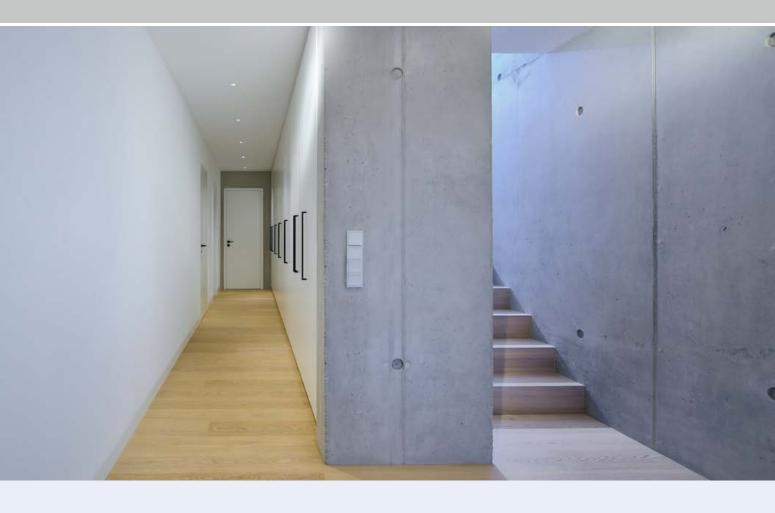
Electrical installation in concrete.

Boxes, housings and systems.







Free space for installation accessories, luminaires and loudspeakers.

Electrical installation in concrete.

Integrating light and sound in architecture requires the appropriate planning of suitable installation accessories for all lighting and sound tasks. Taking such housings into consideration in good time creates the free space for attractive architecture.

The new generation of concrete installation housings provides a secure installation compartment for loudspeakers, LED luminaires, halogen or compact fluorescent lights and their operating devices in ceilings and walls. For both the on-site mixed concreting process and the industrially pre-manufactured panel elements, HaloX® creates the space needed for modern lighting and sound devices. Thanks to its modular and flexible design, the system provides a solution for almost all installation diameters and depths.





KAISER concrete installation systems for on-site mixed concrete and precast concrete provide you with the security that you need for planning, calculation and installation work. They are sturdy and shaperetaining, and they create the free space needed for every professional design and planning work. The components used in modular systems guarantee fast and continuous installation, from the installation opening for consumers right up to the power distribution panel. By using the reliable support system you can be certain that the planned installation spaces are positioned accurately after concreting. The flexibility of the systems gives you the perfect solution for every installation task. Our planning aids and technical consultancy department help you with everything from planning to implementation of your construction project.





Electrical installation in concrete. On-site mixed concrete and precast concrete.

Product solutions

| Requirements | Product solutions | |
|---|---|----------------------|
| Installation in on-site mixed concrete. Electrical installation in concrete walls. | One-gang and one-gang junction boxes. | 8 |
| One-gang junction box for fixing to the reinforcement. | Prefix® concrete building box. | 10 |
| Practical housing sizes. Sturdy design. | Junction casings. | 12 |
| Variable for various installation accessories. Ceiling installation. | Universal installation housing. Ceiling boxes and ceiling junction boxes. | 14 18 |
| Empty conduit installation. | Wall and ceiling transitions. Wire-pull and junction casings | 20 |
| Solutions for luminaires and loudspeakers. | System HaloX [®] . | 24 |
| | | |
| Installation in precast concrete. | | |
| One-gang junction box for precast concrete. Slab ceiling installation for luminaires and accessories. Transitions for wall and ceiling. Solutions for luminaires and loudspeakers. | System B ² . Slab ceiling boxes 115, 105 and for retrofitting. Wall-ceiling transitions and oval funnels. System HaloX [®] . | 32 34 35 32 |
| | | |
| Retrofitting. | | |
| Retrofitting in slab ceilings. Retrofitting in solid ceilings. | HaloX® installation kit. HaloX® for concrete solid ceilings. | 44 46 |
| | | |

47

52

Installation in concrete. At a glance.

KAISER PROGRAMME. Solutions and systems for professional electrical installation.

On-site mixed concrete.



Product film

The on-site mixed concrete method is mostly used when large parts and areas need to be manufactured. In this case, the concrete which is either delivered or mixed fresh on-site is filled into and compacted in the formwork which has been prepared with reinforcement and installation components. After curing, the formwork is removed and the walls or ceilings are completed.

For on-site mixed concrete, it is mostly wooden formwork which is used, and it may be coated with plastic or synthetic resins. The boxes are fitted to the formwork simply by nailing them on, and this creates a secure fit. Fixing to steel formwork normally takes place with expanding dowels, using a magnet, adhesive foils or hot glue.

The modular KAISER system is for use with all concreting methods and types of formwork. The perfectly-matched individual modules ensure



exact planning and problem-free processing for future-proof installation. Sturdy support and connection elements together with comprehensive tools and accessories for use in everyday practice complete the programme. The use of different colours for the individual components makes installation easier (p. 51).

Installation of the boxes, housings and systems is by means of empty conduits for the feed lines. With these conduits, boxes and casings form a closed system. All connections on the multi-part products to each other and to conduits and cables match each other exactly. The connection openings are made either without the use of tools, or with KAISER system tools, which ensures the stability and tightness of the entire system and also prevents foreign bodies or concrete from getting into boxes, casings or empty conduits.

Precast concrete.



Procukt film

The prefabricated method (precast concrete), whose great advantage is the series manufacture of individual elements, involves complete or partial prefabrication in concrete factories. Some of the advantages of prefabricated parts are the high levels of efficiency thanks to the short installation times, manufacture irrespective of the weather, and the consistent quality of the ceiling and wall elements. The high degree of automation in horizontal manufacture on steel formwork tables ensures fast, accurate production processes.

The fitting and fixing of an installation system on the steel formwork must take place accurately, securely and quickly. Magnets, hot glue or adhesive foil are used, and every minute counts. For precast concrete, too, KAISER offers a practice-oriented system with different fixing and supporting methods which ensure problem-free manufacture.



The manufacture of precast concrete as efficiently as possible

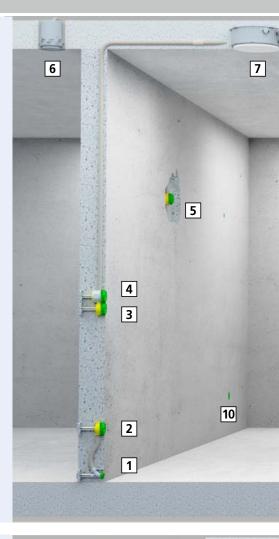
depends primarily on the processing times. The setting-up times for the reinforcement and electrical installation work play an important role in this, especially in computer-controlled factories with circulation equipment. The decisive factor for the subsequent processing on the on-site concrete manufacturing site is the quality of the pre-installation work and, consequently, the lower costs of later processing (= installation) in walls and ceilings.

The KAISER programme for precast concrete consists primarily of the B² system with one-gang junction boxes and special slab ceiling boxes. This range of products for precast concrete is complemented by intelligent products for conduit installation such as wall-ceiling transitions and the oval funnel for faster wall installation.

In addition to these products, which were specially designed for use with precast concrete, all KAISER on-site mixed concrete products can be used for precast concrete work.

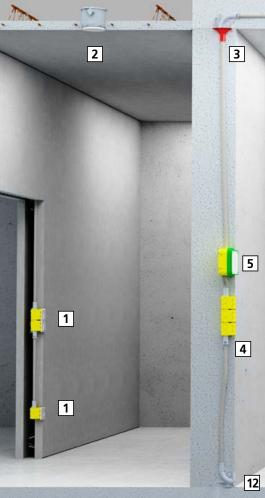
On-site mixed concrete.

- 1 Wall and ceiling transitions 30° with abutment and support element
- **2** One-gang box for plug-in A.C. devices
- 3 One-gang box with abutment and support element
- 4 One-gang junction box with abutment and support element
- **5** Wall light connection box
- 6 HaloX® 100 (retrofitting in solid ceiling)
- 7 HaloX® 250 with tunnel 325
- 8 Ceiling junction box
- 9 Ceiling box 45°
- 10 Electronics box / two-gang junction box
- 11 Wire-pull casing
- **12** Prefix® concrete building box 60
- 13 HaloX® 180 with and without tunnel
- 14 One-gang box and one-gang junction box with support element
- 15 Junction casing with abutment and support element
- 16 Universal ceiling and wall exit
- 17 HaloX® 100 with tunnel 190
- 18 Ceiling strip
- 19 Potential equalisation casing
- 20 Conduit bend support



Precast concrete.

- 1 B² one-gang junction boxes
- 2 HaloX® 100 (retrofitting in slab ceiling)
- 3 Wall-ceiling transition 90° and oval funnel
- 4 B² one-gang junction boxes with conduit connector
- 5 Universal installation housing
- 6 HaloX® 180 with tunnel 190
- **7** Large slab ceiling box 105
- 8 Wall-ceiling transition 90° as wall exit
- 9 HaloX® 180 with and without tunnel 190
- 10 HaloX® 180 with tunnel 325
- 11 HaloX® 250 with tunnel 325
- 12 Wall-ceiling transition 90°
- 13 B² one-gang junction boxes with extension element
- **14** B² one-gang junction boxes with conduit connector 60°









On-site mixed concrete. Wall installation.

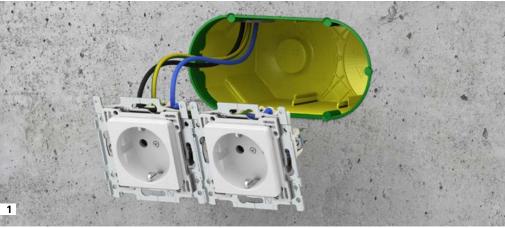
For wall installation, a comprehensive range of one-gang boxes and one-gang junction boxes, and junction casings and housings, is available. By using these you can quickly and easily prepare the installation for all kinds of flush-mounting inserts such as switches, sockets or LED luminaires and the appropriate wiring. This plug-in system allows the easy creation of any required combinations

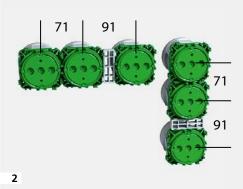
The support system provides the support for the components in vertical formwork. Unless extreme loads are expected, one-gang boxes which are fitted to the working formwork by means of dowels or nails do not need any additional support. Boxes or housings which are fitted by means of magnets or hot glue must be supported on the second side of the formwork. If boxes or housings are not planned for the working formwork (e.g. on an external wall), but for the opposing formwork side, abutments can be fitted to the working formwork and the required clearance is created using support elements or conduits.

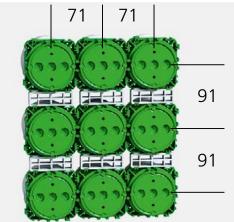










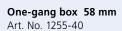


Use the robust support technology for the secure and sturdy bridging of the clearances between the formwork units.

1 Thanks to the large installation opening without a bridge, the two-gang junction box makes possible the use of pre-wired devices, pre-wired block inserts and many more

3

- 2 The combination distance for one-gang boxes or one-gang junction boxes is 71 mm (DIN 49075). Use distance piece 91 to create a distance of 91 mm for separated low-voltage covers.
- 3 For multiline installation, use distance pieces 91 (line distance 91 mm) to separate the individual lines (multiple cover frame).





Wall lamp connection box Art. No. 1248-40



One-gang box 41 mm





One-gang box PERILEX® Art. No. 1276-40

One-gang junction box 82 mm







One-gang box CEE Art. No. 1275-40



One-gang junction box 79 mm

Art. No. 1260-40



Electronic box Art. No. 1268-40



Junction box Art. No. 1276-70/71



Two-gang junction box Art. No. 1269-40









Prefix®. One-gang junction box for attaching to the reinforcement.

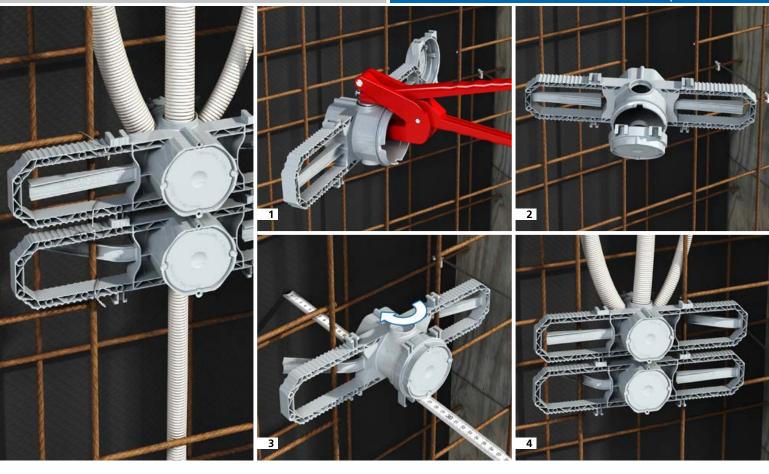
One-gang junction box and wall-lamp connection box with Prefix® installation technology for fast, easy installation to the opposing formwork without support. Thanks to the spring-loaded installation clamps, the one-piece boxes with two integrated front parts apply a lot of pressure to the opposing formwork, which ensures exact seating for the boxes and a clean wall appearance.

junction box and Prefix® concrete building box 35 wall-lamp connection box for attaching to the reinforcement.

Prefix® concrete building box 60, one-gang

- Fast, easy installation on the opposing formwork without a support element and abutment
- Pre-fixing using Prefix® technology both hands free for fixing with tie wires
- For use with concrete coverings of 20-60 mm
- For facing concrete installations to the opposing formwork
- For sturdy combination with standardised multiple combinations





Prefix® concrete building boxes can be used on both side for concrete coverings of 20 mm to 60 mm.

- **1** Exact conduit entries are easily made with the KAISER punch pliers.
- 2 Markings on the front part and the box ensure easy assembly of the box.
- **3** The front side of the one-gang junction box must protrude between 5 and 20 mm outside the wall thickness. This creates optimal pressure on the opposing formwork.
- **4** Using Prefix® installation technology, quickly and easily pre-fix the conduits and box in the reinforcement.

Prefix® concrete building box 60 one-gang junction box

Art. No. 1211-61



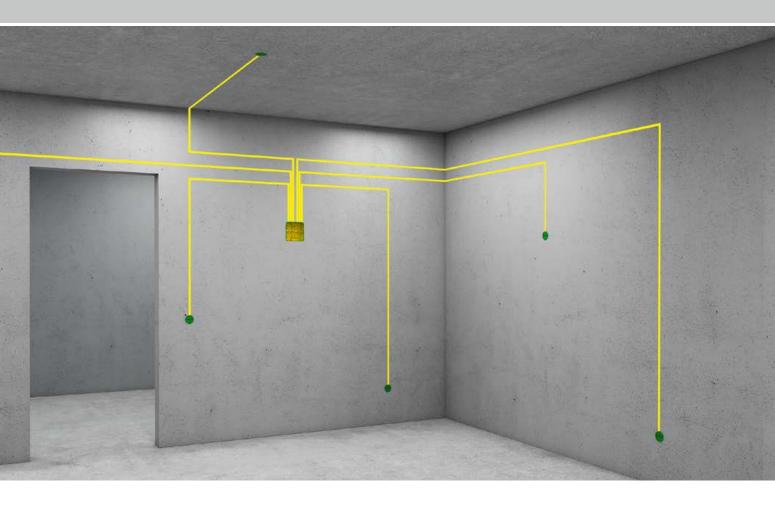
Prefix® concrete building box 35 wall lamp connection box

Art. No. 1211-36







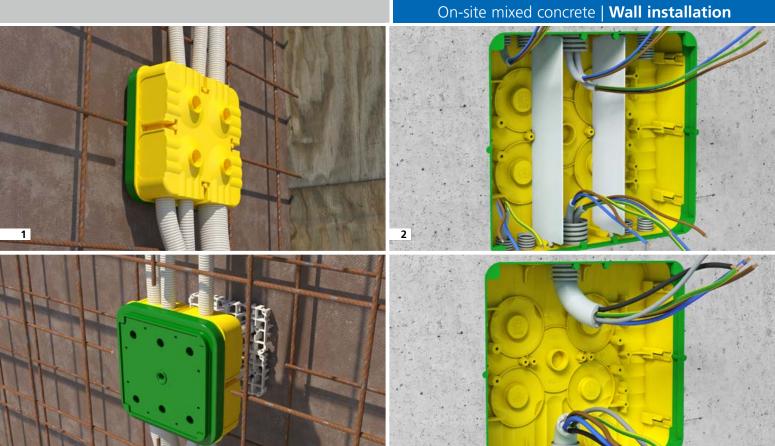


Junction casings in all sizes and for all tasks. Practical housing sizes. Robust design.

Using junction casings to carry out electrical installation work provides a lot of flexibility and freedom for later changes to the electrical equipment. With this method of installation, all the wiring takes place in a central junction casing, from where all the supply lines are fed radially to switch and lighting outlets. Using junction casings also makes it easier to pull the cables into the empty conduit system.

If changes to the rooms take place at a later date, for example lighting groups can easily be re-assigned to a circuit by means of a fast, easy change to the wiring in the junction casing. In order to house different circuits, the junction casings can be wired separately and in conformity with standards by the use of separator walls. Depending on the size of the junction casing, wire cross-sections of up to 16 mm² can be fitted and wired.

After completion of the wiring work, all the junction casings can be closed by screw-fixing of the end cover in accordance with VDE guidelines.



For fast, correct installation, the junction casings use the same colour system, and this is also used for the one-gang boxes and one-gang junction boxes. The "green" front part of the junction casings is always fitted aligned to the formwork side. It has stable nail domes which guarantee secure attachment to the working formwork.

For installation to the opposing formwork side, the "yellow" rear part of the junction casing is equipped with slots for the supports which provide support with one or more elements with abutments. For the fitting of installation conduits, large areas for installation conduits up to \varnothing 40 mm are fitted around the circumference of the casings.

In addition, the "yellow" back part of the junction casings is fitted with an integrated spring travel which, for installations to the opposing formwork side, ensures secure tensioning between the working and the opposing formwork, and this guarantees that the positioning is maintained.

As the slots for the support elements are arranged in the base of the rear parts, there are no restrictions on conduit population.





Junction casing Art. No. 1296-02



Junction casing Art. No. 1297-02



More junction casings are shown on page 49.



Universal installation housings for concrete ceilings and walls. Variable for diverse installation accessories.

The universal installation housings can be used for the easy, secure installation of many applications for which the market does not offer any standard installation solutions in concrete. For example, devices such as touch panels for smart home uses can be fitted in the best possible way by means of the installation opening which can be created individually in the mineral fibreboard.

In addition, the universal installation housings always provide the optimal solution for additional applications for control systems, lighting and sound systems in rooms and buildings.

Processing of the universal installation housings is the same as the processing of the junction casings, so it is easy to carry out both the planning and the processing.

The housing system is suitable for installation work in both on-site mixed concrete and prefabricated concrete elements, and also for use in walls and ceilings. Here, too, there are no limits to the system.

Use a fretsaw for the easy and exact opening of the universal mineral fibreboard for the applications that you need. A peripheral groove in the mineral fibreboard marks the maximum possible cut-out.





Universal installation housing with mineral fibreboard

Art. No. 1223-22



Universal installation housing with mineral fibreboard Art. No. 1296-22

Universal installation housing with mineral fibreboard

Art. No. 1224-22



Universal installation housing with mineral fibreboard

Art. No. 1297-22

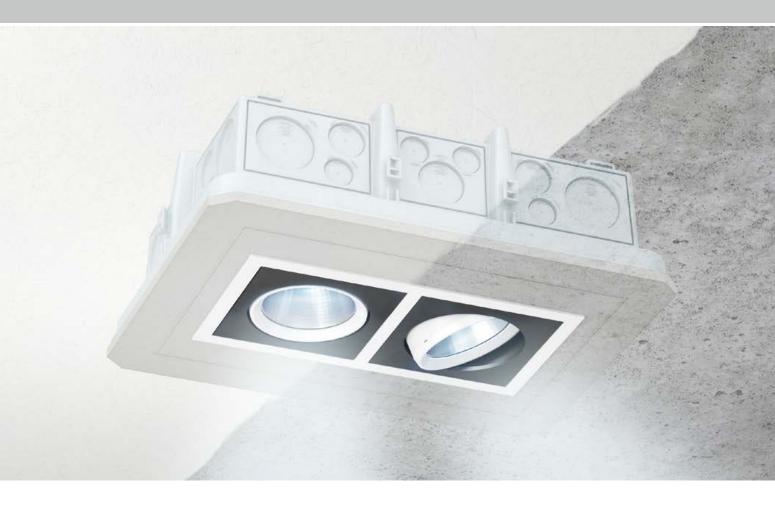


Universal installation housing with mineral fibreboard

Art. No. 1295-22







Universal installation housing. For lighting and sound devices.

Adaptation of the accessory installation opening in the mineral fibreboard means that built-in luminaires and built-in loudspeakers always have the perfect basis. Especially in the case of special solutions such as gimballed or multi-lamp built-in luminaires, the universal installation housings offer the ideal solution because of their rectangular shape.

Universal installation housing

Art. No. 1298-37



Universal installation housing

Art. No. 1298-38



Universal installation housing

Art. No. 1297-34



Universal installation hous- Prefix® installation kit /

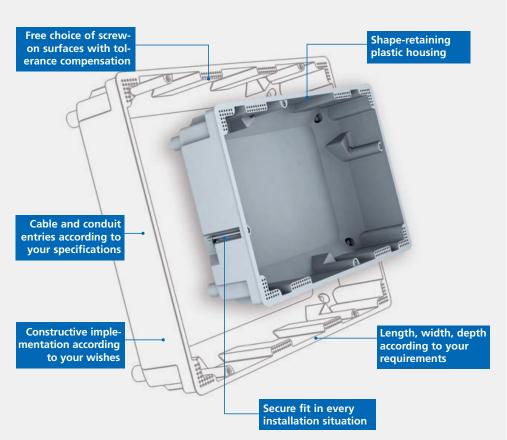
Art. No. 1297-35



Prefix® installation box set

Art. No. 9940.20/22/40/44







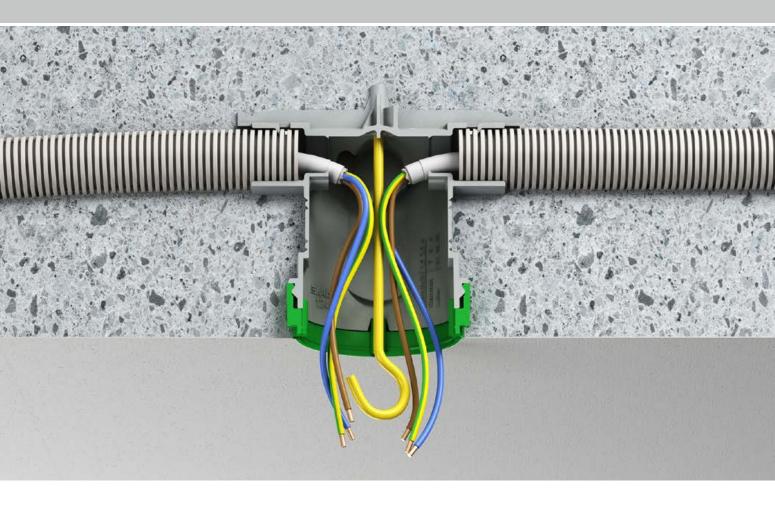


My housing. Individual. For all dimensions.

You manufacture modern operating elements for building technology, or sensitive control panels for industrial plants? For concrete, masonry or cavity walls? We've got the housing solution for you!

- A high-quality and flexible plastic housing.
- Developed on the basis of many years of experience using plastics technology.
- \bullet Configured for you in just a few steps.
- Available in a very short time!
- See for yourself: It couldn't be easier!

Configure your own housing in just a few minutes: **meingehäuse.de** makes it possible with the configurator!



Ceiling installation in on-site mixed concrete.

The ceiling elements guarantee stable and exact-fitting installation openings with little effort. To do this, the KAISER programme offers a range of installation boxes with flexible conduit entry options. Screw-in, fully-insulated light hooks provide secure support. Exits with \emptyset 35 or \emptyset 60 mm openings always provide sufficient space for your installation.

The ceiling boxes with quick-action connectors do not require the use of any special tools. The many conduit entries are easily opened with a hammer and give the conduits secure support. The installation boxes or the wire-pull casing sit just as securely on the formwork and retain their exact position even during concreting.



The small ceiling boxes can be used for example as a domed box for partition walls.

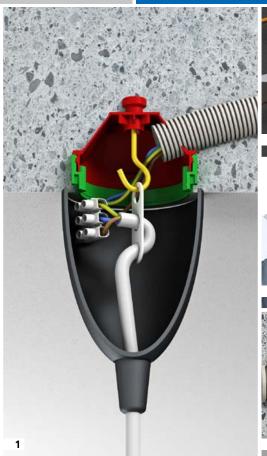


Universal screw-on surface:

The screws used to fix the accessory can easily be screwed into the universal screw-on surface.

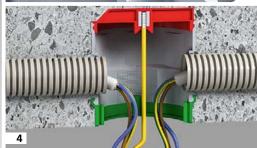
On-site mixed concrete | Ceiling installation











The universal ceiling and wall exit with a screw-on surface of Ø 85 mm can be used for all types of formwork.

- 1 Ceiling box with M5 metal nut for light hooks (hook length min. 75 mm + plaster thickness) is especially suitable for attaching using hot glue.
- 2 The universal conduit entries are opened with a hammer blow. Up to 4 conduits can be inserted.
- **3** The ceiling boxes are equipped with various combination entries.
- **4** The ceiling junction boxes provide plenty of space for connections, and 8 markings for cable entry up to Ø 25 mm. The domed cap nut integrated in the rear part permits the fitting of a light hook in accordance with DIN EN 60670 part 21.





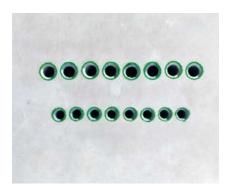
Wall and ceiling transitions.

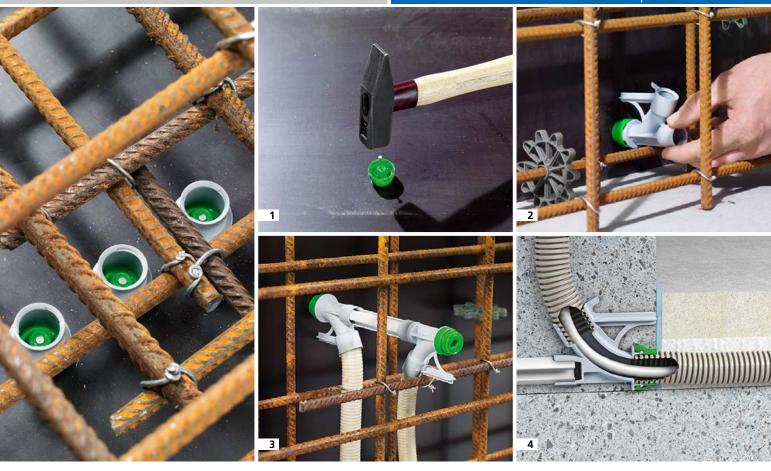
For empty conduit installation in on-site mixed concrete.

End and transition bushes and wall and ceiling transitions are used to secure a consistently functioning empty conduit system at transitions. The especially small design of the end and transition bushes means that there is no need for empty conduits even between close-fitting rebars without any complicated processing. The optimal radius of the wall and ceiling transitions and the exact-fitting conduit holders prevent abutting edges at transitions, which guarantees the flexible pulling-in of cables from both directions.

- Small design for easy installations between close-fitting rebars
- Optimal transition radius ensures easy cable pull-in
- Installation on the opposing formwork with support element and abutment
- 2-piece design with stable latching
- Easy removal of the plaster skin
- Small visible area, clean wall or ceiling appearance





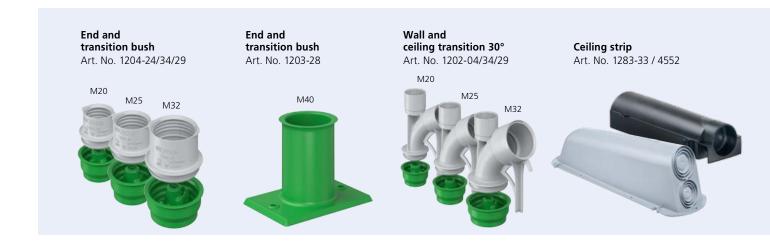


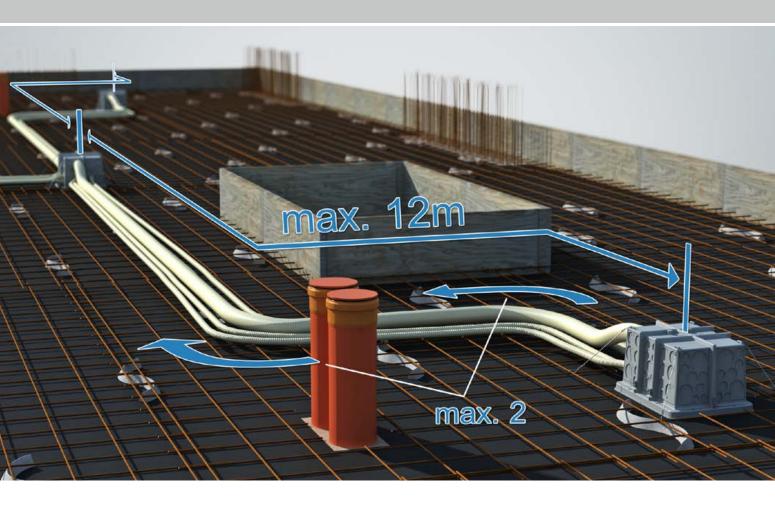
The especially small design of the **end and transition bushes** means that when the conduit is laid, there is no need for empty conduits even between close-fitting rebars without any complicated processing. Cables can be fitted in the completed wall.

- 1 The flat front part allows easy fixing with a single nail.
- ${\bf 2}$ The new snap-in connection provides a secure connection between the front part and the rear part.
- ${\bf 3}$ Installation on the opposing formwork with support element and abutment.
- **4** The transitions have an optimal transition radius which ensures easy pull-in of the cables.



Product film





Wire-pull and junction casings.

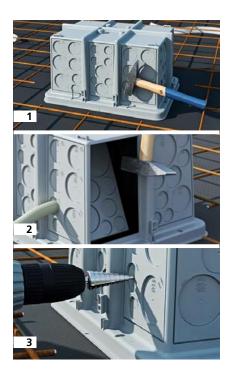
For continuous empty conduit installation.

KAISER wire-pull casings ensure expert cable routing through conduit networks. According to DIN 18015-1, conduit lengths of more than 12 m and more than two bows require wire-pull casings which permit the later pulling-in of cables or the later fitting of additional cables.

Wire-pull casings offer a wide range of entries and maximum space to secure a continuous cable network – even when the electrical installation is altered at a later date.

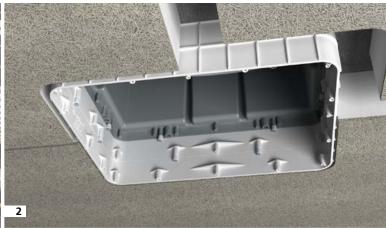
- Pre-mounted nails mean fast, secure installation
- Clean formwork removal when facing concrete is specified
- · High level of shape retention, no internal support required
- Versatile conduit entry options
- Easy fixing in the wall with Prefix® installation technology
- Stackable

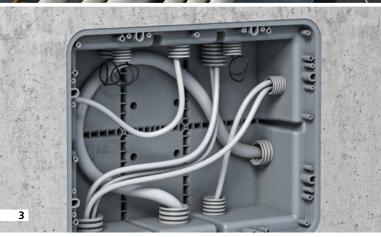
- **1** Fixing to the ceiling formwork is by means of 8 pre-fitted nails. The nail domes have a predetermined breaking point, so the nails are removed when the formwork is removed.
- 2 If a number of different conduits are inserted, the side walls can be removed with a hammer blow
- 3 The conduit entries are easy to open with a step drill or a hammer and screwdriver.



Installation in concrete | Wire-pull casings









- 1 If extreme loads are expected, tie lugs on the rear wall provide even more security when fixing.
- **2** For sub-ceiling insulation, the wire-pull casing can be expanded by means of intermediate frames.
- **3** KAISER wire-pull casings create maximum space for the pulling-through and later fitting of cables.
- 4 Also suitable for the wall fixing to the reinforcement takes place by means of Prefix® installation technology.

Wire-pull casing Art. No. 9916



Wire-pull casing Art. No. 9916.21



Wire-pull casing



Wire-pull casing Art. No. 9917.21



Upper frame Art. No. 9917.68 / 9916.68



Plaster cover Art. No. 9917.06 / 9916.06



Screw-on cover Art. No. 9917.02 / 9916.02

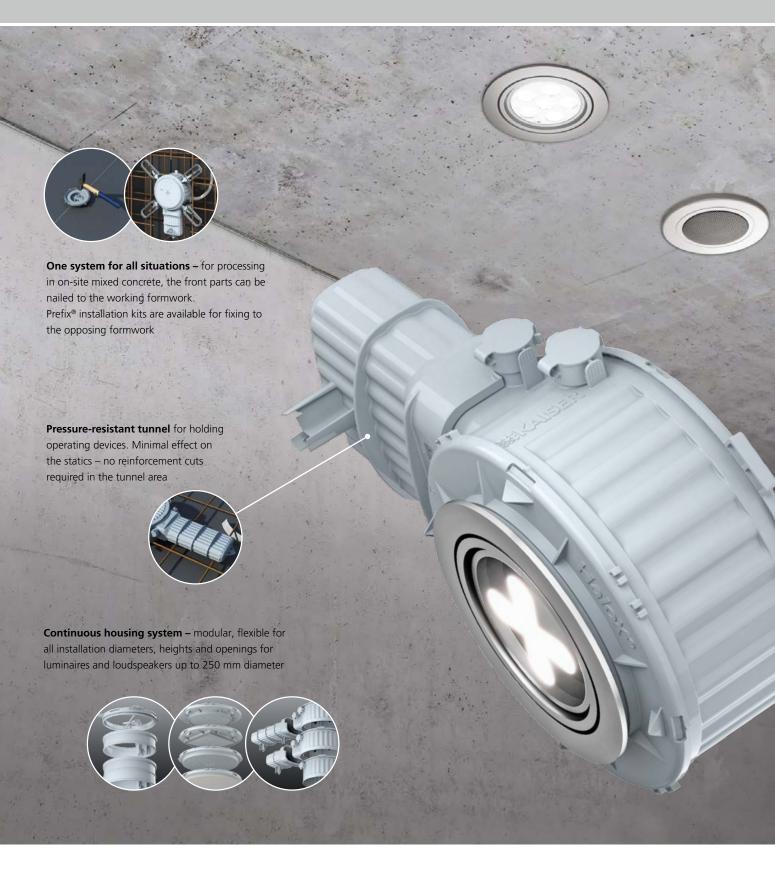


Waterproof cover Art. No. 9917.03 / 9916.03



Prefix® installation bow set Art. No. 9940..





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



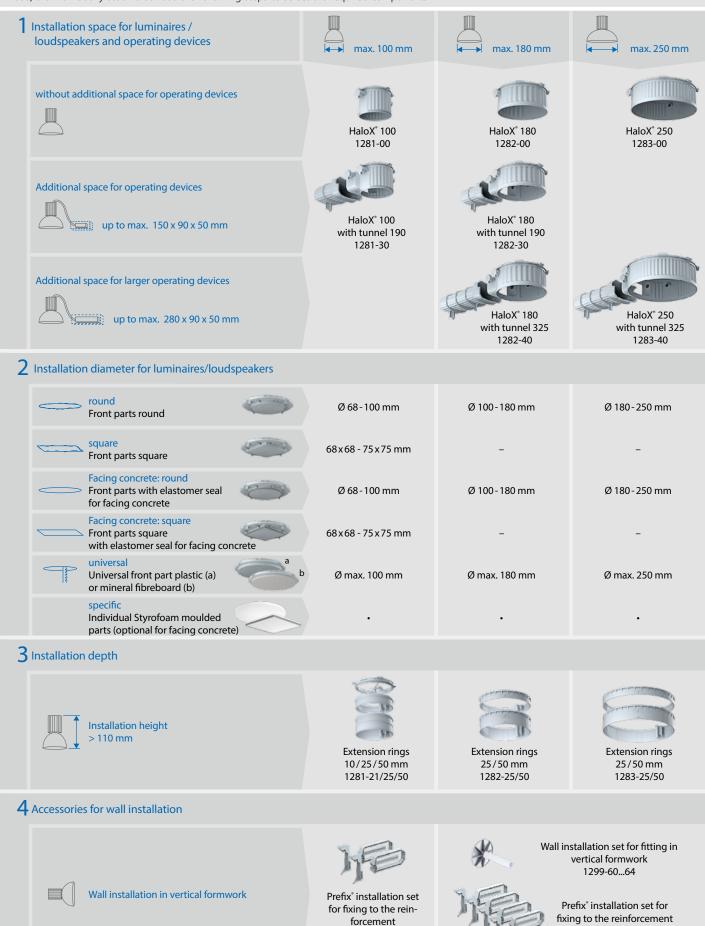
Product film



The new HaloX® housing system creates free space for new light and sound in concrete ceilings and walls. Modular in design, shape-retaining and loadable, HaloX® provides secure installation space. Round, square or universal front parts allow the installation of luminaires and loudspeakers for installation diameters up to 250 mm. Optional extension rings create space for greater installation depths. The toolless combination entry for M20/M25 conduits can be opened quickly and, even with incorrect population, is easily closed again. It provides secure conduit retention with a depth stop.

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

The HaloX® system for on-site mixed concrete consists of various components which, depending on their use, are individually assembled. Use the following steps to select the required components:



1299-65

1299-66



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

There are many luminaires and loudspeakers. HaloX® is available for all of them.

The new generation of concrete installation houses provides secure installation space for loud-speakers, LED luminaires, halogen or compact fluorescent lights and their operating devices in ceilings and walls. HaloX® creates the space needed for modern lighting and sound devices. Thanks to its modular and flexible design, the system provides a solution for almost all installation diameters and depths.

The selection of the housings and the accessories is very easy. The HaloX® housing system consists of the basic types HaloX® 100, HaloX® 180 and HaloX® 250, also available with a tunnel for the secure fitting of operating devices (e.g. LED driver).



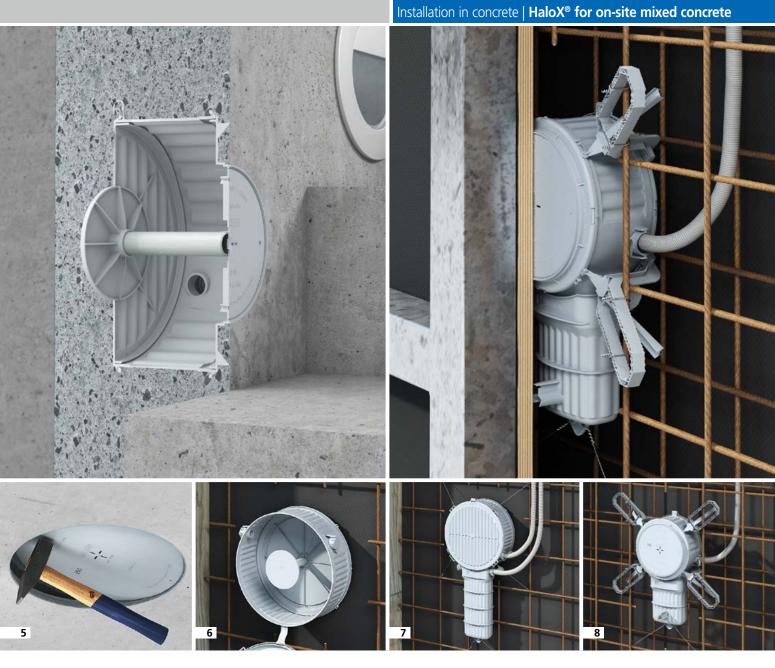
Processing.

The shape-retaining HaloX® system has a modular design for processing in on-site mixed concrete. Three housing diameters with a large number of round, square and universal front parts are ideal for the integration of luminaires and loudspeakers up to an installation diameter of 250 mm – even when facing concrete is specified. When equipped 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 into place even before the first reinforcement is laid. Housings and front parts are sturdily latched together by force-locking, and can also be aligned as required afterwards.

After the concreting process, the front parts can be opened by means of an accurate hammer blow to create a defined installation diameter. The front parts for universal opening dimensions can be patched or covered with plaster. This is followed by the cutting of the required installation opening using standard cutting tools e.g. Multi 4000.

- **1** The flat front part permits easy fixing using a single nail.
- 2 Minimal effect on the statics no additional reinforcement cuts are required in the tunnel because it has a distance of 40 mm to the formwork.
- **3** The installation depth of the housing can be increased by means of intermediate frames.
- 4 Robust and shape-retaining processing.
- **5** After striking of the formwork, open the front part with a hammer blow (e.g. 1282-65).
- **6** For wall installation (System HaloX® 180 and 250), use the installation kit for internal support to guarantee a secure installation compartment.
- 7 Toolless combination entry for M20/M25 conduits.
- **8** Optional Prefix® installation kits are available as additional accessories for all three housing sizes.









HaloX® 180



HaloX[®] 180 with tunnel 190



HaloX® 180 with tunnel 325 Art. No. 1282-40



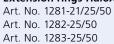
HaloX® 250 Art. No. 1283-00



HaloX® 250 with tunnel 325 Art. No. 1283-40



Extension rings HaloX®





Wall installation kit Art. No. 1299-60...64



Prefix® installation sets Art. No. 1299-65/66





Shapes and functions.

Front parts with defined installation diameters are available for all housing sizes – including for the facing concrete version. Here, an additional elastomer sheathing prevents the dry concrete from tearing. Universal front parts Styrofoam mouldings are available for use with individual installation diameters in almost any shape and thickness, and universal front parts are suitable for variable or not-yet specified ceiling exits.

- **1** Round front parts with and without elastomer seal.
- 2 Square front parts with and without elastomer seal.
- **3** Styrofoam mouldings for individual cuts in any shape and size (with and without elastomer seal).
- **4** Universal front parts for variable or not-yet specified ceiling cut-outs.

HaloX® 100/180/250 front parts

Art. No. 1281-01..07 Art. No. 1282-01..06 Art. No. 1283-01..06



HaloX® 100/180/250 universal front parts with plastic panel

Art. No. 1281-10 Art. No. 1282-10 Art. No. 1283-10



HaloX[®] 100 front parts, square

Art. No. 1281-08/09



HaloX[®] 100/180/250 universal front parts with mineral fibreboard

Art. No. 1281-11 Art. No. 1282-11 Art. No. 1283-11



HaloX® 100/180/250 front parts for facing concrete

Art. No. 1281-61..67 Art. No. 1282-61..66 Art. No. 1283-61..66



HaloX® 100 front parts, square, for facing concrete

Art. No. 1281-68/69

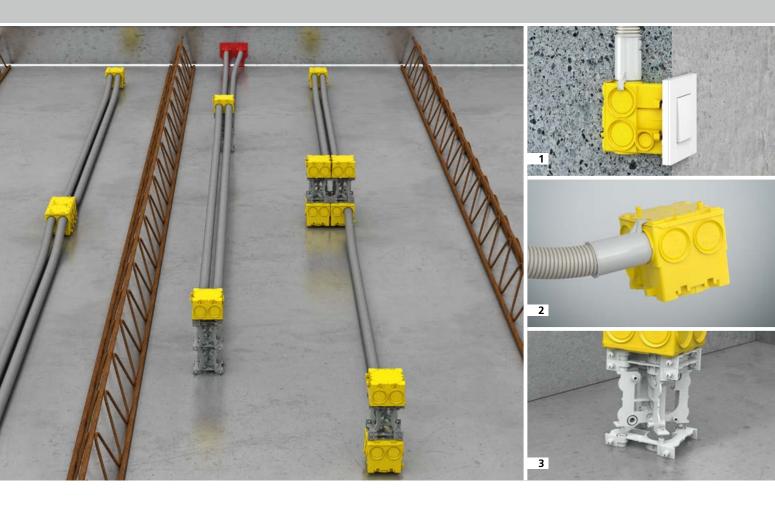




- 1 Built-in luminaire LV LED 35 W
- 2 Temperature profile LV LED luminaire max. 35 W.
- 3 The high contact surface of the housings conducts the heat away directly via the concrete, preventing overheating in the housing.

KAISER's innovative **opening technology** for inserting the electrical installation conduits is unique. Without the need for tools, this requires only two fingers and is then available as a combination entry for M20 and M25 electrical installation conduits. If incorrect population takes place, the opening can easily be closed again and is sealed against concrete. The conduit retention provides maximum retention force, so the electrical installation conduits cannot slip out during concreting. In addition, the depth stop ensures that the conduits do not need to be shortened afterwards on the inside.

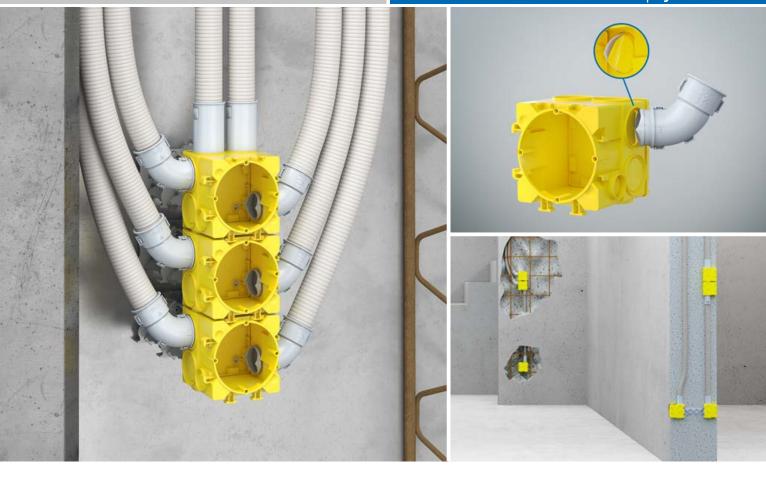




System B² for precast concrete.

The B2 concrete construction system was specially developed for the requirements of production in horizontal steel formwork. B2 is designed in such a simple and practical way that it saves you a lot of time and expense.

B² allows almost every conceivable combination to be achieved with the aid of the individual components. For example, you can make use of every wall thickness - in 5 mm or 10 mm grids - and fit the onegang junction boxes exactly. Individual boxes which are to be installed on top on the formwork table can also be positioned sturdily and torsionproof with the aid of the extension elements and the abutment. By using distance piece 142, combinations for the separate covering of different types of voltage, or to prevent weaknesses in the wall caused by offset installation (e.g. for sound, stability or fire-protection reasons) can be made.



- **1** B² system for installation in horizontal precast concrete. All installation tasks can be dealt with using just a few components. The one-gang boxes are self-adhesive, and the accessories complete the programme for practical use.
- **2** Conduit connectors can easily be snapped in.
- 3 The extension element is used to bridge the wall thickness and support of one-gang installation for installation on the opposing formwork side.





Conduit connector Art. No. 1261-20



Conduit connector 60° Art. No. 1266-25



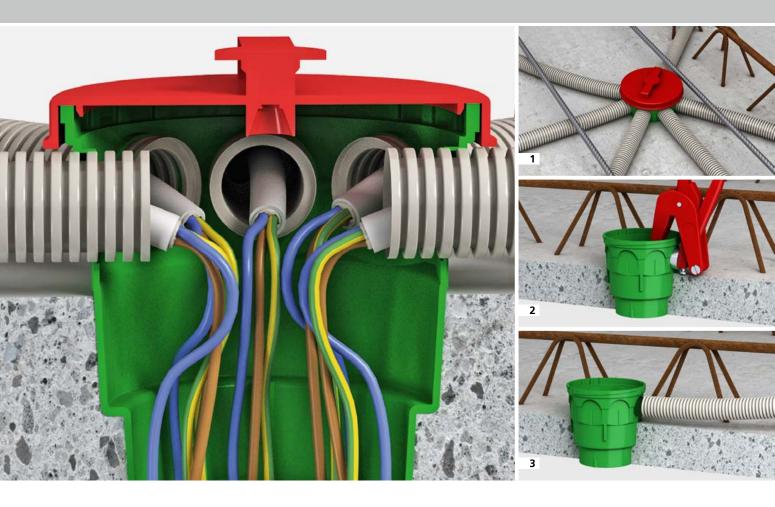
Extension element 10 to 50 mm

Art. No. 1261-10









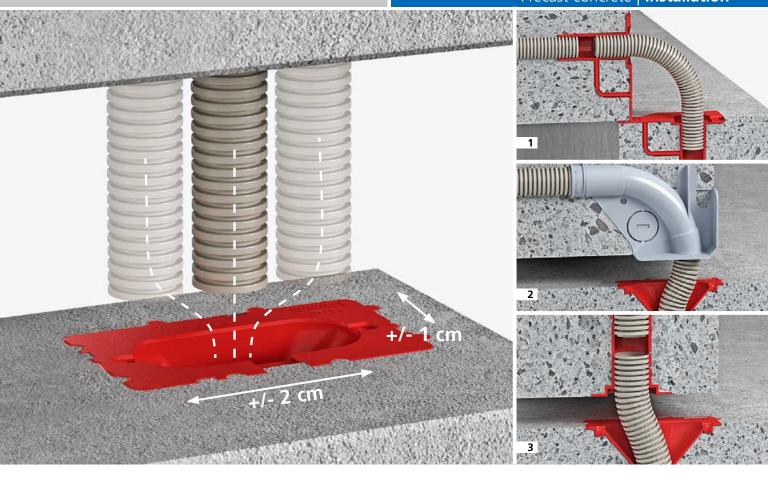
- 1 Fitting of the conduits in the slab ceiling elements takes place on the building site.
- 2 Slab ceiling boxes are easily opened with the KAISER pliers.
- **3** The conduit is inserted firmly and exact-fitting, and the box is closed with the cover.

Slab ceiling boxes.

The large slab ceiling boxes have been developed especially for industrial manufacture. With their two different installation heights of 105 and 115 mm, they are designed specifically to meet the requirements of factory-side installation and the different heights of the space frames or for maximum installation space. In the concrete factory, the boxes are fastened and concreted on the formwork table with hot glue or double-sided adhesive foil. Fitting takes place after a crane has laid the slab ceiling elements on the building site. To do this, remove the screw covers from the boxes in order to make the exact openings by using the KAISER pliers in the upper section of the box for the conduits and to connect the conduits with the box. This is also possible if the fitting of an installation box was forgotten during industrial manufacture, or if installation boxes need to be fitted at a later date. The one-gang box can be retrofitted in a Ø 65 mm drilling hole in the prefabricated ceiling

Large slab ceiling box 115
Art. No. 1227-55
Art. No. 1227-54

Slab ceiling box for retrofitting Art. No. 1247-01



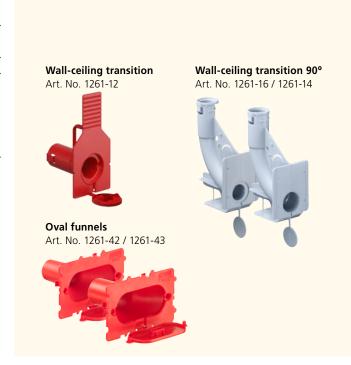
Tolerance compensation of 2 or 1 cm is possible with the help of the **oval funnel**. This means that secure conduit entry is maintained.

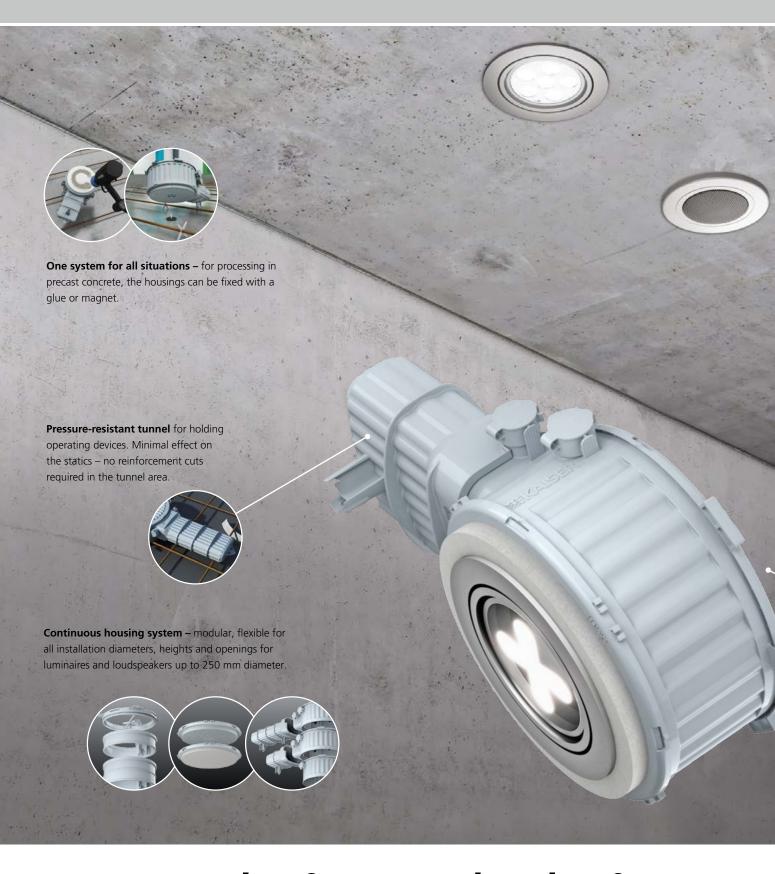
- **1** Wall-ceiling transitions function as a ceiling exit or as a connection element between prefabricated elements.
- 2 Wall-ceiling transition 90° is ideal for use with slab ceilings.
- **3** Tolerance compensation of 2 or 1 cm is possible.

Transitions for pre-cast concrete.

KAISER offers several variants for **wall and ceiling transitions**. The 90° bow simplifies the pulling-in of the cables and is suitable for exits over the plain concrete ceiling or for suspended ceilings. Because of its construction height, the wall-ceiling transition 90° is ideal for slab ceilings. The straight model has an integrated measurement strip. The required clearance to the formwork can be set in 5 mm steps. The wall-ceiling transition 90° is available for \emptyset 20 and \emptyset 25 mm conduit, the straight version for \emptyset 25 mm conduit with protective covers and with or without glue.

The oval funnel simplifies the joining together of individual prefabricated parts. It provides tolerance compensation of 2 or 1 cm and ensures secure conduit entry for M20 and M25 conduits. The oval funnel can be fixed on steel formwork with glue. It can be fixed on the auxiliary formwork or side formwork using nails or wood screws. During installation, the oval opening is closed with a hinged cover to prevent concrete from entering during the concreting process





System HaloX[®] 180 and HaloX[®] 250 for precast concrete.



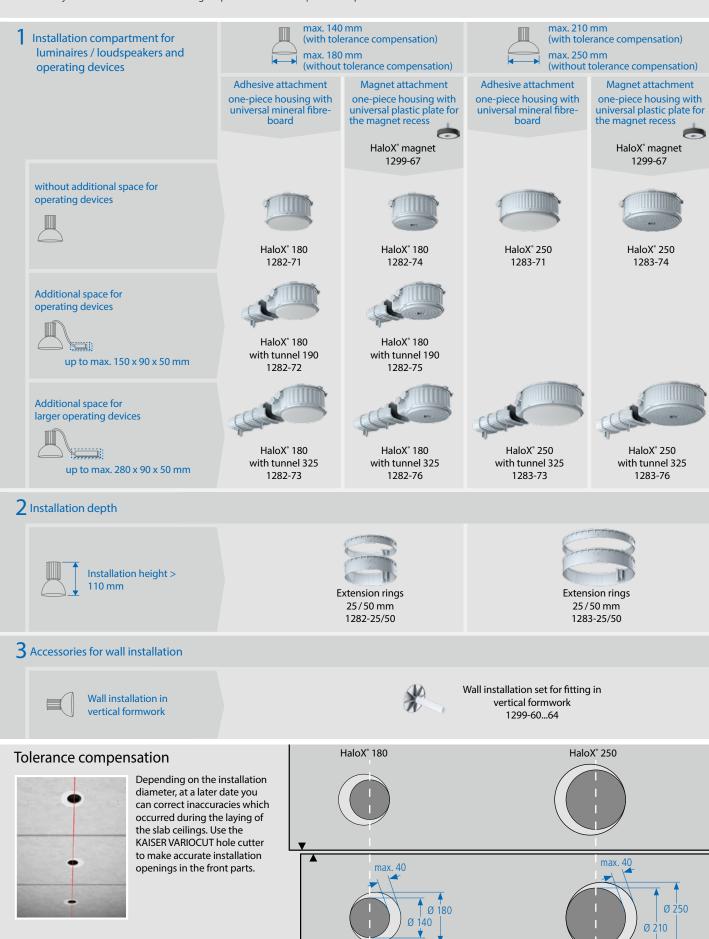
Product film



The new HaloX® housing system creates free space for new light and sound in concrete ceilings and walls. Modular in design, shape-retaining and loadable, HaloX® provides a secure installation compartment. Round, square or universal front parts allow the installation of luminaires and loudspeakers for installation diameters up to 250 mm. Optional extension rings create space for greater installation depths. The toolless combination entry for M20/M25 conduits can be opened quickly and, even with incorrect population, is easily closed again. It provides secure conduit retention with a depth stop.

HaloX[®] 180 and HaloX[®] 250 system overview for precast concrete

The $HaloX^{\otimes}$ system for precast concrete consists of various components which, depending on their use, are individually assembled. Use the following steps to select the required components:





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

There are many luminaires and loudspeakers. HaloX® is available for all of them.

The new generation of concrete installation housings provides secure installation space for loudspeakers, LED luminaires, halogen or compact fluorescent lights and their operating devices in ceilings and walls. For both the on-site mixed concreting process and the industrially pre-manufactured panel elements, HaloX® creates the space needed for modern lighting and sound devices. Thanks to its modular and flexible design, the system provides a solution for almost all installation diameters and depths.

The selection of the housings and the accessories is very easy. The HaloX® housing system consists of the basic types HaloX® 180 and HaloX® 250, also available with a tunnel for the secure fitting of operating devices (e.g. LED driver).



Processing with precast concrete.

The HaloX® system is one-piece for the processing of precast concrete. Markings on the housing make alignment on the formwork table easy. The houses with their prefitted mineral fibreboard can easily be glued on, and after glueing on the formwork table they can still be aligned by 360°. For magnet attachment, housings with prefitted front parts to hold magnets are available (Art. No. 1299-67). Laying tolerances which can occur during the installation of panel elements are compensated for by means of the housing size in connection with a variable cut-out area. Thanks to the compact dimensions of the housings, the reinforcement can simply be placed around the housing. For luminaires or loudspeakers with higher installation depths > 110 mm, the installation space of the HaloX® housings can be increased on-site by means of extension rings. M20/25 conduits can be fitted without the need for tools on the precast concrete site without any internal shortening of the conduits.

HaloX® 180 Art. No. 1282-71



HaloX® 250 Art. No. 1283-71



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



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



Installation in concrete | HaloX® for precast concrete



- **1** Installation of the one-part housing with mineral fibreboard.
- **2** Alignment markings for exact positioning on the formwork table.
- 3 Installation of the one-part housing using a magnet (Art. No. 1299-67). .
- **4** Exact and flat fixing of the housings.

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



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



HaloX® 250 with tunnel 325



Replacement mineral fibreboard for HaloX® 180, HaloX® 250

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



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



HaloX® 180 with tunnel 325 for magnet attachment Art. No. 1282-76



HaloX® 250 with tunnel 325 for magnet attachment



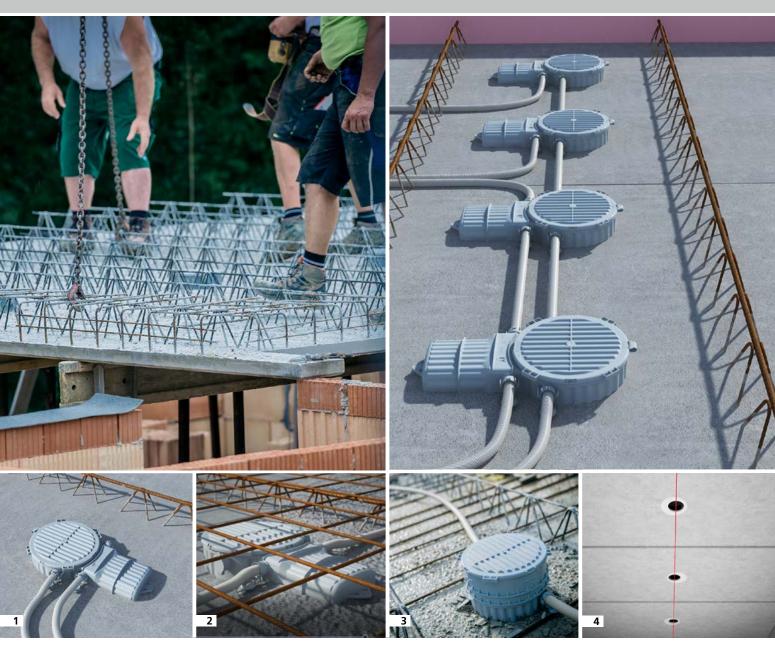
HaloX® magnet Art. No. 1299-67



Extension rings HaloX®

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





Further processing on the building site.

Further processing of the $HaloX^{\oplus}$ housings is extremely easy. The size of the housing and the universal front parts allows compensation for tolerances which can occur during the laying of the panel elements. The conduits can be fitted after the panel elements have been laid. The M20/M25 combination entries – no tools required – allow fast, secure conduit entry. At the same time, the depth stop ensures that there is then no need to shorten the conduits internally.

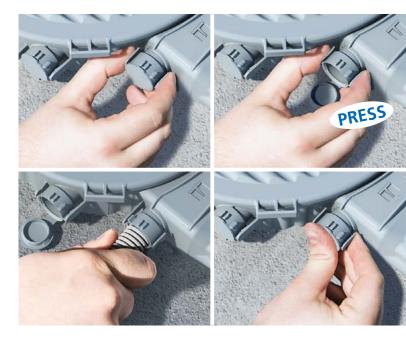
For luminaires or loudspeakers with greater installation depths (> 100 mm), the installation space of the HaloX® housings can later be enlarged with extension rings on the concrete building site.

- 1 Toolless conduit entry for M20/M25 conduits with depth stop.
- 2 Ready-made conduit installation of the HaloX® housings.
- **3** Increasing the installation depth with extension rings.
- **4** Making the ceiling cut-outs (e.g. with Art. No. 1083-10) while maintaining laying tolerance.



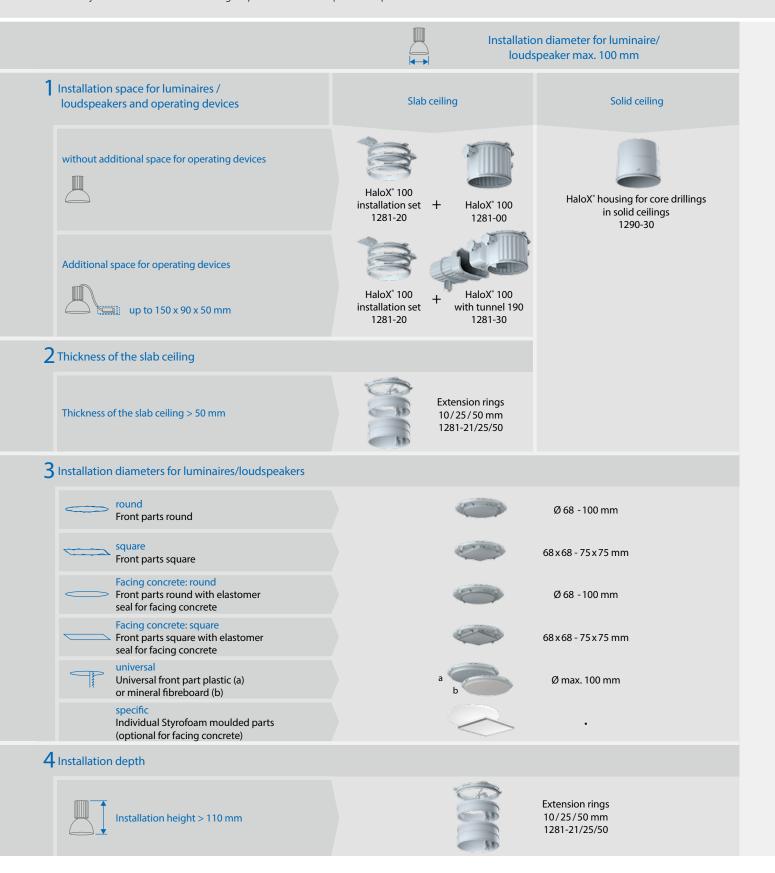
- 1 Built-in luminaire LV LED 35 W.
- 2 Temperature profile LV LED luminaire max. 35 W.
- 3 The high contact surface of the housings conducts the heat away directly via the concrete, which prevents overheating in the housing.

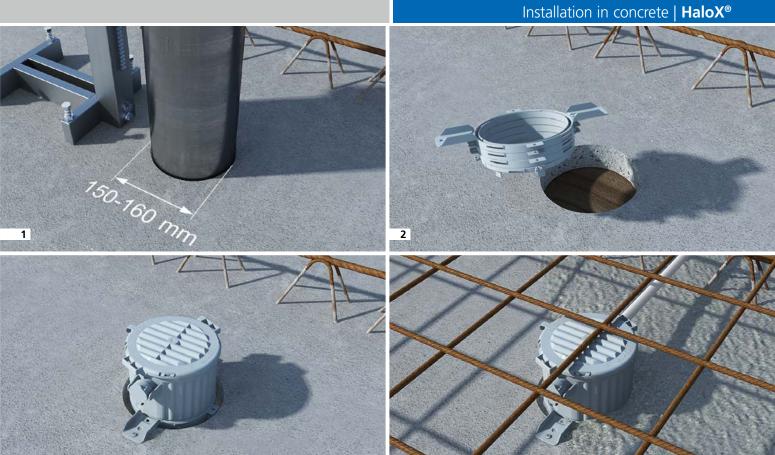
KAISER's innovative **opening technology** for inserting the electrical installation conduits is unique. Without the need for tools, this requires only two fingers and is then available as a combination entry for M20 and M25 electrical installation conduits. If incorrect population takes place, the opening can easily be closed again and is sealed against concrete. The conduit retention provides maximum retention force, so the electrical installation conduits cannot slip out during concreting. In addition, the depth stop ensures that the conduits do not need to be shortened afterwards on the inside



HaloX® system overview for retrofitting

The $HaloX^{\otimes}$ system for precast concrete consists of various components which, depending on their use, are individually assembled. Use the following steps to select the required components:





- 1 Cut a Ø 150 160 mm drilling hole into the slab ceiling.
- 2 Connect the front parts and extension rings in accordance with the ceiling thickness and installation depth.
- **3** Place the housing in the drilling hole and fix it.
- 4 Now the housing is fixed, firmly and exactly, to the reinforcement.

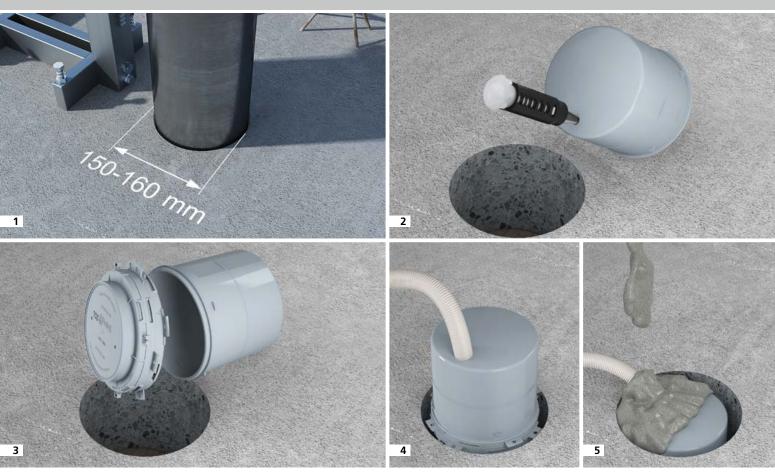
HaloX® installation kit.

For retrofitting in slab ceilings.

The HaloX® installation kit can be retrofitted in ready-made slab ceilings (50 mm thickness and more) with or without a transformer tunnel. If you do this, pay attention to the ceiling thickness and the constructional changes to the ceiling (e.g. fire protection and statics).

- For retrofitting in slab ceilings
- Minimal effect on the statics
- Allows low-cost short-term changes to plans
- ullet Wide range of opening dimensions up to $oldsymbol{arnothing}$ 100 mm
- Extension rings to bridge the slab element and to increase the luminaire installation depth





- 1 Cut a Ø 150 160 mm drilling hole into the solid ceiling.
- 2 Use the universal opening cutter to make exact-fitting conduit entries for the appropriate conduit sizes.
- **3** Connect the front parts and extension rings in accordance with the ceiling thickness and installation depth.
- **4** Insert the complete housing with fitted installation conduits into the drilling hole.
- **5** Fill the free space with concrete and compact it.

HaloX® for concrete solid ceilings. For retrofitting.

HaloX® concrete installation housing for concrete solid ceilings can be fitted in existing and later-cut drilling holes.

- For retrofitting in solid ceilings
- Minimal effect on the statics
- Fast installation using snap-in connections
- Sturdy design for use on building sites
- \bullet Wide range of opening dimensions up to Ø 100 mm

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



Electrical installation in concrete.

At a glance.

Installation in on-site mixed concrete.

www.kaiser-elektro.org/partslistllgmixedconcrete



Installation in walls



One-gang box (58 mm) 1255-40 | p. 8



One-gang box 1255-43 | p. 8

Junction box



(82 mm) 1265-40 | p. 8





One-gang box PERILEX® 1276-40 | p. 8



(79 mm) 1260-40 | p. 8



One-gang box CEE 1275-40 | p. 8

Wall light connection box (58 mm) 1248-40 | p. 8



Electronics box



Two-gang junction box 1269-40 | p. 8



adhesive foil



Abutment



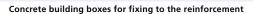
Support element Ø 20 mm



Adhesive foil 1219-00



Distance piece 91





Prefix® 60 1211-61 | p. 10



Prefix® 35 1211-36 | p. 10

Installation in ceilings



Ceiling junction box 1264- 50 | p. 18



Ceiling junction box 1265-50 | p. 18



Ceiling large conduit box 1260-50 | p. 18





Slab ceiling box for ret- Universal ceiling 9959 | p. 18



Ceiling box 45° 1248-50 | p. 18



Ceiling junction box 1245-63 | p. 18



Ceiling box 45° 1249-50 | p. 18



Ceiling junction box 1245-62 | p. 18



Domed box 45° 1248-44 | p. 18



Signal cover 1181-35



Wall-ceiling transitions

Ø 60 mm



Domed box 45°

1249-44 | p. 18

transition bush 1204-24 | p. 20



Wall and ceiling transition 1202- 04 | p. 20



rofitting 1247-01 | p. 18

transition bush





transition bush



Wall and ceiling transition 1202-29 | p. 20



transition bush



Ceiling strip



Ceiling strip (Ceiling exit)



Ceiling strip (Ceiling exit)

Formwork protection





Installation housing for on-site mixed concrete

Installation dimension up to Ø 100 mm



on-site mixed concrete 1281-00 | p. 24



HaloX® 100 with tunnel 190 on-site mixed concrete 1281-30 | p. 24



HaloX® 100 front parts 1281-01..07 | p. 24



HaloX® 100 front parts for quadratic ceiling exits





HaloX® 100 front parts for facing concrete 1281-61..67 | p. 24



HaloX® 100 front parts for quadratic ceiling exits, for facing concrete 1281-68/69 | p. 24



HaloX® 100 Universalfront parts plastic 1281-10 | p. 24



HaloX® 100 Universalfront parts with mineral fibreboard 1281-11 | p. 24



HaloX® Styrofoam moulded parts 1292-90 | p. 30



HaloX® 100 Extension rings 1281-21/25/50 | p. 24



Prefix® installation set 1299-65 | p. 24





HaloX® 180 on-site mixed concrete 1282-00 | p. 24



HaloX® 180 with tunnel 190 on-site mixed concrete 1282-30 | p. 24



HaloX® 180 with tunnel 325 on-site mixed concrete 1282-40 | p. 24



HaloX® 180 front parts 1282-01..06 | p. 24



HaloX® 180 front parts for facing concrete 1282-61..66 | p. 24



HaloX[®] 180 universal front part plastic 1282-10 | p. 24



HaloX® 180 universal front part with mineral fibreboard



HaloX® Styrofoam moulded parts 1292-90 | p. 30



HaloX® 180 Extension rings 1282-25/50 | p. 24



Wall installation set 1299-60...64 | p. 24



Prefix® installation set 1299-66 | p. 24







HaloX[®] 250 front parts 1283-01..06 | p. 24



HaloX[®] 250 front parts for facing concrete 1283-61..66 | p. 24



HaloX[®] 250 universal front part plastic 1283-10 | p. 24



HaloX[®] 250 universal front part with mineral fibreboard 1283-11 | p. 24



HaloX® Styrofoam moulded parts 1292-90 | p. 30



HaloX® 250 Extension rings 1283-25/50 | p. 24



Wall installation set 1299-60...64 | p. 24



Prefix[®] installation set 1299-66 | p. 24

Installation housing for retrofitting.

Installation dimension up to Ø 100 mm



HaloX[®] installation kit 1281-20 | p. 45



HaloX® housing for drilling holes in solid ceilings 1290-30 | p. 46

www.kaiser-elektro.org/ccinstallationhousings

Universal installation housing



Universal installation housing 90 x 90 x 70 mm 1223-22 | p. 14



Universal installation housing 258 x 188 x 135 mm 1298-37 | p. 16



Universal installation housing 150 x 90 x 70 mm 1224-22 | p. 14



Universal installation housing 258 x 188 x 200 mm 1298-38 | p. 16



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



Universal installation housing 408 x 308 x 135 mm 1297-34 | p. 16



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



Universal installation housing 408 x 308 x 235 mm 1297-35 | p. 16



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



Telescope support

www.kaiser-elektro.org/wirepullcasings

Wire-pull casings.

Wire-pull casings



Wire-pull and junction casing **175 x 120 x 64 mm** 9912.01 | p. 22



Wire-pull and junction casing **170 x 115 x 95 mm** 9911.01 | p. 22



Wire-pull casing⁴ **250 x 180 x 120 mm** 9916 | p. 22



Wire-pull casing⁴ **250** x **180** x **185** mm 9916.21 | p. 22



Wire-pull casing⁴ **400 x 300 x 120 mm** 9917 | p. 22



Wire-pull casing⁴ **400 x 300 x 220 mm** 9917.21 | p. 22



Upper frame 9917.68 / 9916.68



9917.06 / 9916.06



Screw-on cover 9917.02 / 9916.02 p. 22



Waterproof cover p. 22



Prefix® installation **bow set** Art. No. 9940.. | p. 22



Telescope support



Wire-pull casing 250 x 105 x 94 mm 9914.01 | p. 22

Junction casings



Wire-pull and junction casing 115 x 115 x 76 mm 9909.01



Wire-pull and junction casing 128 x 128 x 80 mm 1295-02 | p. 12



Wire-pull and junction casing 115 x 115 x 101 mm 9908.01



Wire-pull and junction casing 180 x 180 x 82mm 1296-02 | p. 12



Wire-pull and junction casing 115 x 115 x 150 mm



Wire-pull and junction casing 250 x 220 x 82mm 1297-02 | p. 12



Wire-pull and junction casing 115 x 115 x 105 mm



equalisation casing 250 x 220 x 82mm



Potential equalisation casing 128 x 128 x 80mm 1295-73

Equipment



Prefix® installation set



Prefix® installation set 9940.20/40

Wings and adapter required per product

- ¹ 9940.22 (2 wings and adapter) ² 9940.44 (4 wings and adapter)
- 3 9940.20 (2 wings)
- 4 9940.40 (4 wings)





Precast concrete.

Installation in walls



One-gang junction box (48.5 mm) 1262-60 | p. 32



One-gang junction box (68.5 mm) 1263-61 | p. 32





One-gang

junction box (68.5 mm)

1263-60 | p. 32

One-gang junction box (**83.5 mm**) 1264-61 | p. 32



One-gang junction box (83.5 mm) 1264-60 | p. 32



One-gang junction box (**48.5 mm**) 1262-71 | p. 32



One-gang junction box (48.5 mm) 1262-70



One-gang junction box (**68.5 mm**) 1263-71 | p. 32



One-gang junction box (68.5 mm) 1263-70



Conduit connector 60° 1266-25 | p. 32



One-gang junction box (48.5 mm) 1262-61



Conduit connector 1261-20/25/32/40 | p. 32

Accessories



Distance piece 142 1261-18





Plaster compensation ring 1261-60



Extension element 10 up to 50 mm 1261-10 | p. 32



Abutment 1261-11/72



Universal-**Extension element** 1261-06/07/08/09





Slab ceiling large box 115 1227-55 | p. 34



Slab ceiling large box 105 1227-54 | p. 34



Slab ceiling box





for retrofitting 1247- 01 | p. 34



Installation in ceilings



Wall-ceiling **transition** 1261-12 | p. 35



Wall-ceiling **transition** 1261-73 | p. 35



Wall-ceiling **transition** 1261-16 | p. 35



Wall-ceiling **transition** 1261-14 | p. 35



Oval funnel 1261-42 | p. 35



Oval funnel 1261-43 | p. 35

www.kaiser-elektro.org/cctools

Installation in concrete.





opening cutter 1085-80



1284-.



1286-33



Step drill 1284-32



Punch pliers 1286-34



Punch and expanding dowel fitting tool 1284-62/63



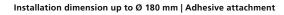
Stripping pliers AMZ 2



Nail inserter 1284-69/68

www.kaiser-elektro.org/ccprefabrication

Installation housings for precast concrete.







HaloX® 180 1282-71 | p. 36



with tunnel 190 1282-72 | p. 36



HaloX® 180 with tunnel 325 1282-73 | p. 36



Extension rings 1282-25/50 | p. 36



HaloX® 180 replacement universal mineral fibreboard 1282-27 | p. 36

Installation dimension up to Ø 180 mm | Magnet attachment



HaloX® 180 1282-74 | p. 36



with tunnel 190 1282-75 | p. 36



with tunnel 325 1282-76 | p. 36



HaloX® 180 Extension rings 1282-25/50 | p. 36



Magnet 40 mm 1299-67 | p. 36

Installation dimension up to Ø 250 mm | Adhesive attachment



1283-71 | p. 36



with tunnel 325 1283-73 | p. 36



Extension rings 1283-25/50 | p. 36



HaloX® 250 replacement universal mineral fibreboard 1283-27 | p. 36

Installation dimension up to Ø 250 mm | Magnet attachment



HaloX® 250 1283-74 | p. 36



HaloX[®] 250 with tunnel 325 1283-76 | p. 36



HaloX® 250 Extension rings 1283-25/50 | p. 36



Magnet 40 mm 1299-67 | p. 36

The KAISER colour system.



Green: front parts





Yellow: rear parts for wall installation Red: rear parts for ceiling installation



Grey: intermediate parts and attachment accessories



Systems and solutions for professional electrical installation.

Since 1904, KAISER has developed and manufactured systems and products as a basis for good installation.

Planners and users benefit internationally from the practical solutions for their daily operations in all areas of installation.



Energy efficiency.

Innovative KAISER products support you in satisfying the requirements of the EU guidelines and the national regulations such as the Energy Conservation Regulations (EnEV).





Fire protection.

KAISER fire protection systems offer you reliable protection for electrical installations in fire protection walls and ceilings.





Sound insulation.

KAISER's innovative sound insulation boxes ensure the structural requirements for sound insulation walls, even with pre-fitted installations.





Radiation protection.

The use of the new radiation protection boxes maintains the wall's radiation protection without the need for any additional screening measures.





Building.

KAISER has matching product system solutions which are used safely, consistently and in accordance with building-site practices for redeveloping, renovating and modernising work.

Technical information and advice

You will find more information about products, system solutions and communication media on our website: **www.kaiser-elektro.de** and on Youtube at **www.youtube.com/kaiserelektro.**

For additional questions or information, please contact our technical staff. KAISER Tel.: +49(0)2355.809.61 · KAISER Email: technik@kaiser-elektro.de

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