Certificates

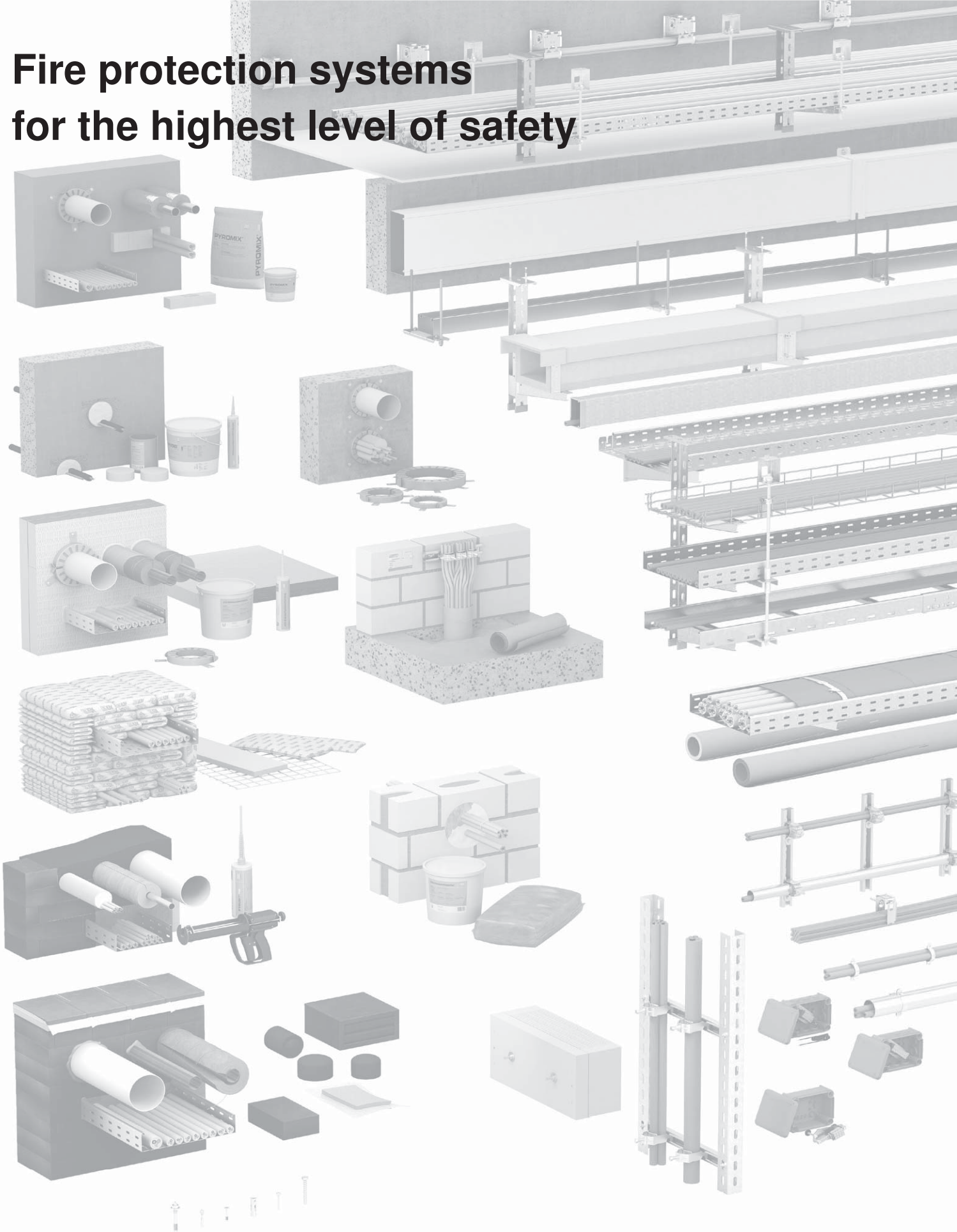
Insulation

PYROWIN® Cavity Wall Boxes (CWB)

European Technical Assessment No. ETA-23/0423, issued 07-14-2023

OBO BETTERMANN

Fire protection systems for the highest level of safety



Be it in a residential building or an industrial complex – OBO has the appropriate solution for fireproof electrical installations. Our tested and certified fire protection systems cover all the relevant fire protection guidelines and provide you with an electrical installation that really serves its purpose.
We will be happy to provide you with more details – on our website or personally.

,ETA-Danmark A/S
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DK-2150 Nordhavn
Tel. +45 72 24 59 00
Internet www.etadanmark.dk

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

European Technical Assessment ETA-23/0423 of 2023/07/14

I 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:	PYROWIN® Cavity Wall Boxes (CWB) HG47-LF, HG 61-LF and accessories
Product family to which the above construction product belongs:	Fire sealing products
Manufacturer:	OBO Bettermann Produktion Deutschland GmbH & Co. KG Hüingser Ring 52, DE- 58710 Menden/Sauerland Tel. + 49 2373 890 Internet www.obo.de
Manufacturing plant:	OBO Bettermann Manufacturing plants 06DE/43 HU
This European Technical Assessment contains:	17 pages including 10 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:	EAD 350454-00-1104 Fire stopping and fire sealing products, penetration seals
This version replaces:	-

II SPECIFIC PART OF THE EUROPEAN TECHNICAL ASSESSMENT

1 Technical description of product

The airtight fire protection cavity wall box system PYROWIN® CWB, types HG 47-LF and HG 61-LF, consist mainly of thermoplastic polypropylene (PP) and thermoplastic elastomere (TPE).

In spaces which are closed with TPE, cables can be inserted directly or flexible conduits can be used for cable insertion. For the installation in cavity walls the boxes have threaded rods and small clamping lugs of steel. These clamping lugs swing out during screwing and will fix the box behind the gypsum boards. The fire protection cavity wall boxes are equipped with 4 shells of PP (electrical insulation), which have a layer of intumescent material on one side. The shells are fixed undetachably to the body of the box. Additionally, the boxes have 2 screws to fix electrical devices like switches or power sockets inside them.

The fire protection cover type ZH 60-DF consists of polycarbonate (PC) and is fixed via the 2 screws, which can be used for devices, as well. The cover is used, if the cavity wall boxes are used for wiring only, without any devices installed.

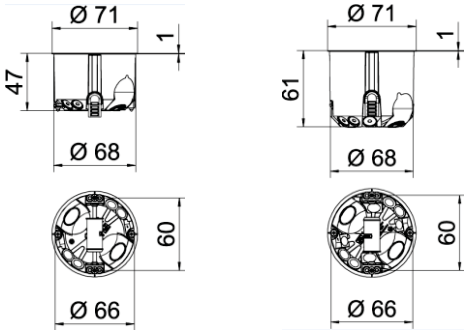
Each retrofit set types ZH 47-F and ZH 61-F consist of two pairs of isolating shells, which have a layer of intumescent material on one side. The sets are used to equip the standard OBO-cavity wall boxes type HG 47-L and HG 61-L with fire protection by inserting them to the sides of the boxes. The right position is indicated by plastic noses, which have to be placed at the so called triple domes.

The connection piece type ZH 11-V is needed to connect several cavity wall boxes to combinations. It can carry single wires for internal wiring.

Product	Type	Description
Fire protection cavity wall box	HG 47-LF	Device box, flat
Fire protection cavity wall box	HG 61-LF	Device and wiring box, deep
Retrofit set	ZH 47-F	Isolating shells for HG 47-L
Retrofit set	ZH 61-F	Isolating shells for HG 61-L
Fire protection cover	ZH 60-DF	Cover for fire protection cavity wall boxes
Connecting piece	ZH 11-V	Connector for combinations

Table 1 – Components of system PYROWIN® CWB

The above mentioned components have been tested and classified according to EN 1366-3 and EN 13501-2. See annexes 9 and 10.



Product type	Dimensions	Weight
HG 47-LF	Ø 68 x 47 mm	36 g
HG 61-LF	Ø 68 x 61 mm	42 g
ZH 60-DF	Ø 92 x 3 mm	25 g
ZH 47-F	for HG 47-L	12 g
ZH 61-F	for HG 61-L	15 g
ZH 11-V	Ø 14,5 x 28 mm	1 g

Table 2 – Technical data of the system PYROWIN® CWB

Illustration 1 – Cavity wall box flat and deep versions plus cover

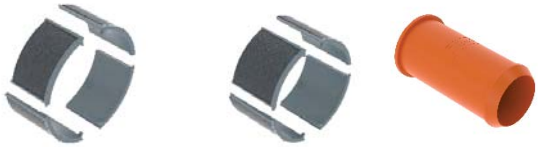


Illustration 2 – Retrofit sets for standard OBO-cavity wall boxes; connector for combinations

Detailed specifications for identification and performance criteria relevant for fire safety with regard to the construction product are given in annexes 1-10.

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

Fire protection cavity wall boxes are used to close openings for electrical installations in fire rated lightweight partition walls.

They prevent the spread of fire and limit the increase of temperatures in case of fire. Switches, power sockets and other electrical devices can be installed and wired.

The cavity wall boxes are used as junction boxes for wiring only, as well. In this case the cover has to be fixed to the box to prevent electrical shock.

The cavity wall boxes can be interconnected for combinations. They can be placed in cavity walls on opposite sides.

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 PYROWIN® CWB, types HG 47-LF and HG 61-LF.

The indications given on the working life cannot be interpreted as a guarantee given by the manufacturer nor by the Technical Assessment Body issuing the ETA but are to be regarded only as a means for expressing the economically reasonable working life of the product.

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 PYROWIN® CWB, types HG 47-LF and HG 61-LF: **No performance assessed** The intumescent material KERAFIX Flexpress 100 is classified as **Euroclass E** in accordance with EN 13501-1 and Delegated Regulation 2016/364
Resistance to fire	The system PYROWIN® CWB, types HG 47-LF and HG 61-LF are classified according to EN 13501-2 and Delegated Regulation 2016/364 and EC Decision 96/603/EC, **for information see annex 9 and 10.**
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*	**No dangerous substances**
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 type X**
3.5 Safety and accessibility in use (BWR 5)	
Airborne sound insulation	**$R_w(C; C_{Tr})$ =70 (-3 ; -10) dB**
3.6 Safety and accessibility in use (BWR 6)	
Thermal properties	**No performance assessed**
Water vapour permeability	**No performance assessed**

*) In addition to the specific clauses relating to dangerous substances contained in this European technical approval, 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 Product Directive, these requirements need also to be complied with, when and where they apply.

Also see 3.8-3.9

3.8 Methods of verification

The assessment of the performance of PYROWIN® CWB, types HG 47-LF and HG 61-LF as a cable box, in relation to the applicable BWR's has been made in accordance with the European Assessment Document (EAD) no. EAD 350454-00-1104, Fire stopping and fire sealing products, penetration seals.

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

The verification of durability is part of testing the essential characteristics. PYROWIN® CWB, types HG 47-LF and HG 61-LF may be used in end-use applications according to the provisions for use category X (intended for use in conditions exposed to weathering) 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.

The PYROWIN® CWB, types HG 47-LF and HG 61-LF is 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 (AVCP) system applied, with reference to its legal base.

4.1 AVCP system

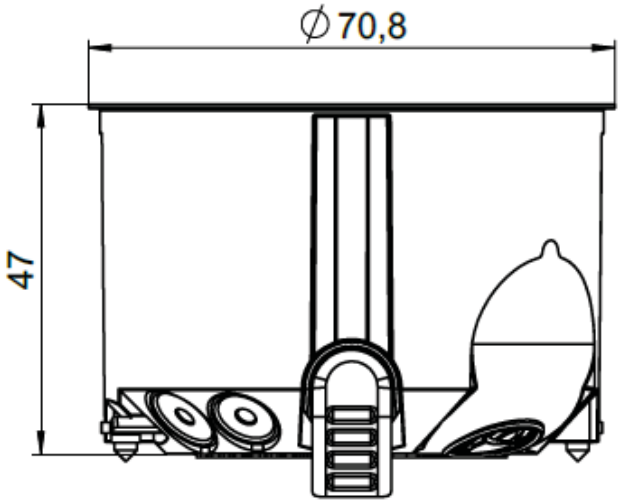
According to the decision 1999/454/EC of the European Commission, as amended by 2001/596/EC, the system(s) of assessment and verification of constancy of performance (see Annex V to Regulation (EU) No 305/2011) is **1.**

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 prior to CE marking

Issued in Copenhagen on 2023-07-14 by

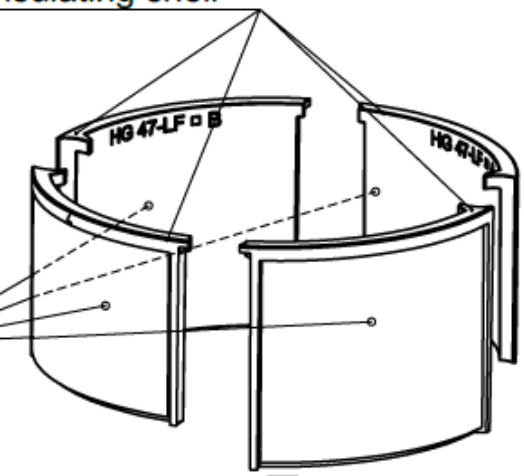
Thomas Bruun
Managing Director, ETA-Danmark

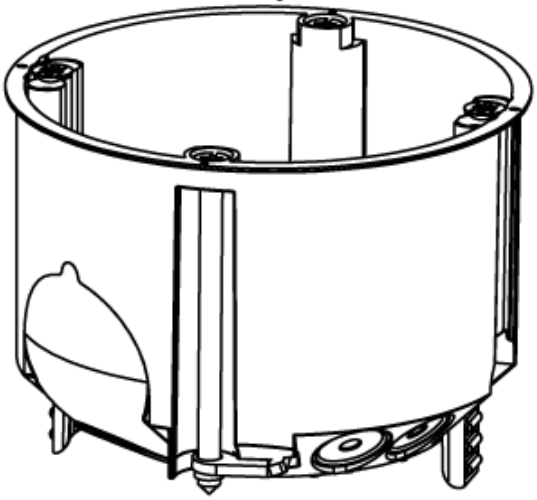


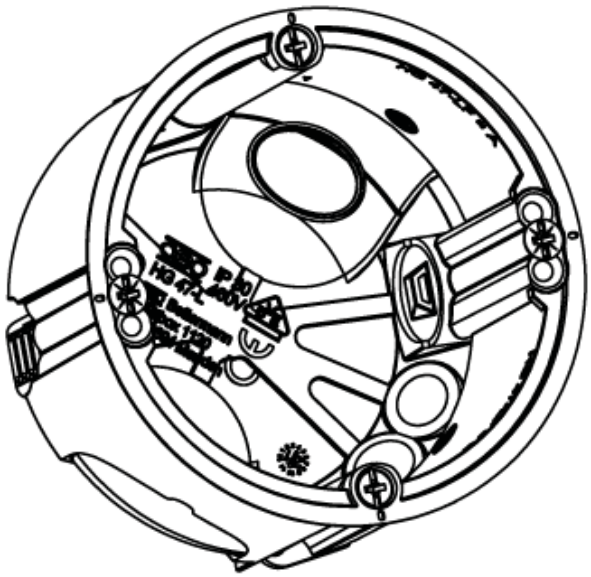
Werkstoffe Gerätedose /
Materials Device cavity wall box:
PP Polypropylen (Hartkomponente)
Polypropylene (hard component)
TPE Thermoplastisches Elastomer (Weichkomponente) /
Thermoplastic elastomer (Soft component)

Isolationsschale /
Insulating shell

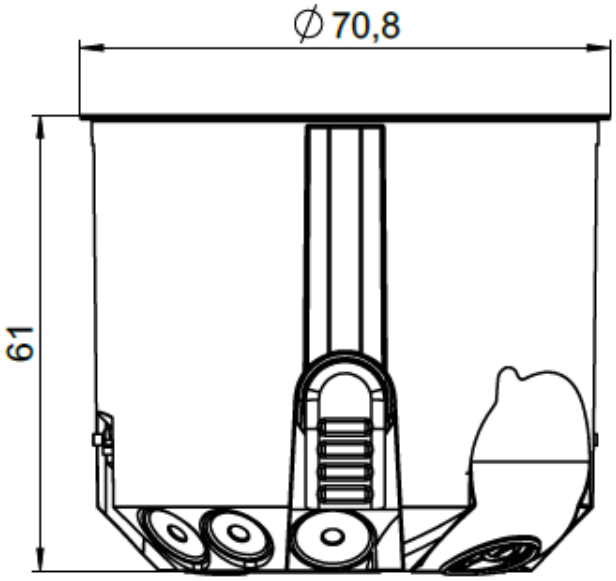
Dämmschichtbildender Baustoff /
Intumescent building material





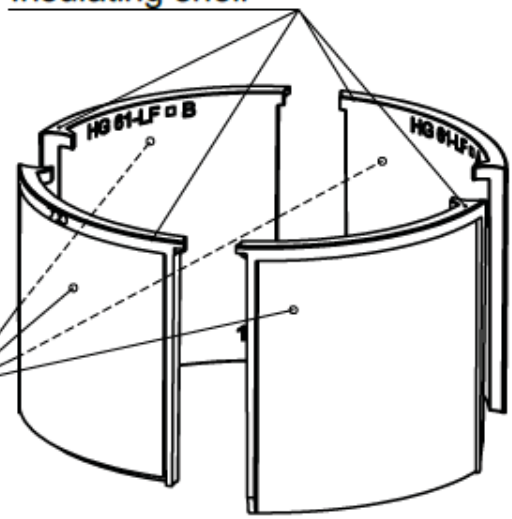


Anlage / Annex **1**			Benennung / Title **Brandschutz Gerätedose HG 47-LF / Fire-rated Device Cavity wall Box HG 47-LF**
	Datum/ Date	Name/ Name	
Erstellt/ Created	23.02.23	H.Harms	
Artikel-Nr. / Item No. **7204320**	OBO BETTERMANN		Zeichnungs-Nr. / Drawing No. **236393**

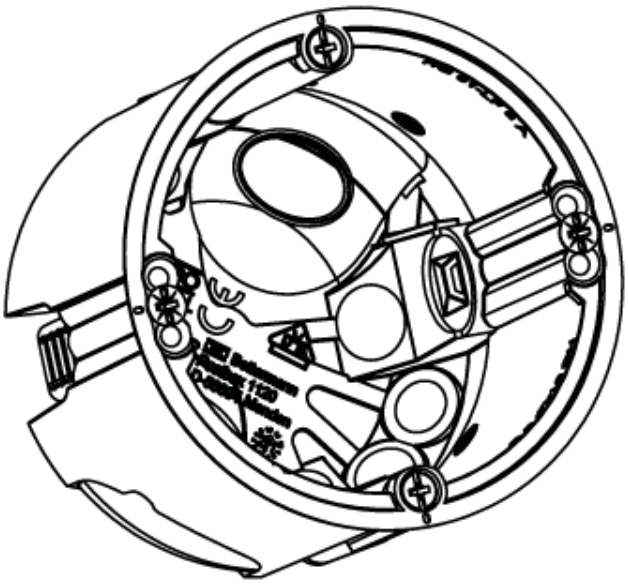


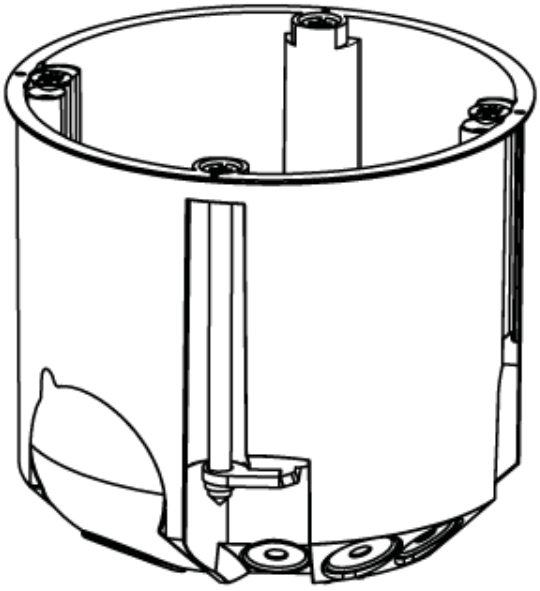
Werkstoffe Geräte- u. Verbindungsdose/
Materials Device a. junction cavity wall box:
PP Polypropylen (Hartkomponente)
Polypropylene (hard component)
TPE Thermoplastisches Elastomer (Weichkomponente) /
Thermoplastic elastomer (Soft component)

Isolationsschale /
Insulating shell

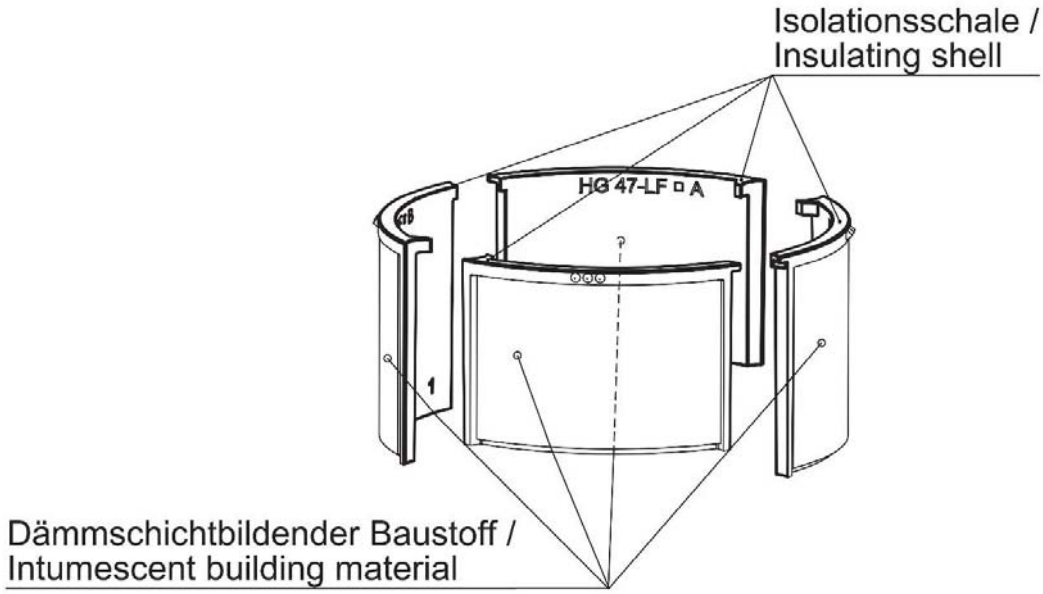


Dämmschichtbildender Baustoff /
Intumescent building material

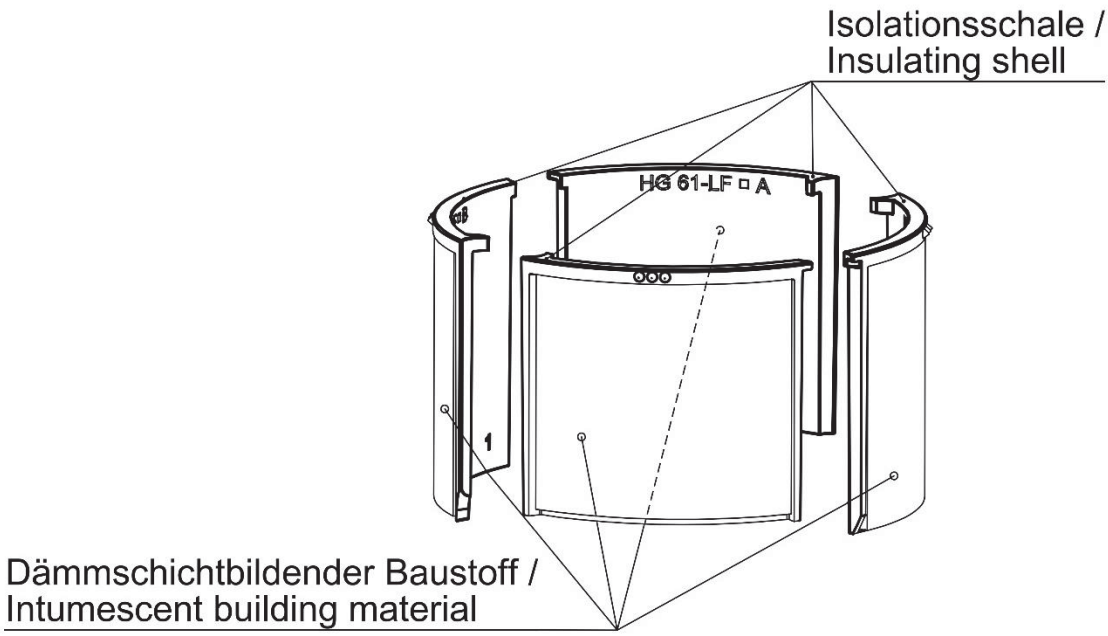




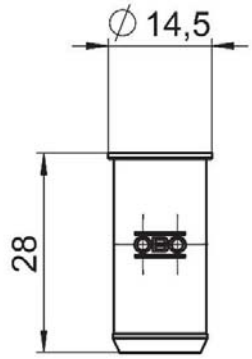
Anlage / Annex **2**			Datum/ Date	Name/ Name	Benennung / Title **Brandschutz Geräte – u. Verbindungsdose HG 61-LF /** **Fire-rated Device a. junction cavity wall box HG 61-LF**
		Erstellt/ Created	23.02.23	H.Harms	
Artikel-Nr. / Item No. **7204324**		OBO BETTERMANN			Zeichnungs-Nr. / Drawing No. **236392**

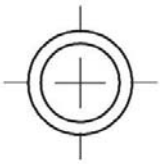


Anlage / Annex **3**			Datum/ Date	Name/ Name	Benennung / Title **Brandschutz Nachrüstset ZH 47-F /** **Fire-rated Retrofit Set ZH 47-F**
		Erstellt/ Created	23.02.23	H.Harms	
Artikel-Nr. / Item No. **7204330**		OBO BETTERMANN			Zeichnungs-Nr. / Drawing No. **236512**



Anlage / Annex **4**			Datum/ Date	Name/ Name	Benennung / Title **Brandschutz Nachrüstset ZH 61-F /** **Fire-rated Retrofit Set ZH 61-F**
		Erstellt/ Created	23.02.23	H.Harms	
Artikel-Nr. / Item No. **7204334**		OBO BETTERMANN			Zeichnungs-Nr. / Drawing No. **236513**

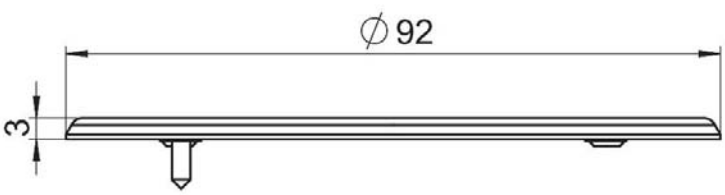




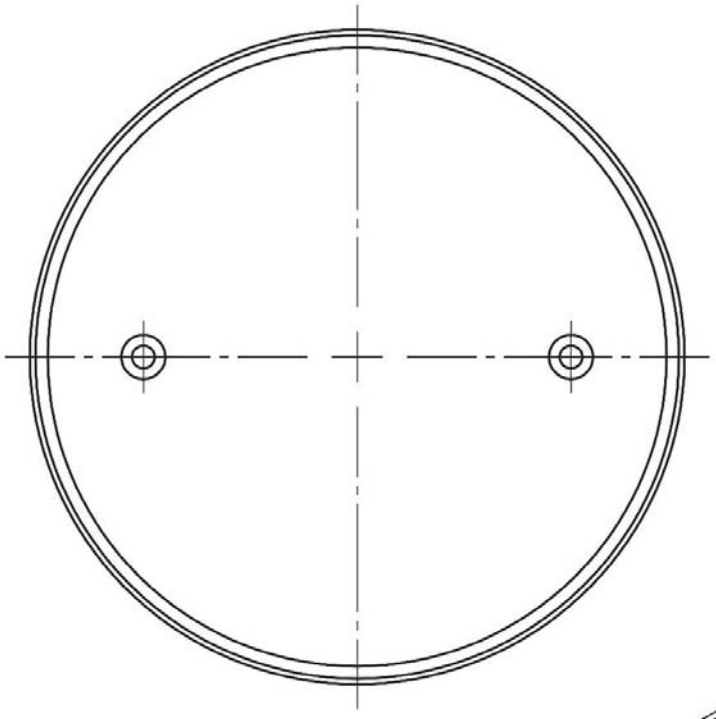
Werkstoff Verbindungsstutzen /
Material connecting piece:
PP Polypropylen /
Polypropylene

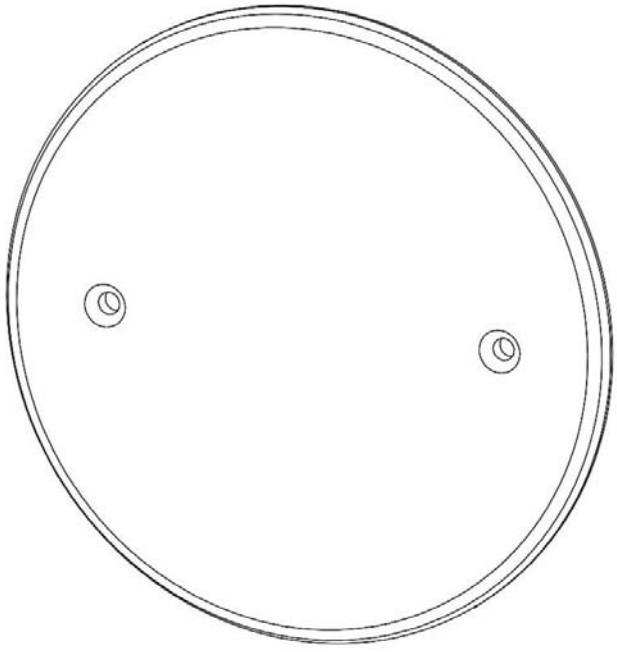
M 2:1

Anlage / Annex **5**			Datum/ Date	Name/ Name	Benennung / Title **Verbindungsstutzen ZH 11-V / Connecting Piece ZH 11-V**
		Erstellt/ Created	23.02.23	H.Harms	
Artikel-Nr. / Item No. **2003846**		OBO BETTERMANN			Zeichnungs-Nr. / Drawing No. **236592**



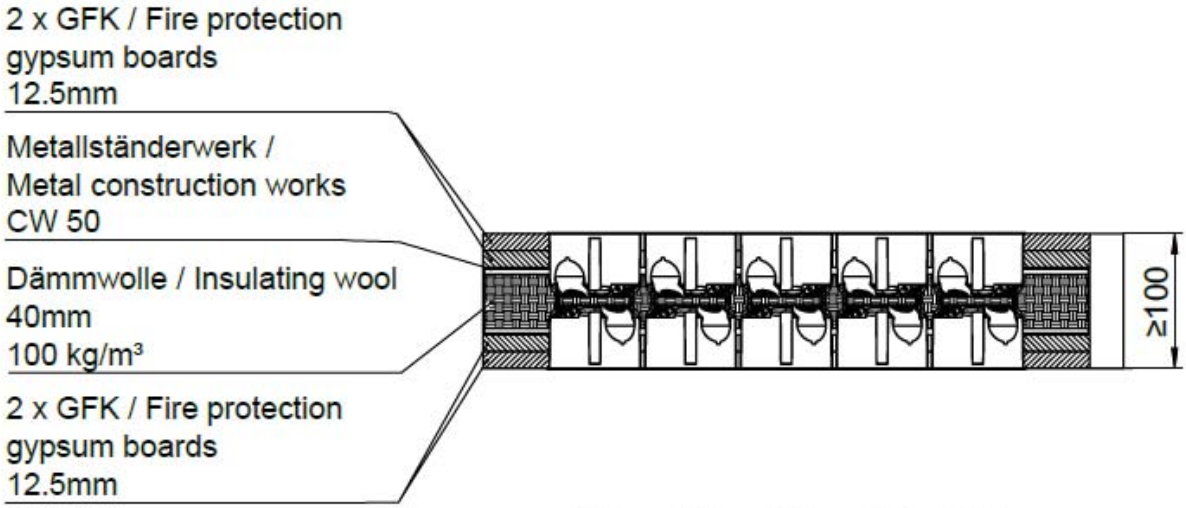
Werkstoff Brandschutzdeckel /
Material fire-rated cover
PC Polycarbonat /
Polycarbonate





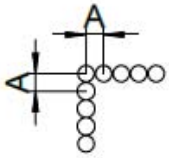
Anlage / Annex **6**			Benennung / Title **Brandschutz Deckel ZH 60-DF / Fire-rated Cover ZH 60-DF**
	Datum/ Date	**Name/ Name**	
Erstellt/ Created	23.02.23	H.Harms	
Artikel-Nr. / Item No. **7204340**	OBO BETTERMANN		Zeichnungs-Nr. / Drawing No. **236412**

Gerätedose Typ: HG 47-LF /
Device cavity wall box type: HG 47-LF



Wandaufbau nach EN1366-3
Abschnitt 7.2.2.1.2
Leichtwandkonstruktionen /
Wall construction acc. to EN 1366-3
Section 7.2.2.1.2
Light-weight construction

Dämmwolle nach EN 13501-1 /
Insulating wool acc. to EN 13501-1

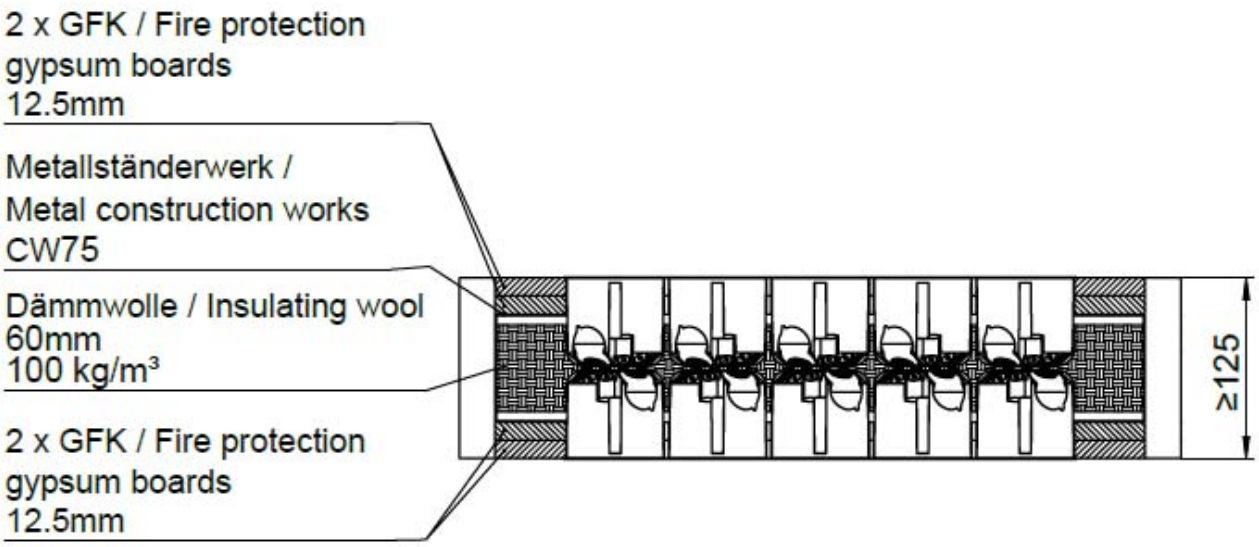


Systemabstand A für Kernlochbohrungen
bei Montage als Mehrfachdosen (bis zu 5-fach)
horizontal und vertikal beträgt 71,0mm /

System spacing A for tapping drill hole
in combinations of up to 5 socket boxes,
horizontal and vertikal is 71,0mm

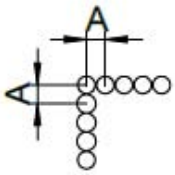
Anlage / Annex 7			Benennung / Title **Einbau- / Verwendungssituation HG 47-LF (5-fach)** **Mounting- / Usage Situation HG 47-LF (5-fold)**
		Datum/ Date / **Name/ Name**	
	Erstellt/ Created	23.02.23	H.Harms
Artikel-Nr. / Item No. -	OBO BETTERMANN		Zeichnungs-Nr. / Drawing No. Blatt **245551** 1/2

Geräte- und Verbindungsdose Typ: HG 61-LF
Device and junction cavity wall box type:: HG 61-LF



Wandaufbau nach EN1366-3
Abschnitt 7.2.2.1.2
Leichtwandkonstruktionen /
Wall construction acc. to EN 1366-3
Section 7.2.2.1.2
Light-weight construction

Dämmwolle nach EN 13501-1 /
Insulating wool acc. to EN 13501-1



Systemabstand A für Kernlochbohrungen
bei Montage als Mehrfachdosen (bis zu 5-fach)
horizontal und vertikal beträgt 71,0mm /

System spacing A for tapping drill hole
in combinations of up to 5 socket boxes,
horizontal and vertikal is 71,0mm

Anlage / Annex **8**		Datum/ Date / Name/ Name	Benennung / Title **Einbau- / Verwendungssituation HG 61-LF (5-fach)** **Mounting- / Usage Situation HG 61-LF (5-fold)**
		Erstellt/ Created: 23.02.23 / H.Harms	
Artikel-Nr. / Item No. **-**		OBO BETTERMANN	Zeichnungs-Nr. / Drawing No. Blatt **245551** 2/2

Resistance to fire classification

Field of application:
The cavity wall box HG 47-LF may be installed in flexible or solid walls of thickness ≥ 100 mm opposite each other.
The cavity wall box HG 47-LF may be mounted at any height.
Cavity wall boxes of type HG 47-LF without devices must be closed with the fire protection cover ZH 60-DF using the enclosed screws.
If several cavity wall boxes of type HG 47-LF are interconnected, a connecting piece of type ZH11-V can be used between two boxes.
The cavity wall box of type HG47-L may be retrofitted in terms of fire protection by means of the fire-rated retrofit set ZH47-F.

Applications		**Flexible construction**
Depth of building component		**≥ 100 mm**
Single cables (Sheated cables) Maximum copper cross-section $A_{cu} \leq 12.5$ mm²	Ø ≤ 14 mm	**EI 90**
Single cables (Core cables) Maximum copper cross-section $A_{cu} \leq 1.5$ mm²	Ø ≤ 4 mm	**EI 90**
Electrical installation conduits (flexible)	Ø ≤ 25 mm	**EI 90 - U/U**
Maximum combination:		
1 to 5-fold		**EI 90**

Resistance to fire classification

Field of application:
The cavity wall box HG 61-LF may be installed in flexible or solid walls of thickness ≥ 125 mm opposite each other.
The cavity wall box HG 61-LF may be mounted at any height.
Cavity wall boxes of type HG 61-LF without fixtures must be closed with the fire protection cover ZH 60-DF using the enclosed screws.
If several cavity wall boxes of type HG 61-LF are interconnected, a connecting piece of type ZH11-V can be used between two boxes.
The cavity wall box of type HG61-L may be retrofitted in terms of fire protection by means of the fire-rated retrofit set ZH61-F.

Applications		**Flexible construction**
Depth of building component		**≥ 125 mm**
Single cables (Sheated cables) Maximum copper cross-section $A_{cu} \leq 12.5$ mm²	Ø ≤ 14 mm	**EI 120**
Single cables (Core cables) Maximum copper cross-section $A_{cu} \leq 1.5$ mm²	Ø ≤ 4 mm	**EI 120**
Electrical installation conduits (flexible)	Ø ≤ 25 mm	**EI 120 - U/U**
Maximum combination:		
1 to 5-fold		**EI 120**

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Building Connections