

Certificates



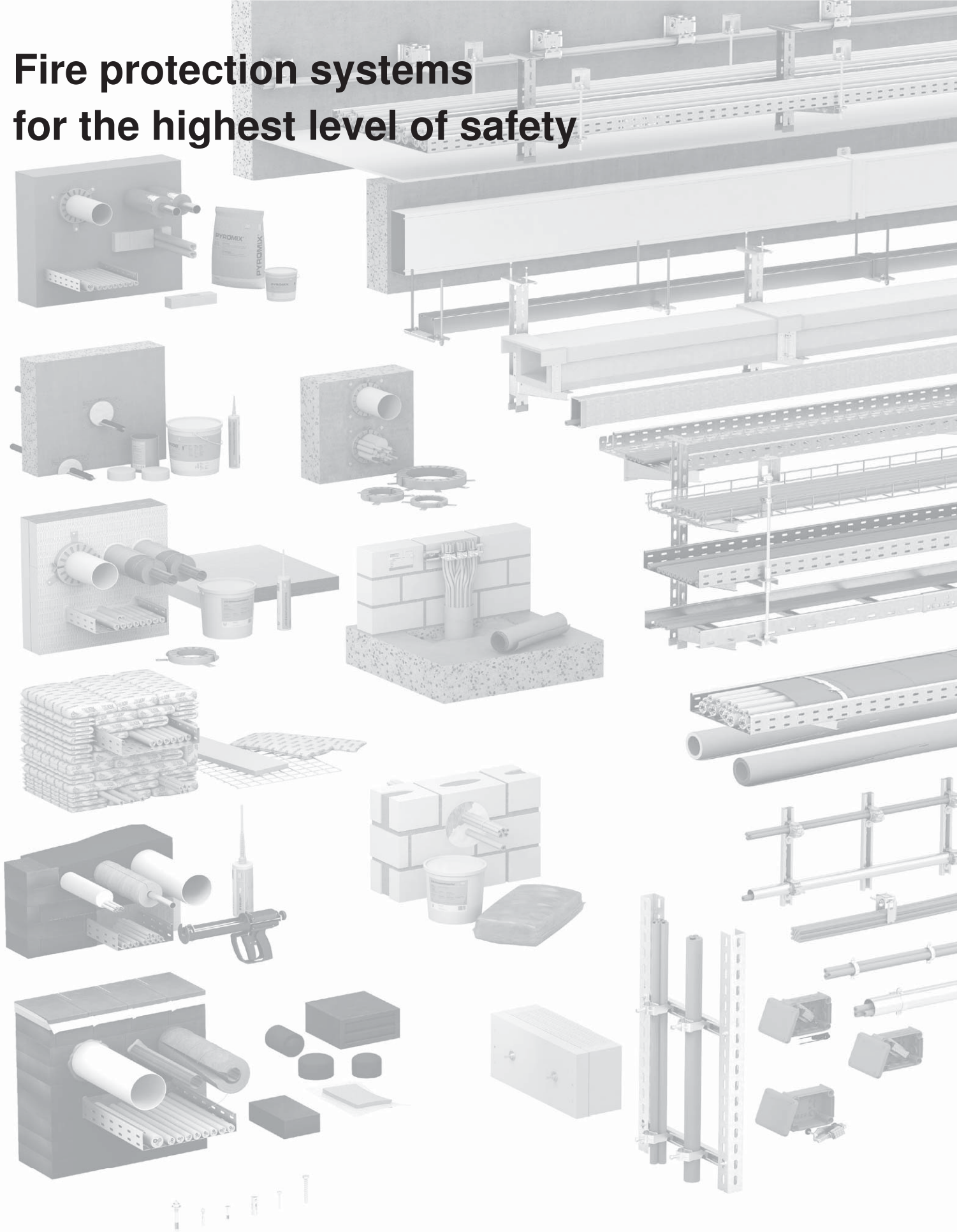
Maintaining electrical functionality

Cable tray RKS-Magic®

General building authority test certificate no. P-MPA-E-13-002, valid until 02.09.2028

This is a translation of the original German version, which has neither been checked nor approved by the NRW Materials Testing Office. Only the original German document is valid.

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.

Allgemeines bauaufsichtliches Prüfzeugnis

**Test Certificate
number:**

P-MPA-E-13-002

Subject:

Cable system with integrated functional maintenance of the functional integrity classes “E30”, “E60”, and “E90” according to DIN 4102 12 and „Verwaltungsvorschrift Technische Baubestimmungen NRW (VV TB NRW)” (*administrative regulations Technical Building Regulations NRW (VV TB NRW)*), July 2022 edition, section C4, serial number C.4.9

Client:

OBO Bettermann Produktion Deutschland GmbH & Co. KG
Hüingser Ring 52
58710 Menden

Date of issue:

29.08.2023

Period of validity:

03.09.2023

**Period of validity
until:**

02.09.2028

Based on this „allgemeines bauaufsichtliches Prüfzeugnis“, the above-mentioned product is applicable within the meaning of the „Landesbauordnung“ (*state building regulations*).

1 Subject and field of application

1.1 Subject

1.1.1

The „allgemeines bauaufsichtliches Prüfzeugnis“ is applicable for manufacturing and the use of the cable system with integrated functional maintenance as type of construction. The cable system with integrated functional maintenance ensures classification into functional integrity classes „E30“, „E60“ and „E90“ according to DIN 4102-12 (Edition 11-1998) depending on the cable types in conjunction with the supporting systems.

1.1.2

The cable system with integrated functional maintenance must consist of cable types according to clause 2.1 and of a cable supporting system according to clause 2.2.

1.1.3

The cable system with integrated functional maintenance is to be classified in the functional integrity classes „E30“, „E60“ and „E90“ according to DIN 4102-12 (Edition 11-1998), if the cable types specified in Table 1 are used with the corresponding cable supporting constructions.

1.2 Field of application

1.2.1

The field of application is limited to cables with nominal voltages ≤ 1 kV. When dimensioning cable systems with integrated functional maintenance, possible functional impairment of the cables due to thermally caused increases in resistance must be taken into account.

1.2.2

In the case of sloping or vertical cable systems with integrated functional maintenance, the cables must be supported vertically and horizontally in the transition area to prevent the cables from slipping or bending at the edges.

1.2.3

A combination of different types of installation is permitted as long as they are of the same functional integrity classes.

1.2.4

If further requirements are placed on the cable system or individual parts of the cable system, these must be proven separately.

1.2.5

The client declares that no products are used in the cable systems that are subject to the Hazardous Substances Ordinance, the Chemicals Prohibition Ordinance or the CFC Halon Prohibition Ordinance and that he complies with the requirements of the above regulations (in particular the labelling requirement).

Furthermore, the client declares that - if measures with regard to hygiene, health protection or environmental protection have to be taken for trade or placing on the market or use - these will be initiated by the client or announced in the necessary manner.

Therefore, the testing laboratory has not seen a reason to check the effects on health and environmental protection.

2 Provisions for the design

The cable system must be designed in accordance with the following detailed information.

2.1 Cable types

Only cable types with a valid VDE approval of Dätwyler AG Kabel + Systeme, Gotthardstraße 31, CH-6460 Altdorf, der Kabelwerk Eupen AG, Malmedyer Straße 9, B-4700 Eupen und der LEONI Studer AG, Herrenmattstraße 20, CH-4658 Däniken und ERSE KABLO SANAYI VE TICARET ANONIM SIRKETI, Halil Rifat Pasa Mh. Yüzer Havuz SK. No. 5-9, Sisli / Istanbul, Turkey, according to table 1 may be used. The details of the structural design are deposited in the files of the MPA NRW.

2.2 Cable supporting construction

The cable supporting construction must consist of steel (minimum steel grade: S235). The cable supporting construction may be coated with colour coatings up to a layer thickness of 1.5 mm.

2.2.1 Supporting construction cable trays

The cables must be laid on the cable trays according to the following tables and the illustrations contained in the annexes to this "allgemeines bauaufsichtliches Prüfzeugnis".

Table 1

| 1 Cable trays from OBO Bettermann Produktion Deutschland GmbH & Co. KG | | | |
|---|--|---|----------------------------------|
| Ceiling mounting in one and two layers on suspended support US 5 K ... and wall mounting | | | |
| 1.1 | Cable tray RKSM610 on cantilever bracket AW30/11 (a ≤ 1500 mm) (b = 100 mm) (g ≤ 10 kg/m) | | |
| 1.2 | Cable tray RKSM620 on cantilever bracket AW30/21 (a ≤ 1500 mm) (b = 200 mm) (g ≤ 20 kg/m) | | |
| 1.3 | Cable tray RKSM630 on cantilever bracket AW55/31 (a ≤ 1500 mm) (b = 300 mm) (g ≤ 20 kg/m) | | |
| 1.4 | Cable tray RKSM640 on cantilever bracket AW55/41 (a ≤ 1500 mm) (b = 400 mm) (g ≤ 20 kg/m) | | |
| Cable construction type: | Installation method no.: | Dimension: | Classification: |
| Designation acc. to specifications of the manufacturer | | Number of wires x cross section [n x mm ²] or number of wires x 2 x diameter [n x 2 mm] | According to DIN 4102-12 1998-11 |
| EUPEN EUCASAFE | | | |
| (N)HXH... FE180 E30 VDE Reg. No.8512 and 7581 | 1.1; 1.2; 1.3; 1.4 | n x ≥ 1,5 | E30 |
| | 1.1; 1.3 | n x 1,5 | E60 |
| | 1.2; 1.4 | n x 50 | |
| (N)HXCH... FE180 E30 VDE Reg. No.8512 and 7581 | 1.1; 1.2; 1.3; 1.4 | n x ≥1,5/1,5 | E30 |
| (N)HXH... FE180 E90 VDE Reg. No.8566 and 8513 | 1.1; 1.2; 1.3; 1.4 | n x ≥1,5 | E30 |
| | 1.1; 1.2; 1.3; 1.4 | n x ≥1,5 | E60 |
| | 1.1; 1.2; 1.3; 1.4 | n x ≥1,5 | E90 |
| NHXCH... FE180 E90 VDE Reg. No.8566 and 8513 | 1.1; 1.2; 1.3; 1.4 | n x ≥1,5/1,5 | E30 |
| | 1.2; 1.3; 1.4 | n x ≥1,5/1,5 | E60 |
| | 1.1 | n x 1,5/1,5 | |
| | 1.3; 1.4 | n x ≥1,5/1,5 | E90 |
| | 1.2 | n x 50/25 | |
| JE-H(St)H... FE180 E30 VDE Reg. No.7510 | 1.1; 1.2; 1.3; 1.4 | n x 2 x 0,8 | E30 |
| JE-H(St)H... FE180 E90 VDE Reg. No.7510 | 1.1; 1.2; 1.3; 1.4 | n x 2 x 0,8 | E30 |

Table 1 (continued)

| 1 Cable trays from OBO Bettermann Produktion Deutschland GmbH & Co. KG | | | |
|---|--|---|----------------------------------|
| Ceiling mounting in one and two layers on suspended support US 5 K ... and wall mounting | | | |
| 1.1 | Cable tray RKSM610 on cantilever bracket AW30/11 (a ≤ 1500 mm) (b = 100 mm) (g ≤ 10 kg/m) | | |
| 1.2 | Cable tray RKSM620 on cantilever bracket AW30/21 (a ≤ 1500 mm) (b = 200 mm) (g ≤ 20 kg/m) | | |
| 1.3 | Cable tray RKSM630 on cantilever bracket AW55/31 (a ≤ 1500 mm) (b = 300 mm) (g ≤ 20 kg/m) | | |
| 1.4 | Cable tray RKSM640 on cantilever bracket AW55/41 (a ≤ 1500 mm) (b = 400 mm) (g ≤ 20 kg/m) | | |
| Cable construction type: | Installation method no.: | Dimension: | Classification: |
| Designation acc. to specifications of the manufacturer | | Number of wires x cross section [n x mm ²] or number of wires x 2 x diameter [n x 2 mm] | According to DIN 4102-12 1998-11 |
| Dätwyler Pyrofil Keram | | | |
| (N)HXH... FE180 E30-E60 VDE Reg. No.7780 | 1.2; 1.3; 1.4 | n x ≥1,5 | E30 |
| | 1.1 | n x 1,5 | |
| | 1.2 | n x ≥1,5 | E60 |
| | 1.1 | n x 1,5 | |
| | 1.3; 1.4 | n x 50 | |
| | 1.2 | n x 1,5 | |
| (N)HXCH... FE180 E30-E60 VDE Reg. No.7780 | 1.1; 1.2; 1.3; 1.4 | n x ≥1,5/1,5 | E30 |
| | 1.1; 1.2; 1.4 | n x ≥1,5/1,5 | E60 |
| | 1.3 | n x 1,5/1,5 | |
| | 1.1; 1.2; 1.4 | n x 1,5/1,5 | E90 |
| (N)HXH... FE180 E90 VDE Reg. No.7780 | 1.1; 1.2; 1.3; 1.4 | n x ≥1,5 | E30 |
| | 1.1; 1.2; 1.3; 1.4 | n x ≥1,5 | E60 |
| | 1.2; 1.3; 1.4 | n x ≥1,5 | E90 |
| | 1.1 | n x 50 | |
| (N)HXCH... FE180 E90 VDE Reg. No.7780 | 1.1; 1.2; 1.3; 1.4 | n x ≥1,5/1,5 | E30 |
| | 1.1; 1.2; 1.3; 1.4 | n x ≥1,5/1,5 | E60 |
| | 1.1; 1.3; 1.4 | n x ≥1,5/1,5 | E90 |
| | 1.2 | n x 50/25 | |

| | | | |
|---|--------------------|-------------|-----|
| JE-H(St)H... FE180 E30 L VDE Reg. No.9361 | 1.1; 1.2; 1.3; 1.4 | n x 2 x 0,8 | E30 |
| JE-H(St)H... FE180 E30-E90 VDE Reg. No.9361 | 1.1; 1.2; 1.3; 1.4 | n x 2 x 0,8 | E30 |
| JE-H(St)HRH... FE180 E30-E90 VDE Reg. No.9361 | 1.1; 1.3; 1.4 | n x 2 x 0,8 | E30 |

Table 1 (continued)

| 1 Cable trays from OBO Bettermann Produktion Deutschland GmbH & Co. KG | | | |
|--|--|--|--|
| Ceiling mounting in one and two layers on suspended support US 5 K ... and wall mounting | | | |
| 1.1 | Cable tray RKSM610 on cantilever bracket AW30/11 (a ≤ 1500 mm) (b = 100 mm) (g ≤ 10 kg/m) | | |
| 1.2 | Cable tray RKSM620 on cantilever bracket AW30/21 (a ≤ 1500 mm) (b = 200 mm) (g ≤ 20 kg/m) | | |
| 1.3 | Cable tray RKSM630 on cantilever bracket AW55/31 (a ≤ 1500 mm) (b = 300 mm) (g ≤ 20 kg/m) | | |
| 1.4 | Cable tray RKSM640 on cantilever bracket AW55/41 (a ≤ 1500 mm) (b = 400 mm) (g ≤ 20 kg/m) | | |
| Cable construction type: | Installation method no.: | Dimension: | Classification: |
| Designation acc. to specifications of the manufacturer Studer Cables AG BETAflam | | Number of wires x cross section [n x mm ²] or number of wires x 2 x diameter [n x 2 mm] | According to DIN 4102-12 1998-11 |
| (N)HXH... FE180 / E30-E60 S VDE Reg. No.8849 | 1.1; 1.2 | n x 1,5 - 10 | E30 |
| | 1.3; 1.4 | n x ≥1,5 | |
| (N)HXH... FE180 / E30-E60 VDE Reg. No.9803 | 1.1; 1.2 | n x ≥16 | E30 |
| | 1.3; 1.4 | n x ≥1,5 | |
| | 1.3 | n x 50 | E60 |
| (N)HXCH... FE180 / E30-E60 VDE Reg. No.9803 | 1.1; 1.2; 1.3; 1.4 | n x ≥1,5/1,5 | E30 |
| | 1.1; 1.4 | n x 50/25 | E60 |
| (N)HXH... FE180 / E90 VDE Reg. No.9803 | 1.1; 1.2; 1.3; 1.4 | n x ≥1,5 | E30 |
| | 1.1; 1.2; 1.3; 1.4 | n x ≥1,5 | E60 |
| | 1.3; 1.4 | n x ≥1,5 | E90 |
| | 1.1; 1.2 | n x 1,5 | |
| (N)HXCH... FE180 / E90 VDE Reg. No.9803 | 1.1; 1.2; 1.3; 1.4 | n x ≥1,5/1,5 | E30 |
| | 1.1; 1.2 | n x ≥1,5/1,5 | E60 |
| | 1.3 | n x ≥2,5/2,5 | |
| | 1.4 | n x ≥16/16 | |
| | 1.1; 1.2 | n x ≥1,5/1,5 | E90 |
| | 1.3; 1.4 | n x ≥16/16 | |
| JE-H(St)H... FE180 / E30 S VDE Reg. No.8619 | 1.1; 1.2 | n x 2 x 0,8 | E30 |

| | | | |
|---|--------------------|-------------|-----|
| JE-H(St)HH... FE180 / E30 S VDE Reg. No.9593 | 1.3; 1.4 | n x 2 x 0,8 | E30 |
| | 1.3; 1.4 | n x 2 x 0,8 | E60 |
| JE-H(St)H... FE180 / E30-E90 VDE Reg. No.9593 | 1.1; 1.2; 1.3; 1.4 | n x 2 x 0,8 | E30 |
| JE-H(St)HRH... FE180 / E30-E90 VDE Reg. No.8238 | 1.1; 1.2; 1.3; 1.4 | n x 2 x 0,8 | E30 |

Table 1 (continued)

| 1 Cable trays from OBO Bettermann Produktion Deutschland GmbH & Co. KG | | | |
|---|--|---|----------------------------------|
| Ceiling mounting in one and two layers on suspended support US 5 K ... and wall mounting | | | |
| 1.1 | Cable tray RKSM610 on cantilever bracket AW30/11 (a ≤ 1500 mm) (b = 100 mm) (g ≤ 10 kg/m) | | |
| 1.2 | Cable tray RKSM620 on cantilever bracket AW30/21 (a ≤ 1500 mm) (b = 200 mm) (g ≤ 20 kg/m) | | |
| 1.3 | Cable tray RKSM630 on cantilever bracket AW55/31 (a ≤ 1500 mm) (b = 300 mm) (g ≤ 20 kg/m) | | |
| 1.4 | Cable tray RKSM640 on cantilever bracket AW55/41 (a ≤ 1500 mm) (b = 400 mm) (g ≤ 20 kg/m) | | |
| Cable construction type: | Installation method no.: | Dimension: | Classification: |
| Designation acc. to specifications of the manufacturer Erse Kablo ERVITAL | | Number of wires x cross section [n x mm ²] or number of wires x 2 x diameter [n x 2 mm] | According to DIN 4102-12 1998-11 |
| (N)HXH... FE180 E30 VDE 0276-604 VDE Reg. No.8804 | 1.1; 1.2; 1.3; 1.4 | n x ≥ 1,5 | E30 |
| | 1.1; 1.2; 1.3; 1.4 | n x 50 | E60 |
| | 1.1; 1.2; 1.3; 1.4 | n x 50 | E90 |
| (N)HXCH... FE180 E30 VDE 0276-604 VDE Reg. No.8804 | 1.1; 1.2; 1.3; 1.4 | n x ≥1,5/1,5 | E30 |
| | 1.1; 1.4 | n x ≥1,5/1,5 | E60 |
| | 1.1; 1.2; 1.3 | n x 50/25 | E90 |
| JE-H(St)H... FE180 E30 VDE 0815 VDE Reg. No.8363 | 1.1; 1.2; 1.3; 1.4 | n x 2 x 0,8 | E30 |
| | 1.1; 1.2; 1.3; 1.4 | n x 2 x 0,8 | E60 |

Other provisions for the supporting construction:

2.2.2

The cable supporting construction must be designed according to clause 2.2.

The following boundary conditions must be observed:

The fastenings must be attached to the solid floor or wall using steel dowels suitable for the corresponding substrate.

The dowels must be suitable for the substrate and the application and correspond to the specifications of valid "allgemeine bauaufsichtliche Zulassung" from "Deutsches Institut für Bautechnik" (*German Institute for Building Technology*) or a European technical approval (ETA) and, moreover, twice as deep as stated in the approval - but at least 6 cm deep - installed unless otherwise stated in the approval. The calculated tensile load per dowel must not exceed 500 N, see DIN 4102 4:1994 3, section 8.5.7.5.

Alternatively, dowels may be used whose fire protection suitability has been proven with a "allgemeine bauaufsichtliche Zulassung", an European technical approval or assessment (ETA) or an "allgemeines bauaufsichtliches Prüfzeugnis".

The metal parts must be dimensioned so that their calculated tensile stress (steel stress related to the stress cross section) is not greater than 6 N/mm² for "E90" functional integrity or not greater than 9 N/mm² for "E30" and "E60" functional integrity according to table 109 of DIN 4102-4 (1994-03).

2.2.3

In the case of mixed occupancy on cable support constructions, "cables with integrated functional maintenance" and cables (e.g. PVC cables) that are not subject to fire protection requirements can be laid together.

The cables must then be laid in such a way that overlapping and mutual interference are prevented. The standards applicable to the planning and installation of cable systems with integrated functional maintenance remain unaffected by this.

2.2.4

This "allgemeines bauaufsichtliches Prüfzeugnis" is only valid, when

- the cables or lines are designed without connecting elements,
- it is ensured that the cable systems are not negatively influenced by surrounding components during the classification period according to this "allgemeines bauaufsichtliches Prüfzeugnis".

2.3 Labelling

2.3.1 Cable types

The cable must be marked in accordance with VDE regulations

2.3.2 Cable system with integrated functional maintenance

Every cable system must be permanently marked with a sign or sticker. The marking must be attached to the supporting construction if possible.

If labelling on the supporting construction is not possible, the sign must be attached close to

the cable system.

The labelling of the cable system must contain the following information:

- Name of the entrepreneur who created the cable system with integrated functional maintenance,
- Cable system with integrated functional maintenance „E30“ or „E60“ or „E90“ according to DIN 4102-12:1998-11,
- “Allgemeines bauaufsichtliches Prüfzeugnis” No. P-MPA-E-13-002 dated 29.08.2023, MPA NRW, Erwitte,
- Owner of the “allgemeines bauaufsichtliches Prüfzeugnis” OBO Bettermann Produktion Deutschland GmbH & Co. KG, Hüingser Ring 52, 58710 Menden and
- Year of manufacture.

3 Proof of compliance

The construction type listed in this “allgemeines bauaufsichtliches Prüfzeugnis” requires a proof of conformity (proof of conformity) in accordance with the requirements of the “Verwaltungsvorschrift Technische Baubestimmungen NRW (VV TB NRW)” (*administrative regulations Technical Building Regulations NRW (VV TB NRW)*), July 2022 edition, section C4, serial number C.4.9. A declaration of conformity must then be made by the manufacturer (entrepreneur).

The entrepreneur who manufactures the cable system must provide the client with a written declaration of conformity certifying that the cable system he has installed complies with the provisions of this “allgemeines bauaufsichtliches Prüfzeugnis”.

4 Legal basis

This “allgemeines bauaufsichtliches Prüfzeugnis” is issued based on Section 17 III of the “Bauordnung für das Land Nordrhein-Westfalen” (*building regulations for the state of North Rhine-Westphalia*) (BauO NW) dated 21.07.2018, last changed on 24.09.2021, in conjunction with the “Verwaltungsvorschrift Technische Baubestimmungen NRW (VV TB NRW)” (*administrative regulation Technical Building Regulations NRW (VV TB NRW)*), July edition 2022, Section C4, serial No.C.4.9. The corresponding legal bases are contained in the “Landesbauordnungen der übrigen Bundesländer” (*state building regulations of the other federal states*).

5 Legal appeal

A legal action against this decision may be brought before the Administrative Court Arnsberg, 59821 Arnsberg, within one month of notification. The complaint must name the plaintiff, the defendant and the subject of the claim. It shall contain a specific request. The facts and evidence supporting the claim shall be stated, and the original or a copy of the contested order shall be attached. Copies for the other parties shall be attached to the application and to all other pleadings.

There is also the possibility of filing the lawsuit via electronic legal transactions in accordance with the Ordinance on Electronic Legal Transactions at the Administrative Courts and Financial Courts in North Rhine-Westphalia (Electronic Legal Transactions Ordinance for Administrative and Financial Courts ERVVO VG/FG, dated November 7, 2012). to raise. Please note that an ordinary email is not recognized in electronic legal transactions.

In order to file a lawsuit electronically, certain technical and formal requirements must be met, which you can find out about at www.justiz.de.

6 General information

6.1

The "allgemeines bauaufsichtliches Prüfzeugnis" proves the usability of the construction product/applicability of the construction type in accordance with the "Landesbauordnungen" (*state building regulations*).

6.2

The "allgemeines bauaufsichtliches Prüfzeugnis" does not replace the permits, approvals and certificates required by law for the implementation of construction projects.

6.3

The "allgemeines bauaufsichtliches Prüfzeugnis" is issued without prejudice to the rights of third parties, in particular private property rights.

6.4

Without prejudice to further regulations in the "Special Provisions", manufacturers and distributors of the construction type must provide the user of the construction type with copies of the "allgemeines bauaufsichtliches Prüfzeugnis" and point out that the "allgemeines bauaufsichtliches Prüfzeugnis" must be available at the point of use. Upon request, copies of the "allgemeines bauaufsichtliches Prüfzeugnis" must be made available to the authorities involved.

6.5

The test reports on which this "allgemeines bauaufsichtliches Prüfzeugnis" is based have been named by the client.

6.6

The "allgemeines bauaufsichtliches Prüfzeugnis" may only be reproduced in its entirety. Publication in extracts requires the consent of Materialprüfungsamt NRW. Texts and drawings of promotional literature must not contradict the "allgemeines bauaufsichtliches Prüfzeugnis". Translations of the "allgemeines bauaufsichtliches Prüfzeugnis" must contain the note "Translation of the original German version not examined by the Materialprüfungsamt NRW".

6.7

The “allgemeines bauaufsichtliches Prüfzeugnis” is issued revocably. The provisions of the “allgemeines bauaufsichtliches Prüfzeugnis” can be subsequently supplemented and changed, especially if technical findings require this.

Translation of the original German version not examined by the Materialprüfungsamt NRW.

This text version of the “allgemeines bauaufsichtliches Prüfzeugnis“ is only an English translation of the German version. This translation is only for a better understanding.

Date of issue of this English translation: 04/12/ 2023

Erwitte, 29.08.2023
On behalf

Diekmann

(Head of fire resistance laboratory)

Markwart

Sample for

Declaration of Compliance

- Name and address of the company that designed the cable system with integrated functional maintenance
- Construction site or building:
- Date of production:
- Required functional integrity class of the cable system (s) with integrated functional maintenance: „E ...“

It is hereby confirmed that the cable system (s) with integrated functional maintenance of the functional integrity class "E ..." was installed professionally with regard to all details and in compliance with all provisions of the „allgemeines bauaufsichtliches Prüfzeugnis“ of MPA NRW No. P-MPA-E-13-002 dated 29.08.2023 was installed.

For construction products or individual parts (e.g. cable types) not manufactured by the signatory himself, this is also hereby confirmed because of

- the existing marking of the parts in accordance with the provisions of the „allgemeines bauaufsichtliches Prüfzeugnis“ *)
- own controls *)
- corresponding written confirmations from the manufacturers of the construction products or parts, which the signatory has kept on file *)

Place, date

Stamp and signature

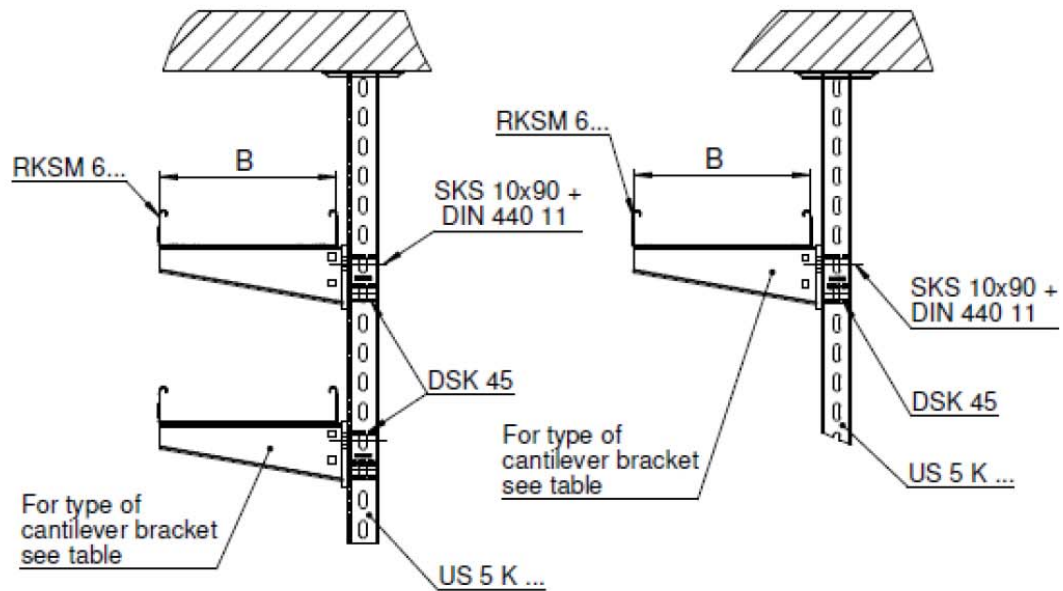
(This certificate must be handed over to the building owner to be passed on to the responsible “Bauaufsichtsbehörde” (*building control authority*)).

*) cross out what does not apply

Cable tray RKSM



Ceiling mounting with suspended support and cantilever bracket, one and two level

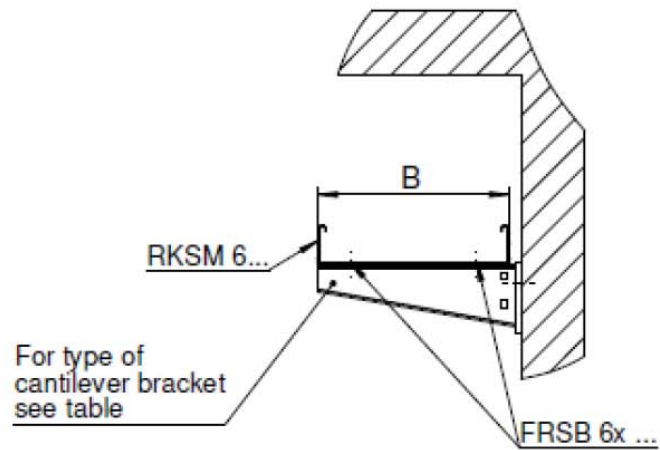


| Cable tray RKSM 6... B [mm] | Type of cantilever bracket | Load each level [kg/m] | Span [m] |
|-----------------------------------|-------------------------------|---------------------------|-------------|
| 100 | AW 30 11 | 10 | max. 1,5 |
| 200 | AW 30 21 | 20 | |
| 300 | AW 55 31 | | |
| 400 | AW 55 41 | | |

Cable tray RKSM



Direct wall mounting with cantilever bracket

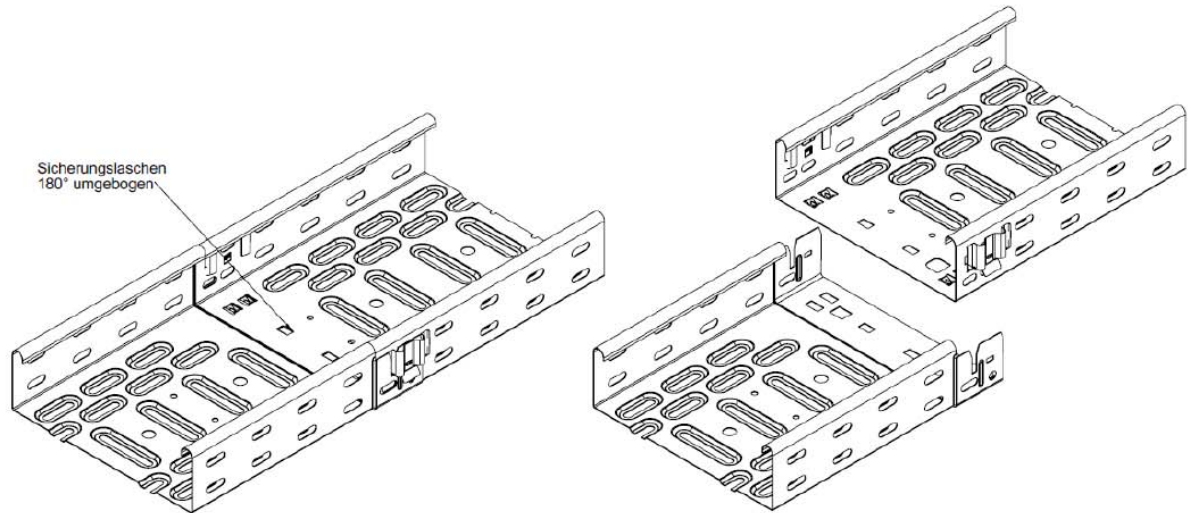


| Cable tray RKSM 6... B [mm] | Type of cantilever bracket | Load each level [kg/m] | Span [m] |
|-----------------------------------|-------------------------------|---------------------------|-------------|
| 100 | AW 30 11 | 10 | max. 1,5 |
| 200 | AW 30 21 | 20 | |
| 300 | AW 55 31 | | |
| 400 | AW 55 41 | | |

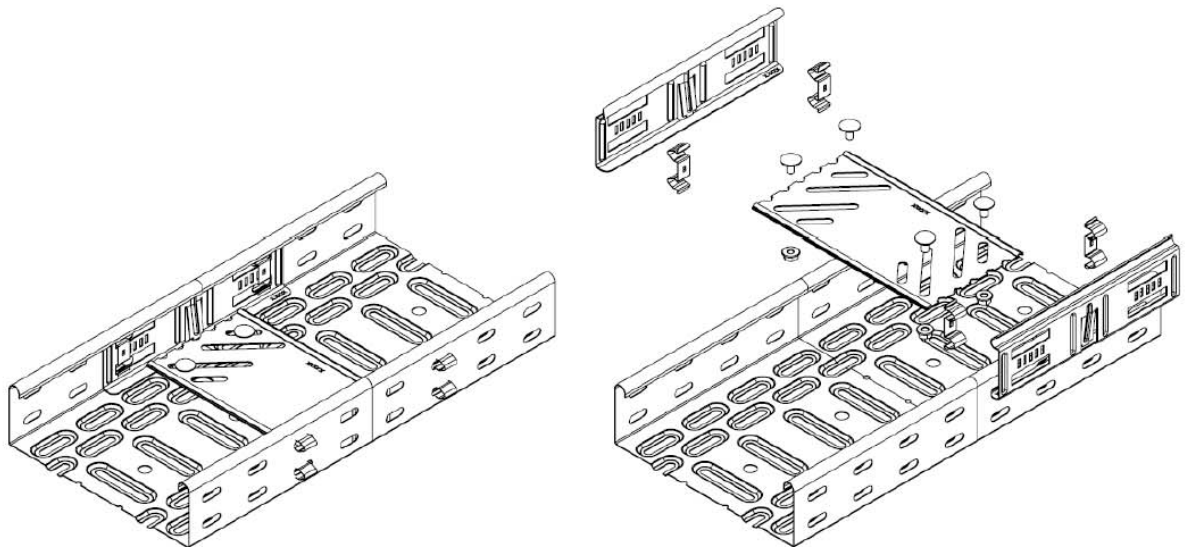
Cable tray RKSM



Joint connection with plug-in connection Magic®



Joint connection with straight connector set KTSMV 6 ...

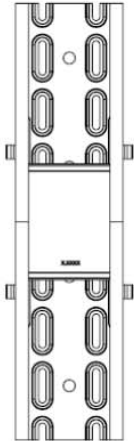


Cable tray RKSM

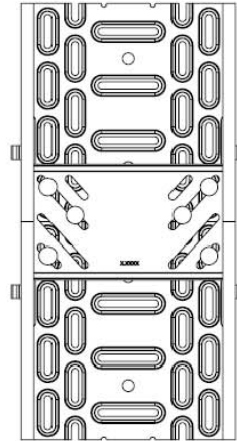


Joint connection with straight connector set KTSMV 6 ...

Width 100 mm

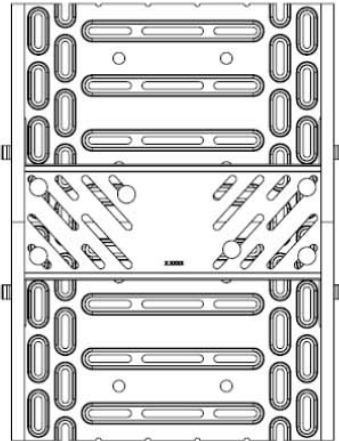


Width 200 mm



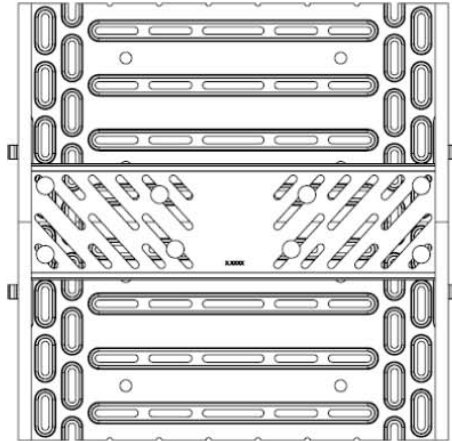
6 x FRSB 6x12 F

Width 300 mm



6 x FRSB 6x12 F

Width 400 mm

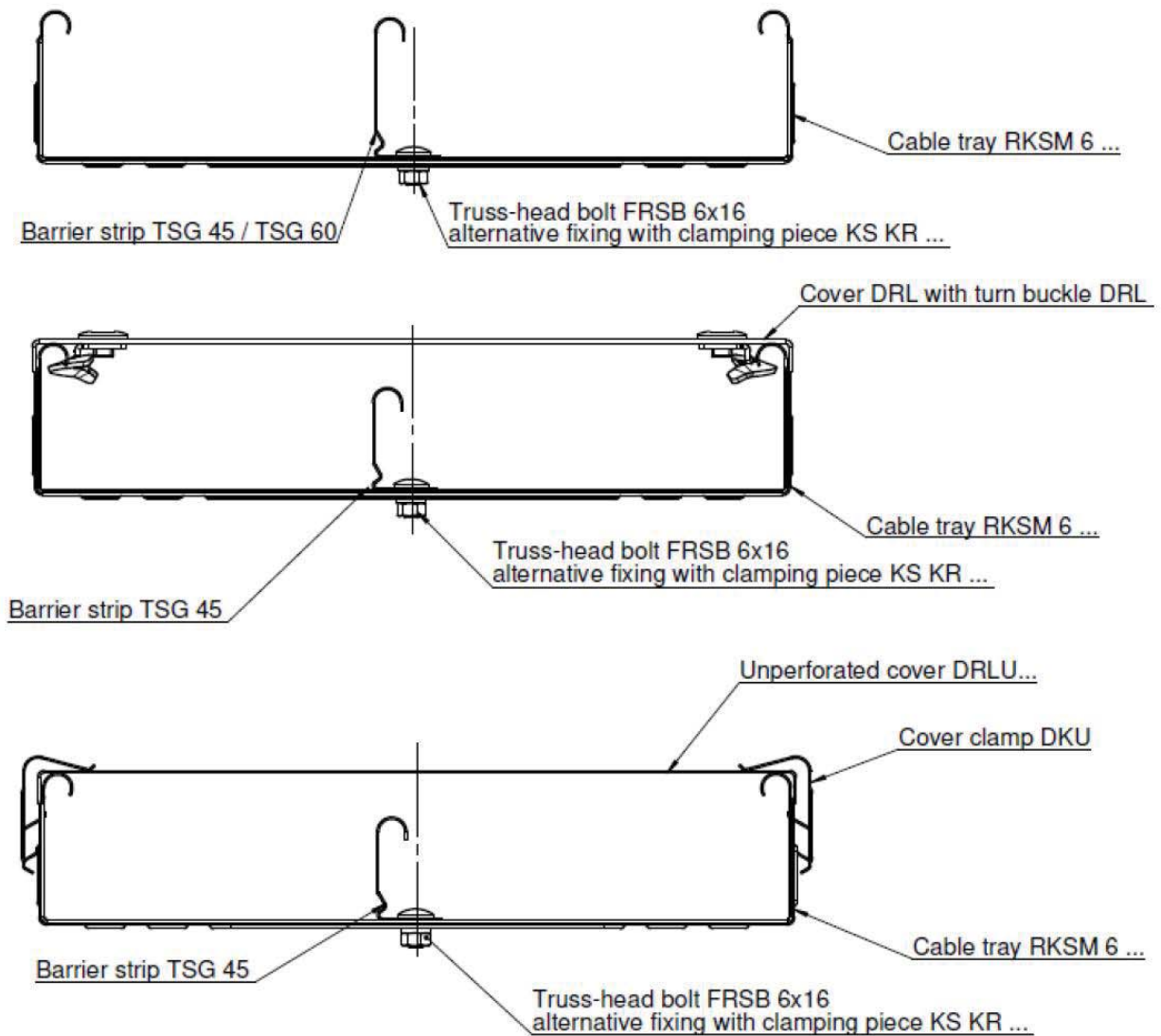


8 x FRSB 6x12 F

Cable tray RKSM



Assembly of barrier strip and cover

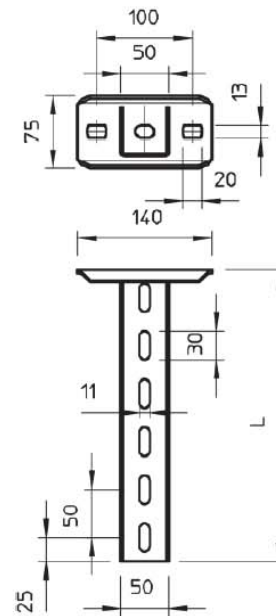
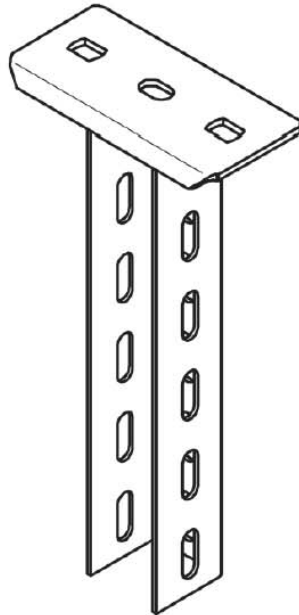


Barrier strip assembly for separating function maintenance cables and other cables with mixed assignment.

Cable tray RKSM



Suspended support



| Type | L [mm] |
|------------|--------|
| US 5 K 20 | 200 |
| US 5 K 30 | 300 |
| US 5 K 40 | 400 |
| US 5 K 50 | 500 |
| US 5 K 60 | 600 |
| US 5 K 70 | 700 |
| US 5 K 80 | 800 |
| US 5 K 90 | 900 |
| US 5 K 100 | 1000 |
| US 5 K 110 | 1100 |
| US 5 K 120 | 1200 |

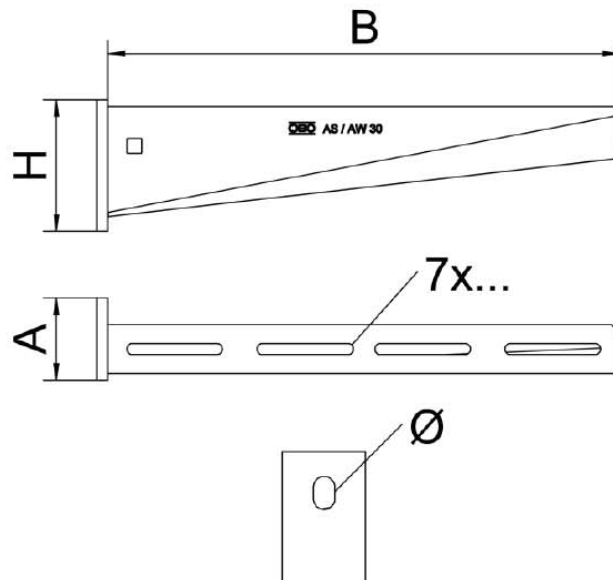
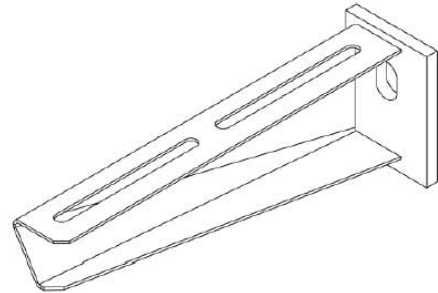
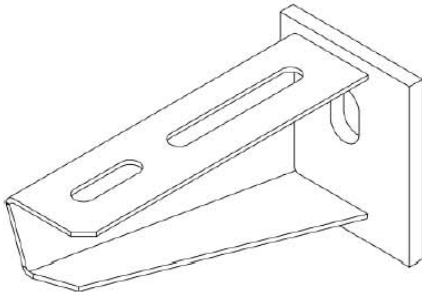
Cable tray RKSM



Wall- and support bracket AW 30

AW 30 11

AW 30 21



| Type | A | H | B | Ø |
|----------|----|----|-----|-------|
| AW 30 11 | 50 | 60 | 110 | 11x18 |
| AW 30 21 | | 70 | 210 | 13x20 |

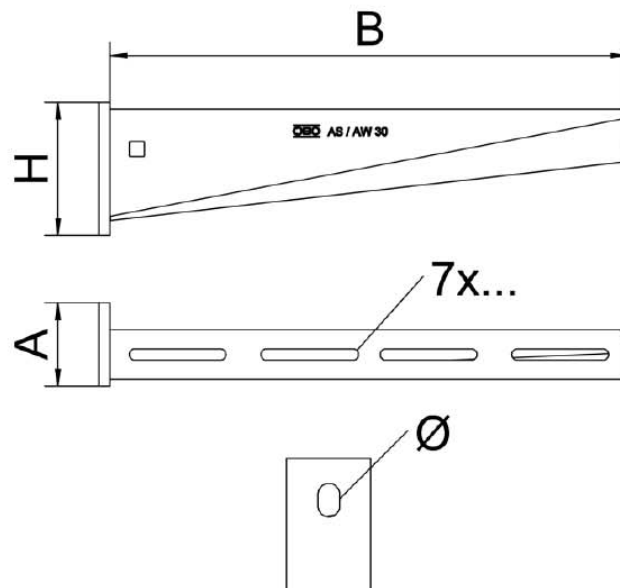
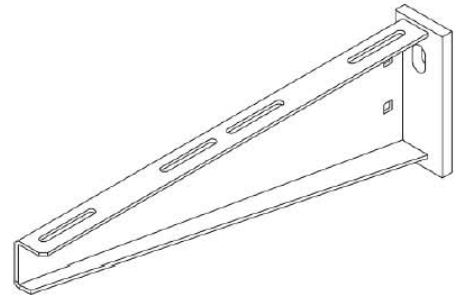
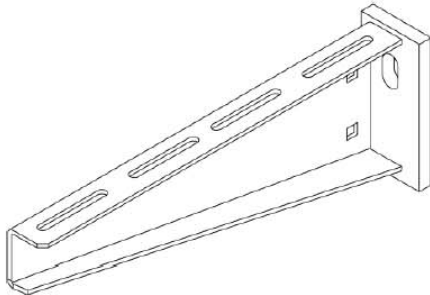
Cable tray RKSM



Wall- and support bracket AW 55

AW 55 31

AW 55 41



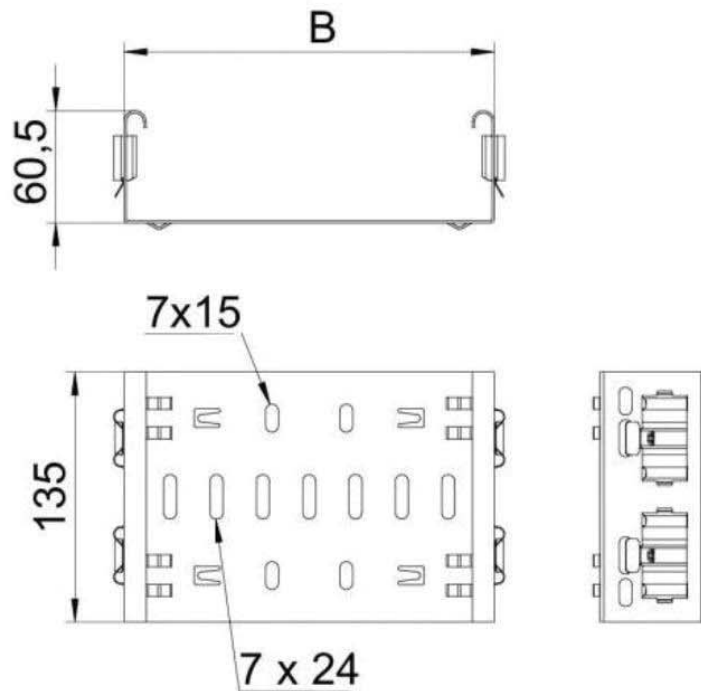
| Type | A | H | B | Ø |
|----------|----|-----|-----|---------|
| AW 55 31 | 50 | 110 | 310 | 13,5x25 |
| AW 55 41 | | 130 | 410 | |

Cable tray RKSM



Screwless connection fitting / fitting with straight connector Magic® FVM

FVM 6...

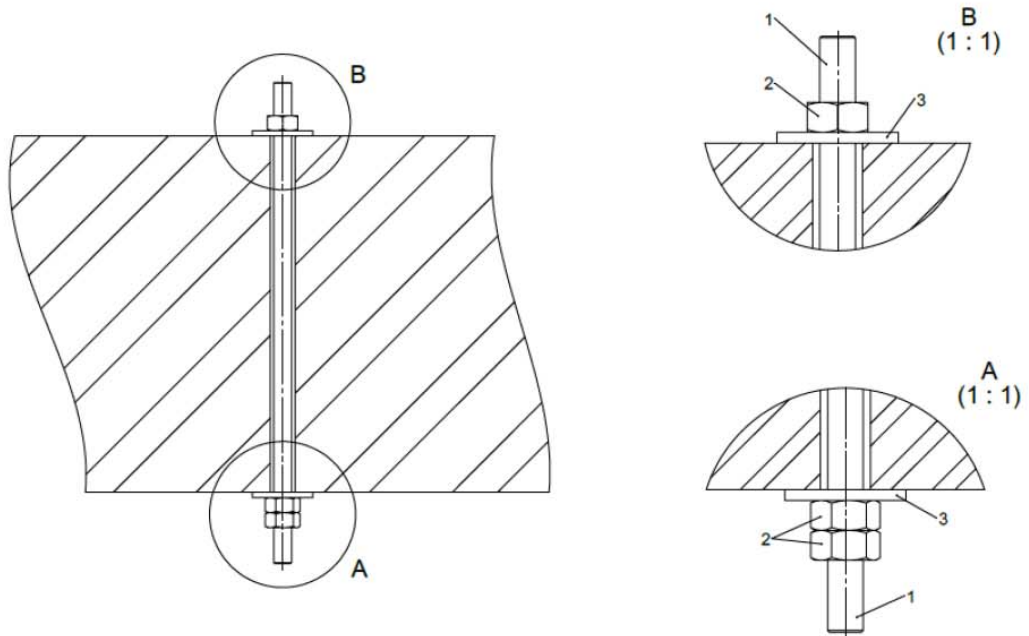


| Type | B |
|---------|-----|
| FVM 610 | 100 |
| FVM 620 | 200 |
| FVM 630 | 300 |
| FVM 640 | 400 |

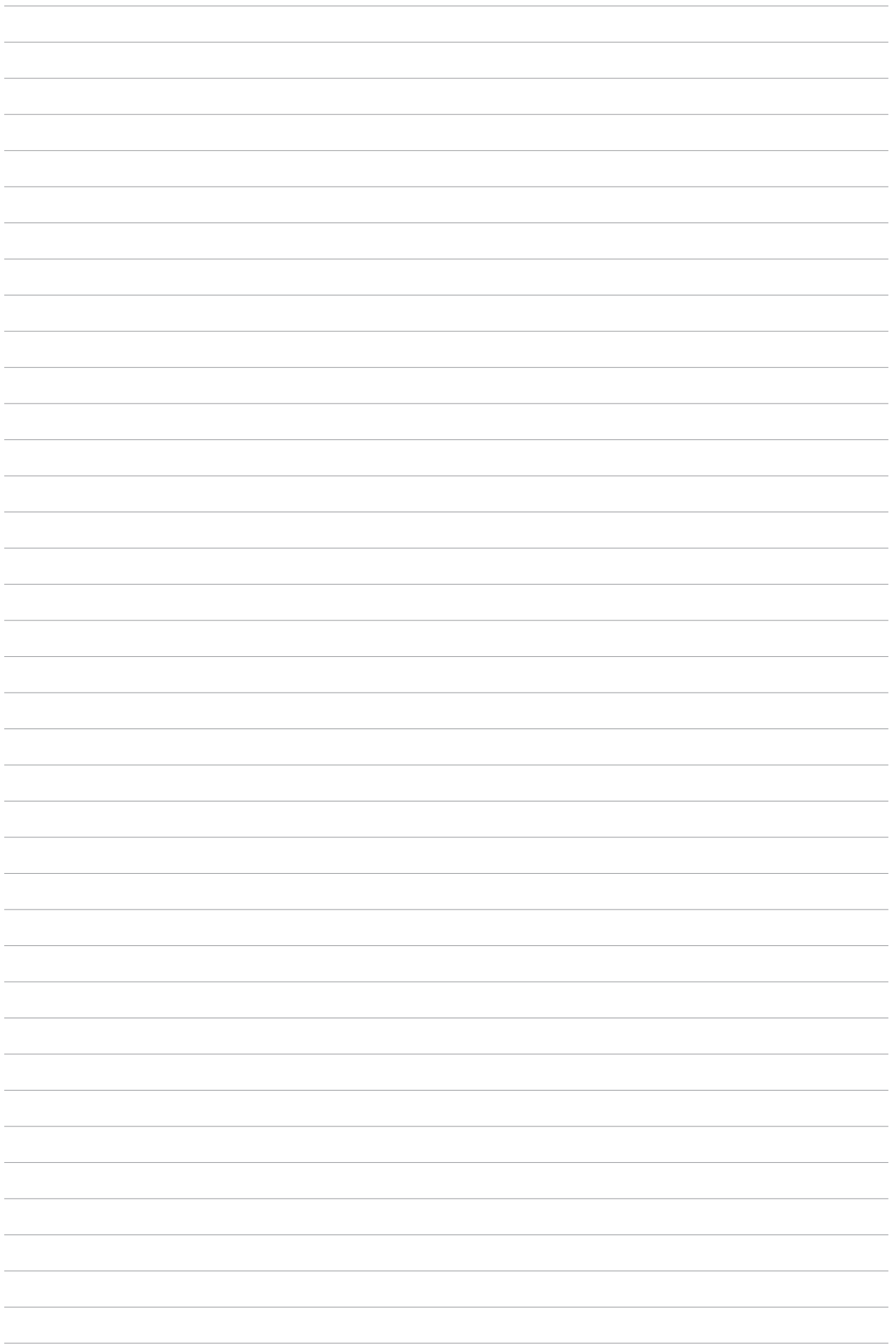
Cable tray RKSM



Push-through assembly



| Pos | Designation | Material |
|-----|---------------|----------|
| 1 | Threaded rod | Steel |
| 2 | Hexagonal nut | |
| 3 | Washer | |



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Building Connections

