Fire protection

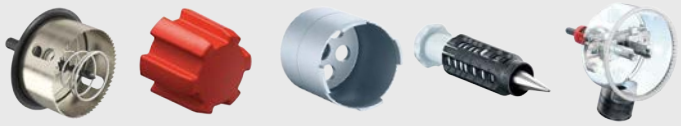
The most important advantages at a glance:

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

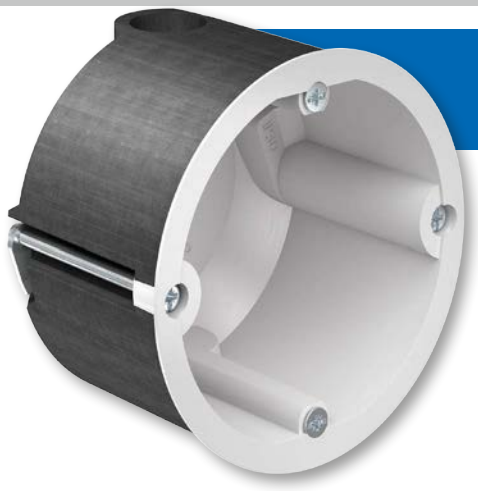
Product film
www.kaiser-elektro.org/fireprotection

Fire protection | Product lines

Tools for processing fire protection products can be found in the "Tools" section starting on page 300.



	Fire protection boxes	Shipbuilding boxes	Sealings	Fire protection housings
				
For installation accessories				
One-gang boxes	p. 251/256	p. 260	-	-
One-gang junction boxes	p. 248/251/256	p. 261	-	-
One-gang boxes for thin boarding	-	p. 260	-	-
One-gang junction boxes for thin boarding	-	p. 261	-	-
Electronics box	p. 253	-	-	-
For cable exits				
Luminaire connection boxes	p. 258	-	-	-
For luminaires and loudspeakers				
Fire protection housings	-	-	-	p. 278
Housings for preventive fire protection in insulated ceilings	-	-	-	p. 231
Feed-throughs				
Feed-through of cables	-	-	p. 265	-
Feed-through of conduits	-	-	p. 266	-
Feed-through of bundled cables and conduits	-	-	p. 269	-
Field of application				
Wall	•	•	•	-
Ceiling	•	-	•	•
Accessories				
Fixing	p. 127	p. 127	-	-
Sealing of electrical installation conduits (air-tight and smoke-tight)	p. 28/101/277	p. 28/101/277	p. 28/101/277	p. 28/101/277
Support connectors	p. 251	p. 251	-	-
End cover	p. 258	p. 258	-	-



Intelligent fire-protection technology

AFS (Active-Fire-Stop) technology activates the fire-retardant coating immediately in the event of a fire, which intumesces and reliably closes off the installation opening. This guarantees maintenance of the fire-protection class of the ceilings or walls (up to EI120) in spite of the installation openings.

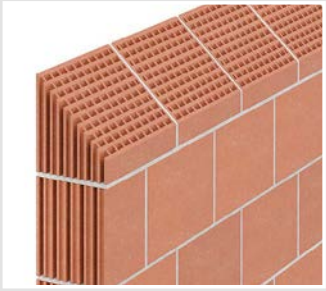
- Fire protection — without encasing
- Smokeproof and halogen-free
- For walls and ceilings
- For buildings and ship construction
- Maintains the wall's sound insulation protection

AFS TECHNIK | ETA Certificate pending | DIBt approval Z-19.21-1788 (German Institute of Building Technology) | WWW | FX4

Fire-protection walls

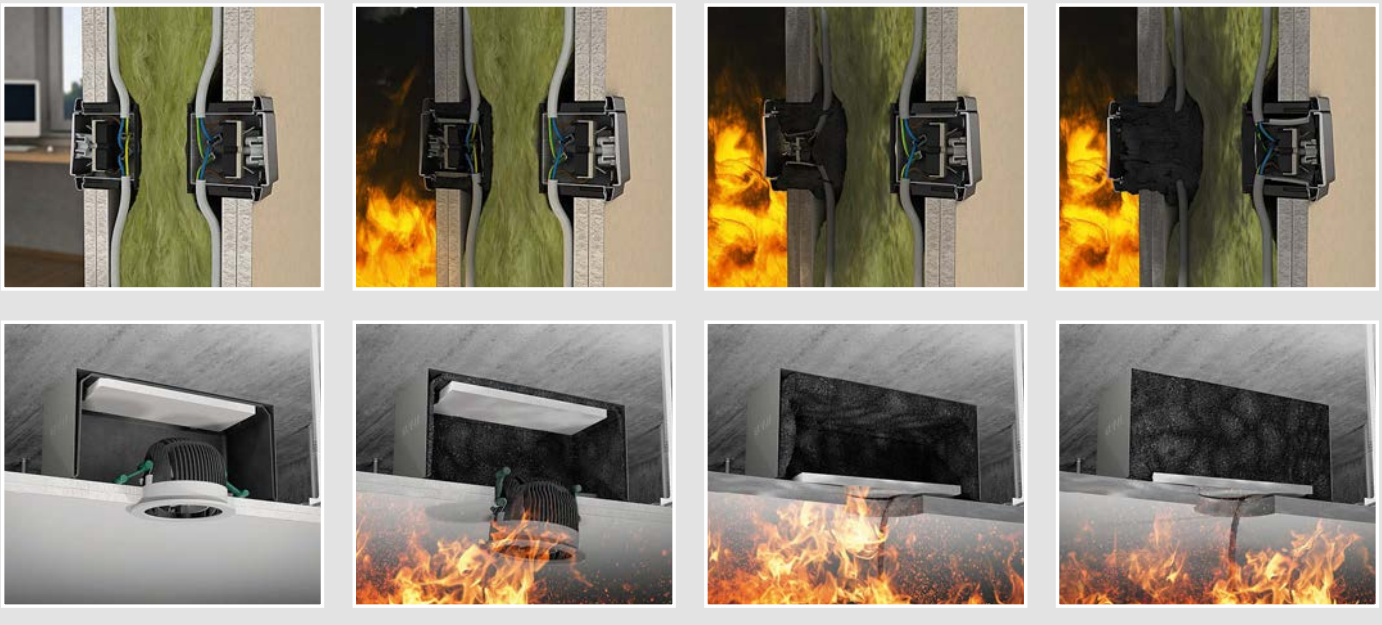
Fire-protection walls with fire resistance class EN 13501-2 are single or double shell, non load-bearing, internal separator walls with wall thicknesses of 100 mm or above. The insulating material used is defined in accordance with EN 13501 part 1. 2 x 12.5 mm GKF plasterboard fire protection panels are often used as boarding. According to DIN 4102, the installation of opposing standard cavity wall boxes is not permitted, and the installation of single installation boxes is only permitted depending on the melting point, the gross density and the thickness of the insulating material. This means that an on-site enclosure is required, e.g. with plaster, fibre silicate or similar. In addition, with solid constructions, ensure that there is a remaining wall thickness of 60 mm behind flush-mounting boxes installed on one side or between flush-mounting boxes with opposing installation.

Installation of F90 metal stud walling in compliance with DIN 4102, Part 4



Construction of an EI 90 solid wall made of sand-lime bricks (11.5 cm thick)

Reaction of the fire-retardant coating if a fire breaks out



Flush-mounting fire-protection box

In solid construction EI30 - EI120 fire-protection walls, the fire-protection box receives the fire-protection period classification instead of fitted electrical installations. Even if the minimum wall thickness of 60 mm is not achieved in single-sided installation, or even in directly opposing installation, the fire-protection box ensures secure and smokeproof room separation. In the event of a fire, the integrated fire-retardant coating quickly and reliably seals the installation opening, so preventing smoke and flue gas from spreading. At the same time, the risk of the fire spreading because the remaining wall is not thick enough is prevented.

- For EI30-EI120 fire-protection walls
- For minimum remaining wall thicknesses ≤ 60 mm
- Also for directly opposing installation
- Variable combination connection piece for conduits up to M25
- With fire-protection cover can be used as a junction box
- Maintains the wall's sound insulation protection

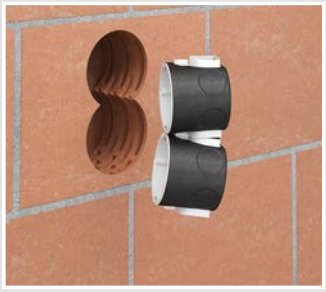
Sound reduction index R'_w up to **56 dB**

halogen-free · IP 2X · 650 °C · INNOVATION · AFS TECHNIK · Europe-wide ETA Certificate · WWW

Examples of use

For EI30-EI120 fire-protection walls

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

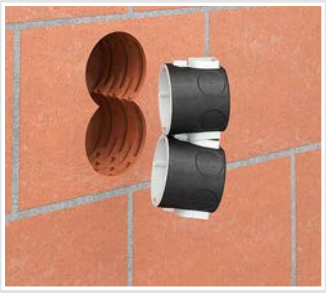


Installation also possible in combinations.

With fire-protection cover (Art. No. 1184-94) can also be used as a junction box.

Processing instructions

The flush-mounting fire-protection box provides 6 entry options for conduits up to M25 and cables up to Ø 11.5 mm



The combination connection piece ensures a stable connection for combinations and makes possible the entry of conduits up to M25.

Fire protection is guaranteed with directly opposing installation and with less than the minimum remaining wall thickness.

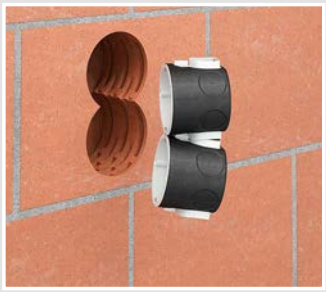
The flush-mounting fire-protection box can be fitted in all fire-protection walls e.g. made of cellular concrete, sand-lime or vertically perforated chamber stones.

Fire-protection boxes with sound insulation function

Installation

Cut a Ø 82 mm installation opening using a grinding head (e.g. Art. No. 1088-02).

Make exact cable and conduit entries with the universal opening cutter Art. No. 1085-80.



For combinations, the one-gang junction boxes are securely joined to each other by means of the connector.

Fixing simply with plaster or mortar. Special fire-protection mortar is not necessary.

Sturdy support connectors make possible standardised combination distance of 71 mm.

Smokeproof and fully-insulated through-wiring takes place by means of the support connector

Example of installation of a combination.

With the fire-protection cover (Art. No. 1184-94), the box can also be used as a junction box.

INNOVATION

Flush-mounting fire-protection box

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

Depth	**60 mm**
Installation opening Ø	60 mm
Tube entries up to M25	6
Cable entries of up to Ø 11.5 mm	6
halogen-free	•
ETA approval	ETA-18/0091
for sound insulation walls up to	56 dB
/	• / •
Art. No.	**1564-01**
Inner packaging/shipping	10 / 100

Cavity wall box HWD 90

HWD 90 cavity wall boxes for EI30-EI120 fire-protection walls ensure certified and fire-protection compliant electrical installation. Intelligent AFS technology reacts immediately to fire and heat and automatically seals the installation opening. This guarantees the fire resistance class of the fire-protection wall and secures escape routes. Use in all fire-protection walls and the fire-resistance duration of up to 120 minutes ensures maximum flexibility, even when the planning is changed. At the same time, it also maintains the wall's sound insulation requirements.

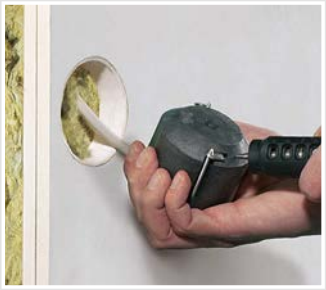
- For EI30-EI120 fire-protection walls
- Maintains the wall's sound insulation protection
- Also suitable for retrofitting
- With fire-protection cover can be used as a junction box
- Also for directly opposing installation

Sound reduction index R'_w up to 77 dB

halogen-free · IP 30 · AFS TECHNIK · FX4 · ETA Certificate pending · DIBt approval Z-19.21-1788 (German Institute of Building Technology) · WWW

Installation

Cut installation opening Ø 74 mm using the turbo cutter MULTI 4000 Art. No. 1084-10.



The exact opening for the cable is created smokeproof with the KAISER universal opening cutter Art. No. 1085-80. Set the opening cutter to Ø 8.5 for 3 x 1.5², to Ø 9.5 for 5 x 1.5² and to Ø 9.5 for 3 x 2.5².

Fixing of the boxes with tried-and-tested cavity wall technology using KAISER FX4 technology.

The fully-insulated through-wiring of one-gang junction boxes with each other is created using the support connector (Art. No. 9060-78).

Installation in installation shafts

The HWD 90 cavity wall boxes can also be used in shaft walls for fire protection purposes. The cavity wall boxes fulfil the requirements in combinations of up to five. The boxes are installed from the front in the same way as during conventional wall installation - also during retrofitting.

- I30: without insulation material
- I60: Insulating material EN 13501 part 1
- I90: Rockwool/Termarock 100

Fire-protection boxes with sound insulation function

Note

In addition to the general building approvals issued by the DiBt (German Institute of Building Technology), we can, upon request, provide you with the test report for approval in Austria issued by the „IBS Prüfinstitut für Brandschutztechnik und Sicherheitsforschung in Linz."

Retrofitting in installation shafts

The HWD 90 cavity wall boxes can also be retrofitted in installation shafts (shaft walls). Since retrofitting partly requires adding mineral wool to the opening, a cut-out of at least 300 x 300 mm is needed to make space for perfect installation. Use the following cut-out dimensions for the relevant combinations:

- 1-time: 300 x 300 mm
- 2 to 3-times: 300 x 400 mm
- 4 to 5 times: 300 x 600 mm

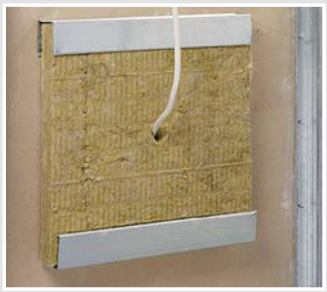
Make a 300 x 300 to 300 x 600 mm cut-out (see above). The insert dimension of the additional mineral wool section must be at least 25 mm larger on all sides.

Chamfer the edges on all sides for subsequent filling.

Insert CW profile and attach by screwing quick-fastening screws through the boarding.

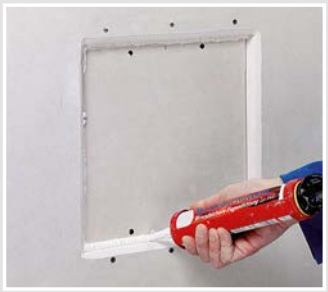
Feed the insert into additional mineral wool into the shaft with the upper CW profile.

Fasten insert in lower attached CW profile and attach by screwing quick fastening screws through the boarding.



Added mineral wool in CW profiles (rear view).

Add boarding section (according to Fig. 1) and attach on CW profile.



Seal chamfered boarding on transition to wall using KAISER fire-protection putty.

Smooth out using filler to allow the second boarding to be inserted flush to the wall.

Make a Ø 74 mm installation opening and insert the HWD 90 cavity wall box.

Typical installation using KAISER FX4 technology.

Then fill the chamfer of the second boarding layer.

One-gang box HWD 90

· for fire-protection walls EI30 - EI120
· also for installation shafts/installation channels I30 - I90

FIRE-PROTECTION

3D animation

For panel thickness	**7 - 40 mm**
Depth	44 mm
Cut hole Ø	74 mm
Cable entries of up to Ø 11.5 mm	2
Support connectors for each package	-
halogen-free	•
DIBt approval	Z-19.21-1788
Combination distance through single separation of the pre-embossed edge	71 mm
alternatively cable entry for three-phase alternating current of up to 5 x 2.5 mm possible	-
for sound insulation walls up to	77 dB
/	• / •
Art. No.	**9463-01**
Inner packaging/shipping	10 / 100

Accessories: Fire-protection cover HWD 30-120, page 258; Support connector, page 251

One-gang junction box HWD 90

· for fire-protection walls EI30 - EI120
· also for installation shafts/installation channels I30 - I90

FIRE-PROTECTION

3D animation

For panel thickness	**7 - 40 mm**
Depth	54,5 mm
Cut hole Ø	74 mm
Cable entries of up to Ø 11.5 mm	4
Support connectors for each package	5
halogen-free	•
DIBt approval	Z-19.21-1788
Combination distance through single separation of the pre-embossed edge	71 mm
alternatively cable entry for three-phase alternating current of up to 5 x 2.5 mm possible	•
for sound insulation walls up to	77 dB
/	• / •
Art. No.	**9464-01**
Inner packaging/shipping	10 / 100

Accessories: Fire-protection cover HWD 30-120, page 258; Support connector, page 251

Support connector

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

halogen-free	•
Art. No.	**9060-78**
Inner packaging/shipping	25 / 100

Fire-protection box HWD 90 for Swiss accessories

· for EI 30 - EI 90 fire-protection walls
· VKF approval 21042
· also for opposing installation
· for plate thickness 7 - 40 mm
· matching plug-in cover for Art. No. 9498-77 New Look one Art. No. 9919.10

3D animation



Length x Width x Depth	83 x 83 x 50 mm	145 x 83 x 50 mm	205 x 83 x 50 mm
Cut hole Ø	83 mm	83 mm	83 mm
Combination	1x1	2x1	3x1
Art. No.	**9498-77**	**9498-77.02**	**9498-77.03**
Inner packaging/shipping	10 / 100	- / 5	- / 5

Fire-protection box HWD 90 for Swiss accessories

· for EI 30 - EI 90 fire-protection walls
· VKF approval 21042
· also for opposing installation
· for plate thickness 7 - 40 mm
· matching plug-in cover for Art. No. 9498-77 New Look one Art. No. 9919.10

3D animation


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

Fire-protection box HWD 90 for Swiss accessories

· for EI 30 - EI 90 fire-protection walls
· VKF approval 21042
· also for opposing installation
· for plate thickness 7 - 40 mm
· matching plug-in cover for Art. No. 9498-77 New Look one Art. No. 9919.10

3D animation



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

Electronics box HWD 90

The HWD 90 electronics box maintains the wall's fire resistance class (EI30 - EI120) and creates installation space for electronic switch devices, data boxes, cables and terminals. The electronics box allows population with cables and also with installation conduits up to M25.

- For EI30-EI120 fire-protection walls
- Retrofitting is possible
- Also for use as a double box
- Extra-large terminal area for communications and network technology
- Additional space for electronic components (KNX actuators, relays, radio module, communications technology)
- Maintains the wall's sound insulation protection

halogen-free · IP 30 · AFS TECHNIK · www · FX4 · **Europe-wide ETA Certificate** · DIBt approval Z-19.21-1788 (German Institute of Building Technology)

Sound reduction index R'_w up to **77 dB**

Examples of use

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

Also ideal for network connections. The generous box volume offers sufficient space for cable reserves.

The electronics box can also be used as a double box, e.g. for switch and socket combinations.

The electronics box can easily be combined with the one-gang junction box HWD 90.

Processing instructions

The electronics box provides 6 ways for conduit entry up to M25 and cable entry up to Ø 11.5 mm.

By removing the cover ...

... and the bridge can also be used as a double box.

Installation

Cut two installation openings using turbo cutter Multi 4000 Ø 74 mm (Art. No. 1084-10) with a centre distance of 71 mm.

Removal of the bridge.

Using the KAISER universal opening cutter or a step drill or reamer, cut an exact conduit or cable opening for smoke-tight installation.

Fitting the box using tried-and-tested FX4 technology.

The additional terminal space makes possible the fitting of various electronic components …

…and sufficient space for the cable reserve when communications and network boxes are installed.

By using support connectors, the box can be combined with itself or with a one-gang junction box (Art. No. 9464-01).

The cover can also be turned by 180° and mounted and filled. This will reduce any possible switching sounds.

Electronics box HWD 90

- For cables and conduits up to M25
- Also for use as a double box
- For EI30-EI120 fire-protection walls
- minimum wall thickness 100 mm
- For equipment inserts and electronic components
- Can be combined with each other and also with HWD 90 one-gang junction boxes

3D animation

AFS TECHNIK **FIRE-PROTECTION** FX4 WWW

For panel thickness	**7 - 40 mm**
Depth	70 mm
Cut hole Ø	2 x 74 mm
Centre distance	71 mm
Conduit entries for DIN EN conduits up to Ø 25 mm	4
Cable entries up to Ø 13.5 mm	4
halogen-free	•
ETA approval	ETA-13/0128
for sound insulation walls up to	77 dB
VDE / CE	• / •
Art. No.	**9462-94**
Inner packaging/shipping	5 / 50

Fire-protection box cavity wall

Fire-protection boxes are given the same period of fire resistance in fire-protection walls EI30 - EI90 in spite of fitted electrical installations and ensure secure, smokeproof room separation. In the event of a fire, an integrated fire retardant quickly and reliably closes the installation opening and prevents flames and flue gases from escaping. This ensures that lives are saved and material goods are efficiently protected.

- For fire-protection walls EI30 - EI90
- Maintains the wall's sound insulation protection
- Retrofitting is possible
- For Ø 68 mm component openings
- For directly opposing installation
- Break-out cable entry
- With fire-protection cover can be used as a junction box

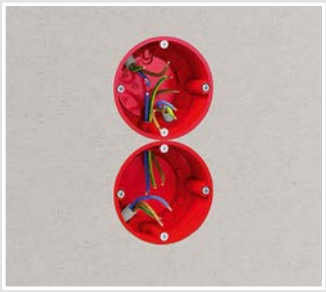
Sound reduction index R'_w up to 69 dB

halogen-f | IP 30 | 850 °C | INNOVATION | Europe-wide ETA Certificate | FX4 | www

Examples of use

For EI30 - EI90 fire-protection walls.

Also for directly opposing installation.



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

With a fire-protection cover, it can also be used as a junction box.

Processing instructions

Can be used in Ø 68 mm installation openings.

Simple break-out cable entry with cable retention acc. to DIN EN 60670.

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

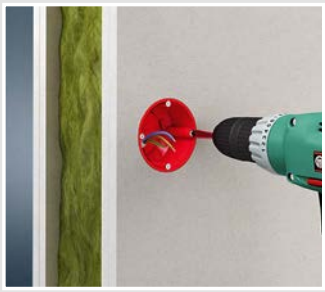
Fully-insulated through-wiring of one-gang boxes and one-gang junction boxes with the support connector (Art. No. 9060-68).

Fire-protection boxes with sound insulation function

Installation

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

Break out closing of the cable entry for sheathed cables up to 5x2.5² or communication cables

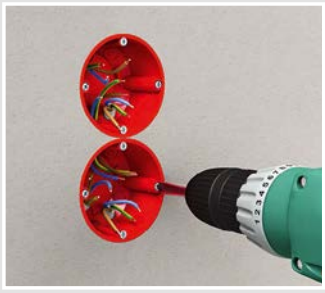


Fitting the box using tried-and-tested KAISER FX4 technology.

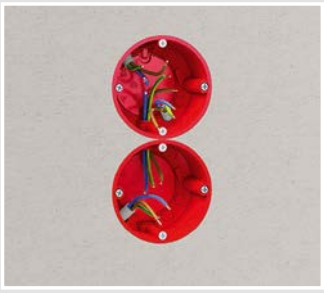
Opposing installation of one-gang boxes in a wall thickness of 100 mm and higher and of one-gang junction boxes in a wall thickness of 125 mm and higher is possible.

For combinations, create installation openings Ø 68 mm in centre distance 71 mm.

Insert cables.



Fixing the boxes in the installation opening.



Using support connector (Art. No. 9060-68), make fully-insulated through-wiring.

INNOVATION

One-gang box HWD 68

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

One-gang junction box HWD 68

- for EI 30 - EI 90 fire-protection walls
- also for directly opposing installation
- minimum wall thickness 125 mm
- combinable with each other and with the one-gang box

3D animation

Depth	**49 mm**	**62 mm**
Cut hole Ø	68 mm	68 mm
Support connectors for each package	5	5
halogen-free	•	•
ETA approval	ETA-18/0418	ETA-18/0418
Cable entries of up to Ø 11.5 mm	6	6
For panel thicknesses up to	40 mm	40 mm
for sound insulation walls up to	69 dB	69 dB
VDE / ÖVE	• / •	• / •
Art. No.	**9463-02**	**9464-02**
Inner packaging/shipping	10 / 100	10 / 100

Support connector

- for through-wiring of combinations to IP 3X standard air-tight
- smoke-tight
- for Art. Nos. 9463-02, 9464-02

Art. No.	**9060-68**
Inner packaging/shipping	25 / 100

Ceiling box HWD 30

HWD 30 ceiling box guarantees F30 to F90 fire protection. If a fire starts, the integrated fire-retardant coating immediately generates foam and seals the opening in the ceiling. Even when retrofitted, the HWD30 ceiling box provides protection.

- For F30-F90 fire protection ceilings
- Encasing is not necesssary
- For installation of smoke detectors, motion detectors, etc.
- With a fire-protection cover, can be used as a ceiling junction box
- Also suitable for retrofitting

halogen-free · IP 30 · AFS TECHNIK · FX4 · DIBt approval Z-19.21-1788 (German Institute of Building Technology)

Examples of use

The HWD 30 ceiling box also lets you install for example presence and smoke detectors or LED emergency route lighting in fire-protection ceilings without endangering the fire resistance class.




Processing instructions

Without mineral wool, the installation corresponds to fire resistance class F30.

If mineral wool in accordance with EN 13501 part 1 is used, the installation will withstand a fire up to fire resistance class F60, and with Rockwool/Termarock 100 up to fire resistance class F90.

Allocation table for universal opening cutters

Cavity wall installation for HWD 90 fire protection boxes		Ø setting
NYM cable	3 x 1.5 mm²	8.5
	5 x 1.5 mm²	9.5
	3 x 2.5 mm²	9.5
Support connector	9060-78	Connector

You can create smoke-tight cable entries with the prescribed strain relief easily and to the exact required size with the universal opening cutter (art no. 1085-80).

Installation

Cut installation opening Ø 74 mm using the turbo cutter MULTI 4000 Art. No. 1084-10.

Cut the exact opening for the cable with the KAISER universal opening cutter.

Fixing of the boxes with tried-and-tested cavity wall technology using KAISER FX4 technology.

The fire-protection cover for F30 ceilings has fire resistance class F30, for F90 ceilings it has fire resistance class F90.

Ceiling box HWD 30

- for fire protection ceilings F30-F90
- For F30 non-insulated fire-protection ceilings
- For F60 fire-protection ceilings backed with mineral insulation materials in compliance with EN 13501 part 1
- for F90 fire-protection ceilings with Rockwool/ Termarock 100

FIRE-PROTECTION

Depth	**44 mm**
Cut hole Ø	74 mm
Fixing screw spacing	60 mm
Cable entries of up to Ø 11.5 mm	2
halogen-free	•
DIBt approval	Z-19.21-1788
VDE /	• / •
Art. No.	**9463-50**
Inner packaging/shipping	10 / 100

Accessories: Fire-protection cover HWD 30-120, page 258

Ceiling junction box HWD 30

- for fire protection ceilings F30-F90
- For F30 non-insulated fire-protection ceilings
- For F60 fire-protection ceilings backed with mineral insulation materials in compliance with EN 13501 part 1
- for F90 fire-protection ceilings with Rockwool/Termarock 100

FIRE-PROTECTION

Depth	**54,5 mm**
Cut hole Ø	74 mm
Fixing screw spacing	60 mm
Cable entries of up to Ø 11.5 mm	4
halogen-free	•
DIBt approval	Z-19.21-1788
VDE /	• / •
Art. No.	**9464-50**
Inner packaging/shipping	10 / 100

Fire-protection cover HWD 30-120

- For one-gang boxes/one-gang junction boxes and ceiling boxes HWD 90, HWD B15, HWD 30 and HWD 68
- Fire resistance class in accordance with ceiling or wall protection (EI30-EI120)
- EI30-EI120 function in conjunction with the one-gang box/one-gang junction box HWD 90
- EI30 function in conjunction with ceiling junction box HWD 30
- EI30-EI60 function in connection with one-gang/one gang junction box HWD 68

DIBt approval	**Z-19.21-1788**
VDE	•
Art. No.	**1184-94**
Inner packaging/shipping	10 / 100

HWD B15 cavity wall box for shipbuilding walls

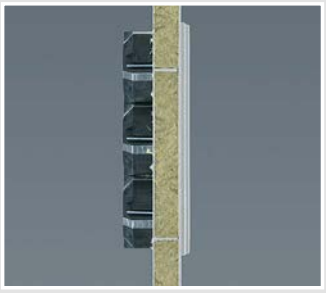
HWD B15 cavity wall box for category B15 partitions reacts to a fire very quickly. The integrated fire-retardant coating intumesces and reliably seals the installation opening. The HWD B15 cavity wall boxes protect against fire and smoke in the fire-protection zone and preserve the B15 function of the fire-protection wall for at least 30 minutes of flames.

- For category B15 partitions
- Encasing is not necesssary
- With fire-protection cover can be used as a junction box
- Also suitable for retrofitting

halogen-free · IP 30 · AFS TECHNIK

Certified and designed for fast installation

Expensive and time-consuming encasing, i.e. metal, is avoided with the HWD B15 cavity wall box. The user is guaranteed a certified and fast installation.



Installation in mineral-based walls

In walls with mineral-based materials, working with the cutter (Art. No. 1084-10) is quick and simple. It cuts the required Ø 74 mm wall hole and creates the basis for an exact box installation that is flush to the wall.

Occupancy can be for a max. of four entries of up to Ø 13 mm as well as for flame-retardant cables in accordance with UL-VO. Use the KAISER universal opening cutter to cut the openings for the cable entry.

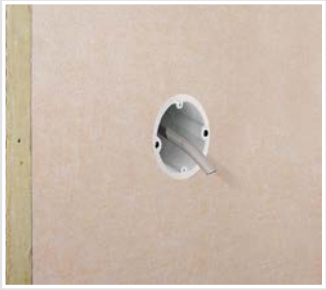
Fit the HWDB15 cavity wall box in the wall using FX4 screws.

For board thicknesses from 0.2 to 40 mm.

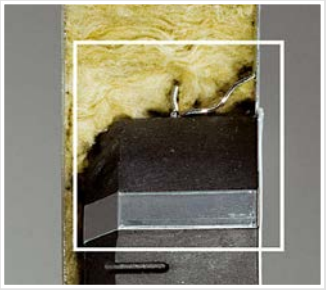
Installation in metal-covered walls

Cut the installation opening in metal plates with the cutter (Art. No. 1083-74).

Open the cable entry with the KAISER universal opening cutter.



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

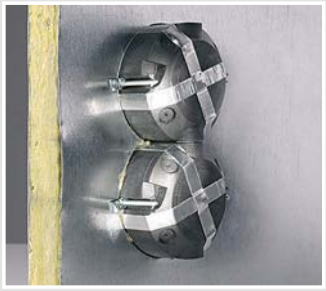


For thin boarding, one-gang boxes and one-gang junction boxes attached by straps are available for a clamping range of 0.2 mm and higher.

Combinations

It is very easy to combine one-gang junction boxes. After cutting the cutting holes (Ø 74 mm) at a standard distance (71 mm), remove the marked area of the holding ring.

The fully-insulated through-wiring of one-gang junction boxes with each other is created using the support connector (Art. No. 9060-78).



One-gang box HWD B15

· for shipbuilding walls in the category B 15 interface

FIRE-PROTECTION AFS TECHNIK FX4

For panel thickness	**7 - 40 mm**	**0,2 - 40 mm**	**7 - 40 mm**	**0,2 - 40 mm**
Depth	44 mm	44 mm	40 mm	40 mm
Cut hole Ø	74 mm	74 mm	74 mm	74 mm
Fixing screw spacing	60 mm	60 mm	60 mm	60 mm
Conduit entries up to Ø 13 mm	4	4	4	4
halogen-free	•	•	•	•
Combination distance through single separation of the pre-embossed edge	71 mm	71 mm	71 mm	71 mm
0736 / 15 / CE	• / •	• / •	• / •	• / •
Art. No.	**9463-15**	**9463-14**	**9461-15**	**9461-14**
Inner packaging/shipping	10 / 100	10 / 100	10 / 100	10 / 100

One-gang junction box HWD B15

· for shipbuilding walls in the category B 15 interface

FIRE-PROTECTION

For panel thickness	7 - 40 mm	0,2 - 40 mm
Depth	54,5 mm	54,5 mm
Cut hole Ø	74 mm	74 mm
Fixing screw spacing	60 mm	60 mm
Conduit entries up to Ø 13 mm	4	4
Support connectors for each package	5	5
halogen-free	•	•
Combination distance through single separation of the pre-embossed edge	71 mm	71 mm
0736 / 15 / CE	• / •	• / •
Art. No.	**9464-15**	**9464-14**
Inner packaging/shipping	10 / 100	10 / 100

Fire protection installation in a building at a glance

Sealing systems in fire-protection walls

Sealings in fire-protection walls are needed when cables or conduits must be fed through walls with a specific fire resistance class. To retain the relevant rating, expert sealing of the opening is needed. KAISER sealings maintain the wall's fire resistance classes (EI30-EI90).

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The German Institute for Construction Technology (DIBt) has officially confirmed it: KAISER fire sealings are ideal for professional electrical installations in fire-protection walls. KAISER has received Europe-wide European Technical Assessment for the cable sealing system „System LS 90", the conduit sealing system „System RS 90" and box sealing system „System DS 90". The fire sealings are certified for installation in drywalls, solid masonry and concrete construction walls. Non-destructive retrofitting is easy. Each of the tested products maintains the wall's fire resistance class and does not release any hazardous materials. This means that KAISER fire sealings allow fast, professional and - in every respect – safe sealing in fire-protection walls.

- Entries and feed-throughs in drywalls in accordance with DIN EN 1364-1
- Feed-throughs in solid masonry walls in accordance with DIN 1053
- Feed-throughs in concrete walls in accordance with DIN 1045

Cable sealing system LS 90, conduit sealing system RS 90

Pipe and fire-retardant systems for safe closure of passages and entrances in fire-protection walls. The certified retardants are quick and easy to install and can even be superimposed on cables and pipes retrospectively.

- Secure, visible, certified fire sealings
- For wall feed-throughs and entries
- Without filling and smoothing
- Automatic sealing of the joints
- For cables from Ø 5 - 15 mm
- For conduits M16 - M25

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Populating the sealing system

The cable sealing system LS 90 is suitable for all cable cross-sections from 5 – 15 mm (up to 5 x 2.5²).

The conduit sealing system RS 90 can accommodate the following conduit sizes: M16, M20 and M25.

The conduit sealing system RS 90 can also be used as a reserve seal. For this purpose, the conduits must be sealed with KAISER sealing plugs.

Conduit sealing system RS 90 with M16, M20 and M25 conduits.

Examples of applications for cable sealing system LS 90

Wall feed-through in plasterboard fire-protection wall.

Wall entry in plasterboard fire-protection wall.

Wall feed-through in a sand-lime brick fire-protection wall.

Wall feed-through in concrete fire-protection wall.

Technical information

Cable and conduit sealing systems provide tested safety for cavity wall, masonry or concrete constructions.

The installation openings can be made in solid walls using conventional drills (20 mm or 32 mm) or in plasterboard walls using a drill or cutter Art. No. 1082-10 (35 mm).

The cable and conduit sealing systems are manufactured from a permanently durable and flexible material.

By opening the cable and conduit sealing, it can easily be placed around the cable or conduit.

KAISER seals ensure room separation without the need for additional filler.

Installation of cable sealing system LS 90 in cavity walls

Cut an installation opening Ø 20 mm using a cutter (e.g. KAISER hardened metal cutter Art. No. 1088-06) or drill.

To install, open the sealing sideways and slide it over the cable.

Press both sides of the sealing into each opening.

The cable sealings can be arranged vertically or horizontally to form a group with a centre distance of 50 mm.

Mounting cable sealing system LS 90 in solid walls

Make an installation opening using a Ø 20 mm drill.

Open the side of the cable sealing system LS 90, slide it over the cable and press into the opening.

Attach the identification tag.

Officially required identification of the cable sealing.

Cable sealing system LS 90

- for EI 30 - EI 90 fire-protection walls
- for wall entries and feed-throughs
- without use of fire-protection foam or putty
- made of intumescent material
- automatic room separation of the installation opening
- unlimited building material shelf life

3D animation

FIRE-PROTECTION

Min. wall thickness	**100 mm**
Installation opening (cavity wall)	20 mm
Installation opening (masonry)	20 mm
for cables	5 - 15 mm
ETA approval	ETA-17/0449
CE	•
Art. No.	**9459-01**
Inner packaging/shipping	10 / 100

Accessories: Sealing identification tag, page 277

Examples of applications for conduit sealing system RS 90

Wall feed-through in plasterboard fire-protection wall.

M16–M25 wall entry, in plasterboard fire-protection wall with M25 conduit.

Wall feed-through in sand-lime brick fire-protection wall.

Wall feed-through in concrete fire-protection wall.

Installation of conduit sealing system RS 90 in cavity walls.

Cut a 35 mm installation opening using e.g. the KAISER Multi 4000 cutter (Art. No. 1082-10).

To install, open the sealing sideways and slide over the conduit.

Press both sides of the sealing into each opening.

The conduit sealings can be arranged vertically or horizontally to form a group with a centre distance of 50 mm.

Installation of conduit sealing system RS 90 in solid walls

Make an installation opening using a Ø 32 mm drill.

Remove the strap for mounting in masonry (only when installing a conduit sealing in a masonry wall).

After installing the sealing, apply the identification tag.

The sealings can be used in masonry and concrete walls.

Conduit sealing system RS 90

· for EI 30 - EI 90 fire-protection walls
· for wall entries and feed-throughs
· without use of fire-protection foam or putty
· made of intumescent material
· automatic room separation of the installation opening
· unlimited building material shelf life

3D animation

FIRE-PROTECTION

Min. wall thickness	**100 mm**
Installation opening (cavity wall)	35 mm
Installation opening (masonry)	32 mm
for conduits	M16 - M25
ETA approval	ETA-17/0449
CE	•
Art. No.	**9459-02**
Inner packaging/shipping	10 / 100

Accessories: Sealing identification tag, page 277

Box sealing system DS 90 / 74 mm

The box sealing system DS 90 / 74 mm for cables, cable bundles and conduits. The fire-proof and smoke-proof box sealing is quick and easy to install and can also be retrofitted on cables and conduits. The easy-to-fit product offers certified safety and ensures the fire resistance class of the wall (EI30-EI90).

- Secure, visible, certified fire sealings
- For wall feed-throughs and entries
- Automatic sealing of the joints and gaps between cables - no filling and smoothing
- Non-destructive retrofitting
- For cable bundles or individual installation conduits

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Populating the sealing system

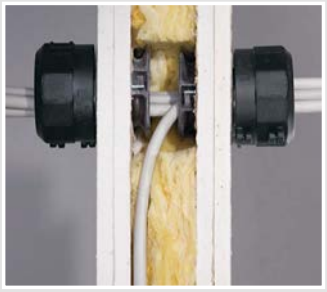
The box sealing system DS 90 / 74 mm provides space for single cables and bundles up to full population.

By choosing individual configurations, power and communication cables can be separated into groups.

The box sealing system DS 90 / 74 mm can be used with all standard sheathed cables currently found in Europe.

Spare sealing, conduits up to M40 and combination of NYM cables.

Examples of use



Use the two-part box sealing system DS 90 / 74 mm to create wall entries and feed-throughs.

Horizontal and vertical arrangement with a centre distance of 91 mm is permissible.

The box sealing system DS 90 / 74 can also be used as a spare seal (empty).

The sealing can accommodate conduits of up to M40.

Note

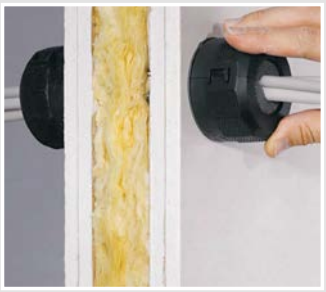
Cable population of the box sealing system DS 90 / 74 mm with all sheathed cable types recognised in Europe e.g. installation cables, data cables, telecommunication cables or fibre optic cables, as wiring bundles or as individual cables. Cable bundles can be populated up to Ø ≤ 40 mm, with a maximum diameter of ≤ 15 mm for a single cable. Single cables can be used up to Ø ≤ 21 mm.

Technical information

For use as a spare sealing (empty) for future installations.

Self-explanatory installation based on the tried-and-tested cavity wall box principle.

Easy insertion of the sealing cylinder into the installation opening.



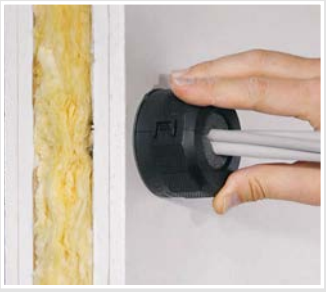
Automatic room separation - no gaps or filling of joints.

Non-destructive retrofitting of individual cables

Loosen the sealing element by turning it a quarter of a turn and open it.

Open the sealing element and remove it.

Insert the new cables.



Place the sealing element around the cable, close it and secure it with a 1/4-turn clockwise.

Installation

The box sealing system DS 90 / 74 mm consists of two parts which easily fit together.

Cut an installation opening using a Ø 74 mm cutter (e.g. Multi 4000: Art. No. 1084-10).

Place the two-part sealing cylinder around the cables and press together.

Press the sealing cylinder into the installation opening.

Fasten by tightening the screws (same procedure as for cavity wall boxes).

Place the sealing element around the cables and close it.

Place the sealing element on the seal cylinder and secure it with a 1/4-turn (bayonet fitting).

After installing the sealing, apply the identification tag.

This ensures sealing and the necessary room separation.

Installation of box sealing system DS 90 / 74 mm in masonry

Cut an installation opening depending on wall thickness with an 82 mm diamond grinding head or with a core drill.

Press the sealing cylinder into the installation opening with plaster, mortar or quick cement and feed the cable through.

Place the sealing element on the seal cylinder and secure it with a 1/4-turn (bayonet fitting).

Horizontal and vertical arrangement with a centre distance of 91 mm is permissible.

Installation of box sealing system DS 90 / 74 mm in concrete walls

Box sealing system DS 90 / 74 mm

- for EI 30 - EI 90 fire-protection walls
- for wall entries and feed-throughs
- attachment using tried-and-tested FX4 metal plate screws
- with integrated sealing inserts
- ensures smoke-tight room separation (seals against cold smoke)
- unlimited building material shelf life

3D animation

FIRE-PROTECTION

Cut hole Ø	**74 mm**
Min. wall thickness	100 mm
Cable entries	Maximum population (internal diameter 40 mm)
ETA approval	ETA-14/0159
CE	•
Art. No.	**9459-03**
Inner packaging/shipping	10 / 100

Accessories: Sealing identification tag, page 277

Box sealing system DS 90 / 120 mm

The new box sealing system DS 90 / 120 mm covers an additional range of applications in building fire protection. The increased diameter makes it possible to use a larger number of cables and electrical installation conduits and also greater diameters. With this system, it is also possible to mix the installation of conduits and cables. In addition, full population, as with the DS 90 / 74 mm, allows use of the system in all fields of building technology. Because no additional materials are used, non-destructive retrofitting is also possible. The tried-and-tested screw fixing permits clean, safe and secure installation.

- Secure, visible, certified fire sealings
- Seals wall feed-throughs
- Automatic sealing of the joints and gaps between cables - no filling and smoothing
- Non-destructive retrofitting
- Also for mixed population of bundles of cables and conduits

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Examples of use

Can also be used as a reserve sealing.

Full population with sheathed cables up to Ø 29 mm.

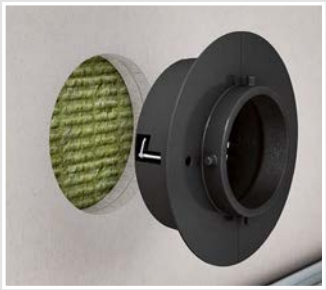
Mixing of cables and conduits.

Horizontal alignment is possible with a distance of 50 mm.

Technical information DS 90 / 120 mm

Lamellae arranged on the inside of the sealing cylinder ensure fast closing if a fire breaks out.

The sealing element with integrated cooling ribs guarantees clean cable and conduit routing.



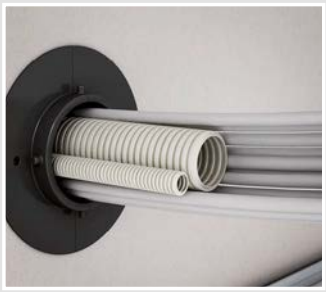
Easy insertion of the sealing cylinder into the installation opening.

Automatic room separation - no gaps or filling of joints.

Population of box sealing system DS 90 / 120 mm


Mixed population of sheathed cables and conduits.


Can also be used as a reserve sealing.

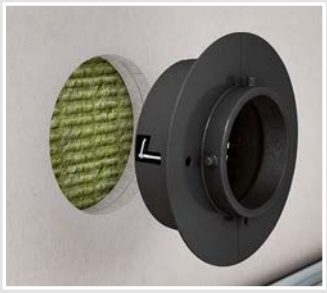

Full population with sheathed cables up to Ø 29 mm and conduits up to M63.


Installation conduits can be fitted as reserve conduits.

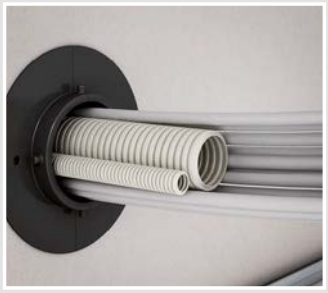
Installation

The box sealing system DS 90 / 120 consists of two parts which easily fit together.


Cut installation opening with a cutter Ø 120 mm (e.g. bi-metal cutter Art. No. 1082-20).


Press the sealing cylinder into the installation opening.


Fix sealing cylinder by tightening the screws (same procedure as with cavity wall boxes).


Feed sheathed cables and conduits through the sealing cylinder.


Close conduit ends smoke-tight (e.g. with KAISER sealing plugs).


Fit the two-part sealing element round the bundle, close it and connect it to the sealing cylinder by means of the bayonet fitting.

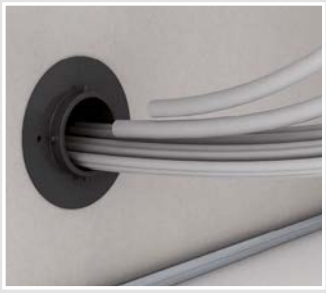

The sealing and the necessary room separation can also be used as a reserve sealing.


Horizontal alignment of the sealings is possible with a clearance of 50 mm.

Non-destructive retrofitting of single cables and conduits


Loosen the sealing element by turning it a quarter of a turn and open it.


Open the sealing element and remove it.


Insert the new cables and conduits.


Fit the sealing element and secure with a 1/4 turn to the right.

Installation of box sealing system DS 90 / 120 mm in masonry

Cut installation opening - depending on wall thickness - with a core drill 150 mm.

Using plaster, mortar or fast cement, press the sealing cylinder into the installation opening and feed the cables or conduits through.

The sealing collar ensures tight room separation, even when openings are not clean, and prevents plaster, mortar or fast cement from being pressed out.

Place the sealing element on the sealing cylinder and secure it with a 1/4-turn (bayonet fitting).

Installation of box sealing system DS 90 / 120 mm in concrete walls

Table of max. external diameter of sheathed cables (NYM cables)

The table shows examples of cables which can be used on the basis of the maximum permitted diameter. The main factor is the minimum stated standard diameter acc. to DIN VDE 0250-204.

5 x 6²	3 x 10²	5 x 10²	4 x 16²	5 x 25²	4 x 35²	7 x 2,5²
Ø 14,5 - 17,5 mm	Ø 14,7 - 17,7 mm	Ø 17,7 - 21,3 mm	Ø 19,0 - 23,0 mm	Ø 25,7 - 31,1 mm	Ø 25,7 - 31,1 mm	Ø 12,6 - 15,2 mm

Two box sealing systems DS 90 / 120 are required feed-throughs in a fire-protection wall.

Box sealing system DS 90 / 120 mm

- for EI 30 - EI 90 fire-protection walls
- attachment using tried-and-tested FX4 metal plate screws
- with integrated sealing inserts
- ensures smoke-tight room separation (seals against cold smoke)
- unlimited building material shelf life

AFS TECHNIK FIRE-PROTECTION

3D animation

Cut hole Ø	**120 mm**
Min. wall thickness	100 mm
Cable entries	Maximum population (Inner diameter 74 mm)
ETA approval	ETA-14/0159
CE	•
Art. No.	**9459-04**
Inner packaging/shipping	- / 4

Ceiling penetration sealing systems DS 90 / 120 mm and DS 90 / 74 mm

KAISER ceiling penetration sealing systems DS 90 / 120 mm and DS 90 / 74 mm ensure that the ceiling maintains fire-resistance class EI30-EI90. To efficiently prevent the spread of fire and flue gases through cable penetrations and electrical installation conduits through concrete or cellular concrete ceilings, their fire sealing must have the same fire-resistance class as the ceiling. The ceiling penetration sealing system DS 90 accomplishes this easily, quickly and reliably.

- Secure, visible, certified fire sealings
- Sealing especially for ceiling penetrations
- Automatic sealing without filling or smearing
- Non-destructive retrofitting
- Also for mixed population of bundles of cables and conduits
- Easy and quick installation from above

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Examples of use

Use in EI30 – EI90 concrete ceilings.

Use in EI30 – EI90 cellular concrete ceilings.

Mixed population of cables and conduits up to maximum population. They can also be arranged as groups with a distance of 205 mm (DS 90 / 120 mm) or 125 mm (DS 90 / 74 mm).

Mixed population of cables and conduits up to maximum population.

Population of ceiling penetration sealing system DS 90 / 120 mm and DS 90 / 74 mm

Mixed population of sheathed cables and conduits.

Can also be used as a reserve sealing.

Maximum population with sheathed cables Ø 29 mm and conduits up to M63.

Maximum population with sheathed cables Ø 15 mm and conduits up to M40.

Technical information on ceiling sealing system DS 90 / 120 mm and DS 90 / 74 mm

Divisible installation sleeve with edge protection made of intumescent material.

Retaining springs for quick and secure installation from above.

Cut-outs for receiving the metal plates and for fastening the box sealing system

Divisible installation sleeve for retrofitting of existing cables and conduits.

Making for the location of the screws.

Sealing flange ensures a clean and smoke-tight room separation of the component opening.

For core drill holes Ø 150 mm (DS 90 / 120 mm) and Ø 100 mm (DS 90 / 74 mm).

Two ceiling penetration sealing systems for different applications.

Installation

Installation is identical for ceiling penetration sealing systems DS 90 / 120 and DS 90 / 74 mm, except for the differences in the dimensions.

Making a core drill hole 150 mm or 100 mm.

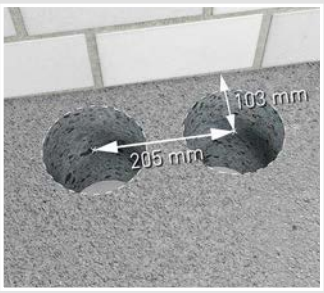
Insert the installation sleeve from the upper side of the ceiling

Feed sheathed cables and/or conduits through the installation sleeve.

Place sealing cylinder around the cables or conduits and insert into the installation sleeve.

Align plate screws of the sealing cylinder with the markings and tighten.

Place sealing cylinder around the cables or conduits and then snap into place with the sealing cylinder.

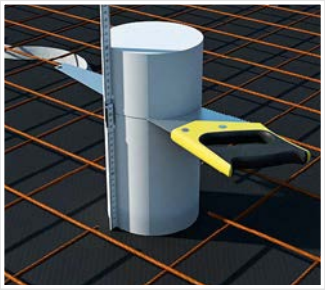


The ceiling penetration sealing systems can also be arranged as a group with a distance of 205 mm or 125 mm.

Ceiling penetration sealing systems in concrete or cellular concrete ceilings of 150 – 300 mm ceiling thickness have been approved for use.

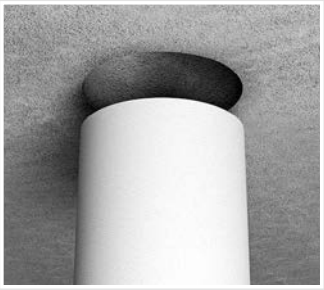
Formwork body

For preparation of installation in concrete ceilings, KAISER provides a formwork unit for matching cut-outs.



Adapt formwork unit to the ceiling thickness by cutting it to length.

Fix formwork unit with tie wire to the reinforcement.



After formwork removal, remove the formwork unit from the component opening without leaving any residues.

Non-destructive retrofitting of single cables and conduits

Loosen the sealing element by turning it a quarter of a turn and open it.

Open the sealing element and remove it.

Insert the new cables and conduits.

Turn sealing element around, lock and fix by applying a quarter turn to the right.

Table of max. external diameter of sheathed cables (NYM cables)

The table shows examples of cables which can be used on the basis of the maximum permitted diameter. The main factor is the minimum stated standard diameter acc. to DIN VDE 0250-204.

5 x 6^2	3 x 10^2	5 x 10^2	4 x 16^2	5 x 25^2	4 x 35^2	7 x $2{,}5^2$
Ø 14,5 - 17,5 mm	Ø 14,7 - 17,7 mm	Ø 17,7 - 21,3 mm	Ø 19,0 - 23,0 mm	Ø 25,7 - 31,1 mm	Ø 25,7 - 31,1 mm	Ø 12,6 - 15,2 mm

INNOVATION

Ceiling penetration sealing system DS 90/74 mm

· for fire protection ceilings EI30 - EI90
· Easy installation without filling
· Installation on the upper side of the ceiling
· creates a smoke-tight room separation

FIRE-PROTECTION

3D animation

Installation opening Ø	**100 mm**
Ceiling thickness	150 - 300 mm
Cable entries	Maximum population (internal diameter 40 mm)
ETA approval	ETA-14/0159
PVC conduits up to	M40
CE	•
Art. No.	**9459-05**
Inner packaging/shipping	- / 12

INNOVATION

Ceiling penetration sealing system DS 90/120 mm

· for fire protection ceilings EI30 - EI90
· Easy installation without filling
· Installation on the upper side of the ceiling
· creates a smoke-tight room separation

FIRE-PROTECTION

3D animation

Installation opening Ø	**150 mm**
Ceiling thickness	150 - 300 mm
Cable entries	Maximum population (Inner diameter 74 mm)
ETA approval	ETA-14/0159
PVC conduits up to	M50
CE	•
Art. No.	**9459-06**
Inner packaging/shipping	- / 1

Formwork body

· creates matching component openings
· suitable for ceiling penetration sealing systems DS 90 / 120 mm and DS 90 / 74 mm
· for ceiling thicknesses 150 - 300 mm

Formwork body

· creates matching component openings
· suitable for ceiling penetration sealing systems DS 90 / 120 mm and DS 90 / 74 mm
· for ceiling thicknesses 150 - 300 mm

Diameter	**100 mm**	**150 mm**
Ceiling thickness	150 - 300 mm	150 - 300 mm
Art. No.	**9473-95**	**9473-96**
Inner packaging/shipping	- / 8	- / 6

INNOVATION

Sealing identification tag

· universal seal identification tag
· for all KAISER sealings
· can be filled out
· in plastic, with 2 x 4.5 mm drill holes

FIRE-PROTECTION

German	•	•
English	•	•
French	•	•
Dutch	-	•
Italian	•	-
Art. No.	**9473-91**	**9473-92**
Inner packaging/shipping	- / 10	- / 10

Sealing plugs 16-20

· for sealing electrical installation conduits
· ECON® technology for easy cable entry
· permanently flexible plastic

AIR-TIGHT

3D animation

Sealing plug	**M16**	**M20**
DIN EN conduit Ø	16 mm	20 mm
Art. No.	**1040-16**	**1040-20**
Inner packaging/shipping	25 / 100	25 / 100

Sealing plugs 25-40

· for sealing electrical installation conduits
· ECON® technology for easy cable entry
· permanently flexible plastic

AIR-TIGHT

3D animation

Sealing plug	**M25**	**M32**	**M40**
DIN EN conduit Ø	25 mm	32 mm	40 mm
Art. No.	**1040-25**	**1040-32**	**1040-40**
Inner packaging/shipping	25 / 100	25 / 50	- / 25

Fire-stop box FlamoX®

FlamoX® installation housings for luminaires and loudspeakers protect lives and material goods if a fire breaks out. In luminaire and loudspeaker installations in fire-protection ceilings, the integrated fire-retardant coating gives the housings the fire-protection class F30 (EI30) of the ceiling. They prevent fire and flue gases from spreading, so they secure escape routes in buildings. FlamoX® fire-protection housings provide certified security.

- Safe, certified fire-protection housings for built-in luminaires and loudspeakers
- Fast, easy fitting from the underside of the ceiling
- Suitable for fire resistance from above and below
- Installation without additional suspension
- No use of additional fire protection materials or sealing compounds

halogen-free · INNOVATION · ETA Certificate pending · AFS TECHNIK · WWW

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

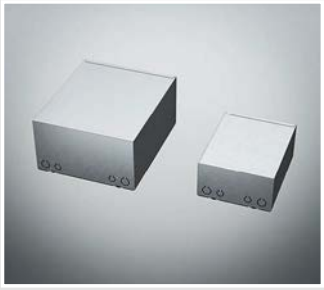
Functioning of the fire-retardant coating if a fire breaks out (fire load from above)

Examples of use

Fire-stop housing for recessed luminaires...

... and for loudspeakers.

Mounting in suspended fire-protection ceilings F30

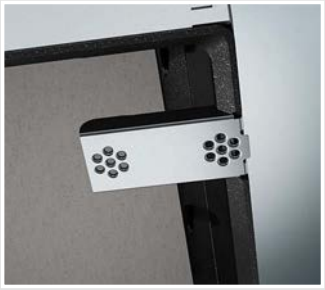


Available in two sizes for a range of uses

Note

FlamoX® housings are tested fire-protection housings for the fire-protection sealing of built-in luminaires and loudspeakers in independent, two-layer suspended F30 fire-protection ceilings made of plasterboard fire-protection panels with or without insulation. The ETA-certified (European Technical Assessment) housings are approved for fireloads from above and below. The FlamoX® housings were tested according to DIN EN 1363-1 and DIN EN 1366-3, so they can be installed in ceiling systems which were built according to DIN 4102-4 or DIN EN 1364-2 or have certification in the form of a general building approval certificate.

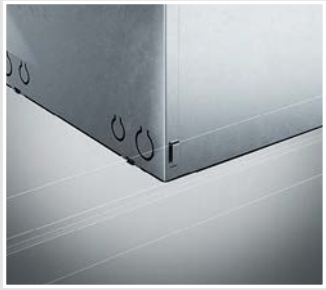
Technical information



Fixing lugs with hole structure for fast, easy screw fitting to the fire-protection ceiling.

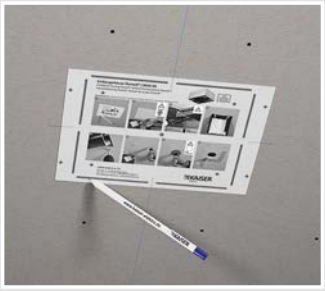
Interior consisting of a fire-retardant-forming fire-protection material and, in the event of a fire, automatically closing plate.

Two cable entries for sheathed cables up to Ø 13.5 mm external diameter and two conduit entries for conduits up to M25.

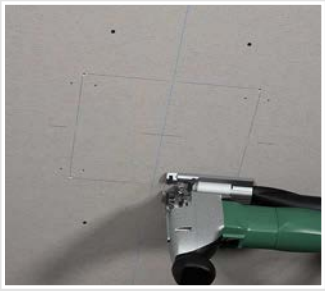


Bendable retention lugs for optional suspension in ceiling profiles.

Installation

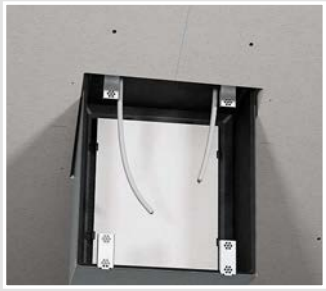


After determining the position of the luminaire, use the template to mark the screw positions and the cut-out.



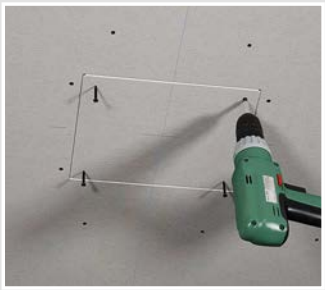
… then create the cut-out for the housing and retain for future use.

Open cable and conduit entries and use the universal opening cutter (Art. No. 1085-80) to cut matching entries.

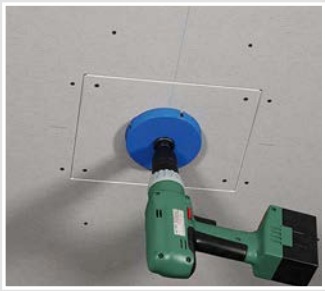


Insert the housing into the component opening and align it.

Fix housing to the fire-protection ceiling using quick-fastening screws …



… then chamfer the cut-out made previously and fix with dry-wall screws.



Create the component opening for luminaire or loudspeaker

Plastering of the joints

INNOVATION

FlamoX® fire-protection housing

· for luminaires and loudspeakers
· Smokeproof and halogen-free
· for fire loads from above and below
· made of galvanised sheet metal with lining
· made of fire-resistant coating

3D animation

For panel thickness	2 x 12,5 mm	2 x 12,5 mm
Length x Width x Height	230 x 180 x 100 mm	320 x 270 x 150 mm
Exit opening Ø	100 mm	180 mm
Max. luminaire or loudspeaker installation height	100 mm	150 mm
Tube entries up to M25	2	2
Cable entries up to Ø 13.5 mm	2	2
halogen-free	•	•
LED luminaires	14 Watt	34 Watt
Halogen luminaires	50 Watt	75 Watt
ETA approval	applied for	applied for
CE	•	•
Art. No.	**9435-04**	**9435-03**
Inner packaging/shipping	- / 1	- / 1

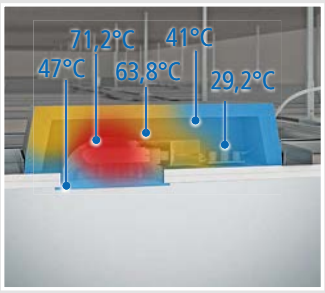
FlamoX®-S 30 E installation housing

FlamoX®-S30 E is suitable for the installation of downlights with compact fluorescent lights and for loudspeakers. The integrated fire-retardant coating maintains fire protection class F30 (EI30).

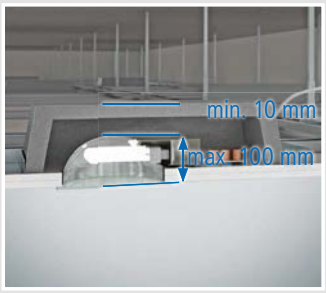
- Fire protection housing system for luminaires and loudspeakers
- For single or double layer suspended EI30 fire protection hollow ceilings
- Fire resistance from above and below
- Intelligent, automatic sealing
- Smokeproof and halogen-free
- For new build or as a fire protection upgrade in existing buildings

halogen-free | AFS TECHNIK | DIBt approval Z-19.21-1788 (German Institute of Building Technology) | ETA Certificate pending

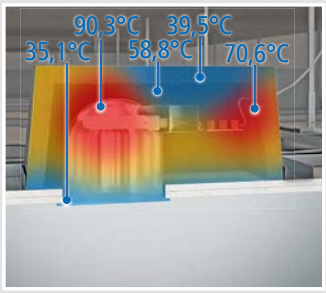
Temperature profile, luminaire selection



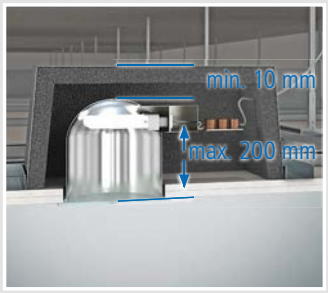
Temperature profile: TC downlight
Room temperature (23°C), 52 W TC



Luminaire selection: TC downlight



Temperature profile: TC downlight
Room temperature (23°C), 52 W TC



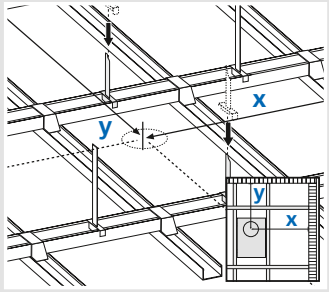
Luminaire selection: TC downlight

Technical processing instructions/standards

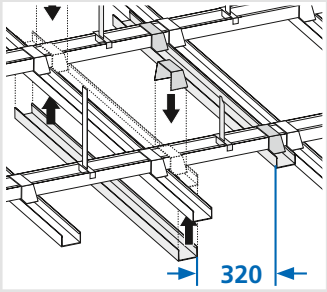
- Exit openings max. Ø 240 mm
- use only certified (EN 60598) luminaires which are suitable for direct installation on normally flammable materials
- Accepts low-loss (VVG) and electronic (EVG) ballast devices.
- max. installation dimension AL 290 mm

FlamoX®-S 30 E installation housing

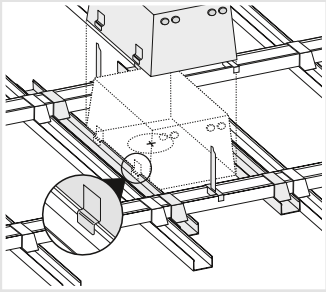
FlamoX®-S30 E installation example in a double-layer F30 fire protection ceiling



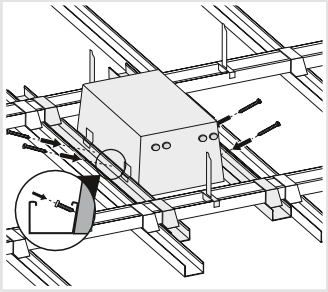
Mark the ceiling cut-out.



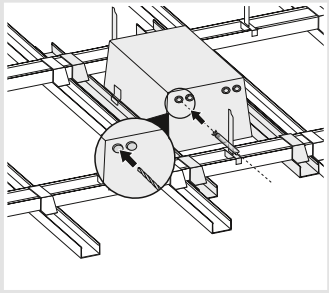
Place the auxiliary frame construction in position.



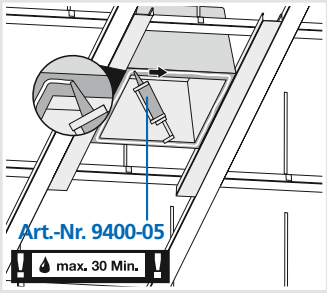
Insert the FlamoX® housing.



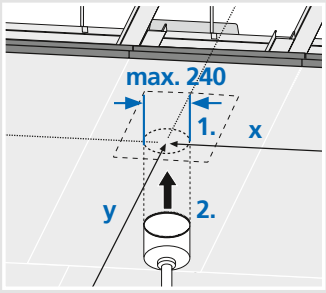
Screw the housing to the profile.



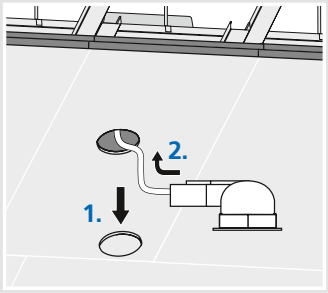
Insert the connection cables. max. 5x2.5² Ø 10.5; 3x1.5² Ø 7.5



Apply KAISER fire-protection putty to the lower edge.



Mark and cut the installation opening.



Connect and insert the luminaire or loudspeaker.

Note

The installation of luminaires, loudspeakers etc. depends on the installation dimensions (diameter and height) as specified by their manufacturer. For panel thicknesses of 25 mm and higher and fitted devices with asymmetric equipment carrier, always ensure that the swivel radius and the clamping range are maintained.

FlamoX® housing for hollow ceilings with fire protection class F30

- For energy-saving luminaires, lamp wattage max. 52 W
- made from galvanised plate with fire-retardant coating
- exit opening with Ø of up to 240 mm in square or rectangular cut-out, max. diagonal: 240 mm
- smoke-tight, halogen-free

FIRE-PROTECTION

3D animation

Length x Width x Depth	**500 x 320 x 220 mm**
Exit opening Ø	<= 240 mm
Max. luminaire or loudspeaker installation height	200 mm
DIBt approval	Z-19.15-1623
	•
Art. No.	**9435-01**
Inner packaging/shipping	- / 1

Note

Important! When using the FlamoX® housings, it is absolutely essential to use KAISER fire-protection putty (Art. No. 9400-05) for adhesion. If this is not carried out, the approval certificate becomes invalid. We recommend in each case the use of a cartridge of fire-protection putty for glueing 2 FlamoX S30 E housings.

FlamoX® fire-protection putty

- fire-retardant material
- for filling joints and gluing board materials
- type 9400
- max. working time 30 mins.
- can be warehoused for up to 12 months

DIBt approval	**Z-19.11-1583**
	•
Art. No.	**9400-05**
Inner packaging/shipping	- / 20