Fire-protection boxes

- Safe, visibly certified fire protection
- HWD fire-protection boxes for fire-protection walls and ceilings, as well as shipbuilding walls
- Smokeproof and halogen-free
- Also suitable for retrofitting

Solid wood

- Maintains the F30-B to F120-B fire resistance duration
- Toolless installation thanks to rib fixing
- Innovative cable entry enables tolerance compensation of the cable route

Sealings

- Safe, visible and certified protection through the use of KAISER sealing systems for cables and conduits, as well as cable and conduit bundles
- Automatic sealing of the joints and gaps between cables – no filling and smoothing
- Europe-wide approval for fire barriers

Shipbuilding

- For ship cabin walls and ceilings B15
- Ideal for pre-assembled cables
- Certified by DNV applied
- Maintains the wall's sound insulation protection

Fire-protection housings

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

Fire protection | Product overview

	Fire-protection boxes	Solid wood	Shipbuilding boxes	Sealings	Fire-protection housings
For installation accessories					
One-gang boxes	pg. 282/285	-	pg. 291	-	-
One-gang junction boxes	pg. 278/282/285	pg. 287	pg. 292	-	-
One gang boxes for thin boarding	-	-	pg. 291	-	-
One-gang junction boxes for thin boarding	-	-	pg. 292	-	-
Electronics box	pg. 283	-	-	-	-
For cable outlets					
Luminaire connection boxes	pg. 289	-	-	-	-
For luminaires and loudspeakers					
Fire protection housing	-	-	-	-	pg. 303
Housing for preventive fire protection in insulated ceilings	-	-	-	-	pg. 266
Feed-through					
Feed-through of cables	-	-	-	pg. 297	-
Feed-through of conduits	-	-	-	pg. 297	-
Feed-through of cable and conduit bundles	-	-	-	pg. 298	-
Field of application					
Wall	•	•	•	•	-
Ceiling	•	-	-	•	•
Accessories					
Fixing	pg. 146	pg. 146	pg. 146	-	-
Sealing of electrical installation conduits (air-tight and smokeproof)	pg. 33/117/302	pg. 33/117/302	pg. 33/117/302	pg. 33/117/302	pg. 33/117/302
Support connector	pg. 96/114/131/282/285	pg. 285	pg. 96/114/131/282	-	-
End cover	pg. 289	-	pg. 289	-	-

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

AFS – Active Fire Stop

Guarantees preventive fire protection. Whether fire load from above, below, from the front or the back: the quick-active fire-retardant coating in boxes, housings and bulkheads reacts immediately in case of fire and foams out the installation opening safely. The fire resistance class F30-F120, EI30/EI60 or EI30-EI120 of the wall of or the ceiling of F30-F90 or EI30-EI90 remains unchanged. The transmission of fire and smoke is thus safely prevented. In case of fire, the KAISER AFS technology maintains the fire protection class in walls and ceilings even when installed opposite each other without encasing. The ready-to-install systems with AFS technology guarantee certified safety and smooth installation.

• Fire protection – without encasing
• Smokeproof and halogen-free
• For walls and ceilings
• For buildings and shipbuilding
• Maintains the wall's sound insulation protection

DIBt approval
General type approval
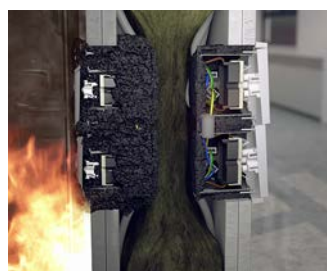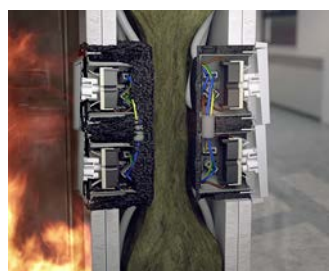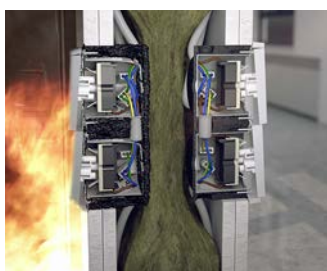
Fire-protection systems with sound insulation protection

Certified.

The table shows the tested areas of application. Technical deviations or changes are possible in the approvals and must be checked before use.

			HWD 90 one-gang box / one-gang junction box 9463-01 / 9464-01			HWD 90 electronics box 9462-94			HWD 68+ one-gang box / one-gang junction box 9463-03 / 9464-03			PROTECT® Solid wood box 9464-05			
Wall type / wall construction	**Minimum wall requirement**	**Inst. levels**	F30-B	F60-B		F30-B	F60-B		F30-B	F60-B	F90-B	F30-B	F60-B	F90-B	F120-B
Wood frame and panel construction F30-B / F60-B	Minimum wall thickness 109 mm (F30-B); 135 mm (F60-B) **Wooden stand** 40×60 mm (F30-B); 40×80 mm (F60-B) **Boarding on both sides** 1×15 mm wooden slats (e.g. OSB) F30-B with 1×9.5 mm gypsum board panel F60-B with 1×12.5 mm gypsum plaster fire protection board **Wood fibre insulation 50 kg/m³ Glass wool 14 kg/m³ Rock wool 40 kg/m³**	30 cm from the ceiling	✓	✓		✓	✓ not for glass wool		✓	✓					
		115 cm from the floor	✓	✓		✓	✓ not for glass wool		✓	✓					
		105 cm from the floor	✓	✓		✓	✓ not for glass wool		✓	✓					
		30 cm from the floor	✓	✓		✓	✓ not for glass wool		✓	✓					
Cross laminated timber F30-B - F120-B	Minimum wall thickness Installation on one side 100 mm Opposing installation 120 mm **Boarding** 1×12.5 mm gypsum plaster fire protection board - Minimum wall thickness Installation on one side 100 mm Opposing installation 120 mm **Exposed wood quality**	30 cm from the ceiling							✓ From 1× 12.5 mm	✓ From 1× 12.5 mm	✓ From 1× 12.5 mm	✓ 100 mm	✓ 100 mm	✓ 120 mm	✓ 120 mm
		115 cm from the floor							✓ From 1× 12.5 mm	✓ From 1× 12.5 mm	✓ From 1× 12.5 mm	✓ 100 mm	✓ 100 mm	✓ 120 mm	✓ 120 mm
		105 cm from the floor							✓ From 1× 12.5 mm	✓ From 1× 12.5 mm	✓ From 1× 12.5 mm	✓ 100 mm	✓ 100 mm	✓ 120 mm	✓ 120 mm
		30 cm from the floor							✓ From 1× 12.5 mm	✓ From 1× 12.5 mm	✓ From 1× 12.5 mm	✓ 100 mm	✓ 100 mm	✓ 120 mm	✓ 120 mm
			F30 (EI30)	F60 (EI60)	F90 (EI90)	F120 (EI120)	F30 (EI30)	F60 (EI60)	F90 (EI90)	F120 (EI120)	F30 (EI30)	F60 (EI60)	F90 (EI90)		
DIN – Walls EI30 - EI120	Minimum wall thickness **100 mm** **Metal studs (F30 – F120) or wooden stand (F30)** **Boarding on both sides** 2×12.5 mm gypsum plaster fire protection panels **Mineral insulation > 1,000 °C**	30 cm from the ceiling	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
		115 cm from the floor	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
		105 cm from the floor	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
		30 cm from the floor	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Approved wall (abP, abZ or aBG)	Minimum wall thickness **100 mm** **Metal studs (F30–F90) or wooden stand (F30)** **Boarding on both sides** 2×12.5 mm cement or gypsum-bonded building panels **1×12.5 mm cement or gypsum-bonded building panel (F30)** **With or without insulation With glass wool** abZ: general technical approval abP: general test certificate aBG: general type approval	30 cm from the ceiling	✓ From 2× 12.5 mm	✓	✓		✓ From 2× 12.5 mm	✓	✓		✓	✓	✓ GD not for glass wool		
		115 cm from the floor	✓ From 2× 12.5 mm	✓	✓		✓ From 2× 12.5 mm	✓	✓		✓	✓	✓ GD not for glass wool		
		105 cm from the floor	✓ From 2× 12.5 mm	✓	✓		✓ From 2× 12.5 mm	✓	✓		✓	✓	✓ GD not for glass wool		
		30 cm from the floor	✓ From 2× 12.5 mm	✓	✓		✓ From 2× 12.5 mm	✓	✓		✓	✓	✓ GD not for glass wool		
Shaft wall EI30 - EI90	Metal studs **boarding on one side** For one-gang box 2×20 mm For one-gang junction box 2×25 mm cement or gypsum-bonded building panels **F30 no insulation F60 30 kg/m³, > 1,000 °C F90 Termarock 100, 100 kg/m³**	30 cm from the ceiling	✓	✓	✓										
		115 cm from the floor	✓	✓	✓										
		105 cm from the floor	✓	✓	✓										
		30 cm from the floor	✓	✓	✓										

Note: The use of the HWD 90 in shaft walls is approved in Germany by the general type approval. If the device is likely to be used in other countries, the applicable certificates, standards, guidelines or regulations must be observed.
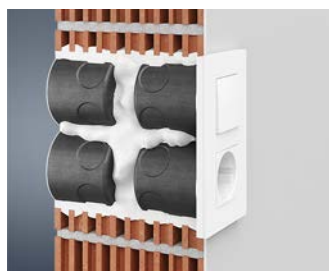
Flush-mounting fire-protection box

In solid construction F30-F120 or 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 smoke-proof 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.
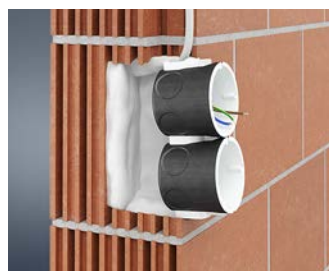
- For F30-F120 or EI30-EI120 fire-protection walls
- For minimum remaining wall thicknesses ≤ 60 mm
- Also for directly opposing installation
- Variable combination connection piece for conduits up to M25
- With fire-protection cover, can be used as a junction box
- Maintains the wall's sound insulation protection

Sound insulation value R'w up to 56 dB

| halogen-free | IP 2X | 650 °C | DIBt approval General type approval | Europe-wide ETA Certificate |

Examples of use

For F30-F120 or 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.

Flush-mounting fire-protection box

∷ **INNOVATION**

- · for F30-F120 or 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

3D animation   Product-Data

Depth	60 mm
Fixing screw spacing	60 mm
Tube entries up to M25	6
Cable entries of up to Ø 11.5 mm	6
for sound insulation walls up to	56 dB
DIBt approval	Z-19.21-2413
ETA approval	ETA-18/0091
Halogen-free	Yes
VDE / ÖVE	Yes / Yes
CE	Yes
Art.-No.	1564-01
Inner packaging/shipping	10 / 100

Subject to modifications

HWD 90 cavity wall boxes

HWD 90 cavity wall boxes for F30-F120 or EI30-EI120 fire-protection walls ensure certified and fire-protection compliant electrical installation. They are now also approved for timber walls in F30-B/F60-B timber frame or timber panel construction. No additional measures, such as encasing, are necessary. The intelligent AFS technology reacts immediately to fire and heat and automatically closes the installation opening. This guarantees the fire resistance class of the fire-protection wall and secures emergency 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.
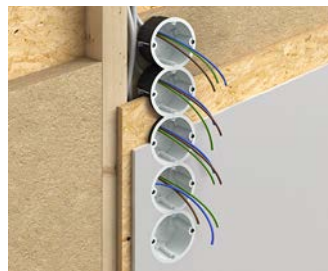
- For F30-F120 or EI30-EI120 and F30-B / F60-B fire-protection walls
- Maintains the wall's sound insulation protection
- Retrofitting also possible
- With fire-protection cover, can be used as a junction box
- Also for directly opposing installation

Sound insulation value R'w up to **77 dB**

halogen-free	IP 30	DIBt approval General type approval	Europe-wide ETA Certificate	▶

Processing instructions

Approved for directly opposing installation.

In an F30-B wall, combinations of up to 5 boxes are possible...

...in an F60-B wall, individual boxes up to a 3 box combination are possible.

The HWD 90 electronics box is also approved for the above mentioned wall constructions.

For drywall in timber construction

Since the introduction of the first fire-protection box for fire-protection walls in 2006, the range of applications has been continually expanded. HWD 90 fire-protection boxes are now also approved for timber walls in timber frame or timber panel construction. They maintain the fire protection properties of the wall with a fire-resistance duration of F30-B and F60-B. No additional measures, such as encasing, are necessary. Even if installed on the directly opposing side, the fire protection of the wall is guaranteed for 30 minutes and 60 minutes. It should be noted that for F60-B, only superstructures and installations in accordance with the timber construction guidelines are currently permitted. The HWD 90 was tested in different superstructures that occur in practice to the superstructures and installation situation described in the timber construction guidelines.

FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

PLUGGABLE

CONNECTIVITY

CABLE GLANDS

TOOLS

SERVICE

Drywall in timber construction

The proven installation has not changed. Installations directly opposing each other are possible even in timber construction up to fire resistance class F30-B (max. 5-way combination) or F60-B (max. 3-way combination). All HWD 90 type boxes maintain the sound insulation function completely up to a sound insulation level of 77 dB.
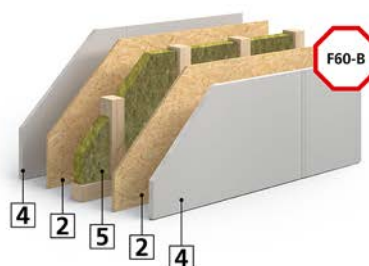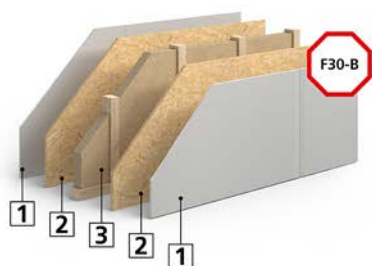

1 9.5 mm plasterboard | **2** 15 mm OSB/MDF, plywood or chipboard | **3** 40 mm wood fibre insulation, glass or rock wool 60x40 wooden beams | **4** 1x12.5 mm plasterboard fire protection board | **5** 80 mm mineral insulation > 1,000°C - 40x80 wooden beams
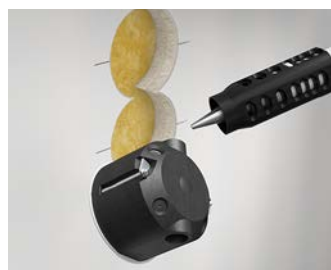
Note

All technical specifications correspond to the tested and approved applications. Technical deviations or changes are possible in the approvals and must be checked before use.

Installation
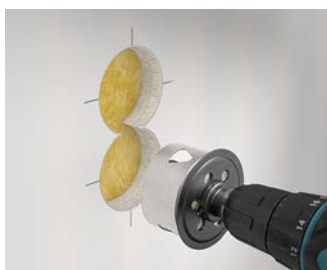
Cut an installation opening with EXPERT cutter Ø 74 mm (Art. No. 1082-40).

The exact opening for the cable is created smokeproof with the KAISER universal opening cutter (Art. No. 1085-80). Set the opening cutter for 3 x 1.5² to Ø 8.5, for 5 x 1.5² to Ø 9.5 and for 3 x 2.5² to Ø 9.5.
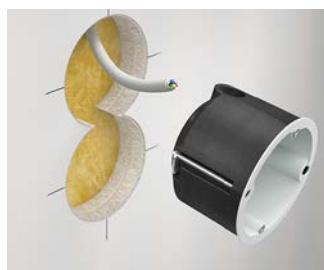
Fixing of the boxes with tried-and-tested cavity wall technology using KAISER FX⁴ technology.

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

Plasterboard drywall

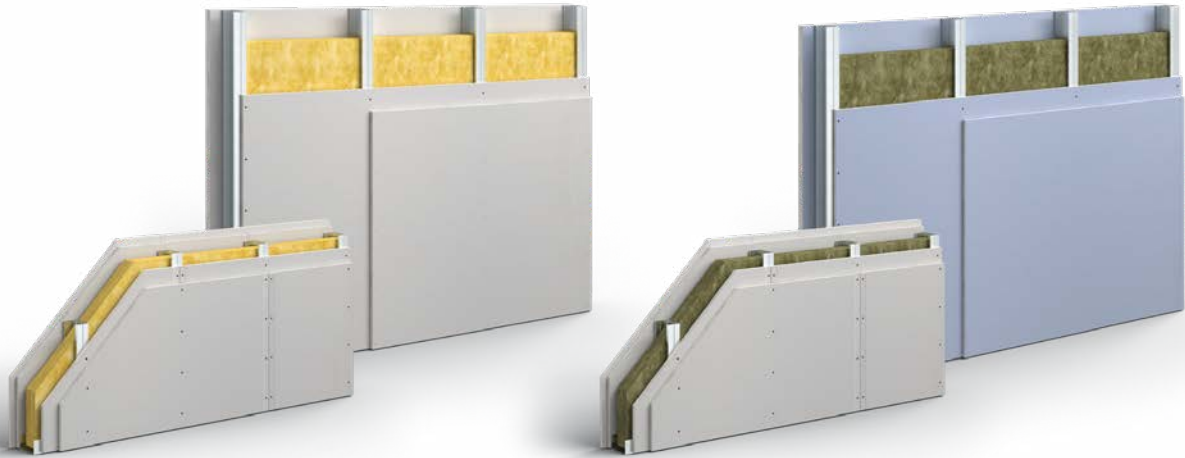Minimum wall thickness: 100 mm | boarding on both sides with | min. 12.5 mm mineral non-combustible building panels (e.g. plasterboard, cement-bonded fibre boards) | min. 40 mm thick non-combustible mineral wool (e.g. glass wool, rock wool, etc) | gross density min. 14 kg/m³

Installation shafts and ducts

The use of the HWD 90 in shaft walls is only approved in Germany by the general type approval. If the device is to be used in other countries, the applicable certificates, standards, guidelines or regulations must be observed. Steel stand | double boarding with non-combustible mineral plaster or cement-bound building panels | 2 x 20 mm (when using the one-gang box) | 2 x 25 mm (when using the one-gang junction box) | I30 - no insulation | I60 - 40 mm / 100 kg/m³, 60 mm / 50 kg/m³, 80 mm / 30 kg/m³ | I90 - 40 mm / 100 kg/m³ Termarock 100
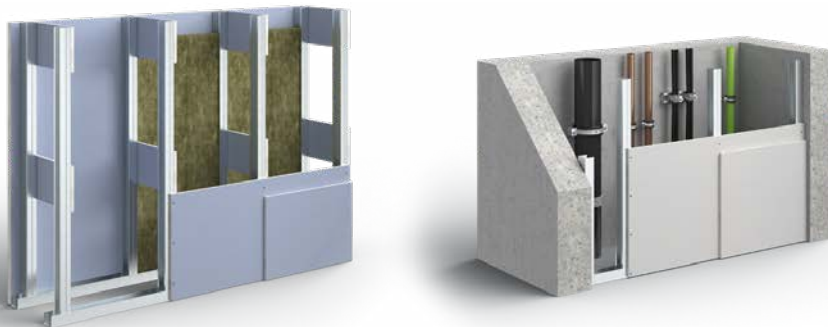
Note

In addition to the general type approval from the DIBt, we can also provide you on request with the classification report on its recognition in Austria from the IBS Test Institute for Fire Protection Technology and Safety Research in Linz. Please note: the use of the HWD 90 in shaft walls is only permitted in Germany by the general type approval. If the device is likely to be used in other countries, the applicable certificates, standards, guidelines or regulations must be observed.

FlamoX® fire-protection putty

· Building material forming an insulating layer
· for filling joints as well as bonding board materials
· Type 9400
· Working time 30 mins.
· Can be stored up to 12 months

DIBt approval	Z-19.11-1583
Contents	300 ml
📠	Yes
Art.-No.	9400-05
Inner packaging/shipping	- / 20

Fire-protection boxes with sound insulation protection

HWD 90 one-gang box

- · For F30-F120 or EI30-EI120 and F30-B / F60-B fire-protection walls
- · Also for I30 - I90 installation shafts / installation ducts
- · also for F30-B - F60-B timber frame or timber panel construction walls

Depth	**44 mm**
For panel thickness	7 - 40 mm
Cut hole Ø	74 mm
Screw spacing	60 mm
Cable entries of up to Ø 11.5 mm	2
DIBt approval	Z-19.21-1788
ETA approval	ETA-18/0091
for sound insulation walls up to	77 dB
Halogen-free	Yes
⏦ / CE	Yes / Yes
Art.-No.	**9463-01**
Inner packaging/shipping	10 / 100

HWD 90 one-gang junction box

- · For F30-F120 or EI30-EI120 and F30-B / F60-B fire-protection walls
- · Also for I30 - I90 installation shafts / installation ducts
- · also for F30-B - F60-B timber frame or timber panel construction walls

Depth	**54,5 mm**
For panel thickness	7 - 40 mm
Cut hole Ø	74 mm
Screw spacing	60 mm
Cable entries of up to Ø 11.5 mm	4
Support connectors for each package	5
DIBt approval	Z-19.21-1788
ETA approval	ETA-18/0091
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	Yes
for sound insulation walls up to	77 dB
Halogen-free	Yes
⏦ / CE	Yes / Yes
Art.-No.	**9464-01**
Inner packaging/shipping	10 / 100

Support connector

- · For fully insulated through-wiring in combinations
- · Smokeproof
- · For Art. No. 9464-01, 9464-15, 9464-50

Halogen-free	**Yes**
Art.-No.	**9060-78**
Inner packaging/shipping	25 / 100

Electronics box HWD 90

The HWD 90 electronics box maintains the wall's fire resistance class up to F120 or 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 fire-protection walls F30-F120 or EI30-EI20
- 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 | DIBt approval General type approval | Europe-wide ETA Certificate | ▶ |

Sound insulation value 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.

Electronic box HWD 90 can now also be used in IE30 and IE60 walls in timber frame or timber panel construction.

Electronics box HWD 90

- · For cables and conduits up to M25
- · Also for use as a double box
- · For fire-protection walls F30-F120 or EI30-EI20
- · minimum wall thickness 100 mm
- · For equipment inserts and electronic components
- · Tunnel twin-chamber box with enclosed separator wall and cover that can be wallpapered over.
- · Can be combined with each other and also with HWD 90 one-gang junction boxes

3D animation   Product-Data

Depth	70 mm
For panel thickness	7 - 40 mm
Cut hole Ø	2 x 74 mm
Screw spacing	60 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
for sound insulation walls up to	77 dB
DIBt approval	Z-19.21-2064
ETA approval	ETA-18/0091
Halogen-free	Yes
VDE / CE	Yes / Yes
Art.-No.	**9462-94**
Inner packaging/shipping	5 / 50

Subject to modifications

HWD 68+ fire-protection box

The new generation of KAISER fire protection boxes combine all the features of the HWD 68 and HWD 90. In addition, they cover all possible applications that occur in practice with the conduit entries. Thanks to the evaluated AFS technology, the HWD 68+ also guarantees a fire resistance duration of F30-F90 or EI30-EI90. The HWD 68+ also fulfils the F30-B-F90-B fire resistance duration in timber frame and timber panel construction as well as in cross-laminated timber construction. The HWD 68+ enables almost unrestricted and universal electrical installation in fire protection walls.

- For F30-F90 or EI30-EI90, F30-B to F90-B fire-protection walls
- Maintains the wall's sound insulation protection
- Toolless cable and conduit entry
- For installation openings Ø 68 mm
- For a directly opposing installation
- With fire-protection cover, can be used as a junction box

NEW

Sound insulation value *R'*w up to **69 dB**

air-tight	halogen-free	IP 30	850 °C	DIBt approval General type approval

Europe-wide ETA Certificate

INNOVATION
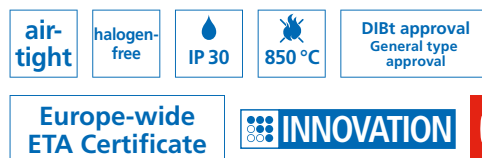
3D animation

Application examples

6 cable entries up to Ø 13 mm and two conduit entries up to M25.
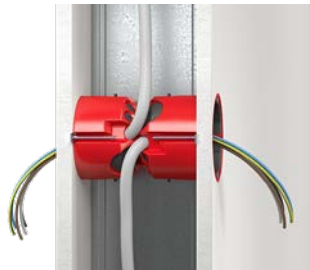
Application in walls from a wall thickness ≥ 100 mm with and without insulation.

Can also be used in timber frame or timber panelled walls...

...as well as in cross-laminated timber walls.

Processing instructions
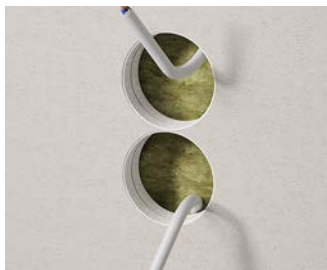
For installation openings Ø 68 mm and combination distance 71 mm.

Toolless cable and conduit entries.
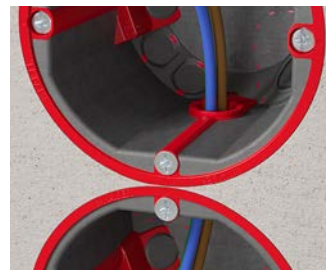
Fully insulated through-wiring of one-gang box and one-gang junction box with the support connector (Art. No. 9060-68).

Can be combined up to 5-way combinations directly opposing.

Note

All technical specifications correspond to the tested and approved applications. Technical deviations or changes are possible in the approvals and must be checked before use.

Fire-protection boxes with sound insulation protection

FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

PLUGGABLE

CONNECTIVITY

CABLE GLANDS

TOOLS

SERVICE

Installation

Cut Ø 68 mm installation opening using PROFI cutter (Art. No. 1081-10).

Create combinations with a distance of 71 mm.

Insert cables or conduits into the box through the appropriate openings.

Place the boxes in the installation opening and fix them by screwing on the screws.

Create through-wiring for combinations with the support connector (Art. No. 9060-68).

Use installation accessories. Directly opposing combinations up to 5-way possible.

Approved for F30 fire protection walls without insulation and F60-F90 with glass wool or mineral wool insulation.

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

HWD 68+ one-gang box

INNOVATION

· For F30-F90 or EI30-EI90, F30-B to F90-B fire-protection walls
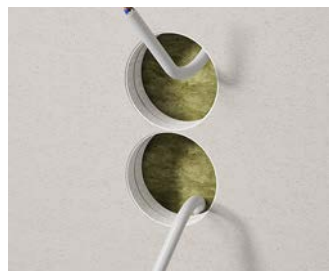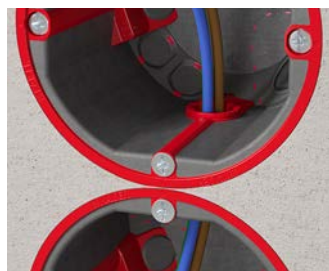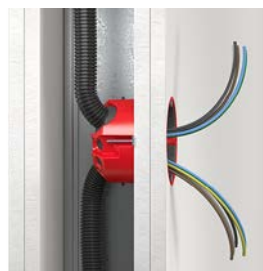· also for directly opposing installation
· from wall thicknesses of 100 mm
· can be combined with each other and with the one-gang junction box

HWD 68+ one-gang junction box

INNOVATION

· For F30-F90 or EI30-EI90, F30-B to F90-B fire-protection walls
· also for directly opposing installation
· from wall thicknesses of 125 mm
· can be combined with each other and with the one-gang box

Depth	**49 mm**	**60 mm**
For panel thicknesses up to	7 - 40 mm	7 - 40 mm
Cut hole Ø	68 mm	68 mm
Screw spacing	60 mm	60 mm
Support connectors for each package	5	5
DIBt approval	Z-19.21-2693	Z-19.21-2693
ETA approval	ETA-22/0129	ETA-22/0129
for sound insulation walls up to	69 dB	69 dB
Conduit entries up to Ø 13 mm	6	6
Tube entries up to M25	2	2
Halogen-free	Yes	Yes
VDE / OVE	Yes / Yes	Yes / Yes
Art.-No.	**9463-03**	**9464-03**
Inner packaging/shipping	10 / 100	10 / 100

Support connector

· For fully insulated through-wiring in combinations
· Smokeproof
· for Art. Nos. 9463-03, 9464-03

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

Subject to modifications

KAISER

285

NEW

PROTECT® solid wood fire protection one-gang junction box

The new solid wood PROTECT® one-gang junction box has been specially developed for the requirements of installation in solid wood elements / CLT. Fastening with ribs and the innovative cable entries ensure optimum and standardised installation in a solid wood element in visible wood quality without additional cutting or effort. Thanks to their arrangement and design, the innovative cable entries ensure flexible cable entry and thus compensate for the installation tolerances that arise when routing cables in the solid wood element. In addition, the PROTECT® solid wood fire protection one-gang junction box maintains the fire resistance of the solid wood element from F30-B to F120-B without the need for additional encapsulation.

• Maintains the F30-B to F120-B fire resistance duration
• For a directly opposing installation
• Toolless installation thanks to rib fixing
• Innovative cable entry enables tolerance compensation of the cable route
• Simple and toolless cable entry up to Ø 11.5 mm
• For installation openings Ø 74 mm
• Preserves the sound insulation properties of the solid wood elements

halogen-free | IP 30 | 850 °C | ▶ | ⠿ INNOVATION

Application examples

Ideal for installation in CLT elements with visible wood quality.

For a directly opposing installation for walls ≥ 120 mm.

Allows up to 3-way combinations.

Can be used with fire protection cover (Art. No. 1184-94).

Processing instructions

For installation openings Ø 74 mm and combination distance 71 mm.

Toolless cable entries.

Optimum fastening thanks to ribs, even with additional boarding made of plasterboard.

The innovative cable entry ideally compensates for cable routing tolerances.

Fire-protection box
for solid wood walls

FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

PLUGGABLE

CONNECTIVITY

CABLE GLANDS

TOOLS

SERVICE

Installation

Installation openings Ø 74 mm for combinations with 71 mm centre distance.	Open the cable entry without tools and insert cables up to Ø 11.5 mm.	Align the one-gang junction box using the markings and insert it into the component openings using the setting tool.	Push in the one-gang junction box flush up to an installation depth of 60 mm.
Create through-wiring for combinations with the support connector (Art. No. 9060-68).	Fully insulated through-wiring is carried out in the cable entry area.	Directly opposing installation for solid wood elements ≥ 120 mm.	Allows up to maximum 3-way combinations.
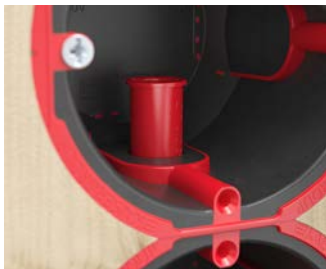
PROTECT® one-gang junction box

NEW

::: INNOVATION

3D animation

· For F30-B to F120-B solid wood elements
· Mounting with rib fixing
· Cable entry enables tolerance compensation of the cable route
· For directly opposing installation
· Preserves the sound insulation properties of the solid wood elements

Depth	60 mm
Cut hole Ø	74 mm
Screw spacing	60 mm
Support connectors for each package	5
Sound insulation	Yes
Classification report	Yes
Cable entries of up to Ø 11.5 mm	8
For wall thicknesses of	100 mm
Combination distance by simply removing the pre-embossed edge	71 mm
Halogen-free	Yes
⚠ / CE	Yes / Yes
Art.-No.	9464-05
Inner packaging/shipping	10 / 100

Note

All technical specifications correspond to the tested and approved applications. Technical deviations or changes are possible in the approvals and must be checked before use.

Ceiling box HWD 30

HWD 30 ceiling box guarantees F30 (EI30) to F90 (EI90) 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 or EI30-EI90 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
- Retrofitting also possible

| halogen-free | IP 30 | DIBt approval General type approval | Europe-wide ETA Certificate |

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
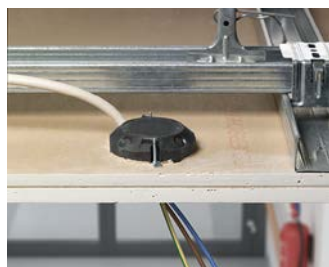
Without mineral wool, the installation corresponds to fire resistance class F30 (EI30).

If mineral wool in accordance with EN 13501 part 1 is used, the installation will withstand a fire up to fire resistance class F60 (EI60), and with Rockwool/Termarock 100 up to fire resistance class F90 (EI90).

Allocation table for universal opening cutters

Cavity wall installation for HWD 90 fire protection boxes		Ø setting
NYM cable	3 x 1.5 mm^2	8.5
	5 x 1.5 mm^2	9.5
	3 x 2.5 mm^2	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).

Fire-protection ceiling boxes with sound insulation function

FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

PLUGGABLE

CONNECTIVITY

CABLE GLANDS

TOOLS

SERVICE

Installation

Cut installation opening Ø 74 mm using the cutter PROFI (Art. No. 1081-20).

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 FX[4] 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 or EI30-EI90
· For F30 (EI30) non-insulated fire-protection ceilings
· For F60 (EI60) fire-protection ceilings backed with mineral insulation materials in compliance with EN 13501 part 1
· for F90 (EI90) fire-protection ceilings with Rockwool/Termarock 100

Ceiling junction box HWD 30

· for fire protection ceilings F30-F90 or EI30-EI90
· For F30 (EI30) non-insulated fire-protection ceilings
· For F60 (EI60) fire-protection ceilings backed with mineral insulation materials in compliance with EN 13501 part 1
· for F90 (EI90) fire-protection ceilings with Rockwool/Termarock 100

Depth	**44 mm**	**54,5 mm**
Cut hole Ø	74 mm	74 mm
Screw spacing	60 mm	60 mm
Cable entries of up to Ø 11.5 mm	2	4
DIBt approval	Z-19.21-1788	Z-19.21-1788
ETA approval	ETA-18/0091	ETA-18/0091
Halogen-free	Yes	Yes
⚠VDE / CE	Yes / Yes	Yes / Yes
Art.-No.	**9463-50**	**9464-50**
Inner packaging/shipping	10 / 100	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, HWD 68+ and solid wood box PROTECT®
· Fire resistance class in accordance with ceiling or wall protection (F30-F120 and EI30-EI120)

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

KAISER 289

Certified.

The HWD B15 fire protection boxes and B15 PROTECT® cable sealings ensure fire protection in walls and ceilings of fire protection class B15 on ships.

The table shows the tested areas of application. Technical deviations or changes are possible in the approvals and must be checked before use.

				9461-14	9463-14	9464-14	9463-15	9464-15	9459-14	9459-15
Wall / ceiling structure	**Minimum wall / ceiling requirement**		**Inst. details**	**HWD B15 one-gang box 40 mm / HWD B15 one-gang box / HWD B15 one-gang junction box for thin boarding**			**HWD B15 one-gang box / HWD B15 one-gang junction box**		**B15 PROTECT® cable sealing / multiple sealing**	
				B15	B15	B15	B15	B15	B15	B15
B15 walls	Minimum wall thickness 25 mm Sheet metal boarding on both sides For symmetrical and asymmetrical walls With and without coating	Sheathed cables up to	Ø 15 mm	✓	✓	✓	✓	✓	✓	
			Ø 12,5 mm	✓	✓	✓	✓	✓	✓	✓
		Clamping range	0,2–40 mm	✓	✓	✓			✓	✓
			7–40 mm				✓	✓	✓	✓
B15 ceiling	Minimum ceiling thickness 30 mm Boarding on both sides For symmetrical and asymmetrical ceilings With and without coating	Sheathed cables up to	Ø 15 mm						✓	
			Ø 12,5 mm						✓	✓
		Clamping range	0,2–40 mm						✓	✓
			7–40 mm						✓	✓

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
- Retrofitting also possible

halogen-free   💧 **IP 30**

DNV

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.

One-gang box HWD B15

· for shipbuilding walls of category B15

Product-Data

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

KAISER

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

One-gang junction box HWD B15

· for shipbuilding walls of category B15

Product-Data

Depth	54,5 mm	54,5 mm
For panel thickness	7 - 40 mm	0,2 - 40 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
Combination distance through single separation of the pre-embossed edge	71 mm	71 mm
Halogen-free	Yes	Yes
CE / ⚙	Yes / Yes	Yes / Yes
🔵	Yes	Yes
Art.-No.	9464-15	9464-14
Inner packaging/shipping	10 / 100	10 / 100

Sealing systems in shipbuilding walls and ceilings B15
for shipbuilding walls and ceilings

FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

PLUGGABLE

CONNECTIVITY

CABLE GLANDS

TOOLS

SERVICE

Fire protection sealing for shipbuilding

The B15 PROTECT® fire protection sealing guarantees fire protection-related room separation in shipbuilding walls and ceilings. Fire, smoke and high temperatures are prevented from spreading due to the intumesce material that forms an insulating layer in the event of fire. Cable entries are safely, permanently and reliably sealed with the B15 PROTECT® multiple sealing and B15 PROTECT® cable sealing, thereby guaranteeing a room separation of 30 minutes.

- For ship cabin walls and ceilings B15
- For cables from Ø 4 - 12.5 mm multiple sealing
- For cables from Ø 4 - 15 mm cable sealing
- Ideal for pre-assembled cables
- Safe, certified fire protection solution
- Certified by DNV applied
- Without the use of fire protection putty
- Toolless installation
- Maintains the wall's sound insulation protection

NEW

DNV

halogen-free ⠿ INNOVATION ▶

Application examples

For cable entries through shipbuilding walls with category B15.

As well as shipbuilding ceilings B15.

Installation for wall thicknesses of 25 mm to 50 mm.
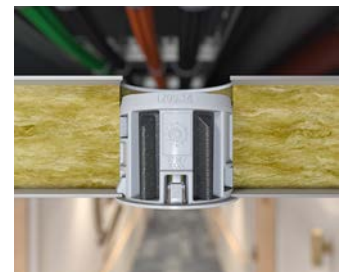
Ceiling mounting also for 25 mm to 50 mm panel thickness.

B15 PROTECT®
cable sealing

⠿ INNOVATION

NEW

· For shipbuilding walls and ceilings in the category B15 separation planes
· For pre-assembled cables
· For fire protection sealing of cable entries
· Without the use of fire protection putty
· Self-supporting sealing through insulation-forming material

B15 PROTECT®
multiple sealing

⠿ INNOVATION

NEW

· For shipbuilding walls and ceilings in the category B15 separation planes
· For pre-assembled cables
· For fire protection sealing of cable entries
· Without the use of fire protection putty
· Self-supporting sealing through insulation-forming material

Depth	25 mm	25 mm
Installation opening Ø	30 mm	50 mm
For sheet thicknesses	0,5 – 0,8 mm	0,5 – 0,8 mm
Cable entries Ø 4 to 9.5 mm	1	2
Cable entries Ø 4 to 12.5 mm	1	2
Cable entrie Ø 4 to 15 mm	1	-
Halogen-free	Yes	Yes
CE / ⚙	Yes / Yes	Yes / Yes
DNV	Yes	Yes
Art.-No.	9459-14	9459-15
Inner packaging/shipping	10 / 100	5 / 50

Subject to modifications

⠿ KAISER

Certified.

They can be used universally and flexibly in walls and ceilings. The table shows the tested areas of application. Technical deviations or changes are possible in the approvals and must be checked before use.

Cable sealing LS 90 / Conduit sealing RS 90 — 9459-01, 9459-02
PROTECT® cable sealing / multiple sealing — 9459-14, 9459-15

Wall type / wall construction	Minimum wall requirement	Cable assignment	Cable sealing LS 90 / Conduit sealing RS 90 (9459-01, 9459-02)				PROTECT® cable sealing / multiple sealing (9459-14, 9459-15)			
			F30-B	F60-B	F90-B	F120-B	F30-B	F60-B	F90-B	F120-B
Cross lam. timber with boarding / cross laminated / exposed timber	**Min. wall thickness** 100 mm to F90-B 120 mm to F120-B **Boarding** 1 × 12.5 mm gypsum plaster fire protection board --- **Exposed wood quality**	Sheathed cables up to Ø 15 mm (with LS90) up to Ø 21 mm (RS90)	✓	✓	✓	✓ <Ø 21mm	✓	✓	✓	✓ only 9459-14
		Coaxial conductor without air insulation or hollow inner conductor	✓	✓	✓	✓	✓	✓	✓	✓ only 9459-14
		Data and communication line (also fibre optic cable)	✓	✓	✓	✓	✓	✓	✓	✓ only 9459-14
		Fibreglass micro conduits and electrical installation conduits M16–M25	✓	✓	✓	✓	✓	✓	✓	✓ only 9459-14

Cable sealing LS 90 / Conduit sealing RS 90 — 9459-01, 9459-02
Box sealing sys. DS 90 / 74 mm DS 90 / 120 mm — 9459-03, 9459-04
Ceiling pen. seal sys. DS 90 / 74 mm DS 90 / 120 mm — 9459-05, 9459-06

Wall type / wall construction	Minimum wall requirement	Cable assignment	Cable sealing LS 90 / Conduit sealing RS 90			Box sealing sys. DS 90/74mm DS 90/120mm			Ceiling pen. seal sys. DS 90/74mm DS 90/120mm		
			F30 (EI30)	F60 (EI60)	F90 (EI90)	F30 (EI30)	F60 (EI60)	F90 (EI90)	F30 (EI30)	F60 (EI60)	F90 (EI90)
Solid walls	**Minimum wall thickness 100 mm** **Walls made of concrete, cellular concrete, reinforced concrete or masonry walls**	Sheathed cables up to Ø 29mm (DS90/120mm), up to Ø 15mm (LS90, RS90), up to Ø 21mm (DS90/74mm)	✓	✓	✓	✓	✓	✓			
		Coaxial conductor without air insulation or hollow inner conductor	✓	✓	✓	✓	✓	✓			
		Data and communication line (also fibre optic cable)	✓	✓	✓	✓	✓	✓			
		Fibreglass micro conduits and electrical installation conduits M16–M40 (DS90/74mm, S90/120mm), M16–M25 (RS90)	✓	✓	✓	✓	✓	✓			
DIN – Walls (EI30 EI90)	**Minimum wall thickness 100 mm** **Metal studs (F30–F90)** **Boarding on both sides** 2 × 12.5 mm gypsum plaster fire protection panels **Mineral insulation >1,000 °C**	Sheathed cables up to Ø 29mm (DS90/120mm), up to Ø 15mm (LS90, RS90), up to Ø 21mm (DS90/74mm)	✓	✓	✓	✓	✓	✓			
		Coaxial conductor without air insulation or hollow inner conductor	✓	✓	✓	✓	✓	✓			
		Data and communication line (also fibre optic cable)	✓	✓	✓	✓	✓	✓			
		Fibreglass micro conduits and electrical installation conduits M1–M40 (DS90/74mm, DS90/120mm), M16–M25 (RS90)	✓	✓	✓	✓	✓	✓			
Approved wall (abP, abZ or aBG)	**Min. wall thickness 100 mm** **Metal studs (F30–F90)** **Boarding on both sides** 2 × 12.5 mm cement or gypsum approval bonded building panel or plaster-board / calcium silicate boards **With or without insulation** **With glass wool** abZ: general technical / **abP:** general test certificate / **aBG:** general type approval	Sheathed cables up to Ø 29mm (DS90/120mm), up to Ø 15mm (LS90, RS90), up to Ø 21mm (DS90/74mm)	✓	✓	✓	✓ Stuffing wool ≥1.000°C	✓ Stuffing wool ≥1.000°C	✓ Stuffing wool ≥1.000°C			
		Coaxial conductor without air insulation or hollow inner conductor	✓	✓	✓	✓ Stuffing w. ≥1.000°C	✓ Stuffing w. ≥1.000°C	✓ Stuffing w. ≥1.000°C			
		Data and communication line (also fibre optic cable)	✓	✓	✓	✓ Stuffing w. ≥1.000°C	✓ Stuffing w. ≥1.000°C	✓ Stuffing w. ≥1.000°C			
		Fibreglass micro conduits and electrical installation conduits M16–M40 (DS90/74mm, DS90/120mm), M16–M25 (RS90)	✓	✓	✓	✓ Stuffing wool ≥1.000°C	✓ Stuffing wool ≥1.000°C	✓ Stuffing wool ≥1.000°C			
Ceiling	**Minimum ceiling thickness 150 mm** **Ceiling made of concrete, reinforced concrete or cellular concrete**	Sheathed cables up to Ø 29mm (DS90/120mm), up to Ø 15mm (LS90, RS90), up to Ø 21mm (DS90/74mm)							✓	✓	✓
		Coaxial conductor without air insulation or hollow inner conductor							✓	✓	✓
		Data and communication line (also fibre optic cable)							✓	✓	✓
		Fibreglass micro conduits and electrical installation conduits M16 to M40							✓	✓	✓

Subject to modifications

Cable and conduit sealing systems for walls and ceilings

KAISER cable and conduit sealing systems have been specially developed to meet the requirements of electrical installations. They are characterised by their simple, fast and safe processing. Thanks to the integrated insulating layer of fire protection material, processing is possible without additional fire protection components, which reduces the risk of incorrect installation. All fire protection systems can be used in cavity walls as well as solid walls. In addition, the DS 90/74 and DS90/120 ceiling systems can be installed in concrete ceilings. The special feature here is the installation from the ceiling upper surface, which sets the systems apart from others on the market. In the cavity wall area, the systems have another special feature compared to conventional systems. They allow cable or conduit entries to be sealed off in the wall, as a reveal is not necessary.

halogen-free	DIBt approval General type approval	Europe-wide ETA Certificate	▶

Application examples

The KAISER sealing system for building installation – Everything at a glance

KAISER

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

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 (EI90). In addition, the cable sealing system can also be used as a wall outlet that enables the connection of electrical attachments.

- 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

Sound insulation value R'w up to 76 dB

| halogen-free | DIBt approval General type approval | Europe-wide ETA Certificate |

Examples of applications for cable sealing system LS 90

Wall feed-through in plaster-board fire-protection wall.

Suitable for wall entry and wall outlet in dry construction fire protection wall.

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

Wall feed-through in concrete fire-protection wall.

Secure wall outlet up to EI90 for connecting electrical attachments...

...like motion detectors.

Secure wall outlet up to EI90 for connecting electrical attachments...

...like wall lights.

Cable sealing system LS 90

· for EI90 fire-protection walls
· for wall entry, wall outlet and penetration
· without use of fire-protection foam or putty
· made of intumescent material
· automatic room separation of the installation opening
· unlimited building material shelf life

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
for sound insulation walls up to	76 dB
CE	Yes
Art.-No.	9459-01
Inner packaging/shipping	10 / 100

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.

Conduit sealing system RS 90

· for EI90 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

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
for sound insulation walls up to	76 dB
CE	Yes
Art.-No.	9459-02
Inner packaging/shipping	10 / 100

Subject to modifications
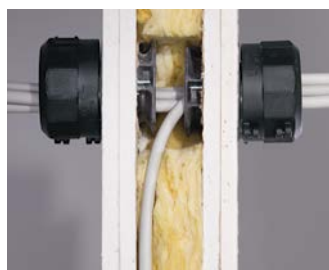
KAISER

Sealing systems in fire-protection walls

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 (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

Sound insulation value R'w up to 77 dB

halogen-free | **DIBt approval General type approval** | **Europe-wide ETA Certificate**

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.

Box sealing system DS 90 / 74 mm

- · for EI90 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 | Product-Data

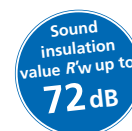| Cut hole Ø	74 mm
Min. wall thickness	100 mm
Cable entries	Maximum population (internal diameter 40 mm)
DIBt approval	Z-19.53-2189
for sound insulation walls up to	77 dB
CE	Yes
Art.-No.	9459-03
Inner packaging/shipping	10 / 100

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.

FLUSH-MOUNTING

CAVITY WALL

CONCRETE

HOUSINGS

FIRE PROTECTION

PLUGGABLE

CONNECTIVITY

CABLE GLANDS

TOOLS

SERVICE

Box sealing system DS 90 / 120 mm

The 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

Sound insulation value R'w up to 72 dB

| halogen-free | DIBt approval General type approval | Europe-wide ETA Certificate | ▶ |

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.

Box sealing system DS 90 / 120 mm

· for EI90 fire-protection walls
· attachment using tried-and-tested FX[4] metal plate screws
· with integrated sealing inserts
· ensures smoke-tight room separation (seals against cold smoke)
· unlimited building material shelf life

3D animation   Product-Data

Cut hole Ø	120 mm
Min. wall thickness	100 mm
Cable entries	Maximum population (Inner diameter 74 mm)
DIBt approval	Z-19.53-2188
for sound insulation walls up to	72 dB
$C\epsilon$	Yes
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

| halogen-free | DIBt approval General type approval | Europe-wide ETA Certificate |

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.

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

3D animation   Product-Data

Installation opening Ø	100 mm
Ceiling thickness	150 - 300 mm
Cable entries	Maximum population (internal diameter 40 mm)
DIBt approval	Z-19.53-2189
PVC conduits up to	M40
CE	Yes
Art.-No.	9459-05
Inner packaging/shipping	1 / 12

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

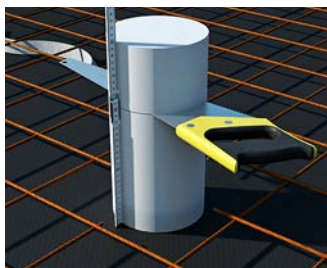| Installation opening Ø	150 mm
Ceiling thickness	150 - 300 mm
Cable entries	Maximum population (Inner diameter 74 mm)
DIBt approval	Z-19.53-2188
PVC conduits up to	M50
CE	Yes
Art.-No.	9459-06
Inner packaging/shipping	- / 1

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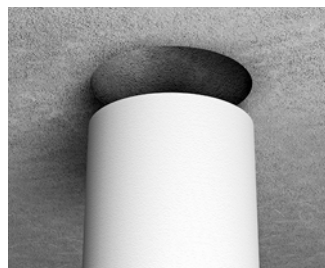
After formwork removal, remove the formwork unit from the component opening without leaving any residues.

Formwork body

· creates matching component openings
· suitable for ceiling penetration sealing systems 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
· 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

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.

5×6^2	3×10^2	5×10^2	4×16^2	5×25^2	4×35^2	$7 \times 2,5^2$
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

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

Accessories for sealings

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

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

Sealing plugs 16-20

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

3D animation

Sealing plug	**M16**	**M20**
DIN EN conduit Ø	16 mm	20 mm
Halogen-free	Yes	Yes
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

3D animation

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

FlamoX® fire-protection housing

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 **DIBt approval General type approval** **Europe-wide ETA Certificate** **INNOVATION**

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.

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

INNOVATION

3D animation   Product-Data

Length x Width x Height	240 x 190 x 100 mm	320 x 270 x 150 mm
For panel thickness	2 x 12,5 mm	2 x 12,5 mm
Installation height	150 mm	200 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
LED luminaires	14 Watt	34 Watt
Halogen luminaires	50 Watt	75 Watt
DIBt approval	Z-19.53-2603	Z-19.53-2603
ETA approval	ETA-20/0238	ETA-20/0238
Halogen-free	Yes	Yes
CE	Yes	Yes
Art.-No.	9435-04	9435-03
Inner packaging/shipping	- / 1	- / 1

Subject to modifications

KAISER 303

International products

Fire-protection boxes are given the same period of fire resistance in fire-protection walls 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
- Retrofitting is possible
- For a directly opposing installation
- Can be used with fire-protection cover as a junction box

halogen-free

O-range® Protect³ one-gang box

· for F30-F120 or EI30-EI120 fire-protection walls
· also for directly opposing installation
· from wall thicknesses of 100 mm
· can be combined with each other and with the one-gang junction box

⠿ INNOVATION

NEW

Depth	49 mm
For panel thicknesses up to	7 - 40 mm
Cut hole Ø	68 mm
Screw spacing	60 mm
Support connectors for each package	5
ETA approval	ETA-22/0129
for sound insulation walls up to	69 dB
Cable entries of up to Ø 11.5 mm	6
Tube entries up to M25	2
Halogen-free	Yes
CEBEC	Yes
Art.-No.	5431
Inner packaging/shipping	10 / 100

O-range® Protect³ one-gang junction box

· for F30-F120 or EI30-EI120 fire-protection walls
· also for directly opposing installation
· from wall thicknesses of 125 mm
· can be combined with each other and with the one-gang junction box

⠿ INNOVATION

NEW

Depth	60 mm
For panel thicknesses up to	7 - 40 mm
Cut hole Ø	68 mm
Screw spacing	60 mm
Support connectors for each package	5
ETA approval	ETA-22/0129
for sound insulation walls up to	69 dB
Cable entries of up to Ø 11.5 mm	6
Tube entries up to M25	2
Halogen-free	Yes
CEBEC	Yes
Art.-No.	5439
Inner packaging/shipping	10 / 100