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Authorised and notified according
to Article 29 of the Regulation (EU)
No 305/2011 of the European
Parliament and of the Council of 9
March 2011

MEMBER OF EOTA



European Technical Assessment ETA-18/0628 of 2023/03/27

General Part

Technical Assessment Body issuing the ETA and designated according to Article 29 of the Regulation (EU) No 305/2011: ETA-Danmark A/S

Trade name of the
construction product:

f-tronic fire protection sockets, BS2000, BS2700,
BS3500, BS3700, BS2000TC, BS2700TC
BS3500TC, BS3700TC & Cover BS112

Product family to which the
above construction product
belongs:

Fire Sealing Boxes for Fire Sealing of Electrical
Installations.

Manufacturer:

f-tronic GmbH
Winfried Fohs GmbH
Zum Gerlen 21-25
D-66131 Saarbrücken
www.f-tronic.com

Manufacturing plant:

f-tronic, Winfried Fohs GmbH
D-66131 Saarbrücken

This European Technical
Assessment contains:

18 pages including 2 annexes which form an integral
part of the document

This European Technical
Assessment is issued in
accordance with Regulation
(EU) No 305/2011, on the
basis of:

European Assessment Document (EAD) of "Fire
Stopping and Fire Sealing Products", 350454-00-1104:
"Penetration Seals"

This version replaces:

The previous ETA with the same number and issued on
2021-12-13

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II SPECIFIC PART OF THE EUROPEAN TECHNICAL ASSESSMENT

1 Technical description of product.

The f-tronic fire protection sockets are fire sealing boxes for fire sealing of electrical installations. They consist primarily of parts made from thermoplastic polyphenylene (PP) and thermoplastic elastomers (TPE50) materials. Fire protection sockets are made with covers of PPS Black. The BS112 cover is made by thermoplastic polyphenylene sulphide (PPS).

The f-tronic fire protection sockets, named "BS2000, BS2700, BS3500, BS3700, BS2000TC, BS2700TC, BS3500TC, BS3700TC & cover BS112", by f-tronic GmbH are products for closing electrical installation apertures in fire resistant partitioning walls, comprising special basic thermoplastic bodies and intumescent inlays. The reactive component will seal cracks and openings in case of fire.

f-tronic BS2000, BS2700, BS3500, BS3700, BS2000TC, BS2700TC, BS3500TC and BS3700TC are the actual wall sockets and BS 112 is the cover.

The f-tronic fire protection sockets with covers are classified in accordance with the procedure described in EN 13501-2 +A1. They are installed in openings in fire classified walls made from light weight partition structures.

Detailed specifications for identification and performance criteria relevant for fire safety with regard to the construction products are given in Annex 1 and 2.

2 Specification of the intended use(s) in accordance with the applicable European Assessment Document (hereinafter EAD).

The construction product f-tronic fire protection sockets are intended for use as components with a fire protection effect in walls made from light weight partition structures or cross laminated timber walls that are subject to requirements related to fire protection. Their fire-resistant capability prevents heat transmission and fire spreading in the event of fire.

Within the scope of this ETA, the fire resistance was demonstrated for cables. The f-tronic fire protection sockets are fire sealing boxes for fire sealing of electrical installations used to seal off openings in fire resistant walls, which are penetrated by cables and serves to preserve the walls' fire resistance in the penetrations.

Table 1 – components of the verified penetration seals

Product type	Trade name
Fire Sealing Boxes	f-tronic fire protection sockets named: BS2000 BS2700 BS3500 BS3700 BS2000TC BS2700TC BS3500TC BS3700TC Cover: BS 112

Detailed information and data on the verified penetration seals are given in Annexes 1 and 2.

The performances given in Section 3 exclusively relate to this f-tronic fire protection sockets (e.g., with respect to the design and arrangement of the components of the penetration seals and the type and position of the services).

The verification and assessment methods on which this European Technical Assessment is based lead to the assumption of a working life of at least 10 years for f-tronic fire protection sockets.

The indications given on the working life cannot be interpreted as a guarantee given by the manufacturer but are to be regarded only as a means for choosing the right product in relation to the expected economically reasonable working life of the works.

3 Performance of the product and references to the methods used for its assessment.

Characteristic	Assessment of characteristic
3.2 Safety in case of fire (BWR 2)	
Reaction to fire, in light partitioning flexible wall with a total thickness of 100 mm or 125 mm or cross laminated timber construction	The f-tronic fire protection sockets “BS2000, BS2700, BS3500, BS3700, BS2000TC, BS2700TC, BS3500TC, BS3700TC & cover BS112” in thickness minimum 2,4 mm are classified as Euroclass E in accordance with EN 13501-1.
Resistance to fire	Kerafix Flexpan 200 NG-A-Granulate are classified as Euroclass E in accordance with EN 13501-1. The f-tronic fire protection sockets used for fire sealing of electrical installations as described in annex 1 and 2 in light partitioning flexible wall total thickness 100 mm or 125 mm is classified as described in annex 2 in accordance with EN 13501-2
3.3 Hygiene, health and the environment (BWR 3)	
Air permeability	No performance assessed
Water permeability	No performance assessed
Content, emission and/or release of dangerous substances*	The product does not contain/release dangerous substances specified in TR 034, dated October 2015 according to ETA-15/0719.
3.4 Safety and accessibility in use (BWR 4)	
Mechanical resistance and stability	No performance assessed
Resistance to impact/movement	No performance assessed
Adhesion	No performance assessed
Durability	Use category Z ₂
3.5 Protection against noise (BWR 5)	
Airborne sound insulation	No performance assessed
3.6 Energy economy and heat retention (BWR 6)	
Thermal properties	No performance assessed
Water vapour permeability	No performance assessed

See additional information in section 3.9 -3.10

*In addition to the specific clauses relating to dangerous substances contained in this European technical Assessment, there may be other requirements applicable to the products falling within its scope (e.g., transposed European legislation and national laws, regulations and administrative provisions). In order to meet the provisions of the Construction Products Regulation, these requirements need also to be complied with, when and where they apply.

3.9 Methods of verification

The characteristic values of the joint sealing system are based on the EAD 350454-00-1104.

3.10 General aspects related to the fitness for use of the product.

The verification of durability is part of testing the essential characteristics. f-tronic fire protection sockets may be used in end-use applications according to the provisions for use category Z₂ (intended for uses in internal conditions with humidity lower than 85 % RH excluding temperatures below 0°C, without exposure to rain or UV) without expecting significant changes of the characteristics relevant for fire protection.

The European Technical Assessment is issued for the product based on agreed data/information, deposited with ETA-Danmark, which identifies the product that has been assessed and judged. Changes to the product or production process, which could result in this deposited data/information being incorrect, should be notified to ETA-Danmark before the changes are introduced. ETA-Danmark will decide if such changes affect the ETA and consequently the validity of the CE marking based on the ETA and if so whether further assessment or alterations to the ETA, shall be necessary.

f-tronic fire protection sockets are manufactured in accordance with the provisions of this European Technical Assessment using the manufacturing processes as identified in the inspection of the plant by the notified inspection body and laid down in the technical documentation.

4 Assessment and verification of constancy of performance (hereinafter AVCP) system applied, with reference to its legal base.

According to the decision 1999/454/EC of the European Commission, as amended by 2001/596/EC, the system(s) of assessment and verification of constancy of performance (see Annex V to Regulation (EU) No 305/2011) is 1.

5 Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD.

Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited at ETA-Danmark prior to CE marking.

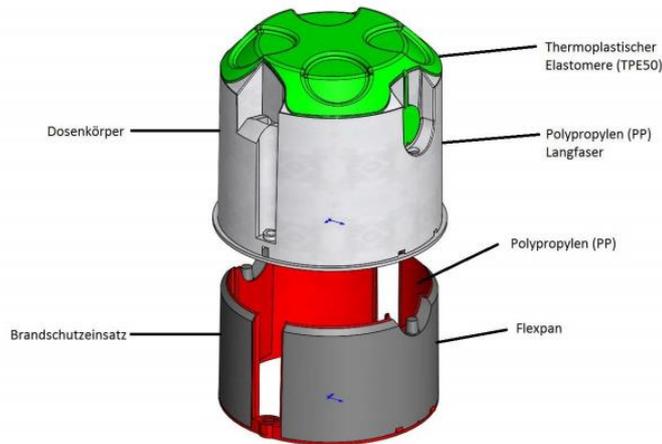
Issued in Copenhagen on 2023-03-27 by



Thomas Bruun
Managing Director, ETA-Danmark

Annex 1 Product details and definitions

Product and performance of the f-tronic fire protection sockets and accessory components:



Kerafix Flexpan 200 NG-A-Granulate from the manufacturer Rolf Kuhn GmbH is described in ETA 15/0719 issued by ETA-Danmark A/S, dated 2015-12-02.

Product and performance of the fire protection sockets named "BS2000, BS2700, BS3500, BS3700, BS2000TC, BS2700TC, BS3500TC, BS3700TC & cover BS112", by f-tronic GmbH:

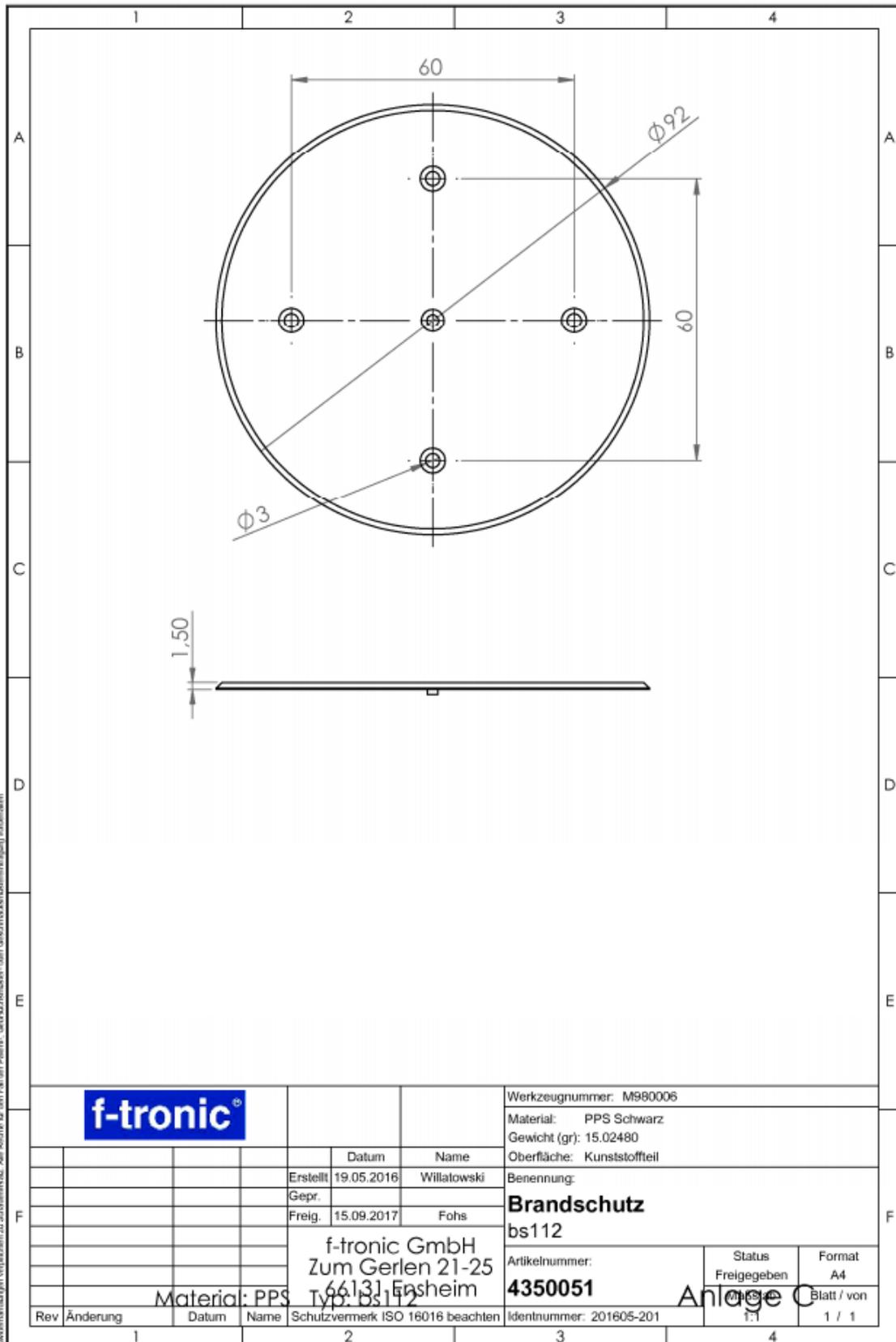
Property	Parameter	Method
Dimensions	BS2000/BS2000TC = Ø 68 [mm] depth = 50 mm BS2700/BS2700TC = Ø 68 [mm] depth = 50 mm BS3500/BS3500TC = Ø 68 [mm] depth = 62 mm BS3700/BS3700TC = Ø 68 [mm] depth = 62 mm BS 112 cover = Ø 92 [mm] depth = 1,5 mm	
Melting point	Minimum 280°C	EN 13162
Weight	BS2000/BS2000TC 50 g (± 5 g) BS2700/BS2700TC 51 g (± 5 g) BS3500/BS3500TC 57 g (± 5 g) BS3700/BS3700TC 57 g (± 5 g) BS 112 cover = 16g (± 2 g)	
Reaction to fire	Euro Class E	EN 13501-1

Performance of the Intumescent material:

Manufacturer	Description	
Rolf Kuhn GmbH Jägersgrund 10 D-57338 Erndtebrück	Kerafix Flexpan 200 NG-A-Granulate, characteristics for the product documented in ETA 15/0719	
Property	Parameter	Method
Density	1200 [kg/m ³]	
Thickness of strips	1,0-8,0 [mm] tolerance ± 10% nominal thickness	TR024 clause 3.1.2
Expansion ratio	18,0 – 38,0 for nominal thickness 1,5 [mm]	TR024 clause 3.1.11 (Method 1 at 550 [°C] for 30 min with a top load)
Expansion pressure	≥ 00,08 [N/mm ²] for nominal thickness 1,5 [mm]	TR024 clause 3.1.12 (Method 4 at 300 [°C])
Reaction to fire	Euro Class E	EN 13501-1

f-tronic fire protection sockets and accessory components, used as part of a penetration seal for cables, dimensions wall installation - section view.

f-tronic BS112 - Cover



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Werkzeugnummer: M980006

Material: PPS Schwarz

Gewicht (gr): 15.02480

Oberfläche: Kunststoffteil

Benennung:

**Brandschutz
bs112**

Artikelnummer:

4350051

Status
Freigegeben

Format
A4

Blatt / von

1 / 1

f-tronic GmbH
Zum Gerlen 21-25
66131 Esenheim

Material: PPS

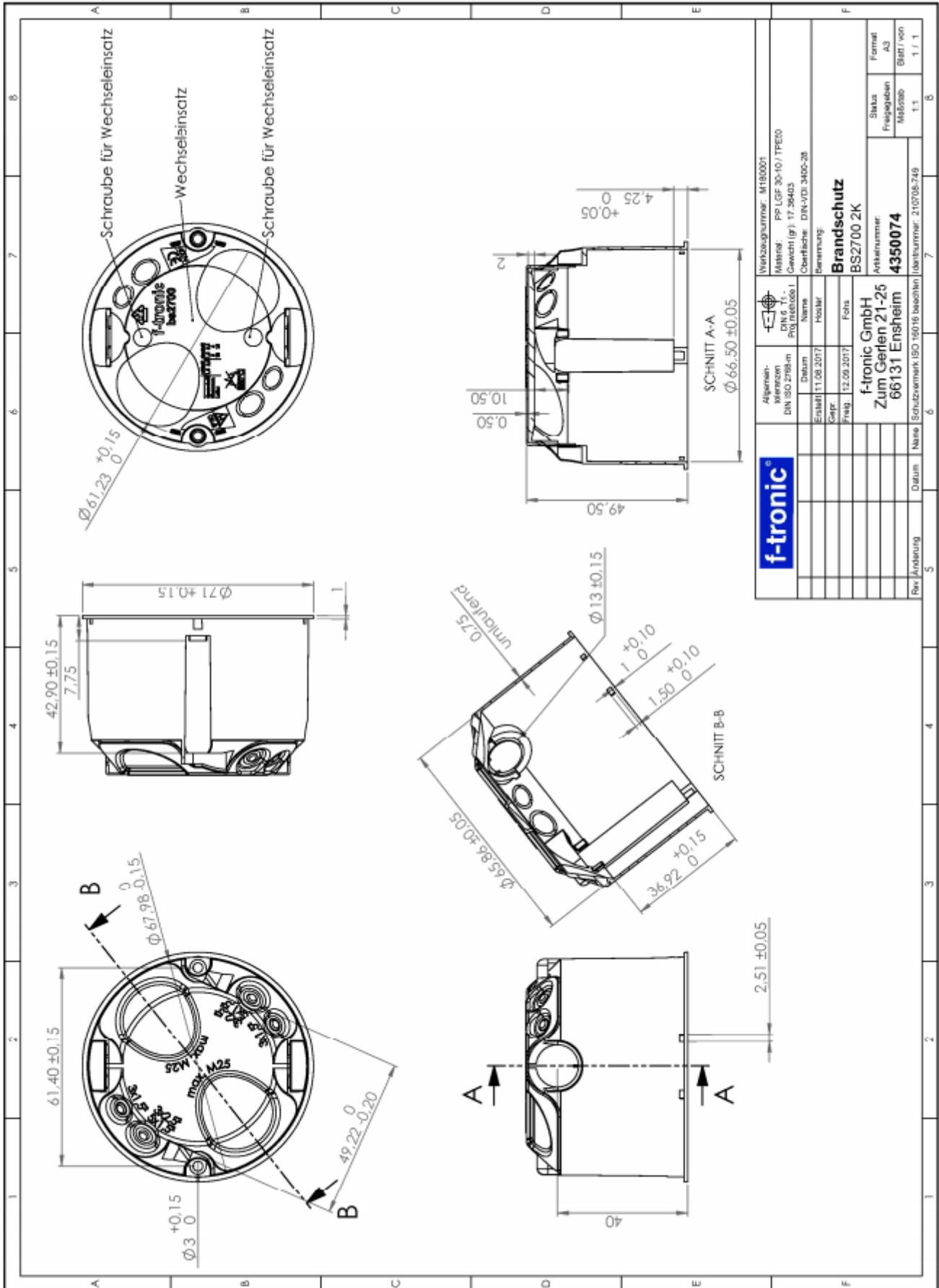
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Identnummer: 201605-201

Anlage C

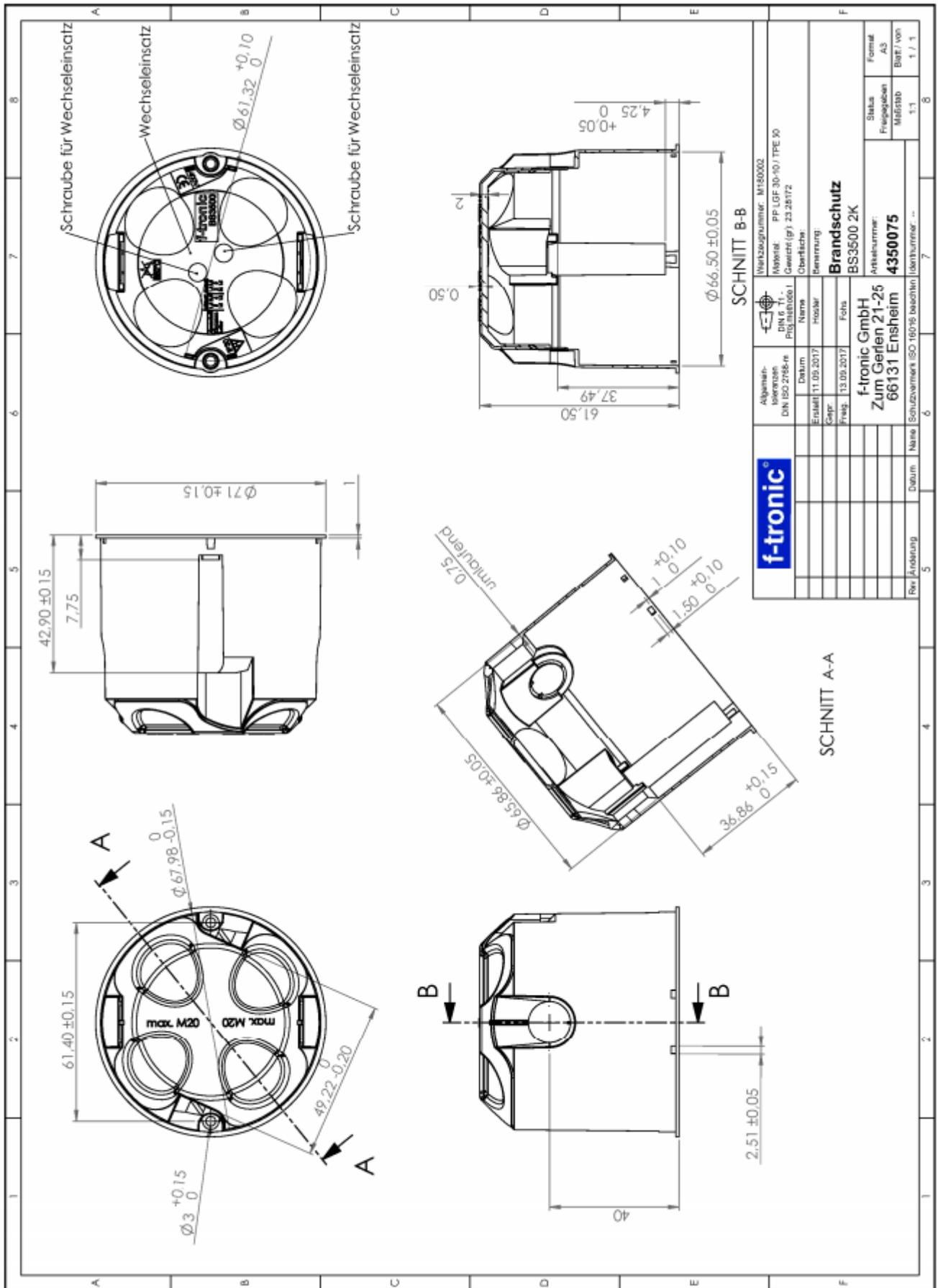
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f-tronic BS2700 – wall socket

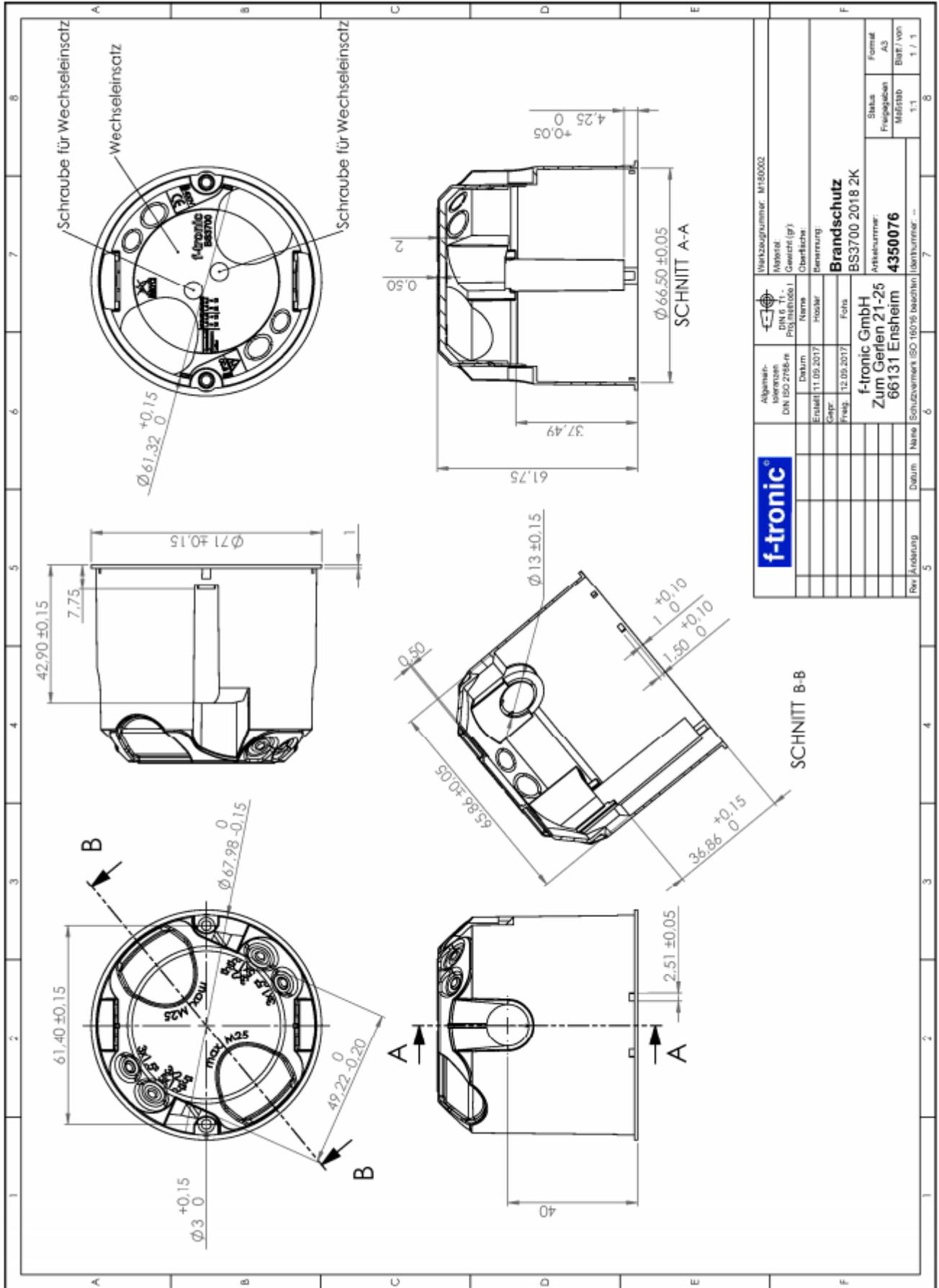


f-tronic		Allgemein- spezifikationen DIN ISO 27085m Prog. methode I		Werkzeugnummer: M180001	
Datum: 11.08.2017		Name: Hoskar		Mittelteil: PP LGF 30-10 / TFEEO	
Erstellt: 11.08.2017		Folte:		Gewicht (g): 17.36403	
Freig. 12.09.2017		Status: Freigegeben		Oberfläche: DIN-VDI 3400-28	
Rev. Änderung		Datum		Benennung:	
Neue		Schutzmarkt ISO 16016 beachten		Arbeitsnummer: 4350074	
Datum		Schutzmarkt ISO 16016 beachten		Arbeitsnummer: 210706-749	
Rev. Änderung		Datum		Status: Freigegeben	
Neue		Schutzmarkt ISO 16016 beachten		Methode: 1.1	
Datum		Schutzmarkt ISO 16016 beachten		Blatt / von: 1 / 1	
Rev. Änderung		Datum		Blatt / von: 1 / 1	

f-tronic BS3500 – wall socket



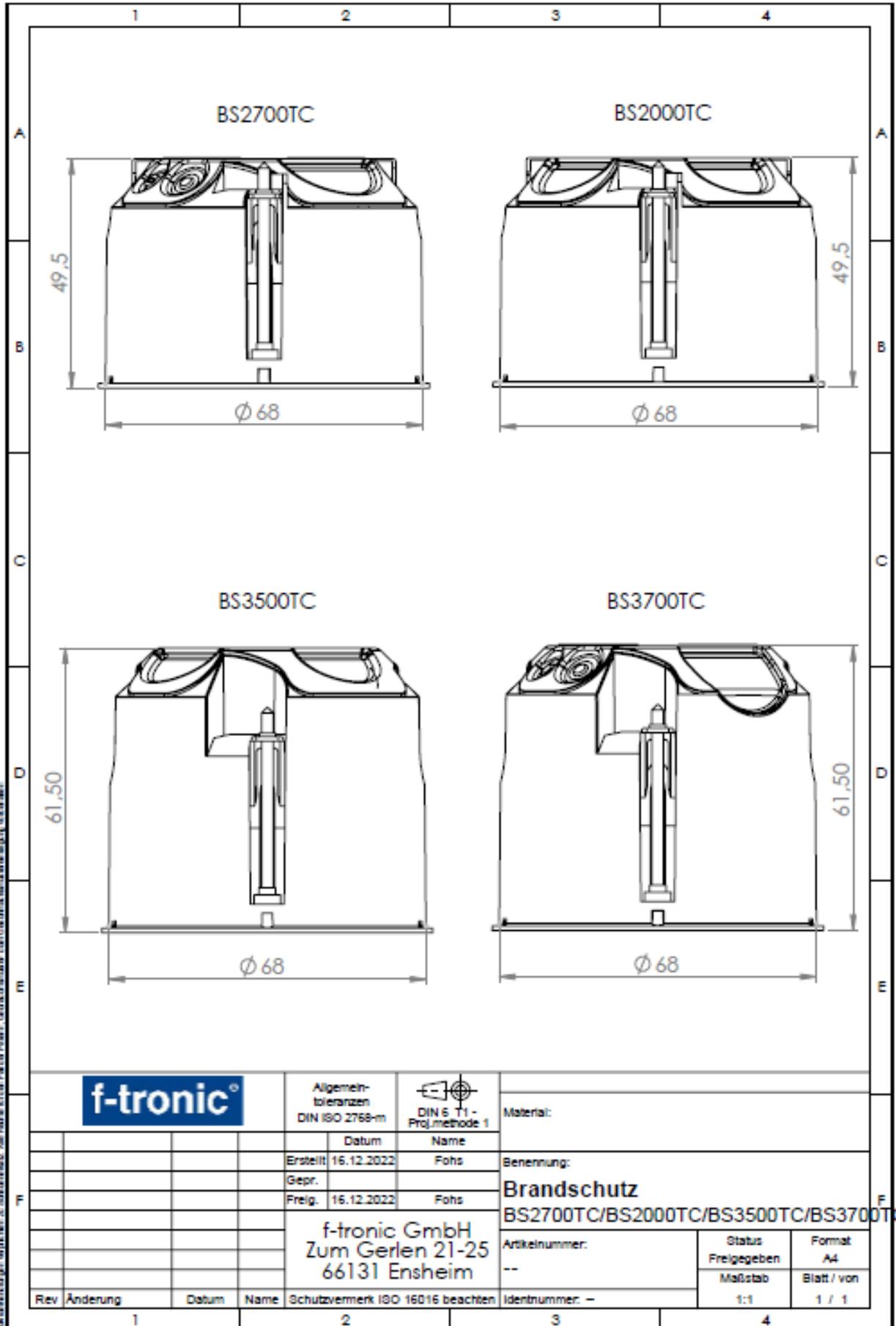
f-tronic BS3700 – wall socket



f-tronic	Algemein- normen DIN ISO 2768-r	DIN 6 T.L. PRO 330000 1	Werkzeugnummer: M150002
	Erstellt: 11.09.2017	Name: f-tronic	Material: Gewicht: (g) Oberfläche:
Revisierung	Datum	Name	Benennung
	12.09.2017	Hofer	BS3700 2018 2K
		Fuchs	Brandenschutz
			BS3700 2018 2K
			Arbeitsnummer:
			4350076
			Formul
			A3
			Bohr / von
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f-tronic BS-TC – wall socket



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		Datum		Name		Benennung:	
		Erstellt: 16.12.2022		Fohs		Brandschutz	
		Gepr.				BS2700TC/BS2000TC/BS3500TC/BS3700TC	
		Freig. 16.12.2022		Fohs		Artikelnummer:	
		f-tronic GmbH Zum Gerlen 21-25 66131 Ensheim		--		Status Freigegeben	Format A4
						Maßstab	Blatt / von
Rev	Änderung	Datum	Name	Schutzvermerk ISO 16016 beachten		Identnummer: --	
1				2		3	4

Type of walls

The f-tronic fire protection sockets and accessory components named "BS2000, BS2700, BS3500, BS3700 & BS112", by f-tronic GmbH may be used in:

Light partitioning flexible wall, standard supporting construction according to EN 1363-1, total thickness 100 mm or 125 mm

- Flexible walls with a metal stud substructure according to EN 14195 with a stud depth of 50 mm or 75 mm or with a timber battens with a batten depth of 50 mm or 75 mm.
- Lightweight partition walls with 50 mm CW profiles with one-sided double planking with 20 mm thick fire protection plasterboards in accordance with EN 520. A mineral wool insulation with a thickness of 40 mm and a density of at least 100 kg/m³ was inserted between the metal profiles.
- Wall construction with double-sided GKF cladding with a panel thickness of 12,5 mm according to EN 520.
- Mineral fibre insulation, according to EN 13162, 40 mm thick with fire behavior class A1 according to EN 13501-1, specific weight 40 kg/m³.
- Wall thickness 100 mm or 125 mm
- The walls shall be classified according to EN 13501-2 corresponding to the required fire resistance period.
- In timber walls, no part of the bulkhead can be closer than 100 mm to a timber member. The gap between the bulkhead and the batten shall be closed and at least 100 mm Class A1 or A2 insulation according to EN 13501-1 is placed in the gap between the bulkhead and the batten.

The f-tronic fire protection sockets and accessory components named "BS2000, BS2700, BS3500, BS3700; BS2000TC, BS2700TC, BS3500TC, BS3700TC & BS112", by f-tronic GmbH may be used in:

Double wall cross laminated timber construction with a minimum thickness of each 60 mm and an installation level insulated with mineral wool of at least 30 mm.

- Wall construction with double-sided cross laminated timber with a minimum thickness of each 60 mm.
- Mineral fibre insulation, according to EN 13162, 40 mm thick with fire behavior class A1 according to EN 13501-1, specific weight 40 kg/m³.
- Wall thickness min. 150 mm
- The walls shall be classified according to EN 13501-2 corresponding to the required fire resistance period.
- The milling (with diameter Ø68/90 mm) must leave space for an annular gap of Ø68 mm with a depth of at least 20 mm to max. 40 mm, the milling is needed for BS2000, BS2700, BS3500, BS3700.

Thick timber stud wall with thickness 135mm, built with 60x80mm wooden beams and internal flexible wood insulation of at least 80mm

- Wall construction out of thick stud wall with a thickness of 135 mm with planking on both sides made of 15 mm OSB/3 and 12,5 mm gypsum plasterboard
- Internal flexible wood insulation thickness 80mm, density 50 kg/m³ according to DIN 4108-10 according to procedure in EN 13501-2:2016
- The walls shall be classified according to EN 13501-2 corresponding to the required fire resistance period.

Classification EI 120 / E120

Type of installation	Description
Fire retardant barrier	<p><u>The f-tronic fire protection socket "BS2000" by f-tronic GmbH</u></p> <ul style="list-style-type: none"> • Has been tested with cables from cable group A1, A2 and A3 with a maximal diameter up to Ø14,4 mm. • Has been tested in light dividing wall with a thickness of 100 and 125 mm. • Test set-up requested a build in situation in the partition wall with a diameter of 68 mm and a depth of 49,5 mm. • In some cavity wall boxes, the mineral fibre insulation material was removed 100 mm around the cavity wall box(es) in accordance with EN 1366,3 point 7.2.2.1.2 to provide evidence of installation in a non-insulated supporting construction. <p><u>The f-tronic fire protection socket "BS2700" with socket on fire side by f-tronic GmbH</u></p> <ul style="list-style-type: none"> • Has been tested with cables from cable group A1, A2 and A3 with a maximal diameter up to Ø14,4 mm. • Has been tested in light dividing wall with a thickness of 100 and 125 mm. • Test set-up requested a build in situation in the partition wall with a diameter of 68 mm and a depth of 49,5 mm. • In some cavity wall boxes, the mineral fibre insulation material was removed 100 mm around the cavity wall box(es) in accordance with EN 1366,3 point 7.2.2.1.2 to provide evidence of installation in a non-insulated supporting construction. <p><u>The f-tronic fire protection sockets "BS3500" with fire socket on fire side, by f-tronic GmbH</u></p> <ul style="list-style-type: none"> • Has been tested with cables from cable group A1, A2 and A3 with a maximal diameter up to Ø14,4 mm. • Has been tested in light dividing wall with a thickness of 100 and 125 mm. • Test set-up requested a build in situation in the partition wall with a diameter of 68 mm and a depth of 61,5 mm. • In some cavity wall boxes, the mineral fibre insulation material was removed 100 mm around the cavity wall box(es) in accordance with EN 1366-3 point 7.2.2.1.2 to provide evidence of installation in a non-insulated supporting construction. • All 4 cable-/ conduit entries can be used. <p><u>The f-tronic fire protection sockets "BS3700" with fire socket on fire side, by f-tronic GmbH</u></p> <ul style="list-style-type: none"> • Has been tested with cables from cable group A1, A2 and A3 with a maximal diameter up to Ø14,4 mm. • Has been tested in light dividing wall with a thickness of 100 and 125 mm. • Test set-up requested a build in situation in the partition wall with a diameter of 68 mm and a depth of 61,5 mm. • In some cavity wall boxes, the mineral fibre insulation material was removed 100 mm around the cavity wall box(es) in accordance with EN 1366-3 point 7.2.2.1.2 to provide evidence of installation in a non-insulated supporting construction.

The classification is declared under the following conditions:

Field of application based on EN 1366-3 (Chapter 4.4 classification report No. 17-003777-PR06 dated 2018-05-14 from IFT Rosenheim)	<ul style="list-style-type: none"> • The test results can only be applied to the orientation in which the hollow wall boxes were tested, (corresponds to installation in a light partition wall with a minimum thickness of 100 mm or 125 mm). • The largest intended arrangement of cavity wall boxes must be tested to obtain the maximum area of application, which corresponds to a 5-fold vertically opposite arrangement. (6.3.6 according to EN 1366-3:2009). • All conventional cables of cable group A1, A2 and A3 are covered, but with a diameter of 14.4 mm max. • Empty piping is allowed.
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Classification EI 90 / E90

The below applies to seals in a double wall cross laminated timber construction with a minimum thickness of each 60 mm and an installation level insulated with mineral wool of at least 30 mm, and lightweight partition wall / shaft wall.

Type of installation	Description
Fire retardant barrier	<p><u>The f-tronic fire protection socket "BS2000" & "BS2000TC" by f-tronic GmbH</u></p> <ul style="list-style-type: none"> Has been tested with cables from cable group A1, A2, A3 and NYM3x1,5² with a maximal diameter up to Ø14,4 mm. Has been tested in lightweight partition wall and shaft wall with cables from cable group 2x3x1,5², 2x5x1,5²m 2x EIR Ø25mm, 4x EIR Ø20mm, 4x cable A1/A3, 2x EIR Ø25mm, outlet and switch devices installed on the cold side. Has been tested in a double wall cross laminated timber construction with a minimum thickness of each 60 mm and an installation level insulated with mineral wool of at least 30 mm. Test set-up requested a build in situation in the partition wall with a diameter of 68 mm and a depth of at least 20 mm to max. 40 mm. <p><u>The f-tronic fire protection socket "BS2700" & "BS2700TC" with socket on fire side by f-tronic GmbH</u></p> <ul style="list-style-type: none"> Has been tested with cables from cable group A1, A2, A3 and NYM3x1,5² with a maximal diameter up to Ø14,4 mm. Has been tested in a double wall cross laminated timber construction with a minimum thickness of each 60 mm and an installation level insulated with mineral wool of at least 30 mm. Has been tested in lightweight partition wall and shaft wall with cables from cable group 2x3x1,5², 2x5x1,5², 2x EIRx25mm, 4x Cable A1/A2, 2x EIR x 25 mm, outlet and switch devices installed on the cold side. Test set-up requested a build in situation in the partition wall with a diameter of 68 mm and a depth of at least 20 mm to max. 40 mm. <p><u>The f-tronic fire protection sockets "BS3500" & "BS3500TC" with fire socket on fire side, by f-tronic GmbH</u></p> <ul style="list-style-type: none"> Has been tested with cables from cable group A1, A2, A3 and NYM3x1,5² with a maximal diameter up to Ø14,4 mm. Has been tested in a double wall cross laminated timber construction with a minimum thickness of each 60 mm and an installation level insulated with mineral wool of at least 30 mm. Has been tested in lightweight partition wall and shaft wall with cables from cable group 4x EIRx20mm, outlet and switch devices installed on the cold side. Test set-up requested a build in situation in the partition wall with a diameter of 68 mm and a depth of at least 20 mm to max. 40 mm. <p><u>The f-tronic fire protection sockets "BS3700" & "BS3700TC" with fire socket on fire side, by f-tronic GmbH</u></p> <ul style="list-style-type: none"> Has been tested with cables from cable group A1, A2, A3 and NYM3x1,5² with a maximal diameter up to Ø14,4 mm. Has been tested in a double wall cross laminated timber construction with a minimum thickness of each 60 mm and an installation level insulated with mineral wool of at least 30 mm. Has been tested in lightweight partition wall and shaft wall with cables from cable group 4x Cable A1/A3, 2x EIRx25 mm, 2x3x1,5², 2x5x1,5², 2x EIRx25mm, 4xEIRx20 mm, 4x Cable A1/A3, 2x EIR x 25 mm, outlet and switch devices installed on the cold side. Test set-up requested a build in situation in the partition wall with a diameter of 68 mm and a depth of at least 20 mm to max. 40 mm.

The classification is declared under the following conditions:

Field of application based on EN 1366-3 (Chapter 4.4 classification report No. 316022902-A-en dated 2019-07-26 from IBS, and Chapter 4.3 classification report No. 320090808-A-en dated 2021-04-12 from IBS)	<ul style="list-style-type: none"> The test results can only be applied to the orientation in which the hollow wall boxes were tested, (corresponds to installation in a double wall cross laminated timber construction with a minimum thickness of each 60 mm and an installation level insulated with mineral wool of at least 30 mm). Test results are applicable only to the orientation in which the penetration sealing systems have been tested (corresponds to the installation in a wall with a minimum thickness of 100/125 mm and a shaft wall with 2x 20mm GKF in an arrangement of max. 5 units, both horizontally and vertically) All conventional cables of cable group A1, A2, A3 and NYM3x1,5² are covered, but with a diameter of 14.4 mm max. Empty piping is allowed. (EIR = flexible electrical installation pipes) Protective hoses are permitted
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Classification EI60/E60

The below applies to seals in a timber stud wall with a thickness of 135mm, built with 60x80mm wooden beams, each covered on both sides with a 15 mm thick OSB-3 board and a 12,5 mm thick gypsum plasterboard according EN520 with internal flexible wood fibre insulation, density: 50 kg/m³ according to DIN 4108-10 in accordance with the procedure to EN 13501-2:2016.

Type of installation	Description
Fire retardant barrier	<p><u>The f-tronic fire protection socket "BS2000 & BS2000TC" on fire side by f-tronic GmbH</u></p> <ul style="list-style-type: none"> • Has been tested with cables from cable group A1, A2 and A3 and NYM 3x1,5² with a maximal diameter up to Ø14,4mm. • Has been tested in double-walled lightweight partition wall with a minimum thickness of 135mm, insulated with wood fibre insulation with a minimum thickness of 80mm. • The test construction required an installation situation in the partition wall with a diameter of 68mm • Empty pipes are permitted <p><u>The f-tronic fire protection socket "BS2700 & BS2700TC" on the fire side by f-tronic GmbH</u></p> <ul style="list-style-type: none"> • Has been tested with cables from cable group A1, A2, A3 and NYM3x1,5² with a maximal diameter up to Ø14,4 mm • Has been tested in a double-walled lightweight partition wall with a minimum thickness of 135mm, insulated with wood fibre insulation with a minimum thickness of 80mm. • The test construction required an installation situation in the partition wall with a diameter of 68mm. • Empty pipes are permitted. <p><u>The f-tronic fire protection socket "BS3500 & BS3500TC" on the fire side by f-tronic GmbH</u></p> <ul style="list-style-type: none"> • Has been tested with cables from cable group A1, A2, A3 and NYM3x1,5² with a maximal diameter up to Ø14,4 mm • Has been tested in a double-walled lightweight partition wall with a minimum thickness of 135mm, insulated with wood fibre insulation with a minimum thickness of 80mm. • The test construction required an installation situation in the partition wall with a diameter of 68mm. • Empty pipes are permitted. <p><u>The f-tronic fire protection socket "BS3700 & BS3700TC" on the fire side by f-tronic GmbH</u></p> <ul style="list-style-type: none"> • Has been tested with cables from cable group A1, A2, A3 and NYM3x1,5m² with a maximal diameter up to Ø14,4 mm. • Has been tested in a double-walled lightweight partition wall with a minimum thickness of 135mm, insulated with wood fibre insulation with a minimum thickness of 80mm. • The test construction required an installation situation in the partition wall with a diameter of 68mm. • Empty pipes are permitted.

The classification is declared under the following conditions:

Field of application based on EN 1366-3 (Chapter 4.4 classification report No. 316022902-A-en dated 2019-07-26 from IBS, and Chapter 4.3 classification report No. 320090808-A-en dated 2022-09-01 from IBS)	<ul style="list-style-type: none"> • The test results can only be applied to the orientation in which the hollow wall boxes were tested (corresponds to installation double wall timber stud wall built from 60x80mm wooden beams, each covered on both sides with a 15mm thick OSB-3 board and a 12,5 mm thick gypsum plasterboard according to EN520 with internal flexible wood fibre insulation, density: 50 kg/m² according to DIN 4108-10. • Test results are applicable only to the orientation in which the penetration sealing systems have been tested (corresponds to the installation in a wall with a minimum thickness of 135mm in an arrangement of max. 5 units, both horizontally, vertically and oppositely.) • Wall structures with a higher number of layers, just like thicker walls are permitted. • Mineral wool is permitted. • Metal stud frame is permitted.
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