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Authorized and notified according
to Article 29 of the Regulation (EU)
No 305/2011 of the European
Parliament and of the Council of 9
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MEMBER OF EOTA



European Technical Assessment ETA-15/0598 of 13/10/2015

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 cavity wall sockets

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

Manufacturing plant:

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

This European Technical
Assessment contains:

12 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:

Guideline for European technical approval of "Fire
Stopping and Fire Sealing Products", ETAG 026 Part 2:
"Penetration Seals", used as European Assessment
Document (EAD) according to Article 66 Paragraph 3 of
Regulation (EU) No 305/2011.

This version replaces:

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II SPECIFIC PART OF THE EUROPEAN TECHNICAL ASSESSMENT

1 Technical description of product and intended use

Technical description of the product

The f-tronic cavity wall sockets are cable penetration seals for fire sealing of electrical installations. They consist primarily of parts made from thermoplastic polyphenylene sulfide (PPS) and intumescent materials. The cavity wall sockets are made with covers.

The f-tronic cavity wall sockets, named "bs 115, bs 117, bs 118 and bs 112", 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.

The main difference between the bs 115 socket and the bs 117 appliance connection socket is the installation depth, of 45 mm and 55 mm respectively. The bs 118 appliance connection socket is a dual version of the bs 117.

f-tronic bs 115, bs 117 and bs 118 are the actual wall sockets and bs 112 is the cover.

The f-tronic cavity wall sockets with covers are classified in accordance with the procedure described in EN 1 3501-2:2007 +A1:2009. 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.

Specification of the intended use in accordance with the applicable European Assessment Document

The construction product f-tronic cavity wall socket is intended for use as components with a fire protection effect in walls made from light weight partition structures 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 cavity wall 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 area of the penetrations.

Table 1 – components of the verified penetration seals

Product type	Trade name
Fire Sealing Boxes	f-tronic cavity wall sockets named: bs 115 bs 117 bs 118 and bs 112 cover

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 cavity wall 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 cavity wall 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	The f-tronic cavity wall sockets “bs 115; bs 117; bs 118 and bs 112 cover” are classified as Euroclass E in accordance with EN 13501-1.
Resistance to fire	The f-tronic cavity wall 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)	
Influence on air quality	The product does not contain/release dangerous substances specified in TR 034, dated March 2012.
3.7 Sustainable use of natural resources (BWR 7)	No Performance Determined

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 General aspects

The verification of durability is part of testing the essential characteristics. f-tronic cavity wall 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.

4 Assessment and verification of constancy of performance (AVCP)

4.1 AVCP system

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 foreseen 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

Issued in Copenhagen on 2015-10-13 by



Thomas Bruun
Managing Director, ETA-Danmark

Annex 1
Product details and definitions

Product and performance of the f-tronic cavity wall sockets and accessory components:

Product and performance of the cavity wall sockets named "bs 115, bs 117, bs 118 and bs 112 cover", by f-tronic GmbH:

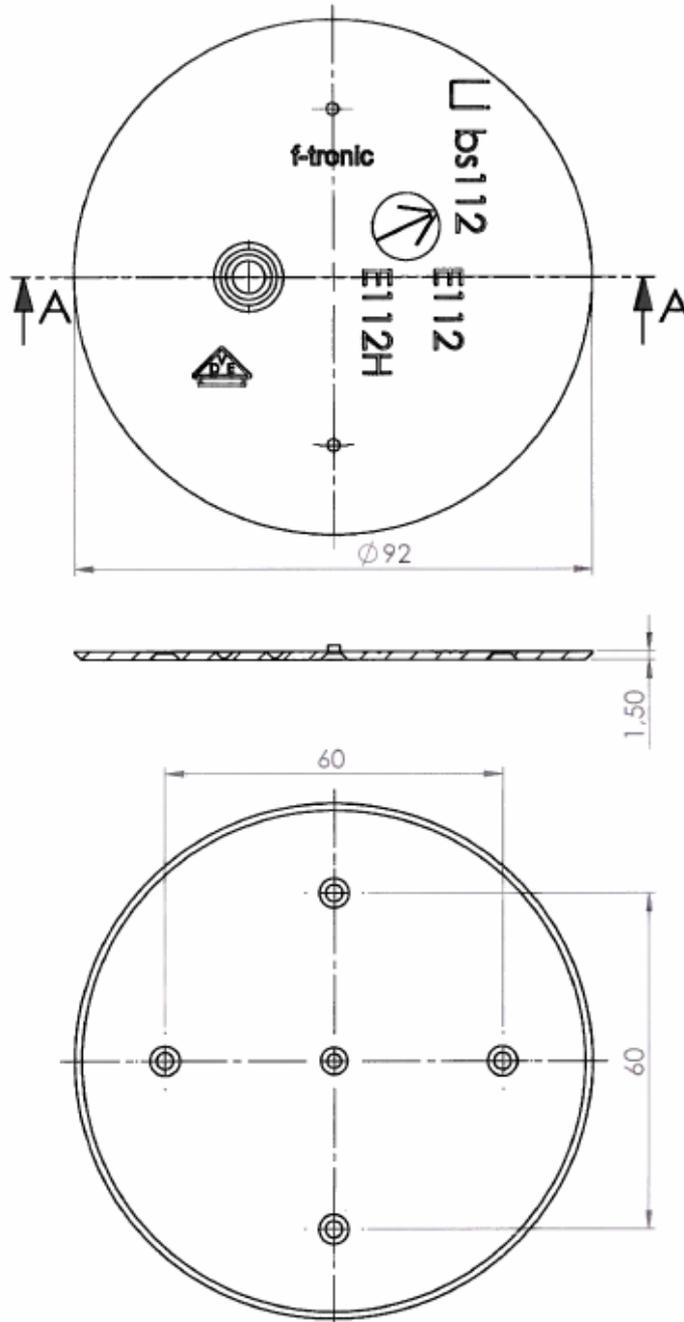
Property	Parameter	Method
Material	thermoplastic polyphenylene sulfide (PPS)	
Dimensions	bs115= Ø74mm depth =45mm bs117= Ø74mm depth =55mm bs118= Ø74x142mm depth =55mm bs112cover = Ø92mm depth =1,5mm	EN 13162
Melting point	Minimum 280°C	EN 13162
Weight	bs115=76 g (± 4 g) bs117= 86g (± 4 g) bs118=183 g (± 5 g) bs112 cover =16 g (± 2 g)	
Reaction to fire	Euro Class E	EN 13501-1

Product and performance of the Intumescent material:

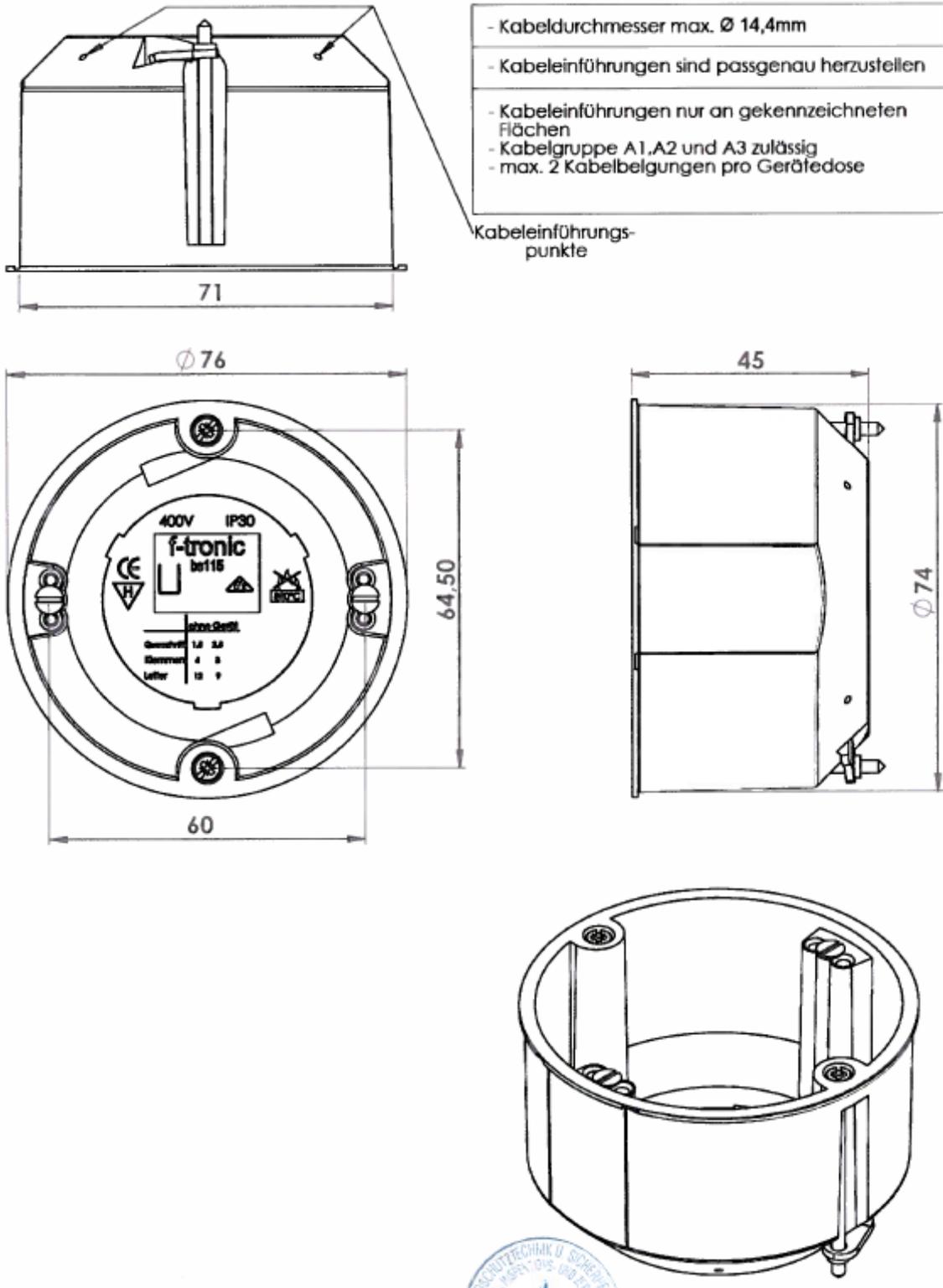
Manufacturer	Description
f-tronic GmbH	Intumescent material in accordance with data sheet: Content of non-volatile components <1% according to EN ISO 3251 Weight loss on heating 49,0 % < 63,0 % according to EN ISO 3451-1 Dimensions (thickness of the sheet) 1,0 mm to 8,0 mm ± 10 % nominal thickness according to ETAG 026-2 clause B 10.1 Weight per unit area 1,7 kg/m ² (nominal thickness 1,5 mm) according to TR 024 clause 3.1.5 Expansion ratio 18,0 to 38.0 (nominal thickness 1,5 mm) times according to TR 024 clause 3.1.11 Expansion pressure > 0,80 N/mm ² according to TR 024 clause 3.1.12,

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

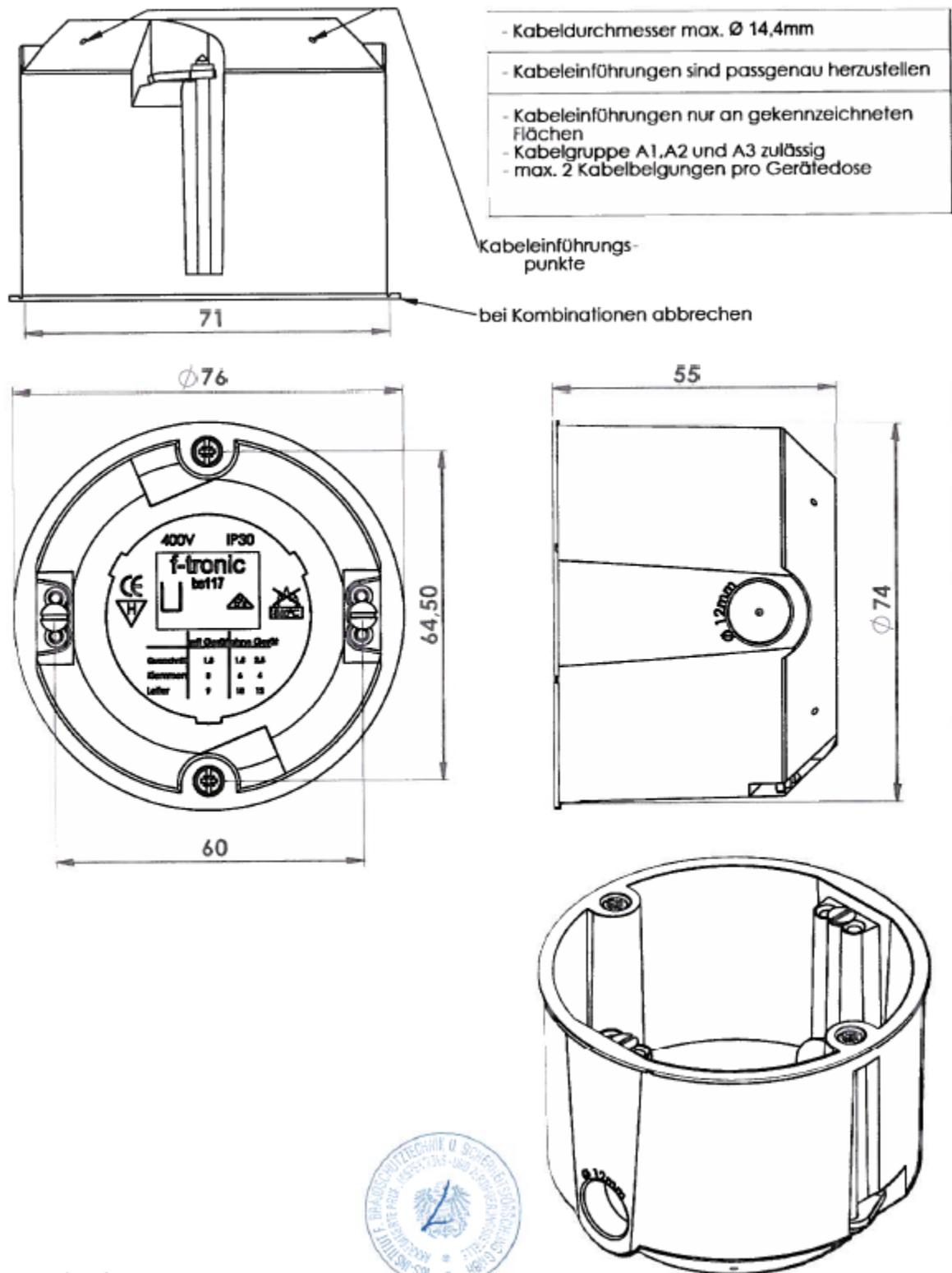
f-tronic bs112 - Cover



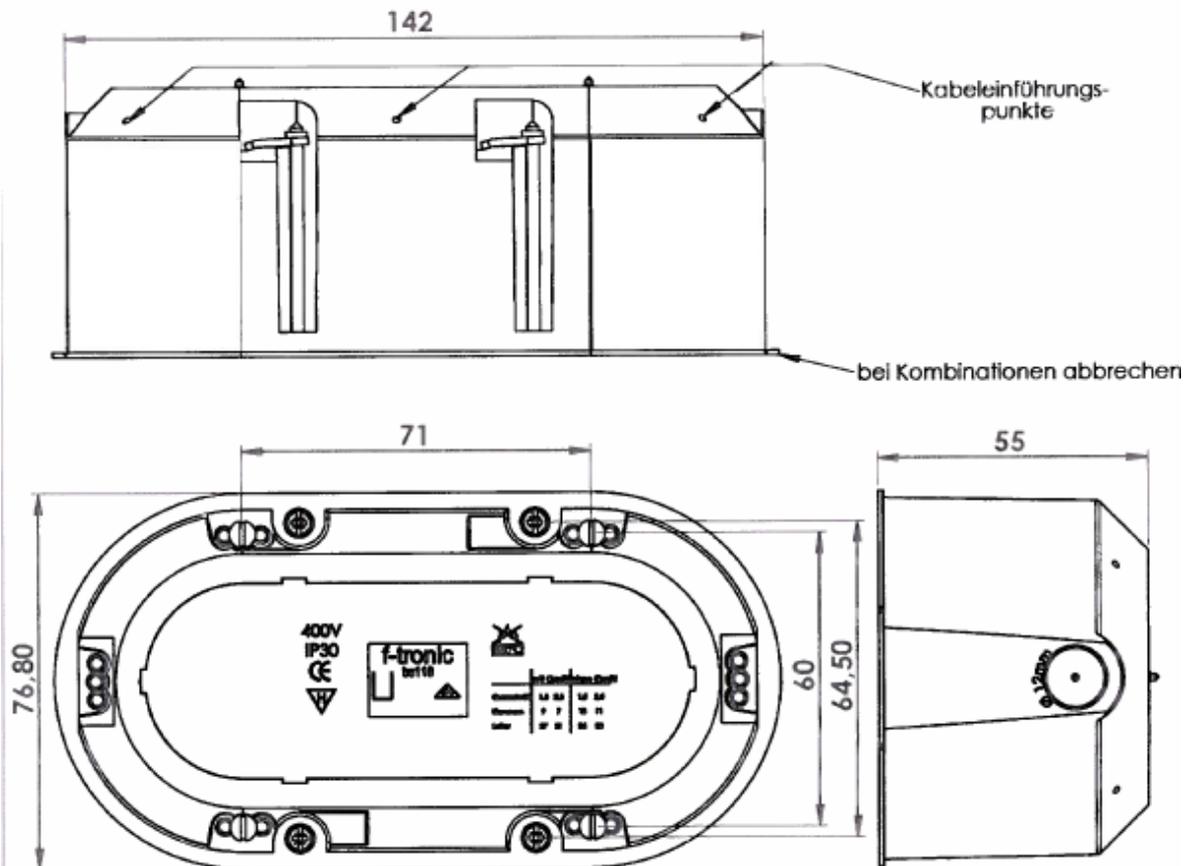
f-tronic bs115 – wall socket



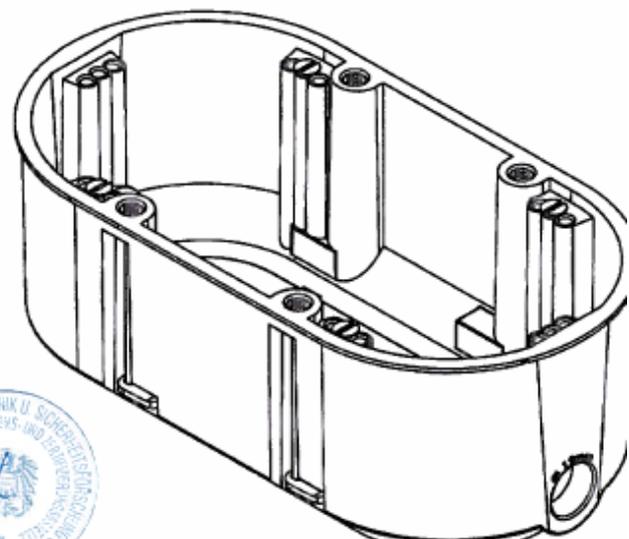
f-tronic bs117 – wall socket



f-tronic bs118 – wall socket



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|---|
| - Kabeldurchmesser max. \varnothing 14,4mm |
| - Kabeleinführungen sind passgenau herzustellen |
| - Kabeleinführungen nur an gekennzeichneten Flächen |
| - Kabelgruppe A1, A2 und A3 zulässig |
| - max. 2 Kabelbelagungen pro Gerätedose |



Type of walls

The f-tronic cavity wall sockets and accessory components named "bs 115, bs 117, bs 118 and bs 112", by f-tronic GmbH may be used in:

Light partitioning flexible wall total thickness 100 mm or 125 mm

- Flexible walls with a metal stud substructure comprising CW 50 or CW 75 studs.
- Wall construction with lining made from min. 2 layers on both sides of 12,5 mm fire protection plasterboards according to EN 520 Type DF.
- Mineral wool insulation 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.

Annex 2
Description of the installations for the confirmation of fire resistance

The below applies to seals in at least 100 mm thick walls made from light weight partition structures.

Classification EI 90 / 90

Type of installation	Description
Fire retardant barrier	<p>The f-tronic cavity wall socket "bs 115" by f-tronic GmbH</p> <ul style="list-style-type: none"> • Cable group A1, A2 and A3 with a maximal diameter up to Ø14,4 mm. • Maximum two cable groups per cavity wall socket <p>The f-tronic cavity wall socket "bs 117" with socket on fire side by f-tronic GmbH</p> <ul style="list-style-type: none"> • Cable group A1, A2 and A3 with a maximal diameter up to Ø14,4 mm. • Maximum two cable groups per cavity wall socket <p>The f-tronic cavity wall socket "bs 118" with fire socket on fire side, by f-tronic GmbH</p> <ul style="list-style-type: none"> • Cable group A1, A2 and A3 with a maximal diameter up to Ø14,4 mm. • Maximum two cable groups per cavity wall socket.

The classification is declared under the following conditions:

Field of application (Chapter 4.3 classification report)	<ul style="list-style-type: none"> • The test results are applicable only to the orientation for which the fire-retarding barrier systems were tested (corresponds to installation in a light dividing wall with thickness at least 100 mm or 125 mm). • The largest designated fire-retardant barrier must be tested to obtain the maximum area of application, corresponding to a vertical S gang 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 conduits are not permitted. • The classification applies with socket on both fire side and cold side, switch on both the fire side and cold side, spring cover on both fire side and cold side
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