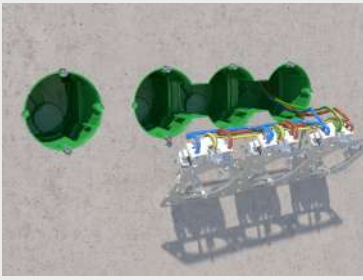


# The new generation – even easier and faster. Prefix® concrete building boxes.



In addition to proven product features, such as the lateral mounting clamps for fastening to the reinforcement, the new Prefix® concrete building boxes also include mounting clips for pre-fixing the items and a pronounced corrugated profile for an exact and secure fit, as well as innovative conduit entries, insertion options in the back of the box and separators that can be broken out at a later date for connecting devices in combinations – and all of this is VDE certified.

**Best connection in concrete.**



Product video  
Installation



Product video  
Inlay work



1211-01



1211-02

# The new standard in on-site mixed concrete. B<sup>1</sup> one-gang boxes and B<sup>1</sup> one-gang junction boxes.

The first choice for **mounting** ...

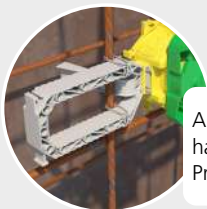
... and **installation**.



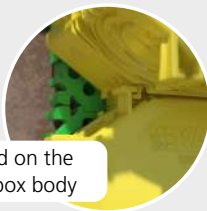
Product video  
Inlay work



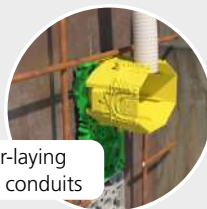
Innovative  
conduit opening



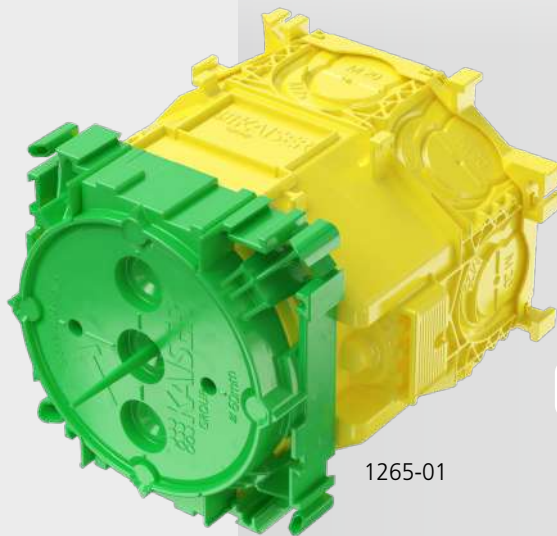
All B<sup>1</sup> wall applications  
have 2 stable slots for  
Prefix® system wings



Firmly combined on the  
front part and box body



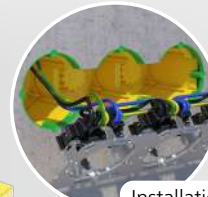
Simple insertion and inter-laying  
of commercially available conduits



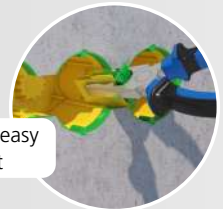
1265-01



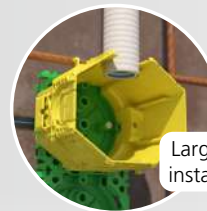
Product video  
Installation



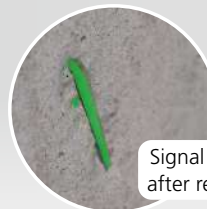
Installation of  
pre-wired sockets



Bridges are easy  
to break out



Large mounting and  
installation space



Signal bristles for easy location of the boxes  
after removing the formwork

System magnet  
1299-69



System magnet PLUS  
1299-70

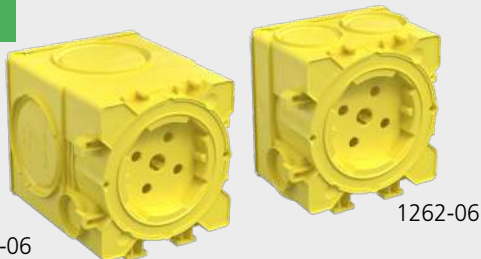


Product video



## Solutions for automated precast concrete in concrete construction. **System magnet and System magnet PLUS.**

The system magnet is suitable for all installation parts required in wall and ceiling production to prepare the electrical installation in-factory. The system magnet can be used for correct positioning in both manual and automated production. Fully automated prefabrication in the precast factories is possible with the system holding magnet PLUS. In automated production, the magnet can be placed on the formwork table automatically and in the correct position using the multifunction gripper. The magnet's high adhesive force of 500 N ensures that it remains exactly where the installation parts have been placed in their correct position.



1262-06

1264-06



1263-06

Product video

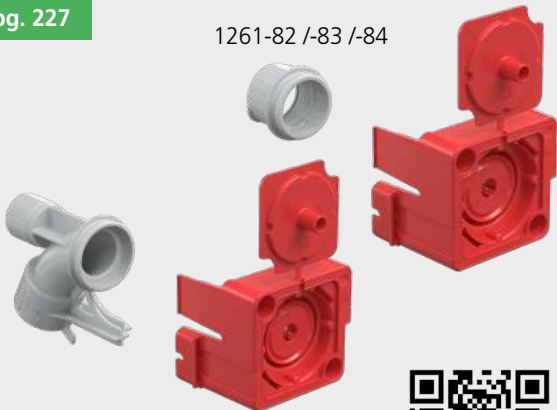


## For system magnet and system magnet PLUS. **B² one-gang junction boxes.**

The new B² one-gang junction boxes for precast concrete contain plenty of space for terminals and cables due to their large volume and ease of assembly. The version with a slot for the system magnet and system magnet PLUS (item no. 1299-69/1299-70 – available separately) is perfect for quick attachment to system magnets that have already been placed automatically.



1261-82 /-83 /-84



1261-92 /-93 /-94

Product video



## For system magnet and system magnet PLUS. **Wall and ceiling transitions.**

For the first time, the new end and transition bushes, in addition to 30° wall and ceiling transition, allow the automated positioning and fastening of conduit connections in precast concrete elements. The integrated slot for the system magnet and system magnet PLUS (item no. 1299-69/1299-70 – available separately) enables a safe, formwork-flush fit on the horizontal steel formwork for the circulation systems used in the concrete plants.



For system magnet  
and system magnet PLUS.  
**Large slab ceiling box 115.**



The large slab ceiling box is suitable for in-factory installation in prefabricated ceilings. The version with a slot for the system magnet and system magnet PLUS (item no. 1299-69/1299-70 – available separately) is perfect for quick attachment to system magnets that have already been placed automatically. The large slab ceiling box is already a part of the ceiling when it reaches the construction site and enables the quick insertion of empty conduits.



1227-16



Product video

For system magnet  
and system magnet PLUS.  
**HaloX® luminaire and loudspeaker housings.**



The HaloX® system is designed as a single element for fitting in precast concrete. Markings on the housing facilitate alignment on the formwork table. The magnet attachment enclosures are available with pre-fitted front parts to accommodate the system magnet and system magnet PLUS (item no. 1299-69/1299-70 – available separately). The integrated slot for the system magnet enables a safe, formwork-flush fit on the horizontal steel formwork for the circulation systems used in the concrete factories.


 1282-76  
1283-76

1282-75

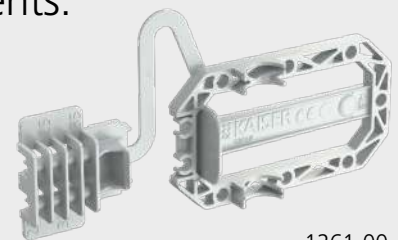

 1282-74  
1283-74


Product video

For overhead electrical installations in solid wall elements.  
**Prefix® universal support.**



The Prefix® universal support enables simple, fast processing of overhead electrical installations in solid wall elements without a support element for the steel formwork table. The support can be easily adjusted to the required concrete cover by means of a snap-in connection and attached to the new end and transition grommets and wall and ceiling transition 30° by means of a snap-in connection.



1261-00

Added value through innovative **signal cover** for HaloX®.



The new signal cover ensures a clean ceiling appearance and saves the time-consuming reworking of the installation opening after plastering. As an accessory item for the KAISER HaloX concrete recessed housings, the signal cover is simply inserted into the already opened front part after stripping the formwork from the bare ceiling or wall. Thus, the installation opening is securely closed and protected against the penetration of the plaster.



1281-31/ -32/ -33



**NEW**

## System magnets

- The new standard in automated precast concrete
- More efficient production processes
- For a completely prefabricated electrical installation



**NEW**

## B<sup>2</sup> one-gang junction boxes

- For magnetic and adhesive attachments
- Versions in depths of 48.5 mm, 68.5 mm and 83.5 mm
- Connection options for conduits with 20 mm, 25 mm, 32 mm and 40 mm diameter
- 1-piece item design for quick insertion



**NEW**

## Ceiling box

- For magnetic and adhesive attachments
- Versions in depths of 105 mm and 115 mm
- Connection options for conduits from 20 mm to 40 mm diameter
- For optimum transport conditions of the slab ceilings



**NEW**

## Transitions



- For magnetic and adhesive attachments
- For conduit sizes of 20 mm, 25 mm and 32 mm diameters
- For secure conduit connections at transitions between different components
- For uninterrupted empty conduit connections and outlets in walls and ceilings



**NEW**

## Accessories

- System accessories complement the precast concrete programme
- Conduit connectors for safe conduit connection
- Universal support and extension elements for overhead installations

	automated or manual production with <b>System magnet</b>  pg. 215	automated production as well as automated removal and storage with <b>System magnet PLUS</b>  pg. 215
<b>For installation accessories</b>		
One-gang junction boxes		pg. 220
<b>For cable exits</b>		
Luminaire installation and connection		pg. 225
<b>Wall and ceiling transitions</b>		
End and transition bushes		pg. 228
Wall and ceiling transition 30°		pg. 228

<b>Concrete construction (precast concrete production) accessories</b>		
Conduit connector		pg. 221
Fixing		pg. 222
Support element		pg. 223
Sealing of electrical installation conduits (air-tight and smokeproof)		pg. 29
Plaster compensation		pg. 222

FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

PLUGGABLE

CONNECTIVITY

CABLE GLANDS

TOOLS

SERVICE

## The KAISER product range for precast concrete

Industrially prefabricated slab concrete elements are produced dimensional accuracy largely using an automated precast concrete manufacturing process. The high level of pre-planning, industrial prefabrication in a protected environment and automation during production with regard to the fixing and assembly of installation parts ensure short assembly times and minimised costs. The components for the electrical installation must also be fixed and integrated into the wall or ceiling with the same level of precision as is applied to their manufacture.



**1** Wall and ceiling transition 90°, Oval funnel | **2** Slab ceiling large box 115 for magnet attachment | **3** HaloX® 250 with tunnel for precast concrete for magnet attachment | **4** B<sup>2</sup> one-gang junction boxes for magnet attachment | **5** B<sup>2</sup> one-gang junction box without plaster skin, depth 68.5 mm | **6** B<sup>2</sup> one-gang junction box with plaster skin, Universal extension element 175 to 300 mm | **7** Wall and ceiling transition 30° for magnet attachment | **8** HaloX® 180 for precast concrete for magnet attachment | **9** HaloX® 180 / 250 for precast concrete for magnet attachment | **10** HaloX® 180 with tunnel for precast concrete for magnet attachment | **11** Universal installation housing with mineral fibreboard | **12** B<sup>2</sup> one-gang junction box without plaster skin, depth 48.5 mm

## Application examples



The system magnet is used to hold B<sup>2</sup> one-gang junction boxes,



HaloX® luminaire and loud-speaker housings,



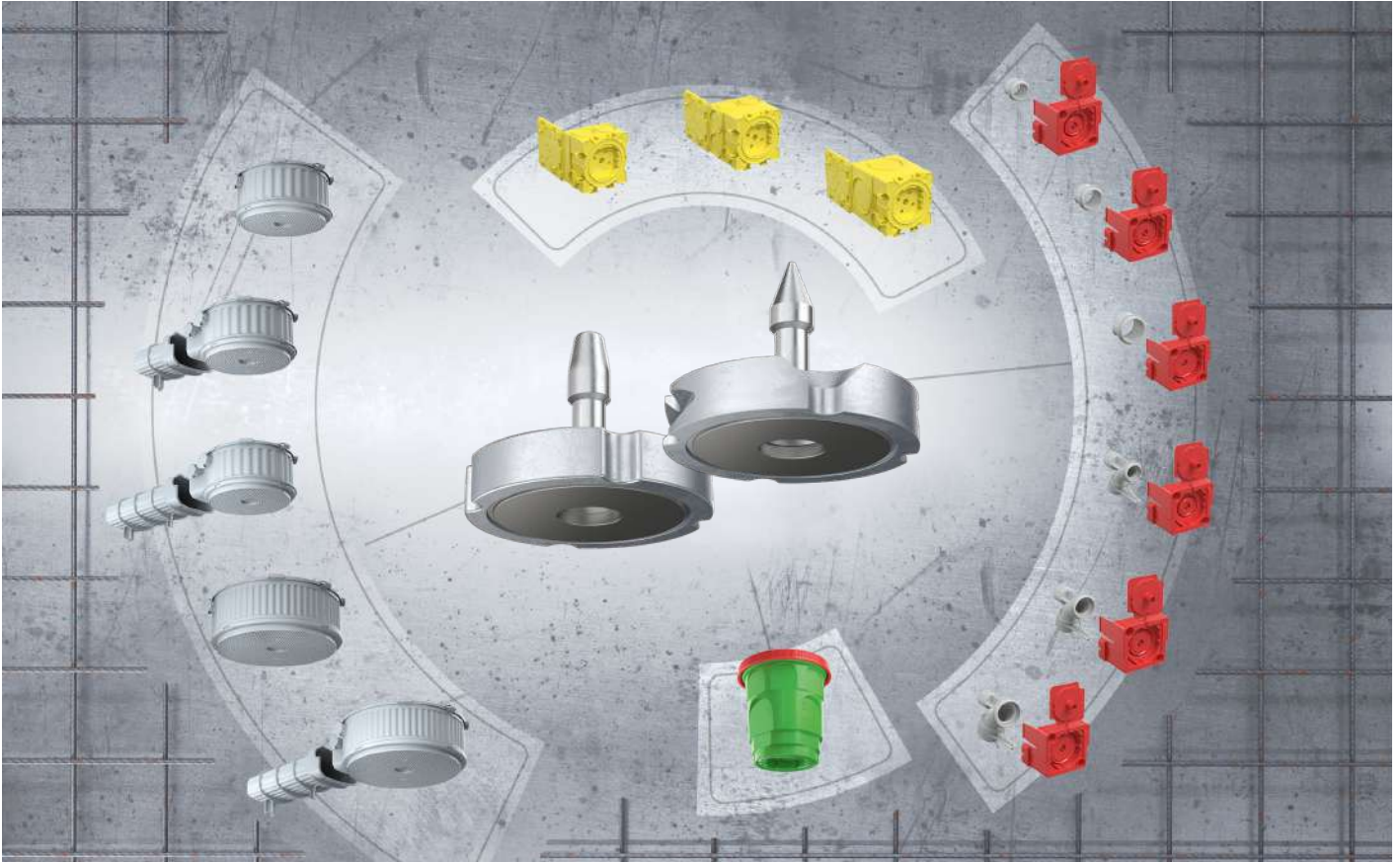
wall and ceiling transitions,



and for accommodating large slab ceiling boxes.

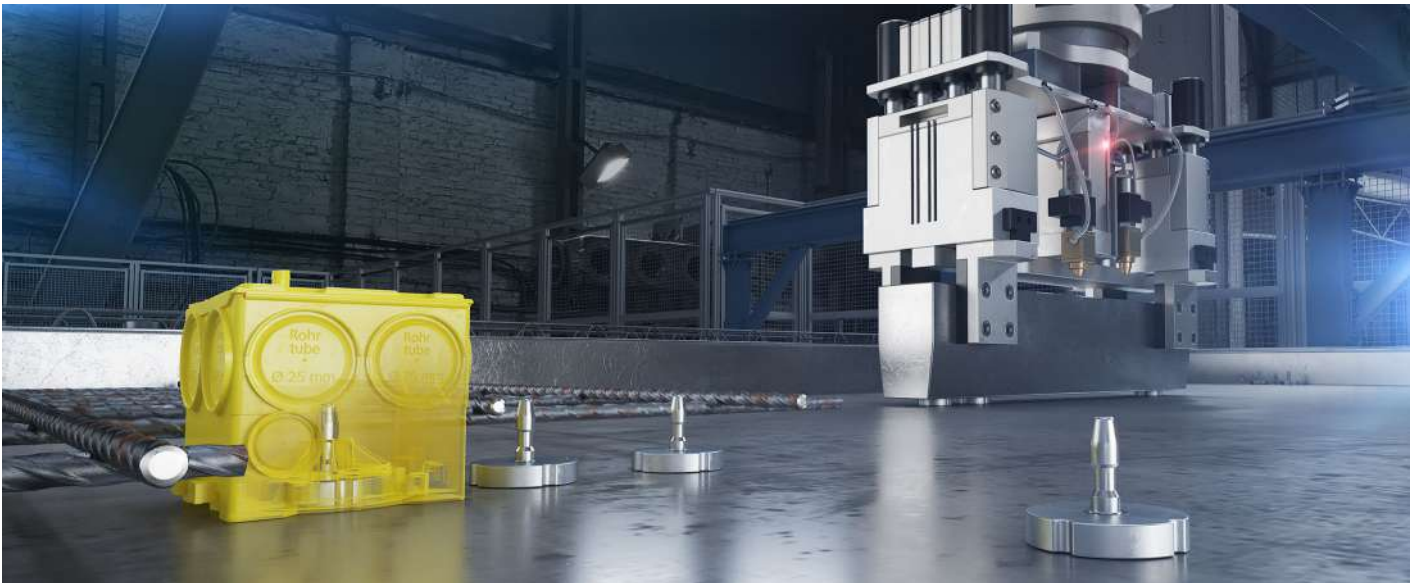
## One system magnet for every eventuality.

The system magnet is suitable for all installation parts required in wall and ceiling production to prepare the electrical installation in-factory. The system magnet can be used for correct positioning in both manual and automated production. In automated production, the magnet can be placed on the formwork table automatically and in the correct position using the multifunction gripper. The PLUS system magnet can also be removed and magazined automatically.



## Perfect connections for automated production.

The system magnet provides the basis for good installation of all electrical installation solutions in precast concrete.



FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

PLUGGABLE

CONNECTIVITY

CABLE GLANDS

TOOLS

SERVICE



**NEW**

## System magnet and system magnet PLUS

The system magnet has created a new standard in automated precast concrete for efficient manufacturing processes. This means that the electrical installation can be efficiently implemented using digital planning (BIM) and can flow seamlessly into the precast concrete production process. The complete electrical installation can now be automatically integrated into the in-factory production process with the new system magnet (item no. 1299-69) or system magnet PLUS (item no. 1299-70). Regardless of whether you're using B<sup>2</sup> one-gang junction boxes, wall and ceiling transitions, large slab ceiling boxes or luminaire and loudspeaker housings, the new system magnets can be used to position everything safely and with millimetre precision. After removing the concrete formwork elements, the system magnets PLUS (item no. 1299-70) can be removed automatically.

- The complete installation can be carried out with only one type of magnet – for automated setting (system magnet, item no. 1299-69) and/or setting and removal (system magnet Plus, item no. 1299-70)
- Four sideway notches ensure torsion-proof installation of the one-gang boxes
- Adhesive force of 500 N
- Reusable

**INNOVATION**



### System magnet

- for accurate positioning during automated or manual production
- with an anti-twist device for one-gang boxes
- adhesive force 500 N (50 kg)
- Suitable for the following items:
- HaloX® installation housing / item no. 1282-74/-75/-76 and 1283-74/-76
- B<sup>2</sup> one-gang junction boxes / item no. 1262-06, 1263-06, 1264-06
- 115 large slab ceiling box / item no. 1227-16
- End and transition bushes / item no. 1261-82/-83/-84
- Wall and ceiling transitions 30° / item no. 1261-92/-93/-94

**NEW**

**INNOVATION**



Produkt-Film



<b>Art.-No.</b>	<b>1299-69</b>
Inner packaging/shipping	- / 10



## System magnet PLUS

**NEW**

INNOVATION



Produkt-Film

- for correct positioning during automated production as well as automated removal and storage
- with an anti-twist device for one-gang boxes
- adhesive force 500 N (50 kg)
- Suitable for the following items:
- HaloX® installation housing / item no. 1282-74/-75/-76 and 1283-74/-76
- B<sup>2</sup> one-gang junction boxes / item no. 1262-06, 1263-06, 1264-06
- 115 large slab ceiling box / item no. 1227-16
- End and transition bushes / item no. 1261-82/-83/-84
- Wall and ceiling transitions 30° / item no. 1261-92/-93/-94



<b>Art.-No.</b>	<b>1299-70</b>
Inner packaging/shipping	- / 10

## Magnet

- for clamp attachment in the box
- for anti-shock fixing of one-gang junction boxes in horizontal formwork
- Adhesive force of 900 N
- Magnet remains on the formwork table after formwork removal
- Centering device for correct positioning during automated production



<b>Art.-No.</b>	<b>1261-81</b>
Inner packaging/shipping	- / 5

FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

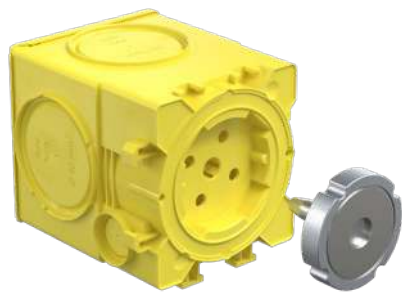
PLUGGABLE

CONNECTIVITY

CABLE GLANDS

TOOLS

SERVICE



**NEW**

## B² one-gang junction boxes

The new B² one-gang junction boxes for precast concrete offer plenty of space for terminals and cables thanks to their large volume and ease of assembly. The version with a slot for the system magnet (Art. No. 1299-69) or system magnet PLUS (Art. No. 1299-70) is ideally suited for quick attachment to system magnets that have already been set automatically. Multiple combinations with a standardised combination distance of 71 mm can be created quickly and easily using the connection options on the side of the B² one-gang junction boxes. The separately available conduit connectors for toolless conduit connection prevent concrete from flowing in and at the same time dampen conduit vibrations during the compaction process.

- For in-factory installation
- Slot for system magnet (Art. No. 1299-69) or system magnet PLUS (Art. No. 1299-70)
- 4 screw domes and 2 expanding claw fields for accessory fitting
- Standardised combination distance 71 mm
- 1-piece

 **INNOVATION**



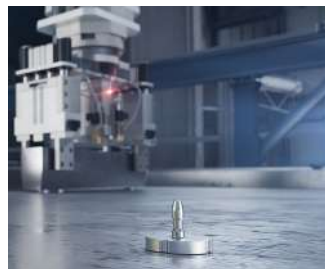
### Fixing variant



B² one-gang junction boxes with slot for KAISER system magnet (e. g. Art. No. 1299-69).



Perfect connections...

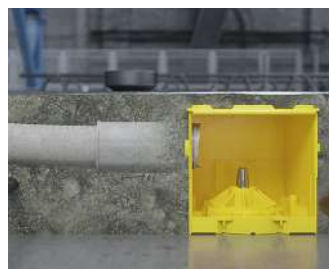


...for automated production.

### Product advantages



The conduit connectors buffer the vibrations that occur between the conduit and the box during the compression process...



...and at the same time securely seal the connection in any position.



Combination of two B² one-gang junction boxes...



...fixed to the steel formwork using a system magnet.

## Conduit connectors with 20/25 mm diameter



With built-in conduit lock designed especially for corrugated conduits with a diameter of 20/25 mm.



Clip the conduit connector to the one-gang junction box.



Press the conduit connector downwards and completely punch out the feed-through.



Insert the conduit into the conduit connector.

## Conduit connectors with 32/40 mm diameter



With built-in conduit lock designed especially for corrugated conduits with a diameter of 32/40 mm.



Insert the tip of the conduit connector in the marked position.



Turn the conduit connector with pressure against the one-gang junction box until the feed-through is cut out.



Clip the conduit connector into place and insert the conduit into the conduit connector.

## Conduit connector 60° / diameter 25 mm



Snap the two halves of the conduit connector 60° together.



Pierce the tip of the conduit connector 60° at the desired conduit entry and turn until the feed-through is cut out.



Insert the conduit in engaged conduit connector 60°.



3-unit combination with inserted conduits in the wall area.

# One-gang junction boxes and system components

for horizontal precast concrete

## B<sup>2</sup> one-gang junction boxes

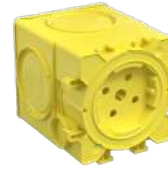
**NEW**

INNOVATION



Produkt-Film

- for factory installation
- Slot for system magnet (Art. No. 1299-69) or system magnet PLUS (Art. No. 1299-70)
- 1-piece
- 4 screw domes and 2 expanding claw fields for accessory fitting
- Standardised combination distance 71 mm



Depth	48,5 mm	68,5 mm	83,5 mm
Installation opening Ø	60 mm	60 mm	60 mm
Markings for wires and cables up to Ø 16 mm	4	4	2
Break-out openings for DIN EN Ø 20/25 mm conduits	4	8	-
Break-out openings for DIN EN Ø 32/40 mm conduits	-	-	4
/	Yes / Yes	Yes / Yes	Yes / Yes
<b>Art.-No.</b>	<b>1262-06</b>	<b>1263-06</b>	<b>1264-06</b>
Inner packaging/shipping	- / 100	- / 100	- / 100

## B<sup>2</sup> one-gang junction box without plaster skin

- for factory installation
- Fixing to the formwork by means of KAISER B<sup>2</sup> magnet (Art. No. 1261-81)
- 4 screw domes and 2 expanding claw fields for accessory fitting
- Standardised combination distance 71 mm
- 1-piece



Depth	48,5 mm	68,5 mm	83,5 mm
Installation opening Ø	60 mm	60 mm	60 mm
Markings for wires and cables up to Ø 16 mm	4	4	2
Break-out openings for DIN EN Ø 20/25 mm conduits	4	8	-
Break-out openings for DIN EN Ø 32/40 mm conduits	-	-	4
/	Yes / Yes	Yes / Yes	Yes / Yes
<b>Art.-No.</b>	<b>1262-61</b>	<b>1263-61</b>	<b>1264-61</b>
Inner packaging/shipping	- / 100	- / 100	- / 100

## B<sup>2</sup> one-gang junction box with plaster skin

- for factory installation
- Fastening to the formwork by means of KAISER adhesive foil (Art. No. 1219-00) or hot glue
- 4 screw domes and 2 expanding claw fields for accessory fitting
- Standardised combination distance 71 mm
- 1-piece



Depth	48,5 mm	68,5 mm	83,5 mm
Installation opening Ø	60 mm	60 mm	60 mm
Markings for wires and cables up to Ø 16 mm	4	4	2
Break-out openings for DIN EN Ø 20/25 mm conduits	4	8	-
Break-out openings for DIN EN Ø 32/40 mm conduits	-	-	4
/	Yes / Yes	Yes / Yes	Yes / Yes
<b>Art.-No.</b>	<b>1262-60</b>	<b>1263-60</b>	<b>1264-60</b>
Inner packaging/shipping	- / 100	- / 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
<b>Art.-No.</b>	<b>1261-20</b>	<b>1261-25</b>	<b>1261-32</b>	<b>1261-40</b>
Inner packaging/shipping	- / 100	- / 100	- / 100	- / 100

## Conduit connector 60°

- space-saving entry of conduits in confined spaces, e.g. door and window areas
- for punching out markings without tools
- for fitting flexible DIN EN conduits 25 mm



<b>Art.-No.</b>	<b>1266-25</b>
Inner packaging/shipping	- / 100

## Distance piece 142

- for connecting to all one-gang junction boxes at 142 mm centre distance
- for separate covering, e.g. low-voltage in combinations with sockets with protection against accidental contact.
- also for overhead boxes
- with push-stud connector for extension elements



<b>Art.-No.</b>	<b>1261-18</b>
Inner packaging/shipping	- / 50

## 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

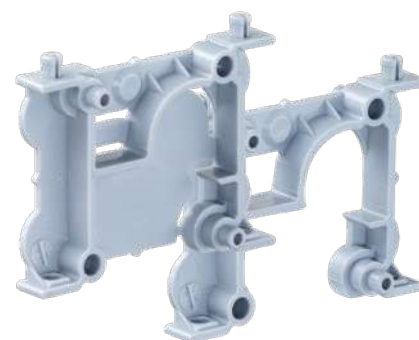


<b>Height</b>	<b>14,5 mm</b>
Diameter	60 mm
<b>Art.-No.</b>	<b>1261-60</b>
Inner packaging/shipping	25 / 250

## Extension element 10-100 mm

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.



## 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



<b>Installation heights, horizontal</b>	<b>10 mm</b>
Installation heights, vertical	50 mm
<b>Art.-No.</b>	<b>1261-10</b>
Inner packaging/shipping	- / 50

## Abutment

- for fitting of overhead one-gang junction boxes at greater heights
- for fixing to formworks



<b>Art.-No.</b>	<b>1261-11</b>
Inner packaging/shipping	- / 50

FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

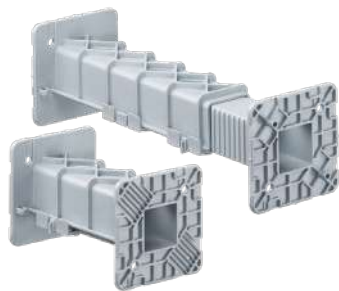
PLUGGABLE

CONNECTIVITY

CABLE GLANDS

TOOLS

SERVICE



## 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

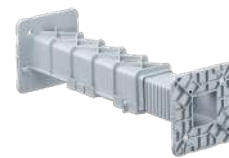
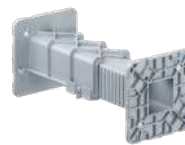
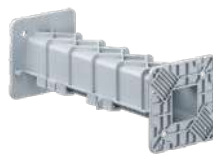


### Note

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	Yes	Yes	-	-
can be attached to one-gang junction boxes or abutment using push-stud conduit connector	-	-	Yes	Yes
<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 box

The large slab ceiling box is suitable for in-factory installation in prefabricated ceilings. The version with a slot for the system magnet (Art. No. 1299-69) or system magnet PLUS (Art. No. 1299-70) is ideally suited for quick attachment to system magnets that have already been set automatically. The large slab ceiling boxes are already a part of the ceiling when they reach the construction site and enable the quick insertion of empty conduits. The resealable quick-release cover can be opened with a quarter turn and so enables the quick and exact creation of conduit entries using punch pliers (Art. No. 1286-33/-34).

- For in-factory installation
- Slot for system magnet (Art. No. 1299-69) or system magnet PLUS (Art. No. 1299-70)
- Large adhesive area with rough surface structure for a secure fit on the formwork table
- 115-mm installation height guarantees optimal transport conditions for prefabricated ceilings
- Quick-release cover for fast cutting of conduit entries using punch pliers
- Integrated M5 domed cap nut ensures secure fitting of a light hook.
- With closing cover for on-site fitting of conduits



**NEW**

### Processing instructions



Quick-release cover for fast cutting of conduit entries using punch pliers.



Quick-release cover for fast cutting of conduit entries using punch pliers.



8 markings for entries up to  $\varnothing$  25 mm for easy creation of cable or pipe entries.



M5 metal nut for secure mounting of light hooks up to 100 N (10 kg) according to DIN EN 60670.

### Large slab ceiling box 115

**NEW**


- For in-factory installation
- Slot for system magnet (Art. No. 1299-69) or system magnet PLUS (Art. No. 1299-70)
- Installation height 115 mm, with M5 metal nut for light hook (min. hook length: 115 mm + plaster thickness)
- With closing cover for on-site fitting of conduits
- maximum light hook load according to DIN EN 60670 100 N (10 kg)



**INNOVATION**



Produkt-Film

<b>Depth</b>	<b>115 mm</b>
Exit opening $\varnothing$	60 mm
Markings for wires and cables up to $\varnothing$ 25 mm	8
Markings for wires and cables up to $\varnothing$ 32 mm	4
Number of parts	2
	Yes
<b>Art.-No.</b>	<b>1227-16</b>
Inner packaging/shipping	- / 100

# One-gang junction boxes and system components

for horizontal precast concrete

## Slab ceiling large box 115


- for factory installation
- Fastening to the formwork by means of KAISER adhesive foil (Art. No. 1219-00) or hot glue
- Installation height 115 mm, with M5 metal nut for light hook (min. hook length: 115 mm + plaster thickness)
- With closing cover for on-site fitting of conduits
- maximum light hook load according to DIN EN 60670 100 N (10 kg)



## Slab ceiling large box 105

- for factory installation
- Fastening to the formwork by means of KAISER adhesive foil (Art. No. 1219-00) or hot glue
- 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 closing cover for on-site fitting of conduits
- maximum light hook load according to DIN EN 60670 100 N (10 kg)



Depth	115 mm	105 mm
Exit opening Ø	60 mm	60 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	Yes	Yes
	Yes	Yes
<b>Art.-No.</b>	<b>1227-55</b>	<b>1227-54</b>
Inner packaging/shipping	- / 100	- / 100

## Light hook

- for screwing into lamp boxes (EN 60670)
- maximum light hook load according to DIN EN 60670 100 N (10 kg)
- with M5 thread, fully insulated

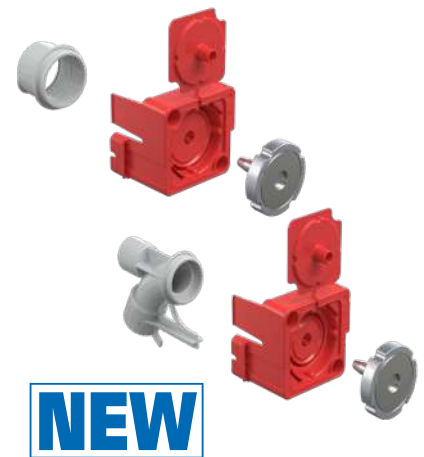


Length of shank	105 mm	115 mm	125 mm
Diameter hook	26 mm	26 mm	26 mm
Overall length	132 mm	143 mm	151 mm
Thread length	10 mm	10 mm	10 mm
<b>Art.-No.</b>	<b>1226-97</b>	<b>1226-98</b>	<b>1226-99</b>
Inner packaging/shipping	- / 100	- / 100	- / 100

## Wall and ceiling transitions

For the first time, the new end and transition bushes as well as wall and ceiling transitions 30° allow the automated positioning and fastening of conduit connections in precast concrete elements. The integrated slot for the system magnet (Art. No. 1299-69) or system magnet PLUS (Art. No. 1299-70) enables a secure and formwork-flush fit on the horizontal steel formwork of the circulation systems used in concrete plants. The new articles also provide alternative options for fixing to formwork. They can be fixed using hot glue, steel nails and even for overhead installation in solid wall elements using Prefix® Universal supports (Art. No. 1261-00).

- Slot for system magnet (Art. No. 1299-69) and system magnet PLUS (Art. No. 1299-70) for use in automated production lines
- For conduit sizes of 20 mm, 25 mm and 32 mm diameters
- All end and transition bushes and wall and ceiling bends 30° can be combined with each other
- Resealable sealing cover to protect the empty conduit system from concrete when installed on top, during transport and when erected on site
- Signal bristle and bold colouring for easy retrieval in the concrete surface
- Optimal transition radius for easy cable insertion
- 1-piece design, immediately ready for use



### Application examples



Wall and ceiling transitions with opening for KAISER system magnets (item no. 1299-69) and system magnet PLUS (item no. 1299-70).



Wall and ceiling transitions for attachment with hot glue.



For mounting on the wooden formwork - two stable nail domes with nail pre-fixing enable a secure hold on the formwork with steel nails.



Prefix® upside mounting adapter (item no. 1261-00) - Easy and quick processing for installations above.

### Processing instructions



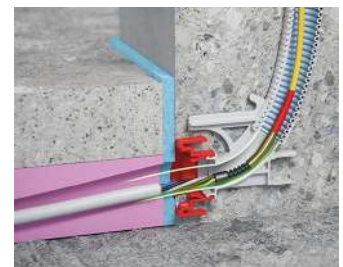
Resealable closure lids - Protection from concrete during transport and when erecting the wall element on site.



Signal brush – easy finding of the transitions in the wall surface.



The new ceiling transitions can be optimally combined and thus processed quickly and precisely.



The new 30° ceiling transitions have an optimal radius and for a flexible insertion of cables.

# One-gang junction boxes and system components

for horizontal precast concrete

## End and transition bushes

**NEW**

**INNOVATION**



Produkt-Film

- For connecting conduits at transition points
- Slot for system magnet (Art. No. 1299-69) or system magnet PLUS (Art. No. 1299-70)
- Large adhesive surface
- For overhead installation in solid walls
- With closing cover to prevent ingress of foreign bodies
- Combinable end and transition bushes and wall and ceiling transition 30°
- Two slots for Prefix® system accessories
- Suitable for all types of formwork
- Two nail domes



<b>Length x Width x Depth</b>	<b>53 x 64 x 48 mm</b>	<b>53 x 64 x 48 mm</b>	<b>53 x 64 x 49 mm</b>
DIN EN conduit Ø	20 mm	25 mm	32 mm
Number of parts	2	2	2
<b>Art.-No.</b>	<b>1261-82</b>	<b>1261-83</b>	<b>1261-84</b>
Inner packaging/shipping	- / 100	- / 100	- / 100

## Wall and ceiling transition 30°

**NEW**

**INNOVATION**



Produkt-Film

- For connecting conduits at transition points
- Slot for system magnet (Art. No. 1299-69) or system magnet PLUS (Art. No. 1299-70)
- Large adhesive surface
- For overhead installation in solid walls
- With closing cover to prevent ingress of foreign bodies
- Combinable end and transition bushes and wall and ceiling transition 30°
- Two slots for Prefix® system accessories
- Suitable for all types of formwork
- Two nail domes



<b>Length x Width x Depth</b>	<b>80 x 64 x 86,5 mm</b>	<b>81 x 64 x 86,5 mm</b>	<b>86 x 64 x 91 mm</b>
DIN EN conduit Ø	20 mm	25 mm	32 mm
Number of parts	2	2	2
<b>Art.-No.</b>	<b>1261-92</b>	<b>1261-93</b>	<b>1261-94</b>
Inner packaging/shipping	- / 100	- / 100	- / 100

## Prefix® universal support

The Prefix® universal support enables simple, fast fitting of overhead electrical installations in solid wall elements without a support element for the steel formwork table. The support can be easily adjusted to the required concrete ceiling by means of a snap-in connection and attached to the new end and transition bushes and wall and ceiling transitions 30° by means of a snap-in connection. The previously customary and costly in-house constructions using timber blanks can thus be dispensed with, disruptions to the further production process are a thing of the past and production of a good wall surface quality is guaranteed without restriction.

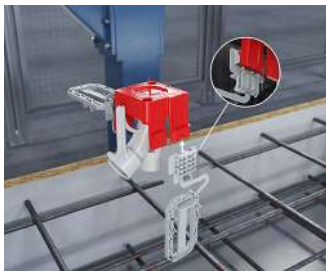
- For overhead electrical installations in prefabricated solid walls without support elements
- With integrated dimension indication, easily adjustable to the common concrete ceilings 20 mm, 25 mm, 30 mm or 35 mm
- Generous tolerance compensation for fixing to the reinforcement
- Prefixing using Prefix® installation technology leaves both hands free for fixing with tie wires



**NEW**



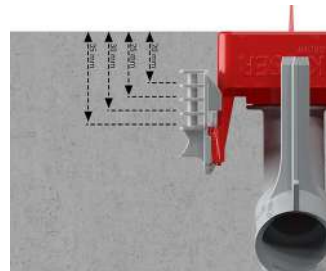
### Fitting instructions



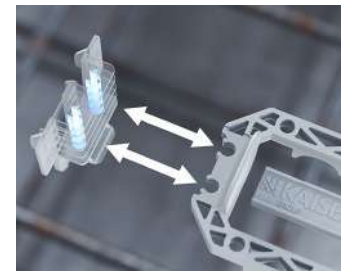
The new wall and ceiling transitions for factory production each have two opposing stable slots for the Prefix® universal support.



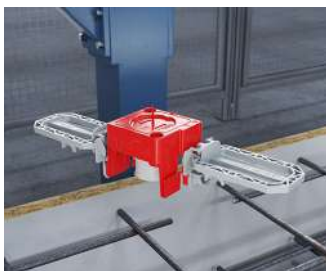
The required concrete ceiling can be quickly read off and precisely set using the dimensional scale. The dimensional scale is adjusted, so that the wall-ceiling transitions are minimally below the subsequent wall surface,



and therefore do not impede the next steps in the manufacturing process. The signal bristle keeps the position of the exits visible in the concrete surface.



Prefix® universal supports have a stable snap-in connection and can be released and repositioned if the concrete ceiling is set incorrectly.



With the Prefix® universal support, all end and transition bushes, as well as the wall and ceiling transition 30° for factory production, can be



installed on top for conduit sizes with 20 mm, 25 mm and 32 mm diameters without any support elements.



The wall and ceiling transitions are pre-fixed in the reinforcement using Prefix® installation technology and fixed with tie wires, then the conduit connection is made.



During the concreting process, the concrete can also flow underneath and no fixing marks remain in the concrete surface to the rear.

## Prefix® universal support

**NEW**

- For overhead installations in prefabricated solid walls
- Facilitates fixing to the reinforcement
- Adjustable to concrete ceilings 20, 25, 30 or 35
- Pre-fixing by means of Prefix® installation technology
- Can be used for the following items:
  - End and transition bushes / item no. 1261-82/-83/-84
  - Wall and ceiling transitions 30° / item no. 1261-92/-93/-94



<b>Length x Width x Height</b>	<b>87 x 45 x 36 mm</b>
Number of parts	1
for concrete covers	20, 25, 30, 35 mm
<b>Art.-No.</b>	<b>1261-00</b>
Inner packaging/shipping	- / 350

## 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



<b>DIN EN conduit Ø</b>	<b>25 mm</b>
<b>Art.-No.</b>	<b>1261-12</b>
Inner packaging/shipping	- / 100

# One-gang junction boxes and system components

for horizontal prefabrication



## 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-ceiling transition 90° using the oval funnel.

### Wall and ceiling transition 90°

- for easier drawing of cable through 90° bends
- for fitting to formwork edging
- accepts rigid and flexible DIN EN conduits
- with closing cover to protect against foreign bodies



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



## Oval funnel

The oval funnel simplifies the exact joining of prefabricated concrete elements with integrated installation conduits. It guarantees safe conduit entry and provides a tolerance compensation of 1 cm or 2 cm during installation.

- Tolerance compensation when joining the concrete elements
- For industrially prefabricated ceiling and wall elements as well as on-site mixed concrete
- For secure connection of installation conduits on transitions of prefabricated concrete elements
- Precise joining of electrical installation conduits
- Tolerance compensation: 2 cm in longitudinal direction and 1 cm in transverse direction.



### Tolerance compensation when joining the concrete elements



Compensation in longitudinal direction  $\pm 20$  mm.



Compensation in transverse direction  $\pm 10$  mm.



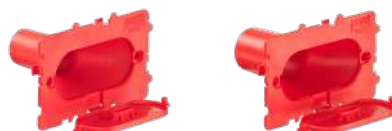
Wall-ceiling transition  $90^\circ$  using the oval funnel.



Good compensation of construction tolerances.

### 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



## Installation housing for concrete construction

- 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 be reclosed
- Maximum contact surface to the concrete ensures optimal thermal management
- Shape-retaining, loadable – and easily fitted
- All housings available with or without tunnel
- Housings and front parts are force-latching, firmly latched together and can later be aligned as required
- Signal cover of 68 mm, 75 mm and 80 mm diameter to protect the installation openings from plaster materials.














## Installation housings for walls and ceilings

- 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 new construction and renovation



## Fire-protection housings

- Safe, certified fire-protection housings for built-in luminaires and loudspeakers in fire protection ceilings
- Integrated fire-retardant coating ensures that the housing has the same fire-resistance class as the ceiling (F30 (EI30)).
- They prevent fire and flue gases from spreading, thus securing escape routes in buildings
- Suitable for fire resistance from above and from below

Concrete construction					
	<b>HaloX® 100</b>  pg. 238	<b>HaloX® 100 Multi-conduit entry</b>  pg. 238	<b>HaloX® 180</b>  pg. 238	<b>HaloX® 250</b>  pg. 238	
Installation dimensions for luminaires and loudspeakers					
max. luminaire/loudspeaker installation diameter	100 mm	100 mm	180 mm	250 mm	
max. luminaire/loudspeaker installation depth	110 mm	110 mm	110 mm	110 mm	
Insertion in <b>facing concrete</b>	•	•	•	•	
For universal installation dimensions	•	•	•	•	
Conduit entry up to M40	-	•	-	-	
Installation variant					
Ceiling installation	•	•	•	•	
Wall installation	•	•	•	•	
Concreting method					
On-site mixed concrete	pg. 240	pg. 240	pg. 240	pg. 240	
Precast concrete	-	-	pg. 258	pg. 258	
Walls and ceilings					
	<b>ThermoX® LED</b> for rigid and swivelling built-in LED luminaires  pg. 264	<b>ThermoX®</b> for halogen spotlights and LED luminaires  pg. 270	<b>Spacers</b> for luminaires, loudspeakers, presence detectors, etc.  pg. 276	<b>EnoX®</b> for halogen spotlights, LED luminaires and displays  pg. 267	<b>ThermoX® Iso + installation housings</b> for LED luminaires up to 8 Watt  pg. 64
Product details					
Installation below air-tight level	•	•	•	•	-
Installation inside air-tight level	•	•	-	•	-
Installation in the insulated level	-	-	-	-	•
Housing height	70/95 mm	90 mm	40-100 mm	60 mm	100-160 mm
Luminaire/loudspeaker installation diameters	70/81 mm	max. 86 mm	68-80 mm	max. 120 mm	max. 86 mm
max. luminaire/loudspeaker installation depth	60/85 mm	65/70 mm	95 mm	57 mm	70-130 mm
Installation variants					
retrofitting	•	•	•	-	-
Wall installation	-	-	-	•	-
Ceiling installation	•	•	•	•	•
Fire protection					
	<b>FlamoX®</b> – for luminaires and loudspeakers  pg. 315				
	 pg. 315				
Installation dimensions for luminaires and loudspeakers					
max. luminaire/loudspeaker installation diameter	100 mm		180 mm		
For universal installation dimensions	•		•		
max. luminaire/loudspeaker installation depth	100 mm		150 mm		
Installation variants					
retrofitting	•		•		
in independent EI30/F30 sub-ceilings	•		•		
Installation without additional suspension	•		•		
Installation without additional fire protection materials or sealing compounds	•		•		

FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

PLUGGABLE

CONNECTIVITY

CABLE GLANDS

TOOLS

SERVICE



## HaloX®

Free space for planning, installation and ambience

### One system for all eventualities



#### HaloX® for on-site mixed concrete

The modular housing system for ceilings and walls is available in 3 different housing sizes with fixed or variable installation diameters of up to 250 mm, also available for facing concrete requirements.

pg. 240



#### HaloX® for precast concrete

The housing system for ceilings and walls is available in 2 different housing sizes with fixed or variable installation diameters up to 250 mm (up to 210 mm with tolerance compensation).

pg. 258



#### HaloX® for retrofitting

HaloX® for the retrofitting of installation housings in slab ceilings and solid ceilings. After creating a drilling hole, the housings can be extended according to the ceiling thickness.

pg. 255

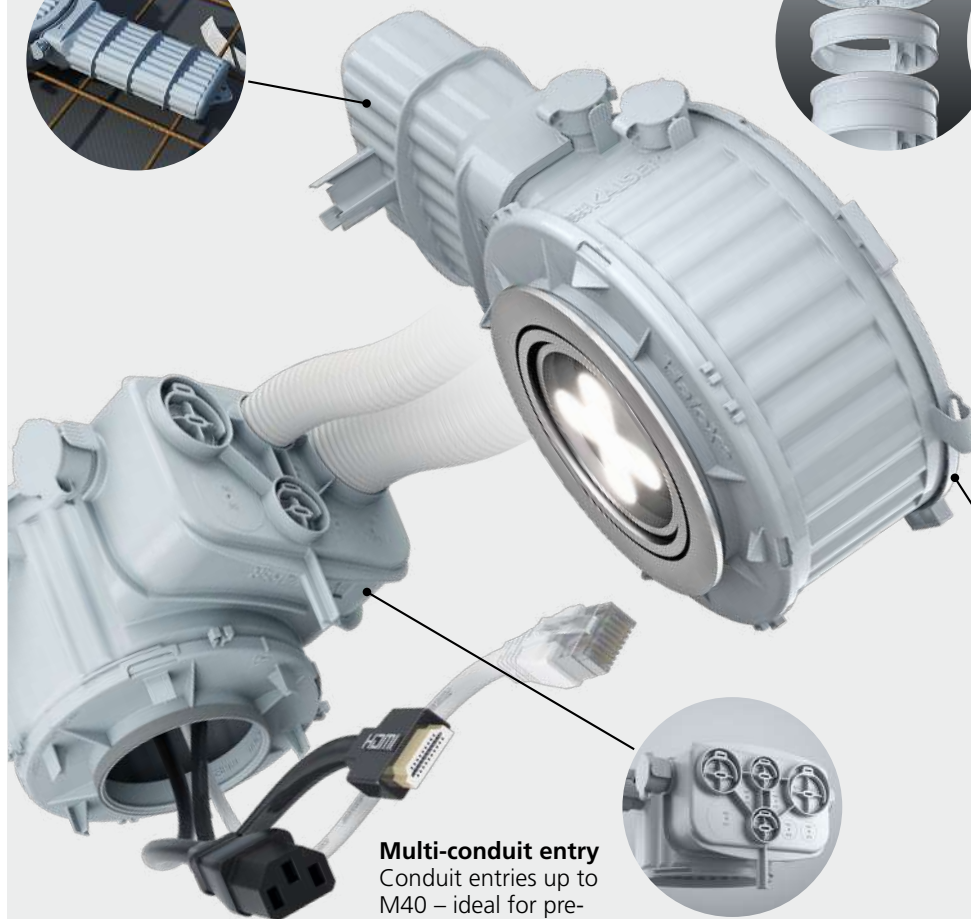
**A system for all eventualities** – for processing on-site mixed concrete, the front parts can be fixed to the working formwork with nails. Prefix® mounting sets are available for fixing to the opposing formwork. In precast concrete, the housings can be installed with adhesive or magnetic attachment.



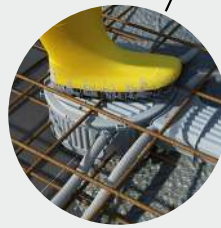
**Combination entry for conduits M20/M25 – toolless opening technology** with safe conduit retention and depth stop, without the need to shorten the conduits on the inside. Reusable in case of installation changes or incorrect assignments.



**Pressure-resistant tunnel** to accommodate operating devices. Minimal effect on the statics – no cuts to the reinforcement required in the tunnel area.

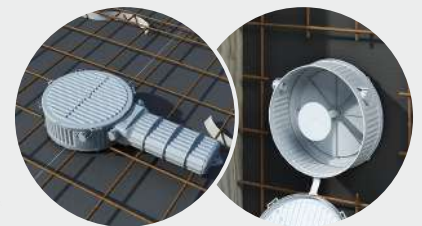


**Multi-conduit entry**  
Conduit entries up to M40 – ideal for pre-assembled cables.

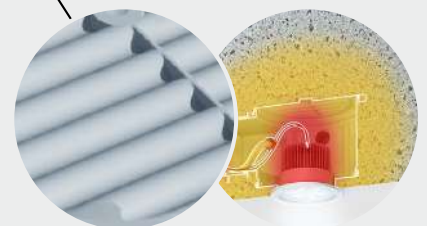


**Shape-retaining and resilient.** Compact housing with stabilizing wave profile provides the necessary stability during the concreting process – even under extreme loads.

Continuous housing system – modular, flexible for luminaires and loudspeakers at all heights and with mounting diameters up to 250 mm, also for facing concrete requirements.



**For walls and ceilings**



**Wave-shaped surface profile** ensures maximum housing surface for optimum heat dissipation via the concrete.

FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

PLUGGABLE

CONNECTIVITY

CABLE GLANDS

TOOLS

SERVICE



## HaloX® concrete installation housing

The new HaloX® housing system offers space for new light or sound in concrete ceilings and walls. Shape-retaining, loadable and in a modular design, the HaloX® system provides a secure installation compartment for loudspeakers and luminaires with LED, halogen or compact fluorescent lamps. Round, square or universal front parts ensure that any device up to a ceiling cut-out of 250 mm can be installed, even when facing concrete is required. Optional extension rings provide more space for greater installation depths. The toolless combination entry for M20/M25 conduits is easy to internal and, even with incorrect occupancy, is easily closed again. It provides secure conduit retention with depth stop, so there is no need for later internal shortening of the conduits.

- For on-site mixed concrete and precast concrete - for wall and ceiling
- For luminaires and loudspeakers with installation diameters up to 250 mm
- All housings available with and without a tunnel
- Toolless entry technology for M20/M25 conduits
- Optimal heat management thanks to maximum surface contact with the concrete
- Minimal effect on the statics - no cuts to the reinforcement required in the tunnel area



### Application



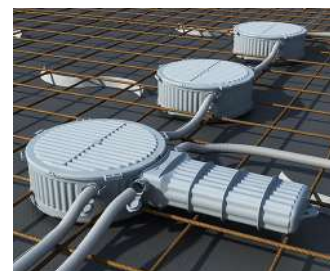
HaloX® with innovative toolless opening technology.



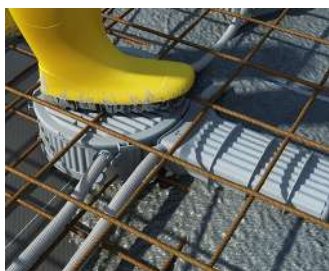
Toolless combination entry M20/M25 - secure with high retention force. No internal shortening of conduits is necessary.



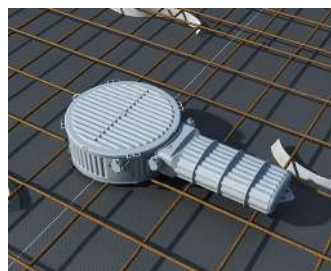
HaloX housings are available with and without a tunnel - in all sizes



Shape-retaining, loadable and easily fitted. Safe place for new light or sound.



Shape-retaining, resilient and easy to process. HaloX® ensures a secure place for new light or modern sound.



Minimal effect on the statics – no additional cuts to the reinforcement in the area of the tunnel as it has a clearance of 40 mm to the formwork.



The high contact surface of the housings conducts the heat directly away via the concrete and in this way prevents excessively high temperatures in the housing.



HaloX® creates a secure installation compartment for luminaires and loudspeakers in concrete ceilings and walls.

## Temperature management for HV LED and LV LED luminaires



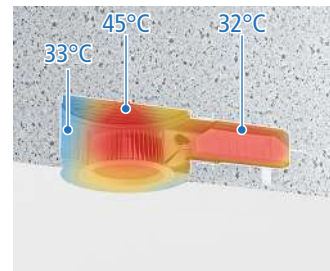
230V built-in LED luminaire with 68 mm installation diameter



Temperature profile 230V built-in LED luminaire max. 20 W



LV LED luminaire installation diameter 140 mm

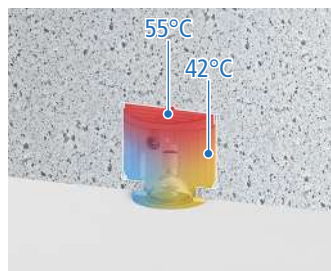


Temperature profile LV LED luminaire max. 35 W

## Temperature management for HV halogen and TC luminaires



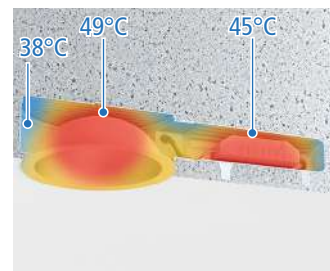
230V built-in luminaire with 100 mm installation diameter



Temperature profile HV halogen luminaire max. 75 W (230V)

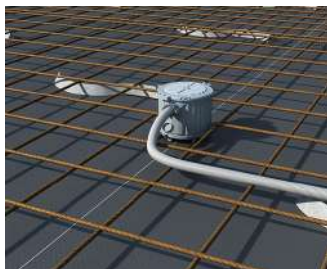


Installation downlight TC-TEL 2 x 26 W with installation diameter of 215 mm



Temperature profile installation downlight TC-TEL with 2 x 26 W

## Connection conditions and switching examples for LED and LV halogen luminaires



Connection and conduit entry for a 230V LED luminaire

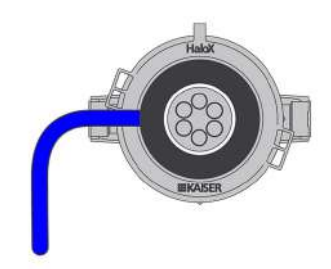
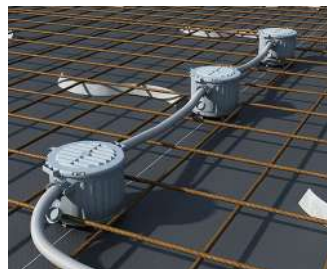
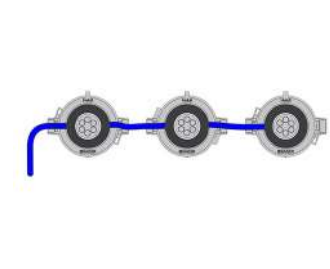


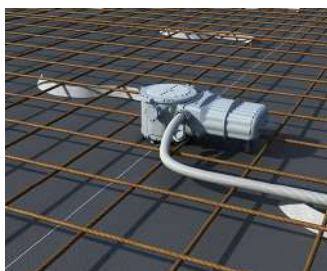
Diagram of single circuit



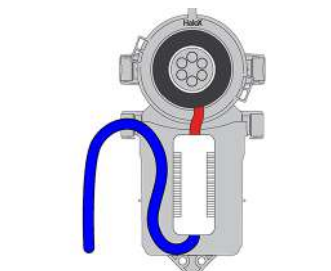
Group switching HV halogen luminaires



Schematic diagram of group switching



Connection and conduit entry LED luminaire with operating device.



Schematic diagram of luminaire with driver

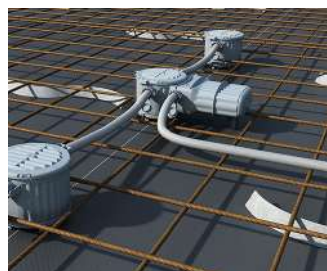
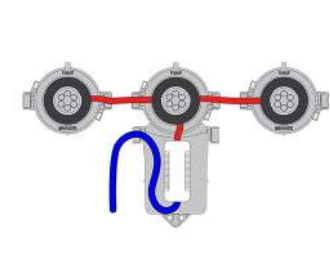


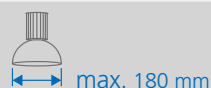
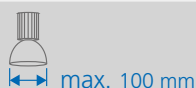
Diagram of group switching with one driver for more than one luminaire



Schematic diagram of group switching with a operating device.

## System overview of HaloX® for on-site mixed concrete

### 1 Installation space for luminaires / loudspeakers and operating devices



without additional space for operating devices



**HaloX® 100**  
1281-00  
p. 246

**HaloX® 180**  
1282-00  
p. 246

**HaloX® 250**  
1283-00  
p. 246

Additional space for operating devices  
up to 150 x 90 x 50 mm\*



**HaloX® 100 with tunnel 190**  
1281-30  
p. 247

**HaloX® 180 with tunnel 190**  
1282-30  
p. 247

**HaloX® 250 with tunnel 190**  
1283-30  
p. 247

Zusatzraum für größere Betriebsgeräte



up to 280 x 90 x 50 mm\*

**HaloX® 180 with tunnel 325**  
1282-40  
p. 247

**HaloX® 250 with tunnel 325**  
1283-40  
p. 247

For prefabricated cables

Conduits up to M40

**HaloX® 100 multi-conduit entry**  
1281-15  
p. 247

\* max. dimension of operating devices must be checked depending on the installation opening

### 2 Installation diameter for luminaires/loudspeakers

round

- Front parts round
- Front parts round (**Facing concrete**)

Ø 68 - 100 mm  
p. 248

Ø 100 - 180 mm  
p. 250

Ø 180 - 250 mm  
p. 251

square

- Front parts square
- Front parts square (**Facing concrete**)

68x68 - 75x75 mm  
p. 249

-

-

universal

- Universal front part plastic (a)
- or mineral fibreboard (b)

Ø max. 100 mm  
p. 249

Ø max. 180 mm  
p. 250

Ø max. 250 mm  
p. 251

specific

Individual Styrofoam moulded parts (optional for **Facing concrete**)

p. 254

p. 254

p. 254

### 3 Installation depth



Installation height  
> 110 mm



**Extension rings 10/25/50 mm**  
1281-21/25/50 | p. 252/256/257



**Extension rings 25/50 mm**  
1282-25/50 | p. 252/263



**Extension rings 25/50 mm**  
1283-25/50 | p. 252/263

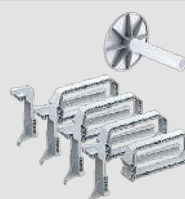
### 4 Accessories



Wall installation in vertical formwork



**Prefix® installation set for fixing to the reinforcement**  
1299-65 | p. 252



**Wall installation set for fitting in vertical formwork**  
1299-60...64 | p. 252

**Prefix® installation set for fixing to the reinforcement**  
1299-66 | p. 252

Easy finding after plastering



**Signal cover**

1281-31...33 | p. 253/262



## Concrete installation housing HaloX® (on-site mixed concrete)

The shape-retaining HaloX® system has a modular design for fitting in on Site mixed concrete. Three housing diameters with a large number of round, square and universal front parts allow the integration of luminaires and loudspeakers up to an installation diameter of 250 mm, including in facing concrete. With a tunnel, the system provides sufficient space for the fitting of operating devices such as LED drivers. Optional extension rings increase the installation depth. All front parts are moisture-repellent and can be positioned exactly and nailed-on even before the first reinforcement is laid. Housings and front parts are firmly and stably latched together and can still be aligned as required afterwards. By means of the toolless, opening technology with M20/M25 combination entry, conduits can be inserted quickly and easily and even if the population is incorrect, the entry can easily be closed again. It provides secure conduit retention with a depth stop, so there is no need for later internal shortening of the conduits. After casting, front parts with a defined installation diameter can be opened with a targeted blow of the hammer. The front parts for universal opening dimensions can be plastered locally or plastered over. Then cut the required installation opening using standard cutting tools e.g. MULTI 4000.

- For walls and ceilings
- Housings and front parts are latched together securely and sturdily, and can also be subsequently aligned as required
- All housing sizes are available with and without a tunnel
- Toolless entry technology for M20/M25 conduits
- Optimal heat management thanks to maximum surface contact with the concrete
- Minimal impact on the main structure – does not require reinforcement steel to be cut to create the tunnel



# System HaloX® for on-site mixed concrete

for luminaires and loudspeakers

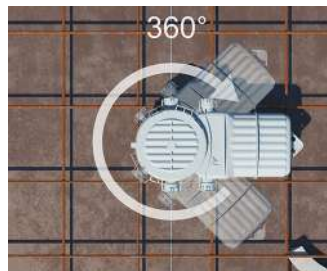
## Installation on the ceiling formwork



The flat front part (20 mm) lies below the lower reinforcement layer, thus not hindering any subsequent works, and can be precisely aligned using the centre marking.



After inserting the reinforcement, the required reinforcement cuts can be made and the casings can be latched to the front parts.



After locking the casing, it can be rotated 360° for better conduit connection or to avoid collisions with the reinforcement.



The combination conduit entry can be opened simply by hand. If necessary, conduit entries that have already been opened can simply be closed again.



The combination conduit entry provides a secure connection for both jacketed and non-jacketed pipes,



and can be used individually for conduit sizes of 20 mm or 25 mm diameter. It offers a high degree of pull-out safety and, thanks to the integrated depth stop, makes subsequent internal shortening of the conduits superfluous.



All HaloX® installation housings are robustly designed and meet the requirements of the harsh conditions at the construction site and in the concrete plant.



After formwork removal, the HaloX® system ensures a clean ceiling appearance and the optimum condition for installing luminaires and loudspeakers.

## Wall installation, installation on the working formwork



Thanks to the stable nail domes arranged in the plaster skin and the centre marking on the side, the front parts can be precisely aligned and securely fixed.



After inserting the reinforcement, the required reinforcement cuts can be made and the casings can be latched to the front parts. In the case of housings with a tunnel, this must be aligned vertically downwards.



When using HaloX® 180 or HaloX® 250, the wall installation kit (item no. 1299-xx) must be used for additional stabilisation of the housings.



To further secure the HaloX® housing, this can be additionally fixed to the reinforcement by means of tie wires through the tie lugs.

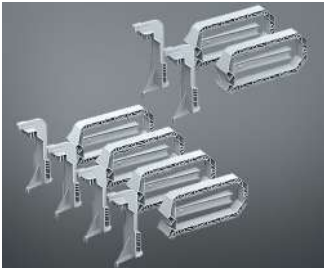


After formwork removal, the HaloX® system ensures a clean wall appearance and the optimum condition for installing luminaires and loudspeakers.



The wall installation kit (item no. 1299-xx) must be used for wall installation of the HaloX® 180 or HaloX® 250 housings. This ensures a maximum installation compartment even with high concrete pressure.

## Wall mounting, mounting to the opposing formwork side using the Prefix® installation set



Prefix® installation sets (item no. 1299-65) for HaloX® 100 and for HaloX® 180/250 (item no. 1299-66) are available as an option for mounting to the opposing formwork.



When mounting HaloX® 180/250, also use the wall installation kit (item no. 1299-60).



The Prefix® installation clamps can be latched-on on both sides and are suitable for concrete covers measuring 20-40 mm



and 40-60 mm.



Following pre-fixing by using Prefix® installation clamps, both your hands are free to carry out fast, secure fixing to the reinforcement using tie wires.



Now the housing can be populated with 20/25-mm diameter conduits – with tools required.



Concrete cover after installation with catch mechanism Prefix® installation clamps for 20-40 mm concrete covering.



Concrete cover after installation with catch mechanism Prefix® installation clamps for 40-60 mm concrete covering.

## Extension rings

Extension rings are available to enlarge the installation compartment.



HaloX® 100: front extension 10, 25 or 50 mm (item no. 1281-21, -25, -50).



HaloX® Ø 180: front-side extension 25 or 50 mm (item no. 1282-25, -50)



HaloX® Ø 180: rear-side extension 25 or 50 mm (item no. 1282-25, -50)



HaloX® Ø 250: extension 25 or 50 mm front or rear (item no. 1283-25, -50)

## Electrical installation (after formwork removal)



After formwork removal, the front part (e.g. item no. 1281-01) can be opened with a blow of the hammer.



The optimal foundation for modern ceiling lighting.



With KAISER MULTI 4000 turbo cutters (e.g. item no. 1083-10), the required installation openings can be created easily and precisely in universal plastic front parts (e.g. item no. 1281-10).



Design freedom for creative, modern lighting systems.



With the KAISER VARIOCUT (e.g. item no. 1089-00), the required installation openings can be made with millimetre precision in the universal mineral fibre front parts (e.g. item no. 1281-11).



Optimal sound volume for modern multi-room systems.



Individual opening dimensions (e.g. rectangular cut-outs) can be made in the universal front parts as required using a commercially available fretsaw.



The perfect installation compartment for individual orientation lighting.

## Signal cover



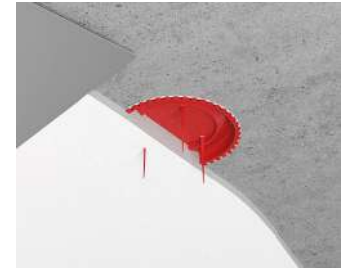
The new signal covers to protect the installation openings from plaster materials are available in the sizes of 68 mm, 75 mm and 80 mm diameter.



After formwork removal from the concrete ceiling or wall, the front part (e.g. item no. 1281-01) is opened with a blow of the hammer..



After the supply conduits have been pulled into the empty conduit system, the signal cover is inserted into the installation opening and simultaneously signals that the cable pull-in is complete and the installation opening is ready for plastering.



The inserted signal cover protects the installation opening from plastering material and, at the same time, enables flat removal and smoothing of the ceiling or wall surface.



The red signal bristles are flexible during the smoothing process and do not hinder this work step but, at the same time, are stable enough to keep the position in the plaster surface recognisable.



After the plaster has hardened, the signal covers can be easily moved into the housing with a blow of them hammer in the centre,



and then the plaster residues protruding into the installation opening can be removed with a knife along the inner recess edge, so that a clean installation opening is created.



Now the signal cover can be easily removed from the housing due to its elastic material,



and the desired built-in luminaire can be connected and mounted.



The elastic material of the signal cover allows it to be deformed without damage and, thus, to be freed quickly and effortlessly from plaster residues.



In addition to use in fixed HaloX® front parts, these can also be used in the universal front parts made from plastics



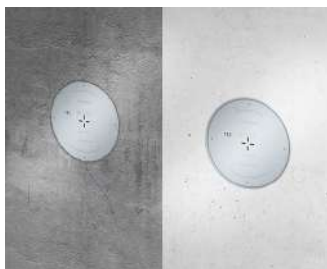
or mineral fibre board.

# System HaloX® for on-site mixed concrete

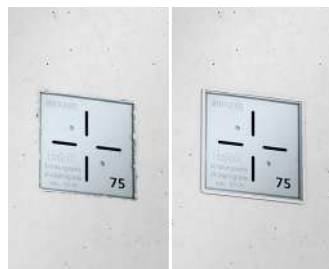
for luminaires and loudspeakers

## Processing information: variants | front parts | facing concrete

Front parts with defined installation diameters are available for all housing sizes – also for the facing concrete version. An additional elastomer sheathing prevents the dry concrete from cracking in this case. Styrofoam mouldings for individual installation diameters in almost any shape and thickness, and universal front parts are suitable for variable or as-yet-undefined ceiling exits.



Round front parts with and without an elastomer seal.



Square front parts with and without an elastomer seal.



Styrofoam mouldings for individual cut-outs in any shape and size (with and without an elastomer seal).



Universal front parts for variable or as-yet-undefined installation diameters.

## HaloX® 100 / 180 / 250 (on-site mixed concrete)

- Toolless combination entry for M20/M25 conduits
- Conduit entry limitation to prevent the need to shorten the conduit inside



3D animation

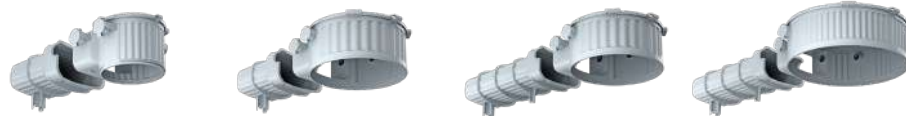
System	HaloX® 100	HaloX® 180	HaloX® 250
Ceiling exit (CE) Ø	0-100 mm	0-180 mm	0-250 mm
Max. installation depth luminaire / loudspeaker	110 mm	110 mm	110 mm
LED wattage max.	20 Watt	35 Watt	45 Watt
Lamp wattage max.	50 Watt	75 Watt	100 Watt
Housing diameter Ø	130 mm	210 mm	280 mm
Depth incl. front part	120 mm	120 mm	120 mm
Combination entry for M20/M25 conduits	2	2	2
<b>Art.-No.</b>	<b>1281-00</b>	<b>1282-00</b>	<b>1283-00</b>
Inner packaging/shipping	- / 10	- / 10	- / 10

## HaloX® 100 / 180 / 250 with transformer tunnel (on-site mixed concrete)

- Toolless combination entry for M20/M25 conduits
- Conduit entry limitation to prevent the need to shorten the conduit inside
- No reinforcement cuts in tunnel section area



3D animation



System	HaloX® 100	HaloX® 180	HaloX® 180	HaloX® 250
Ceiling exit (CE) Ø	0-100 mm	0-180 mm	0-180 mm	0-250 mm
Max. installation depth luminaire / loudspeaker	110 mm	110 mm	110 mm	110 mm
LED wattage max.	20 Watt	35 Watt	35 Watt	45 Watt
Lamp wattage max.	50 Watt	75 Watt	75 Watt	100 Watt
Housing diameter Ø	130 mm	210 mm	210 mm	280 mm
Depth incl. front part	120 mm	120 mm	120 mm	120 mm
Tunnel length	190 mm	190 mm	325 mm	325 mm
Tunnel width	140 mm	140 mm	140 mm	140 mm
Tunnel height	85 mm	85 mm	85 mm	85 mm
Combination entry for M20/M25 conduits	4	4	4	4
<b>Art.-No.</b>	<b>1281-30</b>	<b>1282-30</b>	<b>1282-40</b>	<b>1283-40</b>
Inner packaging/shipping	- / 10	- / 10	- / 10	- / 10

## HaloX® 100 Multi-conduit entry

- 4 M20/M25 combination entries with toolless opening technology
- Multi-conduit entry up to M40 with secure conduit retention
- Minimal effect on statics - no cuts to the reinforcement
- Shape-retaining, loadable and easily fitted
- Suitable with all HaloX 100 front parts



3D animation

<b>Ceiling exit (CE) Ø</b>	<b>0-100 mm</b>
Max. installation depth luminaire / loudspeaker	110 mm
LED wattage max.	20 Watt
Lamp wattage max.	50 Watt
Housing diameter Ø	130 mm
Depth incl. front part	120 mm
Combination entry for M20/M25 conduits	6
Combination entry for M25/M32 conduits	1
Combination entry for M32/M40 conduits	1
Cable entries up to Ø 16 mm	4
Cable entries up to Ø 32 mm	1
<b>Art.-No.</b>	<b>1281-15</b>
Inner packaging/shipping	- / 10

# System HaloX® for on-site mixed concrete

for luminaires and loudspeakers

## HaloX® 100 Multi-conduit entry



4 toolles combination entries M20/M25.



Integrated conduit retention.



Multi-conduit entry up to M40.



Ideal for multimedia applications through multi-pipe entries up to M40.

## HaloX® 100 front parts

- Suitable for housing with Art. No. 1281-XX and 1290-30
- Suitable with signal cover



Ceiling exit (CE) Ø	Min. luminaire covering Ø	Art.-No.	Inner packaging/ shipping
68 mm	75 mm	1281-01	- / 10
75 mm	82 mm	1281-02	- / 10
80 mm	87 mm	1281-03	- / 10
85 mm	92 mm	1281-04	- / 10
90 mm	97 mm	1281-05	- / 10
95 mm	102 mm	1281-06	- / 10
100 mm	107 mm	1281-07	- / 10

## HaloX® 100 front parts for facing concrete

- in facing concrete version
- elastomer seal with flexible sealing edge
- prevents ingress of concrete, discolouring and sand blast dust
- for exact flush finishes in facing concrete without additional reworking
- Suitable for housing with Art. No. 1281-XX and 1290-30



Ceiling exit (CE) Ø	Min. luminaire covering Ø	Art.-No.	Inner packaging/ shipping
68 mm	80 mm	1281-61	- / 8
75 mm	87 mm	1281-62	- / 8
80 mm	92 mm	1281-63	- / 8
85 mm	97 mm	1281-64	- / 8
90 mm	102 mm	1281-65	- / 8
95 mm	107 mm	1281-66	- / 8
100 mm	112 mm	1281-67	- / 8



## HaloX® 100 front parts, square

- Suitable for housing with Art. No. 1281-XX and 1290-30



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

## HaloX® 100 front parts, square for facing concrete

- in facing concrete version
- elastomer seal with flexible sealing edge
- prevents ingress of concrete, discolouring and sand blast dust
- Suitable for housing with Art. No. 1281-XX and 1290-30



<b>Ceiling exit (CE) Ø</b>	<b>68 x 68 mm</b>	<b>75 x 75 mm</b>
Min. luminaire covering	80 x 80 mm	87 x 87 mm
<b>Art.-No.</b>	<b>1281-68</b>	<b>1281-69</b>
Inner packaging/shipping	- / 8	- / 8

## HaloX® 100 universal front parts

- Suitable for housing with Art. No. 1281-XX and 1290-30
- Suitable with signal cover



<b>Ceiling exit (CE) Ø</b>	<b>0-100 mm</b>	<b>0-100 mm</b>
Universal plastic panel	Yes	-
Universal mineral fibreboard	-	Yes
<b>Art.-No.</b>	<b>1281-10</b>	<b>1281-11</b>
Inner packaging/shipping	- / 10	- / 8

FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

PLUGGABLE

CONNECTIVITY

CABLE GLANDS

TOOLS

SERVICE

# System HaloX® for on-site mixed concrete

for luminaires and loudspeakers

## HaloX® 180 front parts

· Suitable for housing with Art. No. 1282-XX



Ceiling exit (CE) Ø	Min. luminaire covering Ø	Art.-No.	Inner packaging/shipping
100 mm	107 mm	1282-01	- / 10
110 mm	117 mm	1282-02	- / 10
125 mm	132 mm	1282-03	- / 10
145 mm	152 mm	1282-04	- / 10
160 mm	167 mm	1282-05	- / 10
180 mm	187 mm	1282-06	- / 10

## HaloX® 180 front parts for facing concrete

· Suitable for housing with Art. No. 1282-XX



Ceiling exit (CE) Ø	Min. luminaire covering Ø	Art.-No.	Inner packaging/shipping
100 mm	112 mm	1282-61	- / 10
110 mm	122 mm	1282-62	- / 10
125 mm	137 mm	1282-63	- / 10
145 mm	157 mm	1282-64	- / 10
160 mm	172 mm	1282-65	- / 10
180 mm	192 mm	1282-66	- / 10

## HaloX® 180 universal front parts

· Suitable for housing with Art. No. 1282-XX  
 · Suitable with signal cover



Ceiling exit (CE) Ø	0-180 mm	0-180 mm
Universal plastic panel	Yes	-
Universal mineral fibreboard	-	Yes
Art.-No.	1282-10	1282-11
Inner packaging/shipping	- / 10	- / 10

## HaloX® 250 front parts

· Suitable for housings with Art. No. 1283-XX



Ceiling exit (CE) Ø	Min. luminaire covering Ø	Art.-No.	Inner packaging/ shipping
180 mm	187 mm	1283-01	- / 10
190 mm	197 mm	1283-02	- / 10
200 mm	207 mm	1283-03	- / 10
215 mm	222 mm	1283-04	- / 10
240 mm	247 mm	1283-05	- / 10
250 mm	257 mm	1283-06	- / 10

## HaloX® 250 front parts for facing concrete

· Suitable for housings with Art. No. 1283-XX



Ceiling exit (CE) Ø	Min. luminaire covering Ø	Art.-No.	Inner packaging/ shipping
180 mm	192 mm	1283-61	- / 10
190 mm	202 mm	1283-62	- / 10
200 mm	212 mm	1283-63	- / 10
215 mm	227 mm	1283-64	- / 10
240 mm	252 mm	1283-65	- / 10
250 mm	262 mm	1283-66	- / 10

## HaloX® 250 universal front parts

· Suitable for housings with Art. No. 1283-XX

· Suitable with signal cover



Ceiling exit (CE) Ø	0-250 mm	0-250 mm
Universal plastic panel	Yes	-
Universal mineral fibreboard	-	Yes
<b>Art.-No.</b>	<b>1283-10</b>	<b>1283-11</b>
Inner packaging/shipping	- / 10	- / 10

# System HaloX® for on-site mixed concrete

for luminaires and loudspeakers

## Replacement mineral fibreboard for HaloX Ø 100, 180 and HaloX Ø 250

- for front parts with Art. Nos. 1281-11, 1282-11 and 1283-11



System	HaloX® 100	HaloX® 180	HaloX® 250
<b>Art.-No.</b>	<b>1281-27</b>	<b>1282-27</b>	<b>1283-27</b>
Inner packaging/shipping	- / 10	- / 10	- / 10

## Extension rings HaloX®

- To increase installation depth



Height	System	Max. installation depth luminaire / loudspeaker	For Art. No.	Art.-No.	Inner packaging/shipping
10 mm	HaloX® 100	+ 10 mm	1281-xx/1290-30	<b>1281-21</b>	- / 10
25 mm	HaloX® 100	+ 25 mm	1281-xx/1290-30	<b>1281-25</b>	- / 10
50 mm	HaloX® 100	+ 50 mm	1281-xx/1290-30	<b>1281-50</b>	- / 10
25 mm	HaloX® 180	+ 25 mm	1282-xx	<b>1282-25</b>	- / 10
50 mm	HaloX® 180	+ 50 mm	1282-xx	<b>1282-50</b>	- / 10
25 mm	HaloX® 250	+ 25 mm	1283-xx	<b>1283-25</b>	- / 10
50 mm	HaloX® 250	+ 50 mm	1283-xx	<b>1283-50</b>	- / 10

## Installation set for wall installation

- Installation kit for wall installation in vertical formwork
- 2-piece, consists of support element and seating bearing
- For HaloX Ø 210 (1282-XX) and HaloX Ø 280 (1283-XX)



For luminaire or loudspeaker installation height	Art.-No.	Inner packaging/shipping
100 mm	<b>1299-60</b>	- / 1
125 mm	<b>1299-61</b>	- / 1
150 mm	<b>1299-62</b>	- / 1
175 mm	<b>1299-63</b>	- / 1
200 mm	<b>1299-64</b>	- / 1

## Prefix® installation set

- Installation set for wall installation
- for fixing to the opposing formwork



<b>for HaloX® 100</b>	<b>Yes</b>	-
for HaloX® 180/250	-	Yes
<b>Art.-No.</b>	<b>1299-65</b>	<b>1299-66</b>
Inner packaging/shipping	- / 1	- / 1

## Signal cover

The new signal cover ensures a clean ceiling appearance and avoids time-consuming reworking of the installation opening after plastering. As an accessory item for the KAISER HaloX<sup>®</sup> concrete installation housings, the signal cover is simply inserted into the already opened front part after formwork removal from the rough ceiling or wall. Thus, the installation opening is securely closed and protected against penetration of plaster. Three signal bristles, in combination with the bright red colour, ensure that the installation opening in the plastered rough ceiling or wall can be found quickly and easily. The installation opening can be opened with one targeted blow of the hammer without destroying the surrounding plaster pattern. With one turn of the knife edge, cleaning residues are removed effortlessly. The flexible signal cover can then be removed easily and cleanly. Its specially serrated edge structure preserves the plaster edge.

- Stable and robust clamping in installation diameters of 68 mm, 75 mm and 80 mm,
- For use in fixed HaloX<sup>®</sup> front parts, universal HaloX<sup>®</sup> front parts and other installation openings
- Stable signal bristles and strong colouring for easy retrieval from the plaster surface
- Reusable, easy to clean



**NEW**

**INNOVATION**

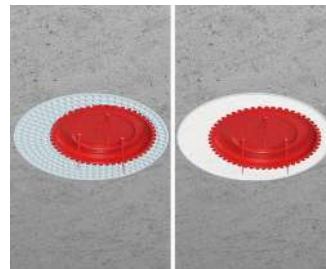
### Application examples



After formwork removal and pull-in of the supply conduits, the signal cover is inserted into the installation opening.



The red signal bristles are flexible during the smoothing process and do not hinder this work step but, at the same time, are stable enough to keep the position in the plaster surface recognisable.



In addition to being able to use the HaloX<sup>®</sup> front parts with fixed exit opening, these can also be inserted into the universal HaloX<sup>®</sup> front parts.



In the case of factory-fitted HaloX<sup>®</sup> housings for one of the system magnets (e.g. 1299-69), the signal covers allow the recess to be smoothed or filled over the entire surface.

### Signal cover

**NEW**

**INNOVATION**

- Protects the interior of the housing
- Three stable signal bristles and strong colouring for easy retrieval from the plastered rough ceiling.
- Serrated edge structure for a clean installation opening



For installation opening	68 mm	75 mm	80 mm
Art.-No.	1281-31	1281-32	1281-33
Inner packaging/shipping	10 / 100	10 / 100	10 / 100



## Styrofoam moulded parts

HaloX® 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 in-situ or prefabricated concrete
- 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.

### Styrofoam moulded parts

- For individual installation openings (round, square)
- With maximum diameter up to 300 mm and max. height up to 50 mm
- For all housings with Art. No. 12XX-XX



<b>Art.-No.</b>	<b>1292-90</b>
Inner packaging/shipping	- / 1

## System overview of HaloX® for retrofitting



Installation diameter for luminaire/  
loudspeaker max. 100 mm

### 1 Installation space for luminaires / loudspeakers and operating devices

without additional space for operating devices



Slab ceiling

Solid ceiling



**HaloX® 100**  
installation set  
1281-20 | p. 256



**HaloX® 100**  
1281-00 | p. 246



**HaloX® housing for core drillings**  
in solid ceilings  
1290-30 | p. 257

Additional space for operating devices



up to 150 x 90 x 50 mm\*



**HaloX® 100**  
installation set  
1281-20 | p. 256



**HaloX® 100**  
with tunnel 190  
1281-30 | p. 247



**HaloX® 100**  
installation set  
1281-20 | p. 256



**HaloX® 100**  
multi-conduit  
entry  
1281-15 | p. 247

For prefabricated cables

Conduits up to M40

### 2 Thickness of the slab ceiling

Thickness of the slab ceiling > 50 mm



**Extension rings**  
10/25/50 mm  
1281-21/25/50  
p. 252/256/257

\* max. dimension of operating  
devices must be checked  
depending on the installation  
opening

### 3 Installation diameters for luminaires/loudspeakers



round  
Front parts round



Ø 68 - 100 mm  
p. 248



square  
Front parts square



68x68 - 75x75 mm  
p. 249



**Facing concrete: round**  
Front parts round with elastomer  
seal for facing concrete



Ø 68 - 100 mm  
p. 248



**Facing concrete: square**  
Front parts square with elastomer  
seal for facing concrete



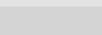
68x68 - 75x75 mm  
p. 249



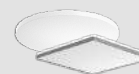
universal  
Universal front part plastic (a)  
or mineral fibreboard (b)



Ø max. 100 mm  
p. 249

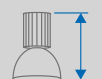


specific  
Individual Styrofoam moulded parts  
(optional for **facing concrete**)



p. 254

### 4 Installation depth



Installation height > 110 mm



**Extension rings**  
10/25/50 mm  
1281-21/25/50 | p. 252/256/257

## HaloX® 100 installation kit



HaloX® 100 installation kit can be retrofitted in existing slab ceilings (50 mm thickness and greater) with or without transformer tunnel.

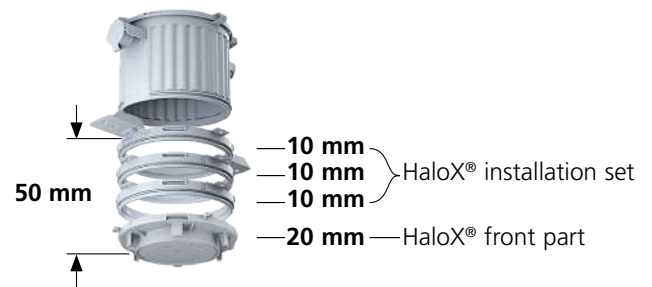
- For retrofitting in slab ceilings
- Minimal effect on statics
- Large selection of opening sizes up to Ø 100 mm
- Extension rings for bridging the slab ceiling element and for increasing the luminaire installation depth



### Note



For slabs thicker than 50 mm, the housing can be expanded in 10/25/50 mm steps using the extension rings.



### HaloX® installation kit mounting



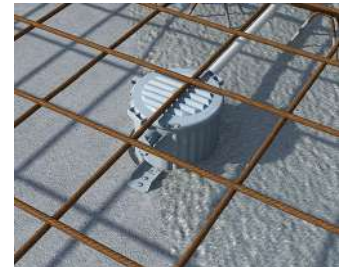
Cut drilling hole (Ø 150–160 mm) in the slab ceiling.



Combine the extension ring and front part to correspond to the ceiling thickness and installation depth.



Attach the housing and place in the drilling hole, mark and fasten. Install the conduit in the KSK entry.



If necessary, secure the fixed housing with wire to the reinforcement.

### HaloX® 100 installation kit

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



Height	30 mm	10 mm
System	HaloX® 100	HaloX® 100
For Art. No.	1281-xx	1281-xx/1290-30
Max. installation depth luminaire / loudspeaker	-	+ 10 mm
<b>Art.-No.</b>	<b>1281-20</b>	<b>1281-21</b>
Inner packaging/shipping	1 / 10	- / 10



## For retrofitting

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

- For retrofitting in solid ceilings
- Minimal effect on statics
- Quick installation with snap-in connections
- Robust construction, ideal for use on building sites
- Large selection of opening sizes up to Ø 100 mm



## Installation



Use the universal opening cutter to make accurate conduit entries for the appropriate conduit sizes.



Join the housing components to correspond to the ceiling thickness and installation depth.



Now insert the complete housing, including the installation into the opening or drilling hole. Then...



...fill the free space with concrete and compact it. A formwork board fitted underneath prevents the concrete from running out.

## HaloX® housing for drilling holes in solid ceilings

- for retrofitting in solid ceilings
- required hole size Ø 150-160 mm
- Take into consideration the ceiling thickness - at least 3 cm concrete cover is needed on top of the box



<b>Ceiling exit (CE) Ø</b>	<b>0-100 mm</b>
Depth incl. front part	133 mm
LED wattage max.	20 Watt
Lamp wattage max.	50 Watt
Diameter	130 mm
<b>Art.-No.</b>	<b>1290-30</b>
Inner packaging/shipping	- / 10

## HaloX® extension rings

- for increasing luminaire fitting depth
- to be clipped between the front part and the housing
- multiple extensions possible



Height	10 mm	25 mm	50 mm
System	HaloX® 100	HaloX® 100	HaloX® 100
Max. installation depth luminaire / loudspeaker	+ 10 mm	+ 25 mm	+ 50 mm
For Art. No.	1281-xx/1290-30	1281-xx/1290-30	1281-xx/1290-30
<b>Art.-No.</b>	<b>1281-21</b>	<b>1281-25</b>	<b>1281-50</b>
Inner packaging/shipping	- / 10	- / 10	- / 10

Subject to modifications

FLUSH-MOUNTING  
 CAVITY WALL  
 CONCRETE  
 HOUSINGS  
 FIRE PROTECTION  
 PLUGGABLE  
 CONNECTIVITY  
 CABLE GLANDS  
 TOOLS  
 SERVICE

# HaloX® system overview for precast concrete

for luminaires and loudspeakers

## System overview of HaloX® for precast concrete

### 1 Installation compartment for luminaires / loudspeakers and operating devices



max. 140 mm  
(with tolerance compensation)  
max. 180 mm  
(without tolerance compensation)



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


**Adhesive attachment**  
one-piece housing with universal mineral fibre-board

**Magnet attachment**  
one-piece housing with universal plastic plate for the magnet recess


**Adhesive attachment**  
one-piece housing with universal mineral fibre-board

**Magnet attachment**  
one-piece housing with universal plastic plate for the magnet recess


**System magnet**  
1299-69 | p. 262




**System magnet PLUS**  
1299-70 | p. 262



**System magnet**  
1299-69 | p. 262



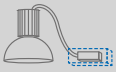
**System magnet PLUS**  
1299-70 | p. 262



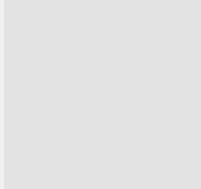
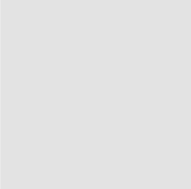
without additional space for operating devices



Additional space for operating devices



up to max. 150 x 90 x 50 mm\*



Additional space for larger operating devices



up to max. 280 x 90 x 50 mm\*



### 2 Installation depth



Installation height  
> 110 mm



**Extension rings**  
25/50 mm  
1282-25/50 | p. 263



**Extension rings**  
25/50 mm  
1283-25/50 | p. 263

### 3 Accessories



Wall installation in vertical formwork



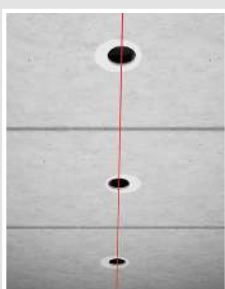
**Wall installation set for fitting in vertical formwork**  
1299-60...64 | p. 262

Easy to locate after plastering



**Signal cover**  
1281-31...33 | p. 262

\* max. dimension of operating devices must be checked depending on the installation opening



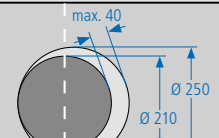
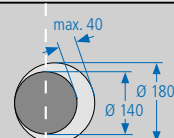
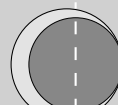
### Tolerance compensation

Depending on the installation diameter, at a later date you can correct inaccuracies which occurred during the laying of the slab ceilings. Use the KAISER VARIOCUT hole cutter to make accurate installation openings in the front parts.

**HaloX® 180**



**HaloX® 250**



## HaloX® concrete installation housing (precast concrete)

System HaloX® is designed as a single piece for fitting in precast concrete. The housings can easily be aligned on the formwork table by means of markings on the housing. The housing with pre-fitted mineral fibreboard allows easy glueing and the housings can be turned by 360° on the formwork table even after glueing. Housings with pre-fitted front parts to hold the system magnet (Art. No. 1299-69/1299-70) are available for magnet attachment. Laying tolerances which may occur during the fitting of panel elements are compensated for via the housing sizes in connection with a variable cut-out area. Because of the compact dimensions of the housings, the reinforcement can easily be placed around the housing. For luminaires or loudspeakers with installation depths equal to or greater than 110 mm, the installation compartment of the HaloX® housings can be increased on the on-site concrete building site by means of extension rings. The fitting of the conduits on-site takes place without the need for tools for M20/M25 conduits without any internal shortening of the conduits.

- For precast concrete slab ceilings and wall elements.
- 3 housing sizes with and without tunnel
- Single-part housings with integrated mineral fibreboard for easy adhesive fixing
- One-part housings with plastic panel for magnet attachment
- Toolless entry technology for M20/M25 conduits
- Compensation for laying tolerances on the concrete building site
- Optimal heat management thanks to maximum surface contact with the concrete



FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

### Installation



Mounting of the single-piece housing with mineral fibreboard...



...fitting of the one-part housing by means of system magnet (Art. No. 1299-69/1299-70).



Prefabricated element with integrated HaloX® housings is laid on concrete building site.



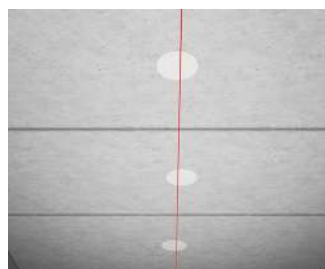
Subsequent adjustment of the housing height on the building site.



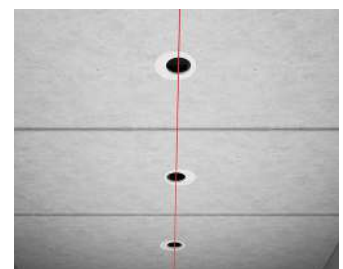
Toolless combination entry of M20/M25 conduits with conduit stop - no later shortening of the conduits.



After fitting of the conduits, concreting on the planned ceiling thickness takes place with the on-site mixed concrete process.



Panel element laying tolerances can be compensated for using the universal front parts (see system overview).



Cut the installation opening e.g. with the MULTI 4000 (Art. No. e.g. with 1083-10).

PLUGGABLE

CONNECTIVITY

CABLE GLANDS

TOOLS

SERVICE

## HaloX® 180 / 250 for precast concrete for adhesive attachment

- One-part housing with integrated mineral fibreboard
- Toolless combination entry for M20/M25 conduits
- Conduit entry limitation to prevent the need to shorten the conduit inside
- Suitable with signal cover



3D animation

System	HaloX® 180	HaloX® 250
Ceiling exit (CE) Ø	0-180 mm	0-250 mm
Max. installation depth luminaire / loudspeaker	110 mm	110 mm
LED wattage max.	35 Watt	45 Watt
Lamp wattage max.	75 Watt	100 Watt
Housing diameter Ø	210 mm	280 mm
Depth incl. front part	120 mm	120 mm
Combination entry for M20/M25 conduits	2	2
<b>Art.-No.</b>	<b>1282-71</b>	<b>1283-71</b>
Inner packaging/shipping	- / 10	- / 10

## HaloX® 180 / 250 with transformer tunnel (for precast concrete)

- One-part housing with integrated mineral fibreboard
- Toolless combination entry for M20/M25 conduits
- Conduit entry limitation to prevent the need to shorten the conduit inside



3D animation

System	HaloX® 180	HaloX® 180	HaloX® 250
Ceiling exit (CE) Ø	0-180 mm	0-180 mm	0-250 mm
Max. installation depth luminaire / loudspeaker	110 mm	110 mm	110 mm
LED wattage max.	35 Watt	35 Watt	45 Watt
Lamp wattage max.	75 Watt	75 Watt	100 Watt
Housing diameter Ø	210 mm	210 mm	280 mm
Depth incl. front part	120 mm	120 mm	120 mm
Tunnel length	190 mm	325 mm	325 mm
Tunnel width	140 mm	140 mm	140 mm
Tunnel height	85 mm	85 mm	85 mm
Combination entry for M20/M25 conduits	4	4	4
<b>Art.-No.</b>	<b>1282-72</b>	<b>1282-73</b>	<b>1283-73</b>
Inner packaging/shipping	- / 10	- / 10	- / 10

## HaloX® 180 / 250 for precast concrete for magnet attachment

- One-part housing for holding the system magnet (Art. No. 1299-69) and system magnet PLUS (Art. No. 1299-70)
- Toolless combination entry for M20/M25 conduits
- Conduit entry limitation to prevent the need to shorten the conduit inside
- Suitable with signal cover



3D animation

System	HaloX® 180	HaloX® 250
Ceiling exit (CE) Ø	0-180 mm	0-250 mm
Max. installation depth luminaire / loudspeaker	110 mm	110 mm
LED wattage max.	35 Watt	45 Watt
Lamp wattage max.	75 Watt	100 Watt
Housing diameter Ø	210 mm	280 mm
Depth incl. front part	120 mm	120 mm
Combination entry for M20/M25 conduits	2	2
<b>Art.-No.</b>	<b>1282-74</b>	<b>1283-74</b>
Inner packaging/shipping	- / 10	- / 10

## HaloX® 180 / 250 with tunnel for precast concrete for magnet attachment

- One-part housing for holding the system magnet (Art. No. 1299-69) and system magnet PLUS (Art. No. 1299-70)
- Toolless combination entry for M20/M25 conduits
- Conduit entry limitation to prevent the need to shorten the conduit inside
- Suitable with signal cover



3D animation

System	HaloX® 180	HaloX® 180	HaloX® 250
Ceiling exit (CE) Ø	0-180 mm	0-180 mm	0-250 mm
Max. installation depth luminaire / loudspeaker	110 mm	110 mm	110 mm
LED wattage max.	35 Watt	35 Watt	45 Watt
Lamp wattage max.	75 Watt	75 Watt	100 Watt
Housing diameter Ø	210 mm	210 mm	280 mm
Depth incl. front part	120 mm	120 mm	120 mm
Tunnel length	190 mm	325 mm	325 mm
Tunnel width	140 mm	140 mm	140 mm
Tunnel height	85 mm	85 mm	85 mm
Combination entry for M20/M25 conduits	4	4	4
<b>Art.-No.</b>	<b>1282-75</b>	<b>1282-76</b>	<b>1283-76</b>
Inner packaging/shipping	- / 10	- / 10	- / 10

## Signal cover

**NEW**

**INNOVATION**

- Protects the interior of the housing
- Three stable signal bristles and strong colouring for easy retrieval from the plastered rough ceiling.
- Serrated edge structure for a clean installation opening



For installation opening	68 mm	75 mm	80 mm
<b>Art.-No.</b>	<b>1281-31</b>	<b>1281-32</b>	<b>1281-33</b>
Inner packaging/shipping	10 / 100	10 / 100	10 / 100

## System magnet

**NEW**

**INNOVATION**



Produkt-Film

- for accurate positioning during automated or manual production
- with an anti-twist device for one-gang boxes
- adhesive force 500 N (50 kg)
- Suitable for the following items:
- HaloX® installation housing / item no. 1282-74/-75/-76 and 1283-74/-76
- B² one-gang junction boxes / item no. 1262-06, 1263-06, 1264-06
- 115 large slab ceiling box / item no. 1227-16
- End and transition bushes / item no. 1261-82/-83/-84
- Wall and ceiling transitions 30° / item no. 1261-92/-93/-94



<b>Art.-No.</b>	<b>1299-69</b>
Inner packaging/shipping	- / 10

## System magnet PLUS

**NEW**

**INNOVATION**



Produkt-Film

- for correct positioning during automated production as well as automated removal and storage
- with an anti-twist device for one-gang boxes
- adhesive force 500 N (50 kg)
- Suitable for the following items:
- HaloX® installation housing / item no. 1282-74/-75/-76 and 1283-74/-76
- B² one-gang junction boxes / item no. 1262-06, 1263-06, 1264-06
- 115 large slab ceiling box / item no. 1227-16
- End and transition bushes / item no. 1261-82/-83/-84
- Wall and ceiling transitions 30° / item no. 1261-92/-93/-94



<b>Art.-No.</b>	<b>1299-70</b>
Inner packaging/shipping	- / 10

## Extension rings HaloX®

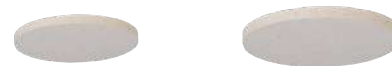
· To increase installation depth



Height	25 mm	50 mm	25 mm	50 mm
System	HaloX® 180	HaloX® 180	HaloX® 250	HaloX® 250
Max. installation depth luminaire / loudspeaker	+ 25 mm	+ 50 mm	+ 25 mm	+ 50 mm
For Art. No.	1282-xx	1282-xx	1283-xx	1283-xx
<b>Art.-No.</b>	<b>1282-25</b>	<b>1282-50</b>	<b>1283-25</b>	<b>1283-50</b>
Inner packaging/shipping	- / 10	- / 10	- / 10	- / 10

## Replacement mineral fibreboard for HaloX® 180, HaloX® 250

- Replacement mineral fibreboard 1282-27 for housings with Art. No. 1282-71/72/73
- Replacement mineral fibreboard 1283-27 for housing with Art. No. 1283-71/73



System	HaloX® 180	HaloX® 250
<b>Art.-No.</b>	<b>1282-27</b>	<b>1283-27</b>
Inner packaging/shipping	- / 10	- / 10

## HaloX® system – Technical information

### Fire protection – minimum concrete covering according to fire resistance class

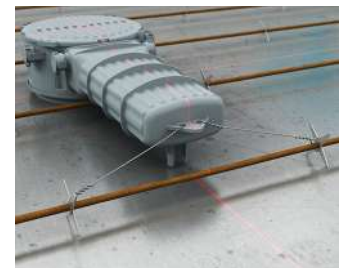
	HaloX® 100/180/250
EI 30 ceiling plastered	
EI 30 ceiling unplastered	
EI 60 ceiling plastered	
EI 60 ceiling unplastered	
EI 90 ceiling plastered	
EI 90 ceiling unplastered	

### Note

Housings with Art. Nos. 1282-76 and 1283-76 must be secured in the tunnel area against floating!



Peripheral bridges on the tunnel provide additional protection against possible floating. Rebars can be laid on these and tightened together with the reinforcement.



Alternatively, tie lugs fitted at the end of the tunnel provide additional protection against the possible floating of the tunnel in precast concrete.

### Housing volume (dm³)

	HaloX® 100	HaloX® 180	HaloX® 250
Housing	1,2	3,3	6,1
with tunnel 190	2,4	4,5	-
with tunnel 325	-	5,3	8,1
<b>Volume increase with the use of extension rings / intermediate frames in dm³</b>			
Extension ring/intermediate frame 10	0,11	-	-
Extension ring/intermediate frame 25	0,28	0,8	1,5
Extension ring/intermediate frame 50	0,56	1,6	3,0



## Installation housing for concrete construction

- 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 be reclosed
- Maximum contact surface to the concrete ensures optimal thermal management
- Shape-retaining, loadable – and easily fitted
- All housings available with or without tunnel
- Housings and front parts are force-latching, firmly latched together and can later be aligned as required
- Signal cover of 68 mm, 75 mm and 80 mm diameter to protect the installation openings from plaster materials.



## Installation housings for walls and ceilings












- 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 new construction and renovation



## Fire-protection housings

- Safe, certified fire-protection housings for built-in luminaires and loudspeakers in fire protection ceilings
- Integrated fire-retardant coating ensures that the housing has the same fire-resistance class as the ceiling (F30 (EI30)).
- They prevent fire and flue gases from spreading, thus securing escape routes in buildings
- Suitable for fire resistance from above and from below



Concrete construction					
	<b>HaloX® 100</b>  pg. 238	<b>HaloX® 100 Multi-conduit entry</b>  pg. 238	<b>HaloX® 180</b>  pg. 238	<b>HaloX® 250</b>  pg. 238	
Installation dimensions for luminaires and loudspeakers					
max. luminaire/loudspeaker installation diameter	100 mm	100 mm	180 mm	250 mm	
max. luminaire/loudspeaker installation depth	110 mm	110 mm	110 mm	110 mm	
Insertion in <b>facing concrete</b>	•	•	•	•	
For universal installation dimensions	•	•	•	•	
Conduit entry up to M40	-	•	-	-	
Installation variant					
Ceiling installation	•	•	•	•	
Wall installation	•	•	•	•	
Concreting method					
On-site mixed concrete	pg. 240	pg. 240	pg. 240	pg. 240	
Precast concrete	-	-	pg. 258	pg. 258	
Walls and ceilings					
	<b>ThermoX® LED</b> for rigid and swivelling built-in LED luminaires  pg. 264	<b>ThermoX®</b> for halogen spotlights and LED luminaires  pg. 270	<b>Spacers</b> for luminaires, loudspeakers, presence detectors, etc.  pg. 276	<b>EnoX®</b> for halogen spotlights, LED luminaires and displays  pg. 267	<b>ThermoX® Iso + installation housings</b> for LED luminaires up to 8 Watt  pg. 64
Product details					
Installation below air-tight level	•	•	•	•	-
Installation inside air-tight level	•	•	-	•	-
Installation in the insulated level	-	-	-	-	•
Housing height	70/95 mm	90 mm	40-100 mm	60 mm	100-160 mm
Luminaire/loudspeaker installation diameters	70/81 mm	max. 86 mm	68-80 mm	max. 120 mm	max. 86 mm
max. luminaire/loudspeaker installation depth	60/85 mm	65/70 mm	95 mm	57 mm	70-130 mm
Installation variants					
retrofitting	•	•	•	-	-
Wall installation	-	-	-	•	-
Ceiling installation	•	•	•	•	•
Fire protection					
	<b>FlamoX®</b> – for luminaires and loudspeakers  pg. 315  pg. 315				
Installation dimensions for luminaires and loudspeakers					
max. luminaire/loudspeaker installation diameter	100 mm		180 mm		
For universal installation dimensions	•		•		
max. luminaire/loudspeaker installation depth	100 mm		150 mm		
Installation variants					
retrofitting	•		•		
in independent EI30/F30 sub-ceilings	•		•		
Installation without additional suspension	•		•		
Installation without additional fire protection materials or sealing compounds	•		•		

FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

PLUGGABLE

CONNECTIVITY

CABLE GLANDS

TOOLS

SERVICE



## HaloX®

Free space for planning, installation and ambience

### One system for all eventualities



#### HaloX® for on-site mixed concrete

The modular housing system for ceilings and walls is available in 3 different housing sizes with fixed or variable installation diameters of up to 250 mm, also available for facing concrete requirements.

pg. 240



#### HaloX® for precast concrete

The housing system for ceilings and walls is available in 2 different housing sizes with fixed or variable installation diameters up to 250 mm (up to 210 mm with tolerance compensation).

pg. 258



#### HaloX® for retrofitting

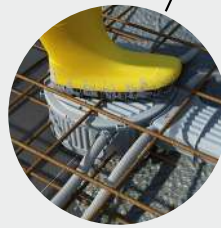
HaloX® for the retrofitting of installation housings in slab ceilings and solid ceilings. After creating a drilling hole, the housings can be extended according to the ceiling thickness.

pg. 255

**A system for all eventualities** – for processing on-site mixed concrete, the front parts can be fixed to the working formwork with nails. Prefix® mounting sets are available for fixing to the opposing formwork. In precast concrete, the housings can be installed with adhesive or magnetic attachment.



**Combination entry for conduits M20/M25 – toolless opening technology** with safe conduit retention and depth stop, without the need to shorten the conduits on the inside. Reusable in case of installation changes or incorrect assignments.

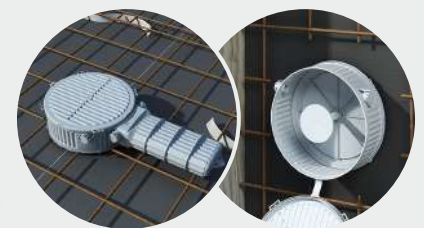
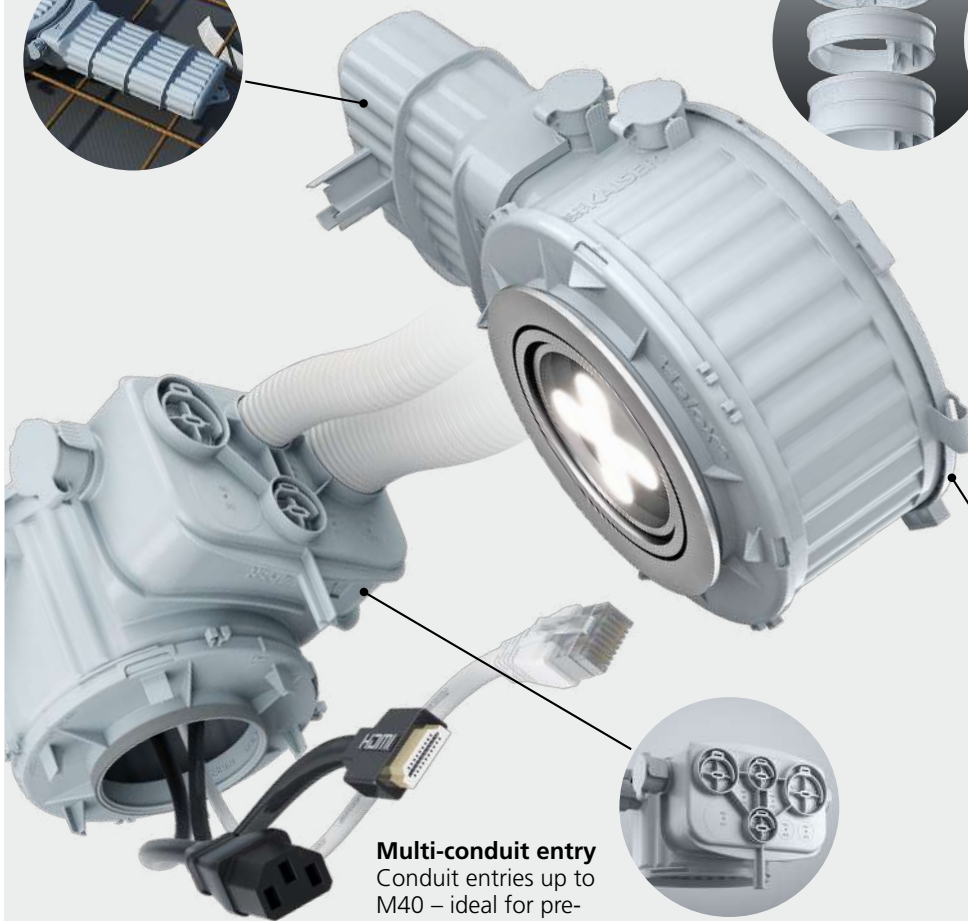


**Shape-retaining and resilient.** Compact housing with stabilizing wave profile provides the necessary stability during the concreting process – even under extreme loads.

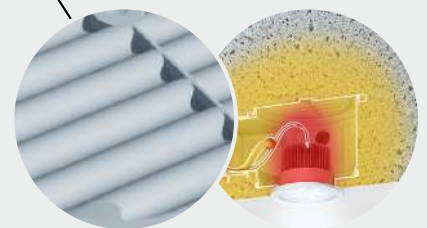
**Pressure-resistant tunnel** to accommodate operating devices. Minimal effect on the statics – no cuts to the reinforcement required in the tunnel area.



Continuous housing system – modular, flexible for luminaires and loudspeakers at all heights and with mounting diameters up to 250 mm, also for facing concrete requirements.



**For walls and ceilings**



**Wave-shaped surface profile** ensures maximum housing surface for optimum heat dissipation via the concrete.

**Multi-conduit entry**  
Conduit entries up to M40 – ideal for pre-assembled cables.

FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

PLUGGABLE

CONNECTIVITY

CABLE GLANDS

TOOLS

SERVICE



## HaloX® concrete installation housing

The new HaloX® housing system offers space for new light or sound in concrete ceilings and walls. Shape-retaining, loadable and in a modular design, the HaloX® system provides a secure installation compartment for loudspeakers and luminaires with LED, halogen or compact fluorescent lamps. Round, square or universal front parts ensure that any device up to a ceiling cut-out of 250 mm can be installed, even when facing concrete is required. Optional extension rings provide more space for greater installation depths. The toolless combination entry for M20/M25 conduits is easy to internal and, even with incorrect occupancy, is easily closed again. It provides secure conduit retention with depth stop, so there is no need for later internal shortening of the conduits.

- For on-site mixed concrete and precast concrete - for wall and ceiling
- For luminaires and loudspeakers with installation diameters up to 250 mm
- All housings available with and without a tunnel
- Toolless entry technology for M20/M25 conduits
- Optimal heat management thanks to maximum surface contact with the concrete
- Minimal effect on the statics - no cuts to the reinforcement required in the tunnel area



### Application



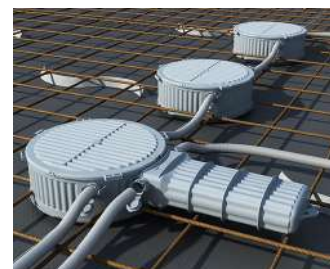
HaloX® with innovative toolless opening technology.



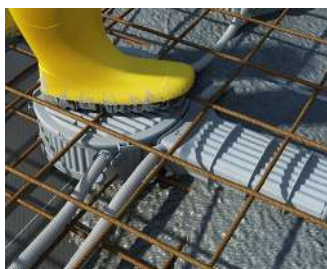
Toolless combination entry M20/M25 - secure with high retention force. No internal shortening of conduits is necessary.



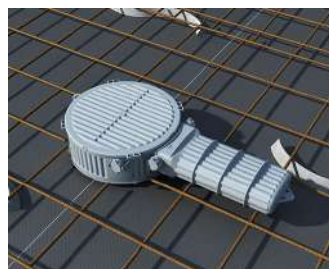
HaloX housings are available with and without a tunnel - in all sizes



Shape-retaining, loadable and easily fitted. Safe place for new light or sound.



Shape-retaining, resilient and easy to process. HaloX® ensures a secure place for new light or modern sound.



Minimal effect on the statics – no additional cuts to the reinforcement in the area of the tunnel as it has a clearance of 40 mm to the formwork.



The high contact surface of the housings conducts the heat directly away via the concrete and in this way prevents excessively high temperatures in the housing.

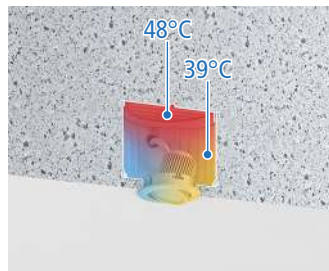


HaloX® creates a secure installation compartment for luminaires and loudspeakers in concrete ceilings and walls.

## Temperature management for HV LED and LV LED luminaires



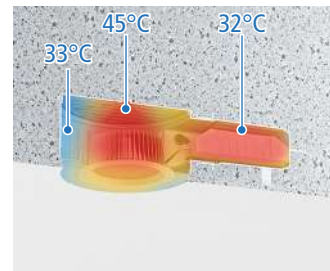
230V built-in LED luminaire with 68 mm installation diameter



Temperature profile 230V built-in LED luminaire max. 20 W



LV LED luminaire installation diameter 140 mm

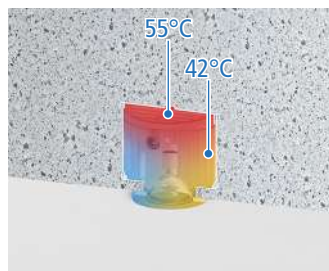


Temperature profile LV LED luminaire max. 35 W

## Temperature management for HV halogen and TC luminaires



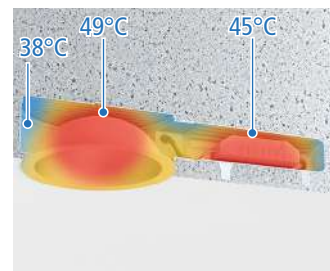
230V built-in luminaire with 100 mm installation diameter



Temperature profile HV halogen luminaire max. 75 W (230V)

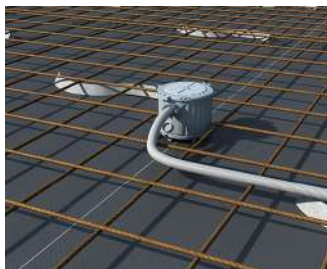


Installation downlight TC-TEL 2 x 26 W with installation diameter of 215 mm



Temperature profile installation downlight TC-TEL with 2 x 26 W

## Connection conditions and switching examples for LED and LV halogen luminaires



Connection and conduit entry for a 230V LED luminaire

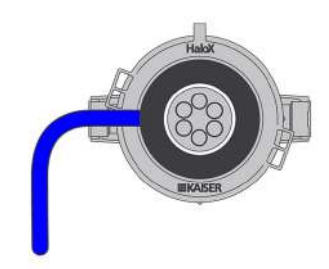
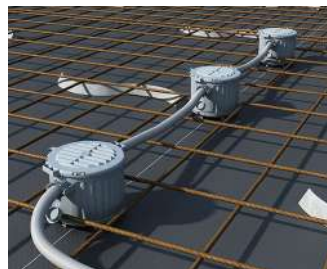
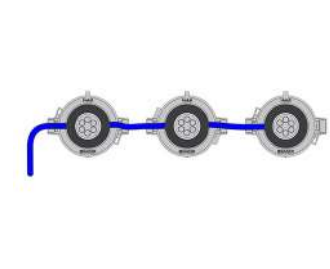


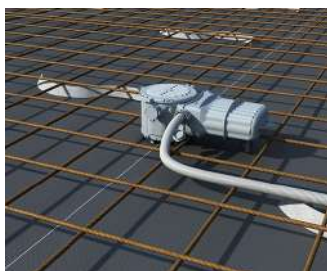
Diagram of single circuit



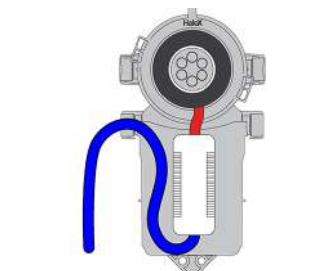
Group switching HV halogen luminaires



Schematic diagram of group switching



Connection and conduit entry LED luminaire with operating device.



Schematic diagram of luminaire with driver

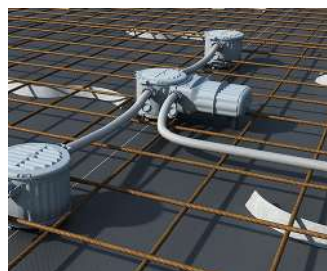
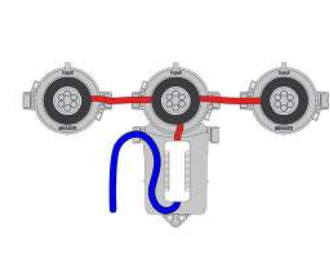


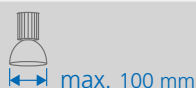
Diagram of group switching with one driver for more than one luminaire



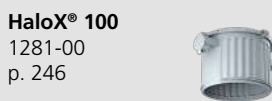
Schematic diagram of group switching with an operating device.

## System overview of HaloX® for on-site mixed concrete

### 1 Installation space for luminaires / loudspeakers and operating devices



#### without additional space for operating devices



#### Additional space for operating devices



up to 150 x 90 x 50 mm\*



#### Zusatzraum für größere Betriebsgeräte



up to 280 x 90 x 50 mm\*



#### For prefabricated cables

Conduits up to M40



\* max. dimension of operating devices must be checked depending on the installation opening

### 2 Installation diameter for luminaires/loudspeakers

#### round

- Front parts round
- Front parts round (**Facing concrete**)

Ø 68 - 100 mm  
p. 248

Ø 100 - 180 mm  
p. 250

Ø 180 - 250 mm  
p. 251

#### square

- Front parts square
- Front parts square (**Facing concrete**)

68x68 - 75x75 mm  
p. 249

-

-

#### universal

- Universal front part plastic (a)
- or mineral fibreboard (b)

Ø max. 100 mm  
p. 249

Ø max. 180 mm  
p. 250

Ø max. 250 mm  
p. 251

#### specific

Individual Styrofoam moulded parts (optional for **Facing concrete**)

p. 254

p. 254

p. 254

### 3 Installation depth



Installation height  
> 110 mm



**Extension rings  
10/25/50 mm**

1281-21/25/50 | p. 252/256/257



**Extension rings  
25/50 mm**

1282-25/50 | p. 252/263



**Extension rings  
25/50 mm**

1283-25/50 | p. 252/263

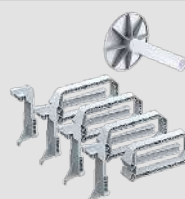
### 4 Accessories



Wall installation in  
vertical formwork



**Prefix® installation set  
for fixing to the  
reinforcement**  
1299-65 | p. 252



**Wall installation set for fitting in  
vertical formwork**  
1299-60...64 | p. 252

**Prefix® installation set  
for fixing to the  
reinforcement**  
1299-66 | p. 252

Easy finding after plastering



**Signal cover**

1281-31...33 | p. 253/262

## Concrete installation housing HaloX® (on-site mixed concrete)

The shape-retaining HaloX® system has a modular design for fitting in on Site mixed concrete. Three housing diameters with a large number of round, square and universal front parts allow the integration of luminaires and loudspeakers up to an installation diameter of 250 mm, including in facing concrete. With a tunnel, the system provides sufficient space for the fitting of operating devices such as LED drivers. Optional extension rings increase the installation depth. All front parts are moisture-repellent and can be positioned exactly and nailed-on even before the first reinforcement is laid. Housings and front parts are firmly and stably latched together and can still be aligned as required afterwards. By means of the toolless, opening technology with M20/M25 combination entry, conduits can be inserted quickly and easily and even if the population is incorrect, the entry can easily be closed again. It provides secure conduit retention with a depth stop, so there is no need for later internal shortening of the conduits. After casting, front parts with a defined installation diameter can be opened with a targeted blow of the hammer. The front parts for universal opening dimensions can be plastered locally or plastered over. Then cut the required installation opening using standard cutting tools e.g. MULTI 4000.

- For walls and ceilings
- Housings and front parts are latched together securely and sturdily, and can also be subsequently aligned as required
- All housing sizes are available with and without a tunnel
- Toolless entry technology for M20/M25 conduits
- Optimal heat management thanks to maximum surface contact with the concrete
- Minimal impact on the main structure – does not require reinforcement steel to be cut to create the tunnel



# System HaloX® for on-site mixed concrete

for luminaires and loudspeakers

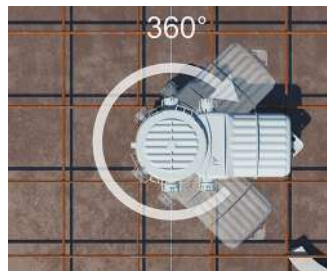
## Installation on the ceiling formwork



The flat front part (20 mm) lies below the lower reinforcement layer, thus not hindering any subsequent works, and can be precisely aligned using the centre marking.



After inserting the reinforcement, the required reinforcement cuts can be made and the casings can be latched to the front parts.



After locking the casing, it can be rotated 360° for better conduit connection or to avoid collisions with the reinforcement.



The combination conduit entry can be opened simply by hand. If necessary, conduit entries that have already been opened can simply be closed again.



The combination conduit entry provides a secure connection for both jacketed and non-jacketed pipes,



and can be used individually for conduit sizes of 20 mm or 25 mm diameter. It offers a high degree of pull-out safety and, thanks to the integrated depth stop, makes subsequent internal shortening of the conduits superfluous.



All HaloX® installation housings are robustly designed and meet the requirements of the harsh conditions at the construction site and in the concrete plant.



After formwork removal, the HaloX® system ensures a clean ceiling appearance and the optimum condition for installing luminaires and loudspeakers.

## Wall installation, installation on the working formwork



Thanks to the stable nail domes arranged in the plaster skin and the centre marking on the side, the front parts can be precisely aligned and securely fixed.



After inserting the reinforcement, the required reinforcement cuts can be made and the casings can be latched to the front parts. In the case of housings with a tunnel, this must be aligned vertically downwards.



When using HaloX® 180 or HaloX® 250, the wall installation kit (item no. 1299-xx) must be used for additional stabilisation of the housings.



To further secure the HaloX® housing, this can be additionally fixed to the reinforcement by means of tie wires through the tie lugs.



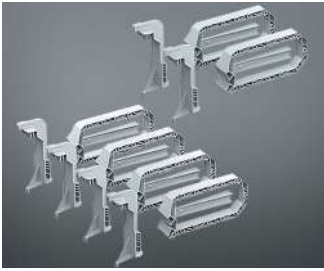
After formwork removal, the HaloX® system ensures a clean wall appearance and the optimum condition for installing luminaires and loudspeakers.



The wall installation kit (item no. 1299-xx) must be used for wall installation of the HaloX® 180 or HaloX® 250 housings. This ensures a maximum installation compartment even with high concrete pressure.



## Wall mounting, mounting to the opposing formwork side using the Prefix® installation set



Prefix® installation sets (item no. 1299-65) for HaloX® 100 and for HaloX® 180/250 (item no. 1299-66) are available as an option for mounting to the opposing formwork.



When mounting HaloX® 180/250, also use the wall installation kit (item no. 1299-60).



The Prefix® installation clamps can be latched-on on both sides and are suitable for concrete covers measuring 20-40 mm



and 40-60 mm.



Following pre-fixing by using Prefix® installation clamps, both your hands are free to carry out fast, secure fixing to the reinforcement using tie wires.



Now the housing can be populated with 20/25-mm diameter conduits – with tools required.



Concrete cover after installation with catch mechanism Prefix® installation clamps for 20-40 mm concrete covering.



Concrete cover after installation with catch mechanism Prefix® installation clamps for 40-60 mm concrete covering.

## Extension rings

Extension rings are available to enlarge the installation compartment.



HaloX® 100: front extension 10, 25 or 50 mm (item no. 1281-21, -25, -50).



HaloX® Ø 180: front-side extension 25 or 50 mm (item no. 1282-25, -50)



HaloX® Ø 180: rear-side extension 25 or 50 mm (item no. 1282-25, -50)



HaloX® Ø 250: extension 25 or 50 mm front or rear (item no. 1283-25, -50)

## Electrical installation (after formwork removal)



After formwork removal, the front part (e.g. item no. 1281-01) can be opened with a blow of the hammer.



The optimal foundation for modern ceiling lighting.



With KAISER MULTI 4000 turbo cutters (e.g. item no. 1083-10), the required installation openings can be created easily and precisely in universal plastic front parts (e.g. item no. 1281-10).



Design freedom for creative, modern lighting systems.



With the KAISER VARIOCUT (e.g. item no. 1089-00), the required installation openings can be made with millimetre precision in the universal mineral fibre front parts (e.g. item no. 1281-11).



Optimal sound volume for modern multi-room systems.



Individual opening dimensions (e.g. rectangular cut-outs) can be made in the universal front parts as required using a commercially available fretsaw.



The perfect installation compartment for individual orientation lighting.

## Signal cover



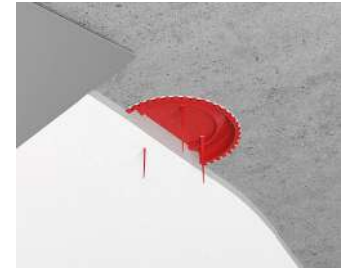
The new signal covers to protect the installation openings from plaster materials are available in the sizes of 68 mm, 75 mm and 80 mm diameter.



After formwork removal from the concrete ceiling or wall, the front part (e.g. item no. 1281-01) is opened with a blow of the hammer..



After the supply conduits have been pulled into the empty conduit system, the signal cover is inserted into the installation opening and simultaneously signals that the cable pull-in is complete and the installation opening is ready for plastering.



The inserted signal cover protects the installation opening from plastering material and, at the same time, enables flat removal and smoothing of the ceiling or wall surface.



The red signal bristles are flexible during the smoothing process and do not hinder this work step but, at the same time, are stable enough to keep the position in the plaster surface recognisable.



After the plaster has hardened, the signal covers can be easily moved into the housing with a blow of them hammer in the centre,



and then the plaster residues protruding into the installation opening can be removed with a knife along the inner recess edge, so that a clean installation opening is created.



Now the signal cover can be easily removed from the housing due to its elastic material,



and the desired built-in luminaire can be connected and mounted.



The elastic material of the signal cover allows it to be deformed without damage and, thus, to be freed quickly and effortlessly from plaster residues.



In addition to use in fixed HaloX® front parts, these can also be used in the universal front parts made from plastics



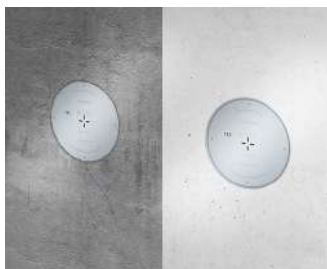
or mineral fibre board.

# System HaloX® for on-site mixed concrete

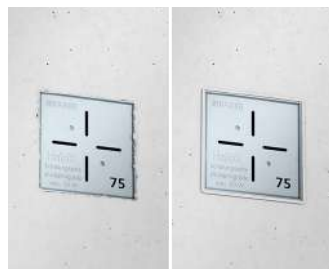
for luminaires and loudspeakers

## Processing information: variants | front parts | facing concrete

Front parts with defined installation diameters are available for all housing sizes – also for the facing concrete version. An additional elastomer sheathing prevents the dry concrete from cracking in this case. Styrofoam moulded parts are available for individual installation diameters in almost any shape and thickness, and universal front parts are suitable for variable or as-yet-undefined ceiling exits.



Round front parts with and without an elastomer seal.



Square front parts with and without an elastomer seal.



Styrofoam mouldings for individual cut-outs in any shape and size (with and without an elastomer seal).



Universal front parts for variable or as-yet-undefined installation diameters.

## HaloX® 100 / 180 / 250 (on-site mixed concrete)

- Toolless combination entry for M20/M25 conduits
- Conduit entry limitation to prevent the need to shorten the conduit inside



3D animation

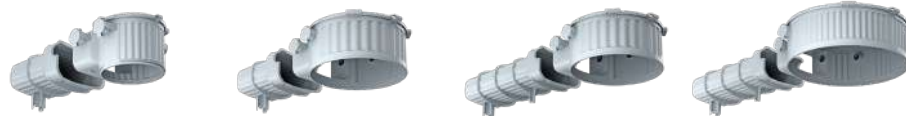
System	HaloX® 100	HaloX® 180	HaloX® 250
Ceiling exit (CE) Ø	0-100 mm	0-180 mm	0-250 mm
Max. installation depth luminaire / loudspeaker	110 mm	110 mm	110 mm
LED wattage max.	20 Watt	35 Watt	45 Watt
Lamp wattage max.	50 Watt	75 Watt	100 Watt
Housing diameter Ø	130 mm	210 mm	280 mm
Depth incl. front part	120 mm	120 mm	120 mm
Combination entry for M20/M25 conduits	2	2	2
<b>Art.-No.</b>	<b>1281-00</b>	<b>1282-00</b>	<b>1283-00</b>
Inner packaging/shipping	- / 10	- / 10	- / 10

## HaloX® 100 / 180 / 250 with transformer tunnel (on-site mixed concrete)

- Toolless combination entry for M20/M25 conduits
- Conduit entry limitation to prevent the need to shorten the conduit inside
- No reinforcement cuts in tunnel section area



3D animation



System	HaloX® 100	HaloX® 180	HaloX® 180	HaloX® 250
Ceiling exit (CE) Ø	0-100 mm	0-180 mm	0-180 mm	0-250 mm
Max. installation depth luminaire / loudspeaker	110 mm	110 mm	110 mm	110 mm
LED wattage max.	20 Watt	35 Watt	35 Watt	45 Watt
Lamp wattage max.	50 Watt	75 Watt	75 Watt	100 Watt
Housing diameter Ø	130 mm	210 mm	210 mm	280 mm
Depth incl. front part	120 mm	120 mm	120 mm	120 mm
Tunnel length	190 mm	190 mm	325 mm	325 mm
Tunnel width	140 mm	140 mm	140 mm	140 mm
Tunnel height	85 mm	85 mm	85 mm	85 mm
Combination entry for M20/M25 conduits	4	4	4	4
<b>Art.-No.</b>	<b>1281-30</b>	<b>1282-30</b>	<b>1282-40</b>	<b>1283-40</b>
Inner packaging/shipping	- / 10	- / 10	- / 10	- / 10

## HaloX® 100 Multi-conduit entry

- 4 M20/M25 combination entries with toolless opening technology
- Multi-conduit entry up to M40 with secure conduit retention
- Minimal effect on statics - no cuts to the reinforcement
- Shape-retaining, loadable and easily fitted
- Suitable with all HaloX 100 front parts



3D animation

<b>Ceiling exit (CE) Ø</b>	<b>0-100 mm</b>
Max. installation depth luminaire / loudspeaker	110 mm
LED wattage max.	20 Watt
Lamp wattage max.	50 Watt
Housing diameter Ø	130 mm
Depth incl. front part	120 mm
Combination entry for M20/M25 conduits	6
Combination entry for M25/M32 conduits	1
Combination entry for M32/M40 conduits	1
Cable entries up to Ø 16 mm	4
Cable entries up to Ø 32 mm	1
<b>Art.-No.</b>	<b>1281-15</b>
Inner packaging/shipping	- / 10

# System HaloX® for on-site mixed concrete

for luminaires and loudspeakers

## HaloX® 100 Multi-conduit entry



4 toolles combination entries  
M20/M25.



Integrated conduit retention.



Multi-conduit entry up to M40.



Ideal for multimedia applications through multi-pipe entries up to M40.

## HaloX® 100 front parts

- Suitable for housing with Art. No. 1281-XX and 1290-30
- Suitable with signal cover



Ceiling exit (CE) Ø	Min. luminaire covering Ø	Art.-No.	Inner packaging/ shipping
68 mm	75 mm	1281-01	- / 10
75 mm	82 mm	1281-02	- / 10
80 mm	87 mm	1281-03	- / 10
85 mm	92 mm	1281-04	- / 10
90 mm	97 mm	1281-05	- / 10
95 mm	102 mm	1281-06	- / 10
100 mm	107 mm	1281-07	- / 10

## HaloX® 100 front parts for facing concrete

- in facing concrete version
- elastomer seal with flexible sealing edge
- prevents ingress of concrete, discolouring and sand blast dust
- for exact flush finishes in facing concrete without additional reworking
- Suitable for housing with Art. No. 1281-XX and 1290-30



Ceiling exit (CE) Ø	Min. luminaire covering Ø	Art.-No.	Inner packaging/ shipping
68 mm	80 mm	1281-61	- / 8
75 mm	87 mm	1281-62	- / 8
80 mm	92 mm	1281-63	- / 8
85 mm	97 mm	1281-64	- / 8
90 mm	102 mm	1281-65	- / 8
95 mm	107 mm	1281-66	- / 8
100 mm	112 mm	1281-67	- / 8

## HaloX® 100 front parts, square

- Suitable for housing with Art. No. 1281-XX and 1290-30



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

## HaloX® 100 front parts, square for facing concrete

- in facing concrete version
- elastomer seal with flexible sealing edge
- prevents ingress of concrete, discolouring and sand blast dust
- Suitable for housing with Art. No. 1281-XX and 1290-30



<b>Ceiling exit (CE) Ø</b>	<b>68 x 68 mm</b>	<b>75 x 75 mm</b>
Min. luminaire covering	80 x 80 mm	87 x 87 mm
<b>Art.-No.</b>	<b>1281-68</b>	<b>1281-69</b>
Inner packaging/shipping	- / 8	- / 8

## HaloX® 100 universal front parts

- Suitable for housing with Art. No. 1281-XX and 1290-30
- Suitable with signal cover



<b>Ceiling exit (CE) Ø</b>	<b>0-100 mm</b>	<b>0-100 mm</b>
Universal plastic panel	Yes	-
Universal mineral fibreboard	-	Yes
<b>Art.-No.</b>	<b>1281-10</b>	<b>1281-11</b>
Inner packaging/shipping	- / 10	- / 8

FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

PLUGGABLE

CONNECTIVITY

CABLE GLANDS

TOOLS

SERVICE

# System HaloX® for on-site mixed concrete

for luminaires and loudspeakers

## HaloX® 180 front parts

· Suitable for housing with Art. No. 1282-XX



Ceiling exit (CE) Ø	Min. luminaire covering Ø	Art.-No.	Inner packaging/ shipping
100 mm	107 mm	1282-01	- / 10
110 mm	117 mm	1282-02	- / 10
125 mm	132 mm	1282-03	- / 10
145 mm	152 mm	1282-04	- / 10
160 mm	167 mm	1282-05	- / 10
180 mm	187 mm	1282-06	- / 10

## HaloX® 180 front parts for facing concrete

· Suitable for housing with Art. No. 1282-XX



Ceiling exit (CE) Ø	Min. luminaire covering Ø	Art.-No.	Inner packaging/ shipping
100 mm	112 mm	1282-61	- / 10
110 mm	122 mm	1282-62	- / 10
125 mm	137 mm	1282-63	- / 10
145 mm	157 mm	1282-64	- / 10
160 mm	172 mm	1282-65	- / 10
180 mm	192 mm	1282-66	- / 10

## HaloX® 180 universal front parts

· Suitable for housing with Art. No. 1282-XX  
 · Suitable with signal cover



Ceiling exit (CE) Ø	0-180 mm	0-180 mm
Universal plastic panel	Yes	-
Universal mineral fibreboard	-	Yes
Art.-No.	1282-10	1282-11
Inner packaging/shipping	- / 10	- / 10



## HaloX® 250 front parts

· Suitable for housings with Art. No. 1283-XX



Ceiling exit (CE) Ø	Min. luminaire covering Ø	Art.-No.	Inner packaging/ shipping
180 mm	187 mm	1283-01	- / 10
190 mm	197 mm	1283-02	- / 10
200 mm	207 mm	1283-03	- / 10
215 mm	222 mm	1283-04	- / 10
240 mm	247 mm	1283-05	- / 10
250 mm	257 mm	1283-06	- / 10

## HaloX® 250 front parts for facing concrete

· Suitable for housings with Art. No. 1283-XX



Ceiling exit (CE) Ø	Min. luminaire covering Ø	Art.-No.	Inner packaging/ shipping
180 mm	192 mm	1283-61	- / 10
190 mm	202 mm	1283-62	- / 10
200 mm	212 mm	1283-63	- / 10
215 mm	227 mm	1283-64	- / 10
240 mm	252 mm	1283-65	- / 10
250 mm	262 mm	1283-66	- / 10

## HaloX® 250 universal front parts

· Suitable for housings with Art. No. 1283-XX

· Suitable with signal cover



Ceiling exit (CE) Ø	0-250 mm	0-250 mm
Universal plastic panel	Yes	-
Universal mineral fibreboard	-	Yes
<b>Art.-No.</b>	<b>1283-10</b>	<b>1283-11</b>
Inner packaging/shipping	- / 10	- / 10

# System HaloX® for on-site mixed concrete

for luminaires and loudspeakers

## Replacement mineral fibreboard for HaloX Ø 100, 180 and HaloX Ø 250

- for front parts with Art. Nos. 1281-11, 1282-11 and 1283-11



System	HaloX® 100	HaloX® 180	HaloX® 250
Art.-No.	1281-27	1282-27	1283-27
Inner packaging/shipping	- / 10	- / 10	- / 10

## Extension rings HaloX®

- To increase installation depth



Height	System	Max. installation depth luminaire / loudspeaker	For Art. No.	Art.-No.	Inner packaging/shipping
10 mm	HaloX® 100	+ 10 mm	1281-xx/1290-30	1281-21	- / 10
25 mm	HaloX® 100	+ 25 mm	1281-xx/1290-30	1281-25	- / 10
50 mm	HaloX® 100	+ 50 mm	1281-xx/1290-30	1281-50	- / 10
25 mm	HaloX® 180	+ 25 mm	1282-xx	1282-25	- / 10
50 mm	HaloX® 180	+ 50 mm	1282-xx	1282-50	- / 10
25 mm	HaloX® 250	+ 25 mm	1283-xx	1283-25	- / 10
50 mm	HaloX® 250	+ 50 mm	1283-xx	1283-50	- / 10

## Installation set for wall installation

- Installation kit for wall installation in vertical formwork
- 2-piece, consists of support element and seating bearing
- For HaloX Ø 210 (1282-XX) and HaloX Ø 280 (1283-XX)



For luminaire or loudspeaker installation height	Art.-No.	Inner packaging/shipping
100 mm	1299-60	- / 1
125 mm	1299-61	- / 1
150 mm	1299-62	- / 1
175 mm	1299-63	- / 1
200 mm	1299-64	- / 1

## Prefix® installation set

- Installation set for wall installation
- for fixing to the opposing formwork



for HaloX® 100	Yes	-
for HaloX® 180/250	-	Yes
Art.-No.	1299-65	1299-66
Inner packaging/shipping	- / 1	- / 1

## Signal cover

The new signal cover ensures a clean ceiling appearance and avoids time-consuming reworking of the installation opening after plastering. As an accessory item for the KAISER HaloX® concrete installation housings, the signal cover is simply inserted into the already opened front part after formwork removal from the rough ceiling or wall. Thus, the installation opening is securely closed and protected against penetration of plaster. Three signal bristles, in combination with the bright red colour, ensure that the installation opening in the plastered rough ceiling or wall can be found quickly and easily. The installation opening can be opened with one targeted blow of the hammer without destroying the surrounding plaster pattern. With one turn of the knife edge, cleaning residues are removed effortlessly. The flexible signal cover can then be removed easily and cleanly. Its specially serrated edge structure preserves the plaster edge.

- Stable and robust clamping in installation diameters of 68 mm, 75 mm and 80 mm,
- For use in fixed HaloX® front parts, universal HaloX® front parts and other installation openings
- Stable signal bristles and strong colouring for easy retrieval from the plaster surface
- Reusable, easy to clean



**NEW**

**INNOVATION**

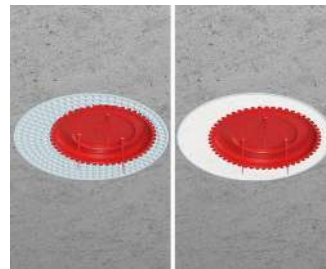
### Application examples



After formwork removal and pull-in of the supply conduits, the signal cover is inserted into the installation opening.



The red signal bristles are flexible during the smoothing process and do not hinder this work step but, at the same time, are stable enough to keep the position in the plaster surface recognisable.



In addition to being able to use the HaloX® front parts with fixed exit opening, these can also be inserted into the universal HaloX® front parts.



In the case of factory-fitted HaloX® housings for one of the system magnets (e.g. 1299-69), the signal covers allow the recess to be smoothed or filled over the entire surface.

### Signal cover

**NEW**

**INNOVATION**

- Protects the interior of the housing
- Three stable signal bristles and strong colouring for easy retrieval from the plastered rough ceiling.
- Serrated edge structure for a clean installation opening



For installation opening	68 mm	75 mm	80 mm
Art.-No.	1281-31	1281-32	1281-33
Inner packaging/shipping	10 / 100	10 / 100	10 / 100



## Styrofoam moulded parts

HaloX® 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 in-situ or prefabricated concrete
- 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.

### Styrofoam moulded parts

- For individual installation openings (round, square)
- With maximum diameter up to 300 mm and max. height up to 50 mm
- For all housings with Art. No. 12XX-XX



<b>Art.-No.</b>	<b>1292-90</b>
Inner packaging/shipping	- / 1

## System overview of HaloX® for retrofitting



Installation diameter for luminaire/  
loudspeaker max. 100 mm

### 1 Installation space for luminaires / loudspeakers and operating devices

without additional space for operating devices



Slab ceiling

Solid ceiling



**HaloX® 100  
installation set**  
1281-20 | p. 256



**HaloX® 100**  
1281-00 | p. 246



**HaloX® housing for core drillings  
in solid ceilings**  
1290-30 | p. 257

Additional space for operating devices



up to 150 x 90 x 50 mm\*



**HaloX® 100  
installation set**  
1281-20 | p. 256



**HaloX® 100  
with tunnel 190**  
1281-30 | p. 247



**HaloX® 100  
installation set**  
1281-20 | p. 256



**HaloX® 100  
multi-conduit  
entry**  
1281-15 | p. 247

For prefabricated cables

Conduits up to M40

### 2 Thickness of the slab ceiling

Thickness of the slab ceiling > 50 mm



**Extension rings  
10/25/50 mm**  
1281-21/25/50  
p. 252/256/257

\* max. dimension of operating  
devices must be checked  
depending on the installation  
opening

### 3 Installation diameters for luminaires/loudspeakers



round  
Front parts round



Ø 68 - 100 mm  
p. 248



square  
Front parts square



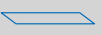
68x68 - 75x75 mm  
p. 249



**Facing concrete: round**  
Front parts round with elastomer  
seal for facing concrete



Ø 68 - 100 mm  
p. 248



**Facing concrete: square**  
Front parts square with elastomer  
seal for facing concrete



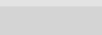
68x68 - 75x75 mm  
p. 249



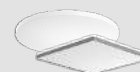
universal  
Universal front part plastic (a)  
or mineral fibreboard (b)



Ø max. 100 mm  
p. 249



specific  
Individual Styrofoam moulded parts  
(optional for **facing concrete**)



p. 254

### 4 Installation depth



Installation height > 110 mm



**Extension rings  
10/25/50 mm**  
1281-21/25/50 | p. 252/256/257

## HaloX® 100 installation kit



HaloX® 100 installation kit can be retrofitted in existing slab ceilings (50 mm thickness and greater) with or without transformer tunnel.

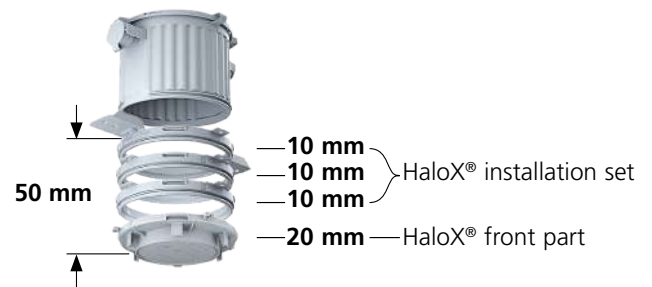
- For retrofitting in slab ceilings
- Minimal effect on statics
- Large selection of opening sizes up to Ø 100 mm
- Extension rings for bridging the slab ceiling element and for increasing the luminaire installation depth



### Note



For slabs thicker than 50 mm, the housing can be expanded in 10/25/50 mm steps using the extension rings.



### HaloX® installation kit mounting



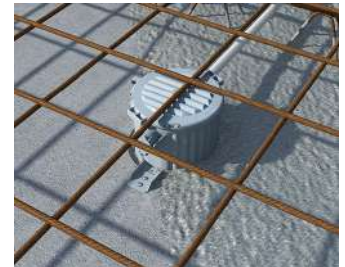
Cut drilling hole (Ø 150–160 mm) in the slab ceiling.



Combine the extension ring and front part to correspond to the ceiling thickness and installation depth.



Attach the housing and place in the drilling hole, mark and fasten. Install the conduit in the KSK entry.



If necessary, secure the fixed housing with wire to the reinforcement.

### HaloX® 100 installation kit

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



Height	30 mm	10 mm
System	HaloX® 100	HaloX® 100
For Art. No.	1281-xx	1281-xx/1290-30
Max. installation depth luminaire / loudspeaker	-	+ 10 mm
<b>Art.-No.</b>	<b>1281-20</b>	<b>1281-21</b>
Inner packaging/shipping	1 / 10	- / 10

## For retrofitting

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

- For retrofitting in solid ceilings
- Minimal effect on statics
- Quick installation with snap-in connections
- Robust construction, ideal for use on building sites
- Large selection of opening sizes up to Ø 100 mm



## Installation



Use the universal opening cutter to make accurate conduit entries for the appropriate conduit sizes.



Join the housing components to correspond to the ceiling thickness and installation depth.



Now insert the complete housing, including the installation into the opening or drilling hole. Then...



...fill the free space with concrete and compact it. A formwork board fitted underneath prevents the concrete from running out.

## HaloX® housing for drilling holes in solid ceilings

- for retrofitting in solid ceilings
- required hole size Ø 150-160 mm
- Take into consideration the ceiling thickness - at least 3 cm concrete cover is needed on top of the box



<b>Ceiling exit (CE) Ø</b>	<b>0-100 mm</b>
Depth incl. front part	133 mm
LED wattage max.	20 Watt
Lamp wattage max.	50 Watt
Diameter	130 mm
<b>Art.-No.</b>	<b>1290-30</b>
Inner packaging/shipping	- / 10

## HaloX® extension rings

- for increasing luminaire fitting depth
- to be clipped between the front part and the housing
- multiple extensions possible



Height	10 mm	25 mm	50 mm
System	HaloX® 100	HaloX® 100	HaloX® 100
Max. installation depth luminaire / loudspeaker	+ 10 mm	+ 25 mm	+ 50 mm
For Art. No.	1281-xx/1290-30	1281-xx/1290-30	1281-xx/1290-30
<b>Art.-No.</b>	<b>1281-21</b>	<b>1281-25</b>	<b>1281-50</b>
Inner packaging/shipping	- / 10	- / 10	- / 10

Subject to modifications

FLUSH-MOUNTING  
 CAVITY WALL  
 CONCRETE  
 HOUSINGS  
 FIRE PROTECTION  
 PLUGGABLE  
 CONNECTIVITY  
 CABLE GLANDS  
 TOOLS  
 SERVICE