

PYRO-SAFE CT

Installation instructions

The simple PYRO-SAFE CT Cable Tube with snap-on lock for existing and new cable penetrations and pipe penetrations for electrical installations.

Fire resistance classes EI 30, EI 45, EI 60, EI 90, EI 120 according to EN 13501-2 in accordance with ETA-13/0821 and ETA-16/0016 specifications; Classification report No. 01883.2/14/Z00NP and Classification report No. 1913.1/13/Z00NP



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1. Preliminary Remarks / Overview

1.1 Target group

- The installation instructions are aimed exclusively at personnel trained in fire protection.

1.1 Use of the manual

- Read these installation instructions completely before starting work. Observe the following safety instructions.
- The approval holder assumes no liability for damage caused by non-observance of these instructions.
- The pictures are only examples. The installation may differ visually.

1.1 Safety information



Read the safety data sheets when working with the penetration seal components.

Personal protective equipment:



Hand protection

Use chemical-resistant gloves.

Recommended material: butyl rubber, nitrile rubber, fluorinated rubber, PVC.



Body protection

Wear protective clothing and non-slip shoes



Safety information for installation of floor penetration seals:

- The area below the floor penetration seal must be cordoned during the installation (warning tape, or sign: danger - falling objects; keep off this area; sealing work underway in the floor above!
- The installer shall inform the client in writing (to be forwarded to the building owners or their agents) that, after the installation, the penetration seal shall be secured against any loading with suitable measures, in particular the access shall be inhibited (e.g. with safety fence or grating).

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1.2 Field of application - Scope

The usefulness of the PYRO-SAFE CT penetration seal was determined according to ETAG 026-2 regarding the features fire “performance”, “fire resistance”, “release of dangerous substances” and “durability and fitness for use”.

Reaction to fire

The ablative “PYRO-SAFE FLAMMOTECT-A” components and the intumescent material “PYRO-SAFE DG-CR SK” comply with reaction to fire performance class E of EN 13501-1.

fire resistance

The highest requirements that the PYRO-SAFE CT system complies with are those of class EI 120 (extension -U/U for plastic pipes;) in accordance with EN 13501-2.

Fire resistance class EI 120-U/U for plastic pipes covers also all other possible ends of pipe in accordance with EN 13501-2. If installed in walls/floors with a lower fire resistance time, the fire resistance time of the penetration seal is also reduced to the fire resistance class of the wall or floor.

Release of dangerous substances

The ablative “PYRO-SAFE FLAMMOTECT-A” component and the intumescent “PYRO-SAFE DG-CR” fabric do not contain any substances identified as dangerous in the list of the European Commission.

Durability and serviceability

The ablative “PYRO-SAFE FLAMMOTECT-A” component and the intumescent “PYRO-SAFE DG-CR SK” fabric comply with use category X in accordance with EOTA TR 024.

The fire safety characteristics of the PYRO-SAFE Flammotect single-layer system is not affected in any significant way if exposed to indoor (moisture conditions).

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1.2 Field of application - Structural elements

Plasterboard walls with steel frame

In studworks and double-sided lining with at least 2 layers of 12.5 mm thick cement or gypsum-based building slabs with a fire performance of Class A1 or A2 in accordance with EN 13501-1. The walls must be classified with the required fire resistance rating in accordance with EN 13501-2.

massive walls

Made from masonry, concrete, reinforced concrete or aerated concrete with density $\geq 450 \text{ kg/m}^3$. The walls must be classified as required for the intended fire resistance time in accordance with EN 13501-2.

Plasterboard walls with wood frame

In studworks and double-sided lining with at least 2 layers of 12.5 mm thick cement or gypsum-based building slabs with a fire performance of Class A1 or A2 in accordance with EN 13501-1. The distance from the opening to the struts and bars shall be $\geq 100 \text{ mm}$ and the hollow spaces between the linings of the wall, the struts and bars as well as the opening edge shall be stuffed down to a depth of $\geq 100 \text{ mm}$ with mineral wool, fire resistance Class A1 or A2 in accordance with EN 13501-1. The walls shall be classified with the required fire resistance rating in accordance with EN 13501-2.

massive floors

made from concrete, reinforced concrete or aerated concrete with density $\geq 650 \text{ kg/m}^3$. The floors must be classified as required for the intended fire resistance time in accordance with EN 13501-2.

1.3 Fire resistance classes for wall penetration seals

Wall penetrations with PYRO-SAFE CT 150 penetration seal														
Configuration/ Fire resistance class	Plasterboard wall ≥ 100 mm							Solid wall ≥ 100 mm						
	EI 30	EI 45	EI 60	EI 90	EI 120	E 90	E 120	EI 30	EI 45	EI 60	EI 90	EI 120	E 90	E 120
Single cable Ø ≤ 21 mm	●	●	●	●	-	●	●	●	●	●	●	-	●	●
Single cable Ø > 21 mm up to Ø ≤ 50 mm	●	●	-	-	-	●		●	●	-	-	-	●	-
Cable bundle Ø ≤ 107 mm with Cables Ø ≤ 21 mm	●	●	●	●	-	●	●	●	●	●	●	-	●	●
Conduits up to 3 pcs. conduit Ø ≤ 32 mm each with/without Cable Ø ≤ 14 mm	●	●	●	●	-	●	-	●	●	●	●	-	●	-
Combined lines for split HVAC-units; pipe 1/pipe 2 outside-Ø 6 mm -10 mm/10 - 18 mm + max. 9 mm thick insulation made of PE foam + PE-100 outside-Ø ≤ 25 mm, t 1,5 mm (u/u) + max 3 cables Ø ≤ 14 mm	●	●	●	●	-	●	-	●	●	●	●	-	●	-

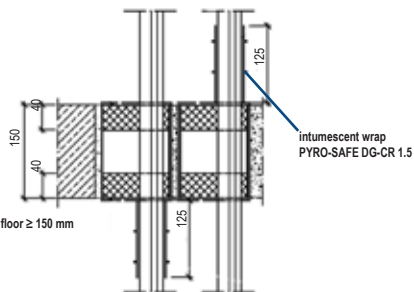
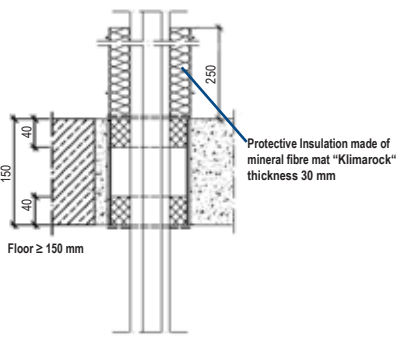
Wall penetrations with PYRO-SAFE CT 200 penetration seal														
Configuration/ Fire resistance class	Plasterboard wall ≥ 100 mm							Solid wall ≥ 100 mm						
	EI 30	EI 45	EI 60	EI 90	EI 120	E 90	E 120	EI 30	EI 45	EI 60	EI 90	EI 120	E 90	E 120
Single cable Ø ≤ 21 mm	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Single cable Ø > 21 mm up to Ø ≤ 50 mm	●	●	-	-	-	●		●	●	-	-	-	●	-
Cable bundle Ø ≤ 107 mm with Cables Ø ≤ 21 mm	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Conduit bundle Ø ≤ 107 mm with conduit Ø ≤ 32 mm each with/without Cable Ø ≤ 21 mm	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Combined lines for split HVAC-units; pipe 1/pipe 2 outside-Ø 6 mm -10 mm/10 - 18 mm + max. 9 mm thick insulation made of PE foam + PE-100 outside-Ø ≤ 25 mm, t 1,5 mm (u/u) + max 3 cables Ø ≤ 14 mm	●	●	●	●	-	●	-	●	●	●	●	-	●	-

Wall penetrations with PYRO-SAFE CT 300 penetration seal														
Configuration/ Fire resistance class	Plasterboard wall ≥ 100 mm							Solid wall ≥ 100 mm						
	EI 30	EI 45	EI 60	EI 90	EI 120	E 90	E 120	EI 30	EI 45	EI 60	EI 90	EI 120	E 90	E 120
Single cable Ø ≤ 21 mm	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Single cable Ø > 21 mm up to Ø ≤ 50 mm	●	●	●	●	-	●	●	●	●	●	●	-	●	●
Single cable Ø > 50 mm up to Ø ≤ 80 mm	-	-	-	-	-	-	-	●*	●*	●*	●*	-	●*	●*
Cable bundle Ø ≤ 107 mm with Cables Ø ≤ 21 mm	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Conduit bundle Ø ≤ 107 mm with conduit Ø ≤ 32 mm each with/without Cable Ø ≤ 21 mm	●	●	●	●	●	●	●	●	●	●	●	●	●	●
PVC-U pipes with outside Ø 20 mm x th 1.5 mm to Ø 32 mm x th 2.4 mm	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Combined lines for split HVAC-units; pipe 1/pipe 2 outside-Ø 6 mm -10 mm/10 - 18 mm + max. 9 mm thick insulation made of PE foam + PE-100 outside-Ø ≤ 25 mm, t 1,5 mm (u/u) + max 3 cables Ø ≤ 14 mm	●	●	●	●	-	●	-	●	●	●	●	-	●	-

* Solid wall ≥ 150 mm

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1.3 Fire resistance classes for floor penetration seals

Floor penetrations with PYRO-SAFE CT 150 in floor ≥ 125 mm up to 150 mm							
Configuration/ Fire resistance class	Floor ≥ 125 mm up to 150 mm						
	EI 30	EI 45	EI 60	EI 90	EI 120	E 90	E 120
Single cable Ø ≤ 21 mm	● *	● *	● *	●	●	●	●
Single cable Ø > 21 mm - Ø ≤ 50 mm	● *	● *	-	-	-	● *	-
Cable bundle Ø ≤ 107 mm with Cables Ø ≤ 21 mm	● *	● *	● *	-	-	● *	-
Cable bundle Ø ≤ 107 mm with Cables Ø ≤ 21 mm with PYRO-SAFE DG-CR 1.5 intumescent wrap length: 125 mm; selective at the top or at the bottom				●	●	●	●
							
Conduits up to 3 pcs. conduit Ø ≤ 16 mm - Ø ≤ 32 mm each with/without Cable Ø ≤ 14 mm	●	●	●	●	-	●	-
Combined lines for split HVAC-units; pipe 1/pipe 2 outside-Ø 6 mm - 10 mm/10 - 18 mm + max. 9 mm thick insulation made of PE foam + PE-100 outside-Ø ≤ 25 mm, t 1,5 mm (u/u) + max 3 cables Ø ≤ 14 mm	●	●	●	●	-	●	-
Combined lines for split HVAC-units; pipe 1/pipe 2 outside-Ø 6 - 22 mm/6 - 22 mm + max. 9 mm thick insulation made of PE foam + PE-100 outside-Ø ≤ 25 mm, t 1,8 mm + max 3 cables Ø ≤ 14 mm with "Klimarock" 250 x 30 mm at the top	●	●	●	●	●	●	●
							
Gabocom "speed pipe" bundled or single pipes, with or without glass fibre Max. 24 ea., outside pipe Ø ≤ 7 mm Max. 7 ea., outside pipe Ø ≤ 10 mm Max. 5 ea., outside pipe Ø ≤ 12 mm	●	●	●	●	●	●	●

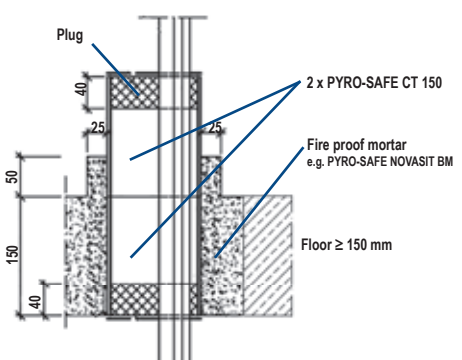
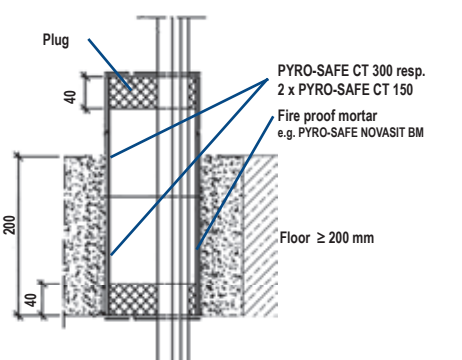
all dimensions in mm

* Floor ≥ 125 mm

1.3 Fire resistance classes for floor penetration seals

Floor penetrations with PYRO-SAFE CT 200 in floor ≥ 125 mm up to 150 mm							
Configuration/ Fire resistance class	CT 150/CT 200 in Floor ≥ 125 mm						
	EI 30	EI 45	EI 60	EI 90	EI 120	E 90	E 120
Single cable $\varnothing \leq 21$ mm	●*	●*	●*	●	●	●	●
Single cable $\varnothing > 21$ mm - $\varnothing \leq 50$ mm	●*	●*	-	-	-	●*	-
Cable bundle $\varnothing \leq 107$ mm with Cables $\varnothing \leq 21$ mm	●*	●*	●*	-	-	●*	-
Cable bundle $\varnothing \leq 107$ mm with Cables $\varnothing \leq 21$ mm with PYRO-SAFE DG-CR 1.5 intumescent wrap length: 125 mm; selective at the top or at the bottom				●	●	●	●
Conduits up to 3 pcs. conduit $\varnothing \leq 16$ mm - $\varnothing \leq 32$ mm each with/without Cable $\varnothing \leq 14$ mm	●	●	●	●	-	●	-
Combined lines for split HVAC-units; pipe 1/pipe 2 outside- \varnothing 6 mm - 10 mm/10 - 18 mm + max. 9 mm thick insulation made of PE foam + PE-100 outside- $\varnothing \leq 25$ mm, t 1,5 mm (u/u) + max 3 cables $\varnothing \leq 14$ mm	●	●	●	●	-	●	-
Combined lines for split HVAC-units; pipe 1/pipe 2 outside- \varnothing 6 - 22 mm/6 - 22 mm + + max. 9 mm thick insulation made of PE foam PE-100 outside- $\varnothing \leq 25$ mm, t 1,8 mm + max 3 cables $\varnothing \leq 14$ mm with "Klimarock" 250 x 30 mm at the top	●	●	●	●	●	●	●
Gabocom "speed pipe" bundled or single pipes, with or without glass fibre Max. 24 ea., outside pipe $\varnothing \leq 7$ mm Max. 7 ea., outside pipe $\varnothing \leq 10$ mm Max. 5 ea., outside pipe $\varnothing \leq 12$ mm	●	●	●	●	●	●	●

* Floor ≥ 125 mm

Floor penetrations with PYRO-SAFE CT 300 in floor ≥ 150 mm							
Configuration/ Fire resistance class	in Floor ≥ 150 mm						
	EI 30	EI 45	EI 60	EI 90	EI 120	E 90	E 120
Single cable $\varnothing \leq 21$ mm (Floor ≥ 150 mm with CT 300) or Floor 150 mm with 2 x CT 150							
<div>  </div>							
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all dimensions in mm

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1.3 Fire resistance classes for floor penetration seals

Floor penetrations with PYRO-SAFE CT 300 in floor ≥ 150 mm							
Configuration/ Fire resistance class	CT 150/CT 200 in Floor ≥ 125 mm						
	EI 30	EI 45	EI 60	EI 90	EI 120	E 90	E 120
Single cable $\varnothing > 21$ mm - $\varnothing \leq 50$ mm	●	●	●			●	●
Single cable $\varnothing > 21$ mm up to $\varnothing \leq 50$ mm with Klimarock 100 x 30mm + PYRO-SAFE DG-CR 1.5 intumescent wrap length: 125 mm; at the top				●	●	●	●
Single cable $\varnothing > 50$ mm up to $\varnothing \leq 80$ mm	●	●	●	-	-	●	●
Cable bundle $\varnothing \leq 107$ mm with Cables $\varnothing \leq 21$ mm	●	●	●	●	●	●	●
Conduit bundle $\varnothing \leq 107$ mm with Cables $\varnothing \leq 21$ mm	●	●	●	●	●**	●	●
Combined lines for split HVAC-units; pipe 1/pipe 2 outside- \varnothing 6 mm -10 mm/10 - 18 mm + max. 9 mm thick insulation made of PE foam + PE-100 outside- $\varnothing \leq 25$ mm, t 1,5 mm (u/u) + max 3 cables $\varnothing \leq 14$ mm	●	●	●	●	-	●	-
Combined lines for split HVAC-units; pipe 1/pipe 2 outside- \varnothing 6 - 22 mm/6 - 22 mm + max. 9 mm thick insulation made of PE foam + PE-100 outside- $\varnothing \leq 25$ mm, t 1,8 mm (u/u)+ max 3 cables $\varnothing \leq 14$ mm with "Klimarock" 250 x 30 mm at the top	●	●	●	●	●	●	●
Gabocom "speed pipe" bundled or single pipes, with or without glass fibre Max. 24 ea., outside pipe $\varnothing \leq 7$ mm Max. 7 ea., outside pipe $\varnothing \leq 10$ mm Max. 5 ea., outside pipe $\varnothing \leq 12$ mm	●	●	●	●	●	●	●

all dimensions in mm

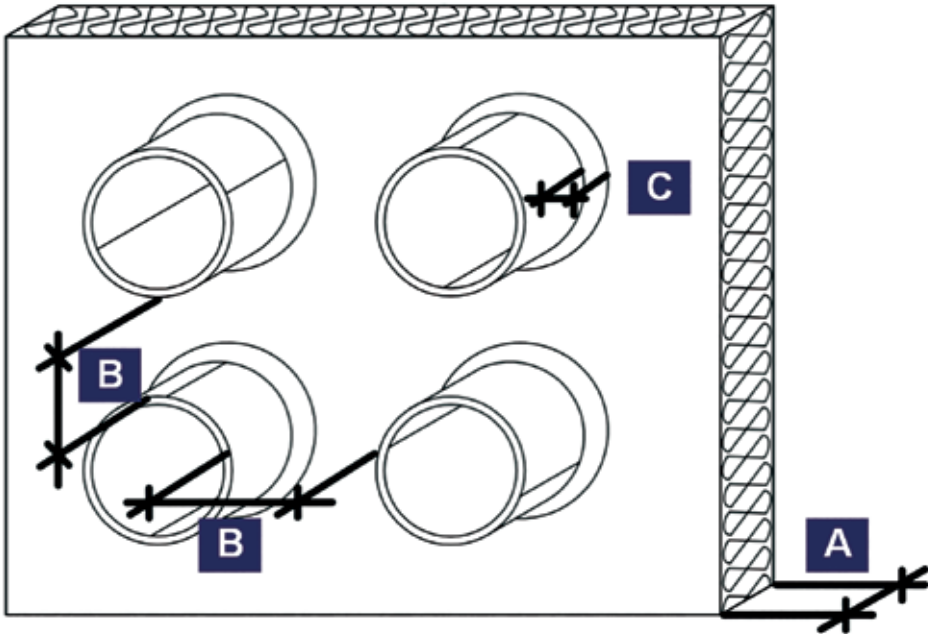
** Floor ≥ 200 mm (CT 300 or 2 x CT 150)

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1.4 Field of application - Dimensions

Dimensions for separate installations			
Pos.	Legend	Wall [mm]	Floor [mm]
A	Thickness of structural element	≥ 100*	≥ 125*
B	PYRO-SAFE CT spacing for separate installation	≥ 60	≥ 60
C	Annular gap	≥ 5 - ≤ 25	≥ 5 - ≤ 25

* Minimum thickness of structural element subject to the intended fire resistance time

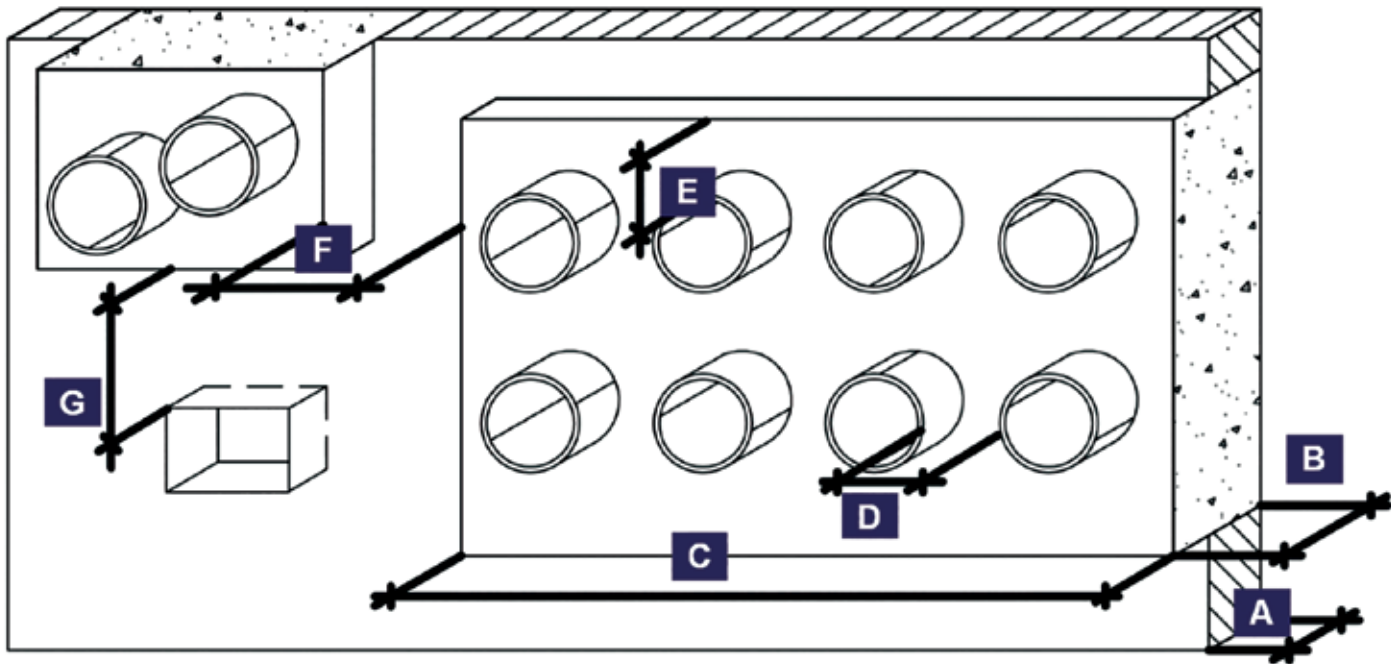


Subject to errors, misprints and modifications. All information corresponds to state-of-the-art technology and the version of standards applicable at the time of printing 01/2016).
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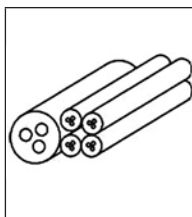
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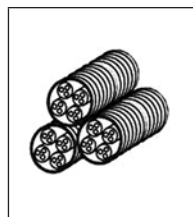
1.4 Field of application - Dimensions

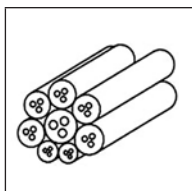
Dimensions for multiple installations			
Pos.	Legend	Wall [mm]	Floor [mm]
A	Thickness of structural element	≥ 100	≥ 125
B	Thickness of penetration seal	≥ 150	≥ 150
C	Maximum dimensions of the component opening (width x height)	1200 x 2000	640 x ∞
D	Horizontal/vertical spacing for grouped installations	≥ 3	≥ 10
E	Spacing from opening reveal	≥ 15	≥ 15
F	Spacing from other cable penetration seals		
	One/both opening(s) > 400 x 400 mm Both openings ≤ 400 x 400 mm	≥ 200 ≥ 100	≥ 200 ≥ 100
G	Spacing from other openings or installations	≥ 200	≥ 200



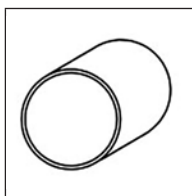
2.1 Allowed services - cables and conduits

	<p>Electrical cables of any kind (incl. fibre optic cables)</p> <p>Maximum size of total conductor cross section of the different cables depends on the intended fire resistance time</p>
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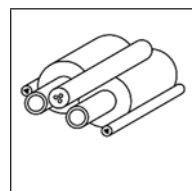
	<p>Electrical conduits</p> <p>Individual or as bundle up to outside $\varnothing \leq 107$ mm, flexible from plastics in accordance with EN 61386-22, to outside $\varnothing \leq 32$ mm, with and without assigned cables, individual cable $\varnothing \leq 21$ mm</p>
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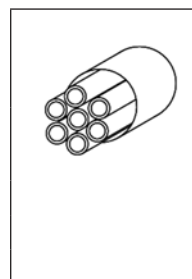
	<p>Cable bundles</p> <p>up to $\varnothing \leq 107$ mm with individual cables $\varnothing \leq 21$ mm. Interstices do not have to be filled with tightly packed, tied cable bundles</p>
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2.2 Allowed services - combustible pipes

	<p>Combustible pipes</p> <p>made from PVC-U in accordance with EN 1452 and DIN 8061/8062 with outside $\varnothing \geq 20$ mm x th 1.5 mm to outside $\varnothing \leq 32$ mm x th 2.4 mm</p>
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2.3 Further allowed configurations

	<p>HVAC split line combinations</p> <p>Double or single copper pipe (pipe 1/pipe 2 outside-\varnothing 6 - 22 mm/6 - 22 mm) and max. 9 mm thick insulation made of PE foam according to EN 14313 with an accessory line (1,5 mm thick plastic pipe (u/u) made of PVC-U, outside \varnothing 25 mm, according to EN 1453-1 or EN 1452-1 and to DIN 8061/DIN 8062 and up to 3 sheath cables with max. 5 wires with a surface $\leq 1,5$ mm², $\varnothing \leq 14$ mm) without spacing.</p>
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	<p>Gabocom PE "speed pipes" lines (for glass fibre cables) and micro-cables</p> <p>Single cables or bundles with or without glass fibre cable by Gabocom Systemtechnik GmbH.</p>		
	Outside pipe \varnothing [mm]	Max. qty. [pcs.]	Thickness of pipe wall [mm]
	≤ 7	24	$\leq 1,5$
	≤ 10	7	$\leq 2,0$
	≤ 12	5	$\leq 2,0$

3. Spacing

- The Cable Tubes may be completely filled with cables, cable bundles or electric wiring conduits.
- Cables, cable bundles and electric wiring conduits may adjoin each other and rest against the inside Cable Tube wall.
- With multiple installations, the entire permissible cross section of the cables (based on the outside Cable Tube dimensions) must not account for more than 60 % of the member opening.

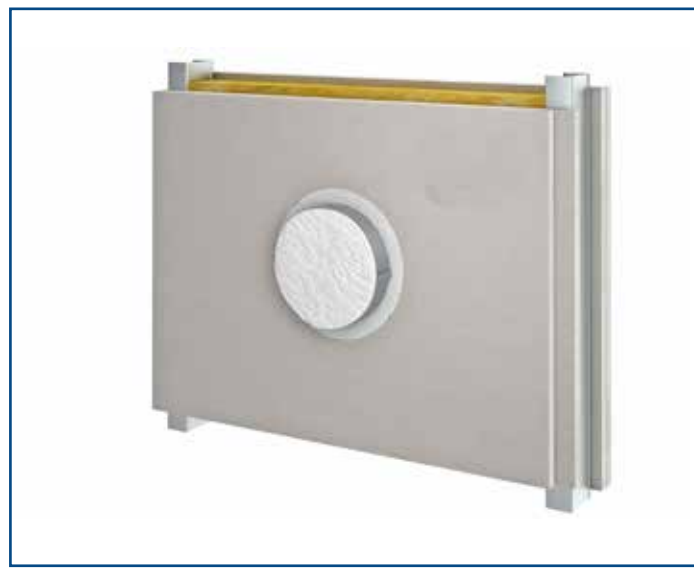
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4. Used products

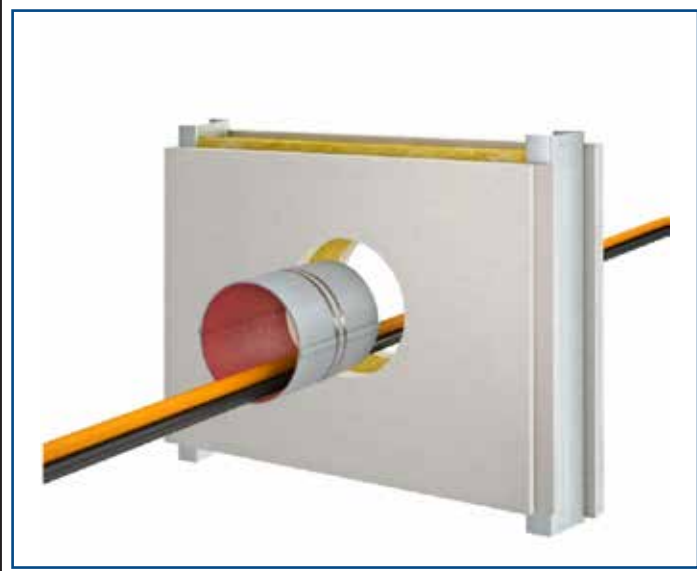
	<p>PYRO-SAFE CT</p> <p>Consisting of PYRO-SAFE Cable Tube and 2 flexible foam plugs Item No. 01281150 - CT 150 Item No. 01281200 - CT 200 Item No. 01281300 - CT 300</p>		<p>PYRO-SAFE NOVASIT K 2 Fireproof compound</p> <p>25-kg bag - Item No. 01163000 Normal masonry mortar according to EN 998-2:2010 Mortar group NM IIIa - M20</p>
	<p>Melamine resin plug set</p> <p>Melamine resin plug Thickness: 42 ± 2 mm Diameter: 112 ± 2 mm 10 pcs in a box Item No. 01271999</p>		<p>PYRO-SAFE NOVASIT VGM Fireproof compound</p> <p>30-kg bag - Item No. 01164000 Normal masonry mortar according to EN 998-2:2010 Mortar group NM III - M10</p>
	<p>PYRO-SAFE FLAMMOTECT-A Solid emulsion</p> <p>Reaction to fire class in accordance with EN 13501-1: class E 12.5-kg pail - product No. 01155106 15 kg pail - Art. No. 01155107</p>		<p>No specific producer</p> <p>Dimensionally stable, non-flammable (class A1 or A2-s1,d0 in accordance with EN 13501-1) construction materials, e.g. concrete, cement mortar, gypsum mortar</p>
	<p>PYRO-SAFE FLAMMOTECT-A Filler</p> <p>Reaction to fire class in accordance with EN 13501-1: class E 12.5-kg pail - product No. 01155104 15 kg pail - Art. No. 01155109</p>		<p>“KLIMAROCK“ lamella mat</p> <p>laminated with aluminium cladding in accordance with abZ approval Z-23.14-1115 Reaction to fire class in accordance with EN 13501-1: A2-s1 d0 0 cm; Thickness: 30 mm</p>
	<p>PYRO-SAFE FLAMMOTECT-A Filler</p> <p>Reaction to fire class in accordance with EN 13501-1: class E 310- cartridge - product No. 01155115</p>		<p>PYRO-SAFE DG-CR 1,5</p> <p>Cable and pipe wrap in accordance with ETA-13/0100 Reaction to fire class in accordance with EN 13501-1: B-s1,d0 Intumescent material for wrapping cables and pipes of various widths</p>
	<p>PYRO-SAFE NOVASIT BM Fireproof compound</p> <p>20-kg bag - Item No. 01161000 Composition of the dry mortar complies with sample deposited with DIBt Lt masonry mortar acc.to EN 998-2:2010</p>		<p>Label</p> <p>1 piece - Part No.</p>
	<p>PYRO-SAFE NOVASIT BM Fireproof compound</p> <p>10-kg bucket - Item No. 01161010 Composition of the dry mortar complies with sample deposited with DIBt Lt masonry mortar acc.to EN 998-2:2010</p>		<p>Recommended tools</p> <ul style="list-style-type: none"> • Spatulas, brushes, masking tape • cutter and saw • Possibly foil, folding ladder • Pliers, galvanized steel wire

5. Regulations and variants

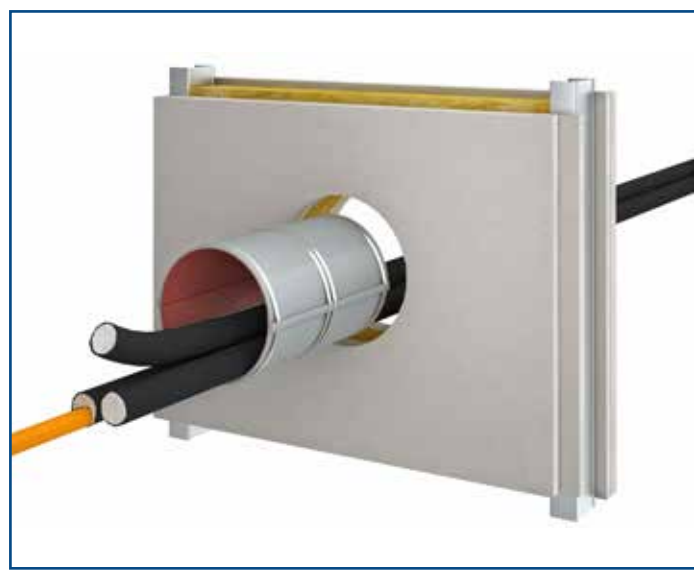
PYRO-SAFE CT penetration seal may be used to seal openings without installations (so-called reserve partition).



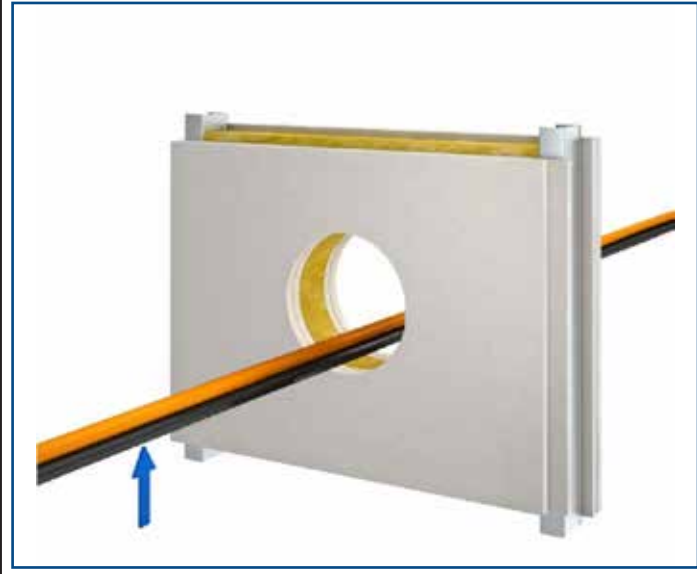
For installations in plasterboard walls with a spacing of more than 50 mm between the wall sheets on both sides of the steel support structure, the Cable Tubes have to be fixed with steel strips/wires in the region between the wall sheets.



When electric wiring conduits are installed in plasterboard walls, the Cable Tubes have to be additionally fixed with a steel strip/wire on each side only for projections > 50 mm. In the region between the wall boarding, 2 steel strips/wires have to be provided.



For installations in walls, the first support must be provided by the customer on both sides of the wall at a distance of ≤ 300 mm. The supports must be made from non-flammable construction materials.



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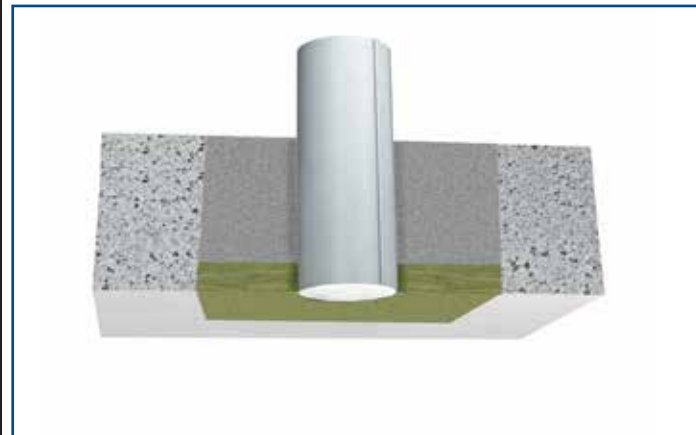
5. Regulations and variants

For floor installations, the Cable Tubes must be fitted so they are flush with the floor underside. Cable Tubes in floors must be protected (fencing or grating) to prevent them from being loaded or walked on.

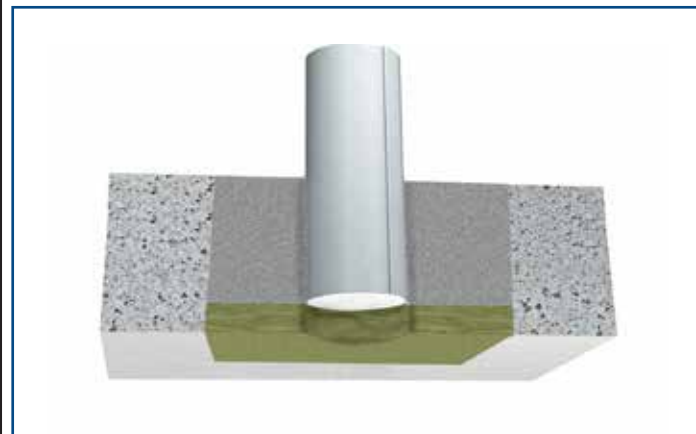


Mounting with lost formwork (floor ≥ 200 mm)

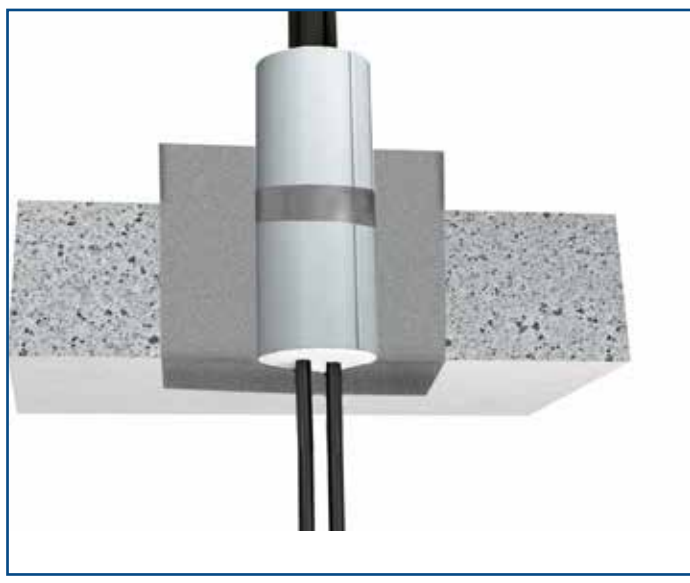
PYRO-SAFE CT flush with lost formwork



PYRO-SAFE CT on the lost formwork (open)

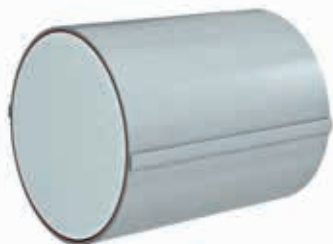


For floor installations (floor / Thickness of penetration seal ≥ 200 mm) two Cable Tubes PYRO-SAFE CT 150 connected with fabric tape can be used instead of one Cable Tubes PYRO-SAFE 300

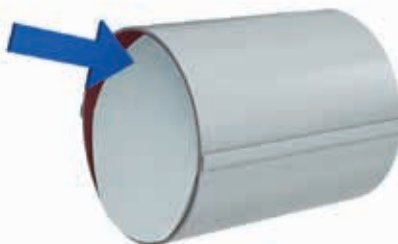


5.1 General information

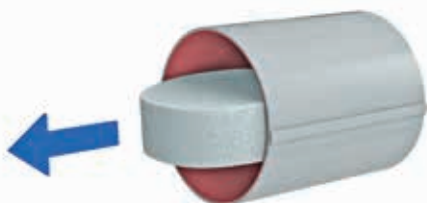
1. PYRO-SAFE CT, consisting of 2 PYRO-SAFE Cable Tube half shells and 2 fitted plugs



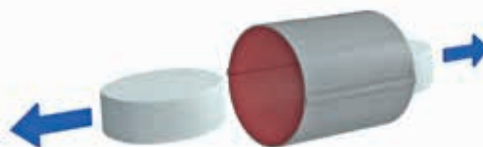
2. Push the plug in the top third to the side, so the plug is rotated by 90°.



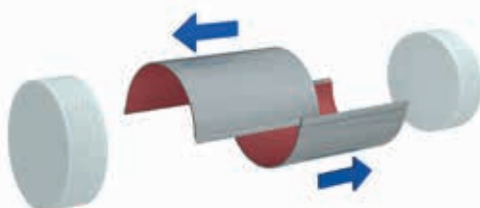
3. Pull the plug from the PYRO-SAFE CT.



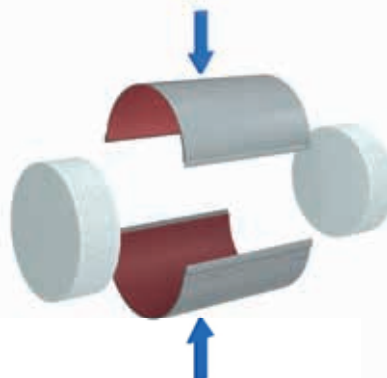
4. Proceed in the same way with the other side of the PYRO-SAFE CT.



5. For separating the PYRO-SAFE Cable Tube half shells, slide the shells in opposite directions.



6. For connecting the PYRO-SAFE CableTube half shells, simply press them together.



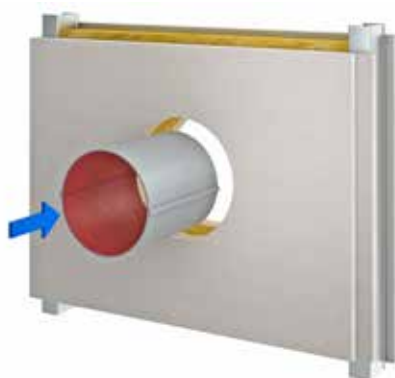
PYRO-SAFE CT

6. Installation of empty penetration seal

1. Provide an opening in the structural element, e.g. core drill hole $\varnothing \geq 127\text{-}165\text{ mm}$.



2. Push PYRO-SAFE CT centrally into the opening, so it projects symmetrically on both sides.



3. Close annular gap $\leq 25\text{ mm}$ deep on both sides with gypsum mortar (plasterboard wall); otherwise with PYRO-SAFE NOVASIT BM/ K2/VGM along the depth of the structural element.



4. Fit one plug one each side.



5. Seal the plugs completely; coat thickness $\geq 2\text{ mm}$ (dry coat thickness $\geq 1\text{ mm}$) with PYRO-SAFE FLAMMOTECT-A.



6. If required or mandatory, fill the identification label and apply on the side or below (not over!) the installation.

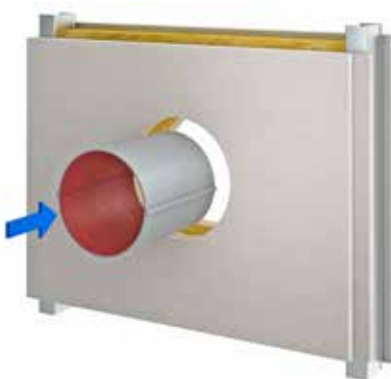


6.1 Installation of penetration seal for new installations

1. Provide an opening in the structural element, e.g. core drill hole $\varnothing \geq 127$ -165 mm.



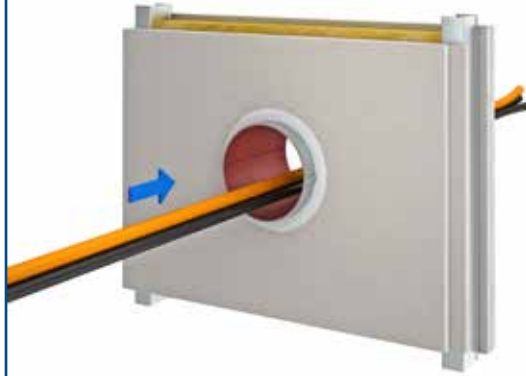
2. Push PYRO-SAFE CT centrally into the opening, so it projects symmetrically on both sides.



3. Close annular gap ≤ 25 mm deep on both sides with gypsum mortar (plasterboard wall); otherwise with PYRO-SAFE NOVASIT BM/K2/VGM along the depth of the structural element.



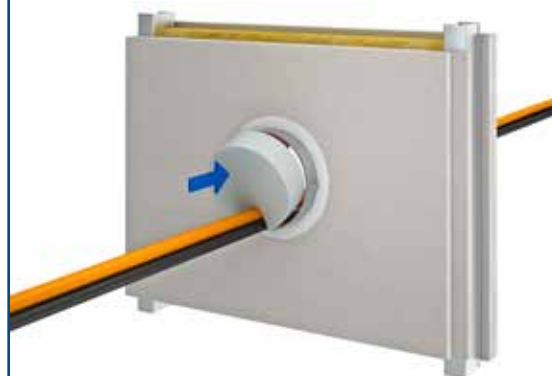
4. Pass the installations through the penetration seal.



5. Cut plugs to size.



6. Fit the cut-to-size plugs on both sides.



PYRO-SAFE CT

6.1 Installation of penetration seal for new installations

5. Seal the plugs completely; coat thickness ≥ 2 mm (dry coat thickness ≥ 1 mm) with PYRO-SAFE FLAMMOTECT-A.

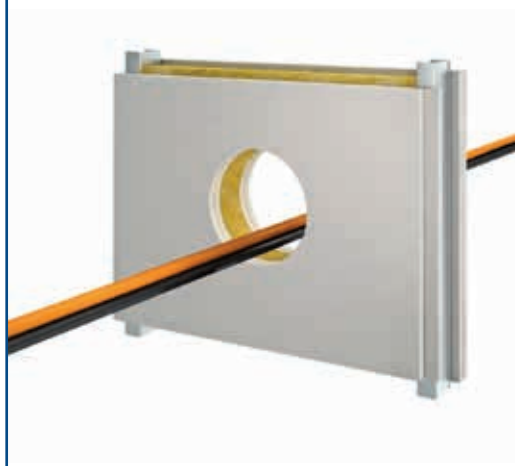


6. If required or mandatory, fill the identification label and apply on the side or below (not over!) the installation.

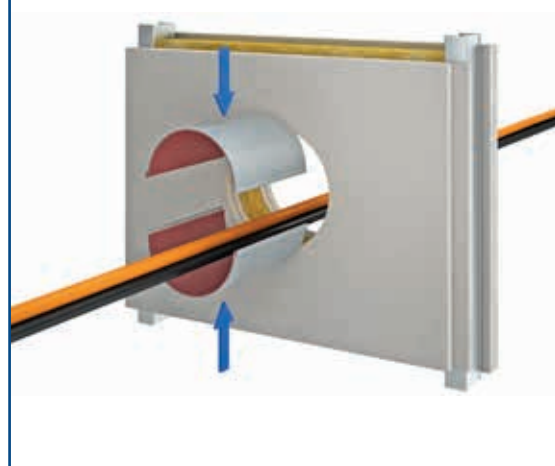


6.2 Installation of penetration seal for existing installations

1. Opening with existing installations.

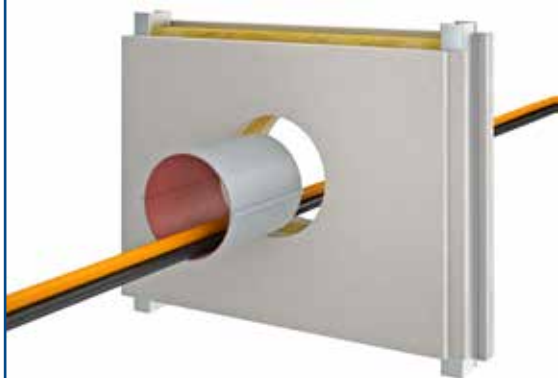


2. Place half shells around the installations and connect them with a click.

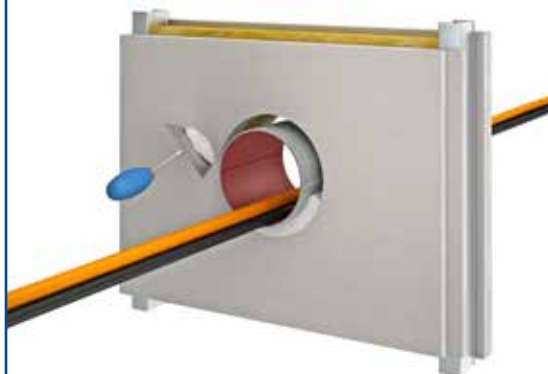


6.2 Installation of penetration seal for existing installations

3. Push PYRO-SAFE CT centrally into the opening, so it projects symmetrically on both sides.



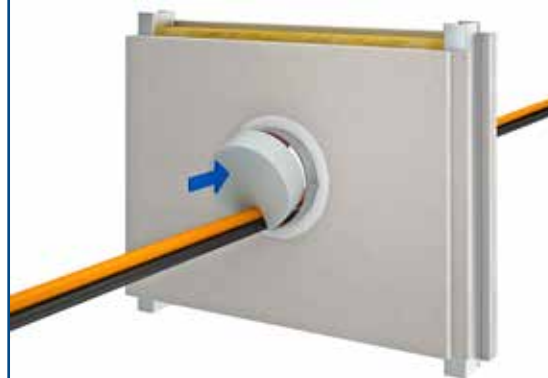
4. Close annular gap ≤ 25 mm deep on both sides with gypsum mortar (plasterboard wall); otherwise with PYRO-SAFE NOVASIT BM/ K2/VGM along the depth of the strutual element.



5. Cut plugs to size.



6. Fit the cut-to-size plugs on both sides.



7. Seal the plugs completely; coat thickness ≥ 2 mm (dry coat thickness ≥ 1 mm) with PYRO-SAFE FLAMMOTECT-A..



8. If required or mandatory, fill the identification label and apply on the side or below (not over!) the installation.



Declaration of Performance
N° 0128-PYRO-SAFE-CT
PYRO-SAFE CT/ CT ML Cable Tube

Date: 29.01.2016
Rev. 04
Page 1 of 1



Unique identification code of the product type
PYRO-SAFE CT/ CT ML Cable Tube

Intended use:

Product for cable penetration seal

The cable penetration seal is used for closing openings in fire-resistant walls or floors, through which cables were passed. It is to maintain the fire resistance of the wall or floor in the region of the penetration.

Producer

svt Brandschutz Vertriebsgesellschaft mbH International
Gluesinger Strasse 86
D - 21217 Seevetal

System for assessing and verifying constancy of performance
System 1

European Assessment Document
ETAG 026-2:2008-01-01

<i>European Technical Approval/Assessment</i>	<i>EC certificate of conformity</i>
ETA-13/0821 dated 28.06.2013	0761-CPD-0294
ETA-16/0016 dated 18.01.2016	0761-CPR-0460

Technical Assessment Body

Deutsches Institut für Bautechnik (DIBt), Berlin

The notified body

Materialprüfanstalt für das Bauwesen Braunschweig, code number 0761

Declared performance

Essential characteristics	Performance	Harmonised technical specifications
Reaction to fire	Classification according to appendix of ETA-13/0821 and ETA-16/0016	EN 13501-1
Fire resistance	Depending on the type of installation, the type of building element and the penetrating services, classes EI 30, EI 45, EI 60, EI 90, EI 120 - see ETA-13/0821 and ETA-16/0016	EN 13501-2
Emission of dangerous substances	no dangerous substances	ETAG 026-2
Durability and serviceability	Use category type X	EOTA TR 024

The performance of the product identified above is in conformity with the set of declared performances. This declaration of performance is issued, in accordance with Regulation (EU) No. 305/2011, under the sole responsibility of the manufacturer identified above

DoP online available at www.svt.de.

Signed for and on behalf of the manufacturer by:

i.V. Christian Meyer-Korte
Head of Product Management

i.V. Andree Schober
Head of chemical department