

**The budget
Security expert !**



Passive Fire Protection systems

Intelligent technology, which protects you when the going gets tough.

The innovative technology reacts immediately when it comes into contact with fire and heat, and effectively prevents the spread of fire. When heated the material inside the socket box foams and thus seals the installation opening completely. In this way, our fire protection boxes guarantee effective fire protection and ensure the integrity of fire-rated walls for at least 90 minutes. Plus installation is remarkably simple, it even allows fitting from the opposite side and retrofitting.

Get to know our Europe-wide certified fire protection socket boxes assortment, respected not only for meeting legal fire protection requirements, but also for demonstrable safety in rooms and escape routes when it matters most.

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f-tronic fire protection boxes are available in three versions , flat, deep and double . All fire protection boxes guarantee a safe 90 safe circuit integrity for at least 90 minutes .



Safety when it matters most: The new f-tronic fire protection socket boxes with fire resistance class EI90!

Against the backdrop of structural fire protection, fire safety regulations are more and more the focus of attention for Architects and Electricians. This is especially true in the area of public facilities such as hospitals, schools and nursery schools.

In order to preserve human safety in the case of fire it is important that the usability of escape routes and access for fire and rescue services is guaranteed as long as possible.

With its newly developed fire protection socket boxes f-tronic offers a reliable solution for safe electrical installations in fire-rated walls.





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Get to know our Europe-wide certified fire protection socket boxes assortment, respected not only for meeting legal fire protection requirements, but also for demonstrable safety in rooms and escape routes when it matters most.

- Fire resistance class EI90
- European Technical Approval (ETA) 15/0598
- DIBt approval pending
- Retrofitting and fitting from the opposite side possible
- Available in three configurations: shallow, deep and double
- Halogen-free
- Material: High-strength, temperature-resistant special plastic `SAFE 90`
- Up to 5 socket boxes can be mounted
- For 2 cables with respectively max. Ø 14,4 mm

Item No.	Type	Design	Depth	SU	CB	PL
7500001	BS115	Installation Socket Box, Opening Ø 74 mm *	45	12	192	3.744
7500002	BS117	Installation Socket Box, Opening Ø 74 mm *	54	12	192	3.456
7500003	BS118	Double Installation Socket Box, Opening Ø 74 mm *	54	6	96	1.584
7500030	BS112	Single Socket Box Case Cover	k.A.	10	100	9.000
7500031	BS112/2	Double Socket Box Case Cover	k.A.	5	20	4.800

* Before installing make contact with the relevant building control authority and the fire prevention officer.



© Video



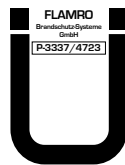
Firestop Foam

Technical Approval No. S 30 Z - 19.15-1764 and S 90 Z - 19.15-1588

Elastic firestop foam for wall and ceiling/floor penetrations, designed for the protection of single or bundled electrical wires and cables of all types (cable diameter up to 32 mm with S 90), fiber optic cables, as well as their supporting structures (cable troughs, trays and ladders) made of steel, aluminum or plastic. Additionally permitted for the protection of penetrating single steel and plastic pipes < 15 mm.

- Foam does not drip when applied
- No additional seal coating required
- Simple retrofitting, since foam remains soft and elastic
- 180g Cartridge usable with standard caulking gun
- Easy handling because the material is mechanically expelled
- Remainder can be reused
- No waste of material, not even of initial beads
- Treatment is dust and fiber-free
- Highly flexible sealing system for different shapes and requirements of penetrations
- High yield at appropriate application temperature (23 °C)
- No additional reinforcement required of cable supporting structures

Item No.	Type	Design	Contents	SU	CB	PL
7500005	BSSCH18	Firestop Foam	180 g	1	12	432
7500006	BSSCH48	Firestop Foam	480 g	1	12	432



Areas of Application

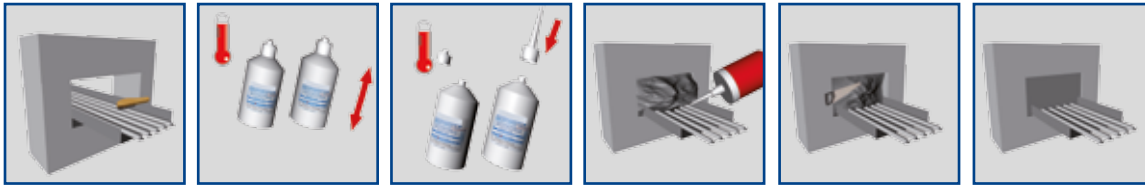
S 30 Permitted for installation in min. 7,5 cm thick walls of masonry, concrete or autoclaved aerated concrete, as well as in min. 7,5 cm thick lightweight partition walls. Permissible seal size : max. 25 x 25 cm or diameter 25 cm (e.g. core holes).

S 90 Permitted for installation in min. 10 cm thick walls of masonry, concrete or autoclaved aerated concrete, as well as in min. 10 cm thick lightweight partition walls. Permissible seal size : max. 22 x 22 cm or diameter 22 cm (e.g. core holes).

Technical Data

Installation data	Solid wall	Solid ceiling/floor F 90	Solid wall
	Light Partition Wall F30		Light Partition Wall F30
Wall - ceiling/floor thickness	min. 75 mm	min. 150 mm	min. 100 mm
Max. Seal Size (W x H/L)	250 x 250 mm	220 x 220 mm	220 x 220 mm
Thickness separation min.	75 mm	200 mm	200 mm
Working areas S 30	Distance between individual cable layers ≥ 40 mm and between the uppermost cable layer and the top inside surface of the penetration opening ≥ 40 mm, Distance from the lateral inside surfaces and from the bottom inside surface of the opening ≥ 0 mm.		
Working areas S 90	Distance between individual cable layers ≥ 40 mm and between the uppermost cable layer and the top inside surface of the penetration opening ≥ 40 mm, Distance from the lateral inside surfaces and from the bottom inside surface of the opening ≥ 0 mm.		
Reinforcement of component (according to regulation)			

Application



Installation Instructions

The entire cartridge content is available for use, nothing needs to be wasted. Clean and dust the opening prior to installation. Cable interstices must be sealed with f-tronic BSSCH fire protection sealant.

S 30 Distance between individual cable layers min. 40 mm and between the uppermost cable layer and structural element min. 40 mm, distance laterally and below 0 mm.

S 90 Distance between individual cable layers min. 35 mm and between the uppermost cable layer and structural element min. 15 mm, distance laterally and below 0 mm.

Wear gloves, goggles and suitable work clothes when preparing and using the cartridge (please refer to the safety data sheet for details).

The cable penetration seal must be permanently labelled by the installation company. The permanent identification plate has to be fixed next to the penetration seal. Universal identification plates are available from f-tronic GmbH.

Retrofitting

f-tronic BSSCH firestop foam remains flexible after curing, which makes subsequent installations problem free. In this case an interstice of min. 1cm is required and then sealed with BSSCH.

Be sure to handle the cartridges according to the assembly instructions!

Foam Seal S90 at 60% occupancy - calculation table at 18 °C application temperature

Seal area	180 g cartridge	480 g cartridge
0,005 m ²	0,62 piece	0,23 piece
0,010 m ²	1,23 piece	0,46 piece
0,020 m ²	2,46 piece	0,91 piece
0,030 m ²	3,69 piece	1,37 piece
0,040 m ²	4,92 piece	1,83 piece
0,048 m ²	5,96 piece	2,21 piece



Fire protection can save lives

The public protected by f-tronic!

Have you ever thought about fire safety in public buildings? The majority of your fellow citizens haven't.

Human behavior in the case of fire and finding escape routes is dismissed by most with the mindset 'it will be OK'.

In public buildings with high staff turnovers such as hospitals, bureaus or office complexes, structural fire protection and security play an especially important role. It must be ensured that smoke emissions and the spread of flames to other rooms, as well as escape routes, is prevented.

Take advantage of the expertise of f-tronic to comply with safety standards. Certified and checked by the European Technical Approval (ETA) and Association for Electrical, Electronic & Information Technologies (VDE).



f-tronic®

***FI*REFIGHTER**



Firestop Bricks

Technical Approval No. S 30 - S 60 Z-19.15-1762 Wall seals

Elastic firestop bricks for wall penetrations, designed for the protection of single and bundled electrical lines and cables of all types (including fiber optic cables) – without restrictions imposed on each cable's overall conductor cross-section – as well as of their supporting structures (cable troughs, trays and ladders) made of steel, aluminum or plastic. Additionally permitted for the protection of penetrating single steel and plastic pipes < 15 mm.

- Works in combination with firestop foam for easy retrofitting and interstice filling
- Resistant to condensation water and moisture
- The bricks do not need to be adhesively bonded during installation
- Resistant to ageing
- The bricks are flexible and will return to their original shape after compression
- Cut-off remainder can be reused
- No additional coating required
- Dust and fibre-free installation
- Impervious to smoke in accordance with DIN 4102, Part 9
- Highly flexible penetration sealing system for different opening shapes and requirements

Item No.	Type	Design	Dimensions	SU	CB	PL
7500010	BSB	Firestop bricks	60 x 130 x 230 mm	1	20	400



Areas of application

In all fire-rated

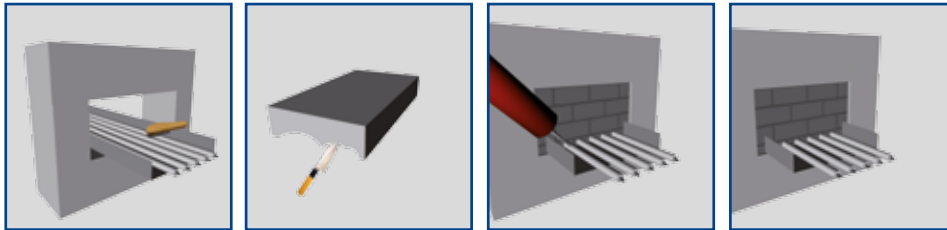
- walls (masonry | concrete | autoclaved aerated concrete | lightweight partitions ≥ 75 mm);

Permissible seal size: Wall (W x H) max. 70 cm x 40 cm

Technical Data

Installation data		Solid wall F30 F60 Light Partition Wall
Wall thickness	Min. 75 mm	
Maximum penetration	(W x H/L) 700 x 400 mm	
Seal thickness min.	130 mm	
Work area	Wall seal: Distance between two layers of cables ≥ 40 mm as well as between top layer of cables and soffit ≥ 40 mm, distance laterally and below ≥ 0 mm.	
Packaging of S60+	When the distance between the cable tray and soffit is < 20 mm install a strip of BSB from the underside of the cable supporting construction 20 x 30 mm on both sides of the penetration cable bundle	

Application



Installation instructions

Clean and dust the penetration opening prior to installation. Then cut f-tronic BSB S 30 – S 60 to size crosswise and install the elements with staggered joints (13 cm) in such a way that the seal fits flush with the building component. Any remaining gaps must be sealed with f-tronic BSSCH.

Distance requirements for walls: distance between individual cable layers as well as distance between the uppermost cable layer and the top inside surface of the penetration opening at least 40 mm; distance from the lateral inside surfaces and from the bottom inside surface of the opening 0 mm.

The cable penetration seal must be permanently labelled by the installation company. The identification plate, which is available from f-tronic Ltd, has to be affixed to the building component next to the seal.

Retrofitting

f-tronic BSB | BSSCH remains resilient after curing, which makes retrofitting very easy and convenient. An interstice of at least 1 cm is required and then sealed with f-tronic BSB | BSSCH.

Number of blocks: Reference values at 40% and 60% penetration occupancy (S30-S60)

Seal area	40%	60%
0,005 m ²	0,22 piece	0,14 piece
0,01 m ²	0,43 piece	0,29 piece
0,05 m ²	2,17 piece	1,45 piece
0,10 m ²	4,35 piece	2,90 piece
0,20 m ²	8,70 piece	5,80 piece
0,28 m ²	12,17 piece	8,12 piece
0,40 m ²	17,39 piece	11,59 piece
0,50 m ²	21,74 piece	14,49 piece
0,60 m ²	26,09 piece	17,39 piece



Firestop plugs | Firestop Bricks

**Technical Approval No. S 90 - S 120 Z-19.15-1762 Wall Penetration Seal
Z-19.15-1763 Ceiling/Floor Penetration Seal**

Elastic firestop bricks for wall and ceiling/floor penetrations, designed for the protection of single and bundled electrical wires and cables of all types (including fibre optic cables) – without restrictions imposed on each cable's overall conductor cross-section – as well as of their supporting structures (cable troughs, trays and ladders) made of steel, aluminium or plastics. Additionally permitted for the protection of penetrating single steel and plastic pipes < 15 mm.

- Works in combination with firestop foam for easy retrofitting and interstice filling
- Resistant to condensation water and moisture
- The blocks do not need to be adhesively bonded during installation
- Resistant to ageing
- The bricks are flexible and will return to their original shape after compression
- Easy application by trimming the bricks to size
- No additional coating required
- Dust and fibre-free installation
- Impervious to smoke in accordance with DIN 4102, Part 9
- Highly flexible penetration sealing system for different opening shapes and requirements
- Reinforcement width (if required), is only 2.5 cm

Item No.	Type	Design	Dimensions	SU	CB	PL
7500010	BSB	Firestop brick	60 x 130 x 230 mm	1	20	400
7500012	BSST62	Firestop plug Ø 62	Ø 62 mm	1	32	1.536
7500013	BSST77	Firestop plug Ø 77	Ø 77 mm	1	20	960
7500014	BSST107	Firestop plug Ø 107	Ø 107 mm	1	10	480
7500015	BSST132	Firestop plug Ø 132	Ø 132 mm	1	14	280
7500016	BSST158	Firestop plug Ø 158	Ø 158 mm	1	10	200



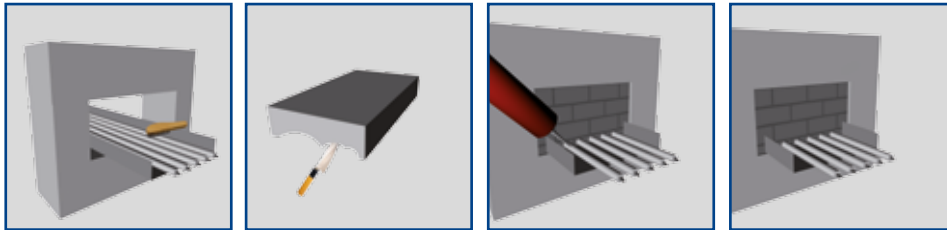
Areas of application

Walls S 90 – S 120 Permitted for installation in min. 10 cm thick walls of masonry or concrete as well as in lightweight partitions of at least 10 cm thickness. Ceilings/Floors S 90: Installation in min. 15cm thick ceilings/floors of concrete. Required for S 90 – S 120: 23 cm seal thickness. Max. permissible seal thickness: Wall (W x H) max. 70 cm x 40 cm Ceiling/Floor (W x L) max. 40 cm x ∞

Technical Data

Installation data	Solid wall Light Partition Wall F90 F120	Ceiling/Floor
Wall - ceiling/floor thickness	min. 100 mm	min. 150 mm
Max. Seal Size (W x H/L)	700 x 400 mm	400 x ∞ mm
Thickness separation	230 mm	230 mm
Working areas	Wall applications: Distance between individual cable layers ≥ 40 mm and between the uppermost cable layer and the top inside surface of the penetration opening ≥ 40 mm, Distance from the lateral inside surfaces and from the bottom inside surface of the opening ≥ 0 mm.	
Working areas	Ceiling/Floor applications: Distance between individual cable layers ≥ 40 mm and between the uppermost cable layer and the top inside surface of the penetration opening ≥ 30 mm, Distance from the lateral inside surfaces and from the bottom inside surface of the opening ≥ 0 mm.	

Application



Installation Instructions

Clean and dust the penetration opening prior to installation. Then cut f-tronic BSB to size crosswise and install the elements with staggered joints (13 cm) in such a way that the seal fits flush with the building component. Any remaining interstice must be sealed with f-tronic BSSCH.

Distance requirements for walls: distance between individual cable layers as well as distance between the uppermost cable layer and the top inside surface of the penetration opening at least 40 mm; distance from the lateral inside surfaces and from the bottom inside surface of the opening 0 mm.

The cable penetration seal must be permanently labelled by the installation company. The identification plate, which is available from f-tronic Ltd, has to be fixed to the building component next to the seal.

Retrofitting

f-tronic BSB | BSSCH remains resilient after curing, which makes retrofitting very easy and convenient. An interstice of at least 1 cm is required and then sealed with f-tronic BSB | BSSCH.

Number of blocks: Reference values at 40% and 60% penetration occupancy (S90-S120)

Seal area	40%	60%
0,005 m ²	0,38 piece	0,26 piece
0,01 m ²	0,77 piece	0,51 piece
0,05 m ²	3,85 piece	2,56 piece
0,10 m ²	7,69 piece	5,13 piece
0,20 m ²	15,38 piece	10,26 piece
0,28 m ²	21,54 piece	14,36 piece
0,40 m ²	30,77 piece	20,51 piece
0,50 m ²	38,46 piece	25,64 piece
0,60 m ²	46,15 piece	30,77 piece



Mounting set for Firestop Collars see page 21st

Firestop Collars

Technical Approval No. ETA-13/0792
Fire-resistance class EI 120

Wall penetration: two firestop collars

Floor/ceiling penetration: one firestop collar for the underside of the floor/ceiling

Suitable for:

- Electrical installation pipes, either unassigned or occupied, with cables with a diameter max. 21 mm
 - Single pipe up to max. 63 mm external diameter
 - In a bundle up to max. 125 mm external diameter
- Perfect for installation shafts e.g. refurbishment of an old building
 - Space saving mounting due to low installation height
 - Approved for lightweight partition walls
 - Closure of the remaining opening possible with standard materials e.g. concrete, cement mortar, gypsum plaster
 - Possible deployment with pipes that have already been laid due to simple locking technique
 - Collar cases are allowed on floor/ceiling installations to border on each other (zero clearance)
 - Electrical installation pipes, either unassigned or occupied, (therefore there is a reserve for subsequent installations)

One-piece collar for electrical installation tube pipe penetration							
Item No.	Type	Design		Diameter	SU	CB	PL
7500017	BSMS32	Firestop Collar	Size 32	32 mm	1	10	2.000
7500018	BSMS40	Firestop Collar	Size 40	40 mm	1	10	1.800
7500019	BSMS50	Firestop Collar	Size 50	50 mm	1	10	1.500
7500020	BSMS63	Firestop Collar	Size 63	63 mm	1	10	850
7500021	BSMS75	Firestop Collar	Size 75	75 mm	1	10	800
7500022	BSMS90	Firestop Collar	Size 90	90 mm	1	10	400
7500023	BSMS110	Firestop Collar	Size 110	110 mm	1	10	350
7500024	BSMS125	Firestop Collar	Size 125	125 mm	1	10	220

One-piece collar for pipe penetration							
Item No.	Type	Design		Diameter	SU	CB	PL
7500025	BSMS140	Firestop Collar	Size 140	140 mm	1	5	150
7500026	BSMS160	Firestop Collar	Size 160	160 mm	1	5	150
7500027	BSMS180	Firestop Collar	Size 180	180 mm	1	5	80
7500028	BSMS200	Firestop Collar	Size 200	200 mm	1	5	70

Areas of application

In all according to EN 13501-2 classification

- Walls (masonry | concrete | autoclave aerated concrete | lightweight partitions ≥ 100 mm)
- Ceilings/Floors (concrete or autoclave aerated concrete ≥ 150 mm)

Technical Data — Firewall protection

Typ	External Diameter	Internal Diameter	Installation Height	Number of metal brackets
Size 32	50 mm	36 mm	26 mm	2
Size 40	58 mm	44 mm	26 mm	2
Size 50	68 mm	54 mm	26 mm	2
Size 63	94 mm	67 mm	26 mm	4
Size 75	106 mm	79 mm	26 mm	4
Size 90	132 mm	94 mm	27 mm	4
Size 110	155 mm	114 mm	27 mm	4
Size 125	172 mm	129 mm	40 mm	4
Size 140	200 mm	144 mm	40 mm	6
Size 160	220 mm	164 mm	40 mm	6
Size 180	264 mm	184 mm	40 mm	8
Size 200	284 mm	204 mm	40 mm	8

Application



Installation Instructions

The firestop collar from f-tronic may only be installed in solid walls, solid ceilings/floors and lightweight partitions according to the table listed.

Type and minimum thickness of wall – Ceilings/Floor

Solid Wall	Lightweight partition	Solid ceiling/floor
≥ 100 mm	≥ 100 mm	≥ 150 mm

The wall has to be at least 100 mm thick and consist of timber or steel frames which are covered with at least 2 layers of 12.5 mm thick panels on both sides. For timber frame walls, there has to be a minimum spacing of 100 mm between seal and each post and the hollow space between post and seal has to be filled with at least 100 mm insulation of class A1 or A2 (in line with EN 13501-1).

Guidelines for installation:

On walls, a collar has to be placed on each side; on ceilings, only one, below the ceiling. The electrical installation pipes can be run through the seal individually or combined into a bundle. On at least 100mm thick walls or at least 150 mm thick solid ceilings the bundle may only have a max. diameter of 125 mm. The electrical installation pipes can have a single external diameter of max. 63 mm, the cables fed through must not exceed a max. external diameter of 21 mm. The smallest firestop collar from type BSMS has to be selected for each empty pipe bundle.

The minimum length of the electrical installation pipes has to be 200 mm on both sides of the wall/ceiling, measured from the wall/ceiling surface. All remaining openings around the empty pipe bundles in walls or ceilings/floors have to be filled with concrete, cement mortar or plaster. The spandrels between the individual empty pipes do not have to be filled. Attach the collar to the wall or ceiling using the appropriate firestop rawl plugs.

The firestop collars have to be attached to lightweight partition walls with continuous threaded rods M6 or M8. Several collars with zero spacing may be placed adjacent in ceilings/floors. The ends of the empty electric pipes have to be filled with intumescent material to at least 20 mm deep.

When installing cable seals in walls, the brackets (supports) for the cables have to be placed on both sides of the wall with a spacing of ≤ 450 mm, above ceilings ≤ 420 mm. The fire resistance of the supporting structure has to be adapted, according to its respective use.



Intumescent Sealant

Technical Approval No. Z-19.11-2014

- Subject to third party inspection in accordance with the certification (building material approval)
- Permitted only for single lines in accordance with LAR provisions
- The hardened product should not be exposed directly to hard weather conditions (for example driving rain, alternating frost-thaw, UV radiation).

- Suitable for routing single lines through solid building components
- Suitable for cladding tubes made of non-flammable materials routed through lightweight partitions in accordance with the provisions stipulated in the MLAR Regulation
- The cartridges are usable with a standard caulking gun
- Resistant to ageing, solvent-based
- Easy application also in interstices
- Can be used in areas with high humidity rating

Item No.	Type	Design	Contents	SU	CB	PL
7500004	BSDSB	Intumescent Sealant	310 ml / 400 g	1	20	720



Area of application

MLAR Code of Practice: Routing of single lines through individual openings

- Electrical & electronic cabling
- Pipes with an external diameter of up to 160 mm made of non-flammable building materials (apart from aluminium and glass) also when coated with a flammable building material up to 2mm thick.
- Pipes for non-flammable process utilities and pipes for electrical and electronic cabling with an external diameter of up to 32 mm consisting of flammable building materials, aluminium or glass.

Application



Installation Instructions

- Permitted for routings in accordance with MLAR-paragraphs 4.2 und 4.3.2
- Permitted for single line routings through walls and ceilings/floors (4.3.1 und 4.3.2):
 - Interstices up to 15 mm have to be sealed with intumescent sealant f-tronic BSDSB
 - Interstices up to 50 mm have to be sealed with mineral fibre wool (melting point > 1000 °C crammed as tightly as possible) or cement mortar
- Interstices over 50 mm have to be sealed with cement mortar
- Permitted for passing lines through fire-retardant walls (consider exempt walls), without the need to adhere to minimum distances from each other, see MLAR-paragraph 4.2.

Fire Protection Accessories

Item No.	Type	Design	SU	CB	PL
7500007	BSP1	Caulking Gun for 480g Cartridges	1	-	150
7500008	BSM	Mixing tube	10	10	8.000
7500009	BSMV	Extension for Mixing Tube	10	10	8.000
7500029	BSKS	Universal identification plate	20	-	-
7500032	BSBF50	Mounting set for Firestop Collars Size 32-50	1	-	-
7500033	BSBF125	Mounting set for Firestop Collars Size 63-125	1	-	-
7500034	BSBF160	Mounting set for Firestop Collars Size 140-160	1	-	-
7500035	BSBF200	Mounting set for Firestop Collars Size 180-200	1	-	-

