9.5
	3 x 2.5 mm <sup>2</sup>	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 boxes

## 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.



Attach 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 non-insulated fire protection ceilings F30 (fire resistance of min. 30 minutes)
- 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



**FIRE-PROTECTION**





### Ceiling junction box HWD 30

- for non-insulated fire protection ceilings F30 (fire resistance of min. 30 minutes)
- 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



**FIRE-PROTECTION**




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
 / 	• / •	• / •
<b>Art. No.</b>	<b>9463-50</b>	<b>9464-50</b>
Inner packaging/shipping	10 / 100	10 / 100

**Accessories:** Fire-protection cover HWD 30-120, page 242

### 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



<b>DIBt approval</b>	<b>Z-19.21-1788</b>
	•
<b>Art. No.</b>	<b>1184-94</b>
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. The KAISER universal opening cutter is used to cut the openings for the cable entry.



Fit the HWDB15 cavity wall box in the wall using FX4 screws.



For board thicknesses from 0.2 to 40 mm.

# Fire-protection boxes

## 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 HWDB15 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 (74 mm) at a standard distance (71 mm), the marked area of the holding ring must be detached.



The fully-insulated through-wiring of one-gang junction boxes with each other is created using the support connector (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
0736 / 15 / CE	• / •	• / •	• / •	• / •
<b>Art. No.</b>	<b>9463-15</b>	<b>9463-14</b>	<b>9461-15</b>	<b>9461-14</b>
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
 0736 / 15 / 	• / •	• / •
Art. No.	9464-15	9464-14
Inner packaging/shipping	10 / 100	10 / 100

Fire protection installation in a building at a glance







## 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).



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



Europe-wide  
ETA Certificate



### 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 reserve seal. For this purpose, the conduits must be sealed with KAISER sealing plugs.

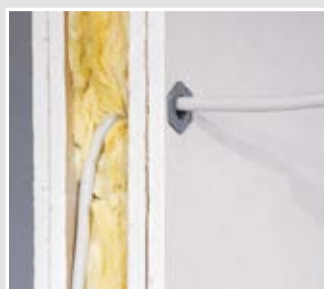


Conduit sealing system RS 90 with combination entry with M16, M20 and M25 conduits.

### Examples of applications for cable sealing system LS 90



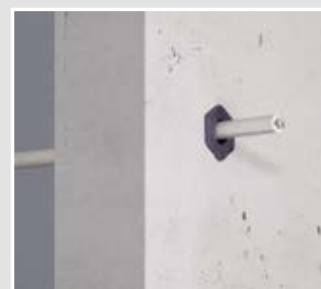
Wall feed-through in plasterboard fire-protection wall.



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.

FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

CABLE GLANDS

TOOLS

SERVICE

# 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 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



Make an installation opening Ø 20 mm using a cutter (e.g. KAISER hardened metal cutter 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 fire-protection walls EI 30 - EI 90
- 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



<b>Min. wall thickness</b>	<b>100 mm</b>
Installation opening (cavity wall)	20 mm
Installation opening (masonry)	20 mm
for cables	5 - 15 mm
ETA approval	ETA-11/0188
<b>Art. No.</b>	<b>9459-01</b>
Inner packaging/shipping	10 / 100
<b>Accessories:</b> Sealing identification tag, page 261	

## Examples of applications for conduit sealing system RS 90



Wall feed-through in plaster-board fire-protection wall.



Wall entry with M16-M25 combination entry, in plaster-board fire-protection wall with M25 conduit.

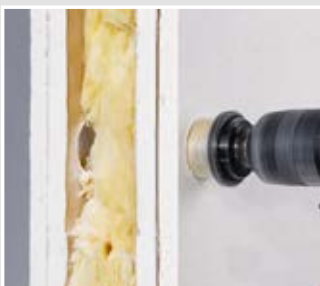


Wall feed-through in sand-lime brick fire-protection wall.

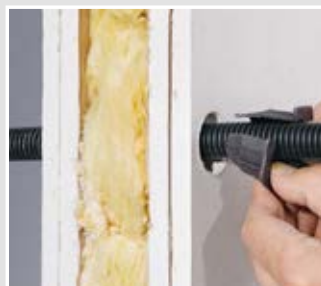


Wall feed-through in concrete fire-protection wall.

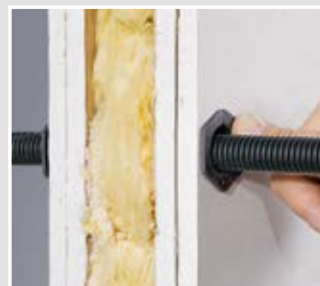
## Installation of conduit sealing system RS 90 in cavity walls.



Cut a 35 mm installation opening using e.g. a KAISER Multi 4000 cutter (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.

# Sealing systems in fire-protection walls

## Installation of conduit sealing system RSS 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 fire-protection walls EI 30 - EI 90
- 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



**FIRE-PROTECTION**



3D animation

<b>Min. wall thickness</b>	<b>100 mm</b>
Installation opening (cavity wall)	35 mm
Installation opening (masonry)	32 mm
for conduits	M16 - M25
ETA approval	ETA-11/0188
<b>Art. No.</b>	<b>9459-02</b>
Inner packaging/shipping	10 / 100

**Accessories:** Sealing identification tag, page 261



## 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



Europe-wide  
ETA Certificate



### 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.

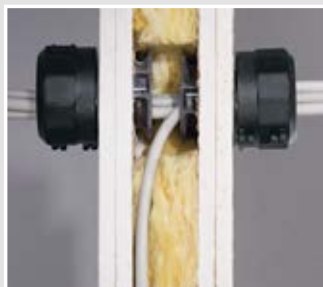


The box sealing system DS 90 / 74 mm can be used with all standard sheathed cables currently found in Europe.



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 mm 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. Wiring bundles can be populated up to  $\varnothing \leq 40$  mm, with a maximum diameter of  $\leq 15$  mm for a single cable. Single cables can be used up to  $\varnothing \leq 21$  mm.

# Sealing systems in fire-protection walls

## Technical information



For use as a spare sealing element (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 and open the sealing element with a 1/4-turn anti-clockwise.



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.



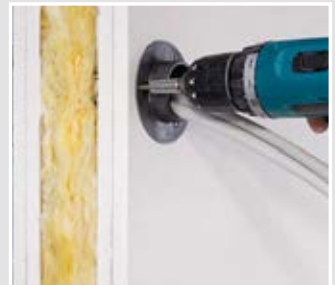
Cut an installation opening using a Ø 74 mm cutter (e.g. Multi 4000: 1084-10).



Place the two-part sealing cylinder around the cables and press together.



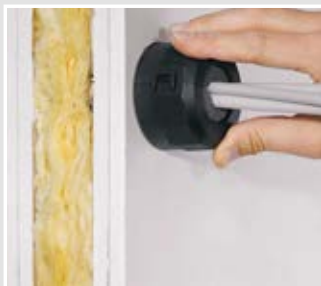
Press the sealing cylinder into the installation opening.



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 fire-protection walls EI 30 - EI 90
- 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



<b>Cut hole Ø</b>	<b>74 mm</b>
Min. wall thickness	100 mm
Cable entries	Maximum population (Inner diameter 40 mm)
ETA approval	ETA-14/0159
<b>CE</b>	•
<b>Art. No.</b>	<b>9459-03</b>
Inner packaging/shipping	10 / 100
<b>Accessories:</b> Sealing identification tag, page 261	





## 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 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 and open the sealing element with a 1/4-turn anti-clockwise.



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.



# Sealing systems in fire-protection walls

## 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 <sup>2</sup>	3 x 10 <sup>2</sup>	5 x 10 <sup>2</sup>	4 x 16 <sup>2</sup>	5 x 25 <sup>2</sup>	4 x 35 <sup>2</sup>	7 x 2,5 <sup>2</sup>
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 fire-protection walls EI 30 - EI 90
- 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

<b>Cut hole Ø</b>	<b>120 mm</b>
Min. wall thickness	100 mm
Cable entries	Maximum population (Inner diameter 74 mm)
ETA approval	ETA-14/0159
<b>CE</b>	•
<b>Art. No.</b>	<b>9459-04</b>
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



Europe-wide  
ETA Certificate



### Examples of use



Use in concrete ceilings  
EI30 - EI90.



Use in cellular concrete ceilings  
EI30 - EI90.



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.

# Sealings in fire-protection ceilings

## 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.



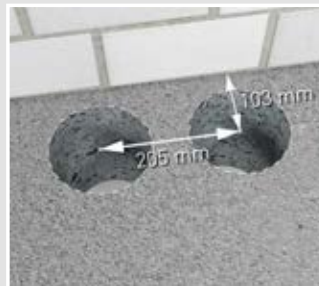
Place sealing cylinder around the cables or conduits and insert into the installation sleeve.



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.

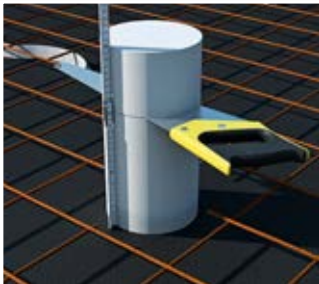


Ceiling penetration sealing systems in concrete or cellular concrete ceilings of 150 – 300 mm ceiling thickness have been approved for use.



## 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 <sup>2</sup>	3 x 10 <sup>2</sup>	5 x 10 <sup>2</sup>	4 x 16 <sup>2</sup>	5 x 25 <sup>2</sup>	4 x 35 <sup>2</sup>	7 x 2,5 <sup>2</sup>
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



# Sealings in fire-protection ceilings

## INNOVATION

### 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



## FIRE-PROTECTION

Installation opening Ø	100 mm
Ceiling thickness	150 - 300 mm
Cable entries	Maximum population (Inner diameter 40 mm)
ETA approval	ETA-14/0159
PVC conduits up to	M40
CE	•
Art. No.	9459-05
Inner packaging/shipping	- / 12

## INNOVATION

### 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



## FIRE-PROTECTION

Installation opening Ø	150 mm
Ceiling thickness	150-300 mm
Cable entries	Maximum population (Inner diameter 74 mm)
ETA approval	ETA-14/0159
PVC conduits up to	M50
CE	•
Art. No.	9459-06
Inner packaging/shipping	- / 1

### Formwork body

- creates matching component openings
- suitable for ceiling penetration sealing systems DS 90 / 120 mm and DS 90 / 74 mm
- for insulation thicknesses 150 - 300 mm



Diameter	100 mm
Ceiling thickness	150 - 300 mm
Art. No.	9473-95
Inner packaging/shipping	- / 8

### Formwork body

- creates matching component openings
- suitable for ceiling penetration sealing systems DS 90 / 120 mm and DS 90 / 74 mm
- for insulation thicknesses 150 - 300 mm



Diameter	150 mm
Ceiling thickness	150 - 300 mm
Art. No.	9473-96
Inner packaging/shipping	- / 6



## INNOVATION

### 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



### FIRE-PROTECTION

German	•	•
English	•	•
French	•	•
Dutch	-	•
Italian	•	-
<b>Art. No.</b>	<b>9473-91</b>	<b>9473-92</b>
Inner packaging/shipping	- / 10	- / 10

### Sealing plugs 16-20

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



3D animation

<b>Sealing plug</b>	<b>M16</b>	<b>M20</b>
DIN EN conduit Ø	16 mm	20 mm
<b>Art. No.</b>	<b>1040-16</b>	<b>1040-20</b>
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

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

# FlamoX® system for hollow ceilings - fire protection class F30

Housings for LV/HV and energy-saving luminaires and loudspeakers



**NEW**

## Fire-stop box FlamoX®

FlamoX® installation housings for luminaires and loudspeakers protect lives and material goods. 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 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 housings are authorised 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 create 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

FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

CABLE GLANDS

TOOLS

SERVICE

# FlamoX® system for hollow ceilings - fire protection class F30

Housings for LV/HV and energy-saving luminaires and loudspeakers

## INNOVATION

### 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



3D animation



For panel thickness	2 x 12,5 mm	2 x 12,5 mm
Length x Width x Height	230 x 180 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
Cable entries up to Ø 13.5 mm	2	2
Halogen-free	•	•
Tube entries up to M25	2	2
LED luminaires	14 Watt	34 Watt
Halogen luminaires	50 Watt	75 Watt
ETA approval	applied for	applied for
CE	•	•
Art. No.	9435-04	9435-03
Inner packaging/shipping	- / 1	- / 1

## FlamoX®-S 30 E installation housing

FlamoX®-S30 E is suitable for the installation of downlights with compact fluorescent lights and for loudspeakers. The integrated fire-retardant coating maintains fire protection class F30 (EI30).

- Fire protection housing system for luminaires and loudspeakers
- For single or double layer suspended EI30 fire protection hollow ceilings
- Fire resistance from above and below
- Intelligent, automatic sealing
- Smokeproof and halogen-free
- For new build or as a fire protection upgrade in existing buildings

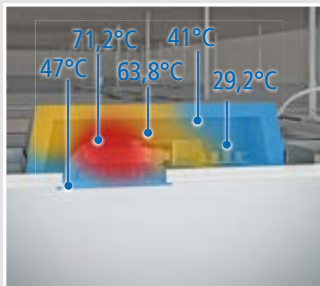


**DIBt approval**  
fire-resistance class S30  
in accordance with DIN 4102-9

**ETA Certificate**  
pending



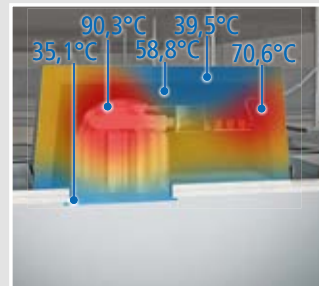
### Temperature profile, luminaire selection



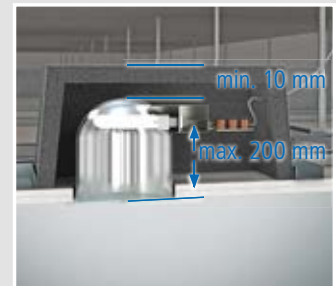
**Temperature profile:**  
**TC downlight**  
Room temperature (23°C),  
52 W TC



**Luminaire selection:**  
**TC downlight**



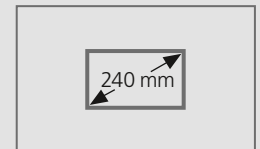
**Temperature profile:**  
**TC downlight**  
Room temperature (23°C),  
52 W TC



**Luminaire selection:**  
**TC downlight**

### Technical processing instructions/standards

- Exit openings max. Ø 240 mm
- use only certified (EN 60598) luminaires which are suitable for direct installation on normally flammable materials
- Accepts low-loss (VVG) and electronic (EVG) ballast devices.
- max. installation dimension AL 290 mm



FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

CABLE GLANDS

TOOLS

SERVICE



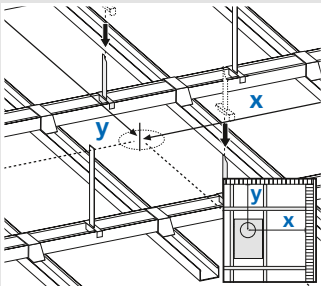
# FlamoX® system for hollow ceilings - fire protection class F30

Housings for LV/HV and energy-saving luminaires and loudspeakers

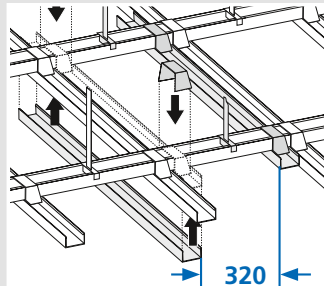
## FlamoX®-S 30 E installation housing



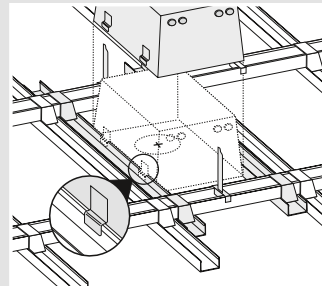
## FlamoX®-S30 E installation example in a double-layer F30 fire protection ceiling



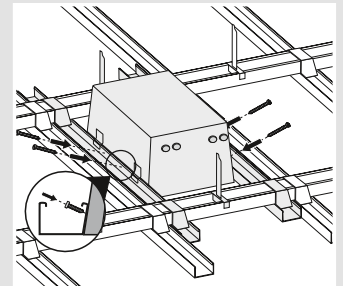
Mark the ceiling cut-out.



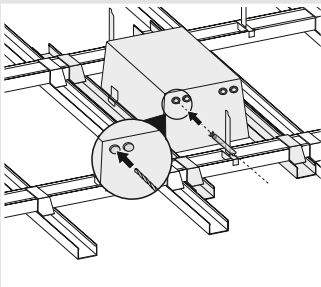
Place the auxiliary frame construction in position.



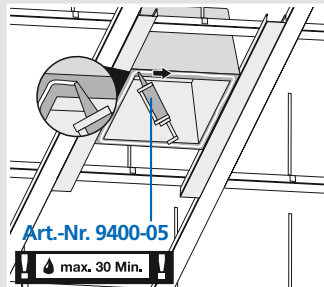
Insert the FlamoX® housing.



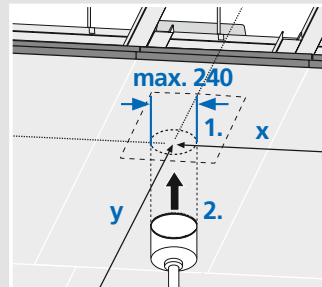
Screw the housing to the profile.



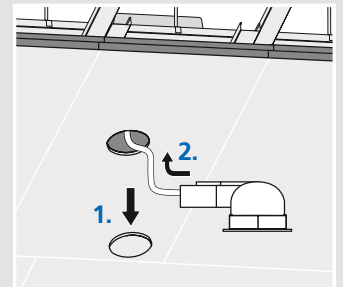
Insert the connection cables.  
max.  $5 \times 2.5^2$  Ø 10.5;  $3 \times 1.5^2$  Ø 7.5



Apply KAISER fire-protection putty to the lower edge.



Mark and cut the installation opening.



Connect and insert the luminaire or loudspeaker.

### Note

The installation of luminaires, loudspeakers etc. depends on the installation dimensions (diameter and height) as specified by their manufacturer. For panel thicknesses of 25 mm and higher and fitted devices with asymmetric equipment carrier, always ensure that the swivel radius and the clamping range are maintained.

# FlamoX® system for hollow ceilings - fire protection class F30


Housings for LV/HV and energy-saving luminaires and loudspeakers

## FlamoX® housing for hollow ceilings with fire protection class F30

- For energy-saving luminaires, lamp wattage max. 52 W
- made from galvanised plate with fire-retardant coating
- exit opening with Ø of up to 240 mm in square or rectangular cut-out, max. diagonal: 240 mm
- smoke-tight, halogen-free



3D animation

<b>Length x Width x Depth</b>	<b>500 x 320 x 220 mm</b>
Exit opening Ø	<= 240 mm
Max. luminaire or loudspeaker installation height	200 mm
DIBt approval	Z-19.15-1623
	•
<b>Art. No.</b>	<b>9435-01</b>
Inner packaging/shipping	- / 1

### Note

Important! When using the FlamoX® housings, it is absolutely essential to use KAISER fire-protection putty (Art. No. 9400-05) for adhesion. If not, the approval certificate will become invalid. We recommend in each case the use of a cartridge of fire-protection putty for glueing 2 FlamoX S30 E housings.

## FlamoX® fire-protection putty

- fire-retardant material
- for filling joints and gluing board materials
- type 9400
- max. working time 30 mins.
- can be warehoused for up to 12 months



<b>DIBt approval</b>	<b>Z-19.11-1583</b>
	•
<b>Art. No.</b>	<b>9400-05</b>
Inner packaging/shipping	- / 20

FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

CABLE GLANDS

TOOLS

SERVICE

# Cable glands

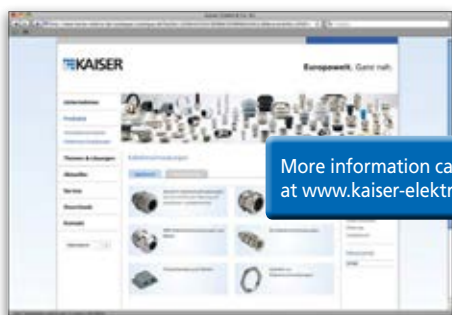


## The most important advantages at a glance:

- Superb quality and practical applications
- Perfectly matched range of products for everyday trade needs
- Complete full range with more than 3,500 products in our special "Cable glands" catalogue or at [www.kaiser-elektro.de](http://www.kaiser-elektro.de)
- Implementation of individual customer solutions
- Tried and tested - millions of times



Product film  
[www.kaiser-elektro.org/cableglands](http://www.kaiser-elektro.org/cableglands)



More information can be found  
at [www.kaiser-elektro.de](http://www.kaiser-elektro.de)



Complete catalogue  
"Cable Glands 4.0"

## Cable glands Product lines

SYNTEC® synthetic cable gland	p. 270
SYNTEC® brass cable gland	p. 274
Counternut synthetic and brass with flange	p. 276
Synthetic and brass closing screws	p. 277
MontaX® mounting plate	p. 280
MontaX® mounting angle	p. 281

## Syntec® cable glands with lamellar technology

	Connection threads		
	metric short	metric long	
<b>Synthetic</b> one-piece sealing ring 	p. 271	p. 272	
<b>Synthetic</b> with anti-kink one-piece sealing ring 	p. 273	see AGRO Cable glands catalogue 4.0	
<b>Brass</b> one-piece sealing ring 	p. 275	p. 275	

## Accessories for Syntec® cable glands

	Counternuts	Closing screws	
<b>Synthetic</b> 	p. 276		p. 277
<b>Brass</b> 	p. 276		p. 277

**New: AGRO Pressure balance elements.**  
 With membrane or sinter filter.

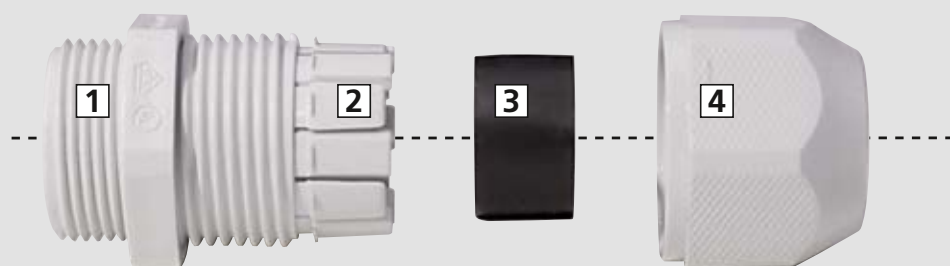




## SYNTEC® synthetic cable gland

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.
- Three colours (light grey, silver grey, black) in stock
- Good chemical resistance
- Protection class IP68, waterproof
- Tested acc. to EN 50262



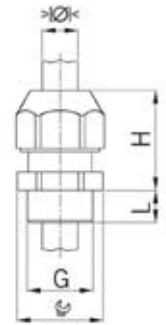
1 Lower part | 2 Lamellae | 3 Sealing ring | 4 Push-down nut

The nut's large-area hexagon always provides a safe and firm grip when turned by hand and tightened with the tool.






Material: Polyamide PA 6  
 Properties: Halogen-free  
 Sealing ring: TPE or CR (Neoprene)  
 Temperature range: -30°C / +100°C  
 Protection class: IP 68



### SYNTEC



Light grey RAL 7035  
 One-piece sealing ring


G	>Ø< min mm	>Ø< max mm	 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	4.5	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



### SYNTEC



Dark grey RAL 7001  
 One-piece sealing ring

G	>Ø< min mm	>Ø< max mm	 mm	H mm	L mm	Art. No.	
M12x1.5	2.5	6.5	15	21	6	1556.12.06	100
M16x1.5	2.0	6.0	19	25	8	1556.17.06	50
M16x1.5	4.5	10.0	19	25	8	1556.17.10	50
M20x1.5	3.5	8.0	24	29	9	1556.20.08	50
M20x1.5	7.0	13.0	24	29	9	1556.20.13	50
M25x1.5	5.0	11.0	29	38	10	1556.25.11	25
M25x1.5	10.0	17.0	29	38	10	1556.25.17	25
M32x1.5	17.0	25.0	42	36	10	1556.32.25	20



### SYNTEC



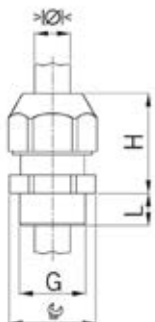
Black RAL 9005  
 One-piece sealing ring

G	>Ø< min mm	>Ø< max mm	 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	4.5	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



# Synthetic cable glands Syntec® with lamellar technology

## Long entry thread metric




Material: Polyamide PA 6  
 Properties: Halogen-free  
 Sealing ring: TPE or CR (Neoprene)  
 Temperature range: -30°C / +100°C  
 Protection class: IP 68



### SYNTEC

Light grey RAL 7035  
 One-piece sealing ring





G	>Ø< min mm	>Ø< max mm	 mm	H mm	L mm	Art. No.	
M12x1.5	2.5	6.5	15	21	12	1555.12.1.06	100
M16x1.5	2.0	6.0	19	25	15	1555.17.1.06	50
M16x1.5	4.5	10.0	19	25	15	1555.17.1.10	50
M20x1.5	3.5	8.0	24	29	15	1555.20.1.08	50
M20x1.5	7.0	13.0	24	29	15	1555.20.1.13	50
M25x1.5	5.0	11.0	29	38	15	1555.25.1.11	25
M25x1.5	10.0	17.0	29	38	15	1555.25.1.17	25
M32x1.5	17.0	25.0	42	36	15	1555.32.1.25	20
M40x1.5	22.0	33.0	53	48	15	1555.40.1.33	10
M50x1.5	28.0	38.0	60	48	15	1555.50.1.38	5
M63x1.5	32.0	44.0	65	49	16	1555.63.1.44	5

### SYNTEC

Dark grey RAL 7001  
 One-piece sealing ring




G	>Ø< min mm	>Ø< max mm	 mm	H mm	L mm	Art. No.	
M12x1.5	2.5	6.5	15	21	12	1556.12.1.06	100
M16x1.5	2.0	6.0	19	25	15	1556.17.1.06	50
M16x1.5	4.5	10.0	19	25	15	1556.17.1.10	50
M20x1.5	3.5	8.0	24	29	15	1556.20.1.08	50
M20x1.5	7.0	13.0	24	29	15	1556.20.1.13	50
M25x1.5	5.0	11.0	29	38	15	1556.25.1.11	25
M25x1.5	10.0	17.0	29	38	15	1556.25.1.17	25
M32x1.5	17.0	25.0	42	36	15	1556.32.1.25	20
M40x1.5	22.0	33.0	53	48	15	1556.40.1.33	10
M50x1.5	28.0	38.0	60	48	15	1556.50.1.38	5
M63x1.5	32.0	44.0	65	49	16	1556.63.1.44	5

### SYNTEC

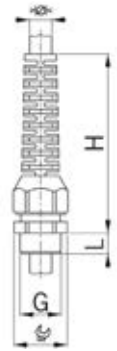
Black RAL 9005  
 One-piece sealing ring



G	>Ø< min mm	>Ø< max mm	 mm	H mm	L mm	Art. No.	
M12x1.5	2.5	6.5	15	21	12	1545.12.1.06	100
M16x1.5	2.0	6.0	19	25	15	1545.17.1.06	50
M16x1.5	4.5	10.0	19	25	15	1545.17.1.10	50
M20x1.5	3.5	8.0	24	29	15	1545.20.1.08	50
M20x1.5	7.0	13.0	24	29	15	1545.20.1.13	50
M25x1.5	5.0	11.0	29	38	15	1545.25.1.11	25
M25x1.5	10.0	17.0	29	38	15	1545.25.1.17	25
M32x1.5	17.0	25.0	42	36	15	1545.32.1.25	20
M40x1.5	22.0	33.0	53	48	15	1545.40.1.33	10
M50x1.5	28.0	38.0	60	48	15	1545.50.1.38	5
M63x1.5	32.0	44.0	65	49	16	1545.63.1.44	5

### Synthetic Syntec® cable glands with lamellar technology and anti-kink nozzle

Material:	Polyamide PA 6
Properties:	Halogen-free
Sealing ring:	CR (neoprene)
Temperature range:	-30°C / +100°C
Protection class:	IP 68



#### SYNTEC with anti-kink protection



Light grey RAL 7035

One-piece sealing ring

G	>Ø< min mm	>Ø< max mm	 mm	H mm	L mm	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



#### SYNTEC with anti-kink protection



Dark grey RAL 7001

One-piece sealing ring

G	>Ø< min mm	>Ø< max mm	 mm	H mm	L mm	Art. No.	
M12x1.5	2.5	6.5	15	54	6	1577.12.06	50
M16x1.5	4.0	8.0	19	64	6	1577.17.08	50
M20x1.5	3.0	7.0	24	88	8	1577.20.07	50
M20x1.5	5.5	12.0	24	88	8	1577.20.12	50



#### SYNTEC with anti-kink protection



Black RAL 9005

One-piece sealing ring

G	>Ø< min mm	>Ø< max mm	 mm	H mm	L mm	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

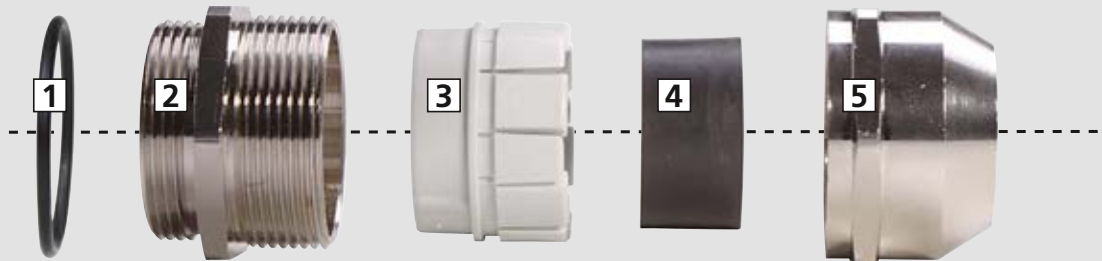




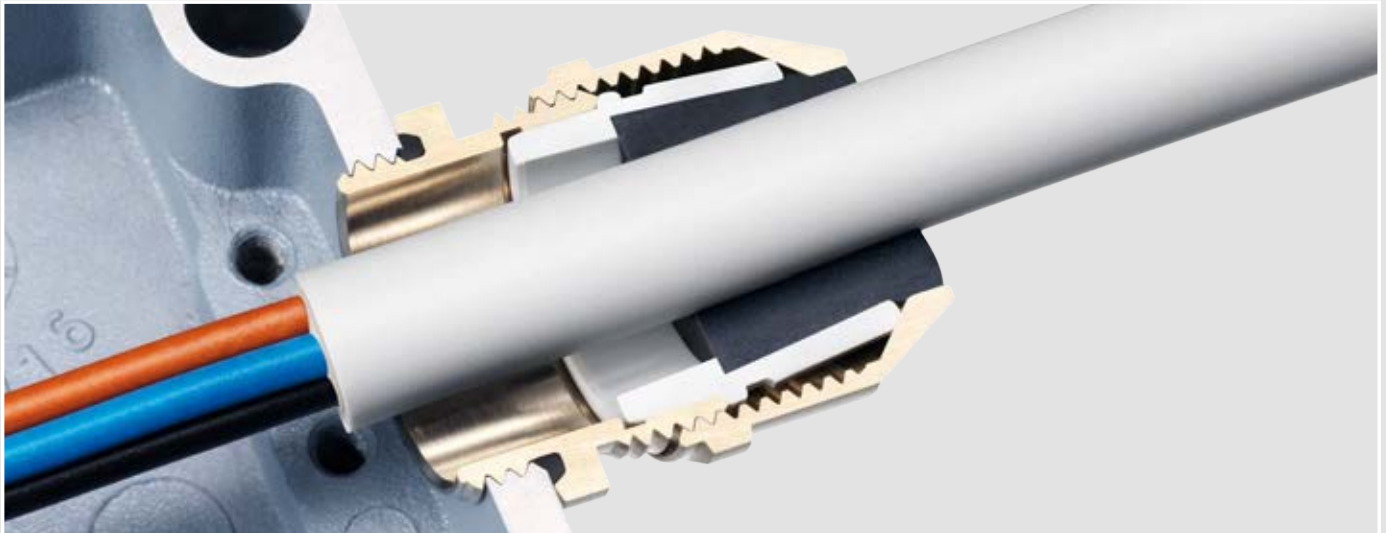
## SYNTEC® brass cable gland

SYNTEC® brass cable gland with innovative lamella technology including movable jointed lamellae and overtightening-protected cap nuts for everyday use.

- Lamellae insert made from high-quality polyamide
- With short and long metric entry thread
- With environmentally resistant TPE sealing ring
- Standard and reducing sealing rings
- High level of strain relief and simultaneous distortion protection.
- Protection class IP68, waterproof
- Tested acc. to EN 50262
- Good chemical resistance



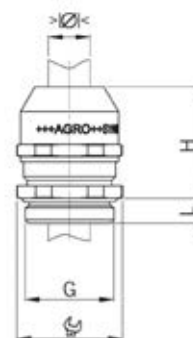
1 O-ring | 2 Lower part | 3 Lamellar insert | 4 Sealing ring | 5 Push-down nut



# Cable glands Syntec® nickel-plated brass with lamellar technology

## Short entry thread metric



Material: Nickel-plated brass  
Sealing ring: TPE  
O-ring : NBR  
Lamellar insert: Polyamide PA 6  
Temperature range: -40°C / +100°C  
Protection class: IP 68



### SYNTEC MS



One-piece sealing ring  
not overall length insulated

G	>Ø< min mm	>Ø< max mm	 mm	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





## Long entry thread metric

### SYNTEC MS



One-piece sealing ring  
not overall length insulated

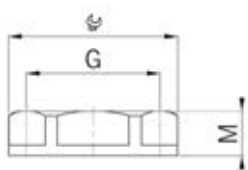
G	>Ø< min mm	>Ø< max mm	 mm	H mm	L mm	Art. No.	
M12x1.5	1.0	5.0	15	17	12	1145.12.050	50
M12x1.5	3.0	7.0	15	17	12	1145.12.070	50
M16x1.5	2.0	6.0	18	20	12	1145.17.060	50
M16x1.5	4.5	10.0	18	20	12	1145.17.100	50
M20x1.5	3.5	8.0	22	25	12	1145.20.080	50
M20x1.5	7.0	13.0	22	25	12	1145.20.130	50
M25x1.5	5.0	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





# Synthetic with flange and brass lock nut

## Entry thread metric



### Synthetic lock nuts with flange

Material: Polyamide PA 6  
 Properties: Halogen-free  
 Execution: Hexagonal design with flange  
 Temperature range: -30°C / +100°C



Light grey RAL 7035

G		M mm	Art. No.	
M12x1.5	17	5.0	8255.12	100
M16x1.5	22	5.0	8255.17	100
M20x1.5	27	6.0	8255.20	100
M25x1.5	33	6.7	8255.25	100
M32x1.5	42	7.9	8255.32	50
M40x1.5	48	8.4	8255.40	50
M50x1.5	59	9.9	8255.50	10
M63x1.5	73	11.0	8255.63	10



Black RAL 9005



G		M mm	Art. No.	
M12x1.5	17	5.0	8245.12	100
M16x1.5	22	5.0	8245.17	100
M20x1.5	27	6.0	8245.20	100
M25x1.5	33	6.7	8245.25	100
M32x1.5	42	7.9	8245.32	50
M40x1.5	48	8.4	8245.40	50
M50x1.5	59	9.9	8245.50	10
M63x1.5	73	11.0	8245.63	10

## For brass cable glands

### Lock nut nickel-plated brass



Entry thread metric

G		M mm	Art. No.	
M12x1.5	15	3.0	8000.12	100
M16x1.5	19	3.0	8000.17	100
M20x1.5	24	3.5	8000.20	100
M25x1.5	30	4.0	8000.25	50
M32x1.5	36	4.0	8000.32	25
M40x1.5	46	5.0	8000.40	25
M50x1.5	55	5.5	8000.50	10
M63x1.5	70	6.0	8000.63	10

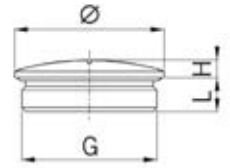
# Synthetic and brass closing screws

## Hexagonal design

### Metric thread

#### Synthetic locking plug

Material:	Polyamide PA 6
Temperature range:	-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

G	Ø mm	H mm	L mm	Art. No.	
M12x1.5	15	4.5	6	8855.12	100
M16x1.5	20	4.5	6	8855.17	100
M20x1.5	24	4.5	6	8855.20	100
M25x1.5	30	5.0	8	8855.25	100
M32x1.5	37	5.5	8	8855.32	50
M40x1.5	46	6.0	8	8855.40	50
M50x1.5	56	6.0	10	8855.50	10
M63x1.5	70	6.0	12	8855.63	10



Black RAL 9005  
without O-Ring

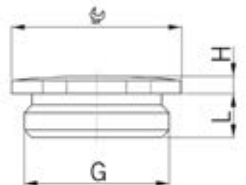
G	Ø mm	H mm	L mm	Art. No.	
M12x1.5	15	4.5	6	8845.12	100
M16x1.5	20	4.5	6	8845.17	100
M20x1.5	24	4.5	6	8845.20	100
M25x1.5	30	5.0	8	8845.25	100
M32x1.5	37	5.5	8	8845.32	50
M40x1.5	46	6.0	8	8845.40	50
M50x1.5	56	6.0	10	8845.50	10
M63x1.5	70	6.0	12	8845.63	10




### Short entry thread metric

#### Locking plug nickel-plated brass

Material:	Nickel-plated brass
Temperature range:	-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



FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

CABLE GLANDS

TOOLS



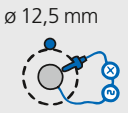

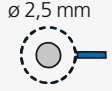
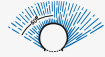


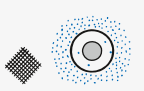
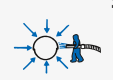
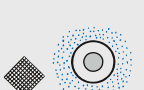
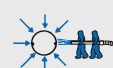

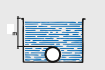
SERVICE

## Progress® EMV easyCONNECT EMC cable gland for interference-free installation.

Now new in our AGRO cable glands catalogue 3.0.



Products	Nickel-plated brass	PA	TPE	CR
<b>Description</b>	CuZn39Pb3 Copper/zinc alloy Galvanically nickel-plated surface	Polyamide PA 6	Thermoplastic elastomer	Chloroprene rubber
<b>Colour</b>		As per catalogue	Black	Black
<b>Corrosive properties Chem. resistance</b>	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
<b>Limited or no resistance</b>	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
<b>Weather-resistance</b>	Very good weather and ageing resistance	Good weather resistance	Good weather, ozone and ageing resistance	Good weather resistance
<b>Constant thermal values</b>	-40°C/+200°C	-30°C/+100°C	-40°C/+100°C	-30°C/+100°C
<b>Combustibility</b>	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	
	<b>0</b> No protection		<b>0</b> No protection
	<b>1</b> Protection against ingress of solid foreign bodies larger than 50 mm (unintentional touching by hand).		<b>1</b> Protection against water dripping from above.
	<b>2</b> Protection against ingress of solid foreign bodies larger than 12 mm (touching with fingers).		<b>2</b> Protection against dripping water falling at an angle of up to 15°.
	<b>3</b> Protection against ingress of solid foreign bodies larger than 2.5 mm (touching with tools, wires etc. thicker than 2.5 mm).		<b>3</b> Protection against spray falling at any angle up to 60°.
	<b>4</b> Protection against ingress of solid foreign bodies larger than 1 mm (touching with tools, wires etc. thicker than 1 mm).		<b>4</b> Protection against splashes from any direction.
	<b>5</b> Complete protection against contact. Protection against harmful dust deposits — penetration of dust is not completely prevented.		<b>5</b> Protection against jets of water from any direction.
	<b>6</b> Complete protection against contact. Protection against dust penetration.		<b>6</b> Protection against temporary flooding e.g. by high seas.
			<b>7</b> Protection against submersion in water at a specified pressure for an unspecified time.
			<b>8</b> Protection against submersion in water at increased pressure for an unspecified time.
			<b>9K</b> Protection against the penetration of water during high-pressure (80-100 bars), high-temperature washdown applications (80° C)

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.



### 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



<b>Height x Width x Length</b>	<b>13 x 90 x 180 mm</b>
--------------------------------	-------------------------

<b>Art. No.</b>	<b>2000-00</b>
-----------------	----------------

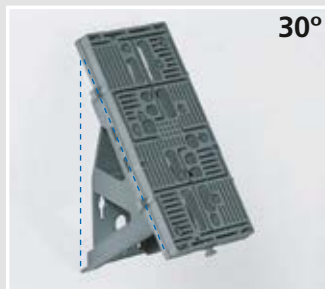
Inner packaging/shipping	- / 10
--------------------------	--------



# 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



## 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-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

CABLE GLANDS

TOOLS

SERVICE



## The most important advantages at a glance:

- High-quality system tools for professional electrical installation
- Perfectly tailored to the processing and installation of our electrical installation systems
- Tried-and-tested quality and technology
- Extremely time-saving and durable
- Wide range of accessories



Product film  
[www.kaiser-elektro.org/tools](http://www.kaiser-elektro.org/tools)

## Tools | Product lines

Diamond grinding head and drilling template for masonry installation	p. 284
Cover with spirit level	p. 286
Hardened metal cutter for composite thermal insulation systems	p. 287
Cutter for cavity wall installation	p. 289
Profix distance cutter	p. 291
Hardened metal cutter for cavity wall installation	p. 292
VARIOCUT universal hole cutter	p. 296
General tools	p. 298

	<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. 284	p. 285	p. 289	p. 292	p. 294	p. 294	p. 287	p. 287	p. 293	p. 294	p. 296	p. 296	
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 <sup>1</sup>	-	-	600	400	-	-	300 - 400 <sup>1</sup>	200 - 400 <sup>1</sup>	
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 <sup>2</sup>	-	-	-	200 <sup>2</sup>	300 - 600 <sup>3</sup> Ø 20 - 64 mm	200 - 600 <sup>3</sup> Ø 65 - 120 mm	
Aluminium sheet	-	-	-	-	-	350	-	-	200	-	300 - 600 <sup>3</sup> Ø 20 - 64 mm	200 - 600 <sup>3</sup> Ø 65 - 120 mm	
Multiplex boards	-	-	-	-	700	-	-	-	-	-	-	-	
Panels	-	-	-	-	-	-	-	-	-	-	800 - 1,400 <sup>4</sup>	700 - 1,400 <sup>4</sup>	
Ceiling modules	-	-	-	-	-	-	-	-	-	-	800 - 1,400	800 - 1,400	
Wall tiles	-	-	-	-	-	-	-	-	-	-	400 <sup>4</sup>	250 <sup>4</sup>	
Hard rubber	-	-	-	-	-	-	-	-	-	-	1,200 <sup>5</sup>	1,200 <sup>5</sup>	
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	284	•	-	-	-	-	-	-	-	-	-	-	-
ProfiX distance cutter	291	-	-	•	•	•	•	-	-	•	-	-	-
ProfiX distance cutter with dust extraction	291	-	-	•	•	•	•	-	-	•	-	-	-
Centring aid	288	-	-	-	-	-	-	•	-	-	-	-	-
Centering aid Multi 4000	290	-	-	•	-	-	-	-	-	-	-	-	-

<sup>1</sup> Ventilate frequently; <sup>2</sup> Use cutting oil; <sup>3</sup> up to 1 mm; <sup>4</sup> with restrictions; <sup>5</sup> 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

- M18 x 1.5 thread to screw on the direct or chuck attachment



3D animation

Drill Ø	82 mm	68 mm
Cutting depth	max. 70 mm	max. 70 mm
<b>Art. No.</b>	<b>1088-02</b>	<b>1088-03</b>
Inner packaging/shipping	- / 10	- / 10

### Dust extraction with direct attachment / Chuck attachment

- for diamond grinding heads Ø 82 or Ø 68 mm, fits vacuum cleaner hoses from Ø 31 - 36 mm



Thread for Bosch and Flex	5/8"	-	-
UN thread for AEG and Baier	-	M18 x 2,5	-
Chuck attachment with hexagonal spanner	-	-	12 mm
<b>Art. No.</b>	<b>1088-21</b>	<b>1088-16</b>	<b>1088-41</b>
Inner packaging/shipping	- / 1	- / 1	- / 1

## Diamond grinding head without dust extractor

- M18 x 1.5 thread to screw on the direct or chuck attachment



3D animation

<b>Drill Ø</b>	<b>82 mm</b>	<b>68 mm</b>
Cutting depth	max. 70 mm	max. 70 mm
<b>Art. No.</b>	<b>1088-00</b>	<b>1088-01</b>
Inner packaging/shipping	- / 10	- / 10

## Direct attachment / Chuck attachment

- for screwing onto the electric drill spindle



<b>Thread for Bosch and Flex</b>	<b>5/8"</b>	-	-
UN thread for AEG and Baier	-	M18 x 2,5	-
Chuck attachment with hexagonal spanner	-	-	12 mm
<b>Art. No.</b>	<b>1088-20</b>	<b>1088-15</b>	<b>1088-40</b>
Inner packaging/shipping	- / 1	- / 1	- / 1

## Centering drill

- for all direct and chuck attachments



<b>Diameter</b>	<b>6 mm</b>
<b>Art. No.</b>	<b>1088-30</b>
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

<b>Art. No.</b>	<b>1190-65</b>
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



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 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



### 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



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 tool Styro55 Art. No. 1090-21.

## INNOVATION

### Centering aid Ø 68 mm

- for exact installation openings in existing composite thermal insulation system
- 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



<b>Diameter</b>	<b>68 mm</b>
<b>Art. No.</b>	<b>1090-68</b>
Inner packaging/shipping	10 / 100

## INNOVATION

### Styro55 tool

- for fast and secure attaching of the ECON Styro55 one-gang junction box



<b>Art. No.</b>	<b>1090-21</b>
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 cutter and plate ejector	-	•	•
with countersink hole saw, without plate ejector	•	-	-
<b>Art. No.</b>	<b>1082-10</b>	<b>1083-10</b>	<b>1084-10</b>
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
with plate ejector	-	•	•
without ejector of the drilling core	•	-	-
<b>Art. No.</b>	<b>1082-09</b>	<b>1083-09</b>	<b>1084-09</b>
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

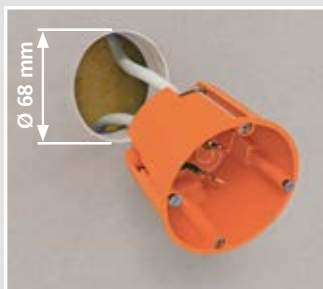
## MULTI 4000 cutter set

- 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 sheathed cables
- Accessories: folding rule, drilling template, pencil



Art. No.	1083-20
Inner packaging/shipping	- / 1

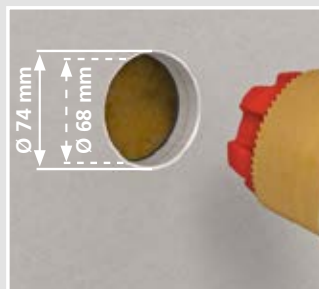
## Centering insert 68/74 mm – operation



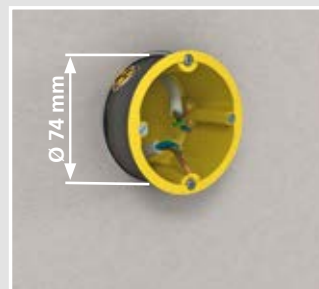
The traditional box is removed from the Ø 68 mm installation opening



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.

## INNOVATION

### 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 lightweight walls



Diameter	68 mm
Art. No.	1083-99
Inner packaging/shipping	10 / 100



## 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

# Cavity wall tools

for cavity wall installation

## 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



<b>Cut hole Ø</b>	<b>68 mm</b>	<b>74 mm</b>
Depth of cutting hole	36 mm	36 mm
with countersink hole cutter and plate ejector	•	•
<b>Art. No.</b>	<b>1083-70</b>	<b>1084-70</b>
Inner packaging/shipping	- / 10	- / 10

## MULTI 2000 HM cutting head

- hardened metal tipped
- extremely powerful
- very long operating life



<b>Cut hole Ø</b>	<b>68 mm</b>	<b>74 mm</b>
with plate ejector	•	•
<b>Art. No.</b>	<b>1083-69</b>	<b>1084-69</b>
Inner packaging/shipping	- / 10	- / 10

## MULTI 2000 HM countersink hole cutter

- hardened metal tipped
- for flush-mounting box and casing installation



<b>Cut hole Ø</b>	<b>68 mm</b>	<b>74 mm</b>
<b>Art. No.</b>	<b>1083-65</b>	<b>1084-65</b>
Inner packaging/shipping	- / 1	- / 1

## Collets

- for cutters Art. Nos. 1082-10, 1083-10, 1084-10, 1083-70, 1082-20, 1084-00, 1084-70



<b>for 10 mm chuck with twist drill</b>	•	-	-
for 13 mm chuck with twist drill	-	•	-
for SDS-plus quick-change chuck without twist drill	-	-	•
<b>Art. No.</b>	<b>1083-31</b>	<b>1083-32</b>	<b>1083-35</b>
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



<b>Diameter</b>	<b>6 mm</b>	<b>-</b>
<b>Art. No.</b>	<b>1083-30</b>	<b>1083-37</b>
Inner packaging/shipping	- / 5	- / 5

## Standard cutter

- without countersink
- with saw blade Art. No. 1086-09
- with twist drill with hexagonal shank



<b>Cut hole Ø</b>	<b>68 mm</b>
Depth of cutting hole	18 mm
<b>Art. No.</b>	<b>1086-00</b>
Inner packaging/shipping	- / 10

## Saw blades

- closed version
- hardened cutting teeth
- for Art. No. 1086-00



<b>Cut hole Ø</b>	<b>35 mm</b>	<b>68 mm</b>	<b>74 mm</b>
Depth of cutting hole	18 mm	18 mm	18 mm
<b>Art. No.</b>	<b>1085-09</b>	<b>1086-09</b>	<b>1087-09</b>
Inner packaging/shipping	- / 5	- / 5	- / 5

## Saw blades

- closed version
- hardened cutting teeth
- for Art. No. 1086-00



<b>Cut hole Ø</b>	<b>68 mm</b>	<b>74 mm</b>
Depth of cutting hole	40 mm	40 mm
<b>Art. No.</b>	<b>1086-08</b>	<b>1087-08</b>
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



<b>Diameter</b>	<b>-</b>	<b>8 mm</b>
for cut hole Ø	68 mm	-
<b>Art. No.</b>	<b>1086-05</b>	<b>1086-30</b>
Inner packaging/shipping	- / 1	- / 5

# Cavity wall tools

for cavity wall installation

## 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
<b>Art. No.</b>	<b>1083-95</b>	<b>1083-74</b>
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) 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	•
<b>Art. No.</b>	<b>1083-51</b>
Inner packaging/shipping	- / 10

## Bi-metallic cutter Ø 120 mm

- fits all electric drills with 13 mm chuck
- for cavity wall junction box Art. No. 9073-01/-77/-78/-91



Cut hole Ø	120 mm
Depth of cutting hole	40 mm
for frontal fitting of ThermoX® Arti. No. 9300-01/-02/-03/-22	•
<b>Art. No.</b>	<b>1082-20</b>
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	-	-	-	•
<b>Art. No.</b>	<b>1084-00</b>	<b>1082-79</b>	<b>1082-86</b>	<b>1082-20</b>
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



<b>Cut hole Ø</b>	<b>86 mm</b>
Depth of cutting hole	38 mm
with countersink hole saw	•
<b>Art. No.</b>	<b>1087-86</b>
Inner packaging/shipping	- / 1

FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

CABLE GLANDS

TOOLS

SERVICE



# Cavity wall tools

for cavity wall installation



## 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 cavity wall junction box	-	•
Art. No. 9073-01/-77/-78/-91	-	•
for frontal fitting of ThermoX®	-	•
Art. No. 9300-01/-02/-03/-22	-	•
<b>Art. No.</b>	<b>1089-10</b>	<b>1089-00</b>
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)



<b>Art. No.</b>	<b>1089-25</b>
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



<b>Cut hole Ø</b>	<b>24 - 68 mm</b>	<b>65 - 120 mm</b>
<b>Art. No.</b>	<b>1089-01</b>	<b>1089-02</b>
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



<b>Cut hole Ø</b>	<b>20 - 64 mm</b>	<b>61 - 116 mm</b>
<b>Art. No.</b>	<b>1089-91</b>	<b>1089-92</b>
Inner packaging/shipping	- / 1	- / 1

## Hardened metal cutter inserts

- For VARIOCUT cutting unit



<b>For cavity wall building materials</b>	•	-
For metal	-	•
<b>Art. No.</b>	<b>1089-33</b>	<b>1089-34</b>
Inner packaging/shipping	- / 1	- / 1

## Twist drill for VARIOCUT

- for VARIOCUT universal hole saw
- with clamping shank



<b>Diameter</b>	<b>6 mm</b>
<b>Art. No.</b>	<b>1089-30</b>
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



<b>Art. No.</b>	<b>1089-31</b>
Inner packaging/shipping	- / 1

## Adhesive foil

- for locating centering aid  
Art. No. 1089-31
- double-sided adhesion
- for multiple use



<b>Art. No.</b>	<b>1219-10</b>
Inner packaging/shipping	- / 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 <sup>2</sup>	7.5
	4 x 1.5 mm <sup>2</sup>	8.5
	5 x 1.5 mm <sup>2</sup> ; 3 x 2.5 mm <sup>2</sup>	9.5
	7 x 1.5 mm <sup>2</sup> ; 5 x 2.5 mm <sup>2</sup>	10.5
Low-voltage cables	Integrated heavy current and MSR-Bus cable (N)Y(Y(St)Y)M-J 3 x 1.5 mm <sup>2</sup>	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 <sup>2</sup>	8.5
	5 x 1.5 mm <sup>2</sup>	9.5
	3 x 2.5 mm <sup>2</sup>	9.5

## Assignment table for universal concrete construction opening cutter

Concrete construction		Ø setting*
NYY cable	3 x 1.5 mm <sup>2</sup>	10.5
	4 x 1.5 mm <sup>2</sup>	10.5
	5 x 1.5 mm <sup>2</sup> ; 3 x 2.5 mm <sup>2</sup>	10.5
	7 x 1.5 mm <sup>2</sup> ; 5 x 2.5 mm <sup>2</sup>	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



For stripping NYM cables	3 x 1,5, 5 x 2,5 mm <sup>2</sup>
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.



<b>Length</b>	<b>150 mm</b>	<b>340 mm</b>
<b>Art. No.</b>	<b>1284-62</b>	<b>1284-63</b>
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



<b>Length</b>	<b>150 mm</b>	<b>340 mm</b>
<b>Art. No.</b>	<b>1284-69</b>	<b>1284-68</b>
Inner packaging/shipping	- / 1	- / 1

## Punch pliers

- for concrete construction installation
- for exact entries for cables and conduits
- with plate ejector
- punch bits exchangeable



<b>DIN EN conduit Ø</b>	<b>20 mm</b>	<b>25 mm</b>
<b>Art. No.</b>	<b>1286-33</b>	<b>1286-34</b>
Inner packaging/shipping	- / 1	- / 1

## Punch bit inserts for punch pliers

- consists of cutter plate and cutting punch, hardened and polished



<b>DIN EN conduit Ø</b>	<b>20 mm</b>	<b>25 mm</b>
<b>Art. No.</b>	<b>1285-33</b>	<b>1285-34</b>
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



DIN EN conduit Ø	10 - 40 mm
Art. No.	1284-32
Inner packaging/shipping	- / 10

FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

CABLE GLANDS

TOOLS

SERVICE



KAISER legend	303
Technical information	304
Number of terminals per box or casing	309
Product videos - <a href="http://www.youtube.com/kaiserelektro">www.youtube.com/kaiserelektro</a>	310
KAISER website	314
Planning documentation and product information	315
Test marks	316
Terms and conditions of delivery and payment	317
Article overview	318
Article numbers index	321
References	326
Strong brands for international markets.	328
Foreign agencies	330



## 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



## AFS technology. Fire protection for more safety

- AFS - Active Fire Stop – guarantees fire protection
- Fast-acting coating intumesces and safely closes off the installation opening if a fire breaks out



## B² system for extra-fast and efficient installation in horizontal prefabrication.

- Saves time
- One-piece design
- Available with or without plaster skin
- Available pre-fitted with special adhesive; no adhesive residue when formwork is struck
- Easy connections for combinations or opposing boxes



## Air-tight installation. ECON technology.

- Guaranteed air-tight installation space
- Tool-free cable/conduit entry
- Integrated strain relief



## The fastest cavity wall installation of all time. FX⁴ technology.

- 40% faster installation
- Patented thread design
- High level of self-locking



## KSK technology. The revolution in concrete building installation.

- Innovative impact coupling
- Combination entries M20/M25
- No internal shortening of the conduits
- Integrated conduit stopper



## Lead-free

Use of lead-free materials.



## Multimedial contents on the internet

Just one click takes you to [www.kaiser-elektro.de](http://www.kaiser-elektro.de).



## Multimedial contents for your smartphone.

Scan and look - instantly!



## UPPlus. The new generation for flush-mounting installation.

- Variable combination connection piece for M20/M25 conduits
- Flexible for screw and expanding claw fitting of the accessories
- More space for installation
- More torsion-proof, guaranteed 71 mm standardised distance for combinations



## 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

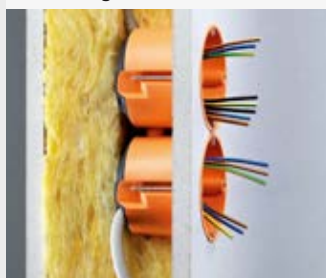


#### Manufacturer's designation of conduits, e.g.

<b>Fränkische Rohrwerke:</b>	FBY-EL (flexible) FBY-EL-F (smooth, flexible)
<b>Hegler:</b>	Heglerflex EYL (flexible) Heglerplast EL (rigid)
<b>PIPELIFE:</b>	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.

<b>Fränkische Rohrwerke:</b>	FBY-EL-F (flexible) FFKu-EL-F-HO (flexible)
<b>Hegler:</b>	Heglerflex-EYLF (flexible) Heglerflex-EL (flexible) Heglerplast-EL (rigid)
<b>PIPELIFE:</b>	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.

<b>Fränkische Rohrwerke:</b>	FFKuS-EM-F (flexible) FFKuS-EM-F105 (flexible)
<b>Hegler:</b>	Heglerflex-ESPM (flexible) Heglerflex-ESPM105 (flexible) Heglerplast-EPKM (rigid)
<b>PIPELIFE:</b>	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.

KNX building system technology

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.



FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

CABLE GLANDS

TOOLS

SERVICE





## 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.



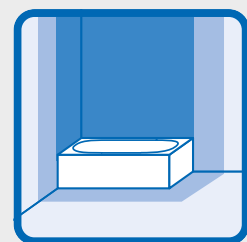
## Protection of plasterwork

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.



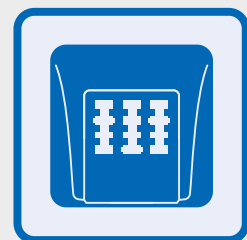
## Areas to be protected

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.

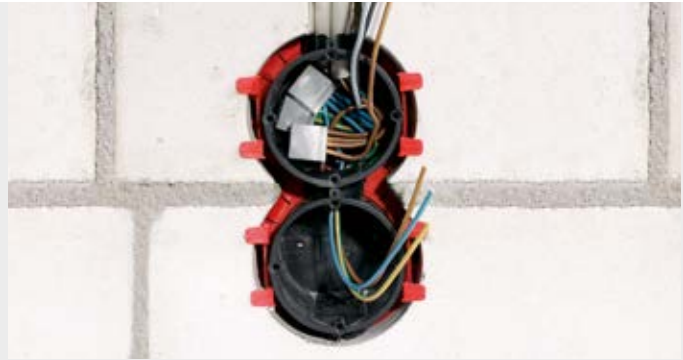
**Max. no. of terminals.** Values in ( ) are with equipment fitted

Art. No.	Wire cross-section (in mm <sup>2</sup> )					
	1.5	2.5	4	6	10	16

<b>10...</b>						
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

<b>11...</b>						
1159-90	6	5				
1172-..	6	5				

<b>12...</b>						
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			
1248-50	4	3				
1248-55	4	3				
1249-44	5	5				
1249-50	5	5				
1255-40	6 (3)	5				
1255-43	6	5				
1255-45	6	5				
1260-40	8 (6)	6 (5)				
1260-50	8	6				
1262-..	7 (4)	6(5)	5 (4)			
1263-..	8 (7)	6(5)	5 (4)			
1264-50	8	6	5			
1264-60/61	8 (7)	6 (5)	5 (4)			
1265-40	8 (5)	6 (5)				
1265-50	8	6	5			
1268-40	11 (9)	9 (7)	8 (6)			
1269-40	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



Art. No.	Wire cross-section (in mm <sup>2</sup> )					
	1.5	2.5	4	6	10	16
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

<b>15...</b>						
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				

<b>16...</b>						
1656-02	9 (6)	7 (5)				
1656-21	9 (7)	7 (5)	6 (4)			

<b>17...</b>						
1756-02						

<b>90...</b>						
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)				
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				

<b>91...</b>						
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

<b>92...</b>						
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				



## Product videos Flush-mounting

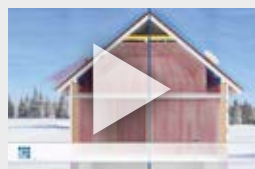


[www.kaiser-elektro.org/flushmounting](http://www.kaiser-elektro.org/flushmounting)

### Flush-mounting

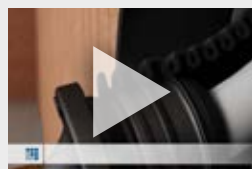


### Energy-saving house



### Sealing plugs

Art. No.: 1040-... | p. 27



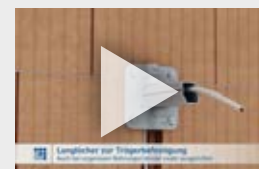
### Universal equipment carrier with combination insert

Art. No.: 1159-26 | p. 52



### Telescope equipment carrier and switch box

Art. No.: 1159-26 | p. 58



### Mini equipment carrier

Art. No.: 1159-26 | p. 63



### One-gang junction box ECON® Styro55

Art. No.: 1159-26 | p. 66



### Sound insulation box

Art. No.: 1569-01 | p. 19



### Internal insulation box

Art. No.: 1159-90 | p. 46



## Product videos Cavity wall

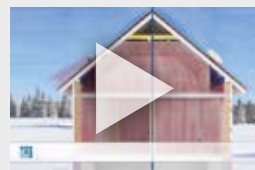


[www.kaiser-elektro.org/cavitywall](http://www.kaiser-elektro.org/cavitywall)

### Cavity wall installation

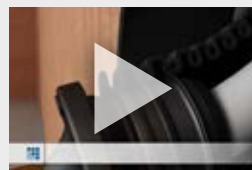


### Energy-saving house



### Sealing plugs

Art. No.: 1040-... | p. 27



### Multiple air-tight sleeves ECON®

Art. No.: 9059-61 | p. 96



### Sound insulation box

Art. No.: 9069-01 | p. 101



### Sound insulation electronics box

Art. No.: 9069-94 | p. 104



### One-gang junction box for radiation protection walls

Art. No.: 9074-01 | p. 106



### Electronics box ECON® Flex

Art. No.: 9268-94 | p. 85





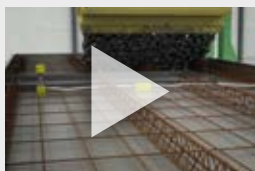


## Product videos Concrete construction



[www.kaiser-elektro.org/concreteconstruction](http://www.kaiser-elektro.org/concreteconstruction)

**Prefabrication** p. 164



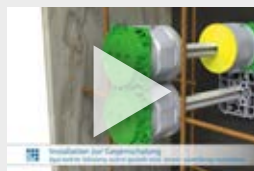
**Prefix® concrete building box**

Art. No.: 1211-61/36 | p. 142



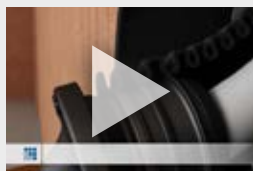
**End and transition bushes** Art. No.:

1201-24/36/38 | p. 151



**Sealing plugs**

Art. No.: 1040-... | p. 27



**Wire-pull casing**

Art. No.: 991... | p. 156



## Product videos Installation housing



[www.kaiser-elektro.org/installationhousing](http://www.kaiser-elektro.org/installationhousing)

**HaloX® System**

Art. No.: 1290-... | p. 182



**KompaX® System**

Art. No.: 1293-... | p. 197



**FlamoX® fire protection housings** Art. No.:

9435-03/04 | p. 262



**FlamoX® S 30 E fire protection housing**

Art. No.: 9435-01 | p. 265



**ThermoX® LED installation housing**

Art. No.: 9320-10 | p. 216





## Product videos Fire protection



[www.kaiser-elektro.org/fireprotection](http://www.kaiser-elektro.org/fireprotection)

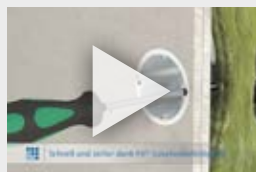
### Flush-mounting fire-protection box

Art. No.: 9463-01 | p. 231



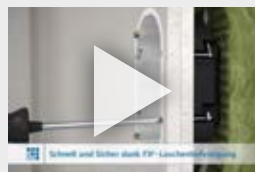
### HWD 90 cavity wall box

Art. No.: 9463-01 | p. 233



### Electronics box HWD 90

Art. No.: 9462-94 | p. 237



### Cavity wall box HWD 68

Art. No.: 9463-02/  
9464-02 | p. 239



### Cable sealing system LS 90 / RS 90

Art. No.: 9459-01/02 | p. 247



### Box sealing system DS 90

Art. No.: 1159-26 | p. 251



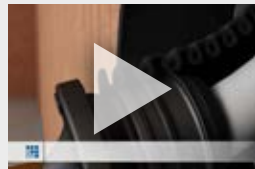
### Box sealing system DS 90/120 mm

Art. No.: 9459-04 | p. 254



### Sealing plugs

Art. No.: 1040-... | p. 27



### FlamoX® fire protection housings Art. No.: 9435-

03/04 | p. 262



### FlamoX® S 30 E fire protection housing

Art. No.: 9435-01 | p. 265



### Ceiling penetration seal

Art. No.: 9459-... | p. 257



## Product videos Cable glands



[www.kaiser-elektro.org/cableglands](http://www.kaiser-elektro.org/cableglands)

### AGRO Cable glands



### Progress EMC easyconnect



### Progress® ultraFLAT



### AGRO pressure balance elements





## Product videos Tools



[www.kaiser-elektro.org/tools](http://www.kaiser-elektro.org/tools)

### Diamond grinding head

Art. No.: 1088-02/21 | p. 284



### Drilling template

Art. No.: 1190-65 | p. 284



### Turbo cutter MULTI 4000

Art. No.: 1083-10 | p. 289



### Spacing cutter Profix

Art. No.: 1083-... | p. 291



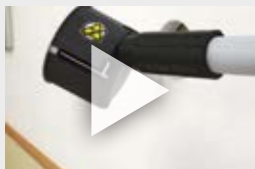
### VARIOCUT universal hole cutter

Art. No.: 1089-00/10 | p. 296



### Universal opening cutter

Art. No.: 1085-80 | p. 298



### AMZ 2 stripping pliers

Art. No.: 1190-02 | p. 299



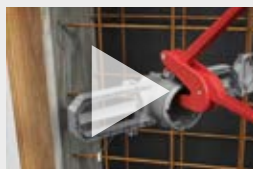
### Nail inserter

Art. No.: 1284-68/69  
p. 300



### Punch pliers

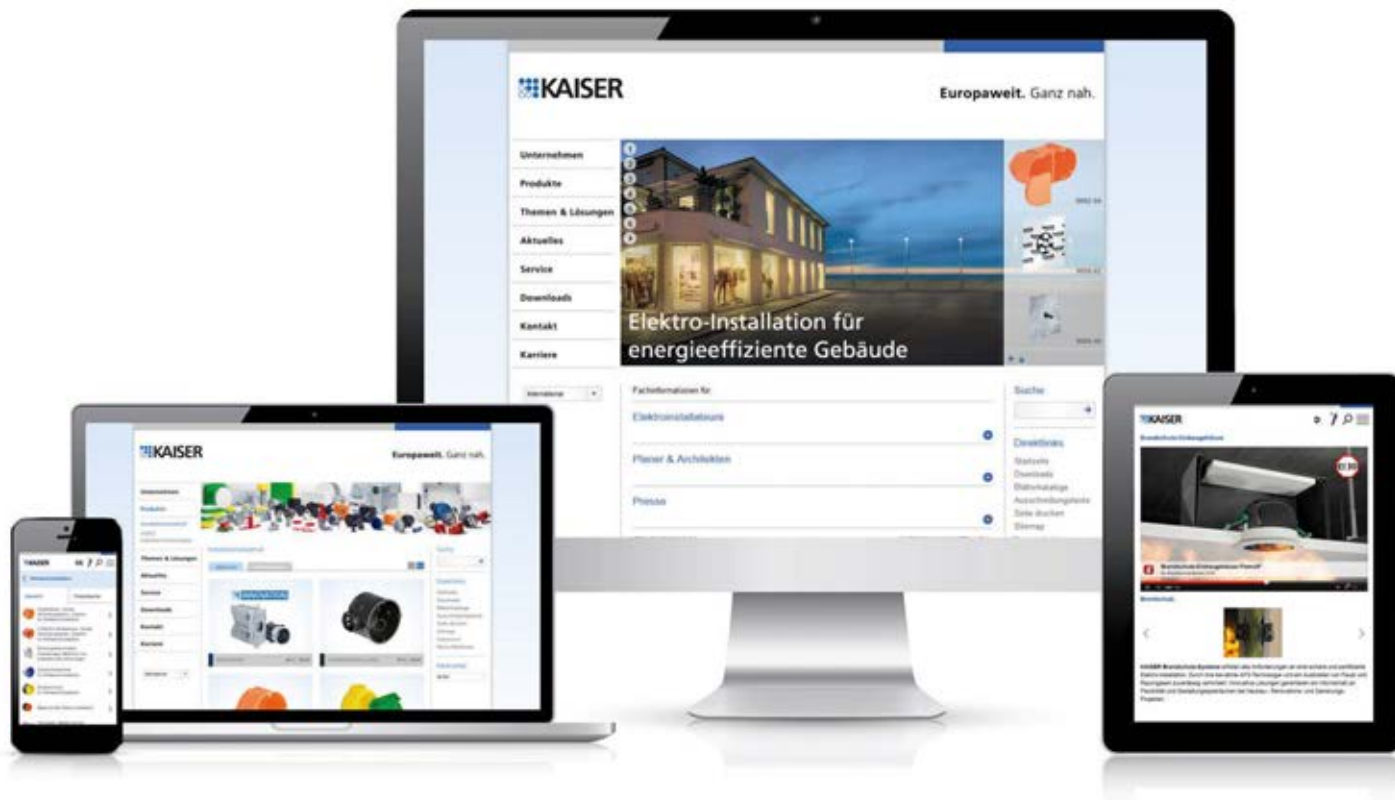
Art. No.: 1286-33/34  
p. 300



### Step drill

Art. No.: 1284-32 | p. 301





**KAISER's website at [www.kaiser-elektro.de](http://www.kaiser-elektro.de)** offers you a wide-ranging and attractive selection of services. Its modern, user-friendly design and logical functionality make intuitive operation possible. Our website contains all the information on our products, and also interesting facts and the latest news about the KAISER company.

In our "Topics and solutions" section, we offer architects and planners product solutions for modern, secure, safe and efficient installation technology.

The intelligent search function with filtering according to a range of parameters will quickly and safely lead you to the suitable product. In the cable glands section, you can also filter directly for the cable diameter which you have entered.

In product detail view you can find suitable accessory parts, tools, tender specifications and 3D data.

Using the notepad, you can compare the products which you have selected, or send them directly by email. With just a few mouse clicks you can also generate your individual pdf catalogue with the information which is important to you.

Informative product videos showing function and installation are also part of the multimedia offer.

**Discover KAISER's new world of information!**

## Notepad



## Product comparison

Produktvergleich

	BRANDSCHUTZ	BRANDSCHUTZ	BRANDSCHUTZ
Länge	87 mm	107 mm	133 mm
Breite	87 mm	107 mm	133 mm
Tiefe	75 mm	72 mm	88 mm
Einbaueinheit (Einbaueinheit)	57 x 57 mm	77 x 77 mm	120 x 120 mm
Einbaueinheit (Einbaueinheit)	87 mm	88 mm	75 mm
Einbaueinheit (Einbaueinheit)	10	14	20
Einbaueinheit (Einbaueinheit)	10	14	20
Einbaueinheit (Einbaueinheit)	10	14	20

## Product search



## Processing information



## Product videos



## CAD download





**KAISER App. Easy operation, always mobile.**

The KAISER App gives you easy mobile access to information on our products, new developments and the company, from your smart-phone or tablet. The content has been edited to suit the requirements of mobile devices and automatically adapts to your preferred device.



The KAISER App can be found in the **AppStore** and **GooglePlay** or you can simply scan the following QR code. It can also be accessed via the link [www.kaiser-elektro.org/appen](http://www.kaiser-elektro.org/appen)

**Tender specifications**

Our [www.kaiser-elektro.de](http://www.kaiser-elektro.de) and [www.ausschreiben.de](http://www.ausschreiben.de) websites include detailed tender specifications for all relevant KAISER products and in standard file formats.

Within the watch list, you can easily download, in the most up-to-date formats (e.g. GAEB 90, ÖNORM, DATANORM, PDF etc.), the specification texts on all the products which you have selected.

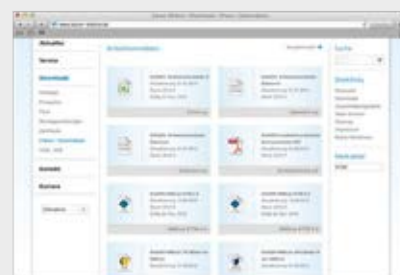
**[www.kaiser-elektro.de](http://www.kaiser-elektro.de)**

**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.

**[www.kaiser-elektro.de](http://www.kaiser-elektro.de)**

**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.

**Technical hotline:**

**Phone: +49(0)2355.809.61**

**Email: [technik@kaiser-elektro.de](mailto:technik@kaiser-elektro.de)**



**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.

**[www.kaiser-elektro.de](http://www.kaiser-elektro.de)**

















**Email: [info@kaiser-elektro.de](mailto:info@kaiser-elektro.de)**









**Phone: +49(0)2355.809.0**













**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.									BS
<b>10...</b>									
1048-00	•					•			
1050/51-...	•				•	•			
1055-04	•								
1055-21	•				•				
1055-62	•				•	•			
1056-04	•								
1056-21	•								
1056-62	•				•	•			
1068-02	•				•				
1069-02	•				•	•			
1075-04	•								
1076-04					•				
1081-04	•								
1081-05	•								
1081-06	•								
1092-90	•				•	•			
1094-01					•	•			
1094-91	•				•	•			
1095-01					•	•			
1095-91	•				•	•			
1096-01					•	•			
1096-91	•				•	•			
1097-75	•								
1097-92	•				•	•			
<b>11...</b>									
1155-61	•								
1155-62	•								
1155-71	•								
1155-72	•								
1172-02					•	•			
1172-08					•	•			
1172-09	•					•			
1172-62	•				•				
1172-72					•	•			
1172-92	•				•	•			
1172-98					•				
<b>12...</b>									
1210-35	•								
1210-60	•								
1223									•
1224									•
1227-50	•				•	•			
1227-54	•								
1227-55	•					•			
1245-...	•								
1248-40	•				•	•			
1248-44					•	•			
1248-50	•				•	•			
1248-55	•				•				
1249-44					•	•			
1249-50	•				•	•			
1255-40	•				•	•			
1255-43					•	•			
1255-45					•	•			
1260-40	•				•				
1260-50	•								
1262-...	•		•						
1263-...	•		•						
1264-50	•				•	•			
1264-...	•								
1265-40	•				•	•			
1265-50	•				•				
1275-40					•				
1276-40					•				
1276-70					•	•			

Art. No.									BS
1295-02					•	•			
1295-02	•								
1295-73					•				
1296-02	•				•	•			
1297-02	•				•	•			
1297-75	•								
1297-98									
1297-98								•	
<b>15...</b>									
1550-00	•				•	•			
1551-00	•				•	•			
1555-04	•								
1555-21	•				•				
1555-62	•				•	•			
1556-04	•								
1556-21	•								
1556-62	•				•	•			
1572-02	•				•	•			
<b>16...</b>									
1655-02	•								
1656-02	•				•	•			
<b>90...</b>									
9061-00				•	•	•			
9062-...	•		•	•	•	•			
9062-21	•				•	•			
9062-93	•								
9062-94	•				•				
9062-74	•								
9063-...	•		•	•	•	•			
9063-50	•				•	•			
9064-...	•		•	•	•	•	•		
9066-...	•		•		•	•			
9067-...	•		•		•				
9068-01	•				•				
9068-03	•				•				
9068-04	•				•	•			
9068-74	•								
9068-76	•								
9068-79	•								
9069-...	•								
9071-...	•				•	•			
9073-...	•		•		•	•			
9075-...	•								
9098-02									•
9098-77									•
<b>91...</b>									
9148-...	•		•			•			
9192-...	•		•			•			
9195-73					•				
9195-...	•		•		•	•			
9196-...	•		•		•	•			
9197-...	•		•		•	•			
<b>92...</b>									
9248-01						•			
9263-...	•		•		•				
9264-...	•		•		•				
<b>94...</b>									
9461-14		•							
9461-15		•							
9463-01	•								
9461-14		•							
9461-15		•							
9463-50	•								
9464-01	•								
9461-14		•							
9461-15		•							
9464-50	•								

The version of the "General Terms and Conditions of Delivery of the ZVEI for Products and Services in the Electrical Industry" which is in force at the time in question in the current version of the ZVEI ([www.zvei.org](http://www.zvei.org)) shall apply as well as the following supplementary regulations of KAISER GmbH & Co.KG.

The place of performance shall be Schalksmühle and the place of jurisdiction Lüdenscheld.

### 1. Scope of deliveries or services

The written declarations of both parties shall carry equal weight in all matters relating to the scope of deliveries or services. If a contract has been concluded without such mutual declaration, either the written order confirmation from the supplier or service provider (hereinafter: supplier), shall be decisive. If such a document has not been issued, the written order from the purchaser shall be decisive. Supplementary agreements shall only be valid if confirmed in writing.

### 2. Prices

The gross prices are recommended retail prices in Euro and exclusive of sales tax. The prices for brass products are subject to certain variations that follow the respective DEL quotations. These prices are based on a DEL quotation of 150 Euro for brass MS 58. Changes to this quotation of more than 15 Euro (upwards or downwards) will be invoiced with a 5% surcharge or a 5% reduction. The basis for the calculation will be the DEL-quotation on the date the order is received on our premises. Our product range prices - without taking into account any discounts or surcharges - can be found on [www.kaiser-elektro.org/preise](http://www.kaiser-elektro.org/preise)

### 3. Passing of risk

The risk shall pass to the purchaser, even when carriage freight paid delivery has been agreed:

1. When the delivery package has been brought to the shipping department or been collected, if assembly or mounting are not included in the delivery package. The goods shall be packaged with the utmost care. The goods shall be shipped in the manner deemed most appropriate by the supplier. At the request of the purchaser, the supplier shall insure the shipment against breakages and damage caused in transit or by fire.
2. Should the shipping, delivery, start or performance of installation or mounting be delayed at the request of the purchaser or for reasons for which he is responsible, the risk shall pass to the purchaser for the duration of the delay. However, the supplier shall be obliged to take out insurance cover if requested to do so by the purchaser. The costs for such cover shall be borne by the purchaser.

### 4. Retention of title

The goods shall remain the property of the supplier until the purchaser has satisfied all claims which the supplier can make on him under the terms of the business relationship. Prior to this time, pledging the goods or transfer by way of security shall be forbidden, and the goods may only be resold to the trade in the normal course of business subject to the proviso that the reseller receives payment from his customers. Any intervention costs shall be borne by the purchaser. If the combined value of the security interests of the supplier exceeds the value of all secured claims by more than 20%, the supplier shall release a corresponding portion of the security rights if so requested by the purchaser. Should the purchaser breach the contract (in particular if it defaults on payment), the supplier shall be entitled to take back the goods under his ownership or, if necessary, enforce assignment or claims for return against third parties. All costs arising from the return and recycling of the goods shall be borne by the purchaser. Should the supplier take back goods to which he still retains ownership rights, this shall not be interpreted as terminating the contract. Should external warehousing facilities be used for goods from the supplier to which the supplier still retains ownership rights, the supplier must be informed of this. In such cases, the purchaser must conclude an individual agreement with the warehouse company in order to ensure that no liens will be executed on the goods to which the supplier still retains ownership rights. 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. Terms of payment

1. Payment is to be made in Euros and free of transaction charges to the designated account of the supplier.
2. The purchaser may only offset those claims that are uncontested or have been recognised by declaratory judgement.
3. Unless otherwise agreed, the purchaser shall have 30 days to effect net payment, with a 3% discount if payment is made within 10 days, both counted from the date the invoice is issued.

### 6. Shipping

The prices shall apply for terms of delivery ex works for the acceptance of sealed shipping cartons for which no packaging costs are levied. If packing units are broken open, a surcharge of 5 EUR shall be levied per packing unit, irrespective of the value of the order. Orders for sealed delivery within the Federal Republic of Germany which have a net value of 800 EUR or more shall be delivered free to the purchaser's address. For small orders with a net order value less than 100 € we charge a processing fee of 25 € net.

### 7. Returns

Goods may only be returned in exceptional circumstances and must first be approved by us. If we are not notified in advance, returns will not be accepted by our distribution warehouse and shall be returned at the expense of the consignor. Please find our conditions on return at [www.kaiser-elektro.org/retouren](http://www.kaiser-elektro.org/retouren)

### 8. Acceptance

1. Even if they exhibit minor defects, the delivery items must be accepted by the purchaser.
2. Part-deliveries are permitted.

### 9. Liability for defects

The supplier shall be liable for defects as follows (if the delivered goods do not exhibit the warranted characteristics, this shall also be deemed a defect):

1. If parts or services become unserviceable or if their serviceability becomes seriously impaired within 12 months (regardless of the operation period) of the day of the passing of the risk, and if such unserviceability is due to factors which date from a time prior to the passing of the risk (in particular faulty construction, poor quality material or faulty workmanship), the supplier must either repair or replace the parts or perform the services again free of charge. Should such defects be discovered, the supplier must be informed in writing without delay.
2. The purchaser must comply with his contractual obligations, in particular the agreed terms of payment. If a complaint in respect of defects is lodged, the purchaser may withhold payments to a value considered appropriate in light of said defects. If, however, the contract concerns the operation of trade, the purchaser may only withhold payment if there is absolutely no doubt as to the legitimacy of the complaint that has been lodged.

### General information

1. The issue of this catalogue renders all previous editions null and void.
2. This edition only contains KAISER standard product ranges. Special product ranges and developments on request.
3. KAISER catalogues in other languages are available on request.
4. We make every effort to ensure that technical advice given by us is correct. Such advice is given on a purely non-binding basis. The installer of electrical installation systems shall be responsible for the selection of suitable installation boxes, the materials for such boxes and performing installation in a safe manner.

February 2016

>> Subject to technical changes. No liability for errors.

The current term and conditions of delivery and payment can be found on our website: [www.kaiser-elektro.de](http://www.kaiser-elektro.de)

<b>A</b>		
Abutment	140/168	
Abutment for adhesive foil	140	
Adhesive foil	141/297	
Air-tight sleeves for cables and conduits	96	
Aluminium-butyl sealing sleeves	99	
AMZ 2 stripping pliers	299	
<b>B</b>		
Bi-metal cutter for ThermoX® housings	295	
Bi-metallic cutter	121	
Bi-metallic cutter Ø 120 mm	294	
Bi-metallic cutter Ø 86 mm	295	
Box sealing system DS 90 / 120 mm	256	
Box sealing system DS 90 / 74 mm	253	
<b>C</b>		
Cable glands Syntec® nickel-plated brass with lamellar technology	275	
Cable sealing system LS 90	249	
Cable-sleeve ECON®	97	
Cavity wall box template	291	
Ceiling and wall exit	150	
Ceiling box 45°	145	
Ceiling box HWD 30	242	
Ceiling exit	150	
Ceiling exit bush	34	
Ceiling junction box	144/149	
Ceiling junction box HWD 30	242	
Ceiling large conduit box	145	
Ceiling light connection box		
- flush mounting	34	
- cavity wall	80	
Ceiling penetration sealing system DS 90/120 mm	260	
Ceiling penetration sealing system DS 90/74 mm	260	
Ceiling strip (ceiling exit)	154	
Ceiling strip 25° (ceiling exit)	155	
Centering aid Ø 68 mm	288	
Centering drill	285	
Centering insert 68/74	290	
Collets	292	
Combination one-gang box	60	
Compensation ring	81	
Conduit and cable distance support	179	
Conduit bend support	155	
Conduit connector	167	
Conduit sealing cap	155	
Conduit sealing system RS 90	250	
Conduit stopper	209	
Conduit supports	155	
Conduit-sleeve ECON®	97	
Connecting clip for stacking boxes	79	
Countersink hole cutter	293	
Countersink hole cutter MULTI 4000	290	
Cover		
- flush mounting	34	
- cavity wall	34/79	
- concrete	159/177	
Cover with mounting ring	178	
Cutter centering aid	297	
Cutter head MULTI 4000	289	
Cutter unit for cavity wall building materials	297	
Cutter unit for metal	297	
<b>D</b>		
Device screws		
- flush mounting	40	
- cavity wall	114	
Diamond grinding head with dust extractor	284	
Diamond grinding head without dust extractor	285	
Direct attachment / Chuck attachment	285	
Distance piece 142	167	
Distance piece 91	141	
Distance supports	38	
Domed box 45°	145	
Drilling template	285	
Dust extraction with direct attachment / Chuck attachment	284	
<b>E</b>		
Electronics box		
- flush mounting	18	
- cavity wall	78/89	
- concrete	136	
Electronics box ECON®	25	
Electronics box ECON® Flex	86	
Electronics box HWD 90	238	
End and transition bushes	153	
End and transition bushing	152	
EnoX - luminaire and loudspeaker housing	221	
EnoX sealing foam frame	221	
Expanding dowel	179	
Extension element	51/53	
Extension element 10 to 50 mm	168	
<b>F</b>		
Fire-protection box HWD 90 for Swiss accessories	235/236	
Fire-protection cover HWD 30-120	242	
Fixing adapter internal insulation box	49	
FlamoX® ...		
- fire-protection housing	264	
- fire-protection putty	267	
- housing for hollow ceilings with fire protection class F30	267	
Fleece-butyl sealing sleeves	98	
Flush-mounting fire-protection box	232	
Flush-mounting sound insulation box	21	
Formwork body	260	
Front parts for HaloX®-O	186	
<b>H</b>		
HaloX®-O ...		
- extension rings	190	
- front parts for facing concrete	187	
- front parts for square ceiling exit (CE), for facing concrete	187	
- front rings for square ceiling exit (CE)	187	
- housing	185	
- housing for drilling holes in solid ceilings	190	
- housing with short tunnel	186	
- housing with transformer tunnel	186	
- Installation kit	189	
- universal front ring for ceiling exit (CE)	188	
HaloX®-P		
- Housing	195	
- housing with mineral fibreboard	193	
- housing with mineral fibreboard and transformer tunnel	194	
- housing with transformer tunnel	196	
Hardened metal cutter	294	
Hardened metal cutter 180	287	
Hardened metal cutter 20 mm	287	
Hardened metal cutter inserts	297	
Hole punch and expanding dowel fitting tool	300	
<b>I</b>		
In-plaster junction box	33	
Interior Insulation box	48	
Internal cover	91	
ISO box set	61	

J	
Junction box	
- flush mounting	32/33
- cavity wall	77/80
- concrete	134
Junction box Ø 120 mm	90/117
Junction casing	
- flush mounting	42
- cavity wall	116
- concrete	137/138
Junction casing 80	41
Junction casings 100 / 150	42
K	
KAISER primer	100
Klemmfix®	38
KompaX® 1 ...	
- front rings for ceiling exit (CE)	200
- front rings for ceiling exit (CE) in facing concrete design	200
- housing for on-site mixed concrete	198
- housing for on-site mixed concrete with mineral fibreboard	199
- housing for slab ceilings	199
- housing for slab ceilings with mineral fibreboard	199
- intermediate frame	200
KompaX® 2 ...	
- front rings for ceiling exit (CE)	203
- front rings in exposed concrete version	203
- housing for on-site mixed concrete	201
- housing for on-site mixed concrete with mineral fibreboard	202
- housing for slab ceilings	202
- housing for slab ceilings with mineral fibreboard	202
- intermediate frame	203
KompaX® 3 ...	
- front rings for ceiling exit (CE) or wall exit	206
- front rings in exposed concrete version	206
- housing for on-site mixed concrete	204
- housing for on-site mixed concrete with mineral fibreboard	205
- housing for slab ceilings	205
- housing for slab ceilings with mineral fibreboard	205
- Installation kit for wall installation	207
- intermediate frame	206
KompaX® Styrofoam moulded parts for ceiling exit (CE)	208
L	
Light hook	
- cavity wall	80
- concrete	146/170
Light hooks, self-tapping	149
Lock nut nickel-plated brass	276
Locking plug nickel-plated brass	277
M	
Magnet	167/179
Marking chalk	286
Metal plate	114
Mini equipment carrier	65
Modular support for devices 160 – 240 mm	57
MontaX® - Magnet	281
Mounting angle for MontaX®	281
Mounting plate	280
MULTI 2000 HM	292
MULTI 2000 HM countersink hole cutter	292
MULTI 2000 HM cutting head	292
MULTI 4000 cutter set	290
N	
Nail inserter	300

O	
One-gang box	
- flush mounting	17/29
- cavity wall	75
- concrete	132/175
One-gang box ...	
- (Belgian standard)	124
- (Italian and American standard)	71/174
- Swiss standard	70/121
- acc. to EN 60670 and ÖVE	71
- CEE	31/88/134
- combinations (Swiss standard)	176
- ECON® 10	22
- ECON® 63	83
- for Swiss accessories ECON®	121
- for thin boardings	76/87
- HWD 68	240
- HWD 90	235
- HWD B15	244
- PERILEX®	134
- without support	30
One-gang junction box	
- flush mounting	17/30
- cavity wall	75/87
- concrete	133
One-gang junction box ...	
- ECON® 15	23
- ECON® 64	84
- ECON® Styro55	68
- for solid wood	88
- for thin boardings	77
- HDW 68	240
- HWD 90	235
- HWD B15	245
- with plaster skin	165
- with plaster skin and special adhesive	166
- without plaster skin	166
- without plaster skin, with special adhesive	166
- without support	31
Oval funnel	173
P	
PERILEX® one-gang box	31
PERILEX®/CEE One-gang box	77
Plaster compensation ring	
- flush mounting	39
- cavity wall	81
- concrete	167
Plaster cover	158
Plate ejector	293
Plug-in cover	139/178/179
Plug-in cover with cable outlet	178
Potential equalisation casing 10²	117
Potential equalisation casing 10² and 16²	
- flush mounting	43
- concrete	140
Prefix concrete building box 35	143
Prefix concrete building box 60	143
Prefix® assembly kit	160
Prefix® concrete building box	176
Punch bit inserts for punch pliers	300
Punch pliers	300
Q	
Q-range® one-gang boxes	69
Q-signal®	70
Q-up®	70

<b>R</b>	
Radiation protection one-gang junction box	108/111
Reamer	301
Replacement cover	
- flush mounting	43
- cavity wall	81/117
Replacement cover for junction boxes Ø 120 mm	118
Replacement mineral fibreboard	196
Replacement mineral fibreboard for HaloX®-O	188
Replacement mineral fibreboards for KompaX® 1,2,3	207
<b>S</b>	
Saw blades	293
Screened cover	
- flush mounting	36
- cavity wall	113
Screened junction casing	
- flush mounting	36
- cavity wall	113
Screened one-gang box / one-gang junction box	
- flush mounting	36
- cavity wall	113
Screw box	40
Screw-in cover	139/159
Screws	114
Sealing foil	91
Sealing identification tag	261
Sealing inserts	26/92
Sealing plugs 16-20	28/92/261
Sealing plugs 25-40	29/92/261
Sealing screws	
- flush mounting	40
- cavity wall	114
Separator wall	118
Separator walls	
- flush mounting	43
- cavity wall	118
- concrete	177
Set of Prefix® wings	160
Signal cover	
- flush mounting	38
- cavity wall	71
- concrete	150
Slab ceiling box for retrofitting	146
Slab ceiling large box 105	170
Slab ceiling large box 115	146/170
Slide nuts for British accessories inserts	175
Sound insulation box for Swiss accessories	122
Sound insulation box for Swiss accessory combinations	122/123
Sound insulation cover	
- flush mounting	21
- cavity wall	103
Sound insulation electronics box	105
Sound-insulation box	103
Spacing cutter, Profix	291
Spirit level cover	286
Spring cover	40
Standard cutter	293
Step drill	301
Styro55 tool	288
Support conduit Ø 20 mm	141
Support connector	
- flush mounting	49
- cavity wall	81/90/103/109/111
- fire-protection	235/240
Synthetic cable glands Syntec® with lamellar technology	271/272
Synthetic lock nuts with flange	276
Synthetic locking plug	277
Synthetic Syntec® cable glands with lamellar technology and anti-kink nozzle	273
System equipment carrier 240 – 310 mm	57
<b>T</b>	
Telescope equipment carrier	60
Telescope support	163
Telescope switch box	60
ThermoX® Decorative coverings	227
ThermoX® housing for low and high-voltage luminaires	226
ThermoX® individual front rings	226
ThermoX® LED housing	218
ThermoX® universal front ring	227
ThermoX® universal housing with mineral fibreboard	226
Threaded connecting pieces for inch conduits	209
Tunnel connector	39
Turbo cutter MULTI 4000	289
Twist drill	293
Twist drill for VARIOCUT	297
Two-gang box	175
Two-gang junction box	
- flush mounting	29
- cavity wall	76
- concrete	136
Two-gang junction box ECON®	25
<b>U</b>	
Universal ceiling and wall exit	149
Universal equipment carrier	51
Universal equipment carrier with combination insert	53
Universal extension element	169
Universal installation housing with mineral fibreboard	
- flush mounting	45
- cavity wall	120
- concrete	161/162
Universal opening cutter for plastics	299
Universal VDE cover	
- flush mounting	39
- cavity wall	90
- concrete	177
Universal waterproof cover	
- flush mounting	39
- cavity wall	91
- concrete	177
UP extension ring	62
Upper frame	138/158
<b>V</b>	
VARIOCUT box	296
VARIOCUT universal hole cutter for cavity wall building materials	296
<b>W</b>	
Wall and ceiling transition	171
Wall and ceiling transition 30°	153
Wall and ceiling transition 90°	172
Wall light connection box	
- flush mounting	34
- cavity wall	79/89
- concrete	133
Waterproof cover	139/159
Wire-pull casing	157/158



Art. no.	Page	Art. no.	Page	Art. no.	Page	Art. no.	Page
<b>10...</b>		1082-84	121	1088-16	284	1097-93	43/117/177
10100	178	1082-86	295	1088-20	285	<b>11...</b>	
1040-01	26/92	1083-05	290	1088-21	284	11021	155
1040-16	28/92/261	1083-09	289	1088-30	285	11081	178
1040-20	28/92/261	1083-10	289	1088-40	285	11082	178
1040-25	29/92/261	1083-20	290	1088-41	284	11086	178
1040-32	29/92/261	1083-25	291	1089-00	296	11088	178
1040-40	29/92/261	1083-27	291	1089-01	297	1144-00	34
1045.12.050	275	1083-28	291	1089-02	297	1144-05	34
1045.12.070	275	1083-29	291	1089-10	296	1145.12.050	275
1045.17.060	275	1083-30	293	1089-25	296	1145.12.070	275
1045.17.100	275	1083-31	292	1089-30	297	1145.17.060	275
1045.20.080	275	1083-32	292	1089-31	297	1145.17.100	275
1045.20.130	275	1083-35	292	1089-33	297	1145.20.080	275
1045.25.110	275	1083-37	293	1089-34	297	1145.20.130	275
1045.25.170	275	1083-51	294	1089-91	297	1145.25.110	275
1045.32.150	275	1083-65	292	1089-92	297	1145.25.170	275
1045.32.210	275	1083-69	292	1090-21	288	1145.32.150	275
1045.40.230	275	1083-70	292	1090-68	288	1145.32.210	275
1045.40.280	275	1083-74	294	1092-20	43	1145.40.230	275
1045.50.290	275	1083-95	294	1092-27	45	1145.40.280	275
1045.50.350	275	1083-99	290	1092-28	45	1145.50.290	275
1045.63.390	275	1084-00	295	1092-90	42	1145.50.350	275
1045.63.480	275	1084-05	290	1092-93	43/117	1145.63.390	275
1048-00	34	1084-09	289	1092-95	43	1145.63.480	275
1050-00	30	1084-10	289	1094-01	41	1145.63.550	275
1051-00	30	1084-65	292	1094-13	43	1148-90	34/79
1055-04	17	1084-69	292	1094-20	43	1148-93	179
1055-21	22	1084-70	292	1094-22	45	1155-02	62
1055-62	29	1085-09	293	1094-91	41	1155-03	61
1056-04	17	1085-80	299	1095-01	42	1155-61	39
1056-21	22	1085-99	291	1095-13	43	1155-62	39
1056-62	29	1086-00	293	1095-20	43	1155-71	39
1068-02	18	1086-05	293	1095-22	45	1155-72	39
1068-21	25	1086-08	293	1095-73	43	1158-90	91
1069-02	17	1086-09	293	1095-91	42	1159-02	38
1074-04	209	1086-30	293	1095-93	43/117/177	1159-12	38
1075-04	31	1087-08	293	1096-01	42	1159-24	51
1076-04	31	1087-09	293	1096-13	43	1159-25	40
1076-20	71	1087-86	295	1096-20	43	1159-26	53
1081-04	33	1088-00	285	1096-22	45	1159-27	51/53
1081-05	33	1088-01	285	1096-91	42	1159-34	38
1082-05	290	1088-02	284	1096-93	43/117/177	1159-36	39
1082-09	289	1088-03	284	1097-22	43	1159-50	65
1082-10	289	1088-06	287	1097-28	45	1159-60	60
1082-20	294/295	1088-07	287	1097-75	43	1159-61	60
1082-79	295	1088-15	285	1097-92	42	1159-62	60

FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

CABLE GLANDS

TOOLS

SERVICE

# Service

## Article numbers index

Art. no.	Page	Art. no.	Page	Art. no.	Page	Art. no.	Page
1159-90	48	1212-14	141	1260-40	133	1281-01	186
1159-91	49	1212-16	141	1260-50	145	1281-02	186
1164-88	36/113	1212-18	141	1261-06	169	1281-03	186
1172-02	32	1212-20	141	1261-07	169	1281-04	186
1172-04	32	1212-98	141	1261-08	169	1281-05	186
1172-05	32	1212-99	141	1261-09	169	1281-06	186
1172-06	32	1217-02	179	1261-10	168	1281-07	186
1172-08	32	1219-00	141	1261-11	168	1281-08	187
1172-09	32	1219-10	297	1261-12	171	1281-09	187
1172-62	32	1220-02	179	1261-14	172	1281-10	188
1172-92	32	1223-22	161	1261-16	172	1281-11	188
1174-25	40	1223-41	175	1261-18	167	1281-61	187
1174-99	39/91/177	1224-22	161	1261-20	167	1281-62	187
1181-35	38/150	1224-41	175	1261-25	167	1281-63	187
1181-48	38	1224-99	175	1261-32	167	1281-64	187
1181-56	38	1225-10	149	1261-40	167	1281-65	187
1181-60	38	1225-12	149	1261-42	173	1281-66	187
1181-70	38	1225-14	149	1261-43	173	1281-67	187
1181-94	38	1225-30	149	1261-60	167	1281-68	187
1181-95	38	1225-40	149	1261-72	168	1281-69	187
1184-25	40	1225-60	149	1261-73	171	1283-33	154
1184-69	21/103	1225-80	149	1261-80	167	1283-34	154
1184-77	39/90/177	1226-30	146	1262-60	165	1284-32	301
1184-90	39/90/177	1226-55	80/146	1262-61	166	1284-34	301
1184-94	242	1226-65	80/146	1262-70	166	1284-35	301
1190-02	299	1226-75	146	1262-71	166	1284-36	301
1190-55	286	1226-85	146	1263-60	165	1284-62	300
1190-60	286	1226-95	146	1263-61	166	1284-63	300
1190-65	285	1226-97	146/170	1263-70	166	1284-68	300
<b>12...</b>		1226-98	146/170	1263-71	166	1284-69	300
1200-00	174	1226-99	146/170	1264-50	144	1285-33	300
1202-04	153	1227-50	146	1264-60	165	1285-34	300
1202-29	153	1227-54	170	1264-61	166	1286-33	300
1202-34	153	1227-55	170	1265-40	133	1286-34	300
1203-28	153	1245-62	149	1265-50	144	1290-11	189
1204-24	152	1245-63	149	1268-40	136	1290-14	190
1204-29	152	1247-01	146	1269-40	136	1290-18	190
1204-34	152	1248-40	133	1270-00	179	1290-19	190
1205-02	140	1248-44	145	1273-43	155	1290-30	190
1210-02	140	1248-50	145	1273-44	155	1290-40	185
1211-36	143	1248-55	34	1273-45	155	1290-41	186
1211-61	143	1249-44	145	1274-20	209	1290-42	186
1212-04	141	1249-50	145	1274-25	209	1291-15	195
1212-06	141	1255-40	132	1275-40	134	1291-16	196
1212-08	141	1255-43	132	1276-40	134	1291-22	193
1212-10	141	1259-04	141	1276-70	134	1291-23	194
1212-12	141	1259-96	179	1276-71	134	1291-50	195

Art. no.	Page	Art. no.	Page	Art. no.	Page	Art. no.	Page
1291-51	196	1294-92	207	1551-00	31	1564-01	232
1292-00	201	1294-93	207	1555-04	17	1569-01	21
1292-01	203/206	1294-94	207	1555-21	23	1572-02	33
1292-06	203/206	1294-95	207	1555-51	68	1576.12.06	273
1292-10	203/206	1294-97	207	1555-62	30	1576.17.08	273
1292-13	203	1294-98	207	1555-88	36	1576.20.07	273
1292-14	203	1295-02	137/174	1555.12.06	271	1576.20.12	273
1292-27	202	1295-22	161	1555.12.1.06	272	1577.12.06	273
1292-28	202	1295-73	140	1555.17.06	271	1577.17.08	273
1292-35	202	1296-02	137	1555.17.1.06	272	1577.20.07	273
1292-80	203/206	1296-20	177	1555.17.1.10	272	1577.20.12	273
1292-81	203/206	1296-22	162	1555.17.10	271	<b>16...</b>	
1292-82	203/206	1297-02	137	1555.20.08	271	1655-02	29
1292-90	208	1297-20	177	1555.20.1.08	272	1656-02	29
1292-97	207	1297-22	162	1555.20.1.13	272	1656-21	25
1292-98	207	1297-34	162	1555.20.13	271	<b>20...</b>	
1293-00	198	1297-35	162	1555.25.1.11	272	2000-00	280
1293-13	200	1297-75	140	1555.25.1.17	272	2000-80	281
1293-14	200	1298-37	162	1555.25.11	271	2000-90	281
1293-15	199	1298-38	162	1555.25.17	271	205	124
1293-16	200/203/206	1299-20	196	1555.32.1.25	272	<b>24...</b>	
1293-18	200/203/206	1299-27	188	1555.32.25	271	2444-15	40/114
1293-19	200/203/206	<b>15...</b>		1555.40.1.33	272	2444-40	40/114
1293-20	200/203/206	1545.12.06	271	1555.50.1.38	272	2445-25	114
1293-24	200	1545.12.1.06	272	1555.63.1.44	272	2445-50	114
1293-27	199	1545.17.06	271	1556-04	17	2471-15	40/114
1293-28	199	1545.17.1.06	272	1556-21	23	2471-20	40/114
1293-30	200	1545.17.1.10	272	1556-62	30	2471-25	40/114
1293-66	200/203/206	1545.17.10	271	1556.12.06	271	2471-40	40/114
1293-71	200/206	1545.20.08	271	1556.12.1.06	272	2471-91	40
1293-80	200/203/206	1545.20.1.08	272	1556.17.06	271	<b>45...</b>	
1293-81	200/203/206	1545.20.1.13	272	1556.17.1.06	272	4552	154
1293-82	200/203/206	1545.20.13	271	1556.17.1.10	272	4555	155
1293-83	200/203/206	1545.25.1.11	272	1556.17.10	271	4558	154
1293-84	200/203/206	1545.25.1.17	272	1556.20.08	271	4560	155
1293-85	200/206	1545.25.11	271	1556.20.1.08	272	4561	155
1293-86	200	1545.25.17	271	1556.20.1.13	272	<b>66...</b>	
1293-87	200	1545.32.1.25	272	1556.20.13	271	662	71
1293-97	207	1545.32.25	271	1556.25.1.11	272	663	71
1293-98	207	1545.40.1.33	272	1556.25.1.17	272	<b>75...</b>	
1294-00	204	1545.50.1.38	272	1556.25.11	271	7500	69
1294-13	206	1545.63.1.44	272	1556.25.17	271	7501	69
1294-14	206	1546.12.06	273	1556.32.1.25	272	752	69
1294-15	205	1546.17.08	273	1556.32.25	271	<b>76...</b>	
1294-27	205	1546.20.07	273	1556.40.1.33	272	7650	69
1294-28	205	1546.20.12	273	1556.50.1.38	272	7651	69
1294-91	207	1550-00	31	1556.63.1.44	272		

FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

CABLE GLANDS

TOOLS

SERVICE

Art. no.	Page	Art. no.	Page	Art. no.	Page	Art. no.	Page
<b>80...</b>		8855.25	277	9066-12	88	9089-51	98
8000.12	276	8855.32	277	9066-77	87	9089-52	98
8000.17	276	8855.40	277	9067-01	77	9089-53	98
8000.20	276	8855.50	277	9067-77	77	9089-54	98
8000.25	276	8855.63	277	9068-01	87	9089-55	98
8000.32	276	<b>90...</b>		9068-03	77	9098-77	121
8000.40	276	9000-02	100	9068-04	76	<b>91...</b>	
8000.50	276	9059-44	96	9068-74	76	9148-00	79
8000.63	276	9059-45	96	9068-76	77	9155-61	81
<b>82...</b>		9059-46	96	9068-79	87	9155-62	81
8245.12	276	9059-47	96	9068-88	113	9155-71	81
8245.17	276	9059-48	96	9069-01	103	9155-72	81
8245.20	276	9059-49	96	9069-74	105	9192-20	118
8245.25	276	9059-51	96	9069-77	103	9192-22	120
8245.32	276	9059-52	96	9069-94	105	9192-27	120
8245.40	276	9059-53	96	9071-01	77	9192-77	116
8245.50	276	9059-54	96	9071-77	77	9192-91	116
8245.63	276	9059-55	96	9073-01	117	9195-20	118
8255.12	276	9059-61	97	9073-20	118	9195-22	120
8255.17	276	9059-62	97	9073-77	90	9195-27	120
8255.20	276	9060-40	81	9073-78	117	9195-73	117
8255.25	276	9060-41	91	9073-79	118	9195-77	116
8255.32	276	9060-68	240	9073-91	90	9195-88	36/113
8255.40	276	9060-74	109	9073-93	118	9195-91	116
8255.50	276	9060-77	81	9074-01	108	9196-20	118
8255.63	276	9060-78	90/103/235	9074-03	111	9196-22	120
<b>87...</b>		9060-88	49/103/111	9075-01	77	9196-27	120
8745.12	277	9060-95	179	9075-12	88	9196-77	116
8745.17	277	9060-97	81	9075-77	77	9196-91	116
8745.20	277	9060-98	90	9075-78	88	9197-20	118
8745.25	277	9061-00	75	9079-44	99	9197-22	120
8745.32	277	9061-77	75	9079-45	99	9197-27	120
8745.40	277	9062-02	76	9079-46	99	9197-77	116
8745.50	277	9062-21	80	9079-47	99	9197-91	116
8745.63	277	9062-50	79	9079-48	99	<b>92...</b>	
<b>88...</b>		9062-74	78/89	9079-49	99	9248-01	79/89
8845.12	277	9062-77	76	9079-51	99	9248-77	79/89
8845.17	277	9062-90	81	9079-52	99	9263-21	83
8845.20	277	9062-94	78/89	9079-53	99	9263-77	83
8845.25	277	9063-01	75	9079-54	99	9264-21	84
8845.32	277	9063-50	80	9079-55	99	9264-77	84
8845.40	277	9063-77	75	9089-44	98	9268-74	86
8845.50	277	9063-88	113	9089-45	98	9268-94	86
8845.63	277	9064-01	75	9089-46	98	9298-21	121
8855.12	277	9064-77	75	9089-47	98	<b>93...</b>	
8855.17	277	9064-88	113	9089-48	98	9300-01	226
8855.20	277	9066-01	87	9089-49	98	9300-02	226

Art. no.	Page	Art. no.	Page	Art. no.	Page
9300-03	226	9473-96	260	9916.02	159
9300-22	226	9498-77	235	9916.03	159
9300-41	226	9498-77.02	235	9916.06	158
9300-42	226	9498-77.03	235	9916.21	157
9300-43	226	9499-77	236	9916.68	158
9300-93	227	9499-77.02	236	9917	158
9301-01	227	9499-77.03	236	9917.02	159
9301-02	227	9499-77.04	236	9917.03	159
9301-03	227	9499-77.06	236	9917.06	158
9301-04	227	<b>97...</b>		9917.21	158
9301-11	227	975	70	9917.68	158
9301-12	227	9798-77	122	9918	176
9301-13	227	9798-77.02	122	9921	70
9301-14	227	9798-77.03	122	9922	176
9320-10	218	9798-77.04	122	9923	176
9320-11	218	9798-77.06	122	9924	176
9320-20	218	9799-77	123	9924.40	176
9320-21	218	9799-77.02	123	9926	176
9350-21	221	9799-77.03	123	9928	176
9350-99	221	9799-77.04	123	9929	176
<b>94...</b>		9799-77.06	123	994	70
9400-05	267	<b>99...</b>		9940	176
9435-01	267	991.234	70	9940.20	160
9435-03	264	99.1234.06	71	9940.22	160
9435-04	264	9907	138	9940.40	160
9459-01	249	9907.21	138	9940.44	160
9459-02	250	9907.68	138	9951	150
9459-03	253	9907.68.45	138	9955	150
9459-04	256	9908.01	138	9957	163
9459-05	260	9908.21	138	9959	149
9459-06	260	9908.68	138	9966.21	57
9461-14	244	9909.01	138	9966.22	57
9461-15	244	9909.02 S	139	9966.31	57
9462-94	238	9909.03	139	9966.32	57
9463-01	235	9909.10	139		
9463-02	240	9909.12	139		
9463-14	244	9909.20	139		
9463-15	244	9909.22	139		
9463-50	242	9911.01	157		
9464-01	235	9911.02	159		
9464-02	240	9911.03	159		
9464-14	245	9911.12	159		
9464-15	245	9912.01	157		
9464-50	242	9914.01	157		
9473-91	261	9914.02	159		
9473-92	261	9914.03	159		
9473-95	260	9916	157		

FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

CABLE GLANDS

TOOLS

SERVICE



# 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.

Olympia Tower | Munich



© Wolfgang Hilbrich

European Central Bank | Frankfurt



© eyetronic\_fotolia

### 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.

These include the European Central Bank in Frankfurt am Main, the Olympia Tower in Munich, the Europaschule Bad Vilbel, and also in WeberHaus's energy-efficient houses.

Düsseldorf's "Kö-Bogen" is a shopping and office area which is also equipped with KAISER's electrical installation quality products. But KAISER's products are not only in demand for new constructions - they can also be found in old buildings, for example in the renovated Kardinal-Schulte-Haus in Bergisch-Gladbach.

Modern energy-efficient house



Kardinal-Schulte-Haus | Conference Centre of  
the Archdiocese of Cologne



More about our business  
sectors:

- Energy efficiency
- Fire protection
- Concrete construction
- Sound insulation
- Radiation protection
- Refurbishing
- Cable glands

at [www.kaiser-elektro.de](http://www.kaiser-elektro.de)

**Trust** through experience.

Kö-Bogen | Düsseldorf



© krischerfotografie

Europaschule | Bad Vilbel



FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

CABLE GLANDS

TOOLS

SERVICE





**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 and HELIA in Belgium, we are always there for our customers. The close collaboration between the three companies creates substantial synergies to the benefit of our partners in trade, commerce and industry.

## Creating **the future together.**

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 and HELIA in Belgium, we are always there for our customers. The close collaboration between the three companies creates substantial synergies to the benefit of our partners in trade, commerce and industry.

**Headquarters: KAISER**  
Schalksmühle, Germany



**HELIA**  
Bornem, Belgium



**AGRO**  
Hunzenschwil, Switzerland



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](http://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](http://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](http://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](http://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](http://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](http://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](http://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](http://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](http://www.zvei.org)

### KAISER – Headquarters



#### KAISER GmbH & Co. KG

Ramsloh 4  
58579 Schalksmühle  
GERMANY

Phone: +49 (0) 23 55 / 809-0  
Fax: +49 (0) 23 55 / 809-21  
[www.kaiser-elektro.de](http://www.kaiser-elektro.de)  
[info@kaiser-elektro.de](mailto:info@kaiser-elektro.de)

### KAISER – Subsidiaries



#### AGRO AG | A KAISER COMPANY

Korbackerweg 7  
5502 Hunzenschwil  
SWITZERLAND

Phone: +41 (0) 62 / 88 94 747  
Fax: +41 (0) 62 / 88 94 750  
[www.agro.ch](http://www.agro.ch)  
[info@agro.ch](mailto:info@agro.ch)



#### N.V. PLASTIC COLOR | A KAISER COMPANY

Puursesteenweg 363  
2880 Bornem  
BELGIUM

Phone: +32 (0) 3 / 899 40 40  
Fax: +32 (0) 3 / 899 40 50  
[www.helia-elektro.be](http://www.helia-elektro.be)  
[info@helia-elektro.be](mailto:info@helia-elektro.be)



### KAISER – Foreign agencies

#### 1 AUSTRIA

Siblik Elektrik GmbH & Co.KG  
Murbangasse 6  
1108 Wien / Vienna  
Phone: +43 1 68 00 61 27  
Fax: +43 1 68 00 65 9  
[www.siblik.com](http://www.siblik.com)  
[info@siblik.com](mailto:info@siblik.com)

#### 2 BELARUS

UP Elektroplan  
Orlovskaya str. 40-19  
220053 Minsk  
Phone: +375 17 23 78 805  
[www.eplan.by](http://www.eplan.by)  
[eplan@eplan.by](mailto:eplan@eplan.by)

#### 3 CROATIA

Daljinsko Upravljanje d.o.o.  
B. Smetane 10  
10000 Zagreb  
Phone: +385 1 38 86 677  
Fax: +385 1 38 80 247  
[www.daljinsko-upravljanje.hr](http://www.daljinsko-upravljanje.hr)  
[daljinsko-upravljanje@inet.hr](mailto:daljinsko-upravljanje@inet.hr)

#### 4 CZECH REPUBLIC

E I M  
Elektro-Import Jablonec s.r.o.  
Maršovice 137  
46801 Jablonec nad Nisou  
Phone: +420 483 34 62 31  
Fax: +420 483 30 20 54  
[www.elektroimport.cz](http://www.elektroimport.cz)  
[info@elektroimport.cz](mailto:info@elektroimport.cz)

#### 5 DENMARK

Wexoe A/S  
Lejrvej 31  
3500 Værløse  
Phone: +45 45 46 58 00  
Fax: +45 45 46 58 01  
[www.wexoe.dk](http://www.wexoe.dk)  
[wexoe@wexoe.dk](mailto:wexoe@wexoe.dk)

#### 6 ESTONIA

Vallin Baltic AS  
Mäepealse 2  
12618 Tallinn  
Phone: +372 65 93 200  
Fax: +372 65 93 201  
[www.vallin.ee](http://www.vallin.ee)  
[info@vallin.ee](mailto:info@vallin.ee)



### 7 FINLAND

OY DJS Automation AB  
Vitikka 1 D  
02630 Espoo  
Phone: +358 9 439 1600  
Fax: +358 9 439 16060  
www.djsautomation.fi  
info@djsautomation.fi

### 8 FRANCE

Jung France SARL  
29, rue des Merisiers  
68920 Wettolsheim  
Phone: +33 3 89 20 10 10  
Fax: +33 3 89 20 10 01  
jung-france@wanadoo.fr

### 9 GREECE

Expo SA  
13 Amaliados St.  
14564 Athen-Nea Kifissa  
Phone: +30 210 74 85 560  
Fax: +30 210 77 06 342  
www.expo.gr  
info@expo.gr

### 10 HUNGARY

Ultima Kft.  
Rétifarkas u. 6  
1172 Budapest  
Phone: +36 1 432 88 20  
Fax: +36 1 264 12 54  
www.ultima.hu  
info@ultima.hu

### 11 ICELAND

Rafport  
Nybylavegur 14  
200 Kopavogur  
Phone: +354 554 44 43  
Fax: +354 554 41 02  
www.rafport.is  
rafport@rafport.is

### 12 IRELAND

Core Electrical Ltd.  
17 B Goldenbridge Ind. Est.  
Inchicore · Dublin 8  
Phone: +353 1 453 70 33  
Fax: +353 1 453 89 11  
www.coreelectrical.ie  
sales@coreelectrical.ie

### 13 LATVIA

Vallin Baltic SIA  
Maskavas str. 322  
1063 Riga  
Phone: +371 6718 72 04  
Fax: +371 6718 72 05  
www.vallin.lv  
info@vallin.lv

### 14 LITHUANIA

Vallin Baltic UAB  
Seimyniskiu str. 5A  
09312 Vilnius  
Phone: +370 527 288 93  
Fax: +370 527 288 43  
www.vallinbaltic.com  
info@vallin.lt

### 15 NETHERLANDS

Gunneman B.V.  
2e Industrieweg 4  
8051 CM Hattem  
Phone: +31 38 443 24 00  
Fax: +31 38 443 24 99  
www.gunneman.nl  
info@gunneman.nl

### 16 NORWAY

Stork as  
Brynsveien 100  
1352 Kolsas  
Phone: +47 67 17 64 00  
Fax: +47 67 17 64 01  
www.stork.no  
stork@stork.no

### 17 PORTUGAL

D N L Duarte Neves  
Quinta dos Estrangeiros, Rua D, 78  
2665-601 Venda do Pinheiro  
Phone: +351 219 668 100  
Fax: +351 219 668 109  
www.duarteneves.pt  
info@duarteneves.pt

### 18 ROMANIA

Unilux International S.R.L.  
4, Libertatii Blvd.  
Bl. 117, 7th floor, Ap.19, Sector 4  
761061 Bukarest  
Phone: +40 21 31 77 801  
Fax: +40 21 31 77 803  
www.uniluxinternational.ro  
contact@uniluxinternational.ro

### 19 SLOVAKIA

Elektro-Import Slovakia  
Zamost 235  
02952 Hrustin  
Phone: +421 903 410160  
Fax: +421 435 577090  
www.elektroimport.cz  
eim-ski@stonline.sk

### 20 SLOVENIA

LOG d.o.o.  
Srednje Bitnje 70  
4209 Zabnica  
Phone: +386 4 231 20 00  
Fax: +386 4 231 23 31  
www.log.si  
info@log.si

### 21 SPAIN

Guijarro Hermanos, S.L.  
c/Isaac Peral 6 · P.I. Nuestra  
Senora de Butarque  
28914 Leganés (Madrid)  
Phone: +34 91 687 00 22  
Fax: +34 91 687 66 16  
www.guijarro-hnos.es  
info@guijarro-hnos.es

### 22 SWEDEN

Maxel Belysning AB  
Avestagatan 35  
163 53 Spanga  
Phone: +46 8 445 7440  
Fax: +46 8 369 930  
www.maxel.se  
info@maxel.se

### 23 UKRAINE

TEKO INTERFACE  
ul. Lomonosova 73 g  
03022 Kiev  
Phone: +38 044 374-06-40  
Fax: +38 044 374-06-42  
www.tekointerface.com.ua  
t.antonova@teko.in.ua

## KAISER – Further supply sources

Great Britain · Italy · Luxemburg · Poland · Russia · United Arab Emirates

Please contact us for further information

Updated information can be found on our homepage: [www.kaiser-elektro.de](http://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).



## Fire protection

KAISER fire protection systems offer you reliable protection for electrical installations in fire protection walls and ceilings.



## Sound insulation

KAISER's innovative sound insulation boxes ensure the structural requirements for sound insulation walls, even with pre-fitted installations.



## Radiation protection

The use of the new radiation protection boxes maintains the wall's radiation protection without the need for any additional screening measures.



## Refurbishment

KAISER has matching product system solutions which are used safely, consistently and in accordance with building-site practices for redeveloping, renovating and modernising work.

### Technical information and advice

You will find more information about products, system solutions and communication media on our website: [www.kaiser-elektro.de](http://www.kaiser-elektro.de)

For additional questions or information, please contact our technical staff.  
KAISER Tel.: +49 (0) 23 55/809-61 · KAISER Email: [technik@kaiser-elektro.de](mailto:technik@kaiser-elektro.de)

### KAISER GmbH & Co. KG

Ramsloh 4 · 58579 Schalksmühle  
GERMANY  
Tel. +49 (0) 23 55/809-0 · Fax +49 (0) 23 55/809-21  
[www.kaiser-elektro.de](http://www.kaiser-elektro.de) · [info@kaiser-elektro.de](mailto:info@kaiser-elektro.de)

