

Approval body for construction products
and types of construction

Bautechnisches Prüfamt

An institution established by the Federal and
Laender Governments



European Technical Assessment

ETA-22/0129
of 2 May 2023

English translation prepared by DIBt - Original version in German language

General Part

Technical Assessment Body issuing the
European Technical Assessment:

Deutsches Institut für Bautechnik

Trade name of the construction product

Gerätedose HWD 68+,
Geräte-Verbindungsdose HWD 68+ ,
Gerätedose O-range Protect³,
Geräte-Verbindungsdose O-range Protect³

Product family to which the construction
product belongs

Intumescent products for fire sealing and fire stopping purposes

Manufacturer

KAISER GmbH & Co. KG
Ramsloh 4
58579 Schalksmühle
DEUTSCHLAND

Manufacturing plant

KAISER GmbH & Co. KG
Ramsloh 4
58579 Schalksmühle
DEUTSCHLAND

This European Technical Assessment
contains

10 pages including 5 annexes which form an integral part of this
assessment

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

EAD 350005-00-1104, Edition May 2015

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Specific Part

1 Technical description of the product

Object of this European Technical Assessment (ETA) are the injection moulded elements "Gerätedose HWD 68+", "Geräte-Verbindungsdose HWD 68+", "Gerätedose O-range Protect³" and "Geräte-Verbindungs-dose O-range Protect³", which are assessed as intumescent construction products.

In case of fire, exposed to high temperatures, the intumescent product expands and generates foam. This foam seals joints and gaps, closes voids and openings. Thus, the foam restricts the passage and the spread of heat, smoke, flames or any combination of these.

The intumescent construction products "Gerätedose HWD 68+", "Geräte-Verbindungsdose HWD 68+", "Gerätedose O-range Protect³" and "Geräte-Verbindungs-dose O-range Protect³" are prefabricated injection moulded elements consisting of an electrically insulating component made of red pigmented hard Polypropylene, an inner, electrically insulating insertion membrane and an anthracite coloured intumescent layer between these both components, which is inseparably bonded to them and foams in case of fire. This material essentially consists of intumescent substances and a binder¹.

The technical characteristics relevant for fire sealing and fire stopping effects of the injection moulded elements "Gerätedose HWD 68+" (one-gang box), "Geräte-Verbindungsdose HWD 68+" one-gang junction box), "Gerätedose O-range Protect³"(one-gang box) and "Geräte-Verbindungsdose O-range Protect³" (one-gang junction box) are summarized in Annex 1.

The described injection moulded elements are produced in standard shapes with standard dimensions as given in Annex 2.1, 2.2, 2.3 and 2.4.

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

The intumescent construction products "Gerätedose HWD 68+", "Geräte-Verbindungsdose HWD 68+" and "Gerätedose O-range Protect³" und "Geräte-Verbindungsdose O-range Protect³" are assessed on the basis of EAD N° 350005-00-1104² as intumescent products for fire sealing and fire stopping purposes without defined final intended use (IU 1).

The construction products are intended to be used as an essential component for fire protection of walls, ceilings and special constructions which need to meet requirements concerning the safety in case of fire.

In case of fire, the products delay the heat transfer through fire resistant construction products and construction elements by expanding under the impact of high temperatures and thus restricting the spread of fire.

The performances in Section 3 can only be assumed if the instructions and the boundary conditions stated in section 3.3. are considered for the use of the construction products "Instrument box HWD 68+", "Device junction box HWD 68+", "Instrument box O-range Protect³" and "Device junction box O-range Protect³" in use.

The verification and assessment methods on which this European Technical Assessment is based, lead to the assumption of working life of the intumescent construction products "Gerätedose HWD 68+", "Gerätedose O-range Protect³", "Geräte-Verbindungsdose HWD 68+" and "Geräte-Verbindungsdose O-range Protect³" of at least 10 years in final use.

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

¹ Chemical composition deposited with DIBt

² Official Journal of the EU N° C 378/02 of 13 November 2015

3 Performance of the products and references to the methods used for this assessment

3.1 Safety in case of fire (BWR 2)

3.1.1 Reaction to fire

Products	Performance
"Gerätedose HWD 68+", "Gerätedose O-range Protect ³ ", "Geräte-Verbindungsdose HWD 68+" "Geräte-Verbindungsdose O-range Protect ³ "	class E in accordance with EN 13501-1 ³

3.1.2 Resistance to fire

The performance "resistance to fire" shall be determined separately for every final use and shall be classified, if required for the construction element concerned.

3.2 Hygiene, health and the environment (BWR 3)

Essential characteristic	Performance
Content of dangerous substances	No dangerous substances ⁴

The detailed chemical composition of the intumescent construction products "Gerätedose HWD 68+", "Gerätedose O-range Protect³", "Geräte-Verbindungsdose HWD 68+" and "Geräte-Verbindungsdose O-range Protect³" has been assessed by DIBt and is deposited in writing with the DIBt.

3.3 General Aspects

Durability testing shall be an integral part of assessing the basic works requirements and to achieve evaluated performance. The durability is only ensured if the following special provisions are observed during use.

The testing and the assessment of the relevant product performance were carried out for environmental conditions of type Z₂ – product intended for use at dry internal conditions without frost, at relative humidity between 50 % RF and 85 % RF and temperatures between +5 °C ± 5 °C and +35 °C ± 5 °C in accordance with EAD N° 350005-00-11042²; clause 1.2.2.

Result:

The intumescent construction products "Gerätedose HWD 68+", "Gerätedose O-range Protect³", "Geräte-Verbindungsdose HWD 68+" and "Geräte-Verbindungsdose O-range Protect³" can be used permanently under use conditions of type Z₂ (dry internal use without frost) without expecting any significant change in the relevant fire sealing and fire stopping properties and the resulting performance.

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

In accordance with the European Assessment Document EAD No 350005-00-1104², edition May 2015 the Decision of the commission N° 1999/454/EC of 22 June 1999 (OJ of the EU L 178 of 14 July 1999, p 42), amended by EC Decision 2001/596/EC of 8 January 2001 (OJ of the EU L 209 of 2 August 2001, p 33) is the legal basis for the determination of the AVCP system.

³ EN 13501-1 Fire classification of construction products and building elements, Part 1: Classification using data from reaction to fire tests.

⁴ In accordance with the Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 (published in the Official Journal of the EU N° L 353 of 31/12/2008, p 1)

Consequently, System 1 for the assessment and verification of constancy of performance (AVCP) (see Annex V in conjunction with Article 65(2) of Regulation (EU) No 305/2011) applies in accordance with the following table:

Product	Intended use	characteristic	System
Gerätedose HWD 68+ (one-gang box) Gerätedose O-range Protect ³ (one-gang junction box) Geräte-Verbindungsdose HWD 68 (one-gang box) Geräte-Verbindungsdose O-range Protect ³ (one-gang junction box)	Components effective in view of safety in case of fire used in walls, ceilings and special assemblies	reaction to fire properties relevant for fire sealing and fire stopping effects	1

5 Technical details necessary for the implementation of the procedure for assessment and verification of constancy of performance (AVCP) System 1, as provided for in the applicable European Assessment Document

The technical details necessary for the implementation of the System 1 for assessment and verification of constancy of performance are part of the control plan (confidential part of this ETA) deposited with the Deutsches Institut für Bautechnik.

Issued in Berlin on 2 May 2023 by Deutsches Institut für Bautechnik

Otto Fechner
Head of Section

beglaubigt
Dr.-Ing. Dierke

ANNEX 1

CHARACTERISTICS RELEVANT FOR THE FIRE SEALING AND FIRE STOPPING EFFECTS OF THE CONSTRUCTION PRODUCTS

"Gerätedose HWD 68+" (fire protective one-gang box),

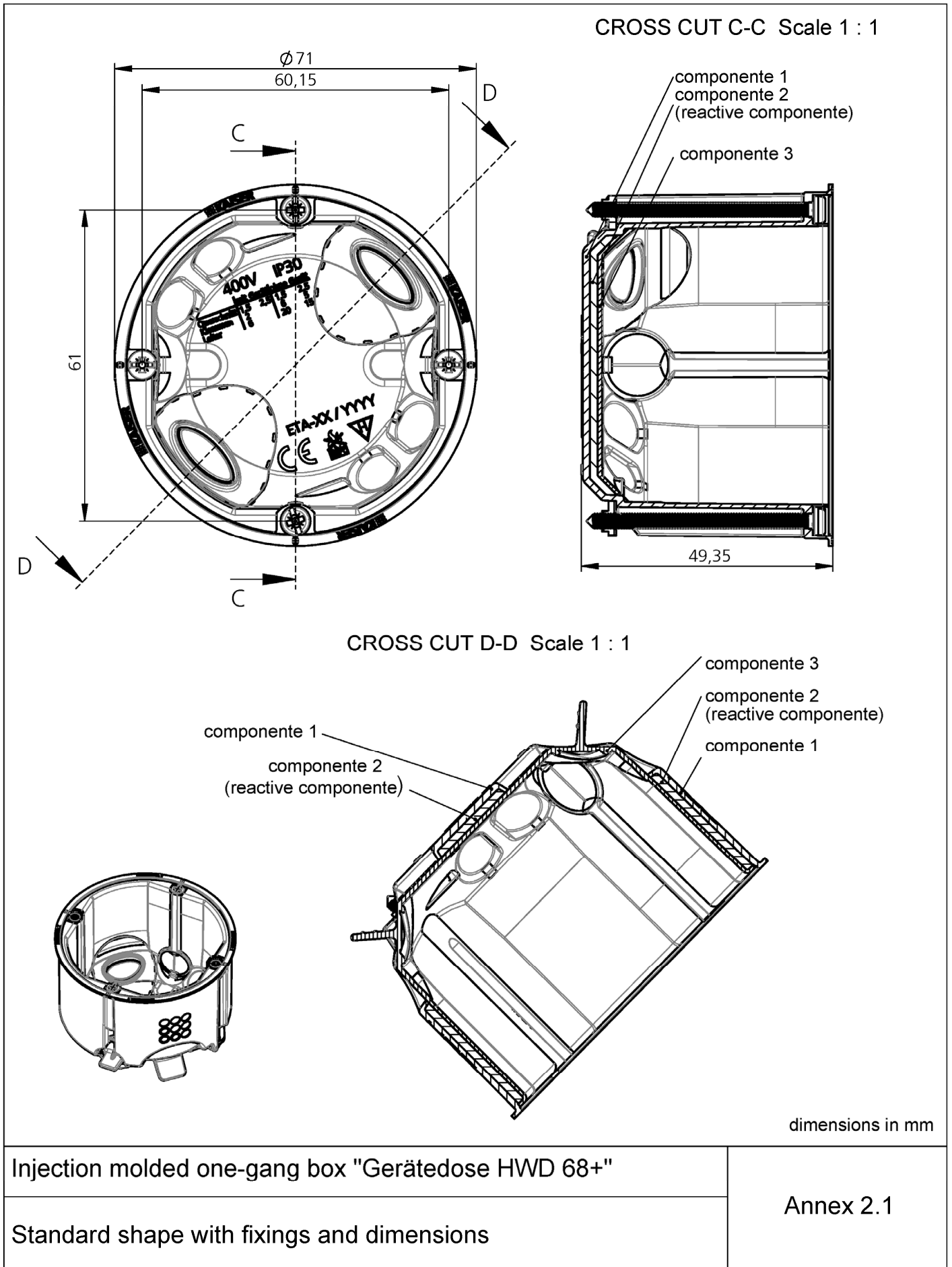
"Geräte-Verbindungsdose HWD 68+" (fire protective one-gang junction box),

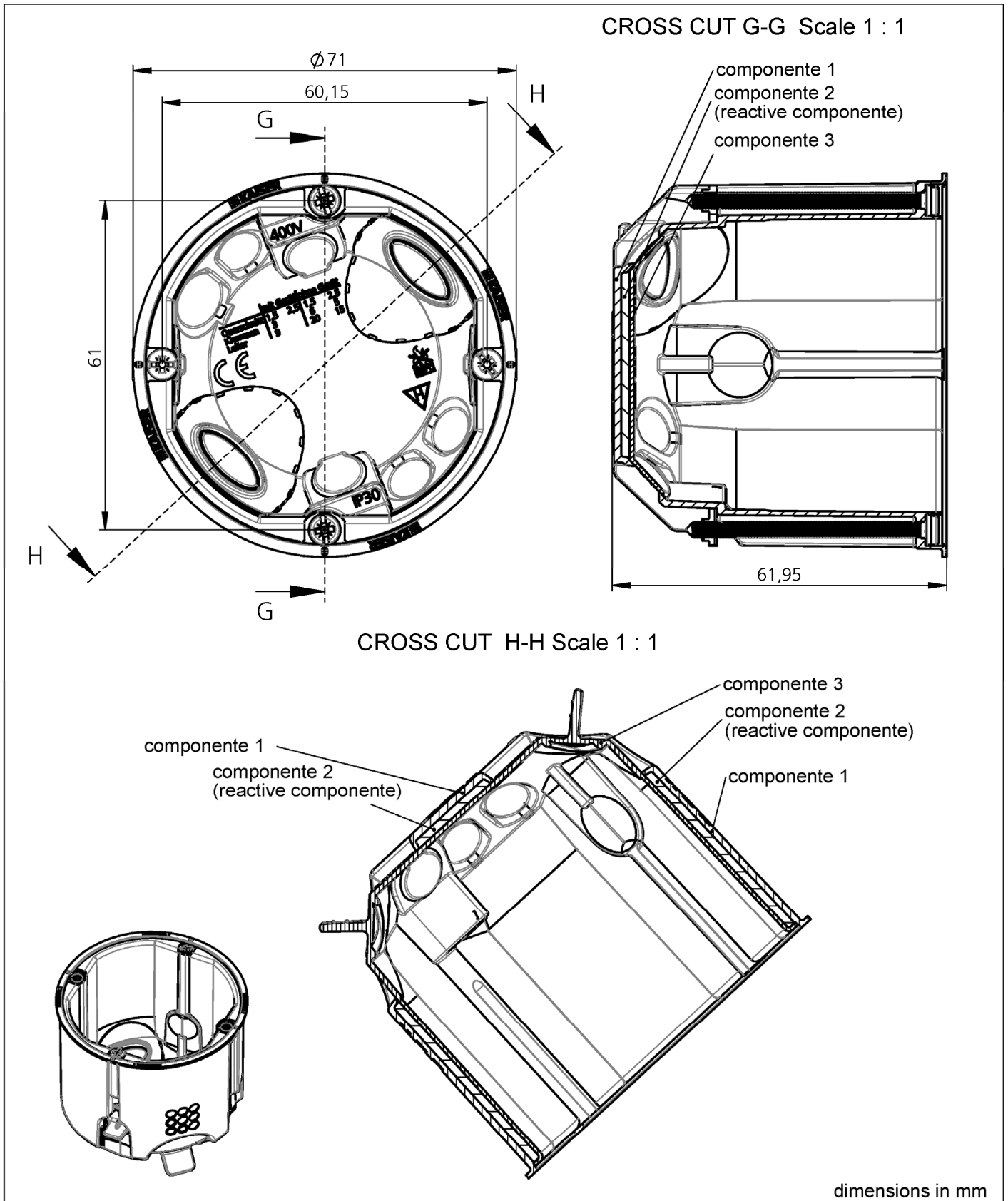
"Gerätedose O-range Protect³" (fire protective one-gang box),

"Geräte-Verbindungsdose O-range Protect³" (fire protective one-gang junction box)

Characteristic	Test method	Range of values and tolerances
foam height	see control plan	32,0 mm ± 7,5 mm
Loss of mass at a certain temperature		70,0 %± 5 %

The products do not develop any remarkable expansion pressure during reaction.



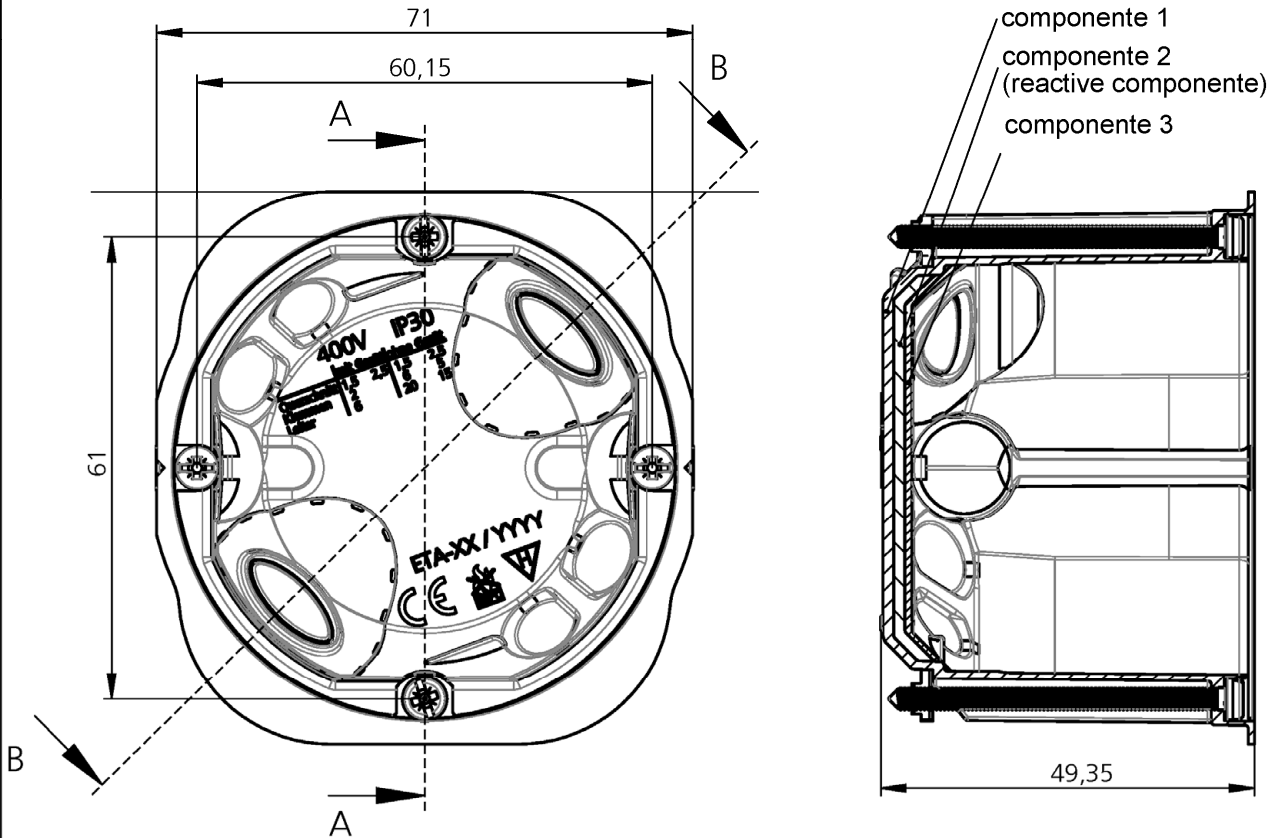


Injection molded one-gang junction box
"Geräte-Verbindungsdose HWD 68+"

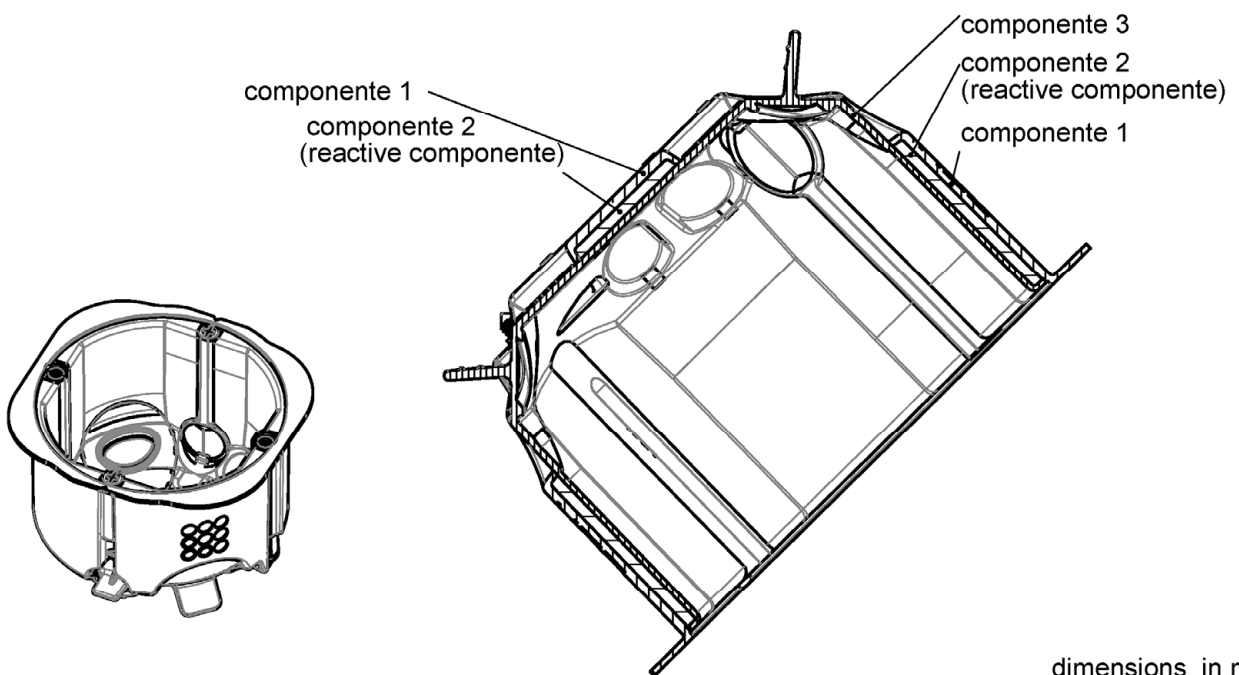
Standard shape with fixings and dimensions

Annex 2.2

CROSS CUT A-A Scale 1 : 1



CROSS CUT B-B Scale 1 : 1

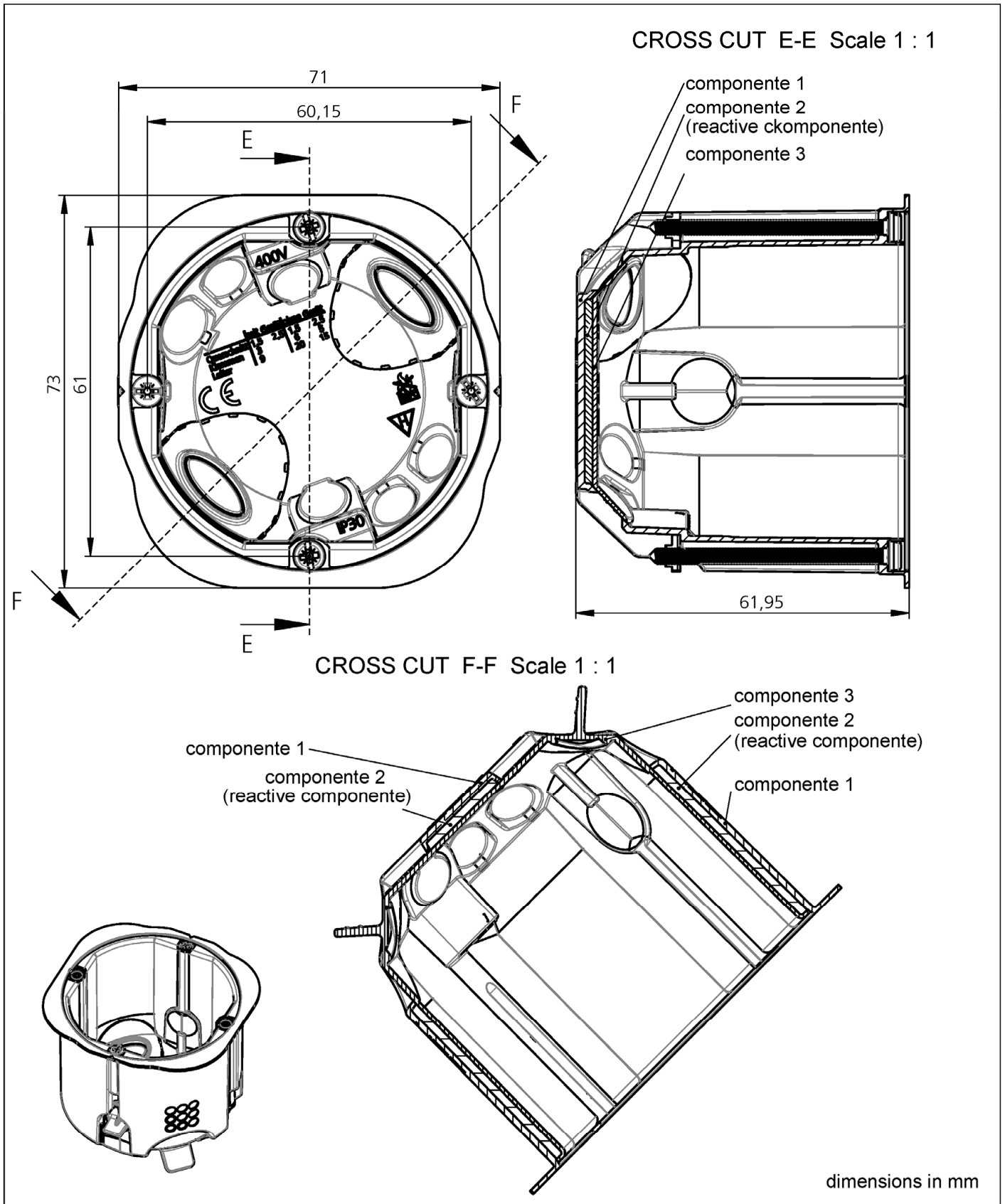


dimensions in mm

Injection molded one-gang box "Gerätedose O-range Protect³"

Standard shape with fixings and dimensions

Annex 2.3



Injection molded one-gang junction box
"Geräte-Verbindungsdose O-range Protect³"

Standard shape with fixings and dimensions

Annex 2.4