

Expert opinion- no.: P000554782
Product: WKE 2, WKE 4 and WKE 6



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Order content: Fire protection assessment of a PRIOCAB-Li EI90 series fire protection cabinet in the event of a fire from the inside or outside lasting 90 minutes

Order date: 2025-10-10

Designation: Connection and junction boxes of the WKE series (WKE 2, WKE 4, and WKE 6)

Manufacturer: Günther Spelsberg GmbH + Co. KG
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Scope of expert opinion: 3 pages of text und 6 appendices

Validity: until 2030-10-16

Freiberg, 2025-10-17

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Note: The expert opinion is issued in German and English. In case of doubt the German version of the expert opinion no. P000554782 dated 2025-10-17 is valid.

1 Basis of the expert opinion

- [1] Test report no. 20240599/01 from MPA Dresden GmbH, 2024-07-31, testing of insulation retention in accordance with EN 50200:2016-07¹ on ENHANCED FIRE RESISTANT ARMORED POWER CABLE BS7846 F-120 4x6 mm² (Batt Cables – 57279) in junction box WKE 2 (Spelsberg – 86650201), installation type: protection class 1 and 2;
- [2] Test report no. 20240599/02 from MPA Dresden GmbH, 2024-07-31, testing of insulation retention in accordance with EN 50200:2016-07¹ on ENHANCED FIRE RESISTANT ARMORED POWER CABLE BS7846 F-120 4x6 mm² (Batt Cables – 57279) in junction box WKE 6 (Spelsberg – 86650601), installation types 1 and 2;
- [3] Test report no. 20240712/01 from MPA Dresden GmbH, 2024-07-31, testing of insulation retention in accordance with EN 50200:2016-07¹ on (N)HXH FE180 E90 0.6/1.0 kV 5 x 4 mm² (DÄTWYLER – 186184) in junction box WKE 2 (Spelsberg – 86050201), installation type: protection class 1;
- [4] Test report no. 20240712/02 from MPA Dresden GmbH, 2024-07-31, testing of insulation retention in accordance with EN 50200:2016-07¹ on (N)HXH FE180 E90 0.6/1.0 kV 5 x 4 mm² (DÄTWYLER – 186184) in junction box WKE 6 (Spelsberg – 86050601), installation type: protection class 1;
- [5] Product documentation for the WKE series connection and junction boxes (WKE 2, WKE 4, and WKE 6); as of 2025-03.

2 Description of the WKE 2, WKE 4, and WKE 6 connection and junction boxes

The WKE 2, WKE 4, and WKE 6 junction boxes are used in cable systems in which multi-core enhanced fire-resistant armored power cables (BS7846 F-120 4x 6 mm² Batt Cable- 57279 and (N)HXCH FE180 E90 0.6/1.0 kV 5 x 4 mm², (DÄTWYLER- 186184)) are connected to each other.

The thermoplastic junction boxes have the following external dimensions:

Table 1: External dimensions of junction and branch boxes

Type	WKE 2	WKE 4	WKE 6
Length in mm	100.2	150.2	250.2
Width in mm	100	150	200
Height in mm	70.2	85.3	120.4
External mounting bracket (protection class 2), length x width in mm	145 x 30	195 x 30	295 x 30

The junction boxes of types WKE 2, WKE 4, and WKE 6 essentially consist of a housing with a lid, terminals on a terminal holder, cable entries, and retaining/mounting plates (external mounting bracket for protection class 2).

The structure of the WKE 2, WKE 4, and WKE 6 junction boxes and the position of the components listed above are shown in Appendices 1–6.

The junction boxes are mounted on solid, non-combustible walls using fasteners approved by the building authorities.

The fire-resistant cables entering and exiting the junction boxes must be fastened to the wall with cable clamps at a maximum distance of 100 mm from the junction boxes.

¹ DIN EN 50200:2016-07 Method of test for resistance to fire of unprotected small cables for use in emergency circuits; German version EN 50200:2015

3 Use of WKE 2, WKE 4, and WKE 6 junction boxes in cable systems

Table: 2: Functionally safe cables with WKE 2, WKE 4, and WKE 6 junction boxes

	ENHANCED FIRE RESISTANT ARMOURED POWER CABLE BS7846 F-120 4x 6 mm ²	(N)HXCH FE180 E90 0,6/1,0 kV 5 x 4 mm ² (DÄTWYLER- 186184)
WKE 2 protection class 1	X [1]	X [3]
WKE 2 protection class 2	X [1]	-
WKE 4 protection class 1	X	X
WKE 4 protection class 2	X	-
WKE 6 protection class 1	X [2]	X [4]
WKE 6 protection class 2	X [2]	X [4]

4 Evaluation

If the connection and junction boxes of the WKE series (WKE 2, WKE 4, and WKE 6) from Günther Spelsberg GmbH + Co. KG described in section 2 and shown in Appendices 1 to 6 are used in combination with the fire resistant cables (see Table 2):

- ENHANCED FIRE RESISTANT ARMOURED POWER CABLE BS7846 F-120 4x 6 mm² (BATT Cables) and
- DÄTWYLER cable (N)HXCH FE180 E90 0.6/1.0 kV 5 x 4 mm²,

it can be assumed that insulation integrity in the event of fire, tested in accordance with DIN EN 50200:2016-07¹ (conductor breakage and short circuit), is guaranteed for a period of 120 minutes.

5 Notes

This expert opinion P000554782 dated 2025-10-17 does not constitute a general certificate of usability issued by the building authorities in accordance with the German state building regulations.

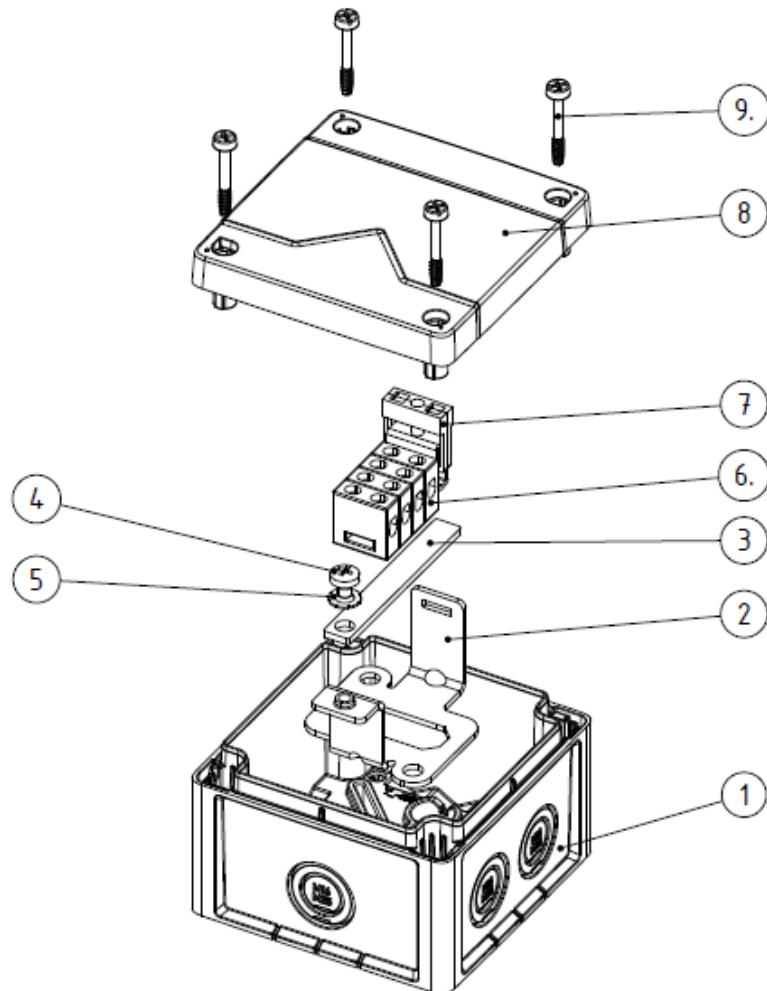
This expert opinion P000554782 only applies to the construction products and installation situation described in sections 2 and 3 of this expert opinion.

The validity of the expert opinion P000554782 ends on 2030-10-16 and can be extended thereafter upon request.

All references to standards refer to the dated editions of standards listed in the footnotes.

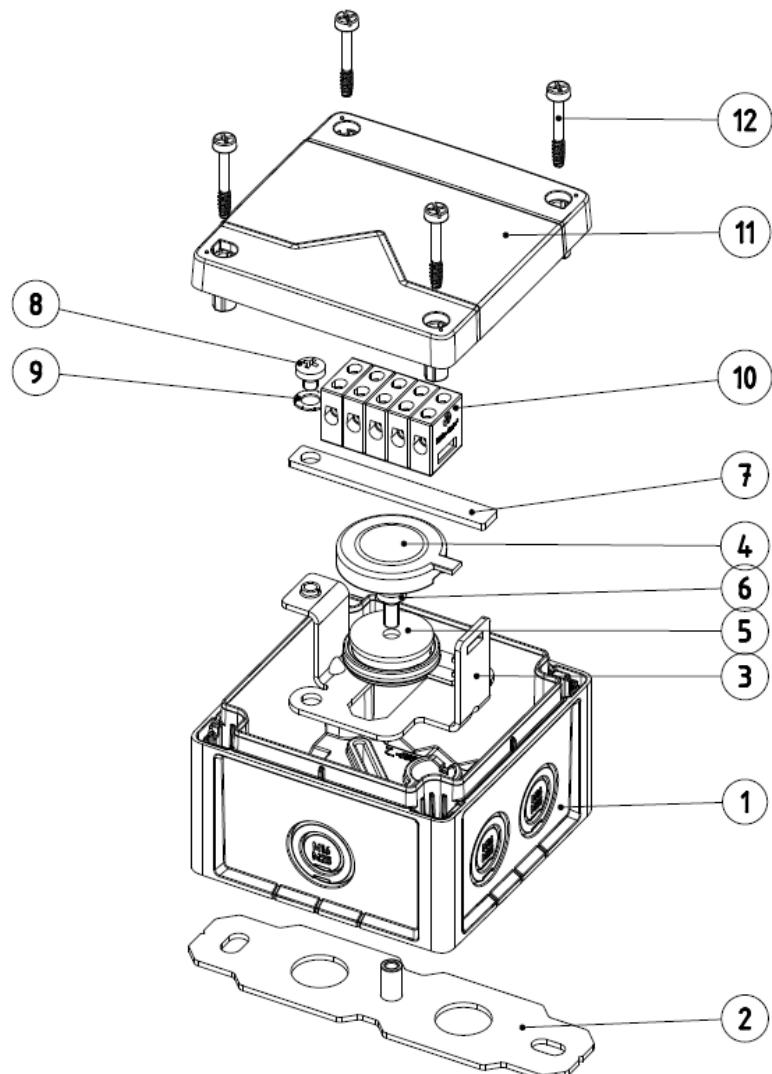
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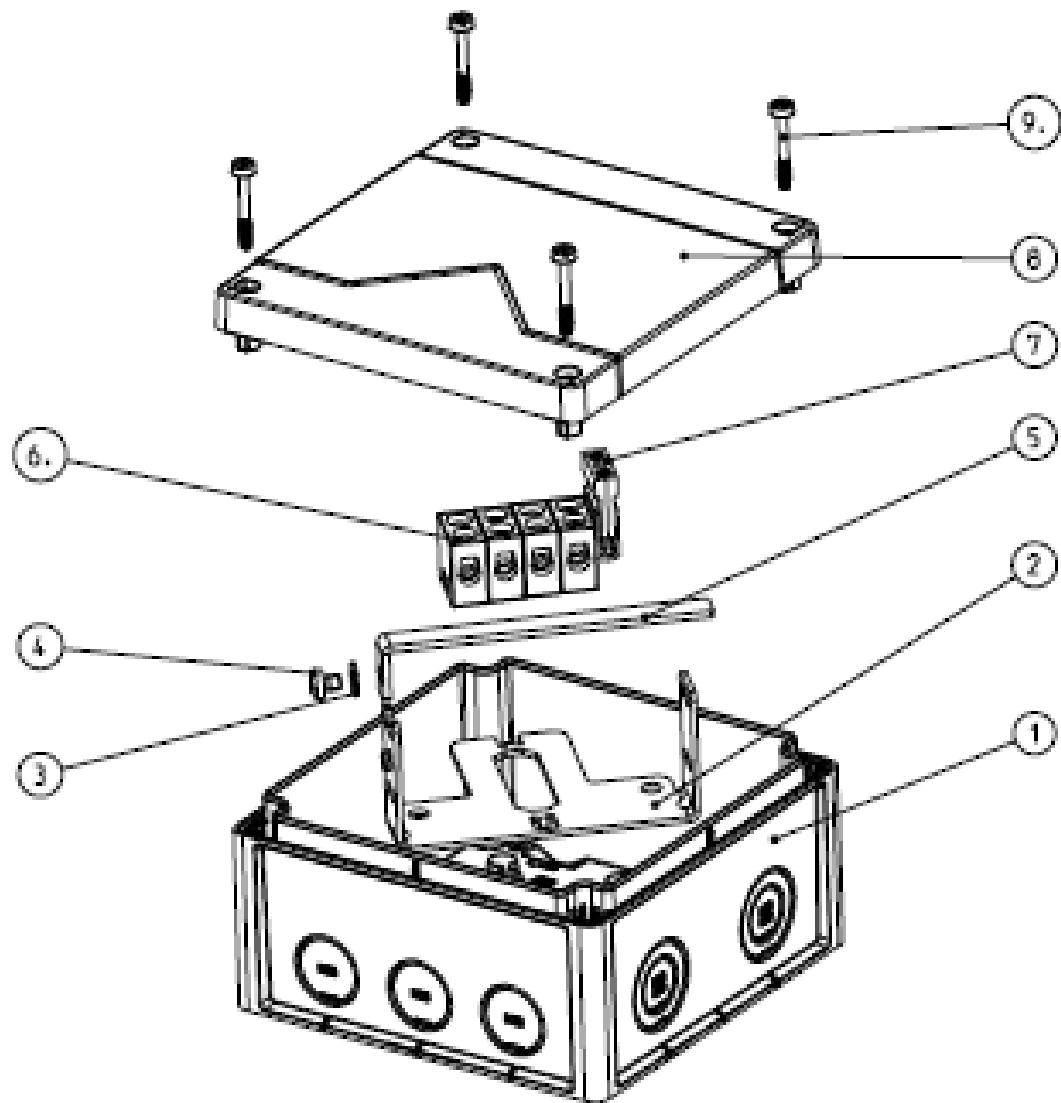
Item no.	Designation
1	Box WKE 2
2	Terminal holder
3	Supporting rail
4	Pan-head screws M5x6
5	Tooth disc washer
6	terminal block
7	Pull-through clamp
8	Lid
9	Cover screws

Fig. A1: WKE 2, explosion view, protection class 1



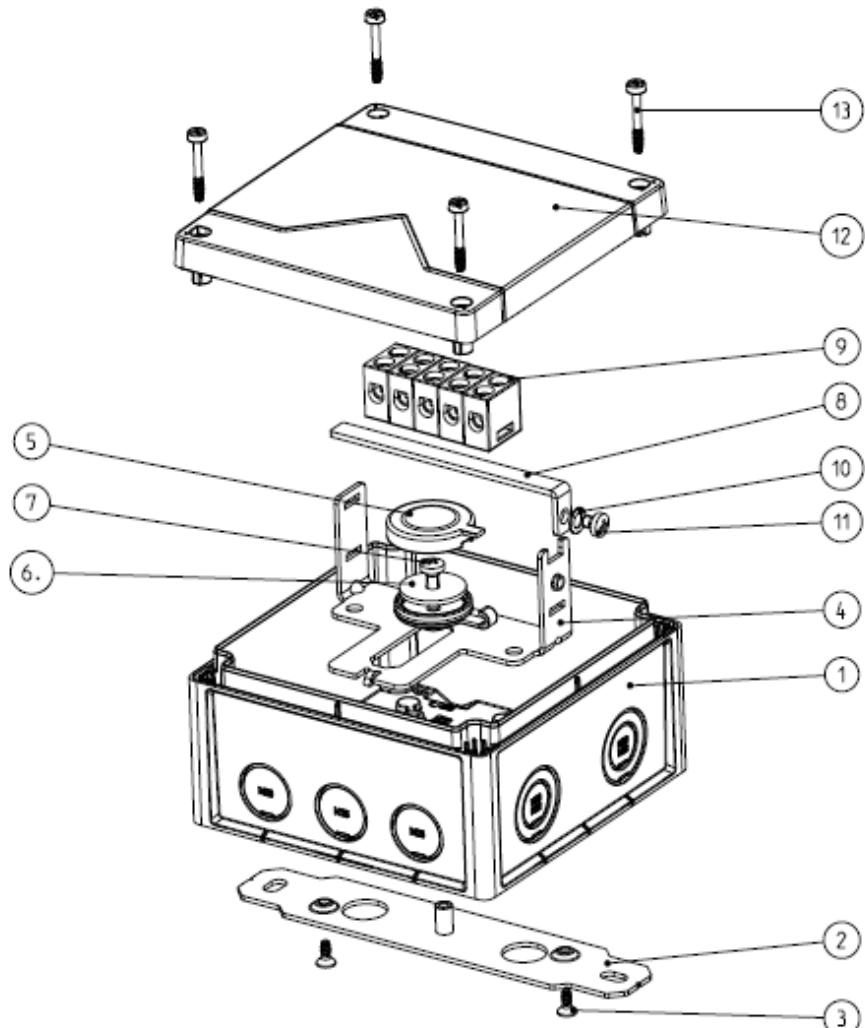
Item no.	Designation
1	Box WKE 2
2	external mounting bracket
3	Terminal holder
4	central fixing
5	Washer
6	Pan-head screws M5x12
7	Supporting rail
8	Pan-head screws M5x6
9	Tooth disc washer
10	terminal block
11	Lid
12	Cover screws

Fig. A2: WKE 2 explosion view, protection class 2



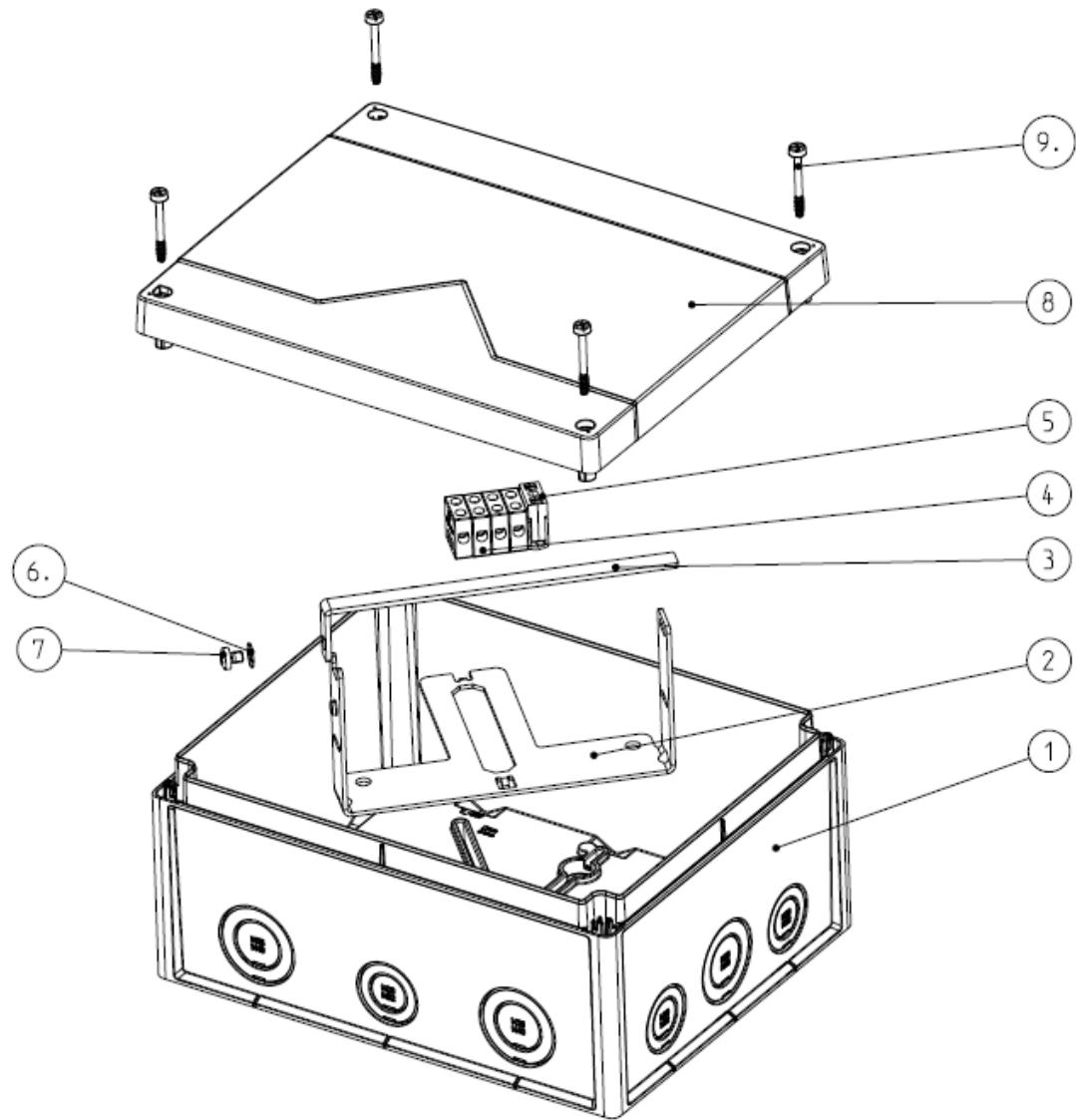
Item no.	Designation
1	Box WKE 4
2	Terminal holder
3	Tooth disc washer
4	Pan-head screws M5x6
5	Supporting rail
6	terminal block
7	Pull-through clamp
8	Lid
9	Cover screws

Fig. A3: WKE 4, explosion view, protection class 1



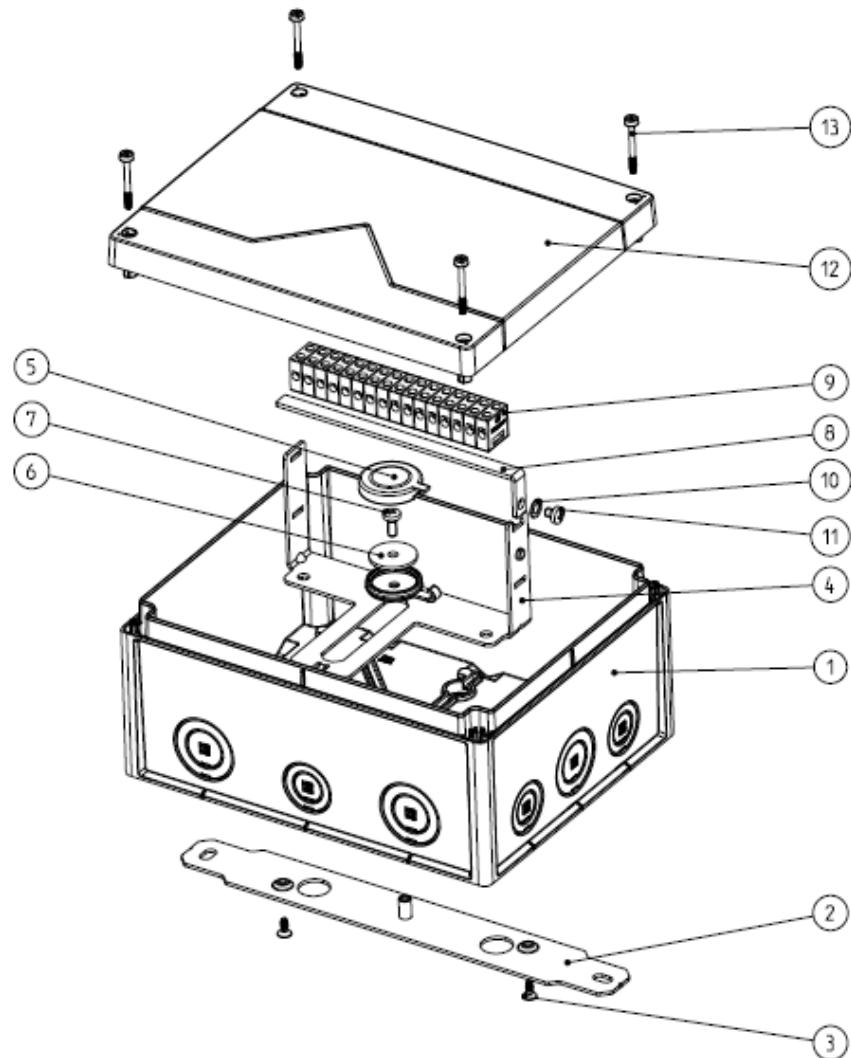
Item no.	Designation
1	Box WKE 4
2	external mounting bracket
3	Countersunk screw 4 x 10
4	Terminal holder
5	central fixing
6	Washer
7	Pan-head screws M5x12
8	Supporting rail
9	terminal block
10	Tooth disc washer
11	Pan-head screws M5x6
12	Lid
13	Cover screws

Fig. A4: WKE 4, explosion view, protection class 2



Item no.	Designation
1	Box WKE 6
2	Terminal holder
3	Supporting rail
4	terminal block
5	Pull-through clamp
6	Tooth disc washer
7	Pan-head screws M5x6
8	Lid
9	Cover screws

Fig. A5: WKE 6, explosion view, protection class 1



Item no.	Designation
1	Box WKE 6
2	external mounting bracket
3	Countersunk screw 4 x 10
4	Terminal holder
5	central fixing
6	Washer
7	Pan-head screws M5x12
8	Supporting rail
9	terminal block
10	Tooth disc washer
11	Pan-head screws M5x6
12	Lid
13	Cover screws

Fig. A6: WKE 6, explosion view, protection class 2