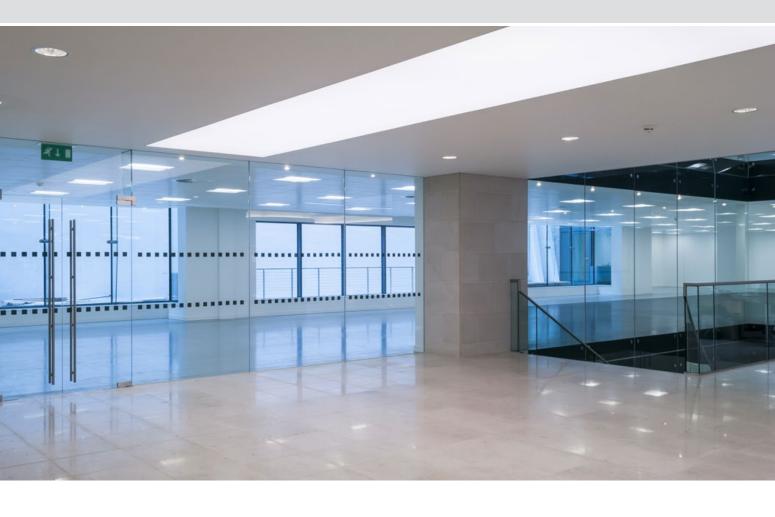
Free space.

For luminaires, loudspeakers and installation accessories.







Free space for luminaires, loudspeakers and installation accessories.

Light is an important design element in modern architecture. Programmed lighting scenarios transform not only public buildings but also private living spaces into smart homes. To deliver ultimate design freedom, KAISER provides a broad range of installation housings for luminaires and loudspeakers to be installed in concrete walls/ ceilings, cavity walls/ceilings as well as thermal insulation systems, all in compliance with fire protection requirements.

Our housing systems for use in concrete construction are suitable for both on-site mixed concrete and precast concrete, offering planning, costing and assembly security. Robust and shape-retaining, they create the free space needed for any professional design, planning and installation work. The flexibility of our system provides the perfect solution for any installation scenario. A variety of planning aids and personal technical advice support you in planning and implementing your project. KAISER installation housings for luminaires and loudspeakers are characterised by:

- · ease of assembly
- · shape retention
- · halogen-free design
- · fire-preventive protection
- · certified fire protection
- · prevention of parasitic voltages
- · individual planning of projects





Free space for luminaires, loudspeakers and installation accessories. Service. The easy way. Support throughout the building's life cycle with KAISER BIM data.		2 4 5
Requirements	Product solutions	
Installation housings for concrete construction Installation space for luminaires and loudspeakers in on-site mixed concrete ceilings. Variable installation space for various installation accessories. Installation space for luminaires and loudspeakers in slab ceilings. For retrofitting in slab ceilings and solid concrete ceilings.	HaloX® for on-site mixed concrete Universal installation housings for concrete ceilings and walls HaloX® for precast concrete HaloX® installation kit, HaloX® for solid concrete ceilings	6 8 14 16 22
Installation housings for energy efficiency: dry construction methods/thermal insulation systems Air-tight installation space for LED recessed downlights. Air-tight installation space for halogen and LED built-in luminaires. Air-tight installation within the insulation level. For built-in LED luminaires and installation accessories in insulated ceilings.	ThermoX® LED installation housings ThermoX® installation housings EnoX® installation housings Installation housing ThermoX® Iso +	24 26 28 29 30
Installation housings for fire protection walls For luminaires and loudspeakers in fire protection ceilings. Installation of sensors etc. in fire-protection ceilings.	FlamoX® fire-protection housing Ceiling boxes HWD 30	33 34 36
Luminaire installation Luminaire installation for insulated exterior facades and concrete ceilings. Luminaire mounting in insulated ceilings.	Equipment carriers and light junction boxes Luminaire connection box and spacer	38 40
Free space for luminaires and loudspeakers. At a glance. KAISER PRODUCT RANGE. Solutions and systems for professional electrical	ıl installation work.	41 44



Service. The easy way.

KAISER's innovative brand products stand out thanks to the product-oriented service that comes with them. This allows both you and your customers to take advantage of all the benefits they offer.

In simple and intuitive videos, we explain all the benefits of our products and processes. A clever product filter in the online catalogue on kaiser-elektro.de assists you in making the right product choice. Tender texts and specifications, CAD data and BIM data make professional planning easy for you.

- 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
- Tender specifications in multiple formats
- BIM data for your planning programme
- CAD data for proper construction



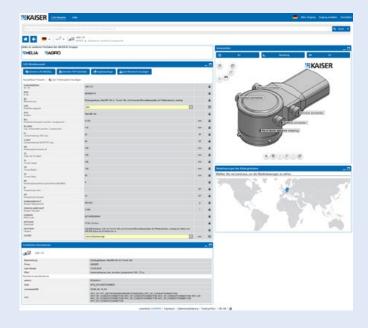
Building Information Modeling The future in building construction



Building Information Modeling (**BIM**) is emerging as the key future trend in building construction. It opens up a new planning and building culture and is fast becoming the standard in building planning. Based on three-dimensional computer models, this digital planning and construction method enables the virtual representation and optimisation of a building throughout its entire life cycle, from design through to dismantling.

In a cooperative planning process with all parties involved, **all geometric and technical data** are successively recorded, supplemented and cross-checked. These data describe e.g. the material, lifetime, environmental or other characteristics such as acoustic or fire protection properties. This allows planning errors, risks, disturbed construction processes, collisions of trades, and unnecessarily high operating costs to be identified and eliminated already in the early planning stages. In this way, unexpected cost increases during construction and operation are avoided.

To promote the **digitalisation of planning and construction** in Germany, the Federal Ministry of the Interior, Building and Community is gradually introducing BIM for building projects in the public sector. The method is already successfully being applied in many public and private projects to the benefit of all parties involved in the construction process.



For planning, implementation and operation. Support throughout the entire building life cycle with KAISER BIM data.

KAISER provides planners, architects, engineers and specialist firms with extensive support in the planning, implementation and operation of their BIM projects:



The user can directly access the information section on tendering and planning on the KAISER homepage via the link:

https://www.kaiser-elektro.de/en_DE/service/planning-tools/

3D Multi BIM CAD data on concrete construction, cavity wall and flush-mounted installations and on the use of luminaire and loud-speaker housings are available at https://kaiser.partcommunity.com. The engineering data can be downloaded in over 100 current CAD formats in 3D and 2D for all ongoing planning programmes.

Autodesk Revit users can also use the BIMcatalogs.net Content Plugin. Due to the consistent linking to the original KAISER data the inserted BIM objects are always up-to-date. The plugin allows the user to search, select and configure available BIM objects in the familiar Autodesk-Revit environment.

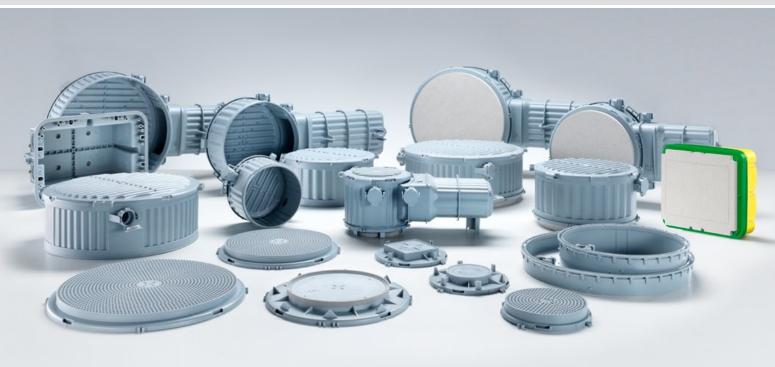
In addition to downloading product data, you can configure products to suit your specific requirements. After configuring the product, the corresponding CAD model and a data sheet can be generated as a PDF file and incorporated into the planning and documentation.

All changes in BIM are directly reflected in the volumes, quantities and costs of the construction project. This allows all project parties to be informed rapidly and also ensures perfect cost, schedule, and quality control.

Tender texts in all common formats on KAISER products can be found at http://www.ausschreiben.de/katalog/Kaiser

They can simply be incorporated into any AVA or word processing software.

KAISER - THE BASIS OF GOOD PLANNING.



Installation housings for concrete.

- Free space for luminaires and loudspeakers in concrete ceilings and walls
- Modular and flexible for all installation diameters and installation depths
- For on-site mixed concrete and precast concrete
- Optional for facing concrete
- Toolless combination entry for M20/M25 conduits can also be closed again
- Maximum contact surface with the concrete ensures optimal thermal management
- Shape-retaining, loadable and easily fitted
- All housings available with or without tunnel
- Housings and front parts are firmly and stably latched together and can later be aligned as required



HaloX® System for built-in luminaires

and loudspeakers p. 8/16/22

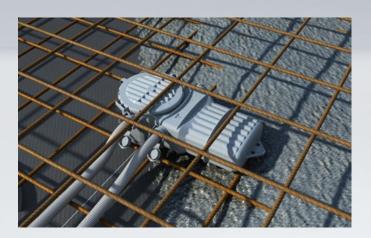


Universal installation housing

for built-in luminaires and loudspeakers

p. 14

	nstallation dimensions luminaires/loudspeakers				
	max. installation diameter luminaires/loudspeakers	Ø 250 mm	344 x 234 mm		
	max. installation depth (ID) luminaire/loudspeaker	110 mm	215 mm		
	Use in facing concrete	•	-		
	For universal installation dimensions	•	•		
	Installation variants				
	Ceiling installation	•	•		
	Wall installation	•	•		
	Concreting method				
	On-site mixed concrete	p. 8/22	•		
	Precast concrete	p. 16/22	•		





On-site mixed concrete

On-site mixed concrete is typically used for the production of large parts and surfaces. Here, the fresh concrete delivered or mixed on site is filled into the formwork prepared with reinforcement and installation components and compacted. After curing, the formwork is removed and the walls or slabs are finished.

For on-site mixed concrete, wooden formwork is usually used. The formwork can possibly be coated with plastics or synthetic resins. The boxes are attached to the formwork by simply nailing them on, which ensures a secure hold. Fastening to steel formwork is usually done with expansion plugs, by means of magnets, adhesive foils or hot glue.

The modular KAISER system is universally applicable for all concreting methods and formwork types. The perfectly coordinated individual modules guarantee exact planning and smooth processing with future-proof installation. Robust support and connection elements as well as a wide range of accessories and tools round off the range in a practice-oriented manner.

The installation of the housings and systems is carried out with empty conduits. Housings and conduits thus form a closed system. All connections of the multi-part products with each other and with pipes and cables are perfectly matched to each other. The connection openings are made without tools or with KAISER system tools, so that the stability and absolute tightness of the entire system is ensured and no foreign bodies or concrete can penetrate into the housings.



Product film

Prefabrication

Prefabricated construction (prefabrication) shows its advantages especially in the serial production of individual elements. Prefab parts are completely manufactured or prefabricated in concrete plants. This type of construction is highly efficient due to the short assembly times, the weather-independent production process and the consistent quality of the ceiling and wall elements. The high degree of automation in horizontal production on steel formwork tables ensures high-precision and fast production runs.

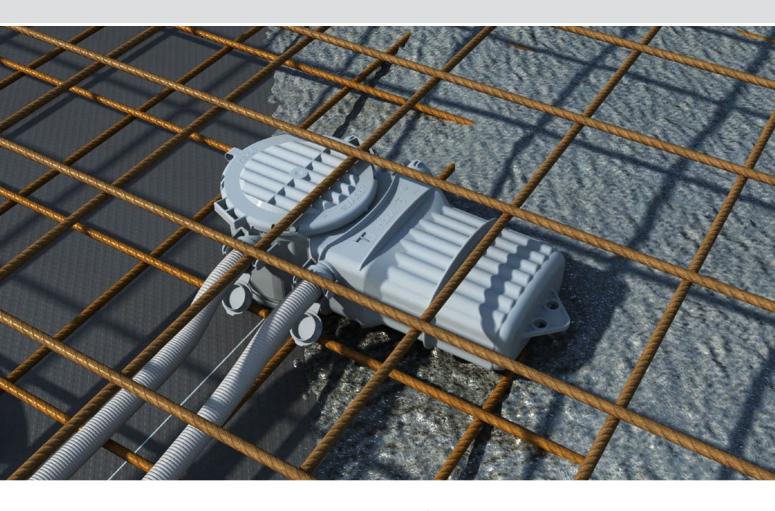
Mounting and fixing an installation system on the steel formwork must be carried out precisely, securely and rapidly. For this operation, where every minute counts, magnets, hot glues or adhesive films are used. For prefabrication, too, KAISER provides a practical system with various mounting and supporting options in order to guarantee trouble-free production.

A crucial factor for maximum efficiency in concrete prefabrication

are the production lead times. Here a key role is played by the insertion times or the times to insert housings and reinforcement, especially in computer-controlled plants with circulation systems. A decisive factor for further processing on the in-situ concrete construction site is the quality of the pre-installation and therefore the cost-reduced further processing (installation) in walls and ceilings.







There are many types of luminaires and loudspeakers.

HaloX® for all situations.

On-site mixed concrete

The new generation of concrete installation housings offers secure installation space for loud-speakers and luminaires with LED, halogen or compact fluorescent lamps in ceilings and in walls. HaloX® creates the space required for modern lighting and sound solutions. With its modular and flexible design, HaloX® offers a solution for virtually all installation diameters and installation depths.

Choosing the appropriate housings and accessories is extremely simple. The HaloX® housing system is available in three basic types - HaloX® 100, HaloX® 180 and HaloX® 250 - together with a tunnel for the secure fastening of operating devices (e.g. LED drivers).



- 1 HaloX® 100
- 2 HaloX® 180 with tunnel 190
- 3 HaloX® 250







System overview: HaloX[®] 100, HaloX[®] 180 and HaloX[®] 250 for on-site mixed concrete

The $HaloX^{\otimes}$ system for on-site mixed concrete consists of different components, which are put together individually depending on the use. Follow the steps below to choose the required parts:



3 Installation depth



(optional for facing concrete)



Extension rings 10/25/50 mm 1281-21/25/50



Extension rings 25/50 mm 1282-25/50



25/50 mm 1283-25/50

4 Accessories for wall installation





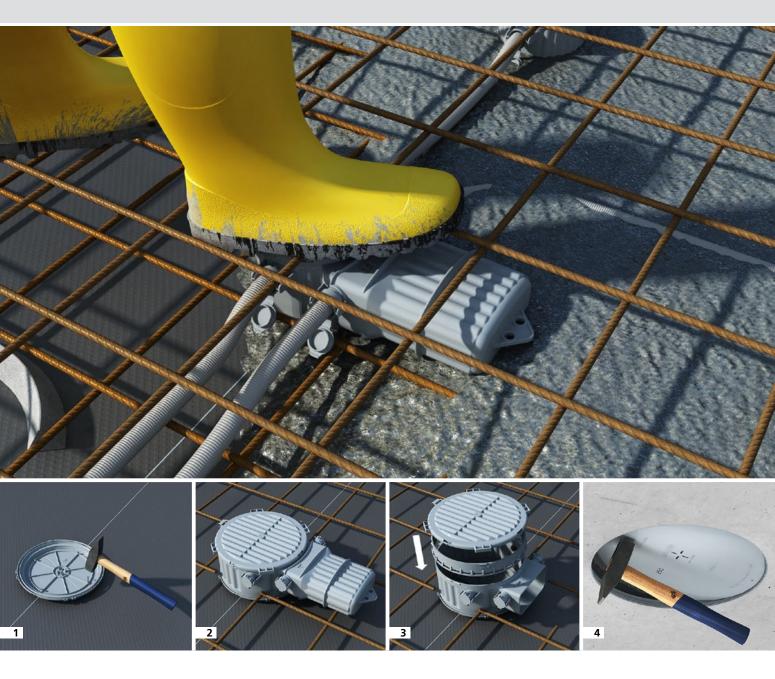
Prefix® installation set for fixing to the reinforcement 1299-65



Wall installation kit for installation in vertical formwork 1299-60...64



Prefix® installation set for fixing to the reinforcement 1299-66



Installation

The shape-retaining HaloX® system has a modular design for installation in on-site mixed concrete. Three housing diameters with multiple round, square and universal front parts allow the integration of luminaires and loudspeakers up to an installation diameter of 250 mm - also in facing concrete. With a tunnel, the system provides sufficient space for operating devices such as LED drivers. Optional extension rings can be used to increase the installation depth. All front parts are moisture-repellent and can be positioned exactly and nailed-on even before the first reinforcement is laid. Housings and front parts are firmly and stably latched together and can still be aligned as required afterwards. After casting, front parts with a defined installation diameter can be opened with a targeted hammer blow. On front parts for universal opening dimensions, the required installation opening is cut out using standard cutting tools, e.g. KAISER MULTI 4000. These front parts can then be plastered locally or plastered

- 1 The flat front part allows easy fixing with nails.
- **2** Minimal effect on the statics no additional cuts to the reinforcement in the area of the tunnel as it has a clearance of 40 mm to the formwork.
- **3** Intermediate frames can be used to increase the installation depth of the housing.
- **4** After removing the formwork, the front part is opened with a single hammer blow. (e.g. 1282-65).
- **5** For wall installation (HaloX® 180 and 250), use installlation set for internal support in order to guarantee a secure installation compartment.
- 6 Toolless combination entry for M20/M25 conduits.
- **7** Prefix®installation sets are optionally available for the wall installation of all three housing sizes.
- 8 HaloX® 100 with multi-conduit entry ideal for multimedia applications and pre-assembled cables through multi-conduit entries up to M40.

over.



On-site mixed concrete HaloX® 100 HaloX® 180 HaloX® 100 with with tunnel 190 multi-conduit entry HaloX® 180 with tunnel 190

HaloX® 100 Art. No. 1281-00



Art. No. 1281-30



Art. No. 1281-15



Art. No. 1282-00



Art. No. 1282-30



HaloX® 180 with tunnel 325



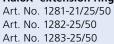
HaloX® 250 Art. No. 1283-00



HaloX® 250 with tunnel 325



HaloX® extension rings

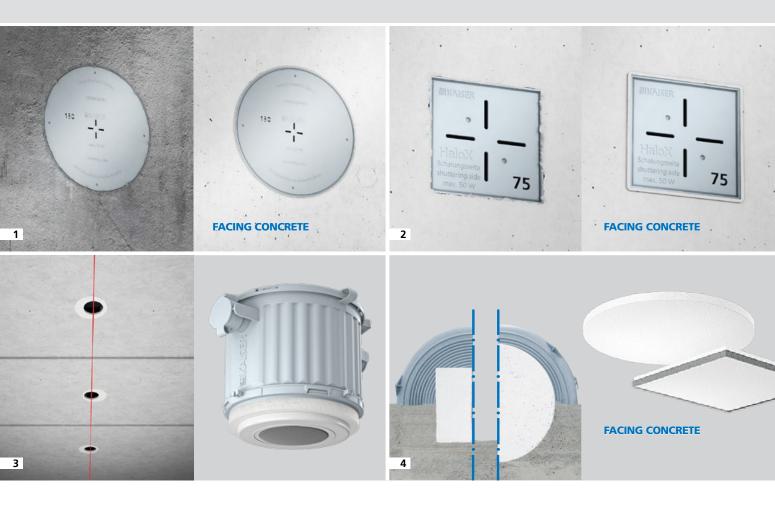




Wall installation kit







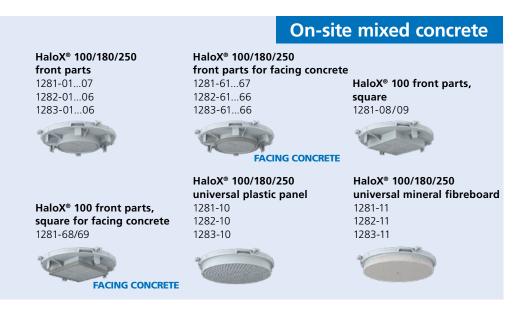
Forms and functions

For all housing sizes front parts with defined installation dimensions are available in round and square shape. Styrofoam moulded parts are available for individual installation diameters of virtually any shape or thickness. Universal front parts for variable or still to be defined ceiling cutouts.

- 1 Round front parts for installation diameters from 68 to 250 mm, also for facing concrete.
- 2 Square front parts for installation openings 68 or 75 mm, also for facing concrete.
- **3** Universal front parts for variable or not yet defined ceiling cutouts. Inaccuracies when installing slab ceilings can be compensated.
- **4** Styrofoam moulded parts for individual cutouts in any shape and size, also for facing concrete.

The round and square parts as well as the Styrofoam moulded parts are available in **special versions for facing concrete**.

An additional elastomer casing prevents sand leakage and ensures a clean ceiling cutout.

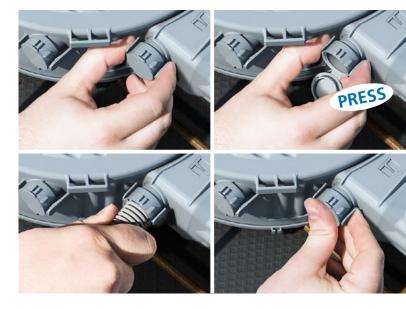






- 1 Built-in LED luminaire 35 W.
- 2 Temperature profile LED luminaire max. 35 W.
- **3** The high contact surface of the housings conducts the heat directly away via the concrete, thereby preventing excessively high temperatures in the housing.

A unique feature is the innovative KAISER **opening technology** for inserting the electrical installation conduits. No tools but only two fingers are needed to open the entry, which subsequently serves as a combination entry for M20/M25 electrical installation conduits. In the event of incorrect population, the opening can easily be closed again and is sealed against concrete. The conduit retention is designed with a maximum retention force so that the electrical installation conduits cannot slip out during the concreting process. In addition, the depth stop obviates the need for subsequent internal shortening of the conduits.







Universal installation housing for concrete ceilings/walls

The universal installation housings allow easy and secure installation of many applications for which no concrete installation solutions are commercially available. Devices such as touch panels for smart home applications, for example, can be optimally installed via the installation opening to be made in the mineral fibreboard.

The universal installation housings also provide the perfect solution for other applications used for control, lighting or sound systems of rooms and buildings as well as spare housings.

Variable for various installation accessories.

The installation of the universal installation housings is similar to that of the junction boxes, so that both the planning and the installation can be carried out just as easily.

90 x 90 x 70 mm Art. No. 1223-22



Universal installation housing Universal installation housing 150 x 90 x 70 mm

Art. No. 1224-22

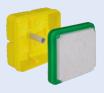


Universal installation housing 128 x 128 x 86 mm

Art. No. 1295-22



Universal installation housing 180 x 180 x 90 mm Art. No. 1296-22



Universal installation housing 250 x 220 x 90 mm Art. No. 1297-22



Ideal for gimbal-mounted, multi-lamp luminaires.

The housing system can be used flexibly and is equally suited for installations in on-site mixed concrete and in precast concrete elements and for use in walls and ceilings.

The universal mineral fibreboard can be easily and precisely opened for the relevant applications, using a jigsaw or cutter. A circumferential groove in the mineral fibreboard determines the maximum possible cutout.

The installation opening in the mineral fibreboard required for the installation accessory can be adjusted so as to provide a perfect base for builtin luminaires and built-in loudspeakers. With their rectangular shape, the universal installation housings are the ideal solution, particularly for special solutions such as gimbal-mounted or mutli-lamp built-in luminaires.



On-site mixed concrete

Universal installation housings 258 x 188 x 135 mm Art. No. 1298-37



Universal installation housings 258 x 188 x 200 mm Art. No. 1298-38



Universal installation housings 408 x 308 x 135 mm Art. No. 1297-34



Universal installation housings 408 x 308 x 235 mm



Prefix® wing set for wall installation Art. No. 9940.20/40









There are many types of luminaires and loudspeakers.

HaloX® for all situations.

Precast concrete

The new generation of concrete installation housings offers secure installation space for loud-speakers and luminaires with LED, halogen or compact fluorescent lamps and their operating devices in ceilings and in walls. HaloX® creates the space required for modern lighting and sound solutions. Due to its modular and flexible structure, the system offers a solution for virtually all installation diameters and installation depths.

Choosing the appropriate housings and accessories is extremely simple. The HaloX® system consists of two basic types - HaloX® 180 and HaloX® 250, together with a tunnel for the secure installation of operating devices (e.g. LED drivers).



- 1 HaloX® 180 with tunnel 190
- 2 HaloX® 250 with tunnel 325





System overview: HaloX® 180 and HaloX® 250 for precast concrete

The HaloX® system for precast concrete consists of various elements, which are configured individually as required. Follow the steps below to choose the required parts:





Adhesive attachment

one-piece housing with universal mineral

fibreboard

max. 140 mm (with tolerance compensation)

max. 180 mm (without tolerance compensation)

Magnet attachment

one-piece housing with universal plastic

HaloX® magnet

1299-67

60

panel for holding

the magnet



max. 210 mm (with tolerance compensation) max. 250 mm (without tolerance compensation)

Adhesive attachment

one-piece housing with universal mineral fibreboard

Magnet attachment one-piece housing with universal plastic panel for holding the magnet 6

HaloX® magnet 1299-67

without additional space for operating devices









1283-71

HaloX® 250

1283-74

Additional space for operating devices



up to 150 x 90 x 50 mm



HaloX® 180

with tunnel 190

1282-72

HaloX® 180

1282-71

HaloX® 180



HaloX® 180

1282-74

with tunnel 190 1282-75



HaloX® 250 with tunnel 325



HaloX® 250 with tunnel 325 1283-76

Additional space for larger operating devices



up to 280 x 90 x 50 mm



HaloX® 180 with tunnel 325 1282-73



HaloX® 180 with tunnel 325 1282-76 1283-73

2 Installation depth





Extension rings 25/50 mm 1282-25/50



Extension rings 25/50 mm 1283-25/50

3 Accessories for wall installation

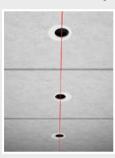


Wall installation in vertical formwork

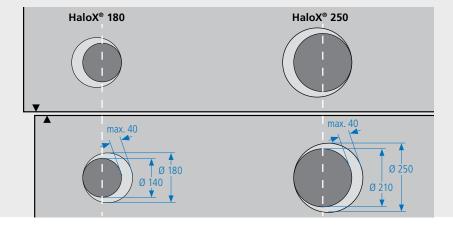


Wall installation kit for installation in vertical formwork 1299-60...64

Tolerance compensation



Depending on the installation diameter, inaccuracies arising during installation of the slab ceilings can subsequently be corrected. Variable installation diameters can be cut out precisely in the front parts with the KAISER VARIOCUT Universal hole cutter.





Prefabrication

The HaloX® system is designed as a single piece for installation in precast concrete. Markings on the housing facilitate alignment on the formwork table. Housings with pre-fitted mineral fibreboard can simply be glued on. For the magnet attachment, housings

with pre-fitted front parts for holding the magnet (Art. No. 1299-67) are available. After fixing on the formwork table, the housings can still be turned or aligned through 360°.



Laying tolerances which may occur during the fitting of panel elements are compensated for via the housing sizes in connection with a variable cut-out area. Because of the compact dimensions of the housings, the reinforcement can easily be placed around the housing. For luminaires or loudspeakers with installation depths greater than 110 mm, the installation compartment of the HaloX® housings can be increased on the on-site concrete building site by means of extension rings. Fitting of the conduits on the in-situ concrete construction site is toolless for M20/M25 conduits without any internal shortening of the conduits.

HaloX® 180 Art. No. 1282-71



HaloX® 250 Art. No. 1283-71



HaloX® 180 for magnet attachment Art. No. 1282-74



HaloX® 250 for magnet attachment Art. No. 1283-74



Installation in concrete | HaloX® for precast concrete



- **1** Mounting of the single-piece housing with mineral fibreboard.
- **2** Alignment marks for exact positioning on the formwork table.
- 3 Fitting of the one-piece housing by means of magnet (Art No. 1299-67).
- **4** Precise and level fixing of the housing.

Precast concrete

Replacement mineral fibreboard for HaloX® 180, HaloX® 250

Art. No. 1282-27 Art. No. 1283-27



HaloX® 180 with tunnel 190 Art. No. 1282-72



HaloX® 180 with tunnel 325 Art. No. 1282-73



with tunnel 325 Art. No. 1283-73

HaloX® 250



HaloX® magnet





HaloX® 180 with tunnel 190 for magnet attachment Art. No. 1282-75



HaloX® 180 with tunnel 325 for magnet attachment



HaloX® 250 with tunnel 325 for magnet attachment

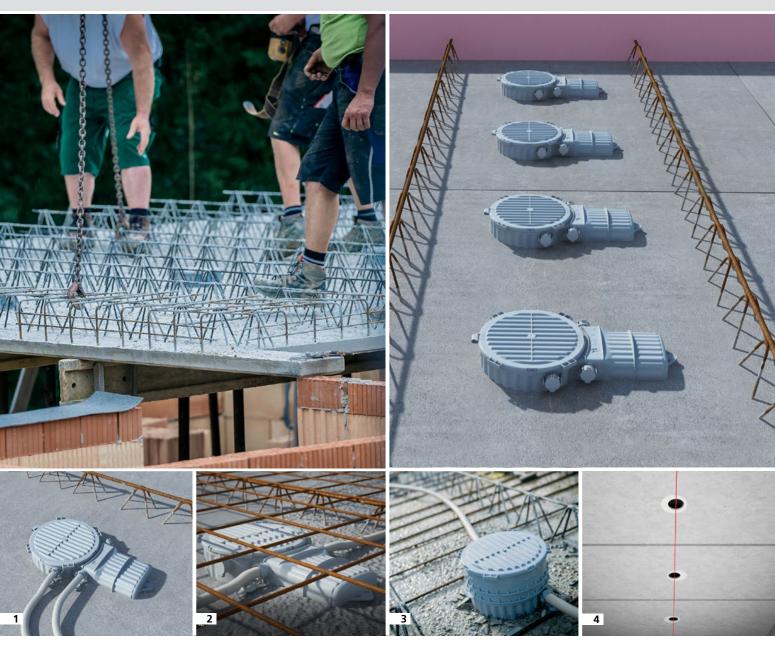


extension rings Art. No. 1282-25/50 Art. No. 1283-25/50

HaloX®







Installation on the construction site

Further installation of the HaloX® housings is quite simple. The housing sizes in combination with the universal front parts allow the compensation of tolerances, which may arise when laying the panel elements. After laying the panel elements, the conduits can be fitted. The toolless opening of the M20/M25 combination entries enables fast and secure conduit insertion. At the same time, the depth stop obviates the need for subsequent internal shortening of the conduits.

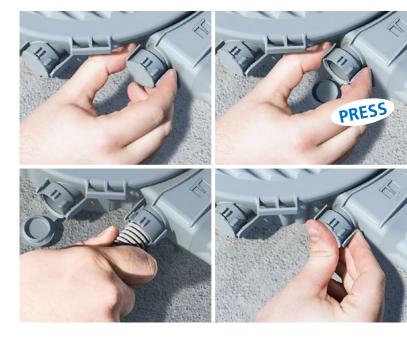
For luminaires or loudspeakers with installation depths greater than 100 mm, the installation compartment of the HaloX® housings can later still be increased on the in-situ concrete construction site by means of extension rings.

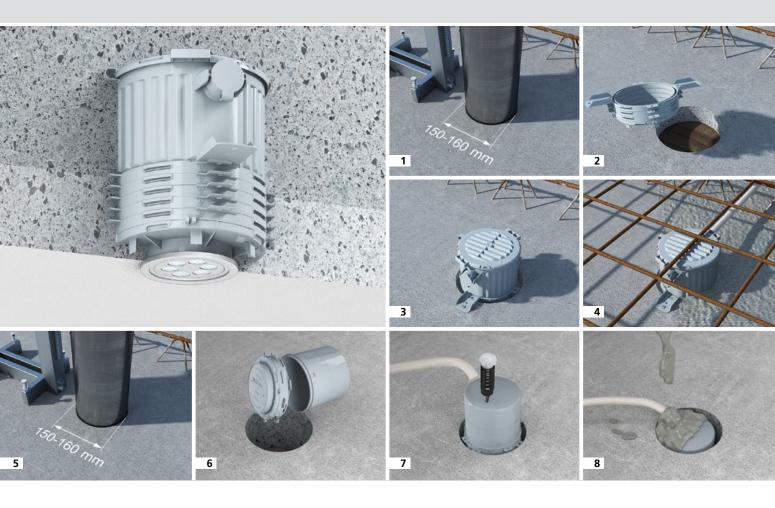
- **1** Toolless conduit entry for M20/M25 conduits with depth stop.
- 2 Finished conduit installation of HaloX® housing.
- 3 Increasing the installation depth with extension rings.
- **4** Making the ceiling cutouts (e.g. with MULTI 4000 Art No. 1083-10) taking into account the laying tolerance.



- 1 Built-in LED luminaire 35 W.
- 2 Temperature profile LED luminaire max. 35 W.
- **3** The high contact surface of the housings conducts the heat directly away via the concrete, thereby preventing excessively high temperatures in the housing.

A unique feature is the innovative KAISER **opening technology** for inserting the electrical installation conduits. No tools but only two fingers are needed to open the entry, which subsequently serves as a combination entry for M20/M25 electrical installation conduits. In the event of incorrect population, the opening can easily be closed again and is sealed against concrete. The conduit retention is designed with a maximum retention force so that the electrical installation conduits cannot slip out during the concreting process. In addition, the depth stop obviates the need for subsequent internal shortening of the conduits.





For retrofitting

HaloX[®] installation kit HaloX[®] for solid concrete ceilings

HaloX® installation kit can be retrofitted in existing slab ceilings with or without transformer tunnel. Be sure to take into account the ceiling thickness and the structural alteration of the ceiling (e.g. fire protection and statics).

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

HaloX® installation kit

- 1 Cut drilling hole (Ø 150–160 mm) in the slab ceiling.
- **2** Combine extension ring and front part to correspond to the ceiling thickness and installation depth.
- **3** Place the housing in the drilling hole and fasten.
- **4** The housing attached to the reinforcement now sits firmly and precisely in place.

HaloX® concrete installation housing for solid concrete ceilings

- 5 Cut drilling hole (Ø 150-160 mm) in the solid ceiling.
- **6** Combine extension ring and front part to correspond to the ceiling thickness and installation depth.
- **7** Use the universal opening cutter (Art. No. 1085-80) to make accurate conduit entries for the appropriate conduit sizes. Insert the complete housing, including the installation conduit, into the drilling hole.
- **8** Fill the free space with concrete and compact.



Solid concrete ceiling

HaloX® housings for drilling holes in solid ceilings Art. No. 1290-30





System overview: HaloX® for retrofitting

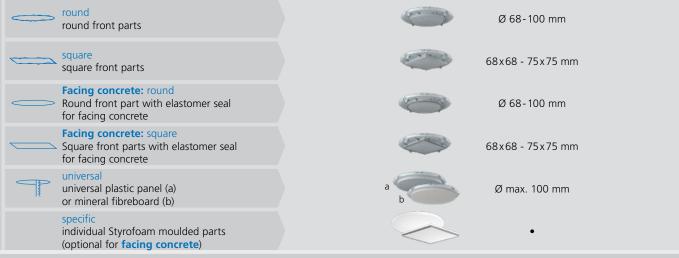
The HaloX $^{\circ}$ system for precast concrete consists of various elements, which are configured individually as required. Follow the steps below to choose the required parts:



Luminaire/loudspeaker installation diameter max. 100 mm

Installation space for luminaires/loudspeakers Slab ceiling Solid ceiling and operating devices without additional space for operating devices HaloX® 100 HaloX® housings for installation kit + HaloX® 100 drilling holes in solid ceilings 1281-20 1281-00 1290-30 **Additional space for operating devices** HaloX® 100 HaloX® 100 installation kit tunnel 190 up to 150 x 90 x 50 mm 1281-20 1281-30 **Exit for pre-assembled cables** HaloX[®] 100 + HaloX[®] 100 with installation kit multi-conduit entry 1281-20 1281-15 2 Slab ceiling thickness **Extension rings** Slab ceiling thickness > 50 mm 10/25/50 mm 1281-21/25/50

3 Luminaire/loudspeaker installation diameters



4 Installation depth





Extension rings 10/25/50 mm 1281-21/25/50



Installation housing for energy efficiency: dry construction/thermal insulation system

- Free space for luminaires and loudspeakers
- Prevents latent fire hazard
- Ensures long term retention of air tightness as per DIN 18015-5 or DIN 4102-7
- Systems for retrofitting from below
- Thermal bridge-free installation in insulated ceilings

	Dry construction			Thermal insulation system	
	System ThermoX® LED for rigid and swivelling built-in LED luminaires	System ThermoX® for halogen downlights and LED lamps	System EnoX® for halogen downlights, LED lamps and displays	Installation housing ThermoX® Iso + for luminaires in insulated ceilings	
Due deset details	p. 26	p. 28	p. 29	p. 30	
Product details					
Installation below air-tight level	•	•	•	-	
Installation inside air-tight level	-	-	•	-	
Housing height	70 / 95 mm	90 mm	60 mm	160 mm	
Max. installation diameter luminaire/loudspeaker	70 / 81 mm	86 mm	120 mm	86 mm	
Max. installation depth (ID) luminaire/loudspeaker	60 / 85 mm	65 / 70 mm	57 mm	min. 70 mm	
Installation variants					
Retrofitting	•	•	-	-	
Wall installation	-	-	•	-	
In insulated ceilings	-	-	•	•	

System ThermoX® LED

- For installation in insulated hollow ceilings
- Retrofitting from below
- Toolless installation of the housing
- Guarantees air-tight installation
- Rear surface structure ensures optimal heat management
- Permanent and secure retention of the luminaire in the housing



Hollow ceilings

System ThermoX®

- Installation housing for halogen luminaires and swivelling built-in LED luminaires
- · Fire-preventive and air-tight
- For insulated hollow ceilings
- Two different front part types
- · Integrated transformer closing cap
- Ceiling exits up to Ø 86 mm
- Installation from above or from below



Hollow ceilings

System EnoX®

- Air-tight installation as per EnEV
- No additional installation level is necessary
- For ceilings and walls in renovated and new buildings
- Toolless cable and conduit entry
- Thermally protected installation space 300 x 200 x 55 mm
- ECON® technology for air-tight and toolless insertion
- FX⁴ technology for fast cavity wall installation



Hollow ceilings/ cavity walls

Installation housing ThermoX® Iso +

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



Insulated ceilings



Air-tight installation space for built-in LED downlights ThermoX® LED housing



ThermoX® LED installation housing for the air-tight installation of rigid and swivelling built-in LED luminaires in different ceiling constructions. The housing protects the surrounding material (vapour barrier foil, insulation etc.) against high operating temperatures and acts as an air-tight seal. In this way it prevents not only uncontrolled exchange of air but also any long-term damage that may thus be caused, such as mould growth in the ceiling insulation.

- For air-tight installation in insulated hollow ceilings.
- Retrofitting from below
- 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
- Prevents latent fire hazard

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.



Energy efficiency | Housings for ceilings/walls



- **1** Guaranteed air tightness even with expanded fixing springs.
- **2** Swivel pocket permits targeted alignment of the built-in downlight.
- **3** Flat housings allow use in low ceiling constructions, e.g. wooden slat construction.
- 4 Temperature profile built-in LED downlight.

The ThermoX® LED installation housing offers also other advantages. Its completely air-tight design ensures that neither dust nor dirt from the intermediate ceiling can penetrate and affect the function of the heat sink. In combination with the thermal separation between luminaire and operating device, this guarantees maximum operating life.

The rear surface structure minimises pressure on the vapour barrier and ensures optimal heat dissipation.



ThermoX® LED Art.-No. 9320-10 Ø 74 mm D: 75 mm









Hollow ceilings

Ø 86 mm D: 95 mm

(D: depth)





Air-tight installation space for built-in halogen and LED luminaires ThermoX® installation housing

The intelligent housing system provides protection against the latent risk of fire caused by the extreme heat from halogen lamps but also from heat sinks of LED lamps in intermediate ceilings and roofs. The housing particularly protects the vapour barrier foil, which is an essential element of the air-tight building envelope. In addition, it prevents common dust edges around the built-in luminaires.

The **ThermoX®** housing is ideal for the installation of built-in luminaires in wood panel and coffered ceilings and in seamless suspended ceilings made of plasterboard, mineral fibreboard, MdF- and chipboard with double battens and overlying insulation. Whether for installation in new buildings or for retrofitting in existing ones, the housing can be used with both LV and HV luminaires. Optional decorative coverings conceal the housing in case of retrofitting and add an aesthetic look.

- Air-tight and fire-preventive
- \bullet Ceiling exits up to Ø 86 mm
- Installation either from above or from below
- Retrofitting is also possible

Hollow ceilings

ThermoX® universal-housing

with mineral fibreboard

ThermoX® housing for LV and HV luminaires Art. No. 9300-01/02/03



ThermoX® deocrative ThermoX® front rings
Art. No. 9301-... Art. No. 9300-41/42/43

Art. No. 9300-22

ThermoX® universal front ring Art. No. 9300-41/42/43











Air-tight installation within the insulation level **EnoX® installation housing**



The **EnoX®** installation housing is used in lightweight walls and ceilings, which form part of an air-tight building envelope as per EnEV. The housing provides a flexible installation compartment that is integrated into the insulation level. This prevents uncontrolled air exchange and allows luminaires, loudspeakers, displays or electronic components (e.g. actuators, power packs) to be installed air-tight and protected against dust.

The ECON® technology's toolless entry and integrated cable retention guarantee fast, safe and secure installation.

- No additional installation level is necessary
- For ceilings and walls in renovated and new buildings
- Thermally protected installation space 300 x 200 x 55 mm
- ECON® technology for air-tight and toolless insertion

Installation takes place in or on the rafters, directly onto OSB boards in both ceilings and walls. Simply screw the housing in the same way as with cavity wall boxes. The connection to the vapour barrier foil is made air-tight again by using the **EnoX® sealing frame**. After fitting the boarding, you have an insulated and thermally protected installation space for luminaires, loud-speakers, displays and much more.

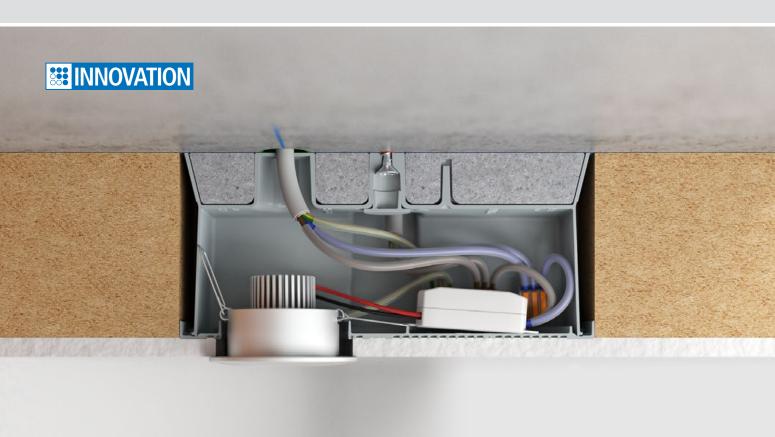
Hollow ceilings/cavity walls

EnoX® installation housing Art. No. 9350-21



EnoX® sealing foam frame Art. No. 9350-99





For built-in LED luminaires and installation accessories in exterior thermally insulated ceilings Installation housing ThermoX® Iso +

The **ThermoX® Iso +** installation housing is the optimal solution for the installation of LED luminaires and installation accessories in exterior insulated ceilings. Secure installation space for LED luminaires up to 8 W and ballast. The installation housing is suitable for all standard insulation materials such as wood fibre insulation, foam glass, mineral foam or expanded polystyrene (EPS).

Secure and thermal bridge-free installation of rigid and swivelling built-in LED luminaires in insulated ceilings. The housing protects the surrounding insulation material against the high operating temperatures of the LED luminaire and protects the LED luminaire itself against dirt.

The integrated insulation element reliably prevents thermal bridges. Insulation thickness adjustable from 100 mm to 160 mm in 10 mm steps simply by cutting off the housing. Depending on the insulation thickness, the installation depth for the LED luminaire or any other built-in device varies between 70 mm and 130 mm. For insulation thicknesses from 170 mm to 350 mm, the extension element is simply installed behind the housing. The extension element can also be adjusted in 10 mm steps.

The front part has a fixed installation diameter of 68 mm for knocking out or a universal useful area up to \emptyset 86 mm for cutting out.

ThermoX® Iso + is suitable for insulation thicknesses from 100 to 160 mm – and up to 350 mm with extension element.







ThermoX® Iso + can be used in all standard insulation materials such as

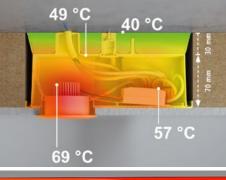
- 1 wood fibre insulation, ...
- 2 foam glass, ...
- **3** mineral foam or ...
- **4** expanded polystyrene (EPS).

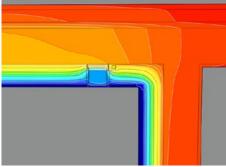
The measuring scale is used to adjust the housing to the insulation thickness in 10 mm steps.

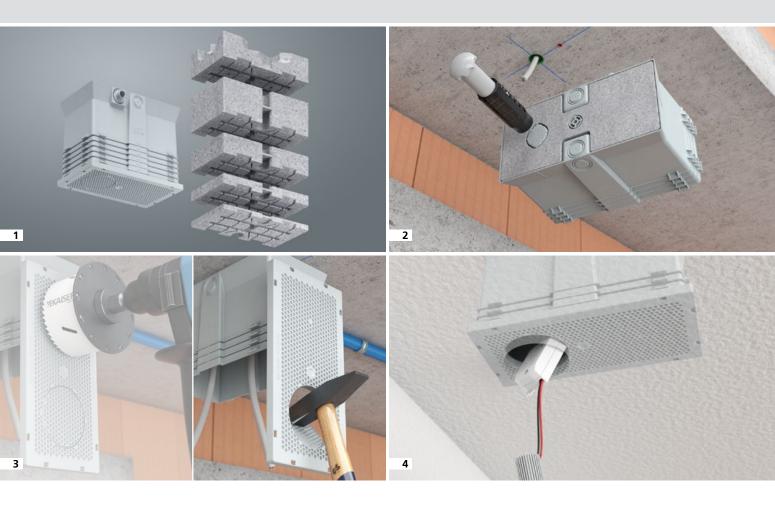


Temperature profile: installation housing for external insulation (ambient temperature 25 °C) with LED luminaire 8 W.

A thermal bridge calculation by the Passivhaus Institute in Darmstadt shows that the additional heat losses caused by thermal bridges in new energy-efficient buildings can be compensated. The installation housing is also suitable for use in passive houses.



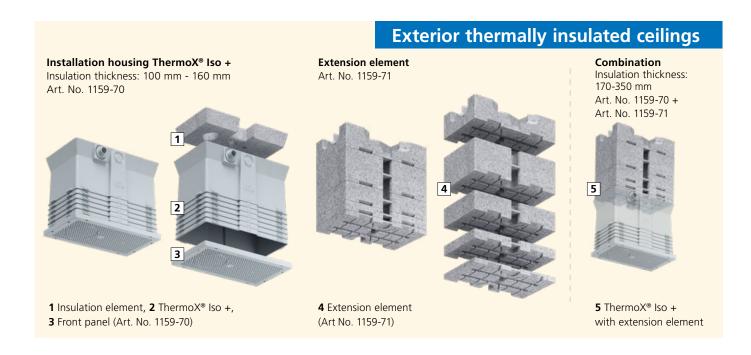




- 1 Housing is adjusted to the insulation thickness (< 160 mm) simply by cutting off using measuring scale or (> 160 mm) with extension element.
- 2 Multiple conduit and cable entry options. For knocking out or make entry with the universal opening cutter (Art. No. 1085-80).
- **3** Ceiling exit \emptyset 68 mm for knocking out, ceiling exit up to \emptyset 86 mm for cutting out. Fitting the LED installation spotlight with plenty of space for the ballast.



KAISER ThermoX Iso + won the "BAKA Award for Product Innovation 2019". The BAKA Bundesverband Altbauerneuerung e. V. and the Munich Trade Fair under the auspices of the Federal Ministry of the Interior, Building and Community present this award in recognition of pioneering product ideas and system solutions specially for applications in existing buildings.







Installation housing for fire protetion ceilings

- Safe, certified fire-protection housings for built-in luminaires and loudspeakers in fire protection ceilings
- In fire-protection ceilings, the integrated fire-retardant coating ensures that the housing has the same fire-protection class as the ceiling
- They prevent fire and flue gases from spreading, so they secure escape routes in buildings
- Suitable for fire resistance from above and from below

	System FlamoX® for luminaires and loudspeakers		Ceiling box HWD 30 for surface-mounted luminaires, smoke detectors, etc.
	p. 34	p. 34	p. 36
Installation dimensions of luminaires/loudspeakers			
max. installation diameter of luminaires/loudspeakers	100 mm	180 mm	-
for universal installation diameters	•	•	-
max. installation depth (ID) luminaire/loudspeaker	100 mm	150 mm	44 / 54.5 mm
Installation variants			
retrofitting	•	•	•
in independent suspended ceilings EI30/F30	•	•	•
Installation without additional suspension	•	•	•
Installation without additional fire protection materials or sealing compounds	•	•	•



For luminaires and loudspeakers. FlamoX® fire-protection housing

The **FlamoX® fire-protection housings** form the new generation of the tried-and-tested housings for the installation of accessories such as luminaires, loudspeakers or other devices in suspended fire-protection ceilings.

For this **new generation of housings**, the dimensions were matched to modern lighting systems, so they are ideal for universal use. The housings can now also be used to install LED luminaires, luminaires with compact fluorescent lamps, low-voltage and high-voltage halogen lamps, loudspeakers and other devices, including any necessary operating devices. The housings can easily be installed from below in fire-protection ceilings through the installation opening to be made for them. Because of their low weight, even when luminaires or loudspeakers are fitted, the maximum permitted weight load of 5 kg/m² is not exceeded. As a result, no additional suspension devices are needed.

FlamoX® housings correspond to fire-resistance class F30 (El30) and withstand fire loads from above and below. This means that electrical installation companies can ensure optimal building construction fire protection for fire-protection ceilings.

KAISER Flamox won the "BAKA Award for Product Innovation 2017". The BAKA Bundesverband Altbauerneuerung e. V. and the Munich Trade Fair under the auspices of the Federal Ministry of the Interior, Building and Com-



munity present this award in recognition of pioneering product ideas and system solutions specially for applications in existing buildings.

Functioning of the fire-retardant coating in the event of fire (fire load from below or above)





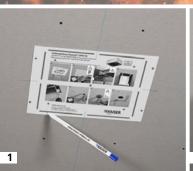


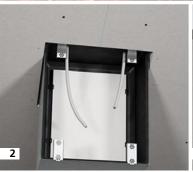


The effect of the heat causes the fire-retardant coating to tumesce, which prevents the fire and smoke from spreading.

Fire protection | FlamoX® fire-protection housing











- **1** After determining the position of the luminaire, use the template to mark the screw positions and the cutout..
- 2 Insert the housing into the component opening and align...
- **3** Fixing lugs with hole structure for fast, easy screw fitting to the fire-protection ceiling.
- **4** Interior consisting of a fire-protection material acting as a fire retardant and, in the event of a fire, an automatically closing plate.





Fire-protection housing FlamoX®

Art. No. 9435-04

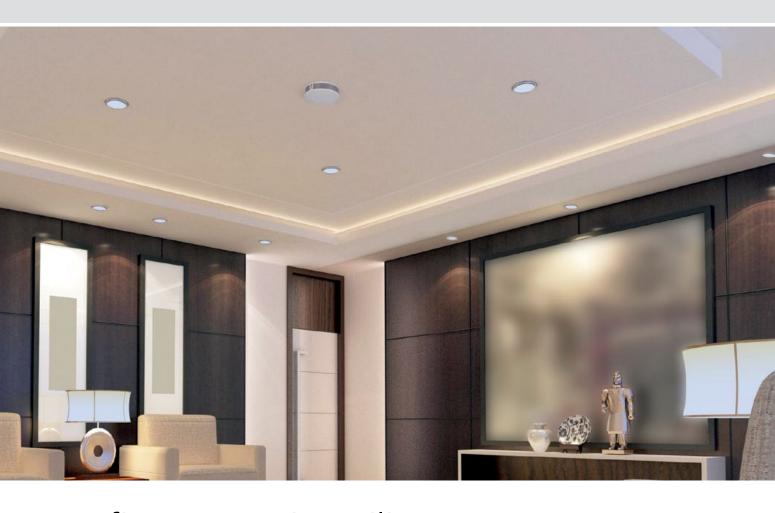


Fire-protection ceilings

Fire-protection housing FlamoX®

Art. No. 9435-03





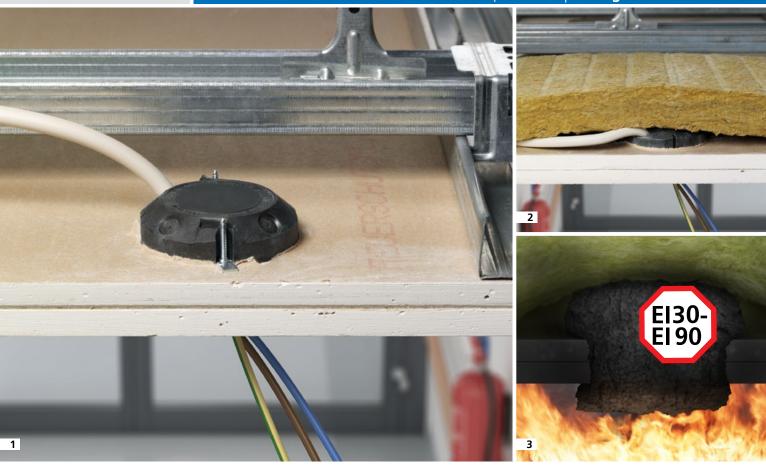
For fire-protectin ceilings EI30-EI90 **Ceiling boxes HWD30**

The HWD30 installation boxes for fire-protection ceilings guarantee reliable fire protection of El30 - El90. In the event of a fire, the integrated fire-retardant coating of the KAISER AFS technology immediately generates foam and seals the opening in the ceiling. Also when retrofitted, the HWD30 ceiling box provides protection.

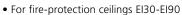


Examples of use

The HWD 30 ceiling box can be used to install for example presence and smoke detectors or LED emergency route lighting in fire-protection ceilings without compromising the fire resistance class.



- 1 Installation of ceiling box HWD 30 without mineral wool corresponds to fire resistance class EI30.
- **2** Installation of ceiling box HWD 30 with mineral wool corresponds to fire resistance class EI60.
- **3** The effect of the heat causes the fire-retardant coating to intumesce and prevents the fire and smoke from spreading.



- Encasing is not necessary
- For installation of e.g. smoke detectors, luminaires, motion detectors, etc.
- With a fire-protection cover, it can also be used as a junction box
- Also suitable for retrofitting



Type approval Z-19.21-1788

Fire-protection ceilings

Ceiling box HWD 30 Art. No. 9463-50



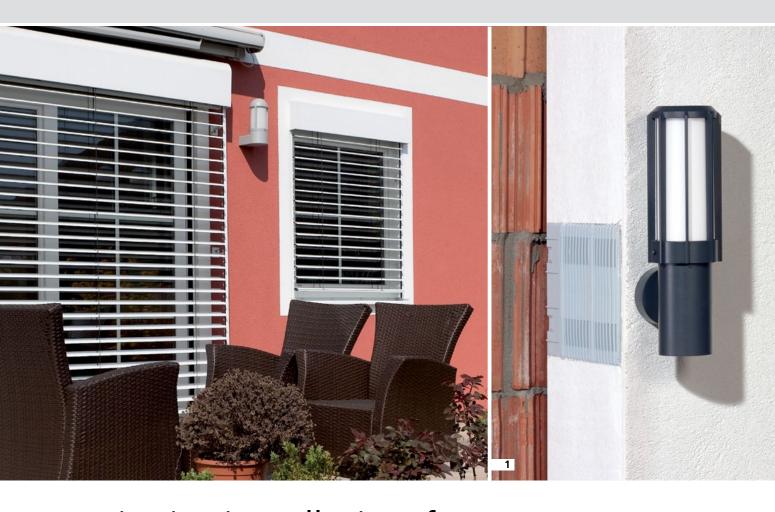
Ceiling junction box HWD 30 Art. No. 9464-50



Fire-protection cover

Art. No. 1184-94





Luminaire installation for insulated exterior facades and concrete ceilings

The **telescope, universal and system equipment carriers** allow the installation of different accessories, such as outdoor luminaires or motion detectors, on the insulated facade. Both equipment carriers are securely mechanically fastened to the masonry so that the loads of the accessories can be permanently absorbed.

The **mini equipment carrier** is ideal for the secure, wall-flush mounting of accessories such as luminaires, cameras, motion detectors, letter boxes and many other systems which need to be fitted to installed composite thermal insulation systems.

Insulated exterior facades

Universal equipment carrier Insulation thickness: 60-360 mm Art. No. 1159-24 / 27



System equipment carrier Insulation thickness: 160-310 mm Art. No. 9966.21 / 22



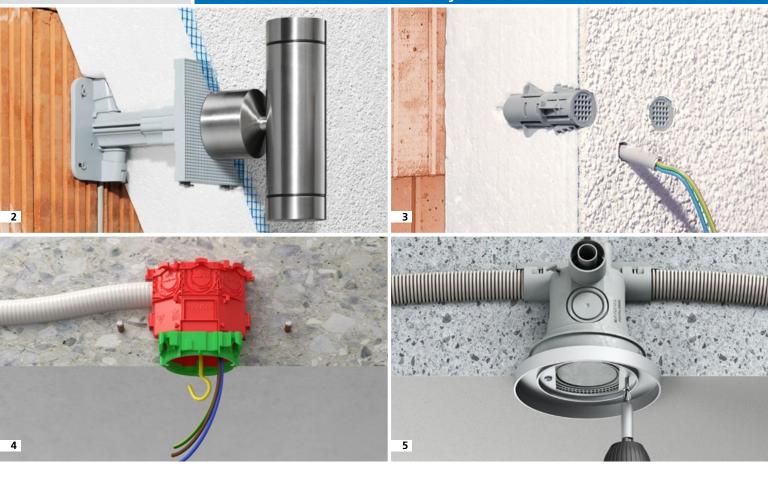
Telescope equipment carrier Insulation thickness: 80-200 mm Art. No. 1159-60



Mini equipment carrier Art. No. 1159-50

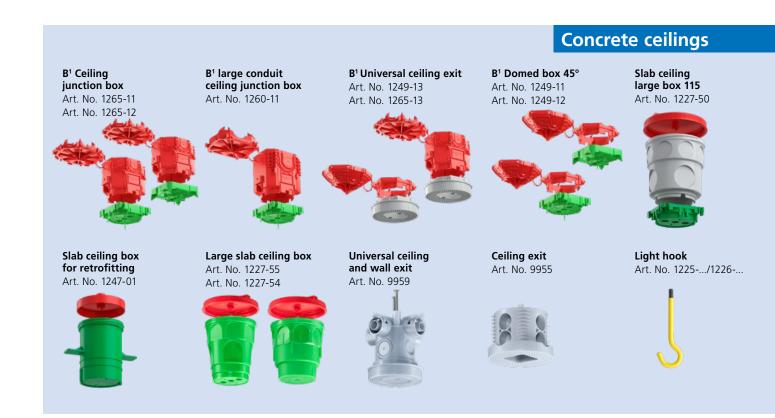


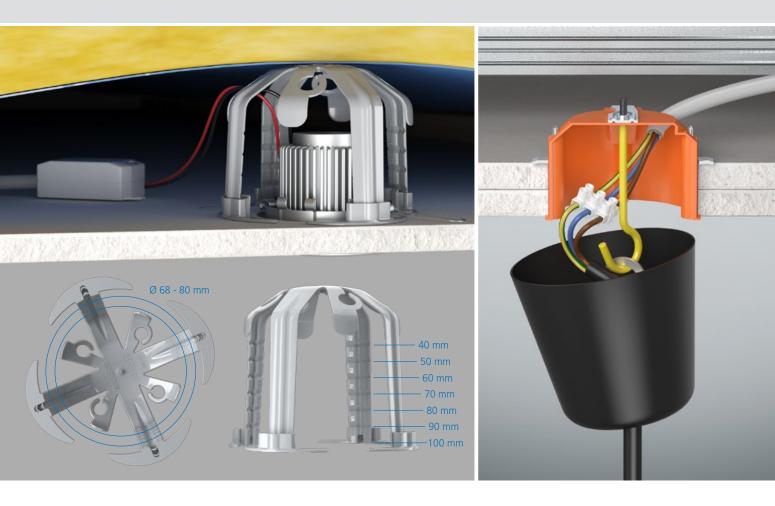
Boxes and systems for surface-mounted luminaires



A wide range of **concrete building boxes** are available for the installation of luminaires. A light hook can be screwed into the ceiling boxes. In addition to the exit opening, the ceiling and wall exits feature a mounting surface for the installation of luminaires and other accessories.

- 1 Universal equipment carrier
- 2 Telescope equipment carrier
- 3 Mini equipment carrier
- 4 Ceiling junction box with light hook
- 5 Universal ceiling and wall exit





Luminaire installation in insulated ceilings/hollow ceilings

Spacer for the installation of swivelling halogen and LED luminaires in various ceiling constructions. The housing ensures the necessary spacing between the luminaire and the surrounding material. Materials such as vapour barriers and insulation are effectively protected against the high operating temperatures of the lamps.

- Installation in openings Ø 68 mm 80 mm
- Maximum flexibility: installation height from 100 mm to 40 mm
- Regardless of the cladding material and the cladding thickness
- Prevents slipping out; stands on the ceiling
- Suitable for use in all standard LV/HV/LED luminaires
- Use of bright materials for good visibility in the ceiling

The **luminaire connection box** provides space for the connection of various ceiling luminaires. The light hooks complement the box for the installation of suspended luminaires.

- with M5 metal thread for light hooks min. length 55 mm
- max. load 20 N (2 kg)
- can also be used as ceiling light junction box
- with holding ring

Insulated ceilings/hollow ceilings

Spacer Art. No. 9310-10



Luminaire connection box Art. No. 9063-50



Light hook Art. No. 1226-..



Free space for luminaires and loudspeakers.

At a glance.

On-site mixed concrete

Installation size up to Ø 100 mm



HaloX® 100 for on-site mixed **concrete** 1281-00 | S. 8



HaloX® 100 front parts for square DA, for facing concrete 1281-68/69 | S. 8



HaloX® 100 with tunnel 190 for on-site mixed concrete 1281-30 I S. 8



HaloX® 100 universal front part, plastic 1281-10 I S. 8



HaloX® 100 with multi-conduit entry 1281-15 | S. 8



HaloX® 100 universal front part with mineral fibreboard 1281-11 | S. 8



HaloX[®] 100 front parts 1281-01...07 | S. 8



HaloX® 100 extension rings 1281-21/25/50 I S. 8



HaloX® 100 front parts for square DA 1281-08/09 | S. 8



Prefix® assembly kit 1299-65 | S. 8



HaloX® 100 front parts for facing concrete 1281-61...67 | S. 8

Installation size up to Ø 180 mm



HaloX® 180 for on-site mixed concrete 1282-00 | S. 8



with tunnel 190 for on-site mixed concrete 1282-30 | S. 8



HaloX® 180 extension rings



HaloX® 180 with tunnel 325 for on-site mixed concrete 1282-40 | S. 8



Wall installation kit



HaloX® 180 front parts 1282-01...06 | S. 8



HaloX® 180 front parts for facing concrete 1282-61...66 | S. 8



HaloX[®] 180 universal front part, plastic 1282-10 I S. 8



HaloX® 180 Universal fibreboard



1282-25/50 | S. 8

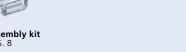




Prefix® assembly kit



1299-66 | S. 8





Installation size up to Ø 250 mm



HaloX® 250 for on-site mixed **concrete** 1283-00 | S. 8



HaloX® 250 extension rings 1283-25/50 | S. 8



HaloX[®] 250 with tunnel 325 for on-site mixed concrete 1283-40 | S. 8

Wall installation kit

1299-60...64 | S. 8



HaloX® 250 front parts 1283-01...06 | S. 8



HaloX® 250 front parts for facing concrete 1283-61...66 | S. 8



HaloX® 250 universal front part, plastic 1283-10 | S. 8



front part with mineral



Prefix® assembly kit 1299-66 | S. 8



Universal installation housing



Universal installa- Universal tion housing 90 x 90 x 70 mm



installation housing **150 x 90 x 70 mm** 1224-22 | S. 14



Universal installation housing **128 x 128 x 86 mm** 1295-22 | S. 14



Universal installation housing **180 x 180 x 90 mm** 1296-22 | S. 14



Universal installation housing 250 x 220 x 90 mm 1297-22 | S. 14



Universal installation housing 258 x 188 x 135 mm



installation housing 258 x 188 x 200 mm 1298-38 | S. 14



installation housing **408 x 308 x 135 mm** 1297-34 | S. 14



installation housing **408 x 308 x 235 mm** 1297-35 | S. 14



Prefix® wing set 9940.20/40 | S. 14



Precast concrete

Installation size up to Ø 180 mm | adhesive attachment



HaloX[®] 180 1282-71 | S. 16



HaloX® 180 with tunnel 190 1282-72 | S. 16



HaloX[®] 180 with tunnel 325 1282-73 | S. 16



HaloX® 180 **extension rings** 1282-25/50 | S. 16



HaloX® 180 replacement mineral fibreboard 1282-27 | S. 16

Installation size up to Ø 180 mm | magnet attachment



HaloX® 180 1282-74 | S. 16



HaloX® 180 with tunnel 190 1282-75 | S. 16



HaloX[®] 180 with tunnel 325 1282-76 | S. 16



HaloX® 180 extension rings 1282-25/50 | S. 16



Magnet 40 mm

1299-67 | S. 16

Installation size up to Ø 250 mm | adhesive attachment



HaloX[®] 250 1283-71 | S. 16



with tunnel 325 1283-73 | S. 16



HaloX® 250 **extension rings** 1283-25/50 | S. 16



HaloX® 250 replacement mineral fibreboard 1283-27 | S. 16

Installation size up to Ø 250 mm | magnet attachment



HaloX[®] 250 1283-74 | S. 16



HaloX® 250 with tunnel 325 1283-76 | S. 16



HaloX[®] 250



Magnet 40 mm 1299-67 | S. 16

Slab ceiling/Solid concrete ceiling

Retrofitting - Installation size up to Ø 100 mm



HaloX® installation kit 1281-20 | S. 22



HaloX® housing for drilling holes in solid ceilings 1290-30 I S. 22

Hollow ceilings/cavity walls/insulated ceilings

Ø 74 mm



ThermoX[®] LED 9320-10 | p. 26





ThermoX[®] LED 9320-11 | p. 26



9320-20 | p. 26



9320-21 | p. 26



EnoX® luminaire and loudspeaker housing 9350-21 | p. 29



sealing foam frame 9350-99 | p. 29



ThermoX® housing for LV and HV luminaires 9300-01/02/03 | p. 28



ThermoX universal housing with mineral fibreboard 9300-22 | p. 28



ThermoX® Decorative coverings 9301-... | p. 28



individual front rings 9300-41/42/43 | p. 28



ThermoX® universal front ring 9300-93 | p. 28



Installation housing ThermoX® Iso + | extension element 1159-70 | 1159-71 | p. 30



Spacer 9310-10 | p. 40

Fire-protection ceilings

Fire-protection ceiling boxes HWD 30 | EI30 - EI90



Ø 74 mm



Ø 74 mm

Ceiling box HWD 30 9463-50 | p. 36

Ceiling junction box HWD 30

Fire-protection cover HWD 30-120 1184-94 | p. 36

Fire-protection housing | EI30



FlamoX®

fire-protection housing 9435-04 | p. 34

Ø 100 mm



Ø 180 mm

FlamoX® fire-protection housing 9435-03 | p. 34

Installation on facades and ceilings

Installation of surface-mounted luminaires on composite thermal insulation systems



Universal equipment carrier 1159-24 | p. 38



Extension element 1159-27 | p. 38



System equipment carrier 160 - 240 mm 9966.21 | p. 38



System equipment carrier 240 - 310 mm 9966.22 | p. 38



Telescope equipment carrier 1159-60 | p. 38



Mini equipment carrier

Installation of surface-mounted luminaires on concrete ceilings



B¹ Ceiling junction box 1265-11 | p. 39



B¹ Universal ceiling exit 1265-13 | p. 39



B¹ Ceiling junction box 1265-12 | p 39



Slab ceiling box for retrofitting 1247-01 | p. 39



B¹ Large conduit ceiling junction box 1260-11 | p. 39



Universal ceiling and wall exit 9959 | p. 39



B¹ Domed box 45° 1249-11 | p. 39



Ceiling exit 9955 | p. 39



B¹ Domed box 45° 1249-12 | p. 39



Large slab ceiling box 1227-55 | p. 39



Large slab ceiling box 1227-54 | p. 39

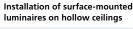


Large slab ceiling box 115 1227-50 | p. 39



Light hook 1225-.../1226-... | p. 39

227-30 | β. 39





Luminaire connection box 9063-50 | p. 40



1226-.. | p. 40

KAISER project lists

Here you can find the list that matches

your planning needs!

Save your precious time by referring to the readymade KAISER project lists. Here you find the appropriate products for each topic in the form of a list. You can also create individual project lists. Simply add the products you need for your project to your project list.



Project lists



Systems and solutions for professional electrical installation work.

KAISER has been developing and producing systems and products as the basis for professional installation work since 1904. Planners and fitters all over the world use our practical solutions for their daily work in all installation areas.



Energy efficiency.

Innovative KAISER products help you to ensure compliance with the requirements of EU Directives and national regulations such as the Energy Savings Regulations (EnEV).



Radiation protection.

The use of the new radiation protection boxes allows the radiation protection of the wall to be maintained without additional shielding measures.



Fire protection.

KAISER fire-protection systems provide reliable solutions for electrical installations in fire-protection walls and ceilings.



Building.

KAISER has matching product system solutions for safe, durable and practical use in refurbishment, renovation and modernisation projects.



Sound insulation.

KAISER's innovative sound insulation boxes ensure compliance with the construction requirements for sound barriers, also for built-in installations.



Concrete construction.

Complete systems for on-site mixed concrete and precast concrete. Fully optimised to professional electrical installation work.

Technical information and advice

All further information on products, system solutions and communication media can be found on our website: www.kaiser-elektro.de

For any additional questions or information, please do not hesitate to contact our technical support team who will be happy to assist you: +49(0)2355/809-61 · 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 · info@kaiser-elektro.de

