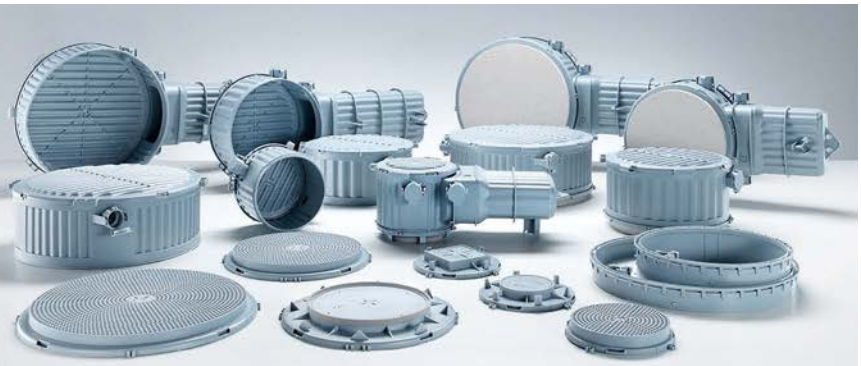
Installation housings for concrete and dry construction

Installation housings for concrete



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

	 NEW **HaloX® 100** For luminaires and loudspeakers p. 196	 NEW **HaloX® 180** For luminaires and loudspeakers p. 196	 NEW **HaloX® 250** For luminaires and loudspeakers p. 196	 **KompaX®1/ KompaX®2** For luminaires and loudspeakers p. 216
Installation dimensions for luminaire, loudspeaker				
max. installation diameter luminaire/loudspeaker	100 mm	180 mm	250 mm	300 mm
max. installation depth luminaire/loudspeaker	110 mm	110 mm	110 mm	110 mm
Use in **facing concrete**	•	•	•	•
For universal installation diameters	•	•	•	•
Installation option				
Ceiling installation	•	•	•	•
Wall installation	•	•	•	-
Concreting method				
On-site mixed concrete	p. 198	p. 198	p. 198	p. 216
Precast concrete	-	p. 211	p. 211	p. 216

Installation housings for energy-efficient walls and ceilings

- Freiraum für Leuchten und Lautsprecher
- Vermeiden die latente Brandgefahr
- Nachweislich, dauerhafter Erhalt der Luftdichtheit nach DIN 18015-5 bzw. DIN 4102-7
- Systeme für die nachträgliche Montage von unten

	 **ThermoX® LED** for rigid and pivoting LED built-in luminaires p. 231	 **ThermoX®** for low-voltage and high-voltage built-in luminaires p. 238	 **EnoX®** for halogen spotlights, LED luminaires and displays p. 235	 **Installation housing for external insulation** for LED luminaires up to 8 Watt p. 58
Product details				
Installation under the air-tight level	•	•	•	-
Installation inside the air-tight level	-	-	•	-
Installation in the insulated level	-	-	-	•
Housing height	70/95 mm	90 mm	60 mm	100 - 160 mm
max. installation diameter luminaire/loudspeaker	70/81 mm	up to max. 86 mm	up to max. 120 mm	up to max. 86 mm
max. installation depth luminaire/loudspeaker	60/85 mm	65/70 mm	57 mm	70 - 130 mm
Installation options				
Retrofitting	•	•	-	-
Wall installation	-	-	•	-
Ceiling installation	•	•	•	•

Installation housings for fire-protection ceilings

- Secure certified fire-protection housings for built-in luminaires and loudspeakers in fire-protection ceilings.
- Integrated fire-retardant coating maintains the ceiling's fire-resistance class F30 (EI30) in fire-protection ceilings.
- They prevent the spreading of fire and smoke. and in this way they secure escape routes
- Suitable for fire stress from above and below

	 **FlamoX®** for luminaires and loudspeakers p. 278	 **FlamoX®-S 30 E** for luminaires and loudspeakers p. 281
Installation dimensions for luminaires and loudspeakers		
max. installation diameter luminaire/loudspeaker	180 mm	240 mm
For universal installation diameters	•	•
max. installation depth luminaire/loudspeaker	150 mm	200 mm
Installation options		
Retrofitting	•	-
In self-supporting sub-ceilings EI30/F30	•	•
Installation without additional suspension	•	-
Installation without additional fire-protection materials or sealing compounds	•	-

HaloX®

Free space for planning, installation and ambience.

One system for all situations

HaloX® for on-site mixed concrete
The modular housing system for ceilings and walls is available in three housing sizes with fixed or variable installation diameters up to 250 mm even for facing concrete requirements.

p. 198

HaloX® for precast concrete
The modular housing system for walls and ceilings is available in two housing sizes with fixed or variable installation diameters up to 250 mm (up to 210 mm with tolerance compensation).

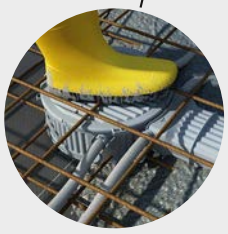
p. 211

HaloX® for retrofitting
HaloX® for the retrofitting of installation housings in slab ceilings and solid ceilings. After a core drilling has been made, the housings can be expanded in accordance with the ceiling thickness.

p. 208

One system for all situations – for fitting in on-site mixed concrete, the front parts can be nailed to the working formwork. Prefix® installation sets are available for fixing to the opposing formwork. For precast concrete, the housings can be fitted using glue or a magnet.

Combination entry for M20/M25 conduits – toolless opening technology with secure conduit retention and depth stop with no need for internal shortening of the conduits. Can be repopulated for later alterations or incorrect population.

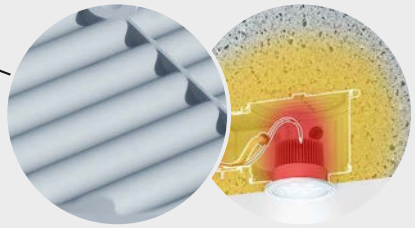


Shape-retaining and loadable.
Compact housing with stabilising wave profile provides the necessary stability during concreting – even under extreme loads.

Pressure-resistant tunnel for holding operating devices. Minimal effect on the statics – no reinforcement cuts required in the tunnel area

Continuous housing system – modular, flexible for luminaires and loudspeakers in all heights and with installation diameters up to 250 mm.

For ceilings and walls



Wave-shaped surface profile ensures maximum housing surface for optimal heat dissipation via the concrete

HaloX® concrete installation housing

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

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

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Application

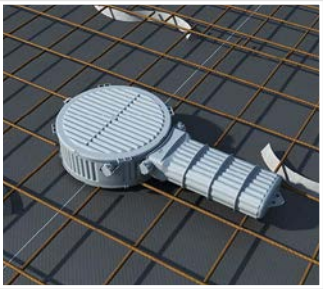
HaloX® with innovative toolless opening technology.

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.



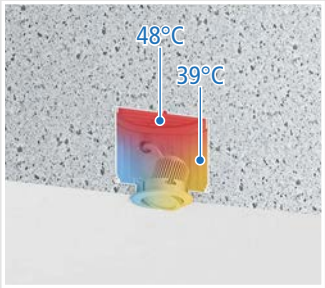
Minimal effect on the statics – no additional cuts to the reinforcement in the area of the tunnel as it has a clearance of 40 mm to the formwork.

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.

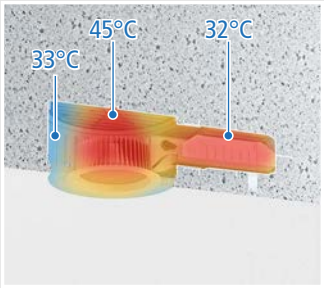
Temperature management for HV LED and LV LED luminaires

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



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

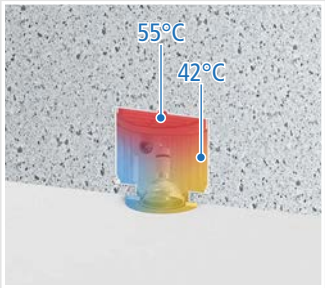
LV LED luminaire installation diameter 140 mm



Temperature profile LV LED luminaire max. 35 W

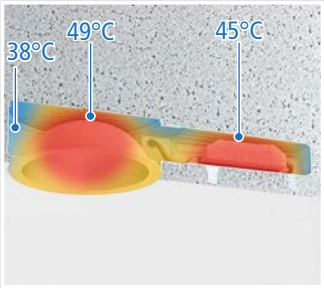
Temperature management for HV halogen and TC luminaires

230V built-in luminaire with 100 mm installation diameter



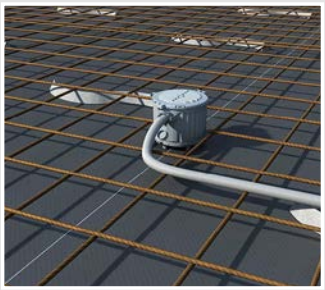
Temperature profile HV halogen luminaire max. 75 W (230V)

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

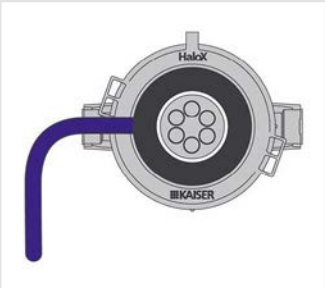
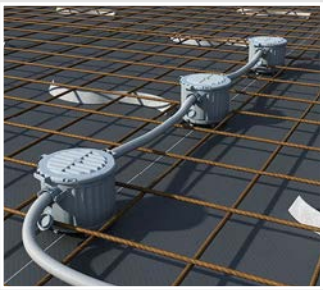
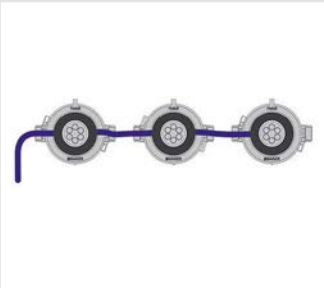


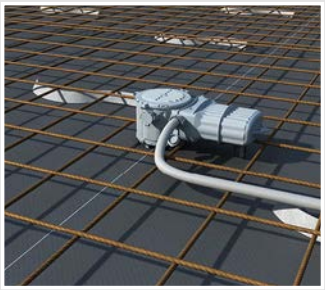
Diagram of single circuit



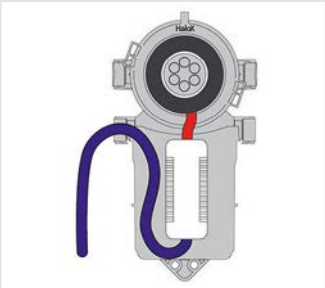
Group switching HV halogen luminaires



Schematic diagram of group switching



Connection and conduit entry LED luminaire with operating device.



Schematic diagram of luminaire with driver

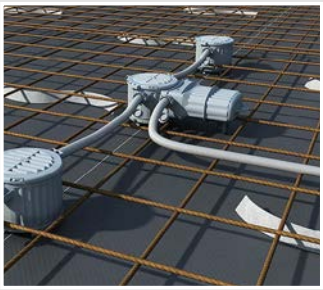


Diagram of group switching with one driver for more than one luminaire

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	max. 100 mm	max. 180 mm	max. 250 mm
without additional space for operating devices	**HaloX® 100** 1281-00 | p. 203	**HaloX® 180** 1282-00 | p. 203	**HaloX® 250** 1283-00 | p. 203
Additional space for operating devices up to max. 150 x 90 x 50 mm	**HaloX® 100 with tunnel 190** 1281-30 | p. 203	**HaloX® 180 with tunnel 190** 1282-30 | p. 203	
Additional space for larger operating devices up to max. 280 x 90 x 50 mm		**HaloX® 180 with tunnel 325** 1282-40 | p. 203	**HaloX® 250 with tunnel 325** 1283-40 | p. 203

2 Installation diameter for luminaires/loudspeakers			
round Front parts round	Ø 68 - 100 mm p. 203	Ø 100 - 180 mm p. 205	Ø 180 - 250 mm p. 206
square Front parts square	68x68 - 75x75 mm p. 204	–	–
Facing concrete: round Front parts with elastomer seal for facing concrete	Ø 68 - 100 mm p. 204	Ø 100 - 180 mm p. 205	Ø 180 - 250 mm p. 206
Facing concrete: square Front parts square with elastomer seal for facing concrete	68x68 - 75x75 mm p. 204	–	–
universal Universal front part plastic (a) or mineral fibreboard (b)	Ø max. 100 mm p. 205	Ø max. 180 mm p. 205	Ø max. 250 mm p. 206
specific Individual Styrofoam moulded parts (optional for facing concrete)	p. 207	p. 207	p. 207

3 Installation depth			
Installation height > 110 mm	**Extension rings 10 / 25 / 50 mm** 1281-21/25/50 | p. 207	**Extension rings 25 / 50 mm** 1282-25/50 | p. 207	**Extension rings 25 / 50 mm** 1283-25/50 | p. 207

4 Accessories for wall installation		
Wall installation in vertical formwork	**Prefix® installation set for fixing to the reinforcement** 1299-65 | p. 207	**Wall installation set for fitting in vertical formwork** 1299-60...64 | p. 207 **Prefix® installation set for fixing to the reinforcement** 1299-66 | p. 207

Subject to modifications

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
- For luminaires and loudspeakers with installation diameters up to 250 mm
- Housings and front parts are latched together securely and sturdily and can also be aligned later as required
- All housing sizes are available with and without a tunnel
- Toolless opening technology for entries M20/M25
- Optimal thermal management on the basis of maximum surface contact to the concrete
- Minimal effect on the statics - no cuts to the reinforcement required in the tunnel area

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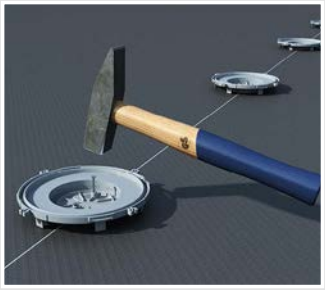
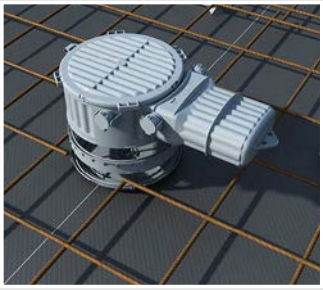
Ceiling installation



Nail the front part onto the formwork. After latching the housing on, it can be turned by 360° for alignment.

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



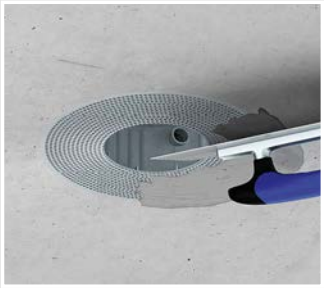
By using an intermediate ring, the installation depth can be increased above or underneath the housing.

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

Sturdy and shape-retaining fitting.

After striking the formwork, open the front part with one hammer blow (e.g. Art. No. 1282-65).

Easy and variable creation of the installation opening in the universal front part with e.g. 1083-10.



When the universal front part (e.g. Art. No. 1281-10) is used, smooth the edge area.

Wall installation

Use nails to fasten the front part to the formwork.

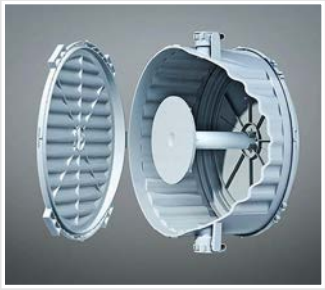
When using the housing with a tunnel, align it vertically downwards.

When installing HaloX® 180/250 in addition use wall installation kit 1299-xx

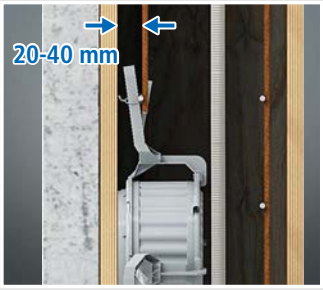
Toolless combination entry for conduits M20/M25.

Wall-mounting fixing opposing formwork

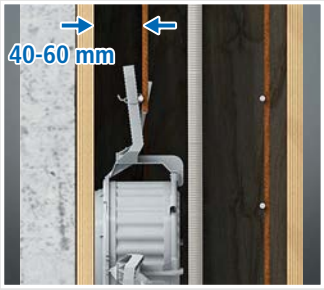
For fitting to the opposing formwork, Prefix® installation sets 1299-65 for HaloX® 100 and 1299-66 for HaloX® 180/250 are available as an option.



When fitting HaloX® 180/250, also use wall installation kit Art. No. 1299-60.



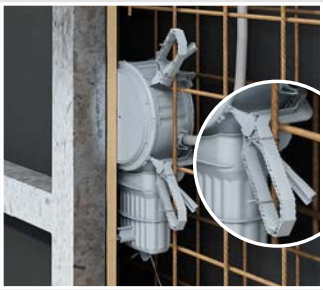
The Prefix® installation clamps can be latched-on on both sides and are suitable for concrete coverings of 20-40 mm...



... and 40-60 mm.

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

Now the housing with conduits M20/M25 can be populated – no tools necessary.

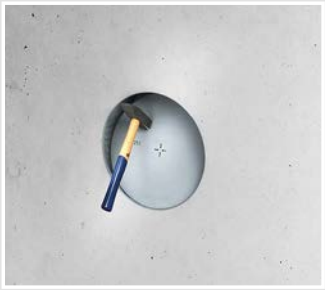


Concrete cover after installation with catch mechanism Prefix® wing for 20-40 mm concrete covering.

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

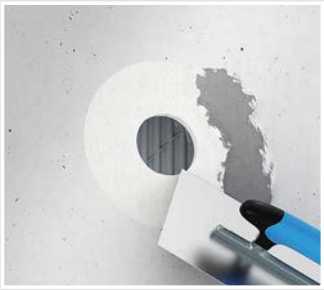
Wall luminaire installation

The concreting process can start after positioning of the opposing formwork.



After striking the formwork, open the front part with one hammer blow (e.g. Art. No. 1282-65).

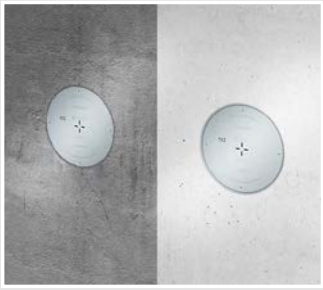
Easy and variable cutting of the installation opening in the universal front part (e.g. with Art. No. 1089-00).



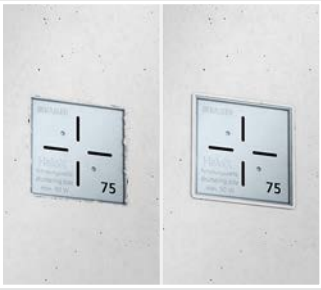
If a universal front part (e.g. Art. No. 1281-10) is used, apply plaster as necessary.

Processing information: Variants | front parts | facing concrete

Front parts with defined exit sizes are available for all housing sizes, including for facing concrete. Styrofoam mouldings are available for individual installation openings in almost any shape; universal mouldings are suitable for variable or as-yet-undefined ceiling exits.



Round front parts with and without elastomer seal.



Square front parts with and without elastomer seal.

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

Universal front parts for variable or as-yet-undefined ceiling cut-outs.

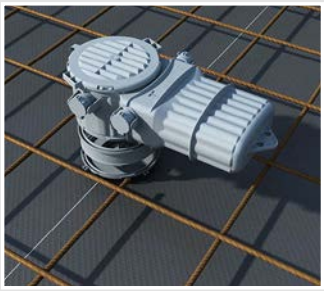
Position/alignment and wall installation

Position and aligning
The snap-in front parts permit a change to the position of the tunnel after nailing.

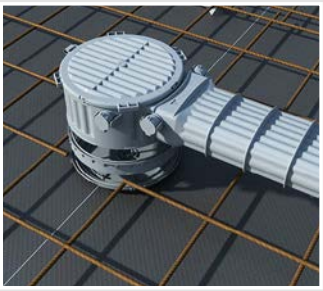
Wall installation
For wall installation (housing Ø 180 and Ø 250), use installation set for inner-side support in order to guarantee the secure installation compartment.

Extension rings

Intermediate rings are available to enlarge the installation compartment



HaloX® Ø 100: front-side extension 25 or 50 mm (Art. No. 1281-25, -50).



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

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

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

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

- Toolless combination entry for M20/M25 conduits
- Conduit entry limit to prevent the need for inside shortening of the conduit



System	HaloX® 100	HaloX® 180	HaloX® 250
Ceiling exit (CE) Ø	0-100 mm	0-180 mm	0-250 mm
max. installation depth luminaire / 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
Art. No.	**1281-00**	**1282-00**	**1283-00**
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 limit to prevent the need for inside shortening of the conduit
- No reinforcement cuts in tunnel section area




System	HaloX® 100	HaloX® 180	HaloX® 180	HaloX® 250
Ceiling exit (CE) Ø	0-100 mm	0-180 mm	0-180 mm	0-250 mm
max. installation depth luminaire / 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
Art. No.	**1281-30**	**1282-30**	**1282-40**	**1283-40**
Inner packaging/shipping	- / 10	- / 10	- / 10	- / 10

HaloX® 100 front parts

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

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

HaloX® 100 front parts for facing concrete

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

FACING CONCRETE

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

HaloX® 100 front parts, square

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

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

HaloX® 100 front parts, square for facing concrete

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

FACING CONCRETE

Ceiling exit (CE) Ø	**68 x 68 mm**	**75 x 75 mm**
Min. luminaire covering	80 x 80 mm	94 x 94 mm
Art. No.	**1281-68**	**1281-69**
Inner packaging/shipping	- / 8	- / 8

HaloX® 100 universal front parts

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


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

HaloX® 180 front parts

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

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

HaloX® 180 front parts for facing concrete

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

FACING CONCRETE

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

HaloX® 180 universal front parts

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


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

HaloX® 250 front parts

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

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

HaloX® 250 front parts for facing concrete

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

FACING CONCRETE

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

HaloX® 250 universal front parts

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

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

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

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

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

Styrofoam moulded parts

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

Art. No.	**1292-90**

Extension rings HaloX®

- To increase installation depth

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

Wall installation set

- 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.
100 mm	**1299-60**
125 mm	**1299-61**
150 mm	**1299-62**
175 mm	**1299-63**
200 mm	**1299-64**

Prefix installation set

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

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

System overview of HaloX® for retrofitting

Installation diameter for luminaire/ loudspeaker max. 100 mm

1 Installation space for luminaires / loudspeakers and operating devices

	Slab ceiling	Solid ceiling
without additional space for operating devices	**HaloX® 100 installation set** 1281-20 | p. 209 + **HaloX® 100** 1281-00 | p. 203	**HaloX® housing for core drillings in solid ceilings** 1290-30 | p. 210
Additional space for operating devices up to 150 x 90 x 50 mm	**HaloX® 100 installation set** 1281-20 | p. 209 + **HaloX® 100 with tunnel 190** 1281-30 | p. 203	

2 Thickness of the slab ceiling

Thickness of the slab ceiling > 50 mm

Extension rings 10 / 25 / 50 mm 1281-21/25/50 | p. 210

3 Installation diameters for luminaires/loudspeakers

round Front parts round		Ø 68 - 100 mm p. 203
square Front parts square		68 x 68 - 75 x 75 mm p. 204
Facing concrete: round Front parts round with elastomer seal for facing concrete		Ø 68 - 100 mm p. 204
Facing concrete: square Front parts square with elastomer seal for facing concrete		68 x 68 - 75 x 75 mm p. 204
universal Universal front part plastic (a) or mineral fibreboard (b)	a b	Ø max. 100 mm p. 205
specific Individual Styrofoam moulded parts (optional for facing concrete)		p. 207

4 Installation depth

Installation height > 110 mm

Extension rings 10 / 25 / 50 mm 1281-21/25/50 | p. 210

HaloX® 100 installation kit

Retrofitting in slab ceilings

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

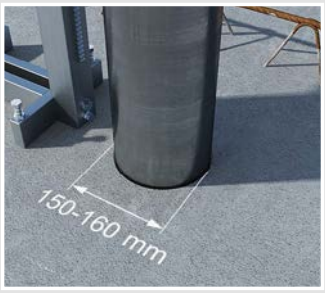
- For retrofitting in slab ceilings
- Minimal effect on statics
- Large selection of opening sizes up to Ø 100 mm
- Extension rings for bridging the slab ceiling element and for increasing the luminaire installation depth

halogen-free | 650 °C

Note

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

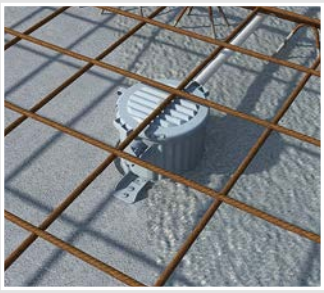
HaloX® installation kit mounting



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® 100 housings into slab ceilings
· required hole size Ø 150-160 mm

System	HaloX® 100	HaloX® 100
Height	30 mm	10 mm
max. installation depth luminaire / loudspeaker	-	+ 10 mm
For Art. No.	1281-xx	1281-xx/1290-30
Art. No.	**1281-20**	**1281-21**
Inner packaging/shipping	- / 10	- / 10

Order front part separately

For retrofitting
Retrofitting into solid ceilings

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

halogen-free

650 °C

Installation

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

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

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

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

HaloX® housing for drilling holes in solid ceilings

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

Diameter	**130 mm**
Ceiling exit (CE) Ø	0-100 mm
LED wattage max.	20 Watt
Lamp wattage max.	50 Watt
Art. No.	**1290-30**
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

System	**HaloX® 100**	**HaloX® 100**	**HaloX® 100**
Height	10 mm	25 mm	50 mm
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
Art. No.	**1281-21**	**1281-25**	**1281-50**
Inner packaging/shipping	- / 10	- / 10	- / 10

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
		HaloX® magnet 1299-67 | p. 215		**HaloX® magnet** 1299-67 | p. 215
without additional space for operating devices	**HaloX® 180** 1282-71 | p. 213	**HaloX® 180** 1282-74 | p. 214	**HaloX® 250** 1283-71 | p. 213	**HaloX® 250** 1283-74 | p. 214
Additional space for operating devices up to max. 150 x 90 x 50 mm	**HaloX® 180 with tunnel 190** 1282-72 | p. 213	**HaloX® 180 with tunnel 190** 1282-75 | p. 214		
Additional space for larger operating devices up to max. 280 x 90 x 50 mm	**HaloX® 180 with tunnel 325** 1282-73 | p. 213	**HaloX® 180 with tunnel 325** 1282-76 | p. 214	**HaloX® 250 with tunnel 325** 1283-73 | p. 213	**HaloX® 250 with tunnel 325** 1283-76 | p. 214

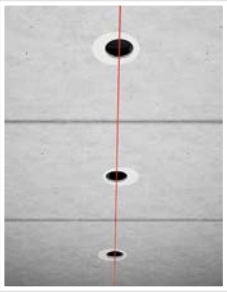
2 Installation depth

Installation height > 110 mm	**Extension rings 25 / 50 mm** 1282-25/50 | p. 214	**Extension rings 25 / 50 mm** 1283-25/50 | p. 214

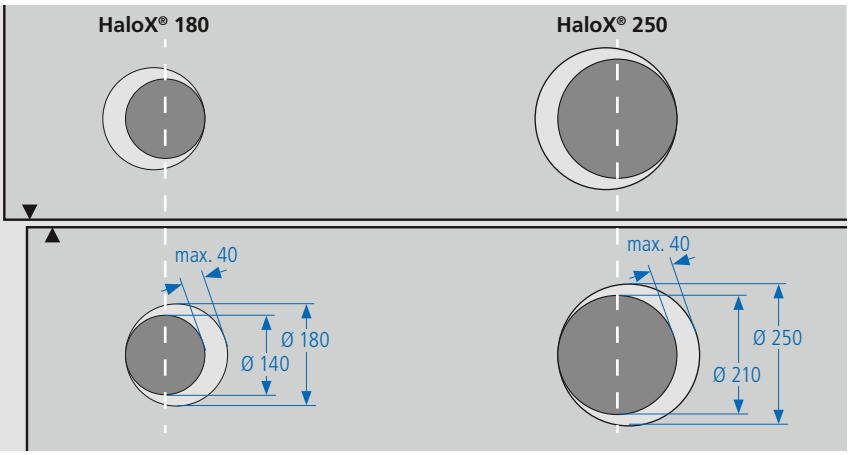
3 Accessories for wall installation

Wall installation in vertical formwork	**Wall installation set for fitting in vertical formwork** 1299-60...64 | p. 207

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® concrete installation housing (precast concrete)

System HaloX® is designed as a single piece for fitting in precast concrete. The housings can easily be aligned on the formwork table by means of markings on the housing. The housing with pre-fitted mineral fibreboard allows easy glueing and the housings can be turned by 360° on the formwork table even after glueing. Housings with pre-fitted front parts to hold the magnet (Art. No. 1299-67) are available for magnet attachment. Laying tolerances which may occur during the fitting of panel elements are compensated for via the housing sizes in connection with a variable cut-out area. Because of the compact dimensions of the housings, the reinforcement can easily be placed around the housing. For luminaires or loudspeakers with installation depths equal to or greater than 110 mm, the installation compartment of the HaloX® housings can be increased on the on-site concrete building site by means of extension rings. The fitting of the conduits on-site takes place without the need for tools for M20/M25 conduits without any internal shortening of the conduits.

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

halogen-free 650 °C INNOVATION LED www

Installation

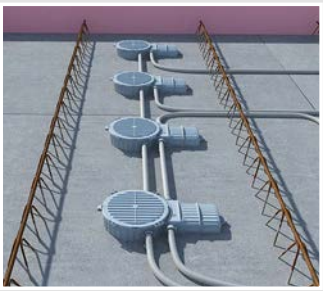

Mounting of the single-piece housing with mineral fibreboard.

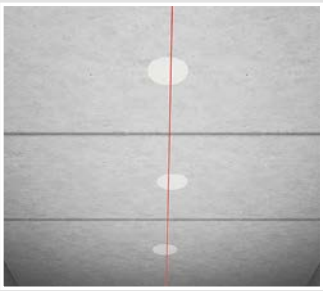

… fitting of the one-part housing by means of magnets (Art. No. 1299-67).

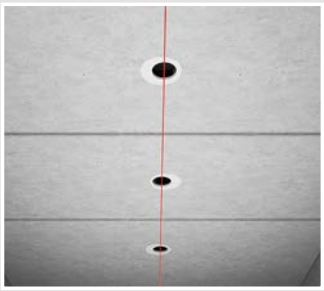

Prefabricated element with integrated HaloX® housings is laid on concrete building site.


Subsequent adjustment of the housing height on the building site.

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


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


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


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

HaloX® 180 / 250 for precast concrete for adhesive attachment

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


System	HaloX® 180	HaloX® 250
Ceiling exit (CE) Ø	0-180 mm	0-250 mm
max. installation depth luminaire / 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
Art. No.	**1282-71**	**1283-71**
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 limit to prevent the need for inside shortening of the conduit



System	HaloX® 180	HaloX® 180	HaloX® 250
Ceiling exit (CE) Ø	0-180 mm	0-180 mm	0-250 mm
max. installation depth luminaire / 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
Art. No.	**1282-72**	**1282-73**	**1283-73**
Inner packaging/shipping	- / 10	- / 10	- / 10

HaloX® 180 / 250 for precast concrete for magnet attachment

- One-part housing for holding the HaloX® magnet Art. No. 1299-67
- Toolless combination entry for M20/M25 conduits
- Conduit entry limit to prevent the need for inside shortening of the conduit


System	HaloX® 180	HaloX® 250
Ceiling exit (CE) Ø	0-180 mm	0-250 mm
max. installation depth luminaire / 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
Art. No.	**1282-74**	**1283-74**
Inner packaging/shipping	- / 10	- / 10

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

- One-part housing for holding the HaloX® magnet Art. No. 1299-67
- Toolless combination entry for M20/M25 conduits
- Conduit entry limit to prevent the need for inside shortening of the conduit



System	HaloX® 180	HaloX® 180	HaloX® 250
Ceiling exit (CE) Ø	0-180 mm	0-180 mm	0-250 mm
max. installation depth luminaire / 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
Art. No.	**1282-75**	**1282-76**	**1283-76**
Inner packaging/shipping	- / 10	- / 10	- / 10

Extension rings HaloX®

- To increase installation depth




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

HaloX® magnet for HaloX® 180/250

· For housings with Art. Nos. 1282-74/75/76 and 1283-74/76

Art. No.	**1299-67**
Inner packaging/shipping	- / 10

Replacement mineral fibreboard for HaloX® 180, HaloX® 250

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

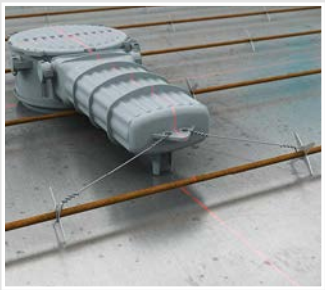
· Replacement mineral fibreboard 1283-27 for housing with Art. No. 1283-71/73

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

Note

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

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



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

KompaX® system overview

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

1 Accessory type/ application

KompaX® 1

- Built-in luminaires or loud-speakers + additional components (e.g. ballast device)
- Ceiling exits Ø 160–300 mm

KompaX® 2

- Built-in luminaires or loud-speakers + additional components (e.g. ballast device)
- Ceiling exits Ø 100–200 mm

2 Installation depth

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

Intermediate frame 25/50 mm

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

Intermediate frame 25/50 mm

3 Ceiling type

On-site mixed concrete | **Slab ceilings** for installation in concrete factories

On-site mixed concrete | **Slab ceilings** for installation in concrete factories

4 Ceiling exit

Variable opening and tolerance compensation by means of mineral fibreboard

1293-27

1293-28

1292-27

1292-28

Variable opening through the use of individual front parts

1293-00

1292-00

KompaX® front rings

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

Individual styrofoam moulded parts

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

Replacement mineral fibreboards for KompaX®

*) for 200 mm and greater, please contact us

KompaX® 1 concrete installation housing

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

KompaX®1 housing system for fitted downlights and loudspeakers in concrete ceilings with wide range of accessories for almost all applications. Height-adjustable using intermediate frames. The various front parts make it extremely practical.

- Housing system for fitted downlights and loudspeakers
- For on-site mixed concrete and prefabrication
- For precise installation openings from Ø 160–300 mm
- For device installation depths up to 200 mm*
- For ceiling thicknesses from 180–300 mm*
- Tolerance compensation during slab ceiling installation

halogen-free | 650 °C | WWW | LED

Luminaire selection

Built-in installation downlights with TC lamps, lamp output max. 90 W* (e.g. 3 x TC-D 26 W or 2 x TC-T 42 W). Use only built-in luminaires tested to EN 60598-1 suitable for installation on normally flammable building materials. Luminaire installation depth without intermediate frame max. 100 mm. Luminaire installation depth with intermediate frame max. 200 mm. (*Even higher system performance is possible with an intermediate frame)

Technical processing instructions/standards

- for ceiling thicknesses from 18 cm up to 30 cm. Please contact us if the ceiling thickness is greater than 30 cm.
- use only certified (EN 60598) luminaires which are suitable for direct installation on normally flammable materials
- luminaire installation heights up to 200 mm; please contact us for heights greater than 200 mm
- allows installation of additional lighting or loudspeaker accessories, EIB components, emergency supply units, etc.

Note

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

KompaX®1 housing for on-site mixed concrete

- installation height for built-in luminaires or loudspeakers max. 100 mm
- consists of front and rear parts
- only in combination with front rings 1293-16 up to 1293-71, in facing concrete with front rings 1293-80 to 1293-87
- incl. support elements for installation heights 100/150/200 mm

3D animation

Length x Width x Depth	**585 x 440 x 131 mm**
Ceiling exit (CE) Ø	160-300 mm
LED wattage max.	45 Watt
Lamp wattage max.	90 Watt
Art. No.	**1293-00**
Inner packaging/shipping	- / 5

KompaX®1 housing for on-site mixed concrete with mineral fibreboard

3D animation

- for variable ceiling cut-outs up to 300 mm
- installation height for built-in luminaires or loudspeakers max. 100 mm
- consists of front ring, assembled mineral fibreboard and rear part
- incl. support elements for installation heights 100/150/200 mm

Length x Width x Depth	**585 x 440 x 131 mm**
Ceiling exit (CE) Ø	0-300 mm
LED wattage max.	45 Watt
Lamp wattage max.	90 Watt
Art. No.	**1293-27**
Inner packaging/shipping	- / 5

Accessories: Replacement mineral fibreboards for KompaX®1,2 page 222

KompaX®1 housing for slab ceilings

- for factory fitting
- installation height for built-in luminaires or loudspeakers max. 100 mm
- consists of front part, fitted mounting ring and rear part
- for ceilings of 18 cm total thickness upwards
- incl. support elements for installation heights 100/150/200 mm

Length x Width x Depth	**585 x 440 x 131 mm**
Ceiling exit (CE) Ø	0-300 mm
LED wattage max.	45 Watt
Lamp wattage max.	90 Watt
Art. No.	**1293-15**
Inner packaging/shipping	- / 5

KompaX®1 housing for slab ceilings with mineral fibreboard

- for factory fitting
- for variable ceiling cut-outs up to 300 mm
- installation height for built-in luminaires or loudspeakers max. 100 mm
- consists of front ring, assembled mineral fibreboard and rear part
- for ceilings of 18 cm total thickness upwards
- incl. support elements for installation heights 100/150/200 mm

Length x Width x Depth	**585 x 440 x 131 mm**
Ceiling exit (CE) Ø	0-300 mm
LED wattage max.	45 Watt
Lamp wattage max.	90 Watt
Art. No.	**1293-28**
Inner packaging/shipping	- / 5

Accessories: Replacement mineral fibreboards for KompaX®1,2 page 222

KompaX®1 intermediate frame

· is clipped between the front and rear part of the KompaX® 1 housing

Increasing installation height	25 mm	50 mm
with support elements for installation heights of 125/175 mm	•	-
Art. No.	**1293-13**	**1293-14**
Inner packaging/shipping	5 / 10	5 / 10

KompaX®1 front rings

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

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

KompaX®1 front rings in facing concrete version

· elastomer seal with flexible sealing edge
· prevents ingress of concrete, discolouring and sand blast dust
· for exact flush finishes in facing concrete without additional reworking

FACING CONCRETE

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

KompaX® 2 concrete installation housing
for on-site mixed concrete and prefabrication (slab ceilings)

KompaX®2 housing system for fitted downlights and loudspeakers in concrete ceilings with wide range of accessories for almost all applications. Height-adjustable using intermediate frames. The various front parts make it extremely practical.

- Housing system for fitted downlights and loudspeakers
- For on-site mixed concrete and prefabrication
- For precise installation openings from Ø 100–200 mm
- For device installation depths up to 200 mm*
- For ceiling thicknesses from 180–300 mm*
- Tolerance compensation during slab ceiling installation

halogen-free | 650 °C | WWW | LED

Luminaire selection

Built-in installation downlights with TC lamps, lamp output max. 90 W* (e.g. 3 x TC-D 26 W or 2 x TC-T 42 W). Use only built-in luminaires tested to EN 60598-1 suitable for installation on normally flammable building materials. Luminaire installation depth without intermediate frame max. 100 mm. Luminaire installation depth with intermediate frame max. 200 mm. (*Even higher system performance is possible with an intermediate frame)

Technical processing instructions/standards

- for ceiling thicknesses from 18 cm up to 30 cm. Please contact us if the ceiling thickness is greater than 30 cm.
- use only certified (EN 60598) luminaires which are suitable for direct installation on normally flammable materials
- luminaire installation heights up to 200 mm; please contact us for heights greater than 200 mm
- allows installation of additional lighting or loudspeaker accessories, EIB components, emergency supply units, etc.

Note

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

KompaX®2 housing for on-site mixed concrete

· installation height for built-in luminaires or loudspeakers max. 100 mm
· consists of front and rear parts
· only in combination with front rings 1292-01 up to 1293-66, in facing concrete with front rings 1292-80 to 1293-84
· incl. support elements for installation heights 100/150/200 mm

3D animation

Length x Width x Depth	**470 x 290 x 131 mm**
Ceiling exit (CE) Ø	100-200 mm
LED wattage max.	45 Watt
Lamp wattage max.	52 Watt
Art. No.	**1292-00**
Inner packaging/shipping	- / 10

Subject to modifications

KompaX®2 housing for on-site mixed concrete with mineral fibreboard

3D animation

- for variable ceiling cut-outs up to 180 mm
- installation height for built-in luminaires or loudspeakers max. 100 mm
- consists of front ring, assembled mineral fibreboard and rear part
- incl. support elements for installation heights 100/150/200 mm

Length x Width x Depth	**470 x 290 x 131 mm**
Ceiling exit (CE) Ø	0-180 mm
LED wattage max.	45 Watt
Lamp wattage max.	52 Watt
Art. No.	**1292-27**
Inner packaging/shipping	- / 10

Accessories: Replacement mineral fibreboards for KompaX®1,2 page 222

KompaX®2 housing for slab ceilings

- for factory fitting
- installation height for built-in luminaires or loudspeakers max. 100 mm
- consists of front part, fitted mounting plate and rear part
- for ceilings of 18 cm total thickness upwards
- incl. support elements for installation heights 100/150/200 mm

Length x Width x Depth	**470 x 290 x 131 mm**
Ceiling exit (CE) Ø	0-200 mm
LED wattage max.	45 Watt
Lamp wattage max.	52 Watt
Art. No.	**1292-35**
Inner packaging/shipping	- / 10

KompaX®2 housing for slab ceilings with mineral fibreboard

- for factory fitting
- for variable ceiling cut-outs up to 180 mm
- installation height for built-in luminaires or loudspeakers max. 100 mm
- consists of front ring, assembled mineral fibreboard and rear part
- for ceilings of 18 cm total thickness upwards
- incl. support elements for installation heights 100/150/200 mm

Length x Width x Depth	**470 x 290 x 131 mm**
Ceiling exit (CE) Ø	0-180 mm
LED wattage max.	45 Watt
Lamp wattage max.	52 Watt
Art. No.	**1292-28**
Inner packaging/shipping	- / 10

Accessories: Replacement mineral fibreboards for KompaX®1,2 page 222

KompaX®2 intermediate frame

· is clipped between the front and rear part of the KompaX®2 housing

Increasing installation height	25 mm	50 mm
with support elements for installation heights of 125/175 mm	•	-
Art. No.	**1292-13**	**1292-14**
Inner packaging/shipping	5 / 10	5 / 10

KompaX®2 front rings

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

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

KompaX®2 front rings in 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

FACING CONCRETE

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

Replacement mineral fibreboards for KompaX®1,2

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

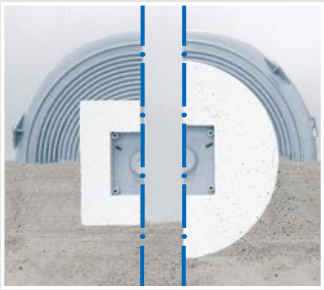
Styrofoam moulded parts

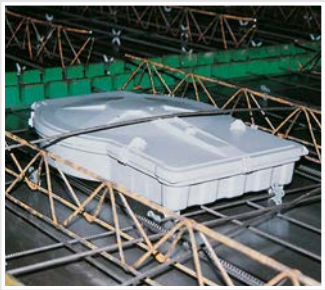
KompaX® housing with Styrofoam moulded part for customised solutions. The mouldings are available in any shape (round, square, rectangular or triangular) and in various thicknesses or to suit your specific needs. They can be supplied ready-mounted to the housing or provided separately. A facing concrete version is also available. The Styrofoam moulded parts for facing concrete have an additional elastomer sheath, and its elasticity prevents the dry concrete from cracking.

- For individual installation openings
- Any shape possible (for round, square, rectangular and other installation openings)
- For on-site mixed concrete and prefabrication
- Prevents discolouring and sand blast dust in facing concrete version
- For exact flush finishes in facing concrete without reworking

Planning instruction

Almost every conceivable shape can be realised using the Styrofoam moulded parts. The maximum dimensions of the front parts (diameter/diagonals) result from the maximum dimensions of the respective housing front rings. Please note that the clamping range of luminaires and loudspeakers must be at least the thickness of the Styrofoam moulded parts plus 8 mm. In the case of Styrofoam moulded parts with a thickness of > 20 mm, take into account the support provided.

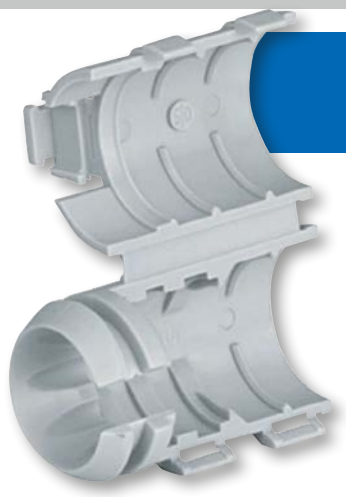




KompaX® Styrofoam moulded parts for ceiling exit (CE)

- all sizes and shapes which deviate from the existing KompaX® front rings for ceiling exits are available as Styrofoam moulded parts
- all Styrofoam facing concrete parts are also available in facing concrete design on request.
- the Styrofoam moulded parts can be attached to the housing before delivery or supplied separately with the housings
- Required ceiling cut-out up to max. Ø 300 mm and max. height 50 mm for round, square or rectangular installation openings. Other shapes possible on request.

Art. No.	**1292-90**



Conduit stopper

Conduit stoppers for secure, precise positioning of installation conduits in installation housings. They prevent conduits from being inserted too far and prevent them from falling out, even under extreme load.

- Guarantees concrete-tight connection of DIN EN conduits
- prevents conduits from being inserted too far
- Prevents conduits from slipping out under high load
- Threaded connecting pieces for inch conduits in conduit stoppers

650 °C

Installation

Use the universal opening cutter to make accurate conduit entries (Ø 21 mm).

Simply push flexible Ø 20 or Ø 25 mm DIN EN conduits into the conduit stopper.

This technology guarantees secure and tight conduit entry in all housings.

For Ø 5/8" or Ø 3/4" conduits, insert the threaded connecting piece into the conduit stopper.

Conduit stopper

- for luminaire or loudspeaker housings
- prevents conduits from being inserted too far
- secures conduit against falling out even under extreme load
- required opening Ø in the housing tunnel: 21 mm (cut using universal opening cutter Art. No. 1085-80)

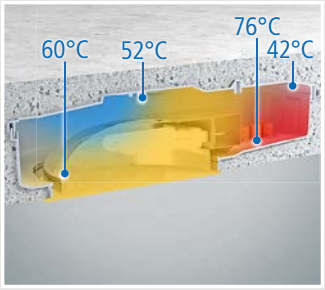
For conduits to DIN EN outer Ø	**20 mm**	**25 mm**
Art. No.	**1274-20**	**1274-25**
Inner packaging/shipping	25 / 100	25 / 100

Threaded connecting pieces for inch conduits

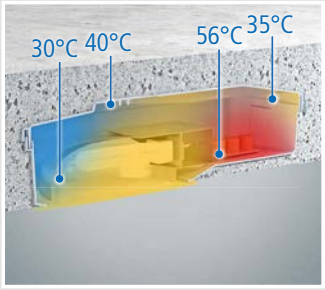
- for insertion of smooth and corrugated 5/8" and 3/4" conduits
- in 1274-20 and 1274-25 conduit stoppers

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

Temperature profile KompaX®1, 2

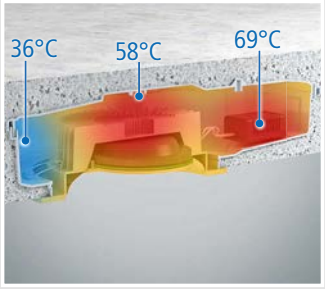


KompaX®1
3 x TC-D 26 W, sealed version of luminaires (matt safety glass disc)

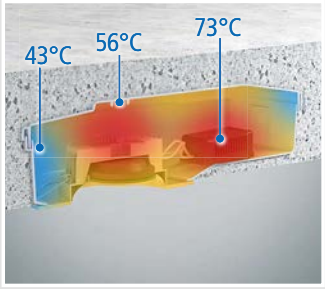


KompaX®2
2 x TC-D 18 W, sealed version of luminaires (matt safety glass disc)

Temperature profile KompaX®1, 2



KompaX®1
LED (45 W)

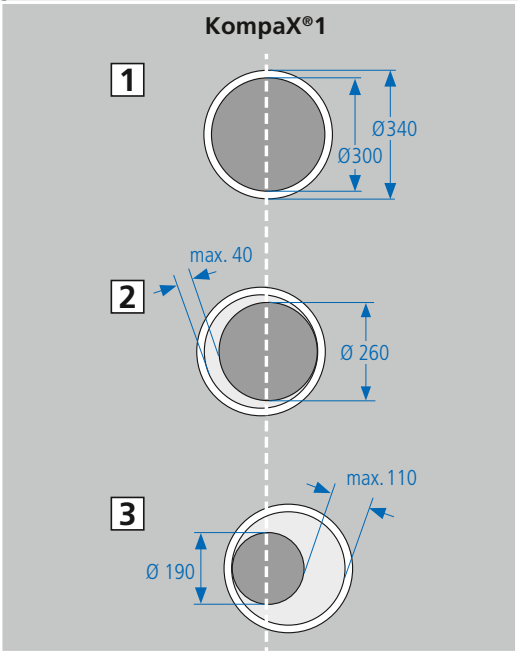


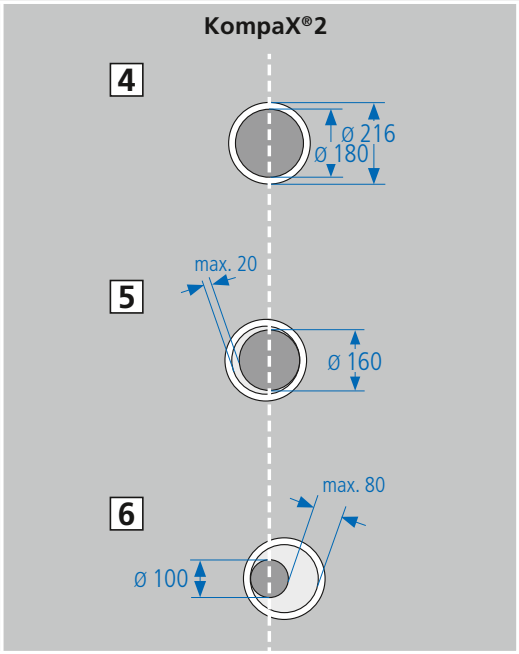
KompaX®2
LED (41 W)

Note

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

KompaX® tolerance compensation with mineral fibreboard





1 = CE max. 300 mm without tolerance compensation | **2** = CE max. 260 mm with 40 mm tolerance compensation (2 x 20 mm) | **3** = CE max. 190 mm with 110 mm tolerance compensation (2 x 55 mm) | **4** = CE max. 180 mm without tolerance compensation | **5** = CE max. 160 mm with 20 mm tolerance compensation (2 x 10 mm) | **6** = CE max. 100 mm with 80 mm tolerance compensation (2 x 40 mm)

Front rings for facing concrete

Front rings with elastomer sheathing for sharp outline ceiling cut-outs in facing concrete. The elasticity of the sheathing prevents the dry concrete from cracking.

- For exact flush finishes in facing concrete without reworking
- Prevents ingress of concrete
- Prevents discolouring and sand blast dust
- As a Styrofoam moulded part for round, square, rectangle and other installation openings

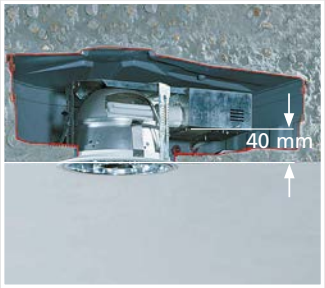
For perfect results, make sure the housing fits correctly, e.g. by bracing on the formwork and inserting an additional joist to restrict the formation of cracks.

without elastomer seal

with elastomer seal

Installation notes

For installation of luminaires with an asymmetrical equipment carrier (e.g. for ballast devices) or loudspeakers with audio processors or similar, the distance between the bottom edge of the accessory and the bottom edge of the concrete ceiling must be at least 40 mm.



Reducing the ceiling exit (CE) with front rings

If the required ceiling exit is smaller than the front ring used, please remove the cast-in front ring after removing the formwork, insert a smaller front ring or cut out the required dimension. Prime the remaining surface around the ceiling exit using for example thinned Styrofoam adhesive or Beto-Kontakt, and smooth it off.

KompaX® housing with mineral fibreboard

KompaX® housing with mineral fibreboard permits variable, neutral shape and accurate cut-outs for luminaires and loudspeakers. Inaccuracies arising during the installation of industrially prefabricated slab ceiling elements can be corrected using the mineral fibreboard. The mineral fibreboard always offers sufficient opportunities for adjustment. Depending on the installation diameter, you can retrospectively correct inaccuracies arising during the assembly or installation of slab ceilings.

- For luminaires and loudspeakers
- Accurate, variable installation openings
- Any cut-out shape possible
- Tolerance compensation during slab ceiling installation

Installation in on-site mixed concrete ceilings (KompaX®1,2)

Clip the front ring onto the housing and open the required conduit or cable entries. Position the prepared housing and fasten to the formwork using 4 nails. Feed in the conduits and insert the supplied support conduit (KompaX®1 and 2 only). If necessary, fit the intermediate frame, then clip in the rear part. To prevent upward movement, fasten the housing to the reinforcement using wires or cable ties. The ceiling can now be cast. After removing the formwork, use a fretsaw to saw into the visible front part to enable the luminaire or the loudspeaker to be fitted.

Clip the front ring onto the housing.

Attach the housing with 2 intermediate frames and a support conduit to the formwork.

Also secure the housing to the reinforcement.

Secure and firm seating of housings during concreting.

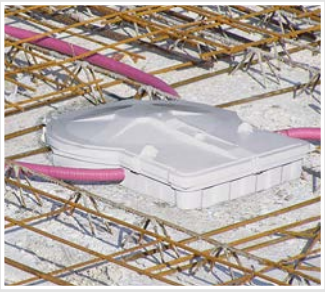
Open front part using a fretsaw.

Installation in slab ceilings

Pre-assembly in the concrete factory. Fasten the housing to the formwork table by applying at least four adhesive points to the housing (adhesive foil or hot glue). To prevent upward movement, fasten the housing to the reinforcement with wires or cable ties or by sliding steel bridges under the space frame. Then concrete up.

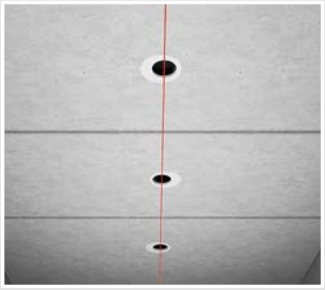
Final assembly on-site

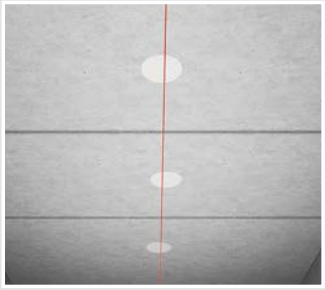
After removing the installation instructions and the support elements, make the required openings for cables and conduits. If the installation height needs to be increased, fit the intermediate frames. With KompaX®1 and 2, insert the matching support element before closing the housing again. Concreting can now take place.



Final assembly using mineral fibreboard

In the case of housings with mineral fibreboard, the ceiling cut-outs are marked out correctly aligned. Then cut installation openings through the mineral fibreboard and the housing base. Now fit the installation devices without any further reworking (smooth the surface if necessary).





Final assembly using mounting ring

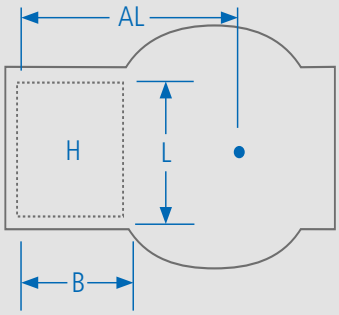
For housings with installation rings, remove the formwork and all fixing screws and simply pull out the mounting rings or plates. Now mark the precise position of the installation openings so that the matching front rings can be inserted or screwed on. Prime the remaining surface between the concrete edge and front ring using thinned Styrofoam adhesive, e.g. Beto-Kontakt, and smooth it off. Use the fretsaw to cut the installation diameter. After plastering and/or painting the ceiling, install the luminaires or loudspeakers.

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

Installation dimensions KompaX®1 and 2

When installing luminaires, loudspeakers or electronic components in KompaX® housings, use the data provided by the luminaire or˜ loudspeaker manufacturer to guide you. For the KompaX® housing, the following installation dimensions apply (excluding intermediate frame):

Housing	Installation depth	AL	L	B	H
KompaX® 1	100	330	270	160	60
KompaX® 2	100	290	190	160	60



Constructional information on concrete ceilings

To install KAISER installation housings in concrete, please refer to our work instructions and our installation instructions.

1. Statics
The dimensions of the universal housings ensure that they have only a small effect on the statics of concrete ceilings. However, when using this housing, always consider its effects on the static calculations. All values regarding number, size and distance between centres of the housings as well as the fire protection class of the ceiling must be agreed with the structural engineer.

Further points to be taken into account are:
- the housings must be arranged in line with the stress support axis of the reinforcement.
- the distance between centres of the housings must be at least 3 times the housing dimensions.
- supplementary reinforcement (joint beam) must be provided for all housings that break into the existing reinforcement if the statics calculations show that it is required.

2. Fire protection
Fire protection and the fire protection class of a concrete ceiling are only minimally affected by the fitting of luminaire and loudspeaker housings. From the technical fire protection viewpoint, no limitations are necessary on the axial spacing of HaloX® and KompaX® housings in F30 ceilings. In F90 ceilings the axial spacing of HaloX® housings should be at least 1 m and of KompaX® housings 1.3 m. Additional reinforcement must be put in place next to the housings.
The following table gives an overview of the necessary minimum thicknesses of ceilings and walls for fire protection classes F30 and F90.

All data is based on installation heights of the housing without intermediate frames or extension rings. Use float plaster or plaster of class A building materials. A technical fire protection certification can be provided on request.

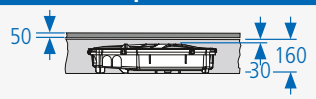
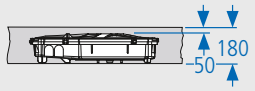
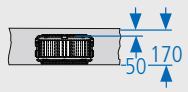
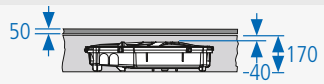
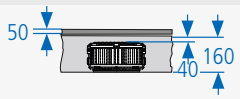
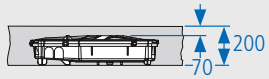
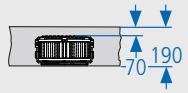
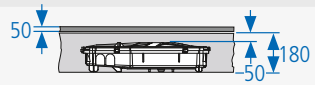
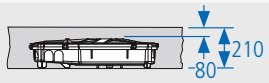
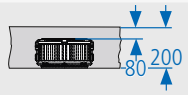
3. Transmission of sound
KompaX® housings do not generally resonate since they are never fully open. The solid seating in the concrete ceiling does not amplify any vibrations which are registered. Please contact us if you require technical sound transmission certification.

4. Heat conduction/Heat protection
Heat from luminaires and loudspeakers built into HaloX® or KompaX® housings has little or no effect on the concrete and statics of a ceiling. Compared to metal concrete housings, the reflection of heat from the luminaires or loudspeakers is considerably lower. This improves the efficiency and working life of the luminaires and other operating components.
The creation of heat bridges leading to the 'dew point' being reached is avoided by the use of underfloor noise insulation panels and a top plaster layer or through heat insulating measures.

5. Electrical installation
In principle, only VDE approved luminaires and VDE approved fittings should be used; luminaires must conform to DIN VDE 0711/EN60598. The builder of the system retains responsibility for the selection of suitable equipment such as luminaires, ballast devices, loudspeakers or transformers, their materials and their correct installation according to the technical safety standards for installation, lighting and loudspeakers. The manufacturer reserves the right to make changes to the materials, design and product range.

Housing volume (dm³)					
	HaloX® 100	**HaloX® 180**	**HaloX® 250**	**KompaX® 1**	**KompaX® 2**
Housing	1.2	3.3	6.1	18	10
with tunnel 190	2.4	4.5	-	-	-
with tunnel 325	-	5.3	8.1	-	-
Volume increase with the use of extension rings / intermediate frames in dm³					
Extension ring/intermediate frame 10	0.11	-	-	-	-
Extension ring/intermediate frame 25	0.28	0.8	1.5	5	2.5
Extension ring/intermediate frame 50	0.56	1.6	3.0	10	5

Fire protection – minimum concrete covering according to fire resistance class

	KompaX® 1/2	HaloX® 100/180/250
EI 30 ceiling plastered		
EI 30 ceiling unplastered		
EI 60 ceiling plastered		
EI 60 ceiling unplastered		
EI 90 ceiling plastered		
EI 90 ceiling plastered		

Installation housing for external insulation

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

All information about the product can be found from page 58.

Installation housing ThermoX® LED

ThermoX® LED installation housing for the airtight installation of rigid and pivoting LED built-in luminaires in different ceiling constructions. The housing protects the surrounding material (vapour barrier foil, insulation etc.) against the high operating temperatures and the LED luminaires-themselves from contamination, and creates an airtight separation. In combination with the thermal separation between luminaire and operating device, in this way a maximum operating lifetime is obtained.

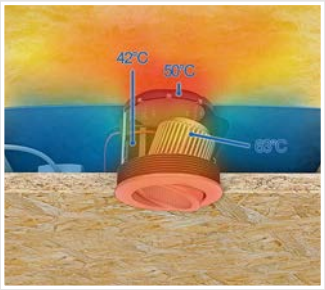
- For installation in insulated hollow ceilings
- Retrofitting from underneath
- Toolless installation of the housing
- Guarantees airtight installation
- Rear surface structure ensures optimal heat management
- Permanent and secure retention of the luminaire in the housing

halogen-free | air-tight | INNOVATION | www | LED | ECON

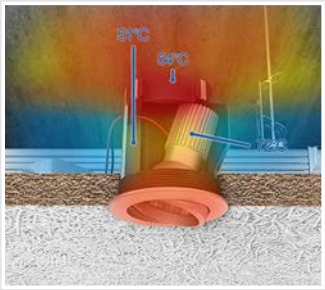
Examples of use

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

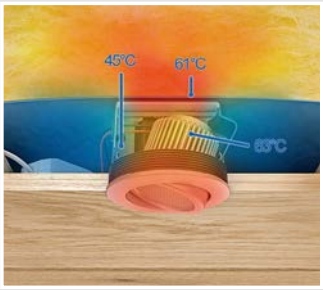
Temperature profiles ThermoX® LED (room temperature 25°C)



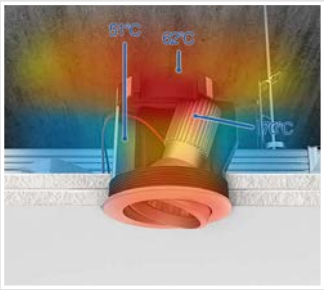
ThermoX® LED 9320-10
LED 6.6 W



ThermoX® LED 9320-11
LED 9 W



ThermoX® LED 9320-20
LED 8 W



ThermoX® LED 9320-21
LED 10 W

Air-tight installation and fire-preventive protection

The ThermoX® LED housing protects the surrounding material against the extremely high temperatures that may occur during the operation of LED lamps. The housing must be installed without any surrounding insulating material coating. This protective measure can be taken both for new constructions and for retrofitting. The LED housing allows for air-tight installation because it does not destroy the vapour barrier foil that contributes to the air-tight building shell. Because of their air tightness, LED housings are also suitable for use in all suspended ceiling systems where uncontrolled air exchange is to be avoided (e.g. climate or cooling ceilings) and dustproof installation needs to be achieved (e.g. prevention of dust particles due to material removal).

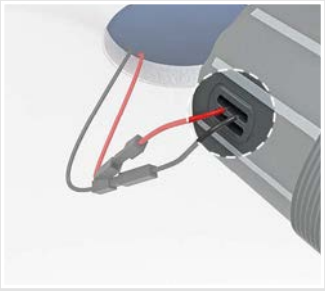
Installation

Make cut opening (e.g. with turbo cutter Multi 4000 – Art. No. 1084-10)

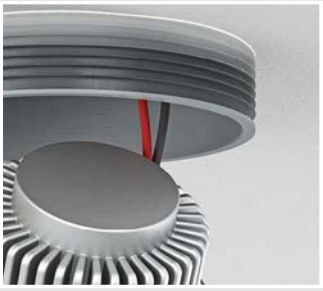
To expand existing installation openings from Ø 68 mm to Ø 74 mm using centering insert (Art. No. 1083-99).

Installation of the operating device (driver).

Feed connector from below through the entry of the LED installation housing.



Connection of the plug-in contacts. Feed the sealing element round the cable and insert into the opening.



Installation of the ThermoX® LED housing in the installation opening.

Inserting the spotlight into the housing.

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

Processing instructions

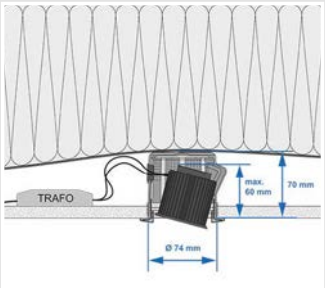
Guaranteed air tightness even when the fixing springs are expanded

Expanding pockets ensure secure fit for the built-in luminaire

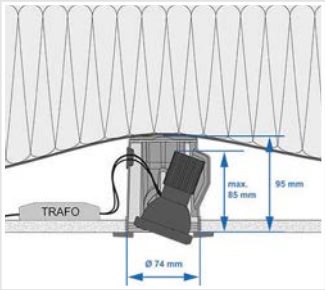
Swivel pocket permits targeted alignment of the built-in luminaire

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

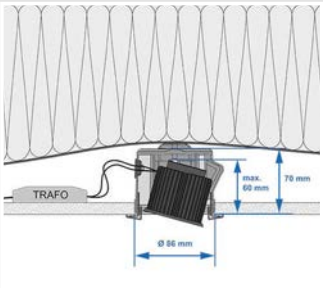
Installation notes



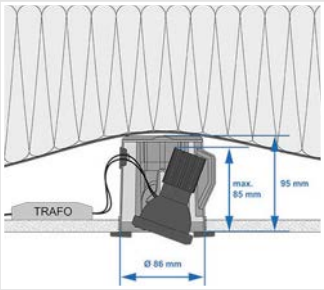
Art. No. 9320-10 ThermoX® LED, Ø 74 x 70 mm



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



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



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

Technical processing instructions/standards

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

INNOVATION

ThermoX® LED housing

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

3D animation

Depth	**75 mm**	**95 mm**	**75 mm**	**95 mm**
installation from front, cut hole Ø	74 mm	74 mm	86 mm	86 mm
Cable entries	1	3	3	3
max. installation depth for the LED luminaires	60 mm	85 mm	60 mm	85 mm
max. lamp output	6,6 Watt	9 Watt	8 Watt	10 Watt
max. ceiling exit (DA) Ø	70 mm	70 mm	81 mm	81 mm
Art. No.	**9320-10**	**9320-11**	**9320-20**	**9320-21**
Inner packaging/shipping	- / 10	- / 10	- / 10	- / 10

Air-tightness certificate

Guaranteed airtight housing for the energy-efficient electrical installation of luminaires. The appropriate certificate can be obtained from us or downloaded from our website.

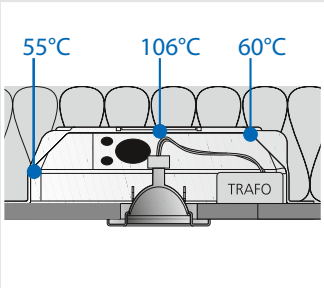
EnoX® installation housing

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

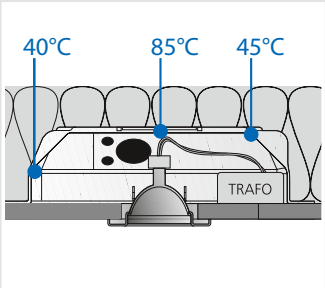
- Air-tight installation in line with EnEV energy-saving ordinance.
- No additional installation level is necessary
- For ceilings and walls in renovated and new buildings
- Tool-free cable and conduit entry
- Thermally-protected installation space 300 x 200 x 55 mm
- ECON® technology for air-tight and toolless insertion
- FX4 technology for fast cavity wall installation

Installation technology for low-voltage luminaires

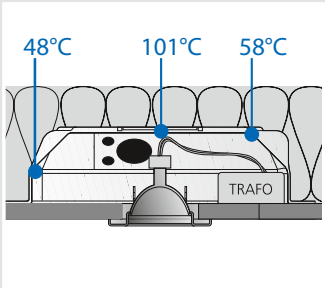
Temperature profile for room temperature 23°C



Low-voltage 35 W cool beam

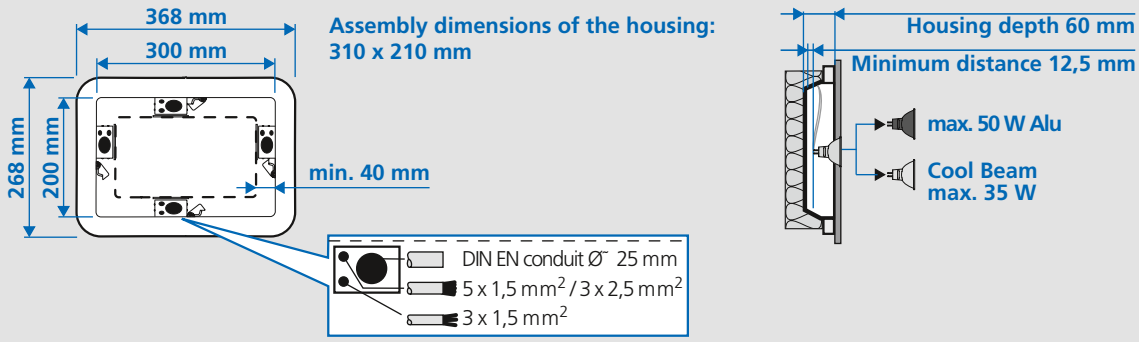


Low-voltage 35 W Alu



Low-voltage 50 W Alu

Example of installation



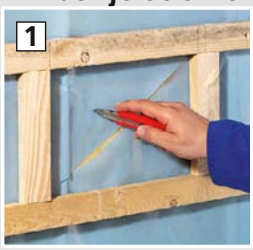
Technical processing instructions/standards

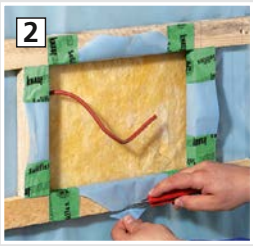
- use only certified (EN 60598) luminaires which are suitable for direct installation on normally flammable materials
- only for insulation material with heat resistance > 250°C
- use only tested heat-resistant cables (N2 GMH 2G) and temperature-resistant terminals (e.g. T100)
- use of electrical safety transformers up to 105 VA
- max. 35 W Cool Beam, 50 W aluminium reflector, 6.6 W LED luminaires

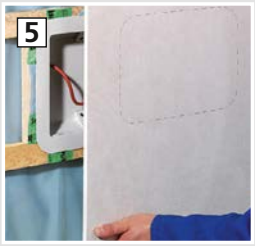
Mounting instructions

The EnoX housing is installed within or on the rafters using the timber or metal joist. In accordance with the cavity wall box principle, the housing is fixed to the joist or to an OSB panel using the FX4 strap fastening system. The cut-off moisture barrier is made air-tight again using sealing adhesive foil or the KAISER sealing foam frame. Before attaching the boarding, completely remove the moisture barrier foil from the housing interior. Together with the moisture barrier, the EnoX housing now forms one unit to ensure air-tight installation in accordance with the EnEV energy-saving ordinance.

Timber joist on the rafter

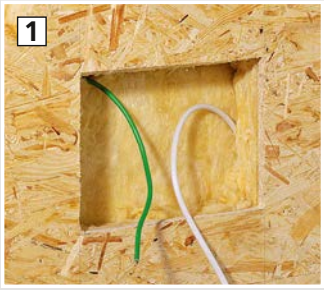


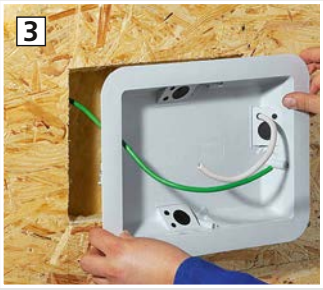


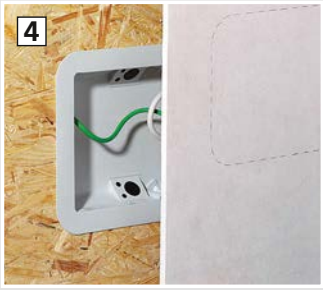


Timber joist inside the rafter

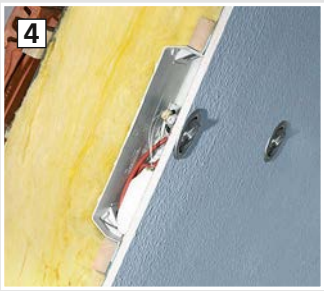
Installation using OSB panel.



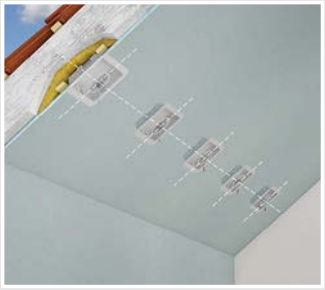




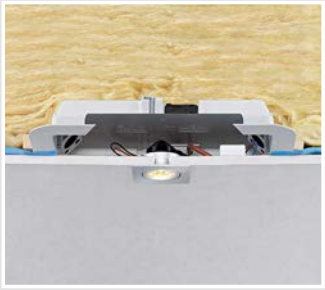
Making the installation opening for luminaires



Installation technology



In sloping roofs, for example, EnoX® acts as an air seal and creates a flexible space for the electrical installation in the insulation base.



Application example: LED luminaires

EnoX - luminaire and loudspeaker housing

- for installing luminaires, loudspeakers, displays and much more
- Minimum distance inside: min. 40 mm all round
- integrated stress relief (retention force) in accordance with DIN VDE 0606 / DIN EN 60670-1
- only for insulation material with heat resistance > 250°C
- use only tested heat-resistant cables (N2 GMH 2G) and temperature-resistant terminals (e.g. T100)
- for installation devices up to LxW 120 x 220 mm or Ø 120 mm
- Heat distortion resistant to 220°C
- with 4 screws (FX4)

AIR-TIGHT

Length x Width x Depth	**368 x 268 x 60 mm**
Length on the inside	300 mm
Width on the inside	200 mm
Depth on the inside	57 mm
Conduit entries for DIN EN conduits up to Ø 25 mm	4
Cable entries 3 x 2.5 mm² or 5 x 1.5 mm²	4
Cable entries 3 x 1.5 mm²	4
Art. No.	**9350-21**
Inner packaging/shipping	- / 10

EnoX sealing foam frame

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

AIR-TIGHT

Art. No.	**9350-99**
Inner packaging/shipping	- / 10

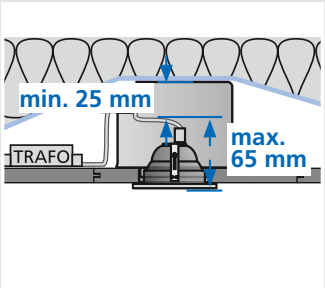
ThermoX® installation housing

ThermoX® installation housing for installing halogen and pivoting recessed LED luminaires in various ceiling structures. The housing protects the surrounding material (moisture barrier foil, insulation etc.) from the lamp's extreme operating temperatures and creates an air-tight closure.

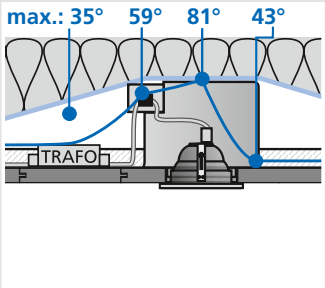
- Installation housing for halogen luminaires (low voltage and high voltage)
- Fire-preventive and air-tight
- For insulated hollow ceilings
- Two different front part types
- Integrated transformer closing cap
- Ceiling exits (CE) up to Ø 86 mm
- Installation from either above or below

halogen-free | air-tight | 850 °C | FX4 | LED

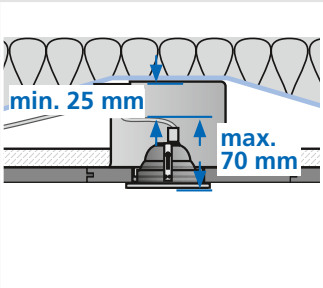
Installation technology for low-voltage and high-voltage luminaires



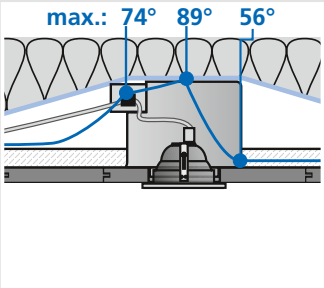
Luminaire selection: halogen, low-voltage (12 V)
Usable lamps: Cool beam max. 20 W, aluminium reflector max. 35 W



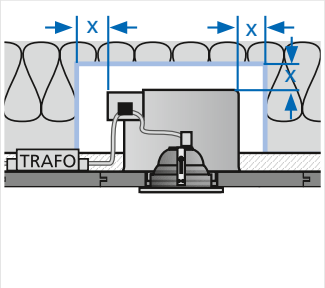
Temperature profile: room temperature (23°C)
Aluminium reflector 35 W



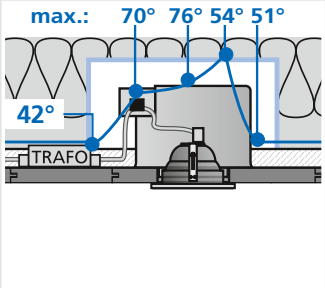
Luminaire selection: halogen, high-voltage (230 V)
Usable lamps: Cool beam max. 20 W, aluminium reflector max. 35 W



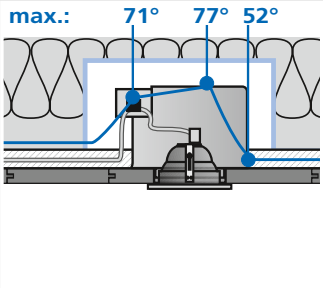
Temperature profile: room temperature (23°C)
Aluminium reflector 35 W



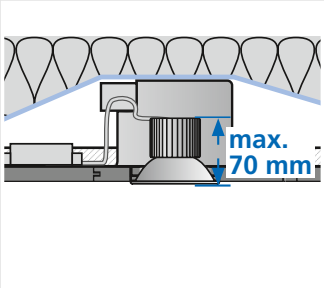
Luminaire selection: halogen (12 V/high-voltage 230 V) x = min. 50 mm
Usable lamps with „x": Cool beam max. 35 W, aluminium reflector max. 50 W



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



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

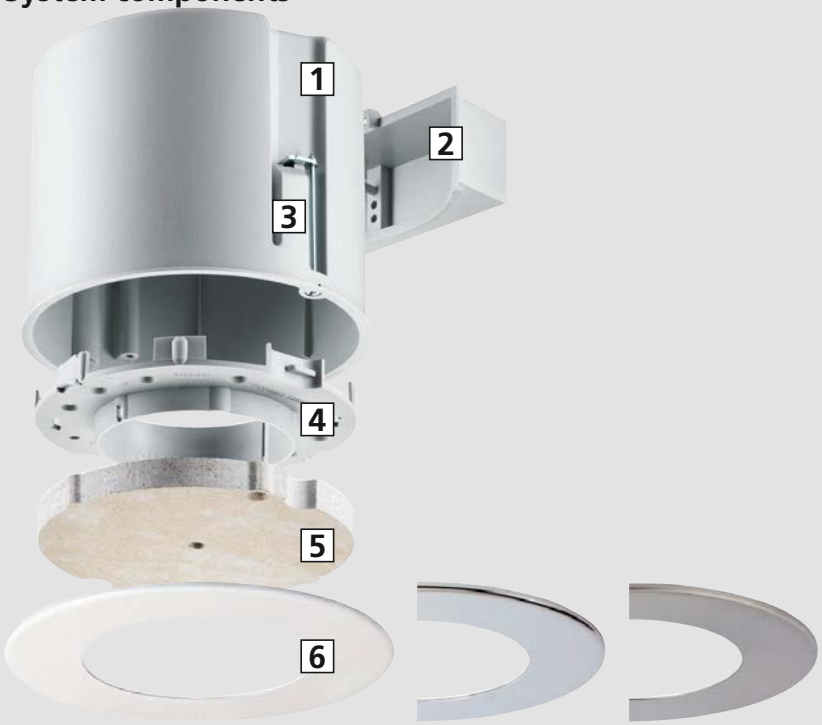


Use of pivoting LED built-in luminaires
up to 6.6 W/ET max. 70 mm

Technical processing instructions/standards

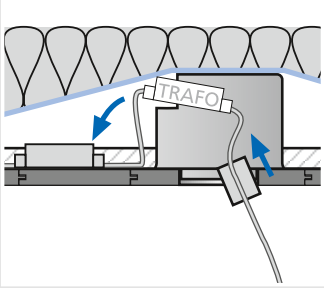
- use only certified (EN 60598) luminaires which are suitable for direct installation on normally flammable materials
- use heat-resistant cable for the SEC side
- electronic safety transformers up to 105 VA can be used. Dimensions max. 123 x 37 x 26 mm. A rounded shape is advantageous for installation and removal (e.g. PC mouse shape)
- Use heat-resistant terminals (e.g. T 100)
- Distance of holder and cable to the housing min. 10 mm

System components

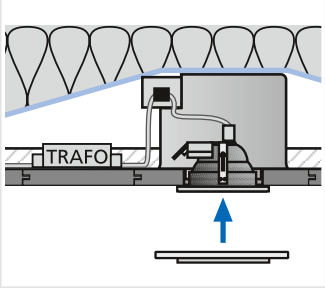


1 Housing | **2** Closing cap of the operating device opening | **3** Quick fastening FX4 for cavity wall installation | **4** Front part with bayonet fitting (both sides can be used) | **5** Mineral fibre front part (for variable installation openings up to Ø 86) | **6** Decorative covering Ø 125 (white, similar to RAL 9016, chrome-plated, matt nickel or gold-plated)

Transformer and luminaire installation



Push the transformer through.....insert the closing cap...



...install luminaires and fit decorative covering if used. Finished.

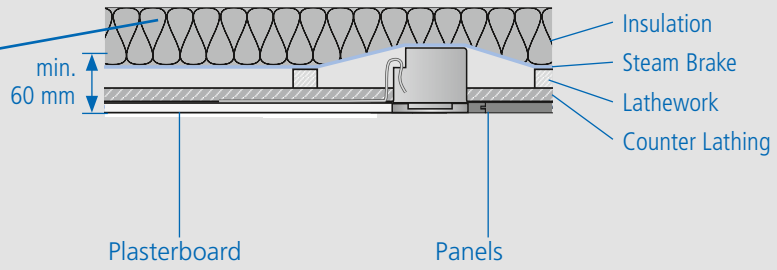
Air-tight installation and fire-preventive protection

ThermoX® protects the surrounding material against the extreme temperatures that can occur with halogen luminaires or LED lamps (over 200°C).DO NOT install the housing if it is wrapped in insulating material! The distance from the holder and cable to the housing must be at least 25 mm. This protective measure can be taken both in new buildings and later in existing ones for refurbishing work. ThermoX® makes possible air-tight installation as it does not destroy the moisture barrier foil that contributes to the air-tight building shell. Thanks to its air tightness, the ThermoX® housing is also suitable for all suspended ceiling systems where an uncontrolled exchange of air is to be avoided (e.g. air-conditioning or cooling ceilings) and dust-tight installation must be achieved (e.g. prevention of dirt particles caused by material removal).

Mounting option

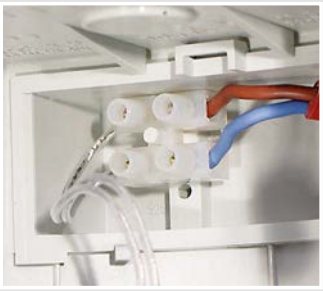
ThermoX® - installation instruction

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



Processing instructions

Use the universal opening cutter to make the precise and airtight opening for the cable entry in the transformer flap.

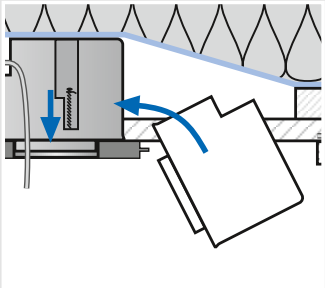


The terminal is fitted firmly in the transformer closing flap so it is protected against the heat from the lamp.

For transformer maintenance, the transformer cap can be removed with a screwdriver or long-nosed pliers even after installation.

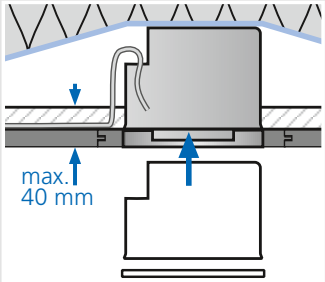
Slab ceiling/installation from above: during ceiling installation

Cut the installation opening and insert the housing from above. The shape of the front part ensures a secure and precise fit in the boarding. After the luminaire has been installed, the opening is completely concealed.

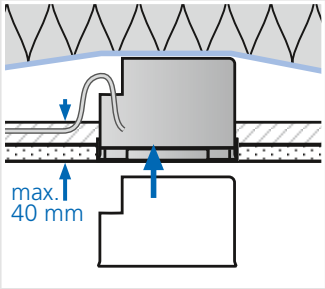
Slab ceilings/installation from below: retrofitting

Cut an installation opening, insert the housing from below and fix in place with a fast screw attachment. The housing is attractively concealed by the KAISER decorative covering and the luminaire.

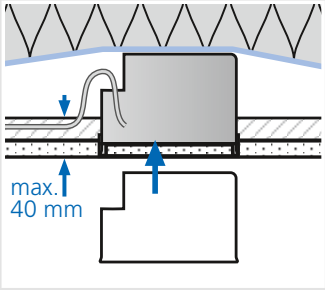

Plasterboard/installation from below: retrofitting/smoothing

Before installation, check the required installation depth! Cut the installation opening, chamfer the bottom edge of the installation opening. Insert the housing from below and fix in place with a fast screw attachment.


Plasterboard/installation from below: retrofitting with mineral fibreboard

Cut and chamfer the installation opening. Insert the housing from below and fix in place with a fast screw attachment. Mark opening for luminaires and cut. Smooth the joint or simply wallpaper the surface.


ThermoX® housing for low and high-voltage luminaires

- for halogen luminaires and pivoting LED luminaires
- max. installation height for low-voltage luminaire 65 mm, HV luminaire 70 mm
- Heat distortion resistant to 220°C
- lamp wattage LV: max. 35 W with AL reflector / 20 W Cool-Beam
- lamp wattage for HV luminaires max. 35 W with AL reflector (socket GU 10)
- max. LED lamp output 6.6 W
- Front can be used on both sides

AIR-TIGHT



For panel thickness	**7 - 40 mm**	**7 - 40 mm**	**7 - 40 mm**
Depth	90 mm	90 mm	90 mm
Ceiling exit (CE) Ø	68 mm	75 mm	82 mm
installation from front, cut hole Ø	120 mm	120 mm	120 mm
installation from rear, cut hole Ø	74 mm	79 mm	86 mm
Art. No.	**9300-01**	**9300-02**	**9300-03**
Inner packaging/shipping	- / 10	- / 10	- / 10

ThermoX® universal housing with mineral fibreboard

- saves time - no plastering; close joint gap if necessary
- ceiling exit (CE) up to Ø 86 mm possible
- Heat distortion resistant to 220°C
- max. installation height for low-voltage luminaire 65 mm, HV luminaire 70 mm
- lamp wattage LV: max. 35 W with AL reflector / 20 W Cool-Beam
- lamp power for HV luminaires max. 35 W with AL reflector (base GU 10) /20 W Cool-Beam
- max. LED lamp output 6.6 W

AIR-TIGHT

For panel thickness	**7 - 40 mm**
Depth	90 mm
Ceiling exit (CE) Ø	0-86 mm
installation from front, cut hole Ø	120 mm
Art. No.	**9300-22**
Inner packaging/shipping	- / 10

ThermoX® individual front rings

- for retrofitting or as spare part



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

ThermoX® universal front ring

· for retrofitting or as spare part
· Universal front ring

Ceiling exit (CE) Ø	**0-86 mm**
Art. No.	**9300-93**
Inner packaging/shipping	- / 10

ThermoX® Decorative coverings

· metal with galvanised or powder coating
· only for interiors
· minimum diameter of the luminaire 79 mm with ceiling exit Ø 68 and 75 mm
· Minimum diameter of luminaire covering 86 mm with ceiling exit Ø 82 mm

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