



safe.inspiring.green.

CATALOGUE

Electrical installation

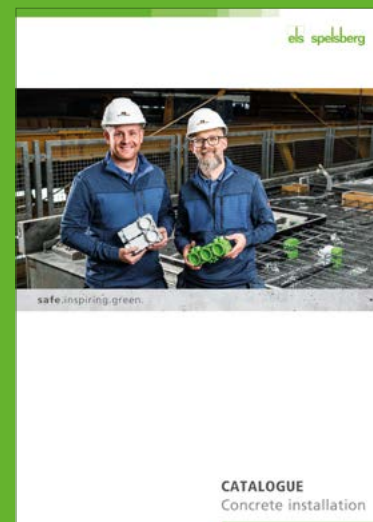
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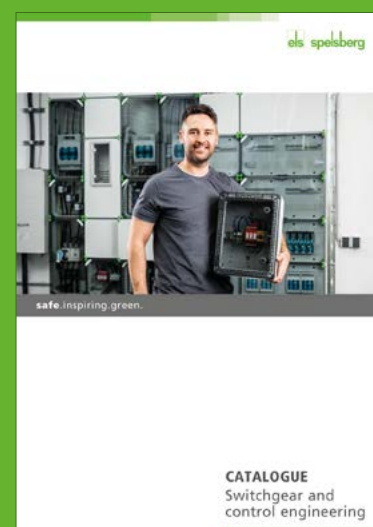
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Additional product catalogues are available free of charge at:

www.spelsberg.com/service/info-request



Concrete installation



Switchgear and control engineering

Illustrations are not binding. This applies in particular to the design, size, and colour of equipment. We reserve the right to amend prices, technology and design. Mistakes in this catalogue are due to printing errors and no right to reductions or similar may be derived from them.



Concentrated enclosure expertise backed by extensive experience

Spelsberg is a market-leading manufacturer in the electrical industry and boasts decades of expertise in electrical installation and enclosure technology. Whether for use in the industry, in agricultural operations, exposed areas or in hard-to-reach installation locations, Spelsberg offers products tailored to each application with impressively high-quality components.

Our innovative strength ensures solutions that are quick and easy to install with impressive durability and ease of maintenance. We combine tradition with

modernity and are positioning ourselves more broadly in the field of sustainable, forward-looking technologies, for example with the addition of the e-mobility division.

Our day-to-day activities are geared to meeting the needs of our customers in the best possible way. This is what drives us on and has continued to do so for decades. A survey of trade companies demonstrates this as well: 90 % of all processors use Spelsberg products and are very satisfied with them. This is achieved

through close dialogue with the specialist trade, wholesalers, planners and architects, but also with energy suppliers and industry. Our developers not only keep an eye on the current standards situation, but also on new markets and trends in energy and building technology.



Managing Director
Thorsten Schwippert

This catalogue provides an overview of our comprehensive range, which contains well over 8,000 items available across the board - from junction boxes, small distribution boards, terminal block, meter and industrial enclosures, to more complex electrotechnical solutions and ready-to-install complete systems, which are developed individually for each customer and assembled ready for connection on request.

We also supply reliable products and coordinated systems for special industries and markets such as intelligent energy distribution, renewable energy generation or fire-protected installation technology with functional integrity. With products such as the new Spelsberg Wallbox or the BCS e-bike charging stations, we enable electricity to be used as an energy source for environmentally friendly vehicles.

Spelsberg has registered over 120 patents - in Germany, Europe and worldwide.

Spelsberg is represented in over 60 countries by partners and subsidiaries.

The familybusiness manufactures strictly in Germany with a total of 600 employees.

Können Sie und die Eise schießen?

Bei der Montage von Feuchtraumdosen war's bisher so ähnlich; die umständliche seitliche Betätigung einer Stopfbuchse mit Zange und roher Kraft ist auch Ihnen wohl nie sympathisch gewesen!

Die **IMPERATOR-Kammerdichtung** bedienen Sie von **vorn** spielend leicht mit dem Schraubenzieher. Als Fachmann wissen Sie am besten, welche Erleichterungen sich dadurch bei der Montage ergeben müssen.

KADO, die neue Kabeldose besitzt diese Kammerdichtung!

Kaiser & Spelsberg, Schalksmühle in Westf. geben Aufklärung und liefern gern durch Ihren Großhändler.

Schraubfix-Kabelabzweigdosen
für Kabel von 0,5 - 14 mm

Bequemer installieren:
Die Schraubfix-Ziehungen werden von vorn mit dem Schraubenzieher betätigt.

Schneller installieren:
In wenigen Sekunden ist das Kabel durchgedreht und mit einigen Schraubendrehungen einwandfrei abgedichtet. Ausgefallen überflüssig!

Billiger installieren:
Die Schraubfix-Dose ist billiger als die Dose mit Stopfbuchsenverschraubungen.

Diese drei Vorteile sollten auch Sie sich merken!

UDO-Universaldosen

- 2 Dosenmodelle für 16 Stromabnehmer nur durch Auswechseln von Nippen und Stiften.
- Mehr Platz in der Dose durch <weitwinklige> Konstruktion.
- Bequeme Abzweigung infolge des losen Klemmkreis, der nach der Montage vom Deckel gehalten wird.

Leuchtkörper

- Einwandfreie Abblende in Sekunden durch den Schnapphebelverschluss.
- Kein Durchbrennen des Bodens, denn das Glas umschließt die Glühlampe von allen Seiten.
- Die keramische Fassung sieht gefahrlos Auswechseln der Glühlampe mit vollem Berührungsschutz.
- Fester Sitz auch auf unebenen Flächen mittels Drei-Punkt-Befestigung.

UDO-Wandelarmaturen

- Vielfältige Kombinationsmöglichkeiten von Dosen und Leuchten durch einheitliche Bauteile.
- Leuchten als vollwertige Abzweigboxen.
- Fehlende Armaturen sind kein Hindernis an der Baustelle: Ein Dosenentwurf genügt für die Grundmontage. Der Leuchtenersatz ist dann später in drei Minuten erledigt.

Sie machen Das Rennen

auch in Ihrem Beruf, wenn Sie eben verstehen Zeit zu gewinnen. — In 20 Sekunden eine Feuchtraumleitung einführen und einwandfrei abdichten — Sie zweifeln zunächst, und doch ist das bequem möglich. Zwar nicht mit der üblichen Stopfbuchsenverschraubung, jedoch bei Verwendung der neuen **IMPERATOR-Kammerdichtung**. Überlegen Sie einmal, was Sie dabei an Montagezeit sparen!

KADO, die neue Kabeldose besitzt diese Kammerdichtung!

Kaiser & Spelsberg, Schalksmühle in Westf. geben Aufklärung und liefern gern durch Ihren Großhändler.

Simply making our customers' every-day work easier - that has been our mission from the very outset. To achieve this, we are constantly setting new standards in areas such as safety. With products like the fireproofed WKE junction boxes with functional integrity or the halogen-free junction boxes of the Red Range, we have demonstrated new approaches as an innovation driver and further developed installation technology.

Our founder Ernst Spelsberg would certainly be proud of both this and the team spirit that characterises our corporate philosophy. We encourage and support each other, working together to drive forward the projects that are close to our hearts and making us unbeatable. In doing so, we adhere to the values that have characterised four generations of Spelsbergers now.



Founding father Ernst Spelsberg



Namesake Günther Spelsberg

Our eyes are firmly on the future



Today, Spelsberg is not simply regarded as a supplier of more than 8,000 catalogue products, but also as a developer of connection-ready solutions and as an expert advisor where challenging issues around enclosures arise.

Spelsberg brings together under one roof all the know-how required for this and supports the entire process - from prototype construction, through individual customisation to electrotechnical development and equipping. The tests that run alongside development are carried out in-house. It is therefore possible from the design phase onwards to perform testing

and adaptations until all characteristics conform to the standards. Methods such as Building Information Modeling (BIM) are supported by us with correspondingly prepared product data.



IK level impact testing



Enclosure modification



Tool construction

Schalksmühle - the headquarters

The town in which as early as 1904 the first insulating tubes were developed and manufactured, is also where Spelsberg still has its home. Here, the company grew steadily and successively expanded its production facilities until the site in the city centre reached its capacity limit.

For this reason, the company relocated to the industrial estate in the 1990s, where the new administration and production facilities were constructed. To this day, all areas of expertise and departments have worked closely together here in an interdisciplinary and integrated manner. Not only does this drive innovation, it also results in short response times. This means we are always one step ahead of developments in the industry.



The Buttstädt (Thuringia) plant



Small distribution board production



Silos for raw materials



Abox junction box automation

Buttstädt - the plastics centre

In Buttstädt, Thuringia, more than 150 employees are involved in the production of Spelsberg's bestsellers: the enclosures in the AK series, the Red Range and the popular Abox range. The modern equipment, including more than 50 injection moulding machines with a clamping force of up to 900 tonnes, ensures efficient processes and optimum results.

Every year, many millions of i12 and Abox junction boxes leave the production facility in Thuringia travelling all over the world. Buttstädt was never just a pro-

duction facility, though. The plant is also important for the training of mechatronics engineers, process engineers, and experts in warehouse logistics.



Training at Spelsberg



Outstanding company training

Every year, talented trainees begin their careers at Spelsberg - in a variety of professional fields. Whether in the commercial sector, as a mechatronics technician, industrial electrician, in IT, logistics or product design, at Spelsberg young talents are helping to shape the future of the electrical industry. In doing

so, they benefit from a strong team spirit, excellent opportunities for further training beyond their apprenticeship and scope to bring their own strengths into play. Our commitment in this area is paying off: Since 2015, we have been recognised every year for our consistently excellent training.

Tested quality | In-house test lab - and the most up-to-date technology



UL impact testing



IK level impact testing



Climate cabinets



Dust protection



Water jet protection



Cover pull-off testing

Certified in Schalksmühle

If you are looking for tested safety and brand quality, you are in good hands with Spelsberg. We only use high-quality brand-name European raw materials for the more than 100 million injection-moulded parts that we produce each year. We use a total of 400 raw material types – 95 per cent of which are produced according to our own formulation. For certification, Spelsberg operates an in-house test laboratory at its headquarters in Schalksmühle,

which is both VDE- and UL-certified. This means that all necessary tests for the international use of series products and customised solutions can be carried out in-house in accordance with regulations.

This option is particularly important for customised solutions that we develop together with our customers. The aim here is to help clients achieve market readiness for their products as quickly as

possible. The test laboratory is equipped with state-of-the-art technology and is being continually developed. UL and VDE conduct annual audits as part of the Client Test Data Program in order to guarantee the high standard of work on a permanent basis.

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Pictograms

		Degree of protection (IP code) in accordance with DIN EN 60529 (VDE 0470-1)
		Maximum number of modules
		Electrical functional integrity in accordance with DIN 4102-12 "E" stands for functional integrity, "30-90" stands for the duration in minutes.
		Nominal cross-section largest permissible connectable cable cross-section, in accordance with DIN EN 60998 (VDE 0613) and DIN EN 60999 (VDE 0609)
		Degree of protection (IK code) against mechanical stress in accordance with DIN EN 50102 (VDE 0470-100)
		Protection class II equipment with protective insulation in accordance with DIN VDE 0100-410
		Rated voltage for use in DC voltage systems, maximum permissible rated voltage of the electrical system
		Rated voltage for use in AC voltage systems, maximum permissible rated voltage of the electrical system.
		Rated current (maximum current in continuous operation) according to product standard
		Products for installation in cavity walls or furniture in accordance with DIN VDE 0606-1.



Suitable for use in concrete. **Withstand short-term temperatures of up to +90°C** during the setting process.



The **VDE symbol** stands for the tested safety of the product in respect of electrical, mechanical, thermal and other hazards.



Products with the **cULus** approval mark have been independently certified by UL (Underwriters Laboratories Inc.). Representative samples of this product have been assessed by UL and comply with the applicable national standards of USA and Canada.



Products with the **UL EU** approval mark have been independently certified by UL (Underwriters Laboratories Inc.). Representative samples of this product have been assessed by UL and comply with the applicable European (EN) or global (IEC) standards.



DLG focus test for the particular highlighting of innovations for machines and technical products - predominantly in agricultural and forestry applications.



DNV
The approved products are authorised by DNV for installation on all classified ships.



AK Air ventilation elements for preventing condensation while maintaining the IP65 protection rating.



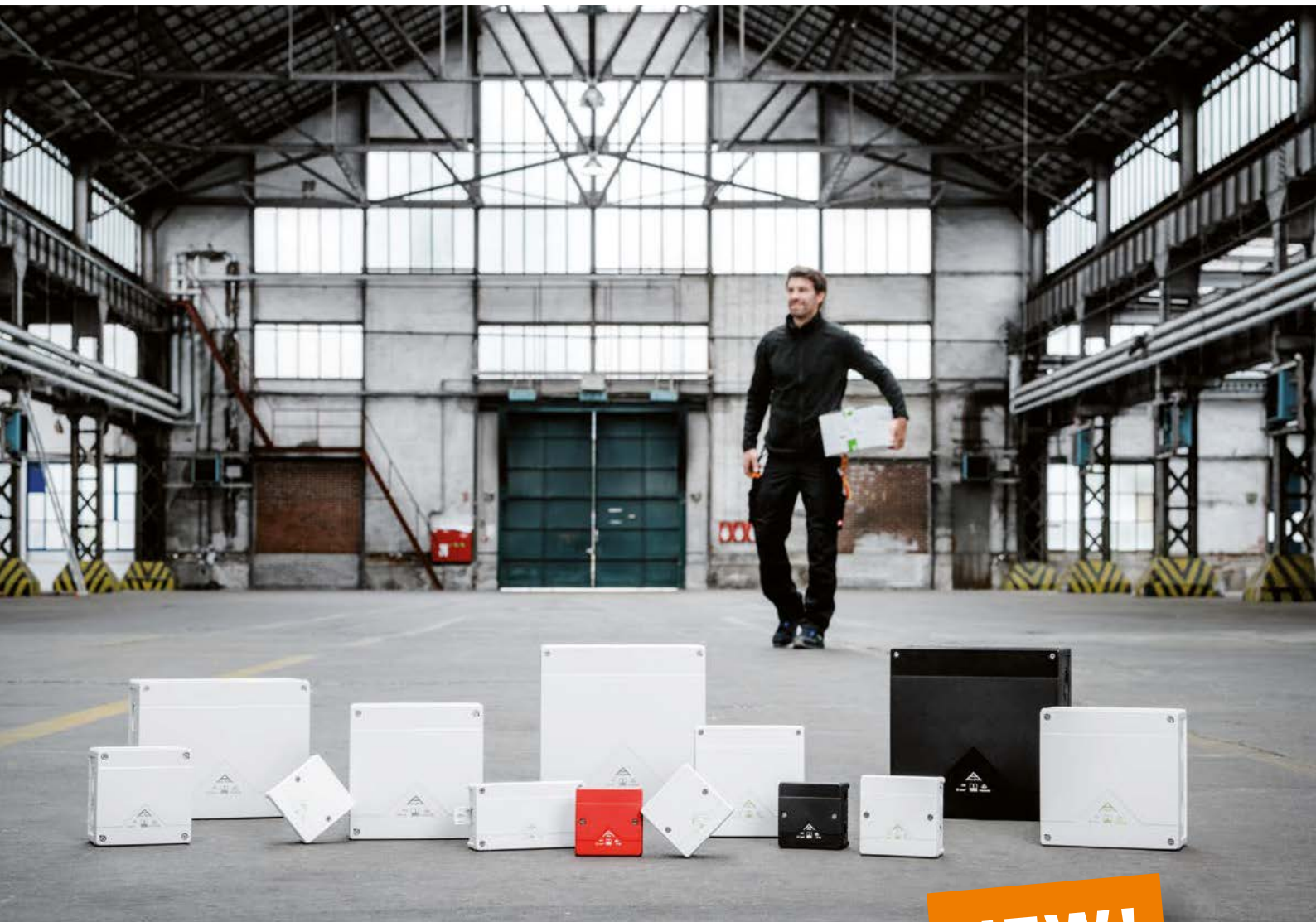
Suitable for the installation of an **electronic household meter**



Halogen-free enclosure, no halogens such as fluorine, chlorine and bromine are present.



Junction boxes



NEW!

Simple and safe installation - based on practical experience.

Well thought-out enclosure solutions offering reliable protection against contact and external influences when branching and connecting electrical cables.

Junction boxes for indoor and protected outdoor areas as well as for extreme environments and unprotected outdoor areas. The right solution in any situation.

Junction Boxes

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Junction boxes

Abox | Abox Pro



Variants for even more installation applications:

■ Abox:

Indoor areas and
protected outdoor areas

■ Abox Pro:

Industrial and
unprotected outdoor areas

- A well thought-out enclosure concept for easy and comfortable installation
- Optimum alignment of the enclosure using the continuous centre marking
- quick installation thanks to moulded external fixing lugs (AB variant)

- External fixing lugs with break-out for fastening with standard M6 screws on usual cable tray systems
- Fully-assembled connection terminals
- Captive insulating plugs

IP66	35 ²	IK07		1000V AC	1000V DC			
IP66 IP67 IP69	35 ²	IK09		1000V AC	1000V DC			

NEW!



- Self locking of the lock nuts in the box base when using cable glands
- Proven Wago plug-in terminal for 2.5² and 4²
- Raised connection terminals enable fast and clear wiring from 6²
- Fast and clear wiring thanks to larger installation space

- Utilisation of all cable entries without restriction
- First-class material properties such as UV resistance, high degree of IP protection and high impact resistance
- VDE certification ensures a high level of safety
- Area provided for individual labelling

Different colour variants for individual applications



similar to RAL 7035



similar to RAL 3020



similar to RAL 9016



similar to RAL 9005

Junction boxes

Abox



For installation in indoor and protected outdoor areas
(with and without terminals up to 35 mm²)

- Self-sealing, soft insertion membranes (Abox 025 to 100)
- 3 entries on one side from Abox 025 upwards allow optimal installation in various installation environments
- Optimised sealing range, can also be used for non-circular cables
- Fastening holes with TPE membrane enable simple and quick assembly
- Cable entry from Abox 160 upwards by means of multiple knock-out membranes
- Cover remains locked on the box even when cover screws are loosened
- **Optimised for protected outdoor areas thanks to:**
 - Higher glow wire resistance
 - Extended ambient temperature range
 - High IP rate
 - High UV resistance



Junction Boxes

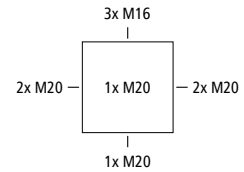
Abox

Abox 025

87 x 87 x 52 mm



Junction box, protection class IP66, nominal cross-section 2.5 mm², certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), DLG (Ammonia resistance), self-sealing, soft insertion membranes, M16/M20, sealing range 4 - 16 mm, (1 rear, 8 side), internal fixing points, for standard indoor and protected outdoor installations



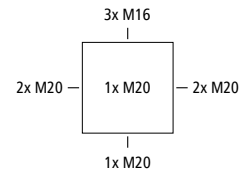
Description	Order no.
Abox 025-L NEW grey, $U_i=1000$ V AC, without terminals	☐ 80240001
Abox 025-L/w NEW white, $U_i=1000$ V AC, without terminals	☐ 80210001
Abox 025-L/sw NEW black, $U_i=1000$ V AC, without terminals	☒ 80200001
Abox 025-L/SB NEW grey, $U_i=1000$ V AC, with red cover, without terminals, for identification of safety lighting circuits	☒ 80270001
Abox 025-2,5² NEW grey, $U_i=450$ V AC, $I_n=24$ A, with 5 screwless 5-wire terminal, Wago 2273-205, max. nominal cross-section in accordance with DIN EN 60998: 2.5 mm², clampable cross-sections per connection pole: 5 x 0.5 - 2.5 mm² rigid Cu/Al (follow installation instructions)	☐ 80242001
Abox 025-2,5²/w NEW white, $U_i=450$ V AC, $I_n=24$ A, with 5 screwless 5-wire terminal, Wago 2273-205, max. nominal cross-section in accordance with DIN EN 60998: 2.5 mm², clampable cross-sections per pole: 5 x 0.5 - 2.5 mm² rigid Cu/Al (follow installation instructions)	☐ 80212001

Abox 025 AB

87 x 87 x 52 mm



Junction box, protection class IP66, nominal cross-section 2.5 mm², certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), DLG (Ammonia resistance), self-sealing, soft insertion membranes, M16/M20, sealing range 4 - 16 mm, (1 rear, 8 side), external fixing lugs, for standard indoor and protected outdoor installations



Description	Order no.
Abox 025 AB-L NEW grey, $U_i=1000$ V AC, without terminals	☐ 80240101
Abox 025 AB-L/sw NEW black, $U_i=1000$ V AC, without terminals	☒ 80200101
Abox 025 AB-L/SB NEW grey, $U_i=1000$ V AC, with red cover, without terminals, for identification of safety lighting circuits	☒ 80270101
Abox 025 AB-Pot NEW grey, $U_i=690$ V AC, with 1 x PE terminal block 4² on standard rail 15mm	☐ 80442701
Abox 025 AB-2,5² NEW grey, $U_i=450$ V AC, $I_n=24$ A, with 5 screwless 5-wire terminal, Wago 2273-205, max. nominal cross-section in accordance with DIN EN 60998: 2.5 mm², clampable cross-sections per pole: 5 x 0.5 - 2.5 mm² rigid Cu/Al (follow installation instructions)	☐ 80242101

Junction Boxes

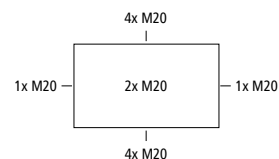
Abox

Abox 025/2

152 x 87 x 52 mm



Junction box, protection class IP66, nominal cross-section 2.5 mm², certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), DLG (Ammonia resistance), self-sealing, soft insertion membranes, M20, sealing range 4 - 16 mm, (2 rear, 10 side), internal fixing points, for standard indoor and protected outdoor installations



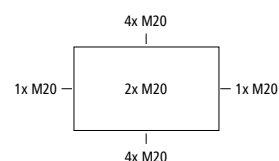
Description	Order no.
Abox 025/2-L NEW grey, U _i =1000 V AC, without terminals	☒ 80240201
Abox 025/2-L/w NEW white, U _i =1000 V AC, without terminals	☐ 80210201
Abox 025/2-L/sw NEW black, U _i =1000 V AC, without terminals	☒ 80200201
Abox 025/2-L/SB NEW grey, U _i =1000 V AC, with red cover, without terminals, for identification of safety lighting circuits	☒ 80270201

Abox 025/2 AB

152 x 87 x 52 mm



Junction box, protection class IP66, nominal cross-section 2.5 mm², certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), DLG (Ammonia resistance), self-sealing, soft insertion membranes, M20, sealing range 4 - 16 mm, (2 rear, 10 side), external fixing lugs, for standard indoor and protected outdoor installations



Description	Order no.
Abox 025/2 AB-L NEW grey, U _i =1000 V AC, without terminals	☒ 80240301
Abox 025/2 AB-L/sw NEW black, U _i =1000 V AC, without terminals	☒ 80200301
Abox 025/2 AB-L/SB NEW grey, U _i =1000 V AC, with red cover, without terminals, for identification of safety lighting circuits	☒ 80270301

Junction Boxes

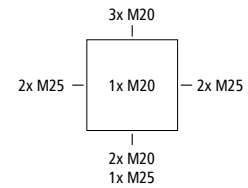
Abox

Abox 040

102 x 102 x 57 mm



Junction box, protection class IP66, nominal cross-section 4 mm², certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), DLG (Ammonia resistance), self-sealing, soft insertion membranes, M20/M25, sealing range 4 - 21 mm, (1 rear, 10 side), internal fixing points, for standard indoor and protected outdoor installations



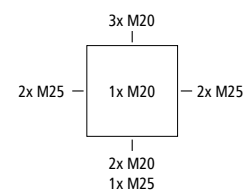
Description	Order no.
Abox 040-L NEW grey, $U_i=1000$ V AC, without terminals	80440001
Abox 040-L/w NEW white, $U_i=1000$ V AC, without terminals	80410001
Abox 040-L/sw NEW black, $U_i=1000$ V AC, without terminals	80400001
Abox 040-L/SB NEW grey, $U_i=1000$ V AC, with red cover, without terminals, for identification of safety lighting circuits	80470001
Abox 040-2,5² NEW grey, $U_i=450$ V AC, $I_n=24$ A, with 5 screwless 5-wire terminal, Wago 2273-205, max. nominal cross-section in accordance with DIN EN 60998: 2.5 mm², clampable cross-sections per pole: 5 x 0.5 - 2.5 mm² rigid Cu/Al (follow installation instructions)	80243001
Abox 040-4² NEW grey, $U_i=400$ V AC, $I_n=32$ A, with 5 screwless 4-wire terminals, Wago 773-604, max. nominal cross-section in accordance with DIN EN 60998: 4 mm², clampable cross-sections per pole: 4 x 1.5 - 4.0 mm² rigid Cu/Al (follow installation instructions)	80442001
Abox 040-4²/w NEW white, $U_i=400$ V AC, $I_n=32$ A, with 5 screwless 4-wire terminals, Wago 773-604, max. nominal cross-section in accordance with DIN EN 60998: 4 mm², clampable cross-sections per pole: 4 x 1.5 - 4.0 mm² rigid Cu/Al (follow installation instructions)	80412001

Abox 040 AB

102 x 102 x 57 mm



Junction box, protection class IP66, nominal cross-section 4 mm², certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), DLG (Ammonia resistance), self-sealing, soft insertion membranes, M20/M25, sealing range 4 - 21 mm, (1 rear, 10 side), external fixing lugs, for standard indoor and protected outdoor installations



Description	Order no.
Abox 040 AB-L NEW grey, $U_i=1000$ V AC, without terminals	80440101
Abox 040 AB-L/sw NEW black, $U_i=1000$ V AC, without terminals	80400101
Abox 040 AB-L/SB NEW grey, $U_i=1000$ V AC, with red cover, without terminals, for identification of safety lighting circuits	80470101
Abox 040 AB-4² NEW grey, $U_i=400$ V AC, $I_n=32$ A, with 5 screwless 4-wire terminals, Wago 773-604, max. nominal cross-section in accordance with DIN EN 60998: 4 mm², clampable cross-sections per pole: 4 x 1.5 - 4.0 mm² rigid Cu/Al (follow installation instructions)	80442101

Junction Boxes

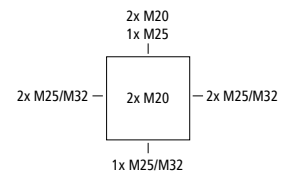
Abox

Abox 060

127 x 127 x 70 mm



Junction box, protection class IP66, nominal cross-section 6 mm², certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), DLG (Ammonia resistance), self-sealing, soft insertion membranes, M20/M25/M32, sealing range 4 - 28 mm, (2 rear, 8 side), internal fixing points, for standard indoor and protected outdoor installations



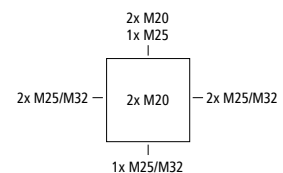
Description	Order no.
Abox 060-L NEW grey, $U_i=1000$ V AC, without terminals	☒ 80640001
Abox 060-L/w NEW white, $U_i=1000$ V AC, without terminals	☐ 80610001
Abox 060-L/sw NEW black, $U_i=1000$ V AC, without terminals	☒ 80600001
Abox 060-L/SB NEW grey, $U_i=1000$ V AC, with red cover, without terminals, for identification of safety lighting circuits	☒ 80670001
Abox 060-6² NEW grey, $U_i=690$ V AC, $I_n=41$ A, with raised screw terminal block, 5-pole - 6 mm², clampable cross-sections per pole: 4 x 1.5 mm², 4 x 2.5 mm², 4 x 4 mm², 4 x 6 mm² rigid Cu/flexible with wire-end ferrule	☒ 80642001
Abox 060-6²/w NEW white, $U_i=690$ V AC, $I_n=41$ A, with raised screw terminal block, 5-pole - 6 mm², clampable cross-sections per pole: 4 x 1.5 mm², 4 x 2.5 mm², 4 x 4 mm², 4 x 6 mm² rigid Cu/flexible with wire-end ferrule	☐ 80612001
Abox 060-6²/sw NEW black, $U_i=690$ V AC, $I_n=41$ A, with raised screw terminal block, 5-pole - 6 mm², clampable cross-sections per pole: 4 x 1.5 mm², 4 x 2.5 mm², 4 x 4 mm², 4 x 6 mm² rigid Cu/flexible with wire-end ferrule	☒ 80602001

Abox 060 AB

127 x 127 x 70 mm



Junction box, protection class IP66, nominal cross-section 6 mm², certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), DLG (Ammonia resistance), self-sealing, soft insertion membranes, M20/M25/M32, sealing range 4 - 28 mm, (2 rear, 8 side), external fixing lugs, for standard indoor and protected outdoor installations



Description	Order no.
Abox 060 AB-L NEW grey, $U_i=1000$ V AC, without terminals	☒ 80640101
Abox 060 AB-6² NEW grey, $U_i=690$ V AC, $I_n=41$ A, with raised screw terminal block, 5-pole - 6 mm², clampable cross-sections per pole: 4 x 1.5 mm², 4 x 2.5 mm², 4 x 4 mm², 4 x 6 mm² rigid Cu/flexible with wire-end ferrule	☒ 80642101
Abox 060 AB-L/SB NEW grey, $U_i=1000$ V AC, with red cover, without terminals, for identification of safety lighting circuits	☒ 80670101

Junction Boxes

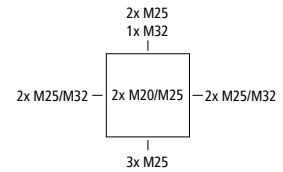
Abox

Abox 100

152 x 152 x 80 mm



Junction box, protection class IP66, nominal cross-section 10 mm², certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), DLG (Ammonia resistance), self-sealing, soft insertion membranes, M20/M25/M32, sealing range 8 - 28 mm, (2 rear, 10 side), internal fixing points, for standard indoor and protected outdoor installations



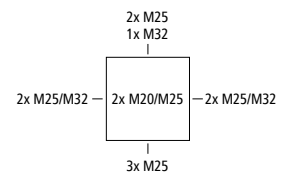
Description	Order no.
Abox 100-L NEW grey, $U_i=1000$ V AC, without terminals	☒ 81040001
Abox 100-L/w NEW white, $U_i=1000$ V AC, without terminals	☐ 81010001
Abox 100-10² NEW grey, $U_i=690$ V AC, $I_n=57$ A, with raised screw terminal block, 5-pole- 10 mm², clampable cross-sections per pole: 4 x 2.5 mm², 4 x 4 mm², 4 x 6 mm², 4 x 10 mm² rigid Cu/flexible with wire-end ferrule	☒ 81042001
Abox 100-10²/w NEW white, $U_i=690$ V AC, $I_n=57$ A, with raised screw terminal block, 5-pole- 10 mm², clampable cross-sections per pole: 4 x 2.5 mm², 4 x 4 mm², 4 x 6 mm², 4 x 10 mm² rigid Cu/flexible with wire-end ferrule	☐ 81012001

Abox 100 AB

152 x 152 x 80 mm



Junction box, protection class IP66, nominal cross-section 10 mm², certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), DLG (Ammonia resistance), self-sealing, soft insertion membranes, M20/M25/M32, sealing range 8 - 28 mm, (2 rear, 10 side), external fixing lugs, for standard indoor and protected outdoor installations



Description	Order no.
Abox 100 AB-L NEW grey, $U_i=1000$ V AC, without terminals	☒ 81040101
Abox 100 AB-10² NEW grey, $U_i=690$ V AC, $I_n=57$ A, with raised screw terminal block, 5-pole- 10 mm², clampable cross-sections per pole: 4 x 2.5 mm², 4 x 4 mm², 4 x 6 mm², 4 x 10 mm² rigid Cu/flexible with wire-end ferrule	☒ 81042101

Junction Boxes

Abox

Abox 160

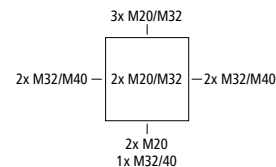
182 x 182 x 90 mm



Junction box, protection class IP55/IP66, nominal cross-section 16 mm², certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), DLG (Ammonia resistance), knockouts, M20/M32/M40, (2 rear, 10 side), internal fixing points, for standard indoor and protected outdoor installations

Accessories supplied:

4 attachment bushes IP55 M40 sealing range 17 - 30 mm,
1 sealing plug IP55 M40, cover retainer



Description

Abox 160-L **NEW**

grey, $U_i=1000$ V AC, without terminals

81640001

Abox 160-16² **NEW**

grey, $U_i=690$ V AC, $I_n=76$ A, with raised screw terminal block, 5-pole- 16 mm², clampable cross-sections per pole: 12 x 4 mm², 8 x 6 mm², 4 x 10 mm², 4 x 16 mm² rigid Cu/flexible with wire-end ferrule

81642001

Abox 250

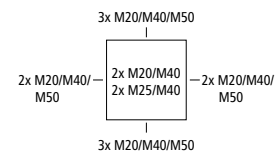
252 x 202 x 120 mm



Junction box, protection class IP55/IP66, nominal cross-section 25 mm², certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), DLG (Ammonia resistance), knockouts, M20/M25/M40/M50, (4 rear, 10 side), internal fixing points, for standard indoor and protected outdoor installations

Accessories supplied:

4 attachment bushes IP55 M40 sealing range 17 - 30 mm,
1 sealing plug IP55 M40, cover retainer



Description

Abox 250-L **NEW**

grey, $U_i=1000$ V AC, without terminals

82540001

Abox 250-25² **NEW**

grey, $U_i=690$ V AC, $I_n=101$ A, with raised screw terminal block, 5-pole - 25 mm², clampable cross-sections per pole: 12 x 10 mm², 8 x 16 mm², 4 x 25 mm² Cu rigid/flexible with wire-end ferrule

82542001

Junction Boxes

Abox

Abox 350

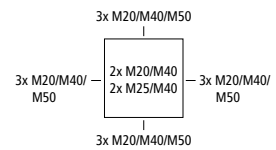
252 x 252 x 120 mm



Junction box, protection class IP55/IP66, nominal cross-section 35 mm², certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), DLG (Ammonia resistance), knockouts, M20/M25/M40/M50, (4 rear, 12 side), internal fixing points, for standard indoor and protected outdoor installations

Accessories supplied:

4 attachment bushes IP55 M40 sealing range 17 - 30 mm,
1 sealing plug IP55 M40, cover retainer



Description	Order no.
Abox 350-L NEW grey, U _i =1000 V AC, without terminals	83540001
Abox 350-35² NEW grey, U _i =690 V AC, I _n =125 A, with raised screw terminal block, 5-pole - 35 mm ² , clampable cross-sections per pole: 12 x 10 mm ² , 8 x 16 mm ² , 4 x 25 mm ² , 4 x 35 mm ² rigid Cu/flexible with wire-end ferrule	83542001

Abox 700

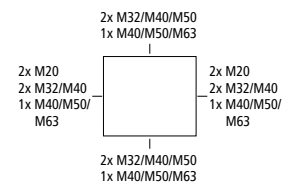
300 x 450 x 132 mm



Junction box, protection class IP54/IP65, nominal cross-section 70 mm², U_i=690 V AC, knockouts, M20/M32/M40/M50/M63, (16 side), internal fixing points, for standard indoor installations

Accessories supplied:

3 twist nipples with locknuts IP54 M63 sealing range
24 - 43 mm



Description	Order no.
Abox 700-L grey, without terminals	87091001
Abox 700-70²/4 grey, with screw terminal 4-pole - 70² (16-70²)	87041001
Abox 700-70²/5 grey, with screw terminal, 5-pole - 70² (16-70²)	87041101
Recommended accessories:	
Abox 700 KLS-70² Terminal block 1-pole - 70 mm ²	84007001
NS35-216/3 Standard rail universal floor fixing, with fixing screws, length 216 mm	79503001
AK MPI 3 Mounting plate AKL/AKi 3-4, Abox 700	79500301

Junction Boxes

Abox

Abox HA 250

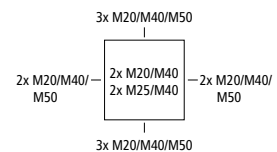
252 x 202 x 120 mm



Junction box, protection class IP54/IP66, nominal cross-section 25 mm², certified by DLG (Ammonia resistance), knockouts, M20/M25/M40/M50, (4 rear, 10 side), internal fixing points, for standard indoor and protected outdoor installations

Accessories supplied:

4 attachment bushes IP55 M40 sealing range 17 - 30 mm, 3 twist plugs IP54 M50 sealing range 22 - 35 mm, cover retainer



Description

Abox HA 250 **NEW**

grey, $U_i=690$ V AC, with standard rail-mounted main line junction terminals, 4-pole, clampable cross-sections per main line pole: 1.5 - 25 mm² rigid (Cu/Al) and multi-wire (Cu), 1.5 - 16 mm² fine-wire with wire end ferrule (Cu). Clampable cross-sections per branch line pole 1.5 - 16 mm² rigid (Cu/Al) and multi-wire (Cu), 1.5 - 10 mm² fine-wire with wire end ferrule (Cu). Rated current in accordance with EN 60947-7: 130 A (Cu) and 100 A (Al)

Order no.

48142501

Abox HA 350

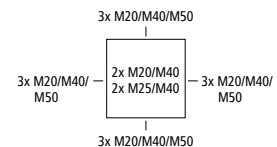
252 x 252 x 120 mm



Junction box, protection class IP54/IP66, nominal cross-section 35 mm², certified by DLG (Ammonia resistance), knockouts, M20/M25/M40/M50, (4 rear, 12 side), internal fixing points, for standard indoor and protected outdoor installations

Accessories supplied:

4 attachment bushes IP55 M40 sealing range 17 - 30 mm, 3 twist plugs IP54 M50 sealing range 22 - 35 mm, cover retainer



Description

Abox HA 350 **NEW**

grey, $U_i=690$ V AC, with standard rail-mounted main line junction terminals, 4-pole, clampable cross-sections per main line pole: 10 - 35 mm² rigid (Cu/Al) and multi-wire (Cu), 10 - 25 mm² fine-wire with wire end ferrule (Cu). Clampable cross-sections per branch line pole 1.5 - 25 mm² rigid (Cu/Al) and multi-wire (Cu), 1.5 - 16 mm² fine-wire with wire end ferrule (Cu). Rated current in accordance with EN 60947-7: 160 A (Cu) and 130 A (Al)

Order no.

48143501

Junction boxes

Abox Pro



For installation in industrial environments and unprotected outdoor areas (with and without terminals up to 35 mm²)

- 100% suitable for outdoor use
- High IP and IK degree of protection
- High glow wire resistance
- Safety reserves when used in extreme installation environments (heat, temperature, sunlight)
- Authorised for use on ships (DNV approval)
- Patented knockout with integrated knockout assistance saves time-consuming reworking
- Metric cable entries suitable for a variety of cable diameters
- Base for cable glands, connecting piece, etc.
- Condensation can be avoided through the use of BST ventilation elements
- Lower cost and reduced weight compared with brass boxes

IP66
IP67
IP69

35²

IK09



1000V
AC

1000V
DC



NEW!

Junction Boxes

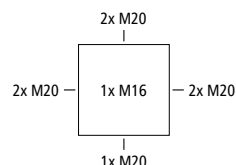
Abox Pro

Abox Pro 025

92 x 92 x 60 mm



Junction box, protection class IP66/IP67/IP69, nominal cross-section 2.5 mm², certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), DLG (Ammonia resistance), DNV (Class: Ships and Offshore Installations), knockouts, M16/M20, (1 rear, 7 side), internal fixing points, for installation in industrial environments and unprotected outdoor areas



Accessories supplied:

4 double membrane seals IP66 M20 sealing range 7 - 13 mm, cover retainer

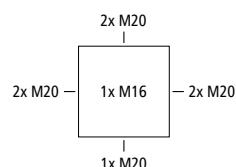
Description	Order no.
Abox Pro 025-L NEW grey, U _i =1000 V AC, without terminals	40240001
Abox Pro 025-L/sw NEW black, U _i =1000 V AC, without terminals	40200001
Abox Pro 025-2,5² NEW grey, U _i =450 V AC, I _n =24 A, with 5 screwless 5-wire terminal, Wago 2273-205, max. nominal cross-section in accordance with DIN EN 60998: 2.5 mm², clampable cross-sections per pole: 5 x 0.5 - 2.5 mm² rigid Cu and Al (follow installation instructions)	40242001
Abox Pro 025-2,5²/sw NEW black, U _i =450 V AC, I _n =24 A, with 5 screwless 5-wire terminal, Wago 2273-205, max. nominal cross-section in accordance with DIN EN 60998: 2.5 mm², clampable cross-sections per pole: 5 x 0.5 - 2.5 mm² rigid Cu and Al (follow installation instructions)	40202001

Abox Pro 025 AB

92 x 92 x 60 mm



Junction box, protection class IP66/IP67/IP69, nominal cross-section 2.5 mm², certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), DLG (Ammonia resistance), DNV (Class: Ships and Offshore Installations), knockouts, M16/M20, (1 rear, 7 side), external fixing lugs, for installation in industrial environments and unprotected outdoor areas



Accessories supplied:

4 double membrane seals IP66 M20 sealing range 7 - 13 mm, cover retainer

Description	Order no.
Abox Pro 025 AB-L NEW grey, U _i =1000 V AC, without terminals	40240101
Abox Pro 025 AB-L/sw NEW black, U _i =1000 V AC, without terminals	40200101
Abox Pro 025 AB-2,5² NEW grey, U _i =450 V AC, I _n =24 A, with 5 screwless 5-wire terminal, Wago 2273-205, max. nominal cross-section in accordance with DIN EN 60998: 2.5 mm², clampable cross-sections per pole: 5 x 0.5 - 2.5 mm² rigid Cu and Al (follow installation instructions)	40242101

Junction Boxes

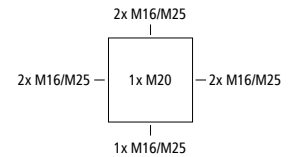
Abox Pro

Abox Pro 040

102 x 102 x 70 mm



Junction box, protection class IP66/IP67/IP69, nominal cross-section 4 mm², certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), DLG (Ammonia resistance), DNV (Class: Ships and Offshore Installations), knockouts, M16/M20/M25, (1 rear, 7 side), internal fixing points, for installation in industrial environments and unprotected outdoor areas



Accessories supplied:

4 double membrane seals IP66 M25 sealing range 9 - 17 mm, cover retainer

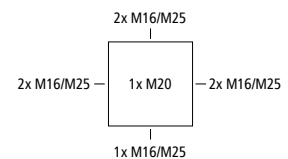
Description	Order no.
Abox Pro 040-L NEW grey, $U_i=1000$ V AC, without terminals	40440001
Abox Pro 040-L/sw NEW black, $U_i=1000$ V AC, without terminals	40400001
Abox Pro 040-2,5² NEW grey, $U_i=450$ V AC, $I_n=24$ A, with 5 screwless 5-wire terminal, Wago 2273-205, max. nominal cross-section in accordance with DIN EN 60998: 2.5 mm², clampable cross-sections per pole: 5 x 0.5 - 2.5 mm² rigid Cu and Al (follow installation instructions)	40243001
Abox Pro 040-4² NEW grey, $U_i=400$ V AC, $I_n=32$ A, with 5 screwless 4-wire terminal blocks, Wago 773-604, max. nominal cross-section in accordance with DIN EN 60998: 4 mm², clampable cross-sections per pole: 4 x 1.5 - 4.0 mm² rigid Cu/Al (follow installation instructions)	40442001
Abox Pro 040-4²/sw NEW black, $U_i=400$ V AC, $I_n=32$ A, with 5 screwless 4-wire terminal blocks, Wago 773-604, max. nominal cross-section in accordance with DIN EN 60998: 4 mm², clampable cross-sections per pole: 4 x 1.5 - 4.0 mm² rigid Cu/Al (follow installation instructions)	40402001

Abox Pro 040 AB

102 x 102 x 70 mm



Junction box, protection class IP66/IP67/IP69, nominal cross-section 4 mm², certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), DLG (Ammonia resistance), DNV (Class: Ships and Offshore Installations), knockouts, M16/M20/M25, (1 rear, 7 side), external fixing lugs, for installation in industrial environments and unprotected outdoor areas



Accessories supplied:

4 double membrane seals IP66 M25 sealing range 9 - 17 mm, cover retainer

Description	Order no.
Abox Pro 040 AB-L NEW grey, $U_i=1000$ V AC, without terminals	40440101
Abox Pro 040 AB-4² NEW grey, $U_i=400$ V AC, $I_n=32$ A, with 5 screwless 4-wire terminal blocks, Wago 773-604, max. nominal cross-section in accordance with DIN EN 60998: 4 mm², clampable cross-sections per pole: 4 x 1.5 - 4.0 mm² rigid Cu/Al (follow installation instructions)	40442101

Junction Boxes

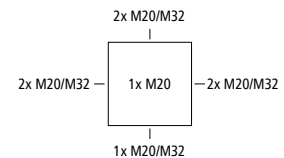
Abox Pro

Abox Pro 060

127 x 127 x 75 mm



Junction box, protection class IP66/IP67/IP69, nominal cross-section 6 mm², certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), DLG (Ammonia resistance), DNV (Class: Ships and Offshore Installations), knockouts, M20/M32, (1 rear, 7 side), internal fixing points, for installation in industrial environments and unprotected outdoor areas



Accessories supplied:

4 double membrane seals IP66 M32 sealing range 13 - 21 mm, cover retainer

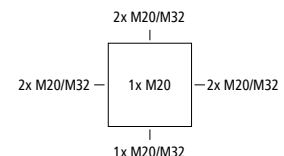
Description	Order no.
Abox Pro 060-L NEW grey, U _i =1000 V AC, without terminals	40640001
Abox Pro 060-L/sw NEW black, U _i =1000 V AC, without terminals	40600001
Abox Pro 060-6² NEW grey, U _i =690 V AC, I _n =41 A, with raised screw terminal block, 5-pole - 6 mm², clampable cross-sections per pole: 4 x 1.5 mm², 4 x 2.5 mm², 4 x 4 mm², 4 x 6 mm² rigid Cu/flexible with wire-end ferrule	40642001
Abox Pro 060-6²/sw NEW black, U _i =690 V AC, I _n =41 A, with raised screw terminal block, 5-pole - 6 mm², clampable cross-sections per pole: 4 x 1.5 mm², 4 x 2.5 mm², 4 x 4 mm², 4 x 6 mm² rigid Cu/flexible with wire-end ferrule	40602001

Abox Pro 060 AB

127 x 127 x 75 mm



Junction box, protection class IP66/IP67/IP69, nominal cross-section 6 mm², certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), DLG (Ammonia resistance), DNV (Class: Ships and Offshore Installations), knockouts, M20/M32, (1 rear, 7 side), external fixing lugs, for installation in industrial environments and unprotected outdoor areas



Accessories supplied:

4 double membrane seals IP66 M32 sealing range 13 - 21 mm, cover retainer

Description	Order no.
Abox Pro 060 AB-L NEW grey, U _i =1000 V AC, without terminals	40640101
Abox Pro 060 AB-6² NEW grey, U _i =690 V AC, I _n =41 A, with raised screw terminal block, 5-pole - 6 mm², clampable cross-sections per pole: 4 x 1.5 mm², 4 x 2.5 mm², 4 x 4 mm², 4 x 6 mm² rigid Cu/flexible with wire-end ferrule	40642101

Junction Boxes

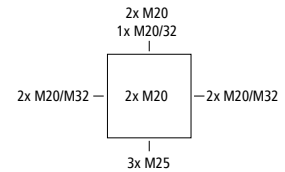
Abox Pro

Abox Pro 100

152 x 152 x 85 mm



Junction box, protection class IP66/IP67/IP69, nominal cross-section 10 mm², certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), DLG (Ammonia resistance), DNV (Class: Ships and Offshore Installations), knockouts, M20/M25/M32, (2 rear, 10 side), internal fixing points, for installation in industrial environments and unprotected outdoor areas



Accessories supplied:

4 double membrane seals IP66 M32 sealing range 13 - 21 mm, cover retainer

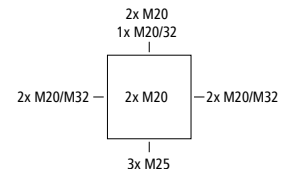
Description	Order no.
Abox Pro 100-L NEW grey, $U_i=1000$ V AC, without terminals	41040001
Abox Pro 100-L/sw NEW black, $U_i=1000$ V AC, without terminals	41000001
Abox Pro 100-10² NEW grey, $U_i=690$ V AC, $I_n=57$ A, with raised screw terminal block, 5-pole- 10 mm², clampable cross-sections per pole: 4 x 2.5 mm², 4 x 4 mm², 4 x 6 mm², 4 x 10 mm² rigid Cu/flexible with wire-end ferrule	41042001
Abox Pro 100-10²/sw NEW black, $U_i=690$ V AC, $I_n=57$ A, with raised screw terminal block, 5-pole- 10 mm², clampable cross-sections per pole: 4 x 2.5 mm², 4 x 4 mm², 4 x 6 mm², 4 x 10 mm² rigid Cu/flexible with wire-end ferrule	41002001

Abox Pro 100 AB

152 x 152 x 85 mm



Junction box, protection class IP66/IP67/IP69, nominal cross-section 10 mm², certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), DLG (Ammonia resistance), DNV (Class: Ships and Offshore Installations), knockouts, M20/M25/M32, (2 rear, 10 side), external fixing lugs, for installation in industrial environments and unprotected outdoor areas



Accessories supplied:

4 double membrane seals IP66 M32 sealing range 13 - 21 mm, cover retainer

Description	Order no.
Abox Pro 100 AB-L NEW grey, $U_i=1000$ V AC, without terminals	41040101
Abox Pro 100 AB-10² NEW grey, $U_i=690$ V AC, $I_n=57$ A, with raised screw terminal block, 5-pole- 10 mm², clampable cross-sections per pole: 4 x 2.5 mm², 4 x 4 mm², 4 x 6 mm², 4 x 10 mm² rigid Cu/flexible with wire-end ferrule	41042101

Junction Boxes

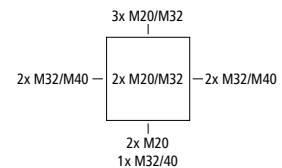
Abox Pro

Abox Pro 160

182 x 182 x 90 mm



Junction box, protection class IP66/IP67/IP69, nominal cross-section 16 mm², certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), DLG (Ammonia resistance), DNV (Class: Ships and Offshore Installations), knockouts, M20/M32/M40, (2 rear, 10 side), internal fixing points, for installation in industrial environments and unprotected outdoor areas



Accessories supplied:

4 double membrane seals IP66 M40 sealing range 17 - 28 mm, cover retainer

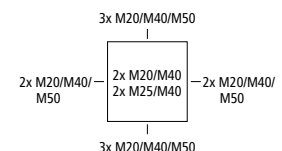
Description	Order no.
Abox Pro 160-L NEW grey, $U_i=1000$ V AC, without terminals	41640001
Abox Pro 160-L/sw NEW black, $U_i=1000$ V AC, without terminals	41600001
Abox Pro 160-16² NEW grey, $U_i=690$ V AC, $I_n=76$ A, with raised screw terminal block, 5-pole- 16 mm², clampable cross-sections per pole: 12 x 4 mm², 8 x 6 mm², 4 x 10 mm², 4 x 16 mm² rigid Cu/flexible with wire-end ferrule	41642001
Abox Pro 160-16²/sw NEW black, $U_i=690$ V AC, $I_n=76$ A, with raised screw terminal block, 5-pole- 16 mm², clampable cross-sections per pole: 12 x 4 mm², 8 x 6 mm², 4 x 10 mm², 4 x 16 mm² rigid Cu/flexible with wire-end ferrule	41602001

Abox Pro 250

252 x 202 x 120 mm



Junction box, protection class IP66/IP67/IP69, nominal cross-section 25 mm², certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), DLG (Ammonia resistance), DNV (Class: Ships and Offshore Installations), knockouts, M20/M25/M40/M50, (4 rear, 10 side), internal fixing points, for installation in industrial environments and unprotected outdoor areas



Accessories supplied:

4 double membrane seals IP66 M40 sealing range 17 - 28 mm, cover retainer

Description	Order no.
Abox Pro 250-L NEW grey, $U_i=1000$ V AC, without terminals	42540001
Abox Pro 250-L/sw NEW black, $U_i=1000$ V AC, without terminals	42500001
Abox Pro 250-25² NEW grey, $U_i=690$ V AC, $I_n=101$ A, with raised screw terminal block, 5-pole - 25 mm², clampable cross-sections per pole: 12 x 10 mm², 8 x 16 mm², 4 x 25 mm² Cu rigid/flexible with wire-end ferrule	42542001
Abox Pro 250-25²/sw NEW black, $U_i=690$ V AC, $I_n=101$ A, with raised screw terminal block, 5-pole - 25 mm², clampable cross-sections per pole: 12 x 10 mm², 8 x 16 mm², 4 x 25 mm² Cu rigid/flexible with wire-end ferrule	42502001

Junction Boxes

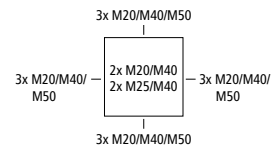
Abox Pro

Abox Pro 350

252 x 252 x 120 mm



Junction box, protection class IP66/IP67/IP69, nominal cross-section 35 mm², certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), DLG (Ammonia resistance), DNV (Class: Ships and Offshore Installations), knockouts, M20/M25/M40/M50, (4 rear, 12 side), internal fixing points, for installation in industrial environments and unprotected outdoor areas



Accessories supplied:

4 double membrane seals IP66 M40 sealing range 17 - 28 mm, cover retainer

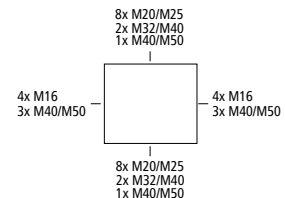
Description	Order no.
Abox Pro 350-L NEW grey, $U_i=1000$ V AC, without terminals	43540001
Abox Pro 350-L/sw NEW black, $U_i=1000$ V AC, without terminals	43500001
Abox Pro 350-35² NEW grey, $U_i=690$ V AC, $I_n=125$ A, with raised screw terminal block, 5-pole - 35 mm², clampable cross-sections per pole: 12 x 10 mm², 8 x 16 mm², 4 x 25 mm². 4 x 35 mm² rigid/flexible with wire-end ferrule	43542001
Abox Pro 350-35²/sw NEW black, $U_i=690$ V AC, $I_n=125$ A, with raised screw terminal block, 5-pole - 35 mm², clampable cross-sections per pole: 12 x 10 mm², 8 x 16 mm², 4 x 25 mm². 4 x 35 mm² rigid/flexible with wire-end ferrule	43502001

Abox-i 700

440 x 320 x 179 mm



Junction box, protection class IP65, nominal cross-section 70 mm², $U_i=690$ V AC, knockouts, M16/M20/M25/M32/M40/M50, (24 side), internal fixing points, for installations in industrial environments and protected outdoor areas



Description	Order no.
Abox-i 700-70²/4 grey, with screw terminal 4-pole - 70² (16-70²)	49047001
Abox-i 700-70²/5 grey, with screw terminal, 5-pole - 70² (16-70²)	49047101
Recommended accessories:	Order no.
Abox 700 KLS-70² Terminal block 1-pole - 70 mm²	84007001
GKE 32 Cable entry Side of enclosure 320 mm, for 2 x 75 mm Ø cables	07303201
GKE 43 Cable entry Side of enclosure 440 mm, for 3 x 75 mm Ø cables	07304301

Junction Boxes

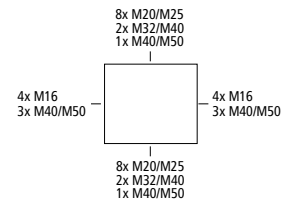
Abox Pro

Abox-i 1500

440 x 320 x 179 mm



Junction box, protection class IP65, nominal cross-section 150 mm², $U_i=690$ V AC, knockouts, M16/M20/M25/M32/M40/M50, (24 side), internal fixing points, for installations in industrial environments and protected outdoor areas



Description	Order no.
Abox-i 1500-150²/4 grey, with special screw terminal for conductor entry on top, 4-pole - 150² (16 to 150 mm², CU/AL)	■ 49048501
Abox-i 1500-150²/5 grey, with special screw terminal for conductor entry on top, 5-pole - 150² (16 to 150 mm², CU/AL)	■ 49048601
Recommended accessories:	Order no.
AKL 125 Terminal 250 A, for CU conductors 1x (35-150)re/rm/se/sm, 2x (16-70)re/rm/se/sm, for AL conductors 1x (35-150)re/rm/se/sm, 1x (50-120)sm, 2x (16-70)re/se, 2x (35-50)sm	07612501
GKE 32 Cable entry Side of enclosure 320 mm, for 2 x 75 mm Ø cables	07303201
GKE 43 Cable entry Side of enclosure 440 mm, for 3 x 75 mm Ø cables	07304301
GTi 1-g Empty enclosure with grey cover	01040101
GFL 20 Flange	07220001
GZE 3 Strain relief Side of enclosure 320 mm, for 1 x 75 mm cable	07300301
GFG 3 Flange bar Side of enclosure 320 mm, with sealing	07280301
GAB-ES External fixing lug V2A, Set = 4 off	07030001

Junction Boxes

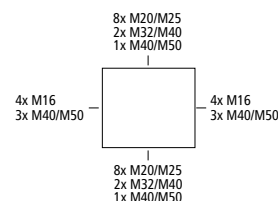
Abox Pro

Abox-i 1500 DK

440 x 320 x 179 mm



Junction box, protection class IP65, nominal cross-section 150 mm², $U_i=690$ V AC, knockouts, M16/M20/M25/M32/M40/M50, (24 side), internal fixing points, for installations in industrial environments and protected outdoor areas



Description	Order no.
Abox-i 1500 DK-150²/4 grey, with terminal block, 4-pole - 150² (50 to 150 mm²)	49058501
Abox-i 1500 DK-150²/5 grey, with terminal block, 5-pole - 150² (50 to 150 mm²)	49058601
Recommended accessories:	Order no.
URS RK1-150mm² Terminal Upgrade kit for 5-pole 1-pole	67065001
GKE 32 Cable entry Side of enclosure 320 mm, for 2 x 75 mm Ø cables	07303201
GKE 43 Cable entry Side of enclosure 440 mm, for 3 x 75 mm Ø cables	07304301
GTi 1-g Empty enclosure with grey cover	01040101
GFL 20 Flange	07220001
GZE 3 Strain relief Side of enclosure 320 mm, for 1 x 75 mm cable	07300301
GFG 3 Flange bar Side of enclosure 320 mm, with sealing	07280301
GAB-ES External fixing lug V2A, Set = 4 off	07030001

Junction Boxes

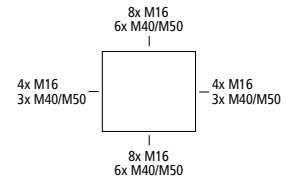
Abox Pro

Abox-i 2400

640 x 320 x 179 mm



Junction box, protection class IP65, nominal cross-section 240 mm², $U_j=690$ V AC, knockouts, M16/M40/M50, (30 side), internal fixing points, for installations in industrial environments and protected outdoor areas



Description	Order no.
Abox-i 2400-240²/4 grey, with special screw terminal for conductor entry on top, 4-pole - 240² (25 to 240 mm², CU/AL)	■ 49049401
Abox-i 2400 240²/5 grey, with special screw terminal for conductor entry on top, 5-pole - 240² (25 to 240 mm², CU/AL)	■ 49049101
Recommended accessories:	Order no.
AKL 140 Terminal 400 A, for CU conductors 1x (50-240)re/rm/se/sm, 2x (25-120)re/rm/se/sm, for AL conductors 1x (50-240)re/rm/se/sm, 1x (95-195)sm, 2x (25-120)re/se, 2x (50-95)sm, for laminated flat copper 16 x 10 mm	07614001
GKE 32 Cable entry Side of enclosure 320 mm, for 2 x 75 mm Ø cables	07303201
GTi 1-g Empty enclosure with grey cover	01040101
GFL 20 Flange	07220001
GZE 3 Strain relief Side of enclosure 320 mm, for 1 x 75 mm cable	07300301
GFG 3 Flange bar Side of enclosure 320 mm, with sealing	07280301
GAB-ES External fixing lug V2A, Set = 4 off	07030001

Junction Boxes

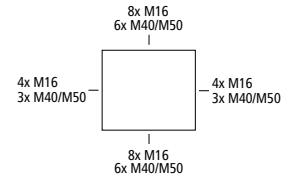
Abox Pro

Abox-i 2400 DK

640 x 320 x 179 mm



Junction box, protection class IP65, nominal cross-section 240 mm², $U_i=690$ V AC, knockouts, M16/M40/M50, (30 side), internal fixing points, for installations in industrial environments and protected outdoor areas



Description	Order no.
Abox-i 2400 DK-240²/4 grey, with terminal block, 4-pole - 240² (70 to 240 mm²)	■ 49059401
Abox-i 2400 DK-240²/5 grey, with terminal block, 5-pole - 240² (70 to 240 mm²)	■ 49059101
Recommended accessories:	Order no.
URS RK1-240mm² Terminal Upgrade kit for 5-pole 1-pole	67074001
GKE 32 Cable entry Side of enclosure 320 mm, for 2 x 75 mm Ø cables	07303201
GTi 1-g Empty enclosure with grey cover	01040101
GFL 20 Flange	07220001
GZE 3 Strain relief Side of enclosure 320 mm, for 1 x 75 mm cable	07300301
GFG 3 Flange bar Side of enclosure 320 mm, with sealing	07280301
GAB-ES External fixing lug V2A, Set = 4 off	07030001

Junction boxes

Abox SL



For installation in indoor areas and protected outdoor areas
with screwless terminals up to 16 mm²

- The Abox SL combines the wiring philosophy of the Abox series with screwless terminal technology.
- Available in 2 versions:
 - extremely compact as **SLK** up to max. 6²
 - for large cross-sections as **SL** up to max. 16²
- Supplied with terminal holder
- Clear arrangement for maintenance and troubleshooting
- Raised terminals for 4² and 6² types enable use of all cable entries and offer maximum convenience when wiring
- WAGO 221 screwless connection terminals, can be used for rigid or flexible, single and fine-wired cables
- WAGO TOPJOB® S rail-mount terminal block with screwless connection terminals for space-saving use on NS 35 standard rails

IP66

16²

IK07



690V
AC

690V
DC



NEW!

Junction Boxes

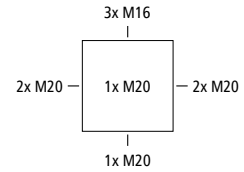
Abox SL

Abox SLK 2,5²

87 x 87 x 52 mm



Junction box, protection class IP66, nominal cross-section 2.5 mm², $U_i=450$ V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), DLG (Ammonia resistance), self-sealing, soft insertion membranes, M16/M20, sealing range 4 - 16 mm, (1 rear, 8 side), internal fixing points, with screwless terminals for standard indoor and protected outdoor installations



Description

Abox SLK-2,5² **NEW**

grey, $I_n=24$ A, with 3 floor-fixed, screwless 3-wire terminals, Wago 221-413 - 2.5 mm², clampable cross-sections per pole: 3 x 0.2 to 2.5 mm² rigid Cu and 3 x 0.14 to 2.5 mm² flexible Cu

Order no.

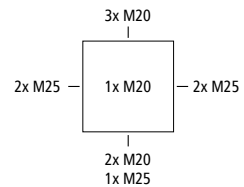
80247001

Abox SLK 4²

102 x 102 x 57 mm



Junction box, protection class IP66, nominal cross-section 4 mm², $U_i=450$ V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), DLG (Ammonia resistance), self-sealing, soft insertion membranes, M20/M25, sealing range 4 - 21 mm, (1 rear, 10 side), internal fixing points, with screwless terminals for standard indoor and protected outdoor installations



Description

Abox SLK-4² **NEW**

grey, $I_n=32$ A, with 5 floor-fixed, screwless 3-wire terminals, Wago 221-413 - 4 mm², clampable cross-sections per pole: 3 x 0.2 to 4 mm² rigid Cu and 3 x 0.14 to 4 mm² flexible Cu

Order no.

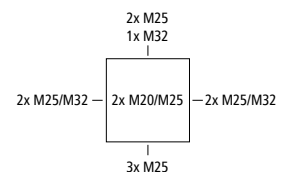
80447001

Abox SLK 6²

152 x 152 x 80 mm



Junction box, protection class IP66, nominal cross-section 6 mm², $U_i=450$ V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), DLG (Ammonia resistance), self-sealing, soft insertion membranes, M20/M25/M32, sealing range 8 - 28 mm, (2 rear, 10 side), internal fixing points, with screwless terminals for standard indoor and protected outdoor installations



Description

Abox SLK-6² **NEW**

grey, $I_n=41$ A, with 5 raised, screwless 3-wire terminals, type Wago 221-613 - 6 mm², clampable cross-sections per pole: 3 x 0.2 to 6 mm² rigid/flexible Cu

Order no.

80647001

Junction Boxes

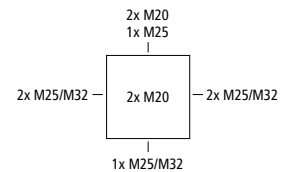
Abox SL

Abox SL 4²

127 x 127 x 70 mm



Junction box, protection class IP66, nominal cross-section 4 mm², U_i=450 V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), DLG (Ammonia resistance), self-sealing, soft insertion membranes, M20/M25/M32, sealing range 4 - 28 mm, (2 rear, 8 side), internal fixing points, with screwless terminals for standard indoor and protected outdoor installations



Description

Abox SL-4² **NEW**

grey, I_n=32 A, with 5 raised, screwless 3-wire terminal blocks, Wago 221-413 - 4 mm², clampable cross-sections per pole: 3 x 0.2 to 4 mm² rigid Cu and 3 x 0.14 to 4 mm² flexible Cu

Order no.

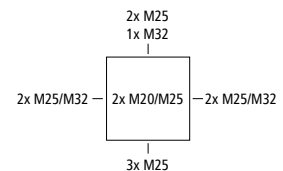
80444001

Abox SL 6²

152 x 152 x 80 mm



Junction box, protection class IP66, nominal cross-section 6 mm², U_i=690 V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), DLG (Ammonia resistance), self-sealing, soft insertion membranes, M20/M25/M32, sealing range 8 - 28 mm, (2 rear, 10 side), internal fixing points, with screwless terminals for standard indoor and protected outdoor installations



Description

Abox SL-6² **NEW**

grey, I_n=41 A, with raised screwless terminal block Wago 2006-1201, 5-pole, max. nominal cross-section in accordance with DIN EN 60998: 6 mm², clampable cross-sections per pole: 4 x 0.5 to 10 mm² rigid/flexible Cu

Order no.

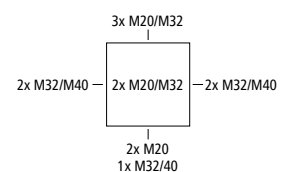
80644001

Abox SL 10²

182 x 182 x 90 mm



Junction box, protection class IP55/IP66, nominal cross-section 10 mm², U_i=690 V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), DLG (Ammonia resistance), knockouts, M20/M32/M40, (2 rear, 10 side), internal fixing points, with screwless terminals for standard indoor and protected outdoor installations



Accessories supplied:

4 attachment bushes IP55 M40 sealing range 17 - 30 mm,
1 sealing plug IP55 M40, cover retainer

Description

Abox SL-10² **NEW**

grey, I_n=57 A, with raised screwless terminal block Wago 2010-1201, 5-pole, max. nominal cross-section in accordance with DIN EN 60998: 10 mm², clampable cross-sections per pole: 4 x 0.5 to 16 mm² rigid/flexible Cu

Order no.

81044001

Junction Boxes

Abox SL

Abox SL 16²

252 x 202 x 120 mm



IP55
IP66

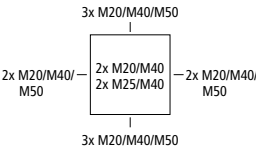
16²

IK07

690V
AC

690V
DC

Junction box, protection class IP55/IP66, nominal cross-section 16 mm², U_i=690 V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), DLG (Ammonia resistance), knockouts, M20/M25/M32/M40/M50, (4 rear, 10 side), internal fixing points, with screwless terminals for standard indoor and protected outdoor installations



Accessories supplied:
4 attachment bushes IP55 M40 sealing range 17 - 30 mm,
1 sealing plug IP55 M40, cover retainer

Description	Order no.
Abox SL-16² NEW grey, I _n =76 A, with raised screwless terminal block Wago 2016-1201, 5-pole, max. nominal cross-section in accordance with DIN EN 60998:16 mm ² , clampable cross-section per pole: 4 x 0.5 to 16 mm ² rigid Cu and 4 x 0.5 to 25 mm ² flexible Cu	81644001

Junction boxes

Abox Pro SL



For installation in industrial environments and unprotected outdoor areas with screwless terminals up to 16 mm²

■ **For use in extreme installation environments**

- 100% suitable for outdoor use
- High IP and IK degree of protection
- High glow wire resistance
- Safety reserves when used in extreme installation environments (heat, temperature, sunlight)
- Authorised for use on ships (DNV approval)

■ **For installations with stringent vibration and shock resistance requirements**

- Quick assembly thanks to screwless terminal technology
- WAGO 221 screwless connection terminals, can be used for rigid or flexible, single and fine-wired cables

- WAGO TOPJOB® S rail-mount terminal block with screwless connection terminals for space-saving use on NS 35 standard rails



Junction Boxes

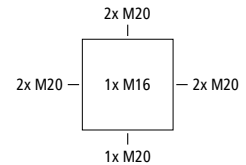
Abox Pro SL

Abox Pro SLK 2,5²

92 x 92 x 60 mm



Junction box, protection class IP66/IP67/IP69, nominal cross-section 2.5 mm², U_i=450 V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), DLG (Ammonia resistance), DNV (Class: Ships and Offshore Installations), knockouts, M16/M20, (1 rear, 7 side), internal fixing points, with screwless terminals, for installation in industrial environments and unprotected outdoor areas



Accessories supplied:

4 double membrane seals IP66 M20 sealing range 7 - 13 mm, cover retainer

Description

Abox Pro SLK-2,5² **NEW**

grey, I_n=24 A, with 3 floor-fixed, screwless 3-wire terminals, Wago 221-413 - 2.5 mm², clampable cross-sections per pole: 3 x 0.2 to 2.5 mm² rigid Cu and 3 x 0.14 to 2.5 mm² flexible Cu

Order no.

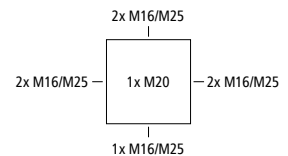
40247001

Abox Pro SLK 4²

102 x 102 x 70 mm



Junction box, protection class IP66/IP67/IP69, nominal cross-section 4 mm², U_i=450 V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), DLG (Ammonia resistance), DNV (Class: Ships and Offshore Installations), knockouts, M16/M20/M25, (1 rear, 7 side), internal fixing points, with screwless terminals, for installation in industrial environments and unprotected outdoor areas



Accessories supplied:

4 double membrane seals IP66 M25 sealing range 9 - 17 mm, cover retainer

Description

Abox Pro SLK-4² **NEW**

grey, I_n=32 A, with 5 floor-fixed, screwless 3-wire terminals, Wago 221-413 - 4 mm², clampable cross-sections per pole: 3 x 0.2 to 4 mm² rigid Cu and 3 x 0.14 to 4 mm² flexible Cu

Order no.

40447001

Junction Boxes

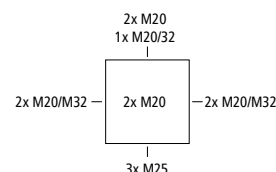
Abox Pro SL

Abox Pro SLK 6²

152 x 152 x 85 mm



Junction box, protection class IP66/IP67/IP69, nominal cross-section 6 mm², U_i=450 V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), DLG (Ammonia resistance), DNV (Class: Ships and Offshore Installations), knockouts, M20/M25/M32, (2 rear, 10 side), internal fixing points, with screwless terminals, for installation in industrial environments and unprotected outdoor areas



Accessories supplied:

4 double membrane seals IP66 M32 sealing range
13 - 21 mm, cover retainer

Description

Abox Pro SLK-6² **NEW**

grey, I_n=41 A, with 5 raised, screwless 3-wire terminals, type Wago 221-613 - 6 mm², clampable cross-sections per pole: 3 x 0.2 to 6 mm² rigid/flexible Cu

Order no.

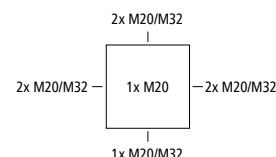
40647001

Abox Pro SL 4²

127 x 127 x 75 mm



Junction box, protection class IP66/IP67/IP69, nominal cross-section 4 mm², U_i=450 V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), DLG (Ammonia resistance), DNV (Class: Ships and Offshore Installations), knockouts, M20/M32, (1 rear, 7 side), internal fixing points, with screwless terminals, for installation in industrial environments and unprotected outdoor areas



Accessories supplied:

4 double membrane seals IP66 M32 sealing range
13 - 21 mm, cover retainer

Description

Abox Pro SL-4² **NEW**

grey, I_n=32 A, with 5 raised screwless 3-wire terminal blocks, Wago 221-413, max. nominal cross-section in accordance with DIN EN 60998: 4 mm², clampable cross-sections per pole: 3 x 0.2 to 4 mm² rigid Cu and 3 x 0.14 to 4 mm² flexible Cu

Order no.

40444001

Junction Boxes

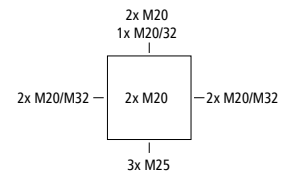
Abox Pro SL

Abox Pro SL 6²

152 x 152 x 85 mm



Junction box, protection class IP66/IP67/IP69, nominal cross-section 6 mm², U_i=690 V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), DLG (Ammonia resistance), DNV (Class: Ships and Offshore Installations), knockouts, M20/M25/M32, (2 rear, 10 side), internal fixing points, with screwless terminals, for installation in industrial environments and unprotected outdoor areas



Accessories supplied:

4 double membrane seals IP66 M32 sealing range
13 - 21 mm, cover retainer

Description

Abox Pro SL-6² **NEW**

grey, I_n=41 A, with raised screwless terminal block Wago 2006-1201, 5-pole, max. nominal cross-section in accordance with DIN EN 60998: 6 mm², clampable cross-sections per pole: 4 x 0.5 to 10 mm² rigid/flexible Cu

Order no.

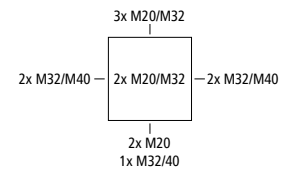
40644001

Abox Pro SL 10²

182 x 182 x 90 mm



Junction box, protection class IP66/IP67/IP69, nominal cross-section 10 mm², U_i=690 V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), DLG (Ammonia resistance), DNV (Class: Ships and Offshore Installations), knockouts, M20/M32/M40, (2 rear, 10 side), internal fixing points, with screwless terminals, for installation in industrial environments and unprotected outdoor areas



Accessories supplied:

4 double membrane seals IP66 M40 sealing range
17 - 28 mm, cover retainer

Description

Abox Pro SL-10² **NEW**

grey, I_n=57 A, with raised screwless terminal block Wago 2010-1201, 5-pole, max. nominal cross-section in accordance with DIN EN 60998: 10 mm², clampable cross-sections per pole: 4 x 0.5 to 16 mm² rigid/flexible Cu

Order no.

41044001

Junction Boxes

Abox Pro SL

Abox Pro SL 16²

252 x 202 x 120 mm



IP66
IP67
IP69

16²

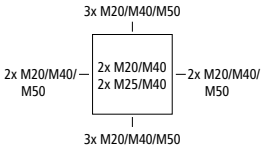
IK09

690V
AC

690V
DC

DLG

Junction box, protection class IP66/IP67/IP69, nominal cross-section 16 mm², U_i=690 V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), DLG (Ammonia resistance), DNV (Class: Ships and Offshore Installations), knockouts, M20/M25/M40/M50, (4 rear, 10 side), internal fixing points, with screwless terminals, for installation in industrial environments and unprotected outdoor areas



Accessories supplied:
4 double membrane seals IP66 M40 sealing range
17 - 28 mm, cover retainer

Description	Order no.
Abox Pro SL-16² NEW grey, I _n =76 A, with raised screwless terminal block Wago 2016-1201, 5-pole, max. nominal cross-section in accordance with DIN EN 60998: 16 mm², clampable cross-sections per pole: 4 x 0.5 to 16 mm² rigid Cu and 4 x 0.5 to 25 mm² flexible Cu	41644001

Junction boxes

Abox Pro XT SLK | Abox Pro XT SL | Abox Pro XT



For installation underground and in floodplains
with screwless terminals and screw terminals

- Tested in accordance with DIN EN 60 529, IP 68, 168 h, water depth up to 15 metres
- IP 68 solution as a complete set
- Tested in accordance with DIN VDE 60670-22-100
- Effortless retrofitting, because the cast resin is easy to remove again

- Available in 3 variants up to max. 10²:
 - with compact design XT SLK (2.5², 4²)
 - with raised terminals XT SL (4², 6²)
 - with screw terminals XT (6², 10²)
- Clean pouring of the box by means of mixing bag and funnel

Applications

- Floodplains
- Underground with no traffic loads
- Areas at risk from standing water
- Pump shafts
- Waterworks
- Washing systems
- Tunnels
- Harbour facilities



Junction Boxes

Abox Pro XT SLK | Abox Pro XT SL

Abox Pro XT SLK 2,5²

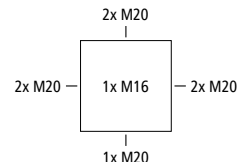
92 x 92 x 60 mm



Junction box, protection class IP68, nominal cross-section 2.5 mm², $U_i=450$ V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22) & DIN VDE V 0606-22-100), knockouts, M16/M20, (1 rear, 7 side), internal fixing points, with screwless terminals for encapsulation, for assembly in flooded areas and in the ground without traffic loads, for installation in industrial environments and unprotected outdoor areas

Accessories supplied:

4 double membrane seals IP66 M20 sealing range 7 - 13 mm, 2 sealing plugs M20, 1 attachment bush M20, cover retainer, 1 cast resin bag GHB Pro 1 with filling funnel and disposable gloves



Description

Abox Pro XT SLK-2,5² **NEW**

grey, $I_n=24$ A, with 3 floor-fixed, screwless 3-wire terminal blocks, Wago 221-413 - 2.5 mm², clampable cross-sections per pole: 3 x 0.2 to 2.5 mm² rigid Cu and 3 x 0.14 to 2.5 mm² flexible Cu

Order no.

40246001

Abox Pro XT SLK 4²

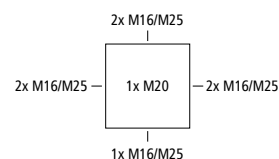
102 x 102 x 70 mm



Junction box, protection class IP68, nominal cross-section 4 mm², $U_i=450$ V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22) & DIN VDE V 0606-22-100), knockouts, M16/M20/M25, (1 rear, 7 side), internal fixing points, with screwless terminals for encapsulation, for assembly in flooded areas and in the ground without traffic loads, for installation in industrial environments and unprotected outdoor areas

Accessories supplied:

4 double membrane seals IP66 M25 sealing range 9 - 17 mm, 2 sealing plugs M25, 1 attachment bush M25, cover retainer, 1 cast resin bag GHB2 with filling funnel and disposable gloves



Description

Abox Pro XT SLK-4² **NEW**

grey, $I_n=32$ A, with 5 floor-fixed, screwless 3-wire terminal blocks, Wago 221-413 - 4 mm², clampable cross-sections per pole: 3 x 0.2 to 4 mm² rigid Cu and 3 x 0.14 to 4 mm² flexible Cu

Order no.

40446001

Junction Boxes

Abox Pro XT SLK | Abox Pro XT SL

Abox Pro XT SL 4²

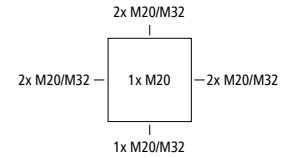
127 x 127 x 75 mm



Junction box, protection class IP68, nominal cross-section 4 mm², U_i=450 V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22) & DIN VDE V 0606-22-100), knockouts, M20/M32, (1 rear, 7 side), internal fixing points, with screwless terminals for encapsulation, for assembly in flooded areas and in the ground without traffic loads, for installation in industrial environments and unprotected outdoor areas

Accessories supplied:

4 double membrane seals IP66 M32 sealing range 13 - 21 mm, 2 sealing plugs M20, 1 attachment bush M20, cover retainer, 1 cast resin bag GHB Pro 3 with filling funnel and disposable gloves



Description

Abox Pro XT SL-4² **NEW**

grey, I_N=32 A, with 5 raised, screwless 3-wire terminal blocks, Wago 221-413 - 4 mm², clampable cross-sections per pole: 3 x 0.2 to 4 mm² rigid Cu and 3 x 0.14 to 4 mm² flexible Cu

Order no.

40546001

Abox Pro XT SL 6²

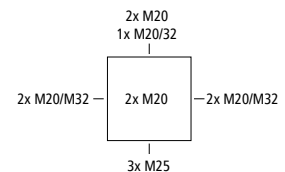
152 x 152 x 85 mm



Junction box, protection class IP68, nominal cross-section 6 mm², U_i=450 V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22) & DIN VDE V 0606-22-100), knockouts, M20/M25/M32, (2 rear, 10 side), internal fixing points, with screwless terminals for encapsulation, for assembly in flooded areas and in the ground without traffic loads, for installation in industrial environments and unprotected outdoor areas

Accessories supplied:

4 double membrane seals IP66 M32 sealing range 13 - 21 mm, 2 sealing plugs M20, 1 attachment bush M20, cover retainer, 1 cast resin bag GHB Pro 4 with filling funnel and disposable gloves.



Description

Abox Pro XT SL-6² **NEW**

grey, I_N=41 A, with 5 raised, screwless 3-wire terminal blocks, type Wago 221-613 - 6 mm², clampable cross-sections per pole: 3 x 0.2 to 6 mm² rigid/flexible Cu

Order no.

40646001

Junction Boxes

Abox Pro XT

Abox Pro XT 6²

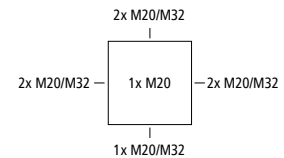
127 x 127 x 75 mm



Junction box, protection class IP68, nominal cross-section 6 mm², U_i=690 V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22) & DIN VDE V 0606-22-100), knockouts, M20/M32, (1 rear, 7 side), internal fixing points, with screw terminals for encapsulation, for assembly in flooded areas and in the ground without traffic loads, for installations in the industrial environment and unprotected outside areas

Accessories supplied:

4 double membrane seals IP66 M32 sealing range 13 - 21 mm, 2 sealing plugs M20, 1 attachment bush M20, cover retainer, 1 cast resin bag GHB Pro 3 with filling funnel and disposable gloves



Description

Abox Pro XT-6² **NEW**

grey, I_n=41 A, with raised screw terminal block, 5-pole - 6 mm², clampable cross-sections per pole: 4 x 1.5 mm², 4 x 2.5 mm², 4 x 4 mm², 4 x 6 mm² rigid Cu/flexible with wire-end ferrule

Order no.

40645001

Abox Pro XT 10²

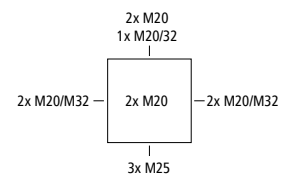
152 x 152 x 85 mm



Junction box, protection class IP68, nominal cross-section 10 mm², U_i=690 V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22) & DIN VDE V 0606-22-100), knockouts, M20/M25/M32, (2 rear, 10 side), internal fixing points, with screw terminals for encapsulation, for assembly in flooded areas and in the ground without traffic loads, for installations in the industrial environment and unprotected outside areas

Accessories supplied:

4 double membrane seals IP66 M32 sealing range 13 - 21 mm, 2 sealing plugs M20, 1 attachment bush M20, cover retainer, 1 cast resin bag GHB Pro 4 with filling funnel and disposable gloves



Description

Abox Pro XT-10² **NEW**

grey, I_n=57 A, with raised screw terminal block, 5-pole- 10 mm², clampable cross-sections per pole: 4 x 2.5 mm², 4 x 4 mm², 4 x 6 mm², 4 x 10 mm² rigid Cu/flexible with wire-end ferrule

Order no.

41045001

Junction Boxes

Accessories for Abox | Abox Pro from 2024

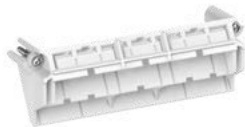
Abox / Abox Pro Terminal Blocks



Connecting terminal in accordance with DIN EN 60998 (VDE 0613), $U_i=690V$.
For assembly in junction boxes Abox/Abox Pro from 2024 onwards.

Description	Order no.
Abox 025/040 KLS-2,5²/4² NEW Screw terminal block for Abox/Abox Pro 025 and Abox/Abox Pro 040, 5-pole - 4 mm ² , $I_n = 41$ A, clampable cross-sections per pole: 4 x 1.5 mm ² , 4 x 2.5 mm ² , 4 x 4 mm ² Cu rigid	89640401
Abox 060 KLS-6² NEW Screw terminal block for Abox/Abox Pro 060, 5-pole - 6 mm ² , $I_n = 41$ A, clampable cross-sections per pole: 4 x 1.5 mm ² , 4 x 2.5 mm ² , 4 x 4 mm ² , 4 x 6 mm ² Cu rigid/flexible with wire-end ferrule	89640601
Abox 100 KLS-10² NEW raised screw terminal block for Abox/Abox Pro 100, 5-pole - 10 mm ² , $I_n = 57$ A, clampable cross-sections per pole: 4 x 2.5 mm ² , 4 x 4 mm ² , 4 x 6 mm ² , 4 x 10 mm ² Cu rigid/flexible with wire-end ferrule	89641001
Abox 160 KLS-16² NEW raised screw terminal block for Abox/Abox Pro 160, 5-pole - 16 mm ² , $I_n = 101$ A, clampable cross-sections per pole: 12 x 4 mm ² , 8 x 6 mm ² , 4 x 10 mm ² , 4 x 16 mm ² , 4 x 25 mm ² Cu rigid/flexible with wire-end ferrule	89641601
Abox 250/350 KLS-25²/35² NEW raised screw terminal block for Abox/Abox Pro 250/350, 5-pole - 35 mm ² , $I_n = 125$ A, clampable cross-sections per pole: 12 x 10 mm ² , 8 x 16 mm ² , 4 x 25 mm ² , 4 x 35 mm ² Cu rigid/flexible with wire-end ferrule	89643501

Abox/Abox Pro terminal holder



Terminal holder incl. fixing material for mounting of Wago installation and terminal boxes in Abox /Abox Pro junction boxes from 2024.

Description	Order no.
Abox 025/040 KH 2273 2,5² NEW for position-fixed mounting of up to 6 terminals Wago 2273-205 in junction boxes Abox/Abox Pro 025 and 040 from 2024	89600201
Abox 025/040 KH 221 4² NEW for position-fixed mounting of up to 6 terminals Wago 221-413 in junction boxes Abox/Abox Pro 025 and 040 from 2024	89600301
Abox 060 KH 221 4² NEW for position-fixed and elevated mounting of up to 6 terminals Wago 221-413 in junction boxes Abox/Abox Pro 060 from 2024	89600401
Abox 100 KH 221 6² NEW for position-fixed and elevated mounting of up to 6 terminals Wago 221-613 in junction boxes Abox/Abox Pro 100 from 2024	89600501
Abox 100 KH 2006 6² NEW terminal holder with standard rail NS35 for mounting of terminal blocks Type Wago 2006-1201 6 mm ² in junction boxes Abox/Abox Pro 100 from 2024	89600601
Abox 160 KH 2010 10² NEW Terminal holder with standard rail NS35 for mounting of terminal blocks Type Wago 2010-1201 10 mm ² in junction boxes Abox/Abox Pro 160 from 2024	89600701
Abox 250 KH 2016 16² NEW Terminal holder with standard rail NS35 for mounting of terminal blocks Type Wago 2016-1201 16 mm ² in junction boxes Abox/Abox Pro and 250 from 2024	89600801

Junction Boxes

Accessories for Abox | Abox Pro from 2024

Abox/Abox Pro mounting plate

Mounting plate in melamine lined insulating material, 2.5 mm thickness, grey incl. fixing screws.
For mounting in junction boxes Abox/Abox Pro from 2024.



Description	Order no.
Abox MPI 060 NEW for Abox / Abox Pro 060	89510601
Abox MPI 100 NEW for Abox / Abox Pro 100	89511001
Abox MPI 160 NEW for Abox / Abox Pro 160	89511601
Abox MPI 250 NEW for Abox / Abox Pro 250	89512501
Abox MPI 350 NEW for Abox / Abox Pro 350	89513501

Abox/Abox Pro standard rails 15 mm

Standard rail in accordance with DIN EN 60715, 15 x 5 mm, incl. fixing screws.
For mounting in junction boxes Abox/Abox Pro from 2024.



Description	Order no.
Abox 025 TS15 NEW for Abox / Abox Pro 025	89520201
Abox 025/2 TS15 NEW for Abox 025/2	89520301
Abox 040 TS15 NEW for Abox / Abox Pro 040	89520401

Abox/Abox Pro standard rails 35 mm

Standard rail in accordance with DIN EN 60715, 35 x 7.5 mm, incl. fixing screws.
For mounting in junction boxes Abox/Abox Pro from 2024.



Description	Order no.
Abox 060 NS35 NEW for Abox / Abox Pro 060	89530601
Abox 100 NS35 NEW for Abox / Abox Pro 100	89531001
Abox 160/250 NS35 NEW for Abox / Abox Pro 160	89531601
Abox 250/350 NS35 NEW for Abox / Abox Pro 350	89533501

Abox partition wall

Partition wall in insulating material for separation of power circuits



Description	Order no.
Abox TW 025/2 NEW for Abox 025/2	89500201

Junction Boxes

Accessories for Abox | Abox Pro from 2024

Abox sealing kit



Set for subsequent sealing of junction boxes, for Abox 025/040/060/100 from 2024

Description

Abox PST 025-100 **NEW**
Set with two sealing caps and screws

Order no.

89500101

Abox Pro cast resin bag



Cast resin bag for Abox Pro XT and Abox Pro XT SL, non-labelled with funnel and disposable gloves, Caution: Adhere to the use-by date of the cast resin bag

Description

GHB Pro 1 **NEW**
for Abox Pro XT-2.5² and Abox Pro XT SLK-2.5², content 250 ml

GHB Pro 2 **NEW**
for Abox ProXT-4² and Abox Pro XT SLK-4², content 400 ml

GHB Pro 3 **NEW**
for Abox ProXT-6² and Abox Pro XT SLK-4², content 750 ml

GHB Pro 4 **NEW**
for Abox ProXT-10² and Abox Pro XT SLK-6², content 1250 ml

Order no.

49252101

49252201

49252301

49252401

Mast/pipe fixing set



Mast/pipe fixing set in stainless steel V2A with fastening screws and quick release clamp for mast/pipe diameters of 60 to 170 mm

Description

MABF 65-1 **NEW**
for junction boxes Abox / Abox Pro from 2024 onwards of the types Abox 025, Abox 025-2 (upright), Abox 040, Abox Pro 025, empty enclosure TK 99, TK 1309, small distribution board AK(i) 03

MABF 65-2 **NEW**
for empty enclosure TK 77, TK 97, TG 88, TG 1208, TG 1212

MABF 65-3 **NEW**
for empty enclosure TK 1809, TK 1811, AK(i) 05

MABF 100-1 **NEW**
for junction boxes Abox / Abox Pro from 2024 onwards of the types Abox 025/2 (transverse), Abox 060, Abox 100, Abox Pro 040, Abox Pro 060, Abox Pro 100. Empty enclosure TK 1111, TK 1313, TK 1813 (2 sets required)

MABF 150-1 **NEW**
for junction boxes Abox / Abox Pro from 2024 onwards of the types Abox 160, Abox Pro 160

MABF 150-2 **NEW**
for junction boxes Abox / Abox Pro from 2024 onwards of the types Abox 250 (upright), Abox Pro 250 (upright)

MABF 150-3 **NEW**
for empty enclosure TK 1818, TK 2518. Small distribution boards AK(i) 09, AK(i) 12

MABF 150-4 **NEW**
for empty enclosures TG 2015, TG 2516

MABF 215-1 **NEW**
for junction boxes Abox / Abox Pro from 2024 onwards of the types Abox 250 (transverse), Abox Pro 250 (transverse) Abox Pro 350, Abox Pro 350

Order no.

89601001

89601101

89601201

89602001

89603001

89603101

89603201

89603301

89604001

Junction Boxes

Accessories for Abox | Abox Pro from 2024

Fastening elements



Fixing element for mounting of enclosure on cable tray systems with elongated hole width of 7 mm and mesh cable trays with Schnabl GTH 9001 mounts. With pan head screw 4 x 12, material PA6 grey, Set = 10 pieces

Description

KTB 1 **NEW**

Order no.

89600901



Current prices can be found on our website: www.spelsberg.com

Junction Boxes

Accessories for Abox | Abox-i until 2023

Abox / Abox-i terminal



Connecting terminal acc. to DIN EN 60998 (VDE 0613), $U_i=690V$

Description	Nr. of poles	Order no.
Abox 025/040 KLS-2,5²/4² 5-pole - 2.5/4 mm ²	5	84000401
Abox 060 KLS-6² 5-pole - 6 mm ²	5	84000601
Abox 100 KLS-10² 5-pole - 10 mm ²	5	84001001
Abox 160 KLS-16² 5-pole - 16 mm ²	5	84001601
Abox 250/350 KLS-25²/35² 5-pole - 35 mm ²	5	84003501
Abox 700 KLS-70² 1-pole - 70 mm ²	1	84007001

Terminal bracket



Terminal holder for WAGO terminals, series 221-41X

Description	Order no.
Abox 025/040 KLH-SL 0,2/4² suitable for all junction boxes Abox / Abox -i 025/040 and Abox m / Abox-i m 025/040	84000201

Abox sealing set



Sealing set

Description	Order no.
Abox PST for junction boxes Abox/Abox-i 025 to 100, (from Abox/Abox-i 160, contained as standard in the delivery)	89001001

Cable glands without strain relief



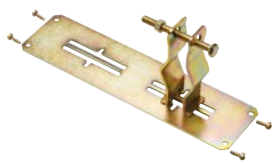
Cable entry for cables up to Ø 75 mm, 2 x flange connectors (GFV)

Description	Order no.
GKE 32 Side of enclosure 320 mm, for 2 x 75 mm Ø cables	07303201
GKE 43 Side of enclosure 440 mm, for 3 x 75 mm Ø cables	07304301
GKE 1 For replacement requirement: Rubber cable infeed	07300101

Junction Boxes

Accessories for Abox | Abox-i until 2023

Cable strain relief



Cable strain relief for GKE 32 and GKE 43 cable glands, for cables up to Ø 75 mm

Description	Order no.
GZE 3 Side of enclosure 320 mm, for 1 x 75 mm cable	07300301
GZE 4 Side of enclosure 440 mm, for 1 x 75 mm cable	07300401
GZS 75 Auxiliary clamp for GKZ 3 and GKZ 4	07307501

Standard rail NS 35 for TK, and Abox series



Standard rail acc. to DIN EN 60715, 35 x 7.5 mm, incl. fixing screws

Description	Order no.
NS 35-81 for TK 1111, TK 1309, TK 1313, TK 1809, TK 1811 and Abox/Abox-i 060, length 81 mm	19808101
NS 35-106 for TK 1309, TK 1313 and Abox/Abox-i 100, length 106 mm	19810601
NS35-144/2 for Abox/Abox-i 160 and Abox/Abox-i 250, length 144 mm	89401601
NS35-216/2 for Abox/Abox-i 250, Abox/Abox-i 350, length 218,5 mm	89403501

Assembly plate insulating material for Abox series



Assembly plate in melamine-clad insulating material, 2.5 mm thick, grey inc. fixing screws

Description	Dimensions/mm	Order no.
Abox 060 MPI for Abox/Abox-i 060	83 x 83 x 2,5	89500601
Abox 100 MPI for Abox/Abox-i 100	109 x 109 x 2,5	89501001
Abox 160 MPI for Abox/Abox-i 160	149 x 149 x 2,5	89501601
Abox 250 MPI for Abox / Abox-i 250	167 x 217 x 2,5	89502501
Abox 350 MPI for Abox/Abox-i 350	217 x 217 x 2,5	89503501

Cable tray assembly plate



Assembly plate made of sheet steel, incl. fastening screws, for mounting on Stago/van Geel cable trays, for seating Abox junction boxes, fastening distance up to 130mm

Description	Dimensions/mm	Order no.
MPS-KRI	150 x 3 x 249	19410101

Junction Boxes

Accessories for Abox | Abox Pro

Attachment bushes, grey



Mounting socket IP55, with open sealing membrane, thermoplastic elastomer (TPE), for wall thicknesses from 1.5 - 4.0 mm, grey

Description	Sealing range/mm	Order no.
AST M16	6 - 10	23041601
AST M20	8 - 13,5	23042001
AST M25	9 - 18,5	23042501
AST M32	13 - 23	23043201
AST M40	17 - 30	23044001

Double membrane seals, grey



Double membrane seals, IP66, with two sealing membranes, closed, thermoplastic elastomer (TPE), for wall thicknesses 1.5 - 4.5 mm, grey

Description	Sealing range/mm	Order no.
DMS M16	5 - 9	26041601
DMS M20	7 - 13	26042001
DMS M25	9 - 17	26042501
DMS M32	13 - 21	26043201
DMS M40	17 - 28	26044001

Double membrane seals, black



Double membrane seals, IP66, with two sealing membranes, closed, thermoplastic elastomer (TPE), for wall thicknesses 1.5 - 4.5 mm, black

Description	Sealing range/mm	Order no.
DMS M16/sw	5 - 9	26001601
DMS M20/sw	7 - 13	26002001
DMS M25/sw	9 - 17	26002501
DMS M32/sw	13 - 21	26003201
DMS M40/sw NEW	17 - 28	26004001

Double membrane seals white



Double membrane seals, IP66, with two sealing membranes, closed, thermoplastic elastomer (TPE), for wall thicknesses 1.5 - 4.5 mm, white

Description	Sealing range/mm	Order no.
DMS M16/w NEW	5 - 9	26011601
DMS M20/w	7 - 13	26012001
DMS M25/w	9 - 17	26012501
DMS M32/w NEW	13 - 21	26013201

Junction Boxes

Accessories for Abox | Abox Pro

Cable gland, grey, with locknut



Cable gland, IP68, with strain relief, polyamide, M_ x 1.5 mm, with locknut, grey

Description	Sealing range/mm	Thread lenght/mm	Order no.
KVR M12-MGM	2 - 6,5	8	22741201
KVR M16-MGM	4 - 10,0	8	22741601
KVR M20-MGM	6 - 12,0	9	22742001
KVR M20-GDB/MGM	7 - 14,0	9	22742101
KVR M25-MGM	9 - 16,0	11	22742501
KVR M32-MGM	11 - 21,0	11	22743201
KVR M40-MGM	16 - 28,0	11	22744001
KVR M50-MGM	27 - 34,5	13	22745001
KVR M63-MGM	30 - 44,5	17	22746301

Cable gland, black, with locknut



Cable gland, IP68, with strain relief, polyamide, M_ x 1.5 mm, with locknut, black

Description	Sealing range/mm	Thread lenght/mm	Order no.
KVR M16-MGM/sw NEW	4 - 10	8	22701601
KVR M20-MGM/sw	6 - 12	9	22702001
KVR M20-GDB/MGM/sw	7 - 14	9	22702101
KVR M25-MGM/sw	9 - 16	11	22702501
KVR M32-MGM/sw	11 - 21	11	22703201
KVR M40-MGM/sw	16 - 28	11	22704001
KVR M50-MGM/sw	27 - 34,5	13	22705001

Sealing plug, grey

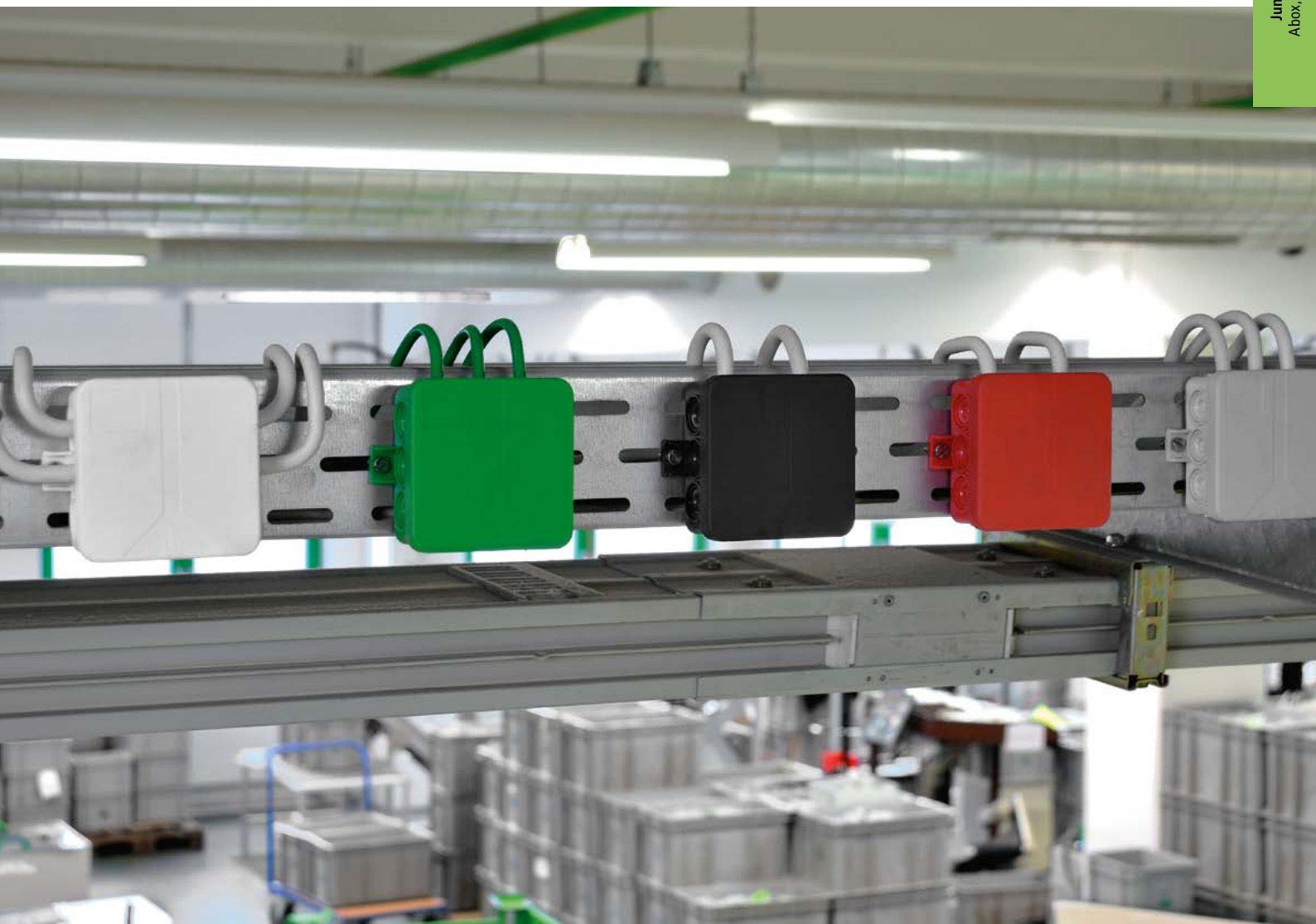


Sealing plugs, IP55, with closed sealing membrane, thermoplastic elastomer (TPE), for wall thickness 1.5 - 4.0 mm, for sealing of metric enclosure apertures that are not required, grey

Description	Sealing range/mm	Order no.
VST M16	6 - 10	23141601
VST M20	8 - 13,5	23142001
VST M25	9 - 16	23142501
VST M32	13 - 23	23143201
VST M40	17 - 30	23144001

Junction boxes

Red Range



Standard wet-room installation (with and without terminals up to 2.5 mm²)

- Installation on wood or other combustible materials permitted
- Colour variants (sw=black / SB=red / gn=green / w=white / br = brown) for safe marking of power circuits
- Safe opening and closing mechanism
- 2K types with self-sealing, soft insertion membranes for quicker and easier cable entry
- Pre-stamped entries can be removed with a knife
- Patented external fixing
- Labelling field



IP55

2,5²

IK07



400V
AC



Junction Boxes

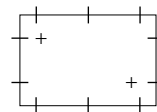
Red Range

Mini 25

89 x 43 x 38 mm



Junction box, protection class IP55, nominal cross-section 2.5 mm², $U_i=400$ V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), self-sealing insertion membranes, sealing range 8,2 - 12,5 mm, (2 rear, 10 side), external fixing lugs, for standard indoor installations



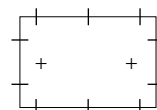
Description	Order no.
Mini 25-L grey, without terminals	31090801
Mini 25-2,5² grey, $I_n=24$ A, with 5 interlockable screw terminals 2.5 mm² (5 x 1² / 5 x 1.5² / 3 x 2.5²)	31040801
Mini 25-L/w white, without terminals	31060801
Mini 25-L/sw black, without terminals	31010801
Mini 25-L/gn green, without terminals	31050801
Mini 25 SB-L red, without terminals	31070801

2K-Mini

89 x 43 x 38 mm



Junction box, protection class IP55, nominal cross-section 2.5 mm², $U_i=400$ V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), self-sealing, soft insertion membranes, sealing range 2 - 14 mm, (1 rear, 10 side), internal fixing points, for standard indoor installations



Description	Order no.
2K-Mini-L grey, without terminals	34490801
2K-Mini-L/w white, without terminals	34460801
2K-Mini-L/sw black, without terminals	34420801
2K-Mini SB-L red, without terminals, for identifying circuits for safety lighting	34470801

Junction Boxes

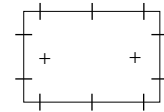
Red Range

2K-Mini AB

89 x 43 x 38 mm



Junction box, protection class IP55, nominal cross-section 2.5 mm², $U_i=400$ V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), self-sealing, soft insertion membranes, sealing range 2 - 14 mm, (1 rear, 10 side), external fixing lugs, for standard indoor installations



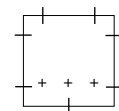
Description	Order no.
2K-Mini AB-L grey, without terminals	■ 34590801
2K-Mini AB-L/w white, without terminals	□ 34560801
2K-Mini AB SB-L red, without terminals, for identifying circuits for safety lighting	■ 34570801

Sd 7

75 x 75 x 37 mm



Junction box, protection class IP55, nominal cross-section 2.5 mm², $U_i=400$ V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), self-sealing insertion membranes, sealing range 8,2 - 12,5 mm, (3 rear, 7 side), external fixing lugs, for standard indoor installations



Description	Order no.
Sd 7-L grey, without terminals	■ 33290701
Sd 7-2,5² grey, $I_n=24$ A, with 5 interlockable screw terminals 2.5 mm² (5 x 1² / 5 x 1.5² / 3 x 2.5²)	■ 33240701
Sd 7 SB-L red, without terminals, for identifying circuits for safety lighting	■ 33270701

Junction Boxes

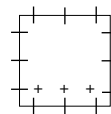
Red Range

i 12

85 x 85 x 37 mm



Junction box, protection class IP55, nominal cross-section 2.5 mm², $U_i=400$ V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), self-sealing insertion membranes, sealing range 8,2 - 12,5 mm, (3 rear, 12 side), external fixing lugs, for standard indoor installations



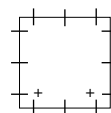
Description	Order no.
i 12-L grey, without terminals	33291201
i 12 -2,5²/w white, $I_n=24$ A, with 5 interlockable screw terminals 2.5 mm² (5 x 1² / 5 x 1.5² / 3 x 2.5²)	33211201
i 12-2,5² grey, $I_n=24$ A, with 5 interlockable screw terminals 2.5 mm² (5 x 1² / 5 x 1.5² / 3 x 2.5²)	33241201
i 12-L/w white, without terminals	33261201
i 12 SB-L red, without terminals, for identifying circuits for safety lighting	33271201
i 12-L/gn green, without terminals	33251201
i 12 -L/sw black, without terminals	33221201

2K-12

85 x 85 x 37 mm



Junction box, protection class IP55, nominal cross-section 2.5 mm², $U_i=400$ V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), self-sealing, soft insertion membranes, sealing range 2 - 14 mm, (2 rear, 12 side), internal fixing points, for standard indoor installations



Description	Order no.
2K-12-L grey, without terminals	34491201
2K-12-L/sw black, without terminals	34421201
2K-12-L/br brown, without terminals	34401201
2K-12-L/w white, without terminals	34461201
2K-12 SB-L red, without terminals, for identifying emergency lighting circuits	34471201

Junction Boxes

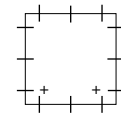
Red Range

2K-12 AB

85 x 85 x 37 mm



Junction box, protection class IP55, nominal cross-section 2.5 mm², $U_i=400$ V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), self-sealing, soft insertion membranes, sealing range 2 - 14 mm, (2 rear, 12 side), external fixing lugs, for standard indoor installations



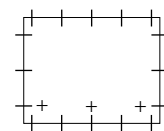
Description	Order no.
2K-12 AB-L grey, without terminals	■ 34591201
2K-12 AB-L/w white, without terminals	□ 34561201
2K-12 AB SB-L red, without terminals, for identifying emergency lighting circuits	■ 34571201

i 16

130 x 85 x 37 mm



Junction box, protection class IP55, nominal cross-section 2.5 mm², $U_i=400$ V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), self-sealing insertion membranes, sealing range 8,2 - 12,5 mm, (3 rear, 16 side), external fixing lugs, for standard indoor installations



Description	Order no.
i 16-L grey, without terminals	■ 33391601
i 16-2,5² grey, $I_n=24$ A, with 5 interlockable screw terminals 2.5 mm² (5 x 1² / 5 x 1.5² / 3 x 2.5²)	■ 33341601

Junction Boxes

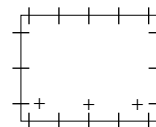
Red Range

2K-16

130 x 85 x 37 mm



Junction box, protection class IP55, nominal cross-section 2.5 mm², $U_i=400$ V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), self-sealing, soft insertion membranes, sealing range 2 - 14 mm, (3 rear, 16 side), internal fixing points, for standard indoor installations



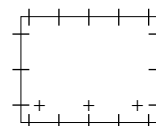
Description	Order no.
2K-16-L grey, without terminals	☒ 34691601
2K-16-L/w white, without terminals	☐ 34661601

2K-16 AB

130 x 85 x 37 mm



Junction box, protection class IP55, nominal cross-section 2.5 mm², $U_i=400$ V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), self-sealing, soft insertion membranes, sealing range 2 - 14 mm, (3 rear, 16 side), external fixing lugs, for standard indoor installations



Description	Order no.
2K-16 AB-L grey, without terminals	☒ 34891601
2K-16 AB-L/w white, without terminals	☐ 34861601

Junction boxes

Red Range



For suspended ceilings (with and without terminals up to 2.5 mm²)

- Quick installation by means of cable entry from above
- Pre-wired circuit can be retrofitted
- Strain relief for pendant luminaires
- Contact protection
- Enclosure height of just 23 mm
- Innovation for suspended ceilings and raised floors
- Clamping outside the box possible
- VDE-compliant retrofitting of cable systems



Junction Boxes

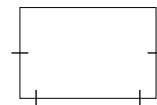
Red Range

Q 4

56 x 40 x 23 mm



Light fixture junction box, protection class IP20, nominal cross-section 2.5 mm², $U_i=230$ V AC, certified by VDE (DIN EN 60598-1 (VDE 0711-1)), inserts with cable retention capacity, (4 side), internal fixing points, for standard indoor installations, with cable retention, cable entry from above possible



Description

Q 4-L
grey, without terminals

Order no.

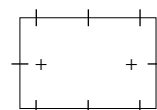
■ 33490401

Q-Mini

89 x 43 x 34 mm



Junction box, protection class IP20, nominal cross-section 2.5 mm², $U_i=400$ V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), inserts with cable retention capacity, (8 rear, 2 side), internal fixing points, for standard indoor installations, with cable retention, cable entry from above possible



Description

Q-Mini-L
grey, without terminals

Order no.

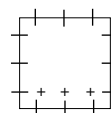
■ 33490801

Q 12

85 x 85 x 37 mm



Junction box, protection class IP20, nominal cross-section 2.5 mm², $U_i=400$ V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), inserts with cable retention capacity, (3 rear, 12 side), internal fixing points, for standard indoor installations, with cable retention, cable entry from above possible



Description

Q 12-L
grey, without terminals

Order no.

■ 33491201

Q 12 SB-L
red, without terminals, for identifying circuits for safety lighting

■ 33471201

Junction Boxes

Red Range

AP 7

78 x 78 x 27 mm



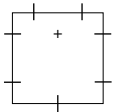
IP30

2,5²

IK07

400V
AC

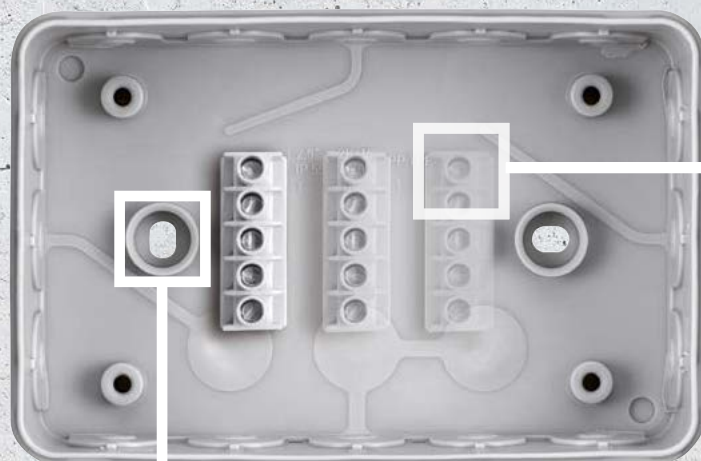
Junction box, protection class IP30, nominal cross-section 2.5 mm², U_i=400 V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), knockouts, (1 rear, 7 side), internal fixing points, for standard indoor installations



Description	Order no.
AP 7 - L grey, without terminals	31560701

Junction boxes

2K-16



3 mounting points for attaching a screw terminal or strain relief

External and internal fixing, alternatively internal fixing only



- Junction box in accordance with DIN EN 60670 (VDE 0606)
- 16 entries
- 3 floor entries made from self-sealing, soft insertion membranes
- With external and internal fixing, alternatively internal fixing only
- 3 mounting points for attaching a screw terminal or strain relief
- Tool for opening the cable entry not required, sealing range 2-14 mm
- Connection table in the cover
- With practical labelling field
- Safe opening and closing mechanism:
 1. Lockable without tools
 2. Can only be opened with a tool



Junction Boxes

Red Range Accessories

Strain relief 2K



Strain relief for mounting in junction boxes of types 2K-12 and 2K-16, tested in accordance with EN 60670-1, 12.7, rapid installation using cable ties 2.5 mm, for cable diameters from 5.5 to 14 mm, set = 10 pieces.

Description

ZEL 2K-12/16 NEW
green

Order no.

34400201

UP 6

80 x 80 x 32 mm



Junction box acc. to DIN EN 60670 (VDE 0606), with self-sealing inlet membranes, with separate flush-fitting lid

Description

UP 6-L

Grey, without terminals, for VDE approved single terminals

Order no.

30690601

Sealing plug Red Range



Sealing plugs, for subsequent closing of previously opened entries on junction boxes in Red Range

Description

VST RR
Grey

Order no.

30040701

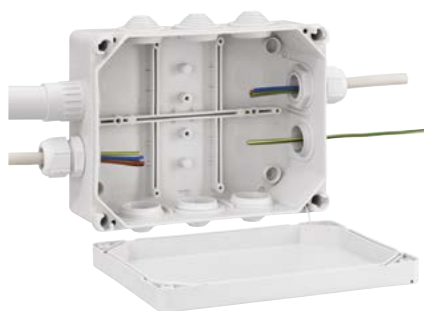


Junction boxes

HP



With stepped nipples (for terminals of 1.5 to 16 mm²)



- Installation on wood or other combustible materials
- 6 sizes
- Mounted stepped nipple
- Entry points also suitable for metric mounting accessories
- Colour: Grey, similar to RAL 7035

Suitable for installation...

- ... in damp and wet areas and rooms
- ... in buildings for gatherings of people
- ... in temporary structures, wagons and caravans

IP55

16²

IK07



400V
690V
AC



Junction Boxes

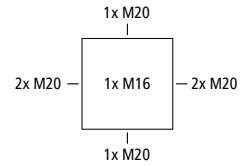
HP

HP 70

75 x 75 x 42 mm



Junction box, protection class IP55, nominal cross-section 2.5 mm², $U_i=400$ V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), stepped nipple, M20, sealing range 5 - 16 mm, (1 rear, 7 side), internal fixing points, for standard indoor installations



Description

HP 70-L
grey, without terminals

Order no.

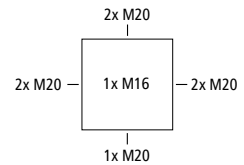
32097001

HP 80

85 x 85 x 42 mm



Junction box, protection class IP55, nominal cross-section 2.5 mm², $U_i=400$ V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), stepped nipple, M20, sealing range 5 - 16 mm, (1 rear, 7 side), internal fixing points, for standard indoor installations



Description

HP 80-L
grey, without terminals

Order no.

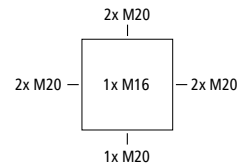
32298001

HP 90

90 x 90 x 45 mm



Junction box, protection class IP55, nominal cross-section 4 mm², $U_i=400$ V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), stepped nipple, M20, sealing range 5 - 16 mm, (1 rear, 7 side), internal fixing points, for standard indoor installations



Description

HP 90-L
grey, without terminals

Order no.

32599001

Junction Boxes

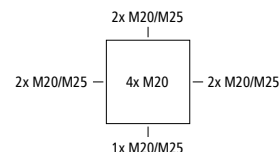
HP

HP 100

113 x 113 x 58 mm



Junction box, protection class IP55, nominal cross-section 6 mm², $U_i=690$ V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), stepped nipple, M20/M25, sealing range 5 - 21 mm, (4 rear, 7 side), internal fixing points, for standard indoor installations



Description

HP 100-L

grey, without terminals

Order no.

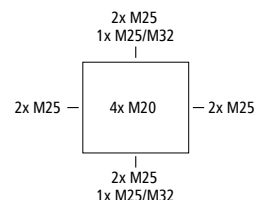
32690001

HP 150

164 x 119 x 77 mm



Junction box, protection class IP55, nominal cross-section 10 mm², $U_i=690$ V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), stepped nipple, M20/M25/M32, sealing range 5 - 21 mm, (4 rear, 10 side), internal fixing points, for standard indoor installations



Description

HP 150-L

grey, without terminals

Order no.

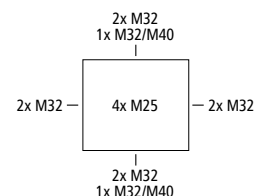
32695001

HP 190

199 x 149 x 77 mm



Junction box, protection class IP55, nominal cross-section 16 mm², $U_i=690$ V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), stepped nipple, M25/M32/M40, sealing range 13 - 26,5 mm, (4 rear, 10 side), internal fixing points, for standard indoor installations



Description

HP 190-L

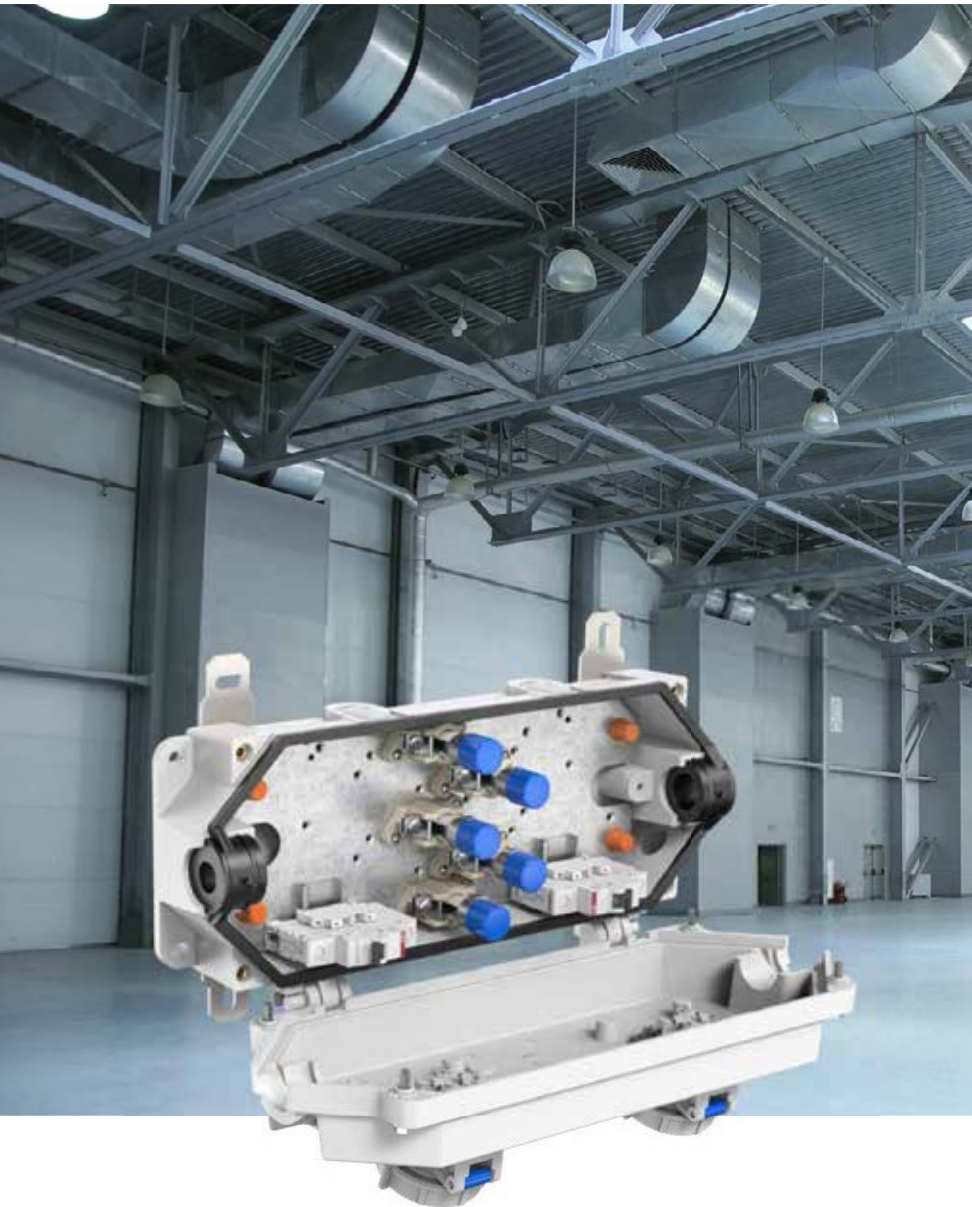
grey, without terminals

Order no.

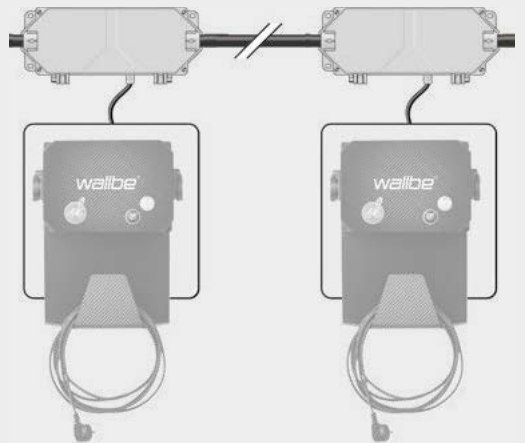
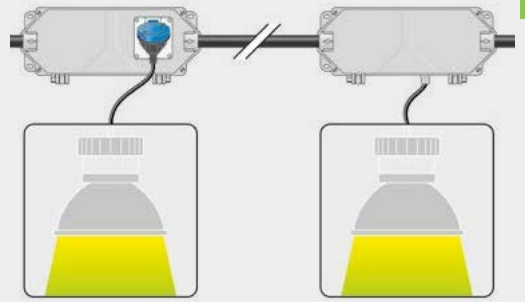
32699001

Junction boxes

Rapid Box

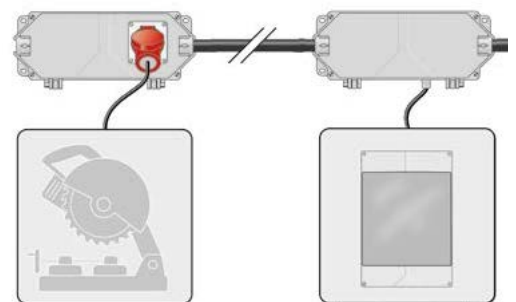


Application examples:



Switchgear combination according to EN 61439

- Fused branch via M25 cable gland, maximum 16 A
- Unprotected branch via M25 cable gland, maximum 40 A
- Branch per pole up to 6 mm²
- CEE sockets 3-pole, fused 16 A mounted in the cover
- CEE socket 5-pole, fused 10 A, mounted in the cover
- Further variants on request



Junction Boxes

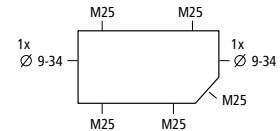
Rapid-Box

Rapid-Box 16²

190 x 447 x 105 mm



Junction box, protection class IP66/IP67, $U_i=400$ V AC, M25, (5 side), external fixing lugs, for installations in the industrial environment and tunnel applications, pressure and suction tight in accordance with Gotthard guideline. Halogen-free enclosure made of special thermosetting plastic, terminals made of special high-temperature-resistant ceramic. External fixing lugs and cover screws made of stainless steel 1.4571



Accessories supplied:

2 off M25 cable gland, sealing range 9-16mm
4 off M25 locking screws

Description	Order no.
Rapid-Box 16² 2x5 grey, Feed-through: 5-pole terminal for uncut wire, clamping range for uncut wire 2.5mm ² to 25mm ² , clamping range for cut wire 2.5mm ² to 16mm ² , rated current 63A. T-piece 5-pole 2 x 2.5 - 6 mm ² , rated current 40A, sealing range, main cable: 17 - 22 mm (other sealing ranges on request)	30200101
Rapid-Box 16² 2x3 2F grey, Feed-through: 5-pole terminal for uncut wire, clamping range for uncut wire 2.5mm ² to 25mm ² , clamping range for cut wire 2.5mm ² to 16mm ² , rated current 63A. Fused T-piece 4-pole up to 6mm ² , fused by 2 x circuit breakers unipolar B10, pre-wired, sealing range, main cable: 17 - 22 mm (other sealing ranges on request)	30202101
Rapid-Box 16² 2x3 STV grey, Feed-through: 5-pole terminal for uncut wire, clamping range for uncut wire 2.5mm ² to 25mm ² , clamping range for cut wire 2.5mm ² to 16mm ² , rated current 63A. Mounted in cover, 2 off CEE socket 3-pole 16A, fused by 2 x circuit breakers, unipolar B10, pre-wired, sealing range, main cable: 17 - 22 mm (other sealing ranges on request)	30204101
Rapid-Box 16² 1x5 STV grey, Feed-through: 5-pole terminal for uncut wire, clamping range for uncut wire 2.5mm ² to 25mm ² , clamping range for cut wire 2.5mm ² to 16mm ² , rated current 63A. Mounted in cover, 1 off CEE socket 5-pole 16A, fused by 3 x circuit breakers, unipolar B10, pre-wired, sealing range, main cable: 17 - 22 mm (other sealing ranges on request)	30205101

Junction Boxes

Rapid-Box

Rapid-Box 50²

190 x 447 x 105 mm



IP66
IP67

50²

6²

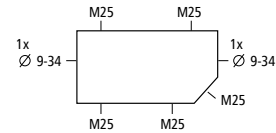
IK09

400V
AC

halogen-free

low
smoke

Junction box, protection class IP66/IP67, U_i=400 V AC, M25, (5 side), external fixing lugs, for installations in the industrial environment and tunnel applications, pressure and suction tight in accordance with Gotthard guideline. Halogen-free enclosure made of special thermosetting plastic, terminals made of special high-temperature-resistant ceramic. External fixing lugs and cover screws made of stainless steel 1.4571



Accessories supplied:
 2 off M25 cable gland, sealing range 9-16mm
 4 off M25 locking screws

Description	Order no.
Rapid-Box 50² 2x5 grey, Feed-through: 5-pole terminal for uncut wire, clamping range for uncut wire 16mm ² to 50mm ² , clamping range for cut wire 16mm ² to 35mm ² , rated current 100A. T-piece 5-pole 2 x 2.5 - 6 mm ² , rated current 40A. Sealing range, main cable: 21 - 26 mm (other sealing ranges on request)	30210101
Rapid-Box 50² 2x3 2F grey, Feed-through: 5-pole terminal for uncut wire, clamping range for uncut wire 16mm ² to 50mm ² , clamping range for cut wire 16mm ² to 35mm ² , rated current 100A. Fused T-piece 4-pole up to 6mm ² , fused by 2 x circuit breakers unipolar B10, pre-wired. Sealing range, main cable: 21 - 26 mm (other sealing ranges on request)	30212101
Rapid-Box 50² 2x3 STV grey, Feed-through: 5-pole terminal for uncut wire, clamping range for uncut wire 16mm ² to 50mm ² , clamping range for cut wire 16mm ² to 35mm ² , rated current 100A. Mounted in cover, 2 off CEE socket 3-pole 16A, fused by 2 x circuit breakers, unipolar B10, pre-wired. Sealing range, main cable: 21 - 26 mm (other sealing ranges on request)	30214101
Rapid-Box 50² 1x5 STV grey, Feed-through: 5-pole terminal for uncut wire, clamping range for uncut wire 16mm ² to 50mm ² , clamping range for cut wire 16mm ² to 35mm ² , rated current 100A. Mounted in cover, 1 off CEE socket 5-pole 16A, fused by 3 x circuit breakers, unipolar B10, pre-wired. Sealing range, main cable: 21 - 26 mm (other sealing ranges on request)	30215101

Junction boxes

Technical information

IP68

Degree of protection (IP code)
in accordance with DIN EN 60529
(VDE 0470-1)



Protection class II
Equipment with protective insulation in
accordance with DIN VDE 0100-410

IK09

Degree of protection (IK code)
against mechanical stress in accordance
with DIN EN 50102 (VDE 0470-100)

10²

Nominal cross-section largest permissible
connectable cable cross-section, in
accordance with DIN EN 60998 (VDE 0613)
and DIN EN 60999 (VDE 0609)

690V
AC

Rated voltage for use in AC voltage
systems, maximum permissible rated
voltage of the electrical system



Halogen-free enclosure,
no halogens such as fluorine, chlorine and
bromine are present.



The **VDE symbol** stands for the tested safety
of the product in respect of electrical,
mechanical, thermal and other hazards.



DLG focus test
to highlight in particular innovations for
machinery and technical products -
predominantly in agricultural and forestry
applications.



DNV
The approved products are authorised by
DNV for installation on all classified ships

Pictograms | Junction boxes



**Standard
quality**



**Industrial
quality**

Overview of the environmental conditions and mechanical properties of the els products

	Ambient temperature Minimum value	Ambient temperature Maximum value	Ambient temperature Average value over 24 h	Max. relative humidity at 40°C	Max. relative humidity at 25°C (short-term)	Degree of protection in accordance with DIN EN 60529 / VDE 0470-1 ¹⁾	Impact resistance in accordance with DIN EN 50102 / DE 0470 Part 100
Red Range / HP junction boxes	-25°C	40°C	35°C	50%	95%	IP55	IK07
Abox junction boxes	-25°C	55°C	45°C	50%	95%	IP66	IK07
Abox Pro junction boxes	-35°C	80°C	60°C	50%	95%	IP66/67/69	IK09

Additional note: The specified temperatures may be limited by the installed devices.

¹⁾ When using suitable attachment bushes or cable glands

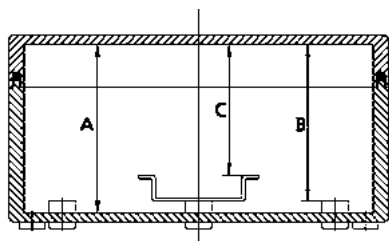
Overview of the properties of the materials used in the installation systems

Material	Products used in:	Weak acid	Strong acid	Weak alkali	Strong alkali	Alcohol	Petrol	Benzene	Mineral oil	Diesel	Ammonia, gaseous (DLG focus test)	Vegetable fats	Animal fats	Halogen-free	Heavy metal-, PVC- and silicon-free	Combustion behaviour in accordance with DIN EN 60695 (VDE 0471) / UL94
Polypropylene	Abox 025-100	O	O	O	O	O	Ø	Ø	Ø	Ø	O	O	O	Yes	Yes	750°C / HB
Polycarbonate	Abox 160-350 Abox Pro	O	X	X	X	O	Ø	X	O	Ø	O	O	Ø	Yes	Yes	960°C / V0
Polyethylene	Red Range (base) Twist nipples	O	O	O	O	O	Ø	X	O	X	n.s.	O	O	Yes	Yes	650°C / HB
Polypropylene Copolymer	Red Range (cover)	O	O	O	O	O	Ø	Ø	Ø	Ø	n.s.	O	O	Yes	Yes	650°C / HB
Polyurethane	All types come with all-around foamed lid seal	Ø	Ø	Ø	Ø	Ø	Ø	Ø	X	Ø	O	O	O	Yes	Yes	650°C / ---
Thermoplastic elastomer	Double membrane seals, Attachment bush, Insertion membranes (Abox 025-100, 2K-12)	O	Ø	O	Ø	O	Ø	Ø	Ø	Ø	O	O	O	Yes	Yes	750°C / HB
Polyamide 6, glass-fibre-reinforced	Cable glands IP68	X	X	O	O	O	O	Ø	O	O	O	O	O	Yes	Yes	750 °C / HB/V-2

O = resistant Ø = partially resistant X = not resistant

In principle, not only the protection class but also the climatic conditions and the occurrence of chemical influences should be assessed when selecting the installation site. Details of the material properties and chemical resistance of the materials used can be taken from the table **though it should be noted that they are only guide values.**

Assembly and installation instructions



Installation dimensions of Abox products

Product series	A	B	C
Abox / Abox Pro	[mm]	[mm]	[mm]
Abox 025 / AB / SLK-2.5 ²	43.9	36.9	31.4
Abox 025 / 2 / AB	43.8	35.8	30.3
Abox 040/ AB / SLK-4 ²	49.1	41.1	35.6
Abox 060 / AB / SL	61.8	53.8	46.3
Abox 100 ²	71.8	63.8	56.3
Abox Pro 025	43	40	34.5
Abox Pro 040	53	50	44.5
Abox Pro 060 / AB / XT SL-4 ²	58	55	47.5
Abox Pro 100	67.5	64.5	57
Abox 160 / Abox Pro 160 / SL-10 ²	74.5	71.5	64
Abox 250 / Abox Pro 250 / SL-16 ²	103.5	101.5	94
Abox 350 / Abox Pro 350	103.5	101.5	94

Junction boxes

Technical information

				
Product No. Terminal	896 404 01 Abox 025/40 KLS 2.5²/4²	896 406 01 Abox 060 KLS 6²	896 410 01 Abox 100 KLS 10²	896 416 01 Abox 160 KLS 16²
installed in junction boxes	Series Abox 025 and Abox Pro 025 Series Abox 040 and Abox Pro 040	Abox 060-6² Abox Pro 060-6² Abox Pro 060-6²/sw	Abox 100-10² Abox Pro 100-10² Abox Pro 100-10²/sw	Abox 160-16² Abox Pro 160-16² Abox Pro 160-16²/sw
Rated connecting capacity	6mm²	6mm²	10mm²	25mm²
Rated insulation voltage [V]	690	690	690	690
Rated current [A]	41	41	51	101
Terminal points per pin	1	2	2	4
Number of conductors in a terminal point, conductor cross-section, conductor type	1..5 x 1,5² re 1..6 x 2.5² re 1..4 x 4² re 1..2 x 6² re	1...2 x 2.5² re/f with AEH 1...2 x 4² re/f with AEH 1...2 x 6² re/f with AEH 1...2 x 10² re/f with AEH	1..2 x 2.5² re/f with AEH 1..2 x 4² re/f with AEH 1..2 x 6² re/f with AEH 1..2 x 10² re/f with AEH 1 x 16² re/f with AEH	1..6 x 4² re/f with AEH 1..4 x 6² re/f with AEH 1..2 x 10² re/f with AEH 1 x 16² re/f with AEH 1 x 25² re/f with AEH
Conductor type	Cu	Cu	Cu	Cu
Number of pins	5	5	5	5
Insulation stripping length	11mm	11mm	12mm	11mm
Tightening torque	1.2 Nm	2.0 Nm	2.5 Nm	2.5 Nm
Terminal type	Screw terminal M4	Raised screw terminal M4	Raised screw terminal M5	Raised screw terminal M6



re= single-wire round conductor



re= single-wire sector shaped conductor



rm=multi-wire round conductor

					
896 435 01 Abox 250/350 KLS 25²/35²	840 070 01 Abox 700 KLS 70²	076 125 01 AKL 125150²	670 650 01 URS RK1 150²	670 740 01 URS RK1 240²	076 140 01 AKL 140 240²
Abox 250-25² Abox Pro 250-25² Abox 350-35² Abox Pro 350-35² Abox Pro 350-35²/sw	Abox 700-70² Abox Pro 700-70²	Abox Pro 1500-150²	Abox Pro 1500-150² DK	Abox Pro 2400-240² DK	Abox Pro 2400-240²
35mm²	70mm²	150mm²	150mm²	240mm²	240mm²
690	690	690	1000	1000	690
125	150	250	309	380	400
4	4	4	2	2	4
1..4 x 10² re/f with AEH 1..2 x 16² re/f with AEH 1 x 25² re/f with AEH 1 x 35² re/f with AEH	1x16² re;rm;se;sm 1x25² re;rm;se;sm 1x35² re;rm;se;sm 1x50² re;rm;se;sm 1x70² re;rm;se;sm	1x16-50 re, Cu/AL 1x16-150 rm, Cu/AL 1x50-150 se, Cu/ AL 1x35-150 sm, Cu 1x50-120 sm, AL 2x16-50 re, Cu/AL 2x16-70 rm, Cu/AL 2x50-70 se, Cu/AL 2x35-70 sm, Cu 2x35-50 sm, AL	single-wire rigid 35-150 / multi-wire flexible 50-150 fine-wire 50-150 / fine-wire wire-end ferrule (AEH) 50-150 strip conductor up to 20x8	single-wire rigid 50-240 / multi-wire flexible 50-240, fine-wire 50-240 / fine-wire wire-end ferrule 50-240 strip conductor up to 20x12	1x25-50 re Cu/AL, 1x25-240 rm Cu, 1x50-185 se Cu/ AL, 1x35-240 sm Cu, 1x95-185 sm Al, 2x25-50 re Cu/AL, 2x25-120 rm Cu/AL, 2x50-120 se Cu/ AL, 2x35-120 sm Cu, 2x50-95 sm Al, flat Cu 25x15
Cu	Cu	Cu/Al	Cu	Cu	Cu/Al
5	1	1	1	1	1
11mm	15mm	38mm	38mm	37mm	45 mm
4.0 Nm	4.0 Nm	20 Nm	10-20 Nm	10-20 Nm	40 Nm
Raised screw terminal M8	Screw terminal	Screw terminal Cable entry from above	Series feed-through terminal Hex socket M10	Series feed-through terminal Hex socket M10	Screw terminal Cable entry from above



sm=multi-wire sector shaped conductor

Junction boxes

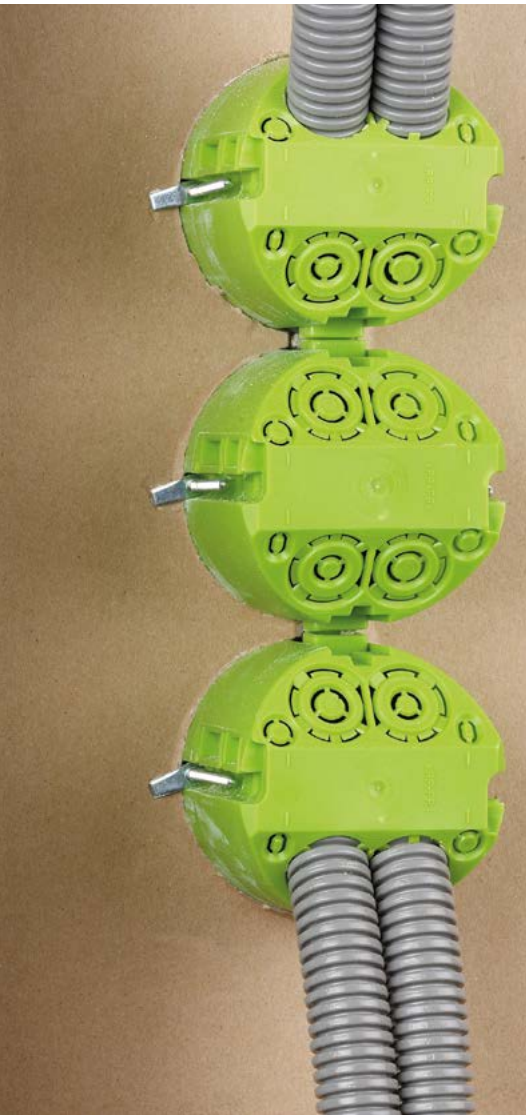
Technical information

				
Product No. Terminal	Wago 2273-205	Wago 773-604	Wago 221-413	Wago 221-613
installed in junction boxes	Abox 025-2.5 ² Abox Pro 025-2.5 ² Abox 025/2-2.5 ² Abox 040-2.5 ² Abox Pro 040-2.5 ²	Abox 040-4 ² Abox Pro 040-4 ²	Abox SLK 2.5 ² Abox SLK 4 ² Abox SL 4 ² Abox Pro SLK 2.5 ² Abox Pro SLK 4 ² Abox Pro SL 4 ² Abox Pro XT SLK-2.5 ² Abox Pro XT SLK-4 ² Abox Pro XT SL-4 ²	Abox SLK-6 ² Abox Pro XT SL-6 ² Abox Pro SLK-6 ²
Rated connecting capacity	2.5mm ²	4mm ²	4mm ²	6mm ²
Rated insulation voltage [V]	450	400	450	450
Rated current [A]	24*	32*	32	41
Terminal points per pin	5	4	3	3
Number of conductors in a terminal point, conductor cross-section, conductor type	1xsingle-wire 0.5-2.5 ²	1xsingle-wire 1.5-4 ²	single-wire 0.2-4 ² multi-wire 0.2-4 ² fine-wire 0.14-4 ²	single-wire 0.5-6 ² multi-wire 0.5-6 ² fine-wire 0.5-6 ²
Conductor type	Cu / Al*	Cu / Al*	Cu	Cu
Number of pins	1	1	1	1
Insulation stripping length	11mm	12mm	11mm	11mm
Tightening torque	-----	-----	-----	-----
Terminal type	Plug-in terminal	Plug-in terminal	Plug-in terminal	Plug-in terminal

*  AL: Only with WAGO contact paste "Alu-Plus" and adapted rated currents

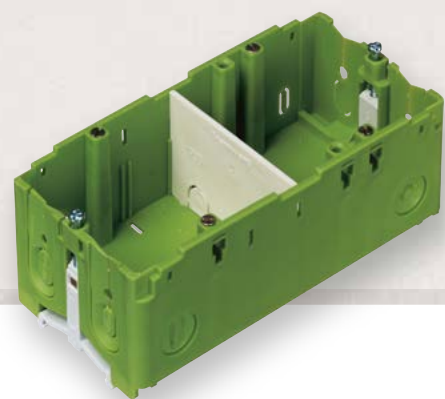
		
Wago 2006-1201	Wago 2010-1201	Wago 2016-1201
Abox SL 6 ² Abox Pro SL 6 ²	Abox SL 10 ² Abox Pro SL 10 ²	Abox SL 16 ² Abox Pro SL 16 ²
6mm ²	10mm ²	16mm ²
800	800	800
41	57	76
2	2	2
single-wire 0.5-10 ² fine-wire 0.5-10 ² fine-wire with wire end ferrule 6 ²	single-wire 0.5-16 ² fine-wire 0.5-16 ² fine-wire with wire end ferrule 10 ²	single-wire 0.5-16 ² single-wire 0.5-25 ² fine-wire with wire end ferrule 16 ²
Cu	Cu	Cu
1	1	1
15mm	19mm	20mm
-----	-----	-----
Plug-in terminal	Plug-in terminal	Plug-in terminal

Cavity Wall and Trunking Boxes



Fast installation:

- Snap box into place
- Connect device outside the box
- Insert the device and connecting cable from above and position the box
- Tighten screws - done!



Cavity wall installation system

- Automatic cable restraint for conduits up to 20 mm Ø or cables NYM up to 5x2.5²
- Fast, easy installation thanks to favourable positioning of claws
- No special tools needed
- Cavity wall boxes with integrated combibridge for insulated wiring, no extra parts needed
- Combination of different heights possible

- Flush installation standard, no countersink necessary



Trunking boxes

- Patented entries with strain relief
- Convenient insertion of the connecting cables from above
- For cables up to 5 x 2.5² and data lines
- Universal 1-way or 2-way boxes in various heights
- For switches, sockets (screw spacing 60 mm), CEE 16 A (screw spacing 67 mm)

Cavity Wall and Trunking Boxes

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	Types	Series	Page
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Cavity Wall and Trunking Boxes

Cavity wall boxes and junction boxes

HW 040 - outlet socket

35 x 35 x 40 mm

IP30



Cavity wall outlet socket, flame resistant, for lighting outlets acc. to VDE 0100-559, for plate thicknesses from 1 to 30 mm, screwing distance 27 mm, including white sealing cap

Description

HW 040

Drilled hole Ø 35 mm, 40 mm deep

Order no.

92404001

HW 035 - flat box

68 x 68 x 35 mm

IP30



Cavity wall flat box, flame resistant, special box with small installation depth (35 mm), for thin walls with plate thicknesses from 1 to 20 mm, with patented combibridge, device screw spacing 60 mm

Description

HW 035

Drilled hole Ø 68 mm, 35 mm deep

Order no.

92003501

HW 035 H - Flat box halogen-free

68 x 68 x 35 mm

IP30



Cavity wall flat box, flame-retardant and halogen-free, special box with low installation depth (35 mm), for thin walls with plate thicknesses 1 - 20 mm, with integrated, moulded combibridge, 60 mm equipment screw spacing, halogen-free

Description

HW 035 H

Drilled hole Ø 68 mm, 35 mm deep

Order no.

92023501

Cavity Wall and Trunking Boxes

Cavity wall boxes and junction boxes

HW 050 - receptacle

68 x 68 x 50 mm



Cavity wall receptacle, flame resistant, universal socket for plate thicknesses from 1 to 40 mm with moulded patented combi jumpers and punching tool, device screw spacing 60 mm

Description	Order no.
HW 050 drilled hole Ø 68 mm, 50 mm deep, with coated, patented combi bridges	92005001
HW 050 WD with closed membrane entries, drilled hole Ø 68 mm, 50 mm deep	92035001

HW 050 H - Receptacle, halogen-free

68 x 68 x 50 mm



Cavity wall appliance box, flame-retardant and halogen-free, universal box for panel thicknesses 1 - 40 mm, with punching tool, 60 mm equipment screw spacing, halogen-free

Description	Order no.
HW 050 H drilled hole Ø 68 mm, 50 mm deep, with coated, patented combi bridges	92025001

HW 065 - equipment junction box

68 x 68 x 65 mm



Cavity wall channel junction box, flame resistant, with enlarged connection space, universal socket for plate thicknesses from 1 to 40 mm, with moulded, patented combi jumpers and punching tool, device screw spacing 60 mm

Description	Order no.
HW 065 drilled hole Ø 68 mm, 65 mm deep, with coated, patented combi bridges	92006501
HW 065 WD with closed membrane entries, drilled hole Ø 68 mm, 65 mm deep	92036501

Cavity Wall and Trunking Boxes

Cavity wall boxes and junction boxes

HW 065 H - Equipment junction box, halogen-free

68 x 68 x 65 mm



Cavity wall equipment junction box, flame-retardant and halogen-free, with enlarged terminal compartment, universal box for panel thicknesses 1- 40 mm, with punching tool, 60 mm equipment screw spacing, halogen-free

Description

HW 065 H

drilled hole Ø 68 mm, 65 mm deep, with coated, patented combi bridges

Order no.

92026501

HW 120 junction box

120 x 120 x 65 mm



IP30

Cavity wall connection socket, flame resistant, for plate thicknesses from 7 to 35 mm, for terminals up to 4 mm², including white sealing cap

Description

HW 120

Drilled hole Ø 120 mm, 65 mm deep

Order no.

92512001

HW 050 - equipment double box

68 x 139 x 50 mm



IP30

Cavity wall double socket, flame resistant, for plate thicknesses from 1 to 40 mm, with moulded patented combi jumpers and punching tool, device screw spacing 60 mm

Description

HW 050/2

drilled hole Ø 2 x 68 mm, 50 mm deep, Combination spacing 71 mm, with coated, patented combi bridges

Order no.

92305001

HW 050/2 WD

with closed membrane entries, drilled hole Ø 2 x 68 mm, 50 mm deep, Combination spacing 71 mm

92335001

Cavity Wall and Trunking Boxes

Cavity wall boxes and junction boxes

HWK - junction boxes



IP30

Cavity wall terminal boxes, flame resistant, for plate thicknesses from 7 to 35 mm, including white sealing cap

Description	Order no.
HWK 1 107 x 107 x 53 mm, with drilling template for 35 mm drilled holes	92800101
HWK 2 165 x 165 x 72 mm, with drilling template for 68 mm drilled holes	92800201
HWK 3 235 x 205 x 72 mm, with drilling template for 68 mm drilled holes	92800301

Cavity Wall and Trunking Boxes

Cavity Wall Socket Accessories

HW - sealing cover



Sealing plate for junction boxes, polystyrene, flame resistant, white

Description	Ø	for cover	Order no.
HW VD-60 for type HW 035 / HW 050 / HW 065, screw spacing 60 mm	90	U 71	92510101
HW VD-67 for type HW 070, screw spacing 67 mm	90	U 86, U 120	92510001

DH ceiling hook



Metal ceiling hook, insulated, with M5 thread for ceiling boxes

Description	Shaft length	for cover	Order no.
DH 65-M5 65 mm	65	U 71 KUT-M5	97912001
DH 75-M5 75 mm	75	U 71 KUD-M5	97911701
DH 90-M5 90 mm	90	U 71 KUD-M5	97912201
DH 100-M5 100 mm	100	U 86 DVD-2	97911901
DH 115-M5 115 mm	115	U 120 GRO-3	97912101
DH 135-M5 135 mm	135	U 71 KUT-M5	97912301
DH 125-M5 125 mm	125	U 120 GRO-3-O	97912401

ES device screws



Additional device screws for mounting built-in devices in cavity wall outlet sockets

Description	Order no.
ES-10 3.1 x 10 mm	97910501
ES-18 3.1 x 18 mm	97910601
ES-25 3.1 x 25 mm	97910701

Cavity Wall and Trunking Boxes

Cavity Wall Socket Accessories

RVB conduit coupling



Conduit coupling (without conduit) with strain relief, grey, for flexible metric electrical installation conduits

Description	Order no.
RVB 20 for long-ridged pipes M20	97022001
RVB 25 for long-ridged pipes M25	97022501
RVB 32 for long-ridged pipes M32	97023201
RVB 40 for long-ridged pipes M40	97024001



Current prices can be found on our website: www.spelsberg.com

Cavity Wall and Trunking Boxes

Front-Mounted Trunking Boxes

Front-mounted trunking boxes



		Gewiss	Rehau	Niedax
Trunking boxes	Trunking	BR wall trunking Insertion width 80 mm BR-PVC BR-Alu BR Steel (profiled)	Wall trunking PVC/Alu/Steel (signo BK, BS, BA)	Device installation trunking GK 78, Insertion width 78 mm Steel/Alu
	Height 47 mm			
Height 47 mm	1-way	361 107 01 Colour: grey	361 107 01 Colour: grey	
	1-way			361 407 01 Colour: green
Height 44 mm	2-way	362 104 01 Colour: grey	362 104 01 Colour: grey	
	2-way			362 404 01 Colour: green

 = Device installation for integrated appliances with cover frame

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Front-mounted trunking box

KD 1 70/47 F1 gr

Productnumber: 36110701 | Dimensions: 47 mm

Front-mounted trunking box
for installation in Gewiss and Rehau wall trunkings/device installation ducts



Log in to mySpelsberg to see the price of this product.

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Colours

Cover colour: grey

Dimensions

Height: 47 mm

Material characteristics

Halogen free: no

Ambient conditions

max. relative humidity 25°C: 100 %

Cavity Wall and Trunking Boxes

Floor-Mounted Trunking Boxes

Floor-mounted trunking boxes



		Tehalit	Gewiss	Rehau	
Trunking	Trunking boxes	BR wall trunking PVC/ Alu	BR wall trunking PVC/Alu/Steel FB device installation trunking	Wall trunking PVC/Alu/ Steel (signo BK, BS, BA) FBK window sill trunking	
		from BR 70130	All sizes	All sizes	
Height 47 mm	1-way		370 047 01 Colour: grey		
	2-way		382 047 01 Colour: grey		
Height 50 mm	1-way				
	2-way				
Height 52 mm	1-way		370 052 01 Colour: green		
	2-way		382 052 01 Colour: green		
Height 55 mm	1-way	391 055 01 Colour: black			
	1-way				
	1-way			370 055 01 Colour: grey	
	2-way	392 055 01 Colour: black			
	2-way				
	2-way			382 055 01 Colour: grey	

Floor-mounted junction box with cover



		Gewiss	Rehau	
Trunking	Trunking boxes	BR wall trunking PVC/Alu/Steel FB device installation trunking	Wall trunking PVC/Alu/ Steel (signo BK, BS, BA) FBK window sill trunking	
		All sizes	All sizes	
Height 42 mm	1-way	370 042 01 Colour: green	370 042 01 Colour: green	
	1-way			



Trunking boxes for other manufacturers available on request

	Kleinhuis		Ackermann
	HKL installation trunking (from HKL60110) GL de- vice installation trunking	BS wall trunking PVC, insertion width 80/112 mm	Wall installation trunking WIK2, insertion width 110 mm steel
	GL (all sizes)	All sizes	from WIK2 65/133
	370 450 01 (*1) Colour: white	370 450 01 Colour: white	
	382 450 01 (*1) Colour: white	382 450 01 Colour: white	
			391 055 01 Colour: black
		370 455 01 Colour: grey	
			392 055 01 Colour: black
		382 455 01 Colour: grey	

	Kleinhuis		Niedax
	HKL installation trunking (from HKL60110) GL de- vice installation trunking	BS wall trunking PVC, insertion width 80/112 mm	Device installation trunking GK 100, insertion width 110 mm steel
	GL (all sizes)	All sizes	All sizes
			370 042 01 (*2) Colour: green
	370 442 01 Colour: green	370 442 01 Colour: green	

(*1) = from GL 80150 only in conjunction with
Kleinhuis bridge GLB80

(*2) = GK with depth of 80 mm and adapter rail
TS 35 top-hat profile

 = Device installation for integrated
appliances with cover frame

 = Device installation for integrated
appliances with central disc



Cavity Wall and Trunking Boxes

Trunking Box Accessories

CEE installation kit



Installation kit for CEE devices 16 A (straight design) with flange dimensions 75 x 75 mm, spacing of the fixing holes 60 mm, suitable for individual boxes

Description	Order no.
KD EBZ-CEE Check dimensions beforehand owing to large number of CEE devices available on the market.	37210001

Strain relief



Strain relief for installation in channel socket wall for increasing mechanical security, e.g. for vertical conduit laying, universal, to be retrofitted

Description	Order no.
KD ZEL	37040201

Cavity Wall and Trunking Boxes

Technical Information



Protection class (IP code)
as per DIN EN 60529 (VDE 0470-1)



The **VDE mark** stands for approved safety
of the product referring electrical,
mechanical, thermal and other hazards



Halogen-free enclosure,
without halogens such as fluorine,
chlorine and bromine.

Pictograms | Cavity Wall and Trunking Boxes



Overview of the ambient conditions and mechanical properties of the els products

	Ambient temperature Minimum value	Ambient temperature Maximum value	Ambient temperature Average value over 24 h	Max. relative humidity at 40 °C	Max. relative humidity at 25 °C (short-term)	Protection rating according to DIN EN 60529 / VDE 0470-1 ¹⁾	Shock-proof as per DIN EN 50102 / DE 0470 Part 100
HW flush-mounted installation system	-25°C	40°C	35°C	50%	not specified	IP30	not specified
KD channel installation system	-25°C	40°C	35°C	50%	not specified	IP20	not specified

Additional note: The specified temperatures may be limited by the installed devices.

¹⁾ When used with suitable connectors or cable screw couplings

Overview of the properties of the materials used in the els installations systems

Material	Use in the products:	Weak acids	Strong acids	Weak bases	Strong bases	Alcohol	Petrol	Benzene	Mineral oil	Diesel	Ammonia, gaseous (DLG Focus Test)	Vegetable fats	Animal fats	Halogen-free	Free from heavy metals, PVC and silicone	Flammability according to DIN EN 60695 (VDE 0471) / UL94
Polypropylene	HW program	O	O	O	O	O	Ø	Ø	O	X	not specified	O	O	no	yes	850 °C / V-2
Polypropylene	HW program, halogen-free	O	O	O	O	O	Ø	Ø	O	X	not specified	O	O	yes	yes	960°C / V-2

O = resistant Ø = partially resistant X = not resistant

When selecting the installation location, the climatic conditions and the occurrence of chemical influences should generally be examined in addition to the protection rating. Details of material properties and chemical resistance of the materials can be seen from the table, **though these are simply guide values.**



Smart fire protection solutions from a single source

LIFELINE is the technology for life. With the knowledge and experience of our competent staff, we take responsibility every day to make the world a little safer. The smart fire safety solutions of LIFELINE offer first-class quality, which can be relied upon in emergencies. LIFELINE protects all life and assets without compromises and guarantees the best form of sustained fire safety.

Only reliable products can ensure the electrical functional integrity and protect life in case of a fire. LIFELINE guarantees the function of life-saving electrical systems in buildings and tunnels, such as emergency lighting and smoke extraction systems in escape and rescue routes. As a leading manufacturer of high quality junction and connection boxes, Spelsberg has always been strongly positioned with the LIFELINE brand for the development of fire protection solutions, particularly in these product segments.

The junction boxes of LIFELINE provide electrical functional integrity between 30 and 90 minutes in the event of a fire. In doing so, the classes E30 to E90 identify the minimum duration for the functional integrity of the electrical systems. LIFELINE ensures that the function of fire alarm systems, acoustic systems, emergency lighting or elevators with evacuation function is maintained for at least 30 minutes during an emergency. And in the case of pressure boosting systems for the extinguishing water supply, smoke and heat exhaust ventilation systems or for fire brigade lifts for at least 90 minutes. Guaranteed.

Electrical Functional Integrity

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Electrical Functional Integrity

WKE 200-400 SL | Case study

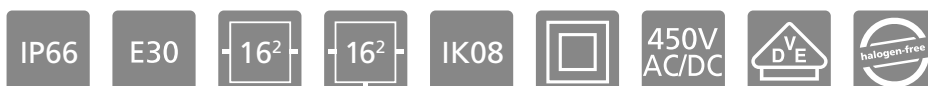


Fire protection solutions for the „Kanzlerbahn“, Berlin

Berlin underground line 55, known as the „Kanzlerbahn“, has operated for years on the section between Brandenburg Gate and Central Station. Following a comprehensive phase of planning and construction work lasting more than 10 years, in September 2020 the route extension to Alexanderplatz was completed and in the process line U55 was combined with the previous U5.

The new U5 line now offers passengers the convenience of a direct journey from Hönower Central Station without changes. For the local tunnel systems, the Berliner Verkehrsbetriebe (Berlin Public Transport Services - BVG) imposed tightened safety conditions on the electrical engineering installed there, particularly in relation to technical fire safety. In the event of fire, the functionality of vital plant and systems had to be guaranteed.

Spelsberg's WKE cable junction boxes with fuses integrated into the branch, meet these requirements. Thanks to these fuses, for the first time, non-reactive cable branching is possible since, in the event of a fault, the functional integrity in the main section is unaffected. Thus, in the event of fire, operation of the electrical circuits for emergency lighting and other evacuation equipment is ensured for at least 30 minutes.





©Antonio Reetz-Graudenz

Electrical Functional Integrity

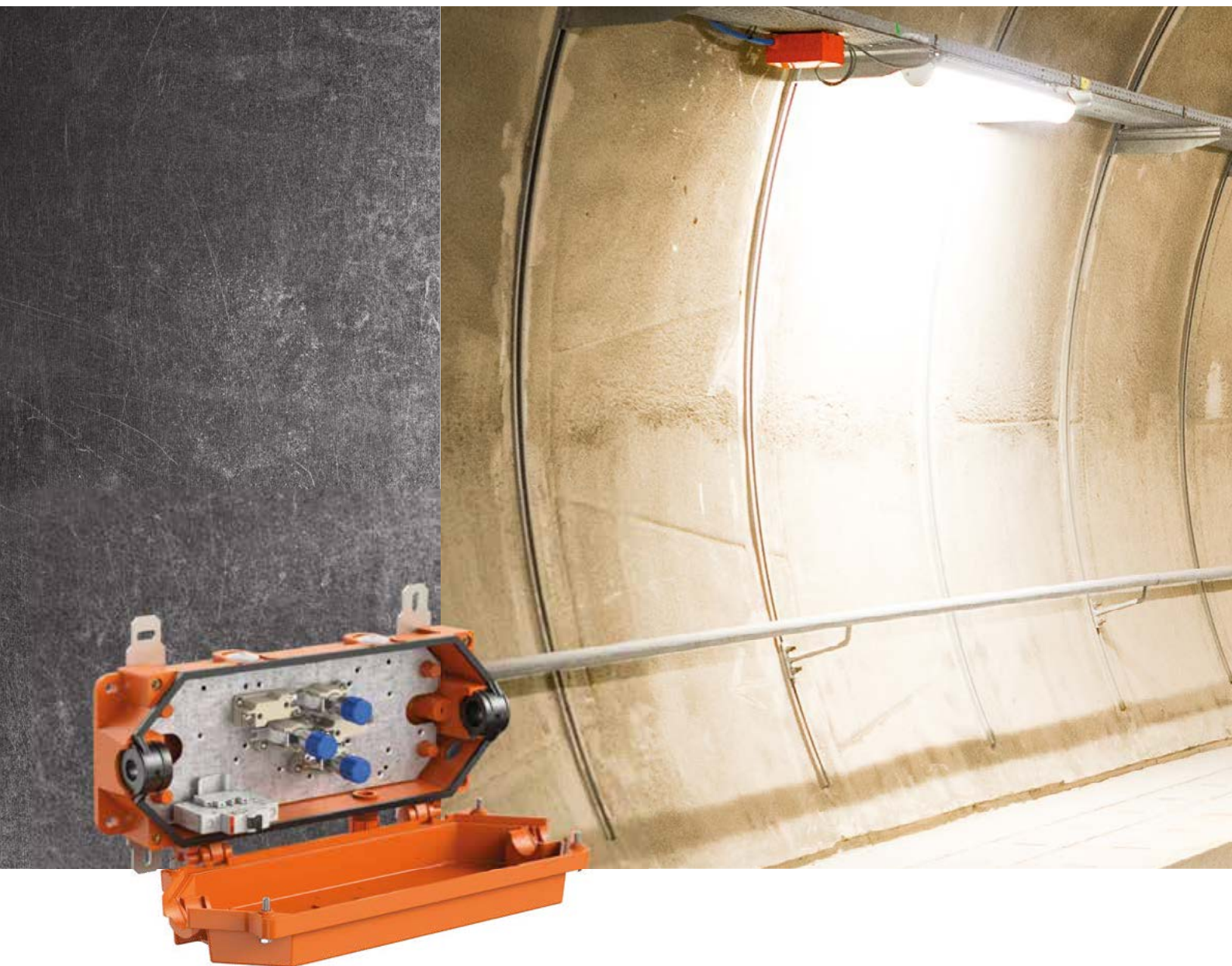
Spelsberg developed bespoke solutions to meet customer-specific requirements, with the WKE 300 and WKE 400 SL types, for challenging environments in the tunnels of the Berliner Verkehrsbetriebe. In a global innovation, the WKE 200 - 400 SL junction and connection boxes series combine in a single product the advantages of the screwless WAGO TOPJOB® S Push-in terminal blocks and certified functional integrity according to DIN 4102-12.

They therefore offer a safe solution wherever functional integrity, high vibration and impact resistance, and a reliable dust and water seal are required. Cooperative exchange of information, coupled with expert advice and project support from the Spelsberg team, enabled BVG to implement the necessary measures for safety of electrical installations in the event of fire in a fast and solution-oriented manner.



Electrical Functional Integrity

Rapid-Box | Case study



Railway tunnel Liefkenshoek Belgium

Special requirements apply to junction boxes and enclosures for installed electrical technology in tunnel systems. They must be able to reliably withstand the regularly occurring loads caused by suction and pressure forces due to cars, lorries and trains passing through. At the same time, the functionality of important technical installations must be maintained in the event of a fire. Spelsberg Rapid Boxes are the suitable choice for the line

and cable junction in this case. As part of a comprehensive railway project in Belgium, the products impressed thanks to their flexibility in handling and their resilience.

The Liefkenshoek Rail Link Project (LHSV), which has a 38-year duration, is one of the largest infrastructure projects ever carried out in Belgium. A railway line for freight traffic that con-

nects two marshalling yards of the Port of Antwerp runs over a length of approx. 16.2 km. The river Scheldt as well as the canal dock have to be bridged by tunnels in this case. ENGIE Fabricom, the company appointed with the project planning, required product solutions for the distribution and supply of consumers as well as for the provision of electrants as access points for maintenance and rescue forces. The electrical installation carried





out by envie Solutions in line structure was to take place by means of uncut main cables within the tunnels.

In addition to compliance with fire protection regulations with a functional integrity class of E90, a high protection class as well as corresponding impact and breaking resistance, the on-site installers attached particular emphasis to fast installation times and low maintenance requirements.

As the only fire protection enclosure for uncut lines on the market with certification in accordance with DIN 4102-12 as well as suitability especially for tunnel installations, the Rapid Boxes fully satisfy all requirements. The system distinguished itself by its high degree of customisation during the course of the project. This primarily involved the line connection, the junction cross-sections, the adaptability of the number of terminals as well as the fuse protection of the lines and connected consumers.

Those responsible expressed their appreciation for the good cooperation with Spelsberg, which was marked by an intensive personal exchange and goal-oriented problemsolving from the very first enquiry through to the delivery of the products. The Rapid Boxes passed the factory acceptance test without any complaints and thereby once again demonstrated their functionality and quality.

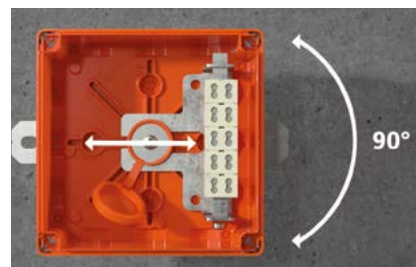
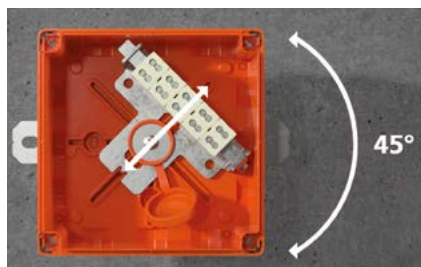
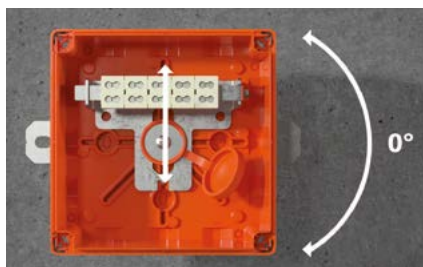
Electrical Functional Integrity

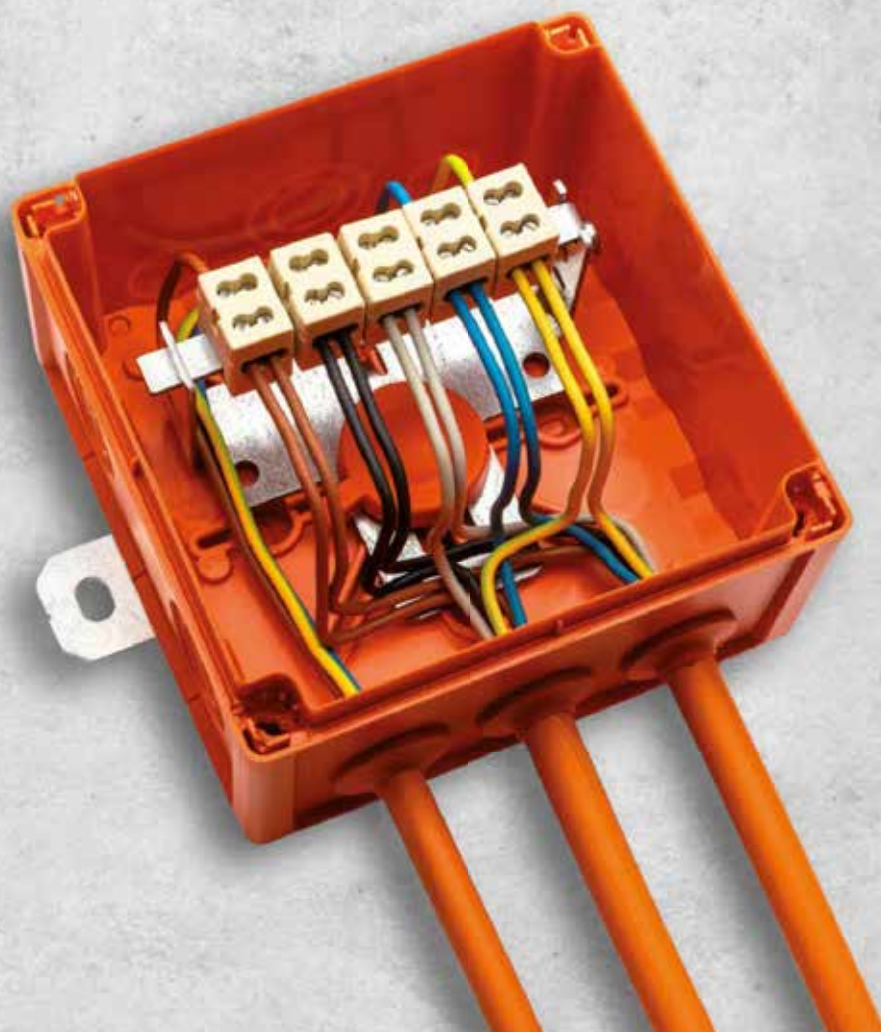
WKE 2-6 | Extremely ROBUST | Extremely FLEXIBEL



Planning freedom saves time and cost for you

- High protection class IP66
- Impact strength IK08
- Ideal for special solutions e.g., in tunnels
- High strength of the box
- Clear and variable positioning of the base carrier through simple rotation in steps of 45°
- Step-less positioning of the longitudinal axis





An easy, quick and safe installation

- Central fixation through one single screw
- Always accessible
- Usability of all cable entries while raising the terminal to uplifted position

Position above:

- easy handling of the wires
- Possible to mount the cables by adhering to the bending radius
- All cable entries are usable without any limitations

Position below:

- ideal for special solutions
- Use of D0 fuses (for WKE 6)



Electrical Functional Integrity

WKE 2-6 ... be flexible!

Cover retaining strap

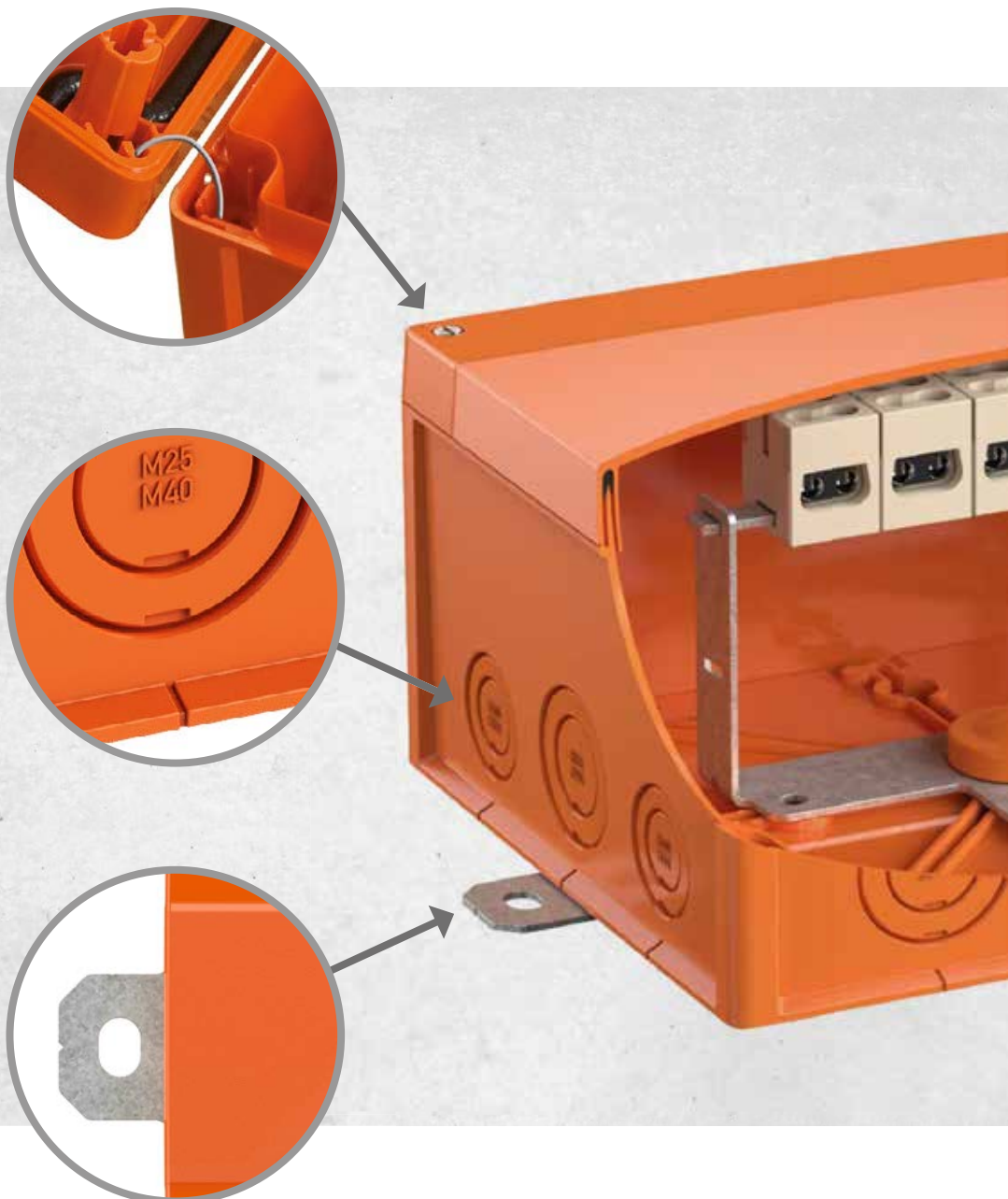
- can be used optionally by the installer

Knockouts with multiple options

- optimised positioning of the knockouts
 - adjusted to the fixing systems
 - Locking of counter nuts
- patented knockouts
 - integrated knockout points
 - easy and clean knocking-out
- centre markings on the boxes and external fixing lugs

External fixing lugs

- pre-mounted for a fast installation
- can be rotated by 90°
- ensures correct mounting



Extensive international certifications



DIN 4102-12

Functional integrity E30 / E60 / E90



EN 60670

Junction and connection boxes



IEC 62208 & IEC 61439

Empty enclosure & switching device combinations



Further relevant information on the topic of functional integrity is available at:



spelsberg.com/WKE



Labelling fields

- Areas for an individual labelling



Sealing opening

- Possible to seal the lid without any further accessories



External drainage membrane

- optional knocking-out, even after the installation



WKE 6
250 x 200 x 120 mm



WKE 4
150 x 150 x 85 mm



WKE 2
100 x 100 x 70 mm

Electrical Functional Integrity

WKE 2-6 for Connecting and Junctions



Electrical functional integrity E30-E90 according to DIN 4102 part 12
(with ceramic terminals 0,5 to 16 mm²)

- The right solution for each cross-section and application
- Quick mounting through external fixing lugs
- General construction-supervisory test certificate (AbP)
- Installation material such as screw anchors and double membrane seals included
- Completely pre-assembled
- VDE and UL-EU certified
- Ideal for building technology



Electrical Functional Integrity

WKE 2-6 for Connecting and Junctions

WKE 2 - 5 x 1,5²

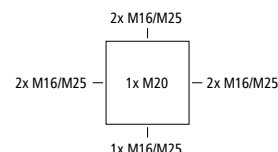
100 x 100 x 70 mm



Junction box, protection class IP66, $U_i=450$ V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), UL-EU (EN 62208), knockouts, M16/M25, (1 rear, 7 side), external fixing lugs, with E30 - E 90 electrical functional integrity according to DIN 4102 Part 12. Halogen-free enclosure made of special thermoplastic, terminals made of high-temperature-resistant special ceramic, universally positionable terminal holder

Accessories supplied:

Cover retainer, screw anchors,
4 double membrane seals IP66 M25 sealing range 9 - 17 mm



Description

WKE 2 - 5 x 1,5²

orange, junction box, 5-pole, 0.5 - 4 mm², junction box 5-pole 0.5 - 1.5 mm²,
number of clampable wires per pole: 8 x 0.5² / 4 x 0.75² / 6 x 1² / 6 x 1.5² / 2 x 4²

Order no.

86650201

WKE 2 - 3 x 4²

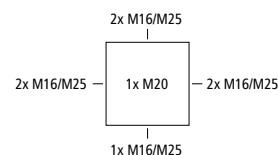
100 x 100 x 70 mm



Junction box, protection class IP66, $U_i=450$ V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), UL-EU (EN 62208), knockouts, M16/M25, (1 rear, 7 side), external fixing lugs, with E30 - E 90 electrical functional integrity according to DIN 4102 Part 12. Halogen-free enclosure made of special thermoplastic, terminals made of high-temperature-resistant special ceramic, universally positionable terminal holder

Accessories supplied:

Cover retainer, screw anchors,
4 double membrane seals IP66 M25 sealing range 9 - 17 mm



Description

WKE 2 - 3 x 4²

orange, Connection box, 3-pole, 1 - 6 mm², junction box 3-pole 1 - 4 mm²,
number of clampable wires per pole: 10 x 1² / 8 x 1.5² / 6 x 2.5² / 4 x 4² / 2 x 6²

Order no.

86651201

Electrical Functional Integrity

WKE 2-6 for Connecting and Junctions

WKE 4 - 5 x 4²

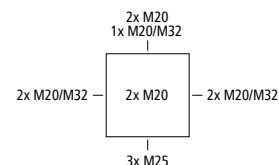
150 x 150 x 85 mm



Junction box, protection class IP66, $U_i=450$ V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), UL-EU (EN 62208), knockouts, M20/M25/M32, (2 rear, 10 side), external fixing lugs, with E30 - E 90 electrical functional integrity according to DIN 4102 Part 12. Halogen-free enclosure made of special thermoplastic, terminals made of high-temperature-resistant special ceramic, universally positionable terminal holder

Accessories supplied:

Cover retainer, screw anchors,
3 double membrane seals IP66 M25 sealing range 9 - 17 mm,
3 double membrane seals IP66 M32 sealing range 13 - 21 mm



Description

WKE 4 - 5 x 4²

orange, Connection box, 5-pole, 1 - 10 mm², junction box 5-pole 1 - 4 mm²,
number of clampable wires per pole: 10 x 1² / 8 x 1.5² / 6 x 2.5² / 4 x 4² / 2 x 6² / 2 x 10²

Order no.

86650401

WKE 2 - Duo 3 x 4²

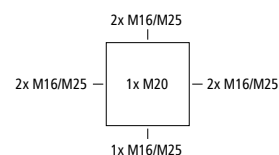
100 x 100 x 70 mm



Junction box, protection class IP66, $U_i=450$ V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), UL-EU (EN 62208), knockouts, M16/M25, (1 rear, 7 side), external fixing lugs, with E30 - E 90 electrical functional integrity according to DIN 4102 Part 12. Halogen-free enclosure made of special thermoplastic, terminals made of high-temperature-resistant special ceramic, universally positionable terminal holder

Accessories supplied:

Cover retainer, screw anchors,
4 double membrane seals IP66 M25 sealing range 9 - 17 mm



Description

WKE 2 - Duo 3 x 4²

orange, Connection box, 3-pole, 0.5 - 4 mm², junction box 3-pole 0.5 - 4 mm²,
number of clampable wires per pole: 16 x 0.5² / 8 x 0.75² / 12 x 1² / 12 x 1.5² / 4 x 2.5² / 4 x 4²

Order no.

86740001

Electrical Functional Integrity

WKE 2-6 for Connecting and Junctions

WKE 4 - Duo 5/3 x 6²

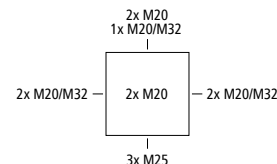
150 x 150 x 85 mm



Junction box, protection class IP66, $U_i=450$ V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), UL-EU (EN 62208), knockouts, M20/M25/M32, (2 rear, 10 side), external fixing lugs, with E30 - E 90 electrical functional integrity according to DIN 4102 Part 12. Halogen-free enclosure made of special thermoplastic, terminals made of high-temperature-resistant special ceramic, universally positionable terminal holder

Accessories supplied:

Cover retainer, screw anchors,
2 double membrane seals IP66 M25 sealing range 9 - 17 mm,
4 double membrane seals IP66 M32 sealing range 13 - 21 mm



Electrical Functional Integrity

Description	Order no.
WKE 4 - Duo 5/3 x 6² orange, Connection box, 5-pole, 0.5 - 6 mm ² , junction box 3-pole 0.5 - 6 mm ² , number of clampable conductors per pole: 16 x 0.5 ² / 8 x 0.75 ² / 12 x 1 ² / 12 x 1.5 ² / 4 x 2.5 ² / 4 x 4 ² / 4 x 6 ² , in 2-pole pass-through 8 x 0.5 ² / 4 x 0.75 ² / 6 x 1 ² / 6 x 1.5 ² / 2 x 2.5 ² / 2 x 4 / 2 x 6 ²	86771001

WKE 4 - Duo 5 x 6²

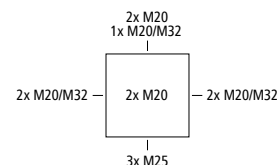
150 x 150 x 85 mm



Junction box, protection class IP66, $U_i=450$ V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), UL-EU (EN 62208), knockouts, M20/M25/M32, (2 rear, 10 side), external fixing lugs, with E30 - E 90 electrical functional integrity according to DIN 4102 Part 12. Halogen-free enclosure made of special thermoplastic, terminals made of high-temperature-resistant special ceramic, universally positionable terminal holder

Accessories supplied:

Cover retainer, screw anchors,
3 double membrane seals IP66 M25 sealing range 9 - 17 mm,
3 double membrane seals IP66 M32 sealing range 13 - 21 mm



Description	Order no.
WKE 4 - Duo 5 x 6² orange, Connection box, 5-pole, 0.5 - 6 mm ² , junction box 5-pole 0.5 - 6 mm ² , number of clampable conductors per pole: 16 x 0.5 ² / 8 x 0.75 ² / 12 x 1 ² / 12 x 1.5 ² / 4 x 2.5 ² / 4 x 4 ² / 4 x 6 ²	86741001

Electrical Functional Integrity

WKE 2-6 for Connecting and Junctions

WKE 6 - Duo 7 x 6²

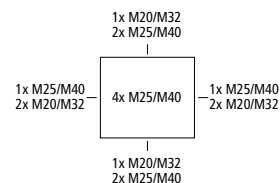
200 x 250 x 120 mm



Junction box, protection class IP66, $U_i=450$ V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), UL-EU (EN 62208), knockouts, M20/M25/M32/M40, (4 rear, 12 side), external fixing lugs, with E30 - E 90 electrical functional integrity according to DIN 4102 Part 12. Halogen-free enclosure made of special thermoplastic, terminals made of high-temperature-resistant special ceramic, universally positionable terminal holder

Accessories supplied:

Cover retainer, screw anchors,
2 double membrane seals IP66 M20 sealing range 7 - 13 mm,
3 double membrane seals IP66 M25 sealing range 9 - 17 mm,
3 double membrane seals IP66 M32 sealing range 13 - 21 mm



Description

WKE 6 - Duo 7 x 6²

orange, Connection box, 7-pole, 0.5 - 6 mm², junction box 7-pole 0.5 - 6 mm²,
number of clampable conductors per pole: 16 x 0.5² / 8 x 0.75² / 12 x 1² / 12 x 1.5² / 4 x 2.5² / 4 x 4² / 4 x 6²

Order no.

86742001

WKE 6 - 5 x 6²

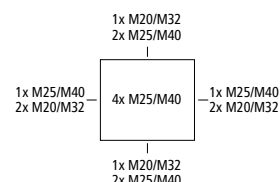
200 x 250 x 120 mm



Junction box, protection class IP66, $U_i=450$ V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), UL-EU (EN 62208), knockouts, M20/M25/M32/M40, (4 rear, 12 side), external fixing lugs, with E30 - E 90 electrical functional integrity according to DIN 4102 Part 12. Halogen-free enclosure made of special thermoplastic, terminals made of high-temperature-resistant special ceramic, universally positionable terminal holder

Accessories supplied:

Cover retainer, screw anchors,
4 double membrane seals IP66 M32 sealing range 13 - 21 mm,
2 double membrane seals IP66 M40 sealing range 17 - 28 mm



Description

WKE 6 - 5 x 6²

orange, Connection box, 5-pole, 1.5 - 16 mm², junction box 5-pole 1 - 6 mm²,
number of clampable conductors per pole: 10 x 1.5² / 8 x 2.5² / 4 x 4² / 4 x 6² / 2 x 10² / 2 x 16²

Order no.

86650601

Electrical Functional Integrity

WKE 2-6 for Connecting and Junctions

WKE 4 - Duo 3 x 10²

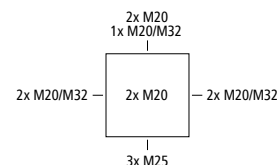
150 x 150 x 85 mm



Junction box, protection class IP66, $U_i=450$ V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), UL-EU (EN 62208), knockouts, M20/M25/M32, (2 rear, 10 side), external fixing lugs, with E30 - E 90 electrical functional integrity according to DIN 4102 Part 12. Halogen-free enclosure made of special thermoplastic, terminals made of high-temperature-resistant special ceramic, universally positionable terminal holder

Accessories supplied:

Cover retainer, screw anchors,
3 double membrane seals IP66 M25 sealing range 9 - 17 mm,
3 double membrane seals IP66 M32 sealing range 13 - 21 mm



Description

WKE 4 - Duo 3 x 10²

orange, Connection box, 3-pole, 1 - 10 mm², junction box 3-pole 1 - 10 mm²,
number of clampable conductors per pole: 20 x 1² / 16 x 1.5² / 12 x 2.5² / 8 x 4² / 4 x 6² / 4 x 10²

Order no.

86750001

WKE 6 - Duo 5 x 10²

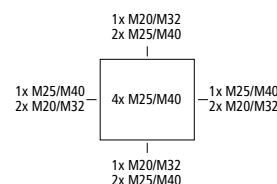
200 x 250 x 120 mm



Junction box, protection class IP66, $U_i=450$ V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), UL-EU (EN 62208), knockouts, M20/M25/M32/M40, (4 rear, 12 side), external fixing lugs, with E30 - E 90 electrical functional integrity according to DIN 4102 Part 12. Halogen-free enclosure made of special thermoplastic, terminals made of high-temperature-resistant special ceramic, universally positionable terminal holder

Accessories supplied:

Cover retainer, screw anchors,
6 double membrane seals IP66 M32 sealing range 13 - 21 mm,
2 double membrane seals IP66 M40 sealing range 17 - 28 mm



Description

WKE 6 - Duo 5 x 10²

orange, Connection box, 5-pole, 1 - 10 mm², junction box 5-pole 1 - 10 mm²,
number of clampable conductors per pole: 20 x 1² / 16 x 1.5² / 12 x 2.5² / 8 x 4² / 4 x 6² / 4 x 10²

Order no.

86751001

Electrical Functional Integrity

WKE 2-6 for Connecting and Junctions

WKE 6 - Duo 3 x 16²

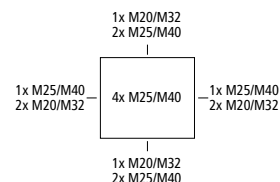
200 x 250 x 120 mm



Junction box, protection class IP66, $U_i=450$ V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), UL-EU (EN 62208), knockouts, M20/M25/M32/M40, (4 rear, 12 side), external fixing lugs, with E30 - E 90 electrical functional integrity according to DIN 4102 Part 12. Halogen-free enclosure made of special thermoplastic, terminals made of high-temperature-resistant special ceramic, universally positionable terminal holder

Accessories supplied:

Cover retainer, screw anchors,
3 double membrane seals IP66 M32 sealing range 13 - 21 mm,
3 double membrane seals IP66 M40 sealing range 17 - 28 mm



Description

WKE 6 - Duo 3 x 16²

orange, Connection box, 3-pole, 1.5 - 16 mm², junction box 3-pole 1.5 - 16 mm², number of clampable wires per pole: 20 x 1.5² / 16 x 2.5² / 12 x 4² / 8 x 6² / 4 x 10² / 4 x 16²

Order no.

86760001

WKE 6 - Duo 5 x 16²

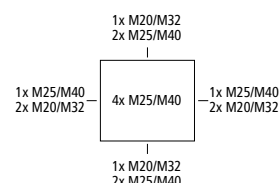
200 x 250 x 120 mm



Junction box, protection class IP66, $U_i=450$ V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), UL-EU (EN 62208), knockouts, M20/M25/M32/M40, (4 rear, 12 side), external fixing lugs, with E30 - E 90 electrical functional integrity according to DIN 4102 Part 12. Halogen-free enclosure made of special thermoplastic, terminals made of high-temperature-resistant special ceramic, universally positionable terminal holder

Accessories supplied:

Cover retainer, screw anchors,
6 double membrane seals IP66 M32 sealing range 13 - 21 mm,
2 double membrane seals IP66 M40 sealing range 17 - 28 mm



Description

WKE 6 - Duo 5 x 16²

orange, Connection box, 5-pole, 1.5 - 16 mm², junction box 5-pole 1.5 - 16 mm², number of clampable wires per pole: 20 x 1.5² / 16 x 2.5² / 12 x 4² / 8 x 6² / 4 x 10² / 4 x 16²

Order no.

86761001

Electrical Functional Integrity

WKE BK 1 assembly plate for installationen on cable ducts



Electrical Functional Integrity

WKE BK1 assembly plate - your guarantee of fire-safe mounting

The WKE BK 1 assembly plate is designed to provide fire-safe mounting of WKE 2-6 cable junction and connection boxes on cable ducts with functional integrity. The adapted, inwardly projecting construction of the assembly plate allows safe installation of cables with functional integrity, without these having to deviate from the straight run of the cable duct.

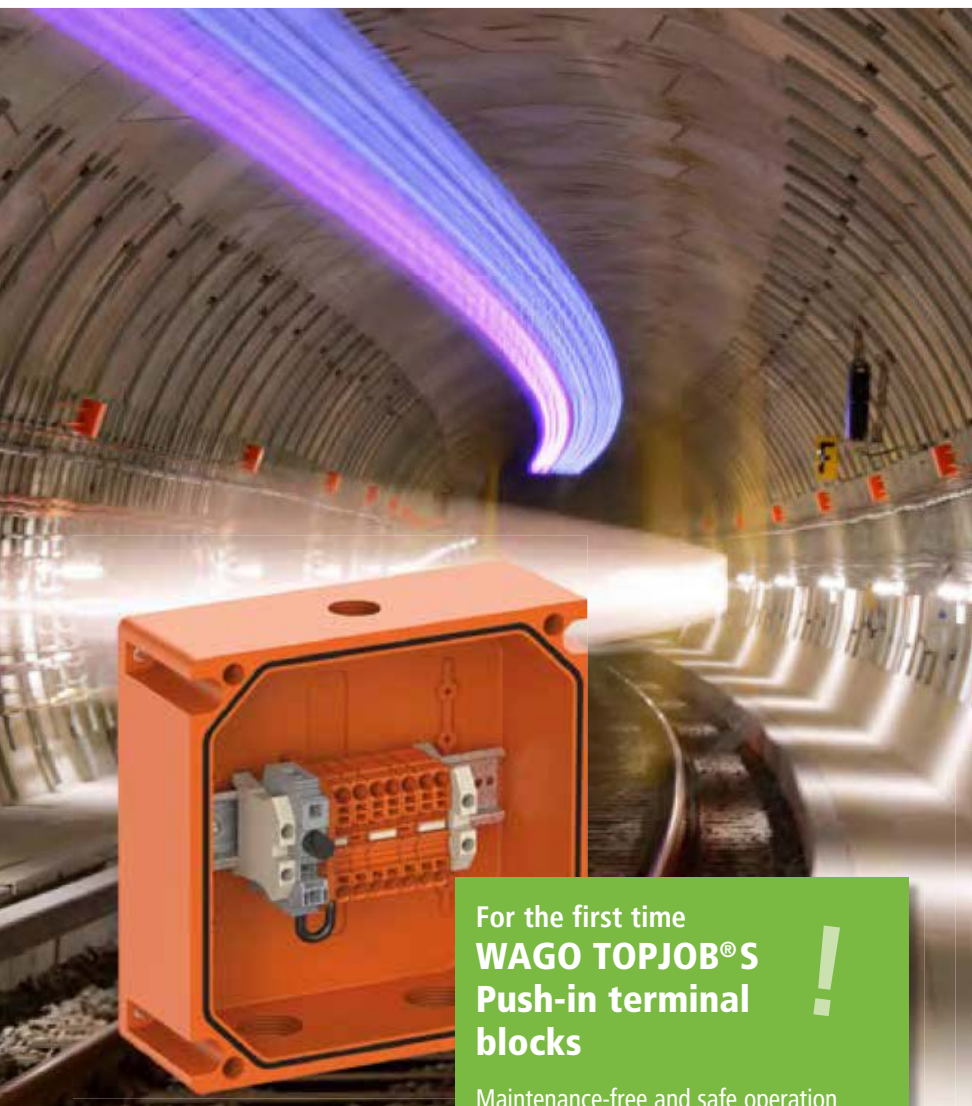
The assembly plate is DIN 4102-12 compliant and has a General Building Inspection Certificate of E90 functional integrity (No: P-1042 DMT DO) from DMT Dortmund. This certification confirms the functional endurance and thus the integrity of the overall system comprising cable junction boxes and cable support systems, in the event of fire, for up to 90 minutes (E90).

The mounting plate is made from highgrade stainless steel and can be freely combined with WKE 2-6 enclosures. A single basic model allows all enclosures in the WKE 2-6 series to be safely mounted in combination - thereby ensuring judicious and economical use of resources.

NEW!

Electrical Functional Integrity

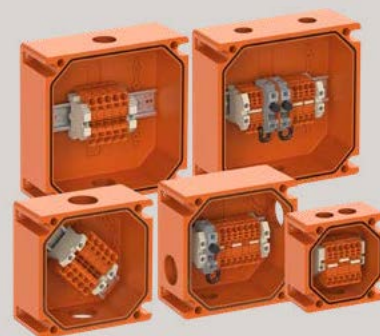
WKE 200-400 SL for Connecting and Junctions



For the first time **WAGO TOPJOB® S Push-in terminal blocks** !

Maintenance-free and safe operation
in harsh environments in which,
for example, vibrations must be withstood.

- E30 functional integrity according to DIN 4102 part 12
- Clamping area of up to 16²
- Ideal for time- and material-saving installation in construction engineering
- ApP test certificate according to DIN 4102-12
- Current inspection certificate available online at www.spelsberg.de
- All junction boxes come with a wide variety of accessories, such as dowels and screw fittings
- Connections and junctions up to the nominal cross-section without any restrictions



WKE 200-400 SL - without screws and with certified functional integrity!

In a global innovation, the new junction and connection boxes in the **WKE 200-400 SL** series combine in a single product the advantages of the screwless **WAGO TOPJOB® S Push-in terminal blocks** and certified functional integrity according to DIN 4102-12. The junction boxes are available in three basic sizes, each with adapted terminal configuration for extensions, junctions, and fused junctions.

Thanks to the fuses, for the first time, nonreactive cable branching beyond the limits of fire prevention sections is possible since, in the event of a fault, the functional integrity in the main section is unaffected. This allows considerable cost savings to be made when laying cables.

As with all WKE cable junction boxes from Spelsberg, including the new WKE 200-400 SL series, the VDE certification in combination with a General Building Inspection Certificate demonstrates high product quality and safety in the event of fire.

NEW!



Electrical Functional Integrity

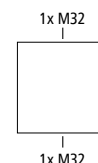
WKE 200-400 SL for Connecting and Junctions

WKE 202 SL

115 x 115 x 93 mm



Junction box, protection class IP66, $U_i=450$ V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), internal thread, M32, (2 side), external fixing lugs, with E30 electrical functional integrity according to DIN 4102 Part 12, with screwless Wago TopJobS terminal blocks, enclosure made from halogen-free special thermosetting plastic



Accessories supplied:

2 off cable glands M32, sealing range 17 - 26 mm,
Wall plug set $\varnothing$ 6 mm

Description

WKE 202 SL

orange, Connection box 5-pole, clamping capacity per pole 2 x 0.5 - 6 mm²

Order no.

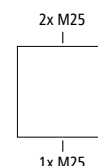
86228201

WKE 203 SL

115 x 115 x 93 mm



Junction box, protection class IP66, $U_i=450$ V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), internal thread, M25, (3 side), external fixing lugs, with E30 electrical functional integrity according to DIN 4102 Part 12, with screwless Wago TopJobS terminal blocks, enclosure made from halogen-free special thermosetting plastic



Accessories supplied:

3 cable glands M25, seal range 6 - 15 mm,
Wall plug set $\varnothing$ 6 mm

Description

WKE 203 SL

orange, Junction box 3-pole, clamping capacity per pole 4 x 0.5 - 4 mm²

Order no.

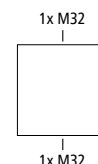
86228301

WKE 302 SL

160 x 160 x 110 mm



Junction box, protection class IP66, $U_i=450$ V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), internal thread, M32, (2 side), external fixing lugs, with E30 electrical functional integrity according to DIN 4102 Part 12, with screwless Wago TopJobS terminal blocks, enclosure made from halogen-free special thermosetting plastic



Accessories supplied:

2 off cable glands M32, sealing range 17 - 26 mm,
Wall plug set $\varnothing$ 6 mm

Description

WKE 302 SL

orange, Connection box 5-pole, clamping capacity per pole 2 x 0.5 - 10 mm²

Order no.

86238201

Electrical Functional Integrity

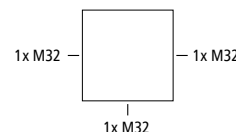
WKE 200-400 SL for Connecting and Junctions

WKE 303 SL

160 x 160 x 110 mm



Junction box, protection class IP66, $U_i=450$ V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), internal thread, M32, (3 side), external fixing lugs, with E30 electrical functional integrity according to DIN 4102 Part 12, with screwless Wago TopJobS terminal blocks, enclosure made from halogen-free special thermosetting plastic



Accessories supplied:

3 cable glands M32, sealing range 17 - 26 mm, dowel kit $\varnothing$ 6 mm

Description

WKE 303 SL

orange, Junction box 5-pole, clamping capacity per pole 4 x 0.5 - 10 mm²

Order no.

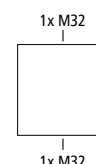
86238301

WKE 402 SL

200 x 200 x 110 mm



Junction box, protection class IP66, $U_i=450$ V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), internal thread, M32, (2 side), external fixing lugs, with E30 electrical functional integrity according to DIN 4102 Part 12, with screwless Wago TopJobS terminal blocks, enclosure made from halogen-free special thermosetting plastic



Accessories supplied:

2 off cable glands M32, sealing range 17 - 26 mm, Wall plug set $\varnothing$ 6 mm

Description

WKE 402 SL

orange, Connection box 5-pole, clamping capacity per pole 2 x 0.5 - 16 mm²

Order no.

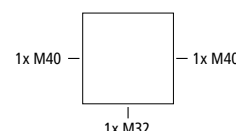
86248201

WKE 403 SL

200 x 200 x 110 mm



Junction box, protection class IP66, $U_i=450$ V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), internal thread, M32/M40, (3 side), external fixing lugs, with E30 electrical functional integrity according to DIN 4102 Part 12, with screwless Wago TopJobS terminal blocks, enclosure made from halogen-free special thermosetting plastic



Accessories supplied:

2 cable glands M40, sealing range 17 - 27 mm, 1 cable gland M32, sealing range 17 - 26 mm, dowel kit $\varnothing$ 6 mm

Description

WKE 403 SL

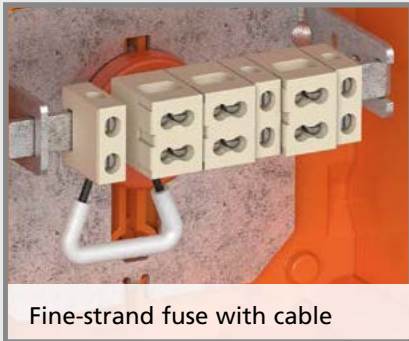
orange, Junction box 5-pole, clamping capacity per pole 4 x 0.5 - 16 mm²

Order no.

86248301

Electrical Functional Integrity

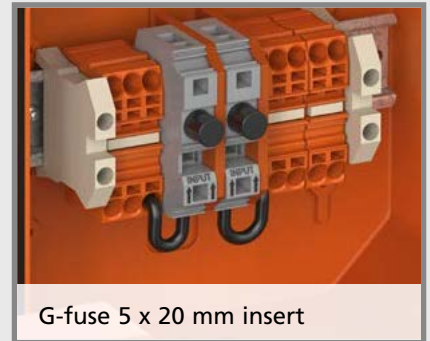
WKE for Fused Junctions



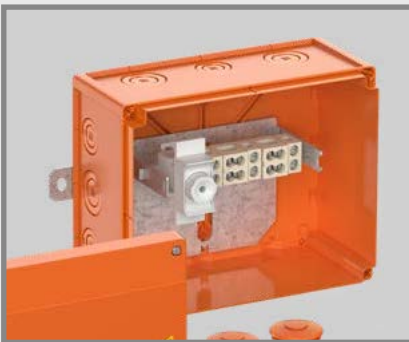
Fine-strand fuse with cable



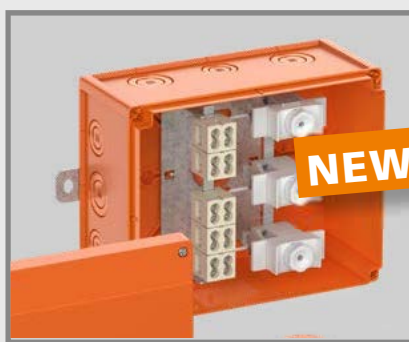
Fuse D01



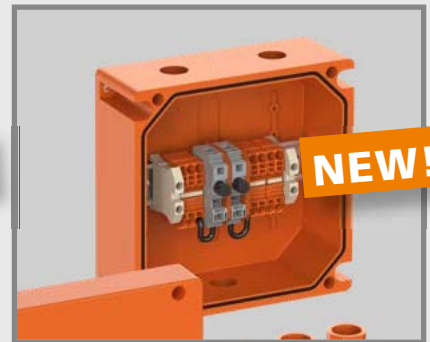
G-fuse 5 x 20 mm insert



WKE 4-6



WKE 6 T



WKE 200-400 SL



The WKE product family

The fused WKE 4 - 6 junction and connection boxes provide functional integrity for the main line in particular, by allowing a fused branch for each floor or each fire compartment. In the event of a fault, only the affected branch of the main line is securely isolated. The main line remains intact thereby guaranteeing, for example, continued lighting of escape routes.

This allows a completely new type of installation, since the individual branches no longer require radial feed, but can simply branch off the main line, without affecting the intrinsic fire resistance. The resulting cable savings reduce costs and assembly times for plant production. Highly fire-resistant, ceramic double terminals for cable cross-sections of up to 16 mm² enhance safety and ensure functional integrity in the passthrough up to E 90.

Completely new to the WKE product family are the WKE 200-400 SL junction and connection boxes with fuses and screwless WAGO TOPJOB®S Push-in terminal blocks. These have been specially developed for use in vibration zones (such as tunnel systems).

Electrical Functional Integrity

WKE 4-6 for fused branches

WKE 4 - 3/3 x 6² 1SB

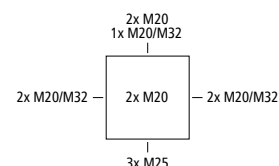
150 x 150 x 85 mm



Junction box, protection class IP66, $U_i=450$ V AC, certified by UL-EU (EN 62208), UL-EU (EN 61439-1/-2), knockouts, M20/M25/M32, (2 rear, 12 side), external fixing lugs, with E30 - E 90 electrical functional integrity according to DIN 4102 Part 12. Halogen-free enclosure made of special thermoplastic, terminals made of high-temperature-resistant special ceramic, universally positionable terminal holder

Accessories supplied:

Cover retainer, screw anchors, 3 double membrane seals M25 IP66 sealing range 9 - 17 mm



Description

WKE 4 - 3/3 x 6² 1SB

orange, connection box, 3-pole, 0.5 - 6 mm², junction box 3-pole 0.5 - 6 mm², fuse in branch 1 x 2A (internal, 1 x WKE BS F2A, 86300101) number of clampable wires per terminal point: 4 x 0.5² / 2 x 0.75² / 3 x 1² / 3 x 1.5² / 1 x 2.5² / 1 x 4² / 1 x 6²

Order no.

86911101

WKE 4 - 5/3 x 6² 1SB

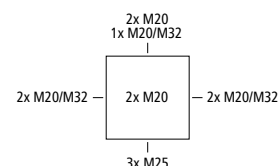
150 x 150 x 85 mm



Junction box, protection class IP66, $U_i=450$ V AC, certified by UL-EU (EN 62208), UL-EU (EN 61439-1/-2), knockouts, M20/M25/M32, (2 rear, 12 side), external fixing lugs, with E30 - E 90 electrical functional integrity according to DIN 4102 Part 12. Halogen-free enclosure made of special thermoplastic, terminals made of high-temperature-resistant special ceramic, universally positionable terminal holder

Accessories supplied:

Cover securing device, screw anchors, 1 double membrane seals M25 IP66 sealing range 9 - 17 mm, 2 double membrane seals M32 IP66 sealing range 13 - 21 mm



Description

WKE 4 - 5/3 x 6² 1SB

orange, Connection box 5-pole 0.5 - 6 mm², junction box 3-pole 0.5 - 6 mm², fuse in branch 1 x 2A (internal, 1 x WKE BS F2A, 86300101), number of clampable conductors per terminal point: 4 x 0.5² / 2 x 0.75² / 3 x 1² / 3 x 1.5² / 1 x 2.5² / 1 x 4² / 1 x 6²

Order no.

86912101

Electrical Functional Integrity

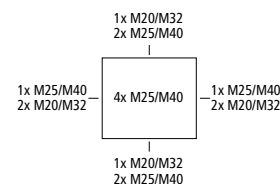
WKE 4-6 for fused branches

WKE 6 - 5/3 x 10² 1D0

200 x 250 x 120 mm



Junction box, protection class IP66, $U_i=450$ V AC, certified by UL-EU (EN 62208), UL-EU (EN 61439-1/-2), M20/M25/M32/M40, (4 rear, 12 side), external fixing lugs, with E30 - E 90 electrical functional integrity according to DIN 4102 Part 12. Halogen-free enclosure made of special thermoplastic, terminals made of high-temperature-resistant special ceramic, universally positionable terminal holder



Accessories supplied:

Cover retainer, screw anchors, 1 double membrane seals
M25 IP66 sealing range 9 - 17 mm, 2 double membrane seals
M32 IP66 sealing range 13 - 21 mm

Description

WKE 6 - 5/3 x 10² 1D0

orange, Junction box 5-pole 1.5 - 10 mm², junction box 3-pole 1.5 - 10 mm², fuse in branch 1 x socket D01 (without insert), number of clampable wires per terminal point 4 x 1.5² / 3 x 2.5² / 2 x 4² / 1 x 6² / 1 x 10²

Order no.

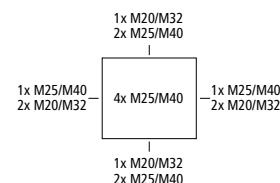
86922120

WKE 6 - 5/3 x 16² 1D0

200 x 250 x 120 mm



Junction box, protection class IP66, $U_i=450$ V AC, certified by UL-EU (EN 62208), UL-EU (EN 61439-1/-2), M20/M25/M32/M40, (4 rear, 12 side), external fixing lugs, with E30 - E 90 electrical functional integrity according to DIN 4102 Part 12. Halogen-free enclosure made of special thermoplastic, terminals made of high-temperature-resistant special ceramic, universally positionable terminal holder



Accessories supplied:

Cover retainer, screw anchors, 1 double membrane seals
M25 IP66 sealing range 9 - 17 mm, 2 double membrane seals
M32 IP66 sealing range 13 - 21 mm, 2 double membrane seals
M40 IP66 sealing range 17 - 28 mm

Description

WKE 6 - 5/3 x 16² 1D0

orange, Connection box 5-pole 1.5 - 16 mm², junction box 3-pole 1.5 - 10 mm², fuse in branch 1 x socket D01 (without insert), number of clamped wires per terminal point 5 x 1.5² / 4 x 2.5² / 2 x 4² / 2 x 6² / 1 x 10² / 1 x 16²

Order no.

86932120

Electrical Functional Integrity

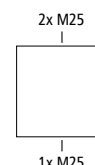
WKE 200-400 SL for fused branches

WKE 204 SL

115 x 115 x 93 mm



Junction box, protection class IP66, $U_i=450$ V AC, internal thread, M25, (3 side), external fixing lugs, with E30 electrical functional integrity according to DIN 4102 Part 12, tested according to VDE (DIN EN 61439-1/-2 (VDE 0660-600-1/-2)) with screwless Wago TopJobS terminal blocks, enclosure made from halogen-free special thermosetting plastic



Accessories supplied:

3 cable glands M25, seal range 6 - 15 mm,
Wall plug set $\varnothing$ 6 mm

Description

WKE 204 SL

orange, Junction box with fused branch, connection box 3-pole, junction box 3-pole, number of clampable wires per pole 4 x 0.5 - 4mm², 1 fuse holder (20 x 5mm) max. 10 A

Order no.

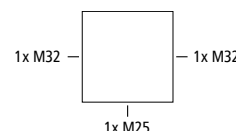
86228401

WKE 304 SL

160 x 160 x 110 mm



Junction box, protection class IP66, $U_i=450$ V AC, internal thread, M25/M32, (3 side), external fixing lugs, with E30 electrical functional integrity according to DIN 4102 Part 12, tested according to VDE (DIN EN 61439-1/-2 (VDE 0660-600-1/-2)) with screwless Wago TopJobS terminal blocks, enclosure made from halogen-free special thermosetting plastic



Accessories supplied:

2 cable glands M32, sealing range 17 - 26 mm,
1 cable gland M25, sealing range 6 - 15 mm, dowel kit $\varnothing$ 6 mm

Description

WKE 304 SL

orange, Junction box with fused branch, connection box 5-pole, number of clampable wires per pole 4 x 0.5 - 10mm², junction box 3-pole, clamping capacity 4 x 0.5 - 6mm², 1 fuse holder (20 x 5mm) max. 10 A

Order no.

86238401

WKE 404 SL

200 x 200 x 110 mm



Junction box, protection class IP66, $U_i=450$ V AC, internal thread, M25/M32, (3 side), external fixing lugs, with E30 electrical functional integrity according to DIN 4102 Part 12, tested according to VDE (DIN EN 61439-1/-2 (VDE 0660-600-1/-2)) with screwless Wago TopJobS terminal blocks, enclosure made from halogen-free special thermosetting plastic



Accessories supplied:

2 cable glands M32, sealing range 17 - 26 mm,
1 cable gland M25, sealing range 6 - 15 mm, dowel kit $\varnothing$ 6 mm

Description

WKE 404 SL

orange, Junction box with fused junction, connection box 5-pole, number of clampable wires per pole 2 x 0.5 - 16mm², junction box 3-pole, number of clampable wires per pole 4 x 0.5 - 6mm², clamping capacity per terminal point 1 x 0.5 - 6mm², 1 fuse holder (20 x 5mm) max. 10 A

Order no.

86248401

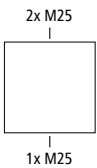
Electrical Functional Integrity

WKE 200-400 SL for fused branches

WKE 404 SL 8x6² 2FS 200 x 200 x 110 mm



Junction box, protection class IP66, $U_i=450$ V AC, internal thread, M25, (3 side), external fixing lugs, with E30 electrical functional integrity according to DIN 4102 Part 12, tested according to VDE (DIN EN 61439-1/-2 (VDE 0660-600-1/-2)) with screwless Wago TopJobS terminal blocks, enclosure made from halogen-free special thermosetting plastic



Accessories supplied:
3 cable glands M25, seal range 6 - 15 mm,
Wall plug set $\varnothing$ 6 mm

Description	Order no.
WKE 404 SL 8x6² 2FS orange, Junction box with fused branch, connection box 3-pole, junction box 3-pole, number of clampable wires per pole 4 x 0.5 - 6mm², clamping capacity per terminal point 1 x 0.5 - 6mm², 2 fuse holders (20 x 5mm) max. 10 A	86248501

Electrical Functional Integrity

WKE 6 T for use in tunnels



NEW!



- Patented knock-outs allow simple installation.
- Patented terminal holder system, can be positioned in steps of 90°
- Available in 4 variants, also without fuse
- The lid screws are made of stainless steel 1.4578 (V4A)
- External fixing lugs (ideal for quick assembly) are made of high corrosion-resistant stainless steel 1.4571 (V4A).

- Fuse in the junction up to 3 x D01
- Central fixing using one screw accessible at all times

- Use of all cable entries with raised terminal possible
- Pressure/suction tight according to Gotthard tunnel guideline.



Lifted position: easy handling of the wires



Bottom position: ideal for special solutions



Electrical Functional Integrity

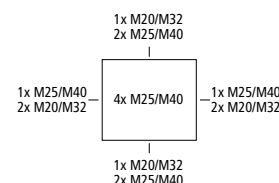
WKE 6 T for use in tunnels

WKE 6 T with D01

200 x 250 x 120 mm



Junction box, protection class IP66, $U_i=450$ V AC, certified by UL-EU (EN 62208), UL-EU (EN 61439-1/-2), knockouts, M20/M25/M32/M40, (4 rear, 12 side), external fixing lugs, with E30 - E 90 electrical functional integrity according to DIN 4102 Part 12. Pressure and suction-tight according to Gotthard guideline. Halogen-free enclosure made of special thermoplastic, terminals made of high-temperature-resistant special ceramic, universally positionable terminal holder, quick assembly thanks to external fixing lug made of stainless steel 1.4571. Cover screws made of stainless steel 1.4578.



Accessories supplied:

2 x cable gland M40, sealing range 16 - 28 mm,
1 x cable gland M32, sealing range 11 - 21 mm, each
1 x double membrane seals M32 and M40 for sealing accidentally opened knockouts.

Electrical Functional Integrity

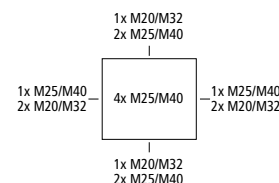
Description	Order no.
WKE 6 T 1D01 orange, Connection box 5-pole 1.5 - 16 mm ² , junction box 3-pole 1.5 - 10 mm ² , fuse in branch 1 x socket D01 (without insert), number of clamped wires per terminal point $5 \times 1.5^2 / 4 \times 2.5^2 / 2 \times 4^2 / 2 \times 6^2 / 1 \times 10^2 / 1 \times 16^2$	86963101
WKE 6 T 2D01 orange, Connection box 5-pole 1.5 - 16 mm ² , junction box 3-pole 1.5 - 10 mm ² , fuse in branch 2 x socket D01 (without insert), max. no. of clamped wires per terminal point $5 \times 1.5^2 / 4 \times 2.5^2 / 2 \times 4^2 / 2 \times 6^2 / 1 \times 10^2 / 1 \times 16^2$	86963201
WKE 6 T 3D01 orange, Connection box 5-pole 1.5 - 16 mm ² , junction box 3-pole 1.5 - 10 mm ² , fuse in branch 3 x socket D01 (without insert), max. no. of clamped wires per terminal point $5 \times 1.5^2 / 4 \times 2.5^2 / 2 \times 4^2 / 2 \times 6^2 / 1 \times 10^2 / 1 \times 16^2$	86963301

WKE 6 T DUO

200 x 250 x 120 mm



Junction box, protection class IP66, $U_i=450$ V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), UL-EU (EN 62208), knockouts, M20/M25/M32/M40, (4 rear, 12 side), external fixing lugs, with E30 - E 90 electrical functional integrity according to DIN 4102 Part 12. Pressure and suction-tight according to Gotthard guideline. Halogen-free enclosure made of special thermoplastic, terminals made of high-temperature-resistant special ceramic, universally positionable terminal holder, quick assembly thanks to external fixing lug made of stainless steel 1.4571. Cover screws made of stainless steel 1.4578.



Accessories supplied:

2 x cable gland M40, sealing range 16 - 28 mm,
1 x cable gland M32, sealing range 11 - 21 mm, each
1 x double membrane seals M32 and M40 for sealing accidentally opened knockouts.

Description	Order no.
WKE 6 T Duo 5 x 16² orange, Connection box, 5-pole, 1.5 - 16 mm ² , junction box 5-pole 1.5 - 16 mm ² , number of clampable wires per pole: $20 \times 1.5^2 / 16 \times 2.5^2 / 12 \times 4^2 / 8 \times 6^2 / 4 \times 10^2 / 4 \times 16^2$	86763001

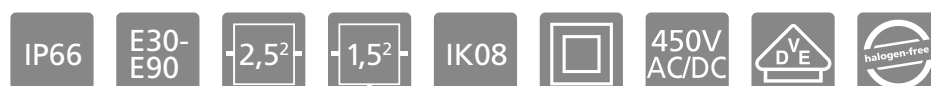
Electrical Functional Integrity

WKE 4-6 for Communication Lines



Electrical functional integrity E30-E90 according to DIN 4102 part 12 (with ceramic terminals 1,5 mm²)

- The right solution for each cross-section and application
- Quick mounting through external fixing lugs
- Possible to mount on cable trays
- Installation materials such as screw anchors and double membrane seals included
- Completely pre-assembled
- General construction-supervisory test certificate (AbP)
- Ideal for building technology
- VDE and UL-EU certified
- Up to 32-pin



Electrical Functional Integrity

WKE 4-6 for Communication Lines

WKE 4 - 8 x 1,5²

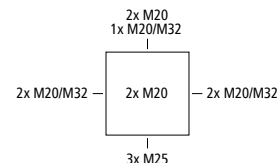
150 x 150 x 85 mm



Junction box, protection class IP66, $U_i=450$ V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), UL-EU (EN 62208), knockouts, M20/M25/M32, (2 rear, 12 side), external fixing lugs, with E30 - E 90 electrical functional integrity according to DIN 4102 Part 12. Halogen-free enclosure made of special thermoplastic, terminals made of high-temperature-resistant special ceramic, universally positionable terminal holder

Accessories supplied:

Cover retainer, screw anchor,
3 double membrane seals IP66 M20 sealing range 7 - 13 mm,
2 double membrane seals IP66 M25 sealing range 9 - 17 mm,
1 double membrane seal IP66 M32/4 sealing range 4 x 3.5-6 mm



Electrical Functional Integrity

Description

WKE 4 - 8 x 1,5²

orange, Connection box, 8-pole, 0.5 - 2.5 mm², junction box 8-pole 0.5 - 1.5 mm², number of clampable conductors per pole: 8 x 0.5² / 4 x 0.75² / 6 x 1² / 6 x 1.5² / 2 x 2.5²

Order no.

86850801

WKE 6 - 16 x 1,5²

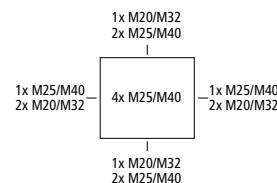
200 x 250 x 120 mm



Junction box, protection class IP66, $U_i=450$ V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), UL-EU (EN 62208), M20/M25/M32/M40, (4 rear, 12 side), external fixing lugs, with E30 - E 90 electrical functional integrity according to DIN 4102 Part 12. Halogen-free enclosure made of special thermoplastic, terminals made of high-temperature-resistant special ceramic, universally positionable terminal holder

Accessories supplied:

Cover retainer, screw anchors,
2 double membrane seals IP66 M20 sealing range 7 - 13 mm,
4 double membrane seals IP66 M25 sealing range 9 - 17 mm,
2 off double membrane seals IP66 M40/4 sealing range 4 x 6 - 9 mm



Description

WKE 6 - 16 x 1,5²

orange, Connection box, 16-pole, 0.5 - 2.5 mm², junction box 16-pole 0.5 - 1.5 mm², number of clampable conductors per pole: 8 x 0.5² / 4 x 0.75² / 6 x 1² / 6 x 1.5² / 2 x 2.5²

Order no.

86851601

Electrical Functional Integrity

WKE 4-6 for Communication Lines

WKE 6 - 32 x 1,5²

200 x 250 x 120 mm



IP66

E30-E90

IK08

2,5²

1,5²

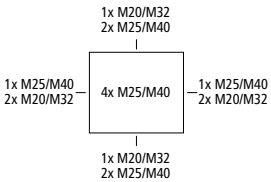
450V AC

450V DC

UL EU

Junction box, protection class IP66, U_i=450 V AC, certified by VDE (DIN EN 60670-1/-22 (VDE 0606-1/-22)), UL-EU (EN 62208), M20/M25/M32/M40, (4 rear, 12 side), external fixing lugs, with E30 - E 90 electrical functional integrity according to DIN 4102 Part 12. Halogen-free enclosure made of special thermoplastic, terminals made of high-temperature-resistant special ceramic, universally positionable terminal holder

Accessories supplied:
Cover retainer, screw anchors,
2 double membrane seals IP66 M20 sealing range 7 - 13 mm,
6 double membrane seals IP66 M25 sealing range 9 - 17 mm,
2 double membrane seals IP66 M40/4 sealing range 4 x 6 - 9 mm



Description	Order no.
WKE 6 - 32 x 1,5² orange, Connection box, 32-pole, 0.5 - 2.5 mm ² , junction box 32-pole 0.5 - 1.5 mm ² , number of clampable conductors per pole: 8 x 0.5 ² / 4 x 0.75 ² / 6 x 1 ² / 6 x 1.5 ² / 2 x 2.5 ²	86853201

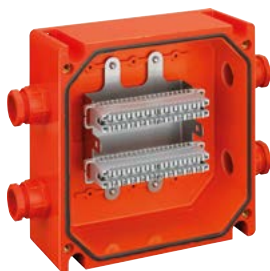
Electrical Functional Integrity

WKE 405 LSA for Communication Lines



WKE 405 LSA

200 x 200 x 110 mm

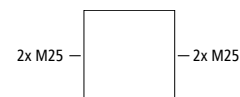


IP66 E30 IK08 0,5² 450V AC halogen free LSA

Junction box, protection class IP66, $U_i=450$ V AC, M25, (4 side), external fixing lugs, with time-saving connection technology (solder, screw and stripping-free) connection for cables with functional integrity according to DIN 4102 Part 12

Accessories supplied:

4 off cable glands M25, sealing range 9 - 19 mm, wall plug set $\varnothing$ 6 mm



Description

WKE 405 LSA

orange, Connection box equipped with two LSA-Plus connector blocks, respectively for 10 double wires (2 x 10 DA), the LSA-Plus contacts are suitable for a solid conductor with 0.4 to 0.8 mm diameter and an outside insulation diameter of 0.7 to 1.6 mm.

Order no.

86240501

Electrical Functional Integrity

WKE 2-6 Accessories

WKE assembly plate



Assembly plate for fire-safe installation of cable junction boxes with functional integrity in Series WKE 2 to WKE 6 on cable support systems with functional integrity. Certified combination of junction box, assembly plate and support system with AbP (General Building Inspection Certificate) and electrical integrity E30 - E90 according to DIN 4102-12. WKE 2 requirement: 1 piece; WKE 4, WKE 6 requirement: 2 pieces

Description	Order no.
WKE BK 1 Stainless steel without fixing screws	86310001

Double membrane seals, orange



Double membrane seals, IP66, with two sealing membranes, closed, thermoplastic elastomer (TPE), for wall thicknesses 1.5 - 4.5 mm, orange

Description	Order no.
DMS M16/or Sealing area 5 - 9 mm	26061601
DMS M20/or Sealing area 7 - 13 mm	26062001
DMS M25/or Sealing area 9 - 17 mm	26062501
DMS M32/or Sealing area 13 - 21 mm	26063201
DMS M40/or Sealing area 17 - 28 mm	26064001

4-fold double membrane seals, orange



Double membrane seals, IP66, with two sealing membranes, closed, max. four cable insertions for control lines, thermoplastic elastomer (TPE), orange, for wall thicknesses 1.5 - 4.5 mm

Description	Order no.
DMS M32/4 or Sealing area 3.5 - 6 mm per entry	26063301
DMS M40/4 or Sealing area 6 - 9 mm per entry	26064101

Cable gland, orange



Cable gland, IP68, with strain relief, polyamide, M_x 1.5 mm, with locknut, orange

Description	Sealing range/mm	Thread lenght/mm	Order no.
KVR M16-MGM/or	4 - 10	8	22761601
KVR M20-MGM/or	6 - 12	9	22762001
KVR M20-GDB/MGM/or NEW	7 - 14	9	22762101
KVR M25-MGM/or	9 - 16	11	22762501
KVR M32-MGM/or	11 - 21,0	11	22763201
KVR M40-MGM/or	16 - 28,0	11	22764001

Electrical Functional Integrity

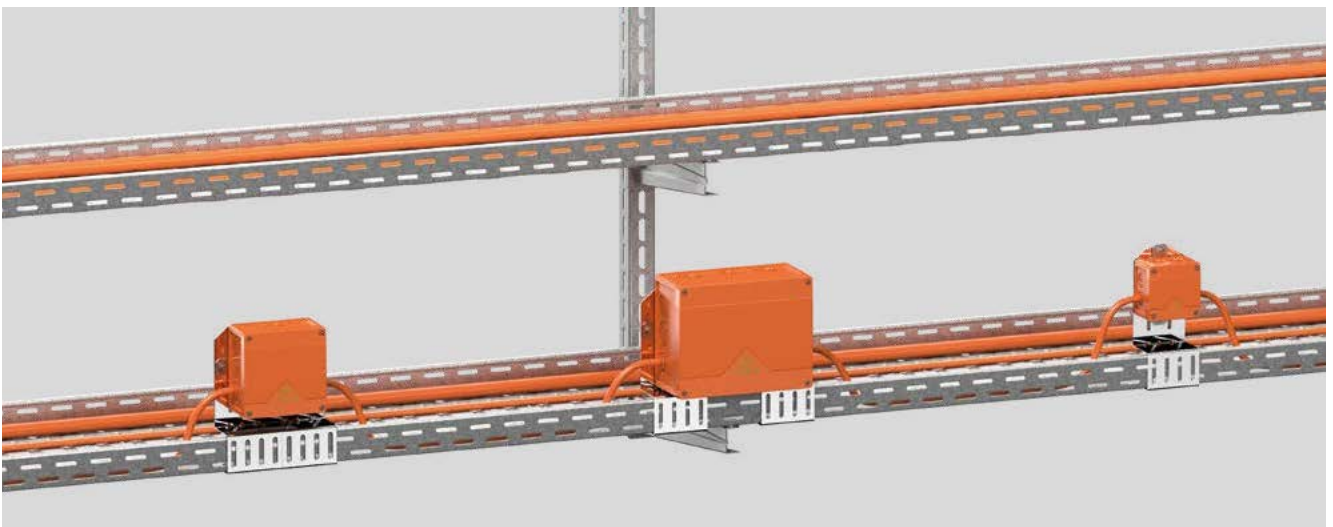
WKE 2-6 Accessories

WKE BS F2A spare fuses



Spare fuses for WKE 2-6 in the "SB" versions, Wired device fuses F2A in the size 5 x 20 mm coated with a glass fibre sleeve

Description	Order no.
WKE BS F2A 1 set = 10 pieces	86300101



Electrical Functional Integrity

WKE 200-400 Accessories

WKE 200-400 external fixing lugs



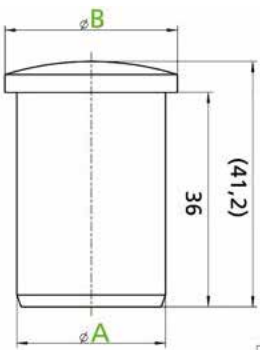
External fastening kit V2A

Description	Order no.
WKE 200 ABL External fastening kit V2A, for WKE 200 up to WKE 400, Material stainless steel V2A (1.4301), Set = 4 pcs.	86040001

Blind plugs



Blind plugs are available on request



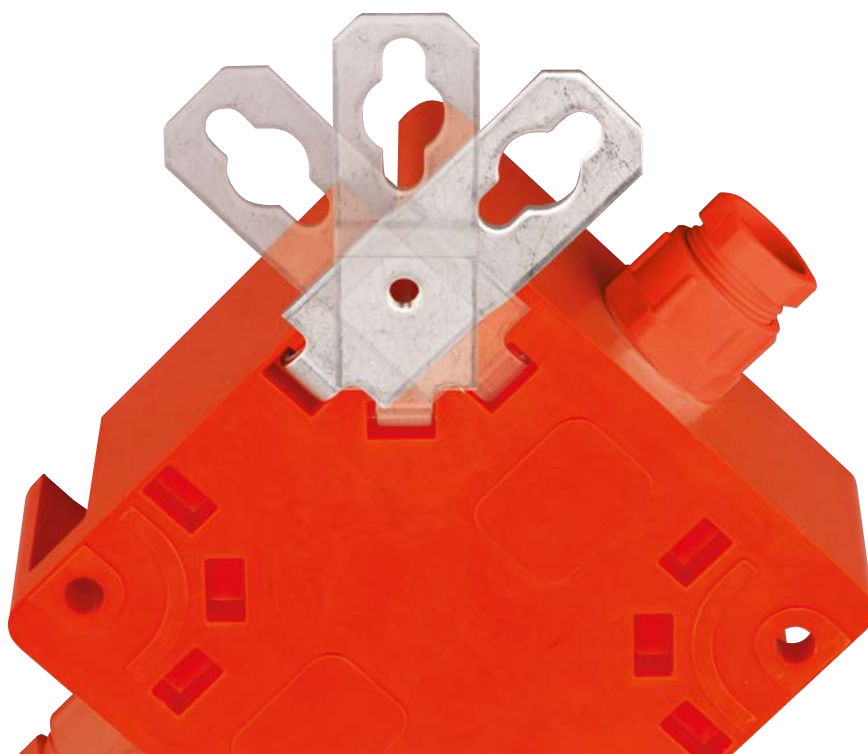
Description
Dimension A: 20 mm, Dimension B: 24 mm
Dimension A: 12 mm, Dimension B: 16 mm
Dimension A: 32 mm, Dimension B: 36 mm
Dimension A: 12 mm, Dimension B: 19 mm
Dimension A: 25 mm, Dimension B: 29 mm

Electrical Functional Integrity

WKE 200-400 Accessories

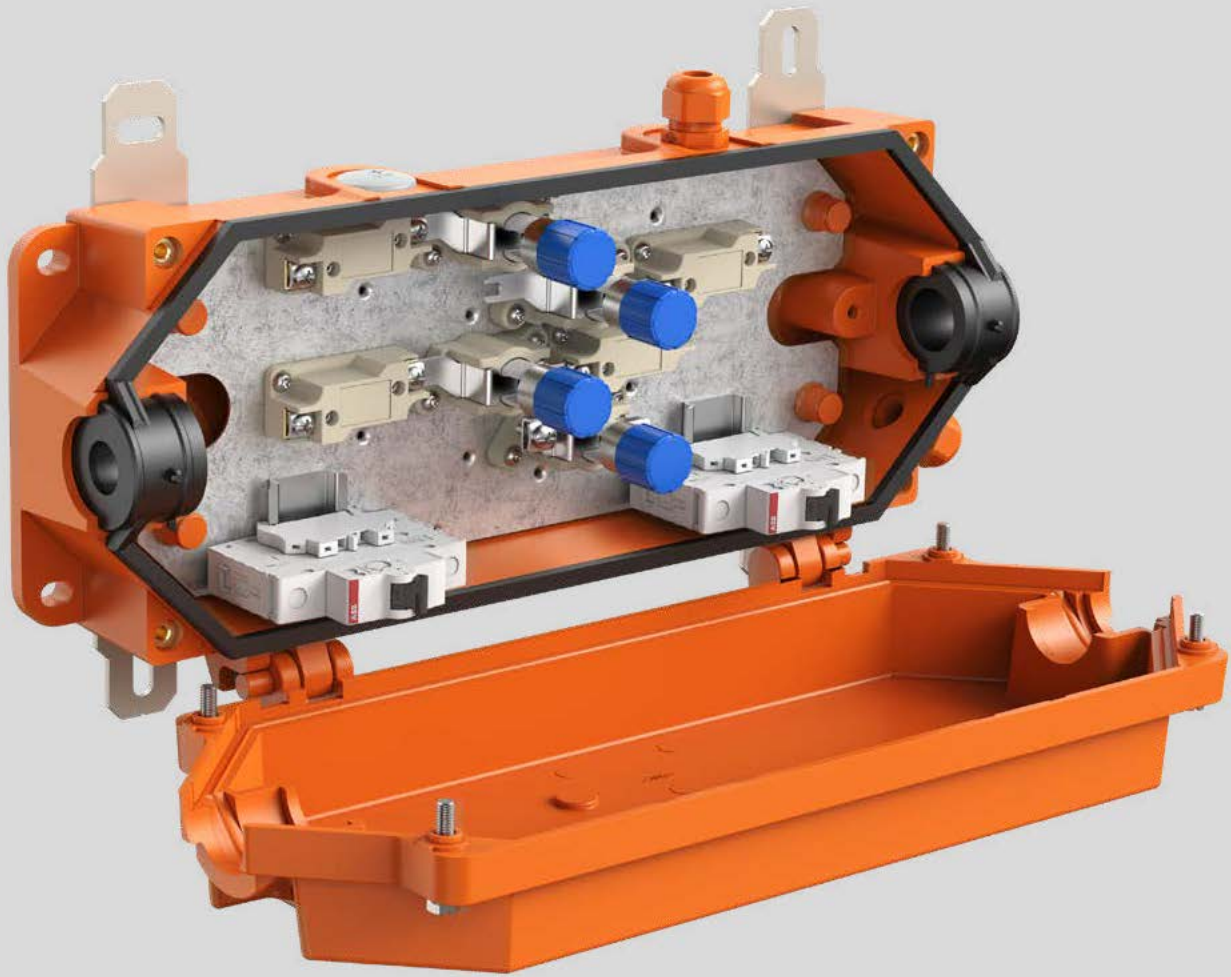


Electrical Functional
Integrity



Electrical Functional Integrity

WKE Rapid-Box HT for use in tunnels



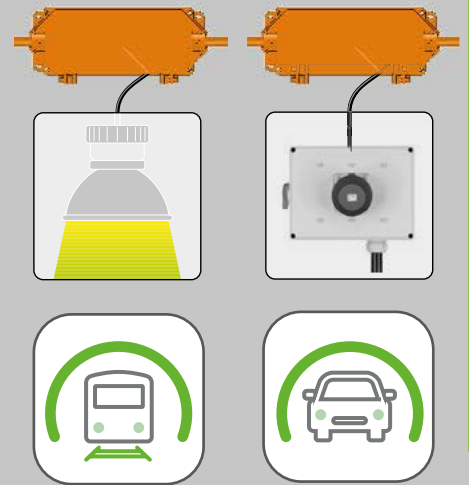
WKE Rapid-Box^{HT} - guarantees the function of life-saving electrical systems

- Switchgear combination according to EN 61439
- Contacting of uncut conductors up to 50 mm²
- also possible afterwards
- Connecting of cut conductors up to 35 mm²
- Pressure and suction tight in accordance with Gotthard tunnel guideline
- Maintenance-free mantle terminal
- Junction per pole up to 2,5 mm²
- External fixing lugs allow assembly even when the lid is closed
- Flexible adaptation to different installation situations thanks to the turnable mounting plate
- Robust and UV resistant enclosure materials protect the interior installation.
- Safe installation due to the high ratings IP66/67 and IK09
- Specific customer solutions are possible thanks to the modular system





Application examples:



[www.spelsberg.com/
electrical-functional-integrity-in-tunnels](http://www.spelsberg.com/electrical-functional-integrity-in-tunnels)

The high temperature element (HTE) from Spelsberg is the only known temperature shutoff element on the market that can be used up to a limit temperature of 1000 °C. Also well suited for technical fire protection applications. To prevent a short-circuit in event of a fire, the HTE is installed at the start point of the electric junction.

The HTE acts exclusively as temperature shutoff element. It disconnects the electric connection of the junction irreversible in case of a fire. Thanks to the shutoff element, an error in the junction does not impair the main line.

The junction is therefore separated safely and permanently, also in case of a fire. The continuous operating temperature of 80°C allows it to be used in conventional electrotechnical installations and switchgear combinations.

Electrical Functional Integrity

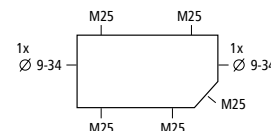
WKE Rapid-Box HT for use in tunnels

WKE Rapid-Box HT 16²

190 x 447 x 105 mm



Junction box, protection class IP66/IP67, $U_i=400$ V AC, M25, (5 side), external fixing lugs, with E30 - E 90 electrical functional integrity according to DIN 4102 Part 12. For installations in the industrial environment and tunnel applications, pressure and suction tight in accordance with Gotthard guideline. Halogen-free enclosure made of special thermosetting plastic, terminals made of special high-temperature-resistant ceramic. External fixing lugs and cover screws made of stainless steel 1.4571



Accessories supplied:

2 off M25 cable gland, sealing range 9-16mm
4 off M25 locking screws

Description

WKE Rapid-Box HT 1x3 16² 1F

orange, Feed-through: 3-pole terminal for uncut wires, clamping range for uncut wire 2.5mm² to 25mm², clamping range for cut wire 2.5mm² to 16mm², rated current 63A. Fuse and feedback-free junction 3-pole up to 2.5mm², fuse protection with 1 x circuit breaker, unipolar B16, pre-wired, sealing range main cable: 17 - 22 mm (other sealing ranges on request)

Order no.

30232116

WKE Rapid-Box HT 2x3 16² 2F

orange, Feed-through: 4-pole terminal for uncut wire, clamping range for uncut wire 2.5mm² to 25mm², clamping range for cut wire 2.5mm² to 16mm², rated current 63A. Fuse and feedback-free junction 4-pole up to 2.5mm², fuse protection with 2 x circuit breaker, unipolar B10, pre-wired, sealing range main cable: 17 - 22 mm (other sealing ranges on request)

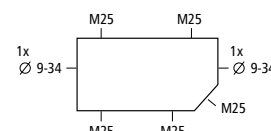
30244216

WKE Rapid-Box HT 50²

190 x 447 x 105 mm



Junction box, protection class IP66/IP67, $U_i=400$ V AC, M25, (5 side), external fixing lugs, with E30 - E 90 electrical functional integrity according to DIN 4102 Part 12. For installations in the industrial environment and tunnel applications, pressure and suction tight in accordance with Gotthard guideline. Halogen-free enclosure made of special thermosetting plastic, terminals made of special high-temperature-resistant ceramic. External fixing lugs and cover screws made of stainless steel 1.4571



Accessories supplied:

2 off M25 cable gland, sealing range 9-16mm
4 off M25 locking screws

Description

WKE Rapid-Box HT 1x3 50² 1F

orange, Feed-through: 3-pole terminal for uncut wire, clamping range for uncut wire 16mm² to 50mm², clamping range for cut wire 16mm² to 35mm², rated current 100A. Fuse and feedback-free junction 3-pole up to 2.5mm², fuse protection with 1 x circuit breaker, unipolar B16, pre-wired, sealing range main cable: 21 - 26 mm (other sealing ranges on request)

Order no.

30232150

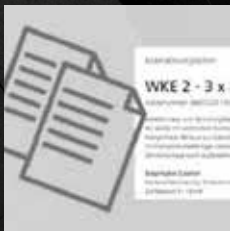
WKE Rapid-Box HT 2x3 50² 2F

orange, Feed-through: 4-pole terminal for uncut wire, clamping range for uncut wire 16mm² to 50mm², clamping range for cut wire 16mm² to 35mm², rated current 100A. Fuse and feedback-free junction 4-pole up to 2.5mm², fuse protection with 2 x circuit breaker, unipolar B10, pre-wired, sealing range main cable: 21 - 26 mm (other sealing ranges on request)

30244250

BIM

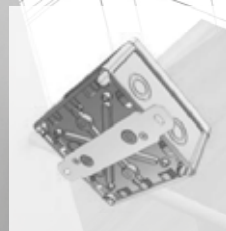
[Building Information Modelling]



Tender documents



BIM data



3D-CAD data



Planning information

www.spelsberg.com/service/planninginformation



In order to give customers and partners in all work phases of the planning project with the best-possible support, Spelsberg provides all planning-related information drawn together in one place.

Electrical Functional Integrity

Technical Information



Protection rating (IP code)
in accordance with DIN EN 60529
(VDE 0470-1)



Protection class II
Equipment with protective insulation in
accordance with DIN VDE 0100-410



Electrical functional integrity
in accordance with DIN 4102-12
"E" stands for functional integrity,
"30-90" stands for the duration in minutes



Nominal cross section The largest
permissible wire cross-section that can
be connected acc. to DIN EN 60998
(VDE 0613) and DIN EN 60999 (VDE 0609)



Rated voltage
for use in AC voltage systems, maximum
permissible nominal voltage of the
electrical system



Rated voltage
for use in DC voltage systems, maximum
permissible nominal voltage of the
electrical system



Level of protection (IK code) against
mechanical impact acc. to DIN EN 50102
(VDE 0470-100)



The **VDE symbol** stands for the tested safety
of the product with regard to electrical,
mechanical, thermal and other hazards



Halogen-free enclosure, without halogens
such as fluorine, chlorine and bromine

Pictograms | Electrical Functional Integrity



**Standard
Quality**



**Industrial
Quality**

Overview of the ambient conditions and mechanical properties of els products

	Ambient temperature Minimum value	Ambient temperature Maximum value	Ambient temperature Average over 24 h	Max. relative humidity at 40°C	Max. relative humidity at 25°C (short-term)	Protection rating according to DIN EN 60529 (VDE 0470-1) ¹⁾	Shock-proof as per DIN EN 50102 / DE 0470 Part 100
WKE 2-6 junction boxes	-35°C	80°C	60°C	50%	95%	IP66	IK08
WKE 200-400 junction boxes	-25°C	40°C	35°C	50%	95%	IP66	IK08
Rapid-Box HT	-25°C	40°C	35°C	50%	95%	IP66/67	IK09

Additional note: The specified temperatures may be limited by the installed devices.

¹⁾ When used with suitable connectors or cable glands

Overview of the properties of the materials used in els installation systems

Material	Used in the products:	Weak acids	Strong acids	Weak alkalis	Strong alkalis	Alcohol	Petrol	Benzene	Mineral oil	Diesel	Ammonia, gaseous (DLG Focus Test)	Vegetable fats	Animal fats	Halogen-free	Free from heavy metals, PVC and silicone	Combustion behaviour in accordance with DIN EN 60695 (VDE 0471) / UL94
Duroplastic	WKE 200-400, Rapid-Box HT	Ø	Ø	Ø	Ø	O	O	O	O	O	not speci- fied	O	O	yes	yes	960°C / V-0
Polycarbonate	WKE 2-6	O	X	X	X	O	Ø	X	O	Ø	O	O	Ø	yes	yes	960°C / V-0

O = resistant Ø = partially resistant X = not resistant

In principle, not only the protection class but also the climatic conditions and the occurrence of chemical influences should be assessed when selecting the installation site. Details of the material properties and chemical resistance of the materials used can be taken from the table **though it should be noted that they are only guide values.**

Electrical Functional Integrity

Technical Information

Connections and junctions

Part No	Type designation	max. conductor cross-section / mm ²		Number of poles		DUO terminal blocks allow different conductor cross-sections for each pole
		Cable extension	Cable junction	Feed-through	Junction	
866 502 01	WKE 2 - 5 x 1.5 ²	2.5	1.5	5	5	no
867 400 01	WKE 2 - Duo 3 x 4 ²	4	4	3	3	yes
866 512 01	WKE 2 - 3 x 4 ²	6	4	3	3	no
866 504 01	WKE 4 - 5 x 4 ²	10	4	5	5	no
867 710 01	WKE 4 - Duo 5/3 x 6 ²	6	6	5	3	yes
867 410 01	WKE 4 - Duo 5 x 6 ²	6	6	5	5	yes
867 420 01	WKE 6 - Duo 7 x 6 ²	6	6	7	7	yes
866 506 01	WKE 6 - 5 x 6 ²	16	6	5	5	no
867 500 01	WKE 4 - Duo 3 x 10 ²	10	10	3	3	yes
867 510 01	WKE 6 - Duo 5 x 10 ²	10	10	5	5	yes
867 600 01	WKE 6 - Duo 3 x 16 ²	16	16	3	3	yes
867 610 01	WKE 6 - Duo 5 x 16 ²	16	16	5	5	yes
867 630 01	WKE 6 T Duo 5 x 16 ²	16	16	5	5	yes
862 282 01	WKE 202 SL	6	-	5	-	no
862 283 01	WKE 203 SL	4	4	3	3	yes
862 382 01	WKE 302 SL	10	-	5	-	no
862 383 01	WKE 303 SL	10	10	5	5	yes
862 482 01	WKE 402 SL	16	-	5	-	no
862 483 01	WKE 403 SL	16	16	5	5	yes

With fused junction

Part No	Type designation	max. conductor cross-section / mm ²		Number of poles		DUO terminal blocks allow different conductor cross-sections for each pole
		Cable extension	Cable junction	Feed-through	Junction	
869 111 01	WKE 4 – 3/3 x 6 ² 1SB	6	6	3	3	no
869 121 01	WKE 4 – 5/3 x 6 ² 1SB	6	6	5	3	no
869 221 20	WKE 6 – 5/3 x 10 ² 1D0	10	4	5	3	yes
869 321 20	WKE 6 – 5/3 x 16 ² 1D0	16	4	5	3	yes
869 631 01	WKE 6 T 1D01	16	4	5	3	yes
869 632 01	WKE 6 T 2D01	16	4	5	4	yes
869 633 01	WKE 6 T 3D01	16	4	5	5	yes
862 281 01	WKE 204 SL	4	4	3	3	yes
862 384 01	WKE 304 SL	10	10	5	3	yes
862 485 01	WKE 404 SL 8 x 6 ² 2FS	6	6	3	3	yes
862 484 01	WKE 404 SL	16	10	5	3	yes

For communication cables

Part No	Type designation	max. conductor cross-section / mm ²		Number of poles		DUO terminal blocks allow different conductor cross-sections for each pole
		Cable extension	Cable junction	Feed-through	Junction	
868 508 01	WKE 4 - 8 x 1.5 ²	2.5	1.5	8	8	no
868 516 01	WKE 6 - 16 x 1.5 ²	2.5	1.5	16	16	no
868 532 01	WKE 6 - 32 x 1.5 ²	2.5	1.5	32	32	no
862 405 01	WKE 405 LSA	0.8	0.8	40	-	LSA terminal strip

Electrical Functional Integrity

Technical Information

WKE 2-6 / WKE 6 T - cable insertions

 Double membrane seals	 Sealing range area
M16	5 - 9
M20	7-13
M25	9 - 17
M32	13 - 21
M40	17 - 28
M32/4	4x 3.5 - 6
M40/4	4x 6 - 9

 Cable gland	 Clamping area	 Rated torque
M 16 x 1.5	4 - 10	2.5
M 20 x 1.5	6 - 12	4
M 20 x 1.5	7 - 14	4
M 25 x 1.5	9 - 16	6
M 32 x 1.5	11 - 21	7
M 40 x 1.5	16 - 28	7.5

WKE 2-6 - number of clampable wires per pole or terminal point (depending on enclosure size)

	Terminal 6 ² Tightening torque 0.8 Nm			Terminal 10 ² Tightening torque 1.2 Nm			Terminal 16 ² Tightening torque 2.0 Nm		
									
0.5 ²	16	8	4						
0.75 ²	8	4	2						
1.0 ²	12	6	3	20	10	5			
1.5 ²	12	6	3	16	8	4	20	10	5
2.5 ²	4	2	1	12	6	3	16	8	4
4 ²	4	2	1	8	4	2	12	6	3
6 ²	4	2	1	4	2	1	8	4	2
10 ²				4	2	1	4	2	1
16 ²							4	2	1

 = Single terminal, 2 clamping points

 = Clamping point

 = Double terminal, 4 clamping points

WKE 200-400 SL - cable insertions

 Cable gland	 Sealing range	 Rated torque
M 20 x 1.5	6 - 13	4
M 25 x 1.5	6 - 15	6
M 25 x 1.5	9 - 19	6
M 32 x 1.5	17 - 26	7
M 40 x 1.5	17 - 27	7.5
M 50 x 1.5	23 - 34	7.5

WKE 200-400 SL - connection of cables (depending on enclosure size)

 Rated cross-section	 Cable cross-section (single wire)	 Push-in terminal block (directly pluggable)	 Stripping length	 Rated insulation voltage	Rated current
mm ²	mm ²	mm ²	mm ²		
6	0.5 - 6	2.5 - 6	13 - 15	450 V	41 A
10	0.5 - 10	4 - 10	17 - 19	450 V	57 A
16	0.5 - 16	6 - 16	18 - 20	450 V	76 A
6mm ² (Fuse terminal)	0.2 - 6	-----	12-13	450 V	10 A

Small Distribution Boards



High-quality small distribution boards with an increased protection level and further special, technical features for harsh and challenging environments.

Innovation has a long tradition at Spelsberg. We are continuously setting new standards, particularly with respect to safety. With the new generation of AK distribution boards we are celebrating the further development of one of the most popular surface-mounted, distri-

bution boards and the advent of a new, fully-integrated, serial ventilation system: The **innovative Air technology** objective from the start was to develop a distribution board that you can always be sure of, no matter whether it is installed inside or protected outdoor.

Small Distribution Boards

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 Small distribution board, for protected outdoor areas 14-70 modules, IP65 -flange variant-	AK Air-F / AK Air-F Plus	158
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Small Distribution Boards

AK Compact | AKi Compact



- Compact small distribution boards for 3-24 modules

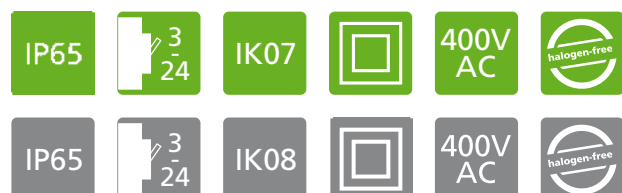
- Variants for indoor (AK) and protected outdoor areas (AKi)

- Comfortable insertion of cables by means of pre-assembled double membrane seals

- AK and AKi distribution boards fulfil the requirements of VDE 0100-737

- Cable insertions can be replaced by cable glands

- Easy lateral combination option



Small Distribution Boards

AK | AKi Compact

AK 03

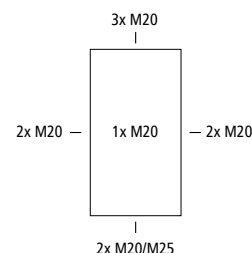
100 x 150 x 96 mm



Small distributions boards, protection class IP65, 1 row, 3 available modules, rated operational voltage: 400V AC, metric knockouts on top and bottom for universal cable insertions with cable glands and/or double membrane seals, pre-mounted with double membrane seals M20 at the top, for standard installations indoors

Accessories supplied:

Double-membrane seals: 1x M25, sealing plugs, masking and labelling strips



Description

AK 03

with PE/N terminal rail, each with 1 clamping point 16 mm² and 3 clamping points 6 mm²

Order no.

73540301

AKi 03

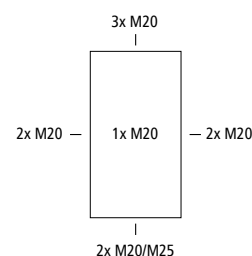
100 x 150 x 96 mm



Small distributions boards, protection class IP65, 1 row, 3 available modules, rated operational voltage: 400V AC, rated insulation voltage: 1000V AC, 1000V DC, metric knockouts on top and bottom for universal cable insertions with cable glands and/or double membrane seals, pre-mounted with double membrane seals M20 at the top, for installations in the industrial environment and protected outside areas

Accessories supplied:

Double-membrane seals: 1x M25, sealing plugs, masking and labelling strips



Description

AKi 03

with PE/N terminal rail, each with 1 clamping point 16 mm² and 3 clamping points 6 mm²

Order no.

73640301

AK 05

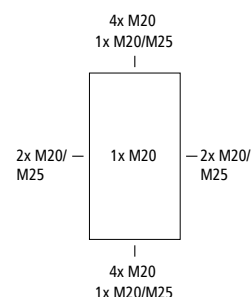
125 x 200 x 122 mm



Small distributions boards, protection class IP65, 1 row, 5 available modules, rated operational voltage: 400V AC, rated insulation voltage: 1000V AC, 1000V DC, metric knockouts on top and bottom for universal cable insertions with cable glands and/or double membrane seals, pre-mounted with double membrane seals M20 at the top, for standard installations indoors

Accessories supplied:

Double-membrane seals: 1x M25, sealing plugs, masking and labelling strips



Description

AK 05

with PE/N terminal rail, each with 2 clamping points 16 mm² and 3 clamping points 6 mm²

Order no.

73540501

Small Distribution Boards

AK | AKi Compact

AKi 05

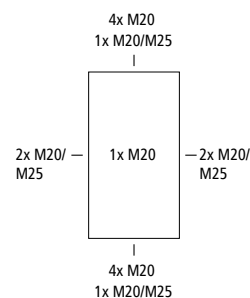
125 x 200 x 122 mm



Small distributions boards, protection class IP65, 1 row, 5 available modules, rated operational voltage: 400V AC, rated insulation voltage: 1000V AC, 1000V DC, metric knock-outs on top and bottom for universal cable insertions with cable glands and/or double membrane seals, pre-mounted with double membrane seals M20 at the top, for installations in the industrial environment and protected outside areas

Accessories supplied:

Double-membrane seals: 1x M25, sealing plugs, masking and labelling strips



Description

AKi 05

with PE/N terminal rail, each with 2 clamping points 16 mm² and 3 clamping points 6 mm²

Order no.

73640501

AK 09

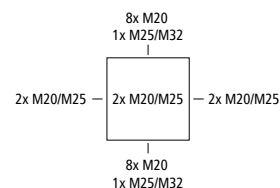
200 x 200 x 122 mm



Small distributions boards, protection class IP65, 1 row, 9 available modules, rated operational voltage: 400V AC, rated insulation voltage: 1000V AC, 1000V DC, metric knock-outs on top and bottom for universal cable insertions with cable glands and/or double membrane seals, pre-mounted with double membrane seals M20 at the top, for standard installations indoors

Accessories supplied:

Double-membrane seals: 1x M20, 1x M32, sealing plugs, masking and labelling strips



Description

AK 09

with PE/N terminal rail, each with 2 clamping points 16 mm² and 5 clamping points 6 mm²

Order no.

73540901

AKi 09

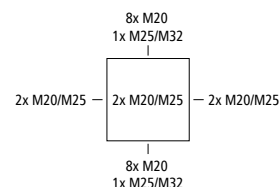
200 x 200 x 122 mm



Small distributions boards, protection class IP65, 1 row, 9 available modules, rated operational voltage: 400V AC, rated insulation voltage: 1000V AC, 1000V DC, metric knock-outs on top and bottom for universal cable insertions with cable glands and/or double membrane seals, pre-mounted with double membrane seals M20 at the top, for installations in the industrial environment and protected outside areas

Accessories supplied:

Double-membrane seals: 1x M20, 1x M32, sealing plugs, masking and labelling strips



Description

AKi 09

with PE/N terminal rail, each with 2 clamping points 16 mm² and 5 clamping points 6 mm²

Order no.

73640901

Small Distribution Boards

AK | AKi Compact

AK 12

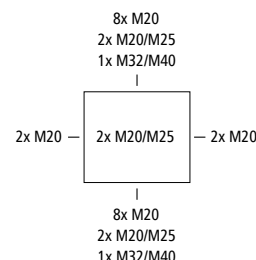
250 x 200 x 122 mm



Small distributions boards, protection class IP65, 1 row, 12 available modules, rated operational voltage: 400V AC, rated insulation voltage: 1000V AC, 1000V DC, metric knock-outs on top and bottom for universal cable insertions with cable glands and/or double membrane seals, pre-mounted with double membrane seals M20 at the top, for standard installations indoors

Accessories supplied:

Double-membrane seals: 1x M20, 1x M32, sealing plugs, masking and labelling strips



Description

AK 12

with PE/N terminal rail, each with 2 clamping points 16 mm² and 10 clamping points 6 mm²

Order no.

73541201

AKi 12

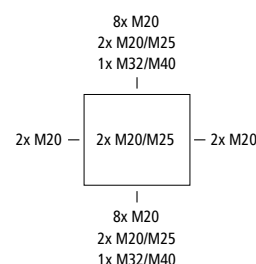
250 x 200 x 122 mm



Small distributions boards, protection class IP65, 1 row, 12 available modules, rated operational voltage: 400V AC, rated insulation voltage: 1000V AC, 1000V DC, metric knock-outs on top and bottom for universal cable insertions with cable glands and/or double membrane seals, pre-mounted with double membrane seals M20 at the top, for installations in the industrial environment and protected outside areas

Accessories supplied:

Double-membrane seals: 1x M20, 1x M32, sealing plugs, masking and labelling strips



Description

AKi 12

with PE/N terminal rail, each with 2 clamping points 16 mm² and 10 clamping points 6 mm²

Order no.

73641201

AK 24

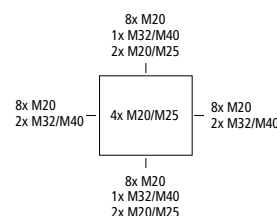
250 x 370 x 122 mm



Small distributions boards, protection class IP65, 2 rows, 24 available modules, rated operational voltage: 400V AC, rated insulation voltage: 1000V AC, 1000V DC, metric knock-outs on top and bottom for universal cable insertions with cable glands and/or double membrane seals, pre-mounted with double membrane seals M20 at the top, for standard installations indoors

Accessories supplied:

Double-membrane seals: 2x M20, 1x M32, sealing plugs, masking and labelling strips



Description

AK 24

with PE/N terminal rail, each with 2 clamping points 16 mm² and 14 clamping points 6 mm²

Order no.

73542401

Small Distribution Boards

AK | AKi Compact

AKi 24

250 x 370 x 122 mm



IP65

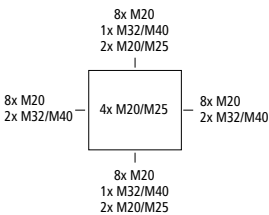
24

IK08

400V AC

Small distributions boards, protection class IP65, 2 rows, 24 available modules, rated operational voltage: 400V AC, rated insulation voltage: 1000V AC, 1000V DC, metric knock-outs on top and bottom for universal cable insertions with cable glands and/or double membrane seals, pre-mounted with double membrane seals M20 at the top, for installations in the industrial environment and protected outside areas

Accessories supplied:
Double-membrane seals: 2x M20, 1x M32, sealing plugs, masking and labelling strips



Description	Order no.
AKi 24 with PE/N terminal rail, each with 2 clamping points 16 mm² and 14 clamping points 6 mm²	73642401



Current prices can be found on our website: www.spelsberg.com

Small Distribution Boards

AK | Simply more Distribution Boards



Small Distribution Boards

More time savings thanks to the possibility of full pre-wiring in the workshop and selecting different fixing variants, such as the 3-point fixing or using external fixing lugs for fast and safe installation.

More flexibility thanks to standard rails with tool-free height adjustment and space for up to 14 modules for rail-mounted devices and

special designs. Availability of various flanges for flexible combination and cable insertion.

More user-friendliness thanks to a variety of metric knockouts, pre-mounted double membrane seals, a hinged window for each row, and more space for the wiring thanks to a standard rail spacing of 150 mm.

More options

thanks to the possibility to easily expand and combine with other small distribution boards, and opting for Schuko® sockets instead of external mounting of maintenance sockets in the close proximity of the distribution board.



Small Distribution Boards

AK | Case Study



Hof Rassenhövel KG | Reliable distribution and control of the heating system

Spelsberg's AK small distribution boards are also reliable on in challenging environmental conditions. That's because thanks to their product characteristics, they are just as versatile as their areas of application.

A good example of this is Hof Rassenhövel KG from Ennepetal in North Rhine-Westphalia. For heating the stables, the farm uses a climate-friendly, fully automated, wood chip heating system, which runs on

small pieces of scrap wood that would not serve any other purpose. The supply and control of the heating, lighting circuits and socket outlets for the pig stables at the farm are taken care of by Spelsberg's AK small distribution boards. These were professionally installed by Elektro Panne.

Conditions are harsh in the boiler room due to the dirt cause by combustion

along with the waste heat and vibrations. Here, two AK 28 Plus small distribution boards are used to operate the directly adjacent heating boiler for the wood chip heating system. The standard rails for up to 14 modules, which are height-adjustable without tools, in each case house NEOZED fuses, RC circuit-breakers, line circuit-breakers as well as a main switch for this purpose. The additional connection space provided





Indoor
installation



COMPANY

Agricultural holding/arable farming,
Pig farming and breeding.



TASK

Supply and control of the heating,
lighting circuits and socket outlets for
pig stables.



PRODUCTS USED

Installation of two AK 28 Plus small
distribution boards as well as a combination
of an AK-F 56 with an AK-F 14 L-g
distribution board, with operating elements.



WHY AK SMALL DISTRIBUTION BOARDS?

As DLG-certified products, AK Air small
distribution boards are suitable for
extreme applications, e.g. in air containing
ammonia. The 14 modules from the AK
Airs enable the heating contactors to be
spaced further apart, thus preventing the
build-up of heat.

The empty enclosure connected by
means of combination flange allows the
installation of local control devices and
direct wiring to the controller.

by the AK 28 Plus has been used for
the wiring of multi-tiered installation
terminals which are often required in
industrial and commercial applications in
order to enable fast and straightforward
installation.

Another small distribution board installa-
tion in a more demanding environment
can be found at Hof Rassenhövel. Here,
the installations are exposed to air con-
taining ammonia on account of the
adjacent pig stables which is a well-known
challenge when it comes to protecting

electrical equipment on farms. As DLG
certified products, AK Air small distribution
boards are ideally suited for these
unfavourable and special work environ-
ments.

Reliable distribution and control of the
heating, lighting and socket outlets was
taken care of by Elektro Panne who
installed an AK-F 56 small distribution
board housing line circuit breakers,
remote power dimmers and installation
contactors. In addition, a combination
flange was used to connect an AK-F 14 L-g

underneath, housing operating elements.
The difference between the ambient
temperature and the temperature inside
the small distribution board gives rise to
the risk of condensation forming inside
the enclosure. Not with the AK Air small
distribution board: The integrated BEL
Air ventilation elements prevent con-
densation while maintaining the high
protection rating IP65. As a result, any
condensation that forms is removed from
the enclosure by means of air exchange
in short term. Finally, more air exchange
ensures a higher level of safety.

Small Distribution Boards

AK Air | Simply more benefits



MORE CONNECTION SPACE, MORE CONVENIENCE

More room for easier wiring and higher power dissipation. Suitable for multitiered terminal blocks in commerce and industry.

14

14 MODULES INSTEAD OF 12

Two additional modules per row for more options and sufficient reserve capacity for retrofits - such as 1 surge protector (3-pole), 1 residual current circuit breaker, 6 load current circuit breakers.



NEW PE/N TERMINALS

The new PE/N terminals make it even easier to connect protective and neutral conductors. Proven technology innovatively developed.



MORE COMBINABILITY

All AK distribution boards can be simply and quickly horizontally combined with other AK distribution boards using the combination gland. The AK-F types are available for vertical combinations.



VDE + DLG CERTIFIED (EN 60670-24/VDE 0606-24)

Safe application due to conformity with international standards and compliance with the statutory protection requirements.



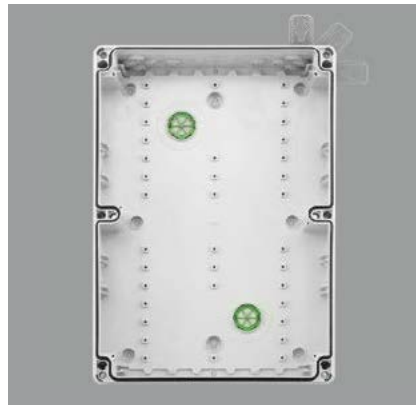
OPTION FOR SCHUKO SOCKET OUTLETS

The extension socket that can be easily integrated into the distribution board and reduces the workload thanks to the availability of connection possibilities without external surface-mounted socket outlets for maintenance purposes.



INTEGRATED AIR VENTILATION ELEMENTS

Effective and maintenance-free protection against the formation of condensation due to constant air circulation while maintaining the high protection rating IP65.



SIMPLE AND VERSATILE FIXING VARIANTS

Fast, safe installation by means of practical 3-point, 4-point or keyhole fixings, as well as external fixing lugs outside the sealing area



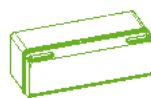
ROBUST ENCLOSURE FOR THE HIGHEST DEMANDS WITH IK08

The solution for harsh industrial and commercial environments thanks to IK08 impact resistance and IP65 shock hazard protection.



HEIGHT-ADJUSTABLE STANDARD RAIL

More flexibility when installing rail-mounted devices of sizes 1-3 and special sizes. Easier wiring thanks to the distance between the top DIN rail and the bottom of the distribution board.



CABLE COVER + CABLE INSERTION

The straightforward cable insertion is made possible thanks to a pre-assembled membrane seals or cable glands. A cable cover ensures a clean appearance thanks to optional concealment of cable insertions.



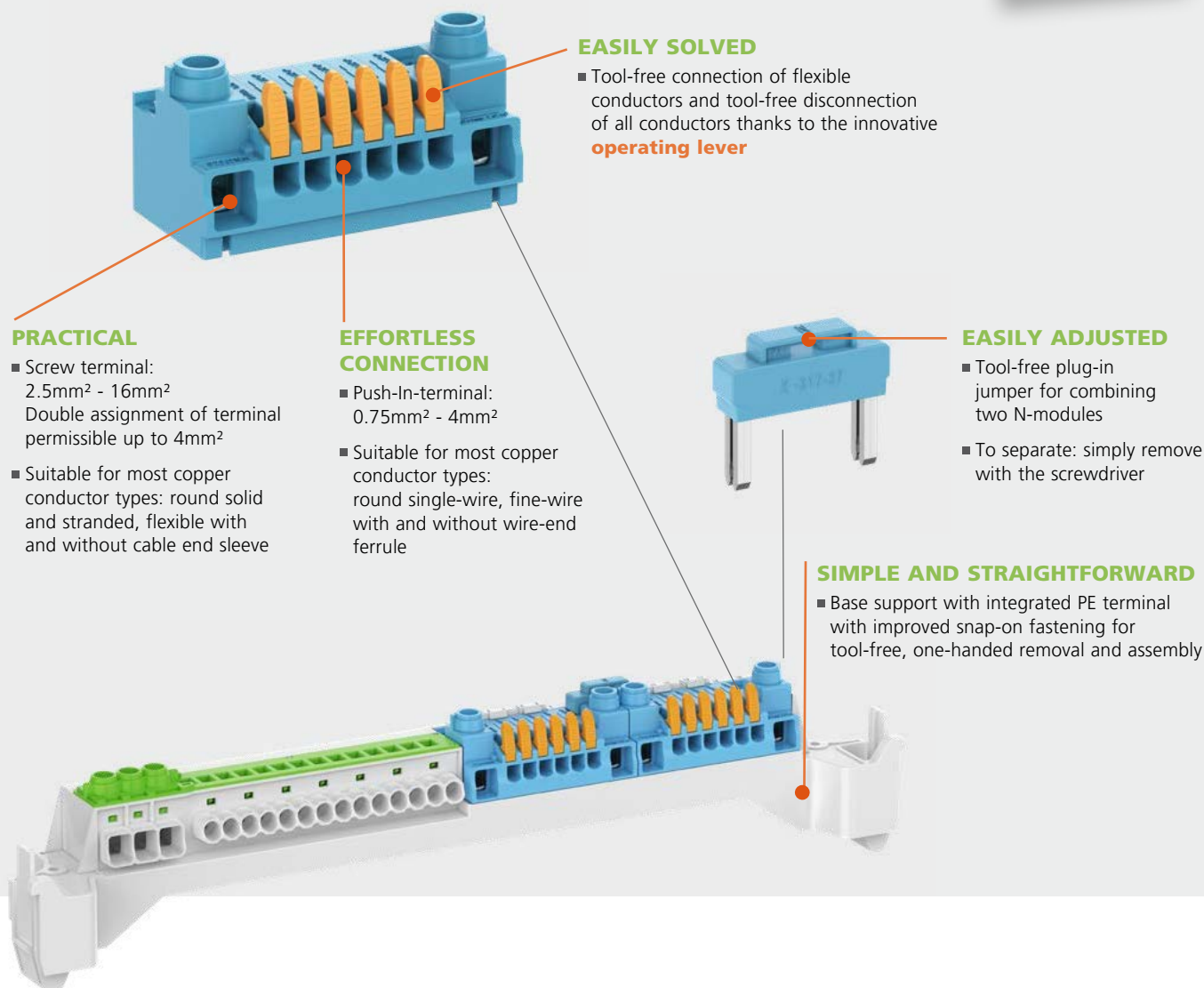
PROVEN INDUSTRIAL QUALITY

- Suitable for temperatures ranging from -35 °C to +80 °C
- Resistant to petrol, mineral oil, grease, diesel, turpentine
(and to a limited extent acids and alcohol)
- UV- and weather-resistant
- Flame-retardant and self-extinguishing up to 960 °C in accordance with VDE 0471 / EN 60695 / UL94
- Impact-resistant
- Free from halogens, heavy metals, PVC and silicon

Small Distribution Boards

AK Air | Simply more advantages

NEW!



The new PE/N terminals

Demanding applications call for professional distribution solutions. Spelsberg has been delivering this with the AK small distribution board since its market launch in 1983.

The product range benefits from generous connection space, sufficient reserves for retrofitting, the option of integrating SCHUKO® socket outlets - and now with even more flexibility.

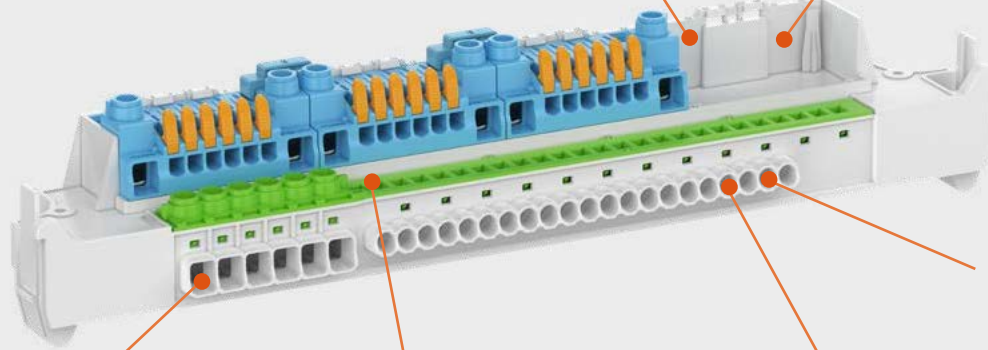
This is thanks to the new PE/N terminals, which make it even easier to connect protective and neutral conductors. Proven technology innovatively developed: With the new generation of terminals, we are delivering on a frequently expressed customer request.

HIGH LOAD CAPACITY

- Full current carrying capacity (76 A) (even at 65°C ambient temperature in the enclosure)

PRACTICALLY THOUGHT-OUT

- Up to 4 N modules offer the right number of N potentials for almost any practical application
4 – 3 – 2 – 1 – 0 ¹⁾

**FLEXIBLE**

- Extended clamping range of the screw terminal; 2.5mm² - 16mm²
- Double assignment of the terminal permissible up to 4mm²
- Suitable for almost all copper conductor types: round solid and stranded, flexible with and without Cable end sleeve

SAFETY FIRST

- Tool operated as protection against unintentional disconnection of a protective conductor on a 4 mm² terminal

QUICK AND EASY

- Push-in function for simple, tool-free connection of rigid conductors

SIMPLY THE RIGHT FIT

- Extended clamping area of the push-in terminal: 0.75mm² - 4mm²
- Suitable for almost all copper conductor types: round, single-wire, fine-wire with and without ferrule

¹⁾ The terminal in the AK 14 offers space for 2 N modules

Easy to use

The practical operating lever on the N modules makes it easy to connect and disconnect both rigid and flexible conductors - without any tools.

Jumpers for the N-modules, which are freely accessible even when conductors are connected, also ensure convenient use.

More N potentials

The new PE/N terminal, gives the AK small distribution board the right number of N potentials for every application. Up to four N modules can be installed in the distribution board - individually, so that up to four potentials are available, or in combination using plug-in jumpers, which can also be easily removed from the N modules with a screwdriver.

PE terminal

Applications for which only one terminal is required can now be implemented even more easily. To enable equipment to be fitted with just one terminal, we have integrated the PE/N terminal into the base support. Any N modules required can be easily added as necessary.

For the customer it means:
more distribution boards thanks to more space, and more options

Small Distribution Boards

AK Air | Tested safety for extreme conditions



AK Air - in the Dechen Cave in Iserlohn (Sauerland)

Sensitive electronics frequently reach their limits at an air humidity level of almost 100 % and a temperature of 10° C. To keep these safe and prevent condensate under such extreme conditions in the Dechen Cave in Iserlohn, AK Air small distribution boards with integrated air elements are used.

High air humidity inside, fluctuating temperatures at the entrances, with constant operation during opening hours and long periods without load in the evenings – these are tough requirements for distribution boards.

However, thanks to the high and permanent air exchange of the Air ventilation elements the sensitive electronic equipment inside the AK distributor remains continuously protected from humidity.



Ammoniakbeständigkeit



EN 60670-24



EN 62208



EN 61439-2



EN 61439-3



EN 61439-7



The **DLG Focus Test** is a reduced-scope utility value test for product differentiation and special highlighting of innovations in machines and **technical products**.



Products with the **UL EU** approval mark have been independently certified by UL (Underwriters Laboratories Inc.). Representative samples of this product have been assessed by UL and comply with the applicable European (EN) or international (IEC) standards.



Products with the **c UL us** approval mark have been independently certified by UL (Underwriters Laboratories Inc.). Representative samples of this product have been assessed by UL and comply with the applicable national standards of USA and Canada.



The **VDE symbol** for electrotechnical products indicates conformity with the VDE directives of European or internationally harmonised standards.

Small Distribution Boards

AK Air

AK 14

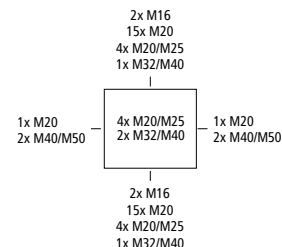
315 x 300 x 155 mm



Small distributions boards, protection class IP65, 1 row, 14 available modules, with integrated ventilation elements for reducing the formation of condensation, rated operational voltage: 400V AC, rated insulation voltage: 1000V AC, 1500V DC, certified by VDE (DIN EN 60670-1/-24 (VDE 0606-1/-24)), UL-EU (EN 62208), UL-EU (EN 61439-1/-2), UL-EU (EN 61439-1/-3), UL-EU (EN 61439-1 & EN IEC 61439-7), DLG (Ammonia resistance), metric knockouts on top and bottom for universal cable insertions with cable glands and/or double membrane seals, pre-mounted with double membrane seals M20 at the top, for installations in the industrial environment and protected outside areas

Accessories supplied:

Double-membrane seals: 1x M16, 5x M20, 2x M25, 1x M32, 1x M40, sealing plugs, masking and labelling strips



Description

AK 14

PE/N terminal block, consisting of: PE terminal block with 3 screw terminals 2.5-16mm² and 14 push-in terminals 0.75-4mm², 2 N-modules (connected with jumper) each with 2 screw terminals 2.5-16mm² and 6 push-in terminals 0.75-4mm² with operating lever for toolless releasing of the conductors

Order no.

73341401

AK 14 Plus

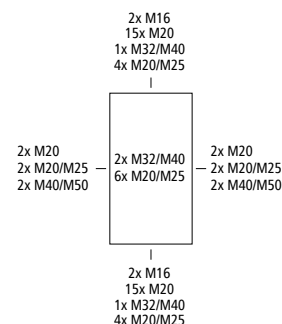
315 x 450 x 155 mm



Small distributions boards, protection class IP65, 1 row, 14 available modules, with integrated ventilation elements for reducing the formation of condensation, rated operational voltage: 400V AC, rated insulation voltage: 1000V AC, 1500V DC, certified by VDE (DIN EN 60670-1/-24 (VDE 0606-1/-24)), UL-EU (EN 62208), UL-EU (EN 61439-1/-2), UL-EU (EN 61439-1/-3), UL-EU (EN 61439-1 & EN IEC 61439-7), DLG (Ammonia resistance), metric knockouts on top and bottom for universal cable insertions with cable glands and/or double membrane seals, pre-mounted with double membrane seals M20 at the top, for installations in the industrial environment and protected outside areas

Accessories supplied:

Double-membrane seals: 1x M16, 5x M20, 2x M25, 1x M32, 1x M40, sealing plugs, masking and labelling strips



Description

AK 14 Plus

with extra connection space, with 35 mm standard rail, without PE/N terminal

Order no.

73361401

Small Distribution Boards

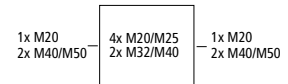
AK Air

AK-F 14

315 x 300 x 155 mm



Small distributions boards, protection class IP65, 1 row, 14 available modules, Flange type, with integrated ventilation elements for reducing the formation of condensation, rated operational voltage: 400V AC, rated insulation voltage: 1000V AC, 1500V DC, certified by VDE (DIN EN 60670-1/-24 (VDE 0606-1/-24)), UL-EU (EN 62208), UL-EU (EN 61439-1/-2), UL-EU (EN 61439-1/-3), UL-EU (EN 61439-1 & EN IEC 61439-7), DLG (Ammonia resistance), open top/bottom sides for the use with various flanges or for the combination of several AK-F distributors via combination flange, for installations in the industrial environment and protected outside areas



Accessories supplied:

Double-membrane seals: 1x M16, 5x M20, 2x M25, 1x M32, 1x M40, sealing plugs, masking and labelling strips

Description	Order no.
AK-F 14 PE/N terminal block, consisting of: PE terminal block with 3 screw terminals 2.5-16mm ² and 14 push-in terminals 0.75-4mm ² , 2 N-modules (connected with jumper) each with 2 screw terminals 2.5-16mm ² and 6 push-in terminals 0.75-4mm ² with operating lever for toolless releasing of the conductors	73351401
Recommended accessories:	Order no.
AK3 FL00 Flange for AK-F without knockouts	73382001
AK3 FL01 Flange for AK-F with knockouts: 1 x M50/M40, 2 x M40/32, 2 x M20	73382101
AK3 FL02 Flange for AK-F with knockouts: 5 x M25/M20, 4 x M20, 2 x M16	73382201
AK3 FL13 Flange for AK-F with cable entries via double membrane seals DMS M32 and opening for flange types FL13 as per standard SEN 28 09 01	73382801
AK3 KFL Flange for AK-F	73382901

Small Distribution Boards

AK Air

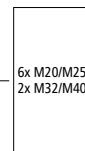
AK-F 14 Plus

315 x 450 x 155 mm



Small distributions boards, protection class IP65, 1 row, 14 available modules, Flange type, with integrated ventilation elements for reducing the formation of condensation, rated operational voltage: 400V AC, rated insulation voltage: 1000V AC, 1500V DC, certified by VDE (DIN EN 60670-1/-24 (VDE 0606-1/-24)), UL-EU (EN 62208), UL-EU (EN 61439-1/-2), UL-EU (EN 61439-1/-3), UL-EU (EN 61439-1 & EN IEC 61439-7), DLG (Ammonia resistance), open top/bottom sides for the use with various flanges or for the combination of several AK-F distributors via combination flange, for installations in the industrial environment and protected outside areas

2x M20
2x M20/M25
2x M40/M50



2x M20
2x M20/M25
2x M40/M50

Accessories supplied:

Double-membrane seals: 1x M16, 5x M20, 2x M25, 1x M32, 1x M40, sealing plugs, masking and labelling strips

Description	Order no.
AK-F 14 Plus with extra connection space, with 35 mm standard rail, without PE/N terminal	73371401
Recommended accessories:	Order no.
AK3 FL00 Flange for AK-F without knockouts	73382001
AK3 FL01 Flange for AK-F with knockouts: 1 x M50/M40, 2 x M40/M32, 2 x M20	73382101
AK3 FL02 Flange for AK-F with knockouts: 5 x M25/M20, 4 x M20, 2 x M16	73382201
AK3 FL13 Flange for AK-F with cable entries via double membrane seals DMS M32 and opening for flange types FL13 as per standard SEN 28 09 01	73382801
AK3 KFL Flange for AK-F	73382901

Small Distribution Boards

AK Air

AK 28

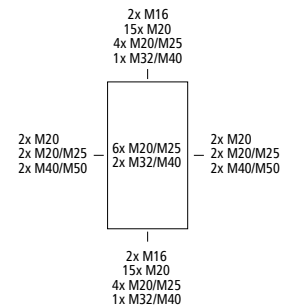
315 x 450 x 155 mm



Small distributions boards, protection class IP65, 2 rows, 28 available modules, with integrated ventilation elements for reducing the formation of condensation, rated operational voltage: 400V AC, rated insulation voltage: 1000V AC, 1500V DC, certified by VDE (DIN EN 60670-1/-24 (VDE 0606-1/-24)), UL-EU (EN 62208), UL-EU (EN 61439-1/-2), UL-EU (EN 61439-1/-3), UL-EU (EN 61439-1 & EN IEC 61439-7), DLG (Ammonia resistance), metric knockouts on top and bottom for universal cable insertions with cable glands and/or double membrane seals, pre-mounted with double membrane seals M20 at the top, for installations in the industrial environment and protected outside areas

Accessories supplied:

Double-membrane seals: 1x M16, 5x M20, 2x M25, 1x M32, 1x M40, sealing plugs, masking and labelling strips



Description

AK 28

PE/N terminal block, consisting of: PE terminal block with 6 screw terminals 2.5-16mm² and 21 push-in terminals 0.75-4mm², 3 N-modules (connected with jumper) each with 2 screw terminals 2.5-16mm² and 6 push-in terminals 0.75-4mm² with operating lever for toolless releasing of the conductors

Order no.

73342801

AK 28 Plus

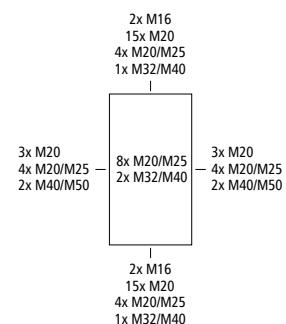
315 x 600 x 155 mm



Small distributions boards, protection class IP65, 2 rows, 28 available modules, with integrated ventilation elements for reducing the formation of condensation, rated operational voltage: 400V AC, rated insulation voltage: 1000V AC, 1500V DC, certified by VDE (DIN EN 60670-1/-24 (VDE 0606-1/-24)), UL-EU (EN 62208), UL-EU (EN 61439-1/-2), UL-EU (EN 61439-1/-3), UL-EU (EN 61439-1 & EN IEC 61439-7), DLG (Ammonia resistance), metric knockouts on top and bottom for universal cable insertions with cable glands and/or double membrane seals, pre-mounted with double membrane seals M20 at the top, for installations in the industrial environment and protected outside areas

Accessories supplied:

Double-membrane seals: 2x M16, 10x M20, 4x M25, 2x M32, 2x M40, sealing plugs, masking and labelling strips



Description

AK 28 Plus

with extra connection space, with 35 mm standard rail, without PE/N terminal

Order no.

73362801

Small Distribution Boards

AK Air

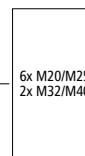
AK-F 28

315 x 450 x 155 mm



Small distributions boards, protection class IP65, 2 rows, 28 available modules, Flange type, with integrated ventilation elements for reducing the formation of condensation, rated operational voltage: 400V AC, rated insulation voltage: 1000V AC, 1500V DC, certified by VDE (DIN EN 60670-1/-24 (VDE 0606-1/-24)), UL-EU (EN 62208), UL-EU (EN 61439-1/-2), UL-EU (EN 61439-1/-3), UL-EU (EN 61439-1 & EN IEC 61439-7), DLG (Ammonia resistance), open top/bottom sides for the use with various flanges or for the combination of several AK-F distributors via combination flange, for installations in the industrial environment and protected outside areas

2x M20
2x M20/M25
2x M40/M50



2x M20
2x M20/M25
2x M40/M50

Accessories supplied:

Double-membrane seals: 1x M16, 5x M20, 2x M25, 1x M32, 1x M40, sealing plugs, masking and labelling strips

Description	Order no.
AK-F 28 PE/N terminal block, consisting of: PE terminal block with 6 screw terminals 2.5-16mm ² and 21 push-in terminals 0.75-4mm ² , 3 N-modules (connected with jumper) each with 2 screw terminals 2.5-16mm ² and 6 push-in terminals 0.75-4mm ² with operating lever for toolless releasing of the conductors	73352801
Recommended accessories:	Order no.
AK3 FL00 Flange for AK-F without knockouts	73382001
AK3 FL01 Flange for AK-F with knockouts: 1 x M50/M40, 2 x M40/32, 2 x M20	73382101
AK3 FL02 Flange for AK-F with knockouts: 5 x M25/M20, 4 x M20, 2 x M16	73382201
AK3 FL13 Flange for AK-F with cable entries via double membrane seals DMS M32 and opening for flange types FL13 as per standard SEN 28 09 01	73382801
AK3 KFL Flange for AK-F	73382901

Small Distribution Boards

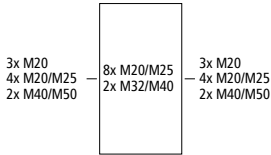
AK Air

AK-F 28 Plus

315 x 600 x 155 mm



Small distributions boards, protection class IP65, 2 rows, 28 available modules, Flange type, with integrated ventilation elements for reducing the formation of condensation, rated operational voltage: 400V AC, rated insulation voltage: 1000V AC, 1500V DC, certified by VDE (DIN EN 60670-1/-24 (VDE 0606-1/-24)), UL-EU (EN 62208), UL-EU (EN 61439-1/-2), UL-EU (EN 61439-1/-3), UL-EU (EN 61439-1 & EN IEC 61439-7), DLG (Ammonia resistance), open top/bottom sides for the use with various flanges or for the combination of several AK-F distributors via combination flange, for installations in the industrial environment and protected outside areas



Accessories supplied:

Double-membrane seals: 2x M16, 10x M20, 4x M25, 2x M32, 2x M40, sealing plugs, masking and labelling strips

Description	Order no.
AK-F 28 Plus with extra connection space, with 35 mm standard rail, without PE/N terminal	73372801
Recommended accessories:	Order no.
AK3 FL00 Flange for AK-F without knockouts	73382001
AK3 FL01 Flange for AK-F with knockouts: 1 x M50/M40, 2 x M40/32, 2 x M20	73382101
AK3 FL02 Flange for AK-F with knockouts: 5 x M25/M20, 4 x M20, 2 x M16	73382201
AK3 FL13 Flange for AK-F with cable entries via double membrane seals DMS M32 and opening for flange types FL13 as per standard SEN 28 09 01	73382801
AK3 KFL Flange for AK-F	73382901



Small Distribution Boards

AK Air

AK 42 Plus

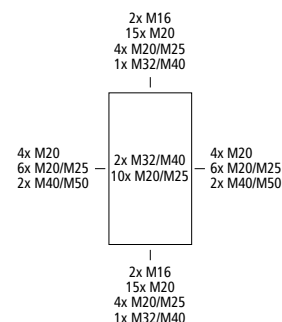
315 x 750 x 155 mm



Small distributions boards, protection class IP65, 3 rows, 42 available modules, with integrated ventilation elements for reducing the formation of condensation, rated operational voltage: 400V AC, rated insulation voltage: 1000V AC, 1500V DC, certified by VDE (DIN EN 60670-1/-24 (VDE 0606-1/-24)), UL-EU (EN 62208), UL-EU (EN 61439-1/-2), UL-EU (EN 61439-1/-3), UL-EU (EN 61439-1 & EN IEC 61439-7), DLG (Ammonia resistance), metric knockouts on top and bottom for universal cable insertions with cable glands and/or double membrane seals, pre-mounted with double membrane seals M20 at the top, for installations in the industrial environment and protected outside areas

Accessories supplied:

Double-membrane seals: 2x M16, 10x M20, 4x M25, 2x M32, 2x M40, sealing plugs, masking and labelling strips



Description

AK 42 Plus

with extra connection space, with 35 mm standard rail, without PE/N terminal

Order no.

73364201

AK 42

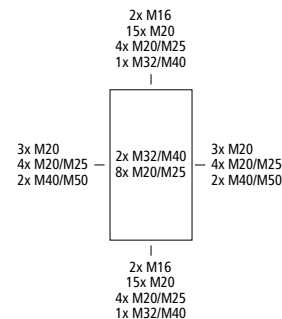
315 x 600 x 155 mm



Small distributions boards, protection class IP65, 3 rows, 42 available modules, with integrated ventilation elements for reducing the formation of condensation, rated operational voltage: 400V AC, rated insulation voltage: 1000V AC, 1500V DC, certified by VDE (DIN EN 60670-1/-24 (VDE 0606-1/-24)), UL-EU (EN 62208), UL-EU (EN 61439-1/-2), UL-EU (EN 61439-1/-3), UL-EU (EN 61439-1 & EN IEC 61439-7), DLG (Ammonia resistance), metric knockouts on top and bottom for universal cable insertions with cable glands and/or double membrane seals, pre-mounted with double membrane seals M20 at the top, for installations in the industrial environment and protected outside areas

Accessories supplied:

Double-membrane seals: 2x M16, 10x M20, 4x M25, 2x M32, 2x M40, sealing plugs, masking and labelling strips



Description

AK 42

PE/N terminal block, consisting of: PE terminal block with 6 screw terminals 2.5-16mm² and 21 push-in terminals 0.75-4mm², 4 N-modules (connected with jumper) each with 2 screw terminals 2.5-16mm² and 6 push-in terminals 0.75-4mm² with operating lever for toolless releasing of the conductors

Order no.

73344201

Small Distribution Boards

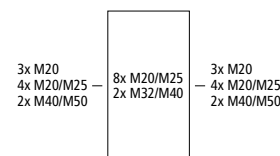
AK Air

AK-F 42

315 x 600 x 155 mm



Small distributions boards, protection class IP65, 3 rows, 42 available modules, Flange type, with integrated ventilation elements for reducing the formation of condensation, rated operational voltage: 400V AC, rated insulation voltage: 1000V AC, 1500V DC, certified by VDE (DIN EN 60670-1/-24 (VDE 0606-1/-24)), UL-EU (EN 62208), UL-EU (EN 61439-1/-2), UL-EU (EN 61439-1/-3), UL-EU (EN 61439-1 & EN IEC 61439-7), DLG (Ammonia resistance), open top/bottom sides for the use with various flanges or for the combination of several AK-F distributors via combination flange, for installations in the industrial environment and protected outside areas



Accessories supplied:

Double-membrane seals: 2x M16, 10x M20, 4x M25, 2x M32, 2x M40, sealing plugs, masking and labelling strips

Description	Order no.
AK-F 42 PE/N terminal block, consisting of: PE terminal block with 6 screw terminals 2.5-16mm ² and 21 push-in terminals 0.75-4mm ² , 4 N-modules (connected with jumper) each with 2 screw terminals 2.5-16mm ² and 6 push-in terminals 0.75-4mm ² with operating lever for toolless releasing of the conductors	73354201
Recommended accessories:	Order no.
AK3 FL00 Flange for AK-F without knockouts	73382001
AK3 FL01 Flange for AK-F with knockouts: 1 x M50/M40, 2 x M40/32, 2 x M20	73382101
AK3 FL02 Flange for AK-F with knockouts: 5 x M25/M20, 4 x M20, 2 x M16	73382201
AK3 FL13 Flange for AK-F with cable entries via double membrane seals DMS M32 and opening for flange types FL13 as per standard SEN 28 09 01	73382801
AK3 KFL Flange for AK-F	73382901

Small Distribution Boards

AK Air

AK-F 42 Plus

315 x 750 x 155 mm



Small distributions boards, protection class IP65, 3 rows, 42 available modules, Flange type, with integrated ventilation elements for reducing the formation of condensation, rated operational voltage: 400V AC, rated insulation voltage: 1000V AC, 1500V DC, certified by VDE (DIN EN 60670-1/-24 (VDE 0606-1/-24)), UL-EU (EN 62208), UL-EU (EN 61439-1/-2), UL-EU (EN 61439-1/-3), UL-EU (EN 61439-1 & EN IEC 61439-7), DLG (Ammonia resistance), open top/bottom sides for the use with various flanges or for the combination of several AK-F distributors via combination flange, for installations in the industrial environment and protected outside areas

4x M20
6x M20/M25
2x M40/M50

10x M20/M25
2x M32/M40

4x M20
6x M20/M25
2x M40/M50

Accessories supplied:

Double-membrane seals: 2x M16, 10x M20, 4x M25, 2x M32, 2x M40, sealing plugs, masking and labelling strips

Description	Order no.
AK-F 42 Plus with extra connection space, with 35 mm standard rail, without PE/N terminal	73374201
Recommended accessories:	Order no.
AK3 FL00 Flange for AK-F without knockouts	73382001
AK3 FL01 Flange for AK-F with knockouts: 1 x M50/M40, 2 x M40/M32, 2 x M20	73382101
AK3 FL02 Flange for AK-F with knockouts: 5 x M25/M20, 4 x M20, 2 x M16	73382201
AK3 FL13 Flange for AK-F with cable entries via double membrane seals DMS M32 and opening for flange types FL13 as per standard SEN 28 09 01	73382801
AK3 KFL Flange for AK-F	73382901

Small Distribution Boards

AK Air

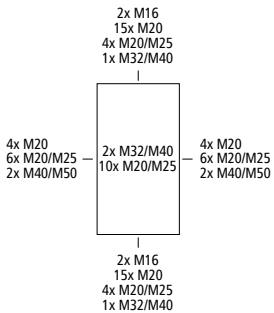
AK 56

315 x 750 x 155 mm



Small distributions boards, protection class IP65, 4 rows, 56 available modules, with integrated ventilation elements for reducing the formation of condensation, rated operational voltage: 400V AC, rated insulation voltage: 1000V AC, 1500V DC, certified by VDE (DIN EN 60670-1/-24 (VDE 0606-1/-24)), UL-EU (EN 62208), UL-EU (EN 61439-1/-2), UL-EU (EN 61439-1/-3), UL-EU (EN 61439-1 & EN IEC 61439-7), DLG (Ammonia resistance), metric knockouts on top and bottom for universal cable insertions with cable glands and/or double membrane seals, pre-mounted with double membrane seals M20 at the top, for installations in the industrial environment and protected outside areas

Accessories supplied:
Double-membrane seals: 2x M16, 10x M20, 4x M25, 2x M32, 2x M40, sealing plugs, masking and labelling strips



Description	Order no.
AK 56 PE/N terminal block, consisting of: PE terminal block with 6 screw terminals 2.5-16mm² and 21 push-in terminals 0.75-4mm², 4 N-modules (connected with jumper) each with 2 screw terminals 2.5-16mm² and 6 push-in terminals 0.75-4mm² with operating lever for toolless releasing of the conductors	73345601

Small Distribution Boards

AK Air

AK-F 56

315 x 750 x 155 mm



Small distributions boards, protection class IP65, 4 rows, 56 available modules, Flange type, with integrated ventilation elements for reducing the formation of condensation, rated operational voltage: 400V AC, rated insulation voltage: 1000V AC, 1500V DC, certified by VDE (DIN EN 60670-1/-24 (VDE 0606-1/-24)), UL-EU (EN 62208), UL-EU (EN 61439-1/-2), UL-EU (EN 61439-1/-3), UL-EU (EN 61439-1 & EN IEC 61439-7), DLG (Ammonia resistance), open top/bottom sides for the use with various flanges or for the combination of several AK-F distributors via combination flange, for installations in the industrial environment and protected outside areas

4x M20
6x M20/M25
2x M40/M50

10x M20/M25
2x M32/M40

4x M20
6x M20/M25
2x M40/M50

Accessories supplied:

Double-membrane seals: 2x M16, 10x M20, 4x M25, 2x M32, 2x M40, sealing plugs, masking and labelling strips

Description	Order no.
AK-F 56 PE/N terminal block, consisting of: PE terminal block with 6 screw terminals 2.5-16mm ² and 21 push-in terminals 0.75-4mm ² , 4 N-modules (connected with jumper) each with 2 screw terminals 2.5-16mm ² and 6 push-in terminals 0.75-4mm ² with operating lever for toolless releasing of the conductors	73355601
Recommended accessories:	Order no.
AK3 FL00 Flange for AK-F without knockouts	73382001
AK3 FL01 Flange for AK-F with knockouts: 1 x M50/M40, 2 x M40/32, 2 x M20	73382101
AK3 FL02 Flange for AK-F with knockouts: 5 x M25/M20, 4 x M20, 2 x M16	73382201
AK3 FL13 Flange for AK-F with cable entries via double membrane seals DMS M32 and opening for flange types FL13 as per standard SEN 28 09 01	73382801
AK3 KFL Flange for AK-F	73382901

Small Distribution Boards

AK Air

AK 70

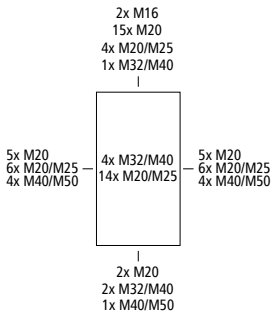
315 x 1050 x 155 mm



Small distributions boards, protection class IP65, 5 rows, 70 available modules, with integrated ventilation elements for reducing the formation of condensation, rated operational voltage: 400V AC, rated insulation voltage: 1000V AC, 1500V DC, certified by VDE (DIN EN 60670-1/-24 (VDE 0606-1/-24)), UL-EU (EN 62208), UL-EU (EN 61439-1/-2), UL-EU (EN 61439-1/-3), UL-EU (EN 61439-1 & EN IEC 61439-7), DLG (Ammonia resistance), metric knockouts on top and bottom for universal cable insertions with cable glands and/or double membrane seals, pre-mounted with double membrane seals M20 at the top, for installations in the industrial environment and protected outside areas

Accessories supplied:

Double-membrane seals: 3x M16, 15x M20, 5x M25, 3x M32, 3x M40, sealing plugs, masking and labelling strips



Description	Order no.
AK 70 PE/N terminal block, consisting of: PE terminal block with 6 screw terminals 2.5-16mm² and 21 push-in terminals 0.75-4mm², 4 N-modules (connected with jumper) each with 2 screw terminals 2.5-16mm² and 6 push-in terminals 0.75-4mm² with operating lever for toolless releasing of the conductors	73347001



Small Distribution Boards

AK | Simply More Distribution Boards

Tool-free combination of AK-F distributors.



Small Distribution Boards

AK 14 L

AK 14 L

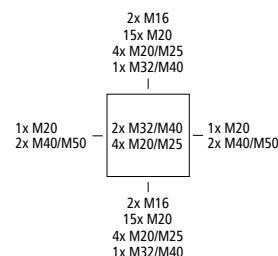
315 x 300 mm



Empty enclosure, protection class IP65, Plastic, certified by DLG (Ammonia resistance), $U_i=1000V$ AC, $U_i=1500V$ DC, for AK 14-56 small distribution boards, for individual expansion by adding standard rails or mounting plates

Accessories supplied:

Double-membrane seals: 1x M20, 1x M25, 1x M32,
Attachment bushes: 1x M40, sealing plugs, masking and labelling strips



Description	Cover	Knockouts	Order no.
AK 14 L-g	grey	metric	73341001
AK 14 L-t	transparent	metric	73341101

AK-F 14 L

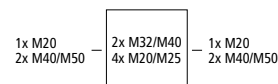
315 x 300 mm



Empty enclosure, protection class IP65, Plastic, certified by DLG (Ammonia resistance), $U_i=1000V$ AC, $U_i=1500V$ DC, for AK 14-56 small distribution boards, for individual expansion by adding standard rails or mounting plates

Accessories supplied:

Double-membrane seals: 1x M16, 5x M20, 2x M25, 1x M32,
1x M40, sealing plugs, masking and labelling strips



Description	Cover	Knockouts	Order no.
AK-F 14 L-g	grey	metric	73351001
AK-F 14 L-t	transparent	metric	73351101

Recommended accessories:

	Order no.
AK3 FL00 Flange for AK-F without knockouts	73382001
AK3 FL01 Flange for AK-F with knockouts: 1 x M50/M40, 2 x M40/32, 2 x M20	73382101
AK3 FL02 Flange for AK-F with knockouts: 5 x M25/M20, 4 x M20, 2 x M16	73382201
AK3 FL13 Flange for AK-F with cable entries via double membrane seals DMS M32 and opening for flange types FL13 as per standard SEN 28 09 01	73382801
AK3 KFL Flange for AK-F	73382901

Small Distribution Boards

AK 14 L

AK-F/DMS 14 L

315 x 300 mm



Empty enclosure, protection class IP65, Plastic, certified by DLG (Ammonia resistance), $U_i=1000V$ AC, $U_i=1500V$ DC, for AK 14-56 small distribution boards, for individual expansion by adding standard rails or mounting plates



Accessories supplied:
Double-membrane seals: 1x M16, 5x M20, 2x M25, 1x M32, 1x M40, sealing plugs, masking and labelling strips

Description	Cover	Knockouts	Order no.
AK-F/DMS 14 L-g	grey	metric	73331001
AK-F/DMS 14 L-t	transparent	metric	73331101
Recommended accessories:			Order no.
AK3 FL00 Flange for AK-F without knockouts			73382001
AK3 FL02 Flange for AK-F with knockouts: 5 x M25/M20, 4 x M20, 2 x M16			73382201
AK3 FL13 Flange for AK-F with cable entries via double membrane seals DMS M32 and opening for flange types FL13 as per standard SEN 28 09 01			73382801
AK3 KFL Flange for AK-F			73382901



Current prices can be found on our website: www.spelsberg.com

Small Distribution Boards

AK UL



Small Distribution Boards

In increasingly global markets, products have to meet the requirements and standards of different countries. Especially in North American and Canadian markets, standards vary widely from those in Europe. With the small distribution board AK UL Spelsberg offers an enclosure for electrical devices, which has

been tested and certified by UL according to the standards UL 50, UL 50E, CSA 22.2 No. 94.1 and CSA 22.2 No. 94.2 Those standards are also accepted in numerous other countries as a statement of safety and reliability. With the type ratings 3R, 12, 12K, AK UL is suitable both for indoors as well as for protected out-

door installation. Of course, the AK UL corresponds also to the international standard IEC 61439-3. **A real global player.**

Small Distribution Boards

AK UL

AK UL

315 x 155 mm



Small distributions boards, protection class IP65, UL Type Rating 3R, 12/12K, with integrated ventilation elements for reducing the formation of condensation, rated operational voltage: 400V AC, rated insulation voltage: 1000V AC, 1500V DC, certified by VDE (DIN EN 60670-1/-24 (VDE 0606-1/-24)), UL (UL 50 & CSA 22.2 No. 94.1-07, UL 50E & CSA C22.2 No. 94.2-07), UL-EU (EN 62208), UL-EU (EN 61439-1/-2), UL-EU (EN 61439-1/-3), DLG (Ammonia resistance), metric knock-outs on top and bottom for universal cable insertions with cable glands and/or double membrane seals, 10 open entries on top for UL-compliant cable insertion, for installations in the industrial environment and protected outside areas

Description	Order no.
AK 14 UL 1-row, 14 available modules, without PE/N terminal	73341452
AK 28 UL 2-row, 28 available modules, without PE/N terminal	73342852
AK 42 UL 3-row, 42 available modules, without PE/N terminal	73344252
AK 56 UL 4-row, 56 available modules, without PE/N terminal	73345652
Recommended accessories:	Order no.
AK AS UL Masking off strips Width 108 mm for 6 distribution units	79901252

Small Distribution Boards

AK UL

AK-F UL

315 x 155 mm



Small distributions boards, protection class IP65, UL Type Rating 3R, 12/12K, Flange type, with integrated ventilation elements for reducing the formation of condensation, rated operational voltage: 400V AC, rated insulation voltage: 1000V AC, 1500V DC, certified by VDE (DIN EN 60670-1/-24 (VDE 0606-1/-24)), UL (UL 50 & CSA 22.2 No. 94.1-07, UL 50E & CSA C22.2 No. 94.2-07), UL-EU (EN 62208), UL-EU (EN 61439-1/-2), UL-EU (EN 61439-1/-3), UL-EU (EN 61439-1 & EN IEC 61439-7), DLG (Ammonia resistance), open top/bottom sides for the use with various flanges or for the combination of several AK-F distributors via combination flange, for installations in the industrial environment and protected outside areas

Description	Order no.
AK-F 14 UL 1-row, 14 available modules, without PE/N terminal	73351452
AK-F 28 UL 2-row, 28 available modules, without PE/N terminal	73352852
AK-F 42 UL 3-row, 42 available modules, without PE/N terminal	73354252
AK-F 56 UL 4-row, 56 available modules, without PE/N terminal	73355652
Recommended accessories:	Order no.
AK3 FL00 Flange for AK-F without knockouts	73382001
AK3 FL01 Flange for AK-F with knockouts: 1 x M50/M40, 2 x M40/32, 2 x M20	73382101
AK3 FL02 Flange for AK-F with knockouts: 5 x M25/M20, 4 x M20, 2 x M16	73382201
AK3 KFL Flange for AK-F	73382901

Small Distribution Boards

AK UL

AK Plus UL

315 x 155 mm



Small distributions boards, protection class IP65, UL Type Rating 3R, 12/12K, with integrated ventilation elements for reducing the formation of condensation, rated operational voltage: 400V AC, rated insulation voltage: 1000V AC, 1500V DC, certified by VDE (DIN EN 60670-1/-24 (VDE 0606-1/-24)), UL (UL 50 & CSA 22.2 No. 94.1-07, UL 50E & CSA C22.2 No. 94.2-07), UL-EU (EN 62208), UL-EU (EN 61439-1/-2), UL-EU (EN 61439-1/-3), DLG (Ammonia resistance), metric knock-outs on top and bottom for universal cable insertions with cable glands and/or double membrane seals, 10 open entries on top for UL-compliant cable insertion, for installations in the industrial environment and protected outside areas

Description	Order no.
AK 14 Plus UL 1-row, 14 available modules, with extra connection space including 35mm standard rail, without PE/N terminal	73361452
AK 28 Plus UL 2-row, 28 available modules, with extra connection space including 35mm standard rail, without PE/N terminal	73362852
AK 42 Plus UL 3-row, 42 available modules, with extra connection space including 35mm standard rail, without PE/N terminal	73364252
Recommended accessories:	Order no.
AK AS UL Masking off strips Width 108 mm for 6 distribution units	79901252

Small Distribution Boards

AK UL

AK-F Plus UL

315 x 155 mm

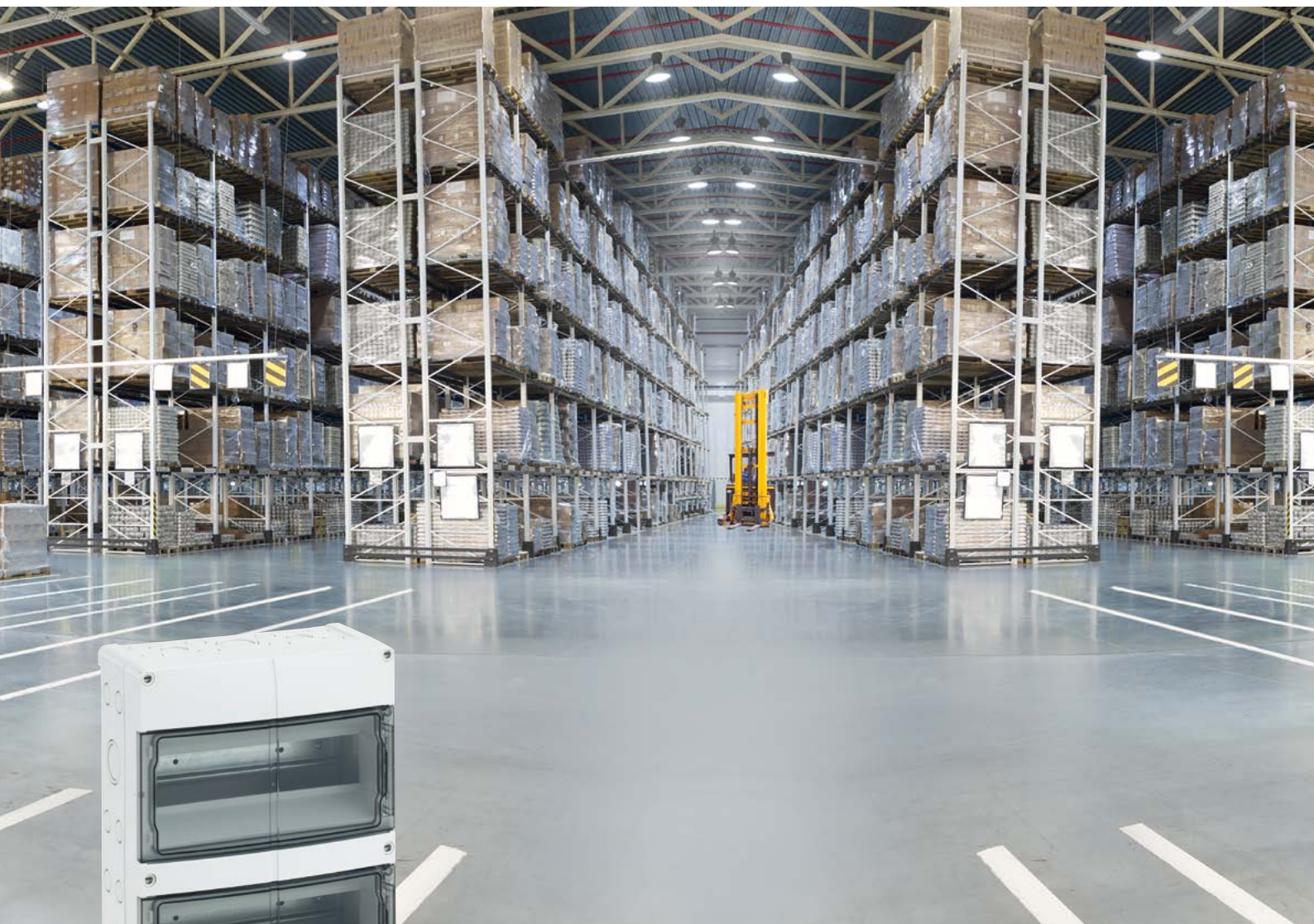


Small distributions boards, protection class IP65, UL Type Rating 3R, 12/12K, Flange type, with integrated ventilation elements for reducing the formation of condensation, rated operational voltage: 400V AC, rated insulation voltage: 1000V AC, 1500V DC, certified by VDE (DIN EN 60670-1/-24 (VDE 0606-1/-24)), UL (UL 50 & CSA 22.2 No. 94.1-07, UL 50E & CSA C22.2 No. 94.2-07), UL-EU (EN 62208), UL-EU (EN 61439-1/-2), UL-EU (EN 61439-1/-3), UL-EU (EN 61439-1 & EN IEC 61439-7), DLG (Ammonia resistance), open top/bottom sides for the use with various flanges or for the combination of several AK-F distributors via combination flange, for installations in the industrial environment and protected outside areas

Description	Order no.
AK-F 14 Plus UL 1-row, 14 available modules, with extra connection space including 35mm standard rail, without PE/N terminal	73371452
AK-F 28 Plus UL 2-row, 28 available modules, with extra connection space including 35mm standard rail, without PE/N terminal	73372852
AK-F 42 Plus UL 3-row, 42 available modules, with extra connection space including 35mm standard rail, without PE/N terminal	73374252
Recommended accessories:	Order no.
AK3 FL01 Flange for AK-F with knockouts: 1 x M50/M40, 2 x M40/32, 2 x M20	73382101
AK3 FL02 Flange for AK-F with knockouts: 5 x M25/M20, 4 x M20, 2 x M16	73382201
AK3 KFL Flange for AK-F	73382901
AK AS UL Masking off strips Width 108 mm for 6 distribution units	79901252

Small Distribution Boards

AKe



- Individual transparent doors can be lead sealed, blanking off of individual rows
- Including PE/N terminals
- Including stepped nipples for cable entries



Small Distribution Boards

AKe

AKe 03

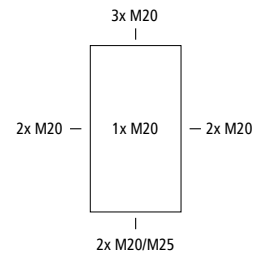
100 x 150 x 96 mm



Small distributions boards, protection class IP55, 1 row, 3 available modules, rated operational voltage: 400V AC, rated insulation voltage: 690V AC, 690V DC, metric knock-outs on top and bottom for universal cable insertions with cable glands, double membrane seals and/or stepped nipples, for standard installations indoors

Accessories supplied:

Stepped nipples: 3x M20, 1x M25, sealing plugs, cover and labelling strips



Description	Order no.
AKe 03 with PE/N terminal rail, each with 1 clamping point 16 mm ² and 3 clamping points 6 mm ²	73550301
AKe 03-L without PE/N terminal	73560301

Small Distribution Boards

AKe 05

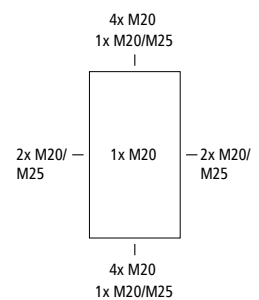
125 x 200 x 122 mm



Small distributions boards, protection class IP55, 1 row, 5 available modules, rated operational voltage: 400V AC, rated insulation voltage: 690V AC, 690V DC, metric knock-outs on top and bottom for universal cable insertions with cable glands, double membrane seals and/or stepped nipples, for standard installations indoors

Accessories supplied:

Stepped nipples: 4x M20, 1x M25, sealing plugs, cover and labelling strips



Description	Order no.
AKe 05 with PE/N terminal rail, each with 2 clamping points 16 mm ² and 3 clamping points 6 mm ²	73550501
AKe 05-L without PE/N terminal	73560501

Small Distribution Boards

AKe

AKe 09

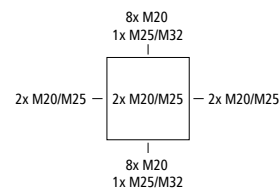
200 x 200 x 122 mm



Small distributions boards, protection class IP55, 1 row, 9 available modules, rated operational voltage: 400V AC, rated insulation voltage: 690V AC, 690V DC, metric knock-outs on top and bottom for universal cable insertions with cable glands, double membrane seals and/or stepped nipples, for standard installations indoors

Accessories supplied:

Stepped nipples: 7x M20, 1x M25, sealing plugs, cover and labelling strips



Description

AKe 09

with PE/N terminal rail, each with 2 clamping points 16 mm² and 5 clamping points 6 mm²

Order no.

73550901

AKe 09-L

without PE/N terminal

73560901

AKe 12

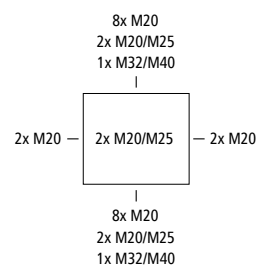
250 x 200 x 122 mm



Small distributions boards, protection class IP55, 1 row, 12 available modules, rated operational voltage: 400V AC, rated insulation voltage: 690V AC, 690V DC, metric knock-outs on top and bottom for universal cable insertions with cable glands, double membrane seals and/or stepped nipples, for standard installations indoors

Accessories supplied:

Stepped nipples: 9x M20, 1x M32, sealing plugs, cover and labelling strips



Description

AKe 12

with PE/N terminal rail, each with 2 clamping points 16 mm² and 10 clamping points 6 mm²

Order no.

73551201

AKe 12-L

without PE/N terminal

73561201

Small Distribution Boards

AKe

AKe 24

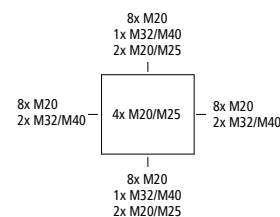
250 x 370 x 122 mm



Small distributions boards, protection class IP55, 2 rows, 24 available modules, rated operational voltage: 400V AC, rated insulation voltage: 690V AC, 690V DC, metric knock-outs on top and bottom for universal cable insertions with cable glands, double membrane seals and/or stepped nipples, for standard installations indoors

Accessories supplied:

Stepped nipples: 10x M20, 1x M32, sealing plugs, cover and labelling strips



Description	Order no.
AKe 24 Compact with PE/N terminal rail, each with 2 clamping points 16 mm ² and 14 clamping points 6 mm ²	73572401
AKe-L 24 Compact without PE/N terminal	73582401

Small Distribution Boards

AKe 36

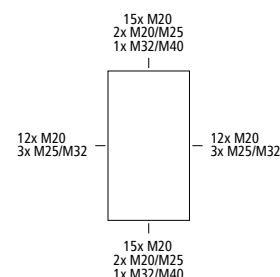
300 x 600 x 142 mm



Small distributions boards, protection class IP55, 3 rows, 36 available modules, rated operational voltage: 400V AC, rated insulation voltage: 690V AC, 690V DC, metric knock-outs on top and bottom for universal cable insertions with cable glands, double membrane seals and/or stepped nipples, for standard installations indoors

Accessories supplied:

Stepped nipples: 25x M20, 2x M25, 1x M32, 1x M40, sealing plugs, cover and labelling strips



Description	Order no.
AKe 36 with PE/N terminal rail, each with 1 terminal point 25 mm ² , 4 clamping points 16mm ² and 12 clamping points 6 mm ²	73553601
AKe 36-L without PE/N terminal	73563601

Small Distribution Boards

AKe

AKe 48

300 x 750 x 142 mm



IP55

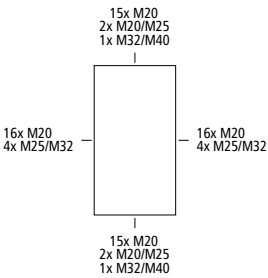
48

IK07

400V AC

Small distributions boards, protection class IP55, 4 rows, 48 available modules, rated operational voltage: 400V AC, rated insulation voltage: 690V AC, 690V DC, metric knock-outs on top and bottom for universal cable insertions with cable glands, double membrane seals and/or stepped nipples, for standard installations indoors

Accessories supplied:
Stepped nipples: 25x M20, 2x M25, 1x M32, 1x M40, sealing plugs, cover and labelling strips



Description	Order no.
AKe 48 with PE/N terminal rail, each with 1 terminal point 25 mm², 6 clamping points 16mm² and 18 clamping points 6 mm²	73554801
AKe 48-L without PE/N terminal	73564801

Small Distribution Boards

AK Accessories

AK3 KS M50



M50 combination cable gland for lateral connection of enclosures AK/AK-F 14/28/42/56/70 including Plus types as well as industrial and outdoor enclosures of the GEOS series

Description	Order no.
AK3 KS M50	73383001

AK3 FL



Enclosure wall including flange connector for sealing the face of AK-F enclosures

Description	Order no.
AK3 FL00 without pre-embossings	73382001
AK3 FL01 with pre-embossings: 1 x M50/M40, 2 x M40/32, 2 x M20	73382101
AK3 FL02 with pre-embossings: 5 x M25/M20, 4 x M20, 2 x M16	73382201
AK3 FL13 with insert via double membrane seals DMS M32 and opening for flange types FL13 as per standard SEN 28 09 01	73382801

AK3 KFL



Combination flange incl. flange connector for the front connection of AK-F enclosures

Description	Order no.
AK3 KFL	73382901

AK3 KBL



Cable cover for the attachment to AK/AK-F 14/28/42/56/70 housings, as well as Plus types, can be retroactively mounted on the end

Description	Order no.
AK3 KBL	73383101

AK3 STD



Mounting socket 16 A, 230 V for the lateral assembly on enclosures AK/AK-F 14/28/42/56/70, as well as Plus types

Description	Order no.
AK3 STD Schuko® protection rating IP54.	73383401
AK3 SDP Belgian/French standard, with protection rating IP44	73383601



Small Distribution Boards

AK Accessories

AK3 TW



Separation wall made of plastic, suitable for the interior subdivision of AK/AK-F 14/28/42/56 enclosures, as well as Plus types, with knockouts for the cable bushing

Description

AK3 TW

Order no.

73383201

Assembly plate insulating material for AK3 series



Assembly plate in melamine-clad insulating material, 4 mm thick, incl. fixing screws, grey

Description

AK3 MPI 14 L

for AK 14 L addition and empty enclosure

Order no.

73383801

AK3 MPI

With opening for AIR ventilation element, for Plus range

73383501

AK3 AS



External hinge set

Description

AK3 AS

only for AK 14 L - addition and empty enclosure

Order no.

73383701

AK3 ABL-ES



Stainless steel external fixing lugs, suitable for enclosure AK/AK-F 14/28/42/56/70, as well as Plus types, 1 set = 4 pcs.

Description

AK3 ABL-ES

Order no.

73383301

AK3 NS35



Standard rail as profile rail 35 x 7.5 mm

Description

AK3 NS35-14

for 14 modules, Incl. profile rail mount for all AK/AK-F 14/28/42/56/70, as well as Plus types

Order no.

73381201

AK3 NS35-275

Length 275 mm, Incl. universal floor fixing mounts for all AK/AK-F 14/28/42/56/70, as well as Plus types and AKi empty enclosures

73381301

AK3 KF



AK3 hinged window as a replacement part for all AK/AK-F 14/28/42/56 small distribution boards and Plus-Types of the latest AK-series with 14TE/series and ventilation element, small distribution board width 315mm, including hinge and handle

Description

AK3 KF

Order no.

73380101

Small Distribution Boards

AK Accessories

AK KF



Hinged window as spare part for AK / AKi / AKe compact small distribution board

Description	Order no.
AK KF 03 for AK 03/AKi 03	73540003
AK KF 05 AK 05/AKi 05/STV5xx	73540005
AK KF 09 AK 09/AKi 09/STV 9xx	73540009
AK KF 12 AK 12 / AKi12 / AK 24 / AKi 24 / STV 12xx / ZKi	73540012

AK3 terminal rail



Base support with integrated PE terminal rail, for installation in AK small distribution board from AK Air distributors upwards from 14 to 70 modules as additional terminals or as a replacement part

Description	Nr. of poles	Order no.
AK3 3/14 PE NEW Base carrier with PE terminal rail with 3 screw terminals 2.5-16mm ² and 14 push-in terminals 0.75-4mm ² , suitable for mounting of 2 N-modules, for mounting in AK 14/28/42/56 small distribution boards	1	73385001
AK3 6/21 PE NEW Base carrier with PE terminal rail with 6 screw terminals 2.5-16mm ² and 21 push-in terminals 0.75-4mm ² , suitable for mounting of 4 N-modules, for mounting in AK 14/28/42/56 small distribution boards	1	73385101

AK3 N-module set



N-module with operating lever for tool-free release of the wires, with 2 screw terminals each 2.5-16mm² and 6 push-in terminals 0.75-4mm² for mounting on base supports AK3 3/14 PE or AK3 6/21 PE

Description	Order no.
AK3 1/6/1 N NEW 4 N-modules each with 2 screw terminals 2.5-16mm ² and 6 push-in terminals 0.75-4mm ² with operating lever for toolless releasing of the conductors for mounting on AK3 3/14 PE or AK3 6/21 PE base carrier , 3 jumpers	73385201

Small Distribution Boards

AK Accessories

PE/N terminal



PE/N terminal rail, for installation in AK/AKi compact small distribution board as additional terminals or for replacement.

Description	Order no.
AK 03 PEN-S PE/N-terminal each with 1 terminal point of 16 mm ² and 3 clamping points of 6 mm ²	79020401
AK 05 PEN-S PE/N-terminal each with 2 clamping points of 16 mm ² and 3 clamping points of 6 mm ²	79020501
AK 09 PEN-S PE/N-terminal each with 2 clamping points of 16 mm ² and 5 clamping points of 6 mm ²	79020701
AK 12 PEN-S PE/N-terminal each with 2 clamping points of 16 mm ² and 10 clamping points of 6 mm ²	79021101
AK 24 PEN-S PE/N-terminal each with 2 clamping points of 16 mm ² and 14 clamping points of 6 mm ²	79021801

Terminal block



Terminal, for rigid conductors, 15 clamping points, 1 screwable clamping point 25 mm² (1.5-25 mm² re, 1-16 mm² rf+AD), 2 screwless clamping points 4 mm² (1-4 mm² re, 1-2.5 mm² rf+AD), 12 screwless clamping points 2.5 mm² (1-2.5 mm² re, 0.75-1.5 mm² rf+AD), for assembly on 35 mm DIN mounting rail, for current carrying capacity of 76 A

Description	Order no.
KLS L 1/14-SL Grey	79032001
KLS N 1/14-SL Blue	79032101
KLS PE 1/14-SL Green	79032201

AK lock fittings



Lock fittings, for installation in hinged doors of distribution boards AK 03 to AK/AKi 70 and AK/AKi Plus 14 to 56, with 2 keys and installation instructions

Description	Order no.
AK SGA-1 Identical locks	70610201
AK SGA-2 Different closures, max. 10 different closures possible	70690201

Small Distribution Boards

AK Accessories

Combi connector



Combination socket for connecting enclosures, polyethylene, grey, for wall thickness 1.5 - 4.0 mm

Description	Order no.
KST M32 Length 25 mm, for vertical and horizontal connection of AK/AKi 24 distribution boards, ZKi meter housings and AKL/AKi 1-4 empty enclosures, for vertical connection of AK/AKi 09/12 distribution boards, as well as TK empty enclosures with M32 knock-outs	19303201
KST M25-33 Length 33 mm, for vertical connection of AK 14 - 56, AK/AKi 24 distribution boards, ZKi meter enclosures and AKL/AKi 1 - 4 empty enclosures, as well as for horizontal connection of AK 28 - 56 distribution boards	19302601
KST M25-17 Length 17 mm, for vertical connection of AK/AKi 03 - 12 distribution boards, AKL / AKi 1-4, as well as TK and SVi enclosures with M25 knock-outs	19302501

Combi set



Combination set for connecting enclosures with metric entries, polystyrene, grey, complete with locknut and partition seal

Description	Wall thickness	Thread length/mm	Order no.
KS M20	2 x 3,0	12	19202001
KS M25	2 x 3,0	12	19202501
KS M25-gro	2 x 8,0	22	19202601
KS M32	2 x 3,5	14	19203201

Masking off strips



Masking off strips, to close off unused circuit-breaker positions, detachable, grey

Description	Order no.
AK AS Width 108 mm for 6 distribution units	79901201
AK AS-v Width 216 mm for 12 distribution units, lockable	79901301
AK AS UL Width 108 mm for 6 distribution units	79901252

Ventilation plug



Ventilation Plug, IP44, with labyrinth seal to avoid condensation formation in enclosures, flow rate 100 l/min. at 0.1 bar overpressure, thermoplastic elastomer, recommended for insertion on the left and right enclosure sides in different heights (see Technical Appendix - protection against condensate water), for wall thicknesses 1.5 - 4.5 mm

Description	for wall thickness	Order no.
BST M20 Grey	4,5 - 1,5	26242001
BST M20/sw Black	4,5 - 1,5	26202001

Small Distribution Boards

AK Accessories

Double membrane seals, grey



Double membrane seals, IP66, with two sealing membranes, closed, thermoplastic elastomer (TPE), for wall thicknesses 1.5 - 4.5 mm, grey

Description	Sealing range/mm	Order no.
DMS M16	5 - 9	26041601
DMS M20	7 - 13	26042001
DMS M25	9 - 17	26042501
DMS M32	13 - 21	26043201
DMS M40	17 - 28	26044001

Cable gland, grey, with locknut



Cable gland, IP68, with strain relief, polyamide, M_ x 1.5 mm, with locknut, grey

Description	Sealing range/mm	Thread lenght/mm	Order no.
KVR M12-MGM	2 - 6,5	8	22741201
KVR M16-MGM	4 - 10,0	8	22741601
KVR M20-MGM	6 - 12,0	9	22742001
KVR M20-GDB/MGM	7 - 14,0	9	22742101
KVR M25-MGM	9 - 16,0	11	22742501
KVR M32-MGM	11 - 21,0	11	22743201
KVR M40-MGM	16 - 28,0	11	22744001
KVR M50-MGM	27 - 34,5	13	22745001
KVR M63-MGM	30 - 44,5	17	22746301

1	2	3	4	5	6	7	8	9	10	11	12	13	14
1			5				9				13		
2			6				10				14		
3			7				11						
4			8				12						

15	16	17	18	19	20	21	22	23	24	25	26	27	28
15			19				23				27		
16			20				24				28		
17			21				25						
18			22				26						

29	30	31	32	33	34	35	36	37	38	39	40	41	42
29			33				37				41		
30			34				38						
31			35				39						
32			36				40						

43	44	45	46	47	48	49	50	51	52	53	54	55	56
43			47				51				55		
44			48				52				56		
45			49				53						
46			50				54						

1	2	3	4	5	6	7	8	9	10	11	12	13	14
1			5				9				13		
2			6				10				14		
3			7				11						
4			8				12						

15	16	17	18	19	20	21	22	23	24	25	26	27	28
15			19				23				27		
16			20				24				28		
17			21				25						
18			22				26						

29	30	31	32	33	34	35	36	37	38	39	40	41	42
29			33				37				41		
30			34				38				42		
31			35				39						
32			36				40						

43	44	45	46	47	48	49	50	51	52	53	54	55	56
43			47				51				55		
44			48				52				56		
45			49				53						
46			50				54						

Hersteller / Manufacture / Fabricant				IP:		Herkunftsdatum / Date of manufacturing / date de fabrication	
U _N :				V:			
U ₀ :				A:			
f:				Hz		Typ / type:	

Hersteller / Manufacture / Fabricant				IP:		Herkunftsdatum / Date of manufacturing / date de fabrication	
U _N :				V:			
U ₀ :				A:			
f:				Hz		Typ / type:	

Suitable labelling strips for our AK - small distribution board series can also be downloaded: www.spelsberg.com/downloads.

Small Distribution Boards

AK Accessories



Small Distribution Boards

Technical Information



Protection rating (IP code)
in accordance with DIN EN 60529
(VDE 0470-1)



Maximum number of **modules**



Level of protection (IK code) against
mechanical impact in accordance with
DIN EN 50102 (VDE 0470-100)



Protection class II
Equipment with protective insulation
in accordance with DIN VDE 0100-410



Rated voltage
for use in **AC voltage systems**, maximum
permissible nominal voltage of the
electrical system



The **VDE symbol** for electrotechnical
products indicates conformity with the
VDE directives or European or
internationally harmonised standards.
It stands for product safety and quality.



UL EU
Products with the **UL EU** approval mark
have been independently certified by UL
(Underwriters Laboratories Inc.). Repre-
sentative samples of this product have
been assessed by UL and comply with the
applicable European (EN) or international
(IEC) standards.



c UL us (Underwriters Laboratories)
Products with the **c UL us** approval mark
have been independently certified by UL
(Underwriters Laboratories Inc.).
Representative samples of this product
have been assessed by UL and comply
with the applicable national standards of
USA and Canada.



AK Air ventilation elements for prevent-
ing condensation while maintaining the
high protection rating IP65.



Halogen-free enclosure, without halogens
such as fluorine, chlorine and bromine.



DLG focus test
to highlight in particular innovations for
machinery and technical products -
predominantly in agricultural and forestry
applications.

Pictograms | Small distribution boards



**Standard
Quality**



**Industrial
Quality**

Overview of the ambient conditions and mechanical properties of els products	Enclosure without fittings			Enclosure with fittings						
	Ambient temperature Minimum value	Ambient temperature Maximum value	Ambient temperature Average over 24 h	Ambient temperature Minimum value	Ambient temperature Maximum value	Ambient temperature Average over 24 h	Max. relative humidity at 40°C	Max. relative humidity at 25°C (short-term)	Protection rating according to DIN EN 60529 (VDE 0470-1) ¹⁾	Shock-proof as per DIN EN 50102 / DE 0470 Part 100
AK Compact small distribution boards	-25°C	40°C	35°C	-25°C	40°C	35°C	50%	95%	IP65	IK07
AKi Compact small distribution boards	-35°C	80°C	60°C	-25°C	40°C	35°C	50%	95%	IP65	IK08
AK small distribution boards	-35°C	80°C	60°C	-25°C	40°C	35°C	50%	95%	IP65	IK08

Additional note: The specified temperatures may be limited by the installed devices.

¹⁾ When used with suitable connectors or cable glands

Overview of the properties of the materials used in els installation systems		Weak acids	Strong acids	Weak alkalis	Strong alkalis	Alcohol	Petrol	Benzene	Mineral oil	Diesel	Ammonia, gaseous (DLG Focus Test)	Vegetable fats	Animal fats	Halogen-free	Heavy metal-, PVC- and silicon-free	Combustion behaviour in accordance with DIN EN 60695 (VDE 0471) / UL94
Material	Used in the products:															
Polycarbonate, glass-fibre-reinforced	AK small distribution boards	O	X	X	X	O	Ø	X	O	Ø	O	O	Ø	yes	yes	960 °C / V-2 (5 VA*)
Polycarbonate, transparent	Hinged door AK small distribution boards	O	X	X	X	Ø	Ø	X	O	Ø	O	O	O	yes	yes	850°C / V-2
Polyamide 6, glass-fibre-reinforced	Screwed connections IP 68, cover screws	X	X	O	O	O	O	Ø	O	O	O	O	O	yes	yes	750°C / HB/V-2
Polystyrene, impact proof	AK compact system	O	Ø	O	O	O	X	X	O	X	not specified	O	X	yes	yes	650°C / HB

O = resistant Ø = partially resistant X = not resistant

* 5-inch (127 mm) flame test in accordance with UL 746 C (comparable with the requirements in accordance with UL 94, 5VA)

The materials used by Spelsberg have been subjected to a weathering test in accordance with DIN 53 387 (superseded by DIN EN ISO 4892-2) and a 1000-hour test by the State Testing Office in Dortmund. The materials used for the IQ products achieved optimal results as can be seen here. This material also passed the UV resistance test in accordance with UL 746 C unconditionally.

In principle, not only the level of protection but also the climatic conditions and the occurrence of chemical influences should be assessed when selecting the installation site. Details of the material properties and chemical resistance of the materials used can be taken from the table **though it should be noted that they are only guide values.**

Power dissipation data for AK Air small distribution boards	Max. power output capability (P _{de}) for GP enclosures in accordance with EN 60670-24 [per profile rail] 1)	Achievable power dissipation in PD enclosures in accordance with EN 60670-24 [per profile rail] 2)
Type		
AK 14 / AK-F 14	26W [26W]	35W [35W]
AK 28 / AK-F 28	35W [17.5W]	48W [24W]
AK 42 / AK-F 42	45W [15W]	62W [20W]
AK 56 / AK-F 56	56W [14W]	77W [19W]
AK 70	66W [13W]	90W [18W]

	Max. power output capability (P _{de}) for GP enclosures in accordance with EN 60670-24 [per profile rail] 1)	Achievable power dissipation in PD enclosures in accordance with EN 60670-24 [per profile rail] 2)
Type		
AK 14 Plus / AK-F 14 Plus	52W [52W]	70W [70W]
AK 28 Plus / AK-F 28 Plus	61W [30.5W]	92W [46W]
AK 42 Plus / AK-F 42 Plus	70W [23W]	113W [36.5W]
AK 56 Plus / AK-F 56 Plus	79W [19.5W]	134W [33.5W]

The AK small distribution board can be used as both a GP (universal) enclosures and also a PD enclosures for predetermined equipment in accordance with standard EN 60670-24.

1) Verification of the maximum power output capability (P_{de}) for universal enclosures - GP enclosures

Verification of the temperature rise for GP empty enclosures and GP basic enclosures was carried out using AK small distribution boards with substitute resistors which produce the maximum power dissipation per standard rail as listed in the table. In the process, the outer surface did not heat up by more than 30K. Here, the increase in temperature inside the enclosure is higher and may exceed the permissible operating temperature of the equipment used if necessary.

2) Verification of the temperature rise for enclosures for predetermined equipment - PD enclosures

Verification of the temperature rise for PD empty enclosures and PD basic enclosures was carried out using AK small distribution boards with combinations of equipment which produce the maximum power dissipation per standard rail as listed in the table. In the process, the outer surface did not heat up by more than 40K. Here, the increase in temperature inside the enclosure is higher and may exceed the permissible operating temperature of the equipment used if necessary.

Small Distribution Boards

Technical Information

Power dissipation details
for AK installation small
distribution boards and
**individually mounted
empty AK enclosures**

individually mounted

Type	[W]			
	$\Delta T = 10K$	$\Delta T = 20K$	$\Delta T = 30K$	$\Delta T = 40K$
AK(F) 14, AK(F) 14 L	9,9 [8,2]	23,6 [19,3]	39 [32]	55,8 [45,8]
AK(F) 28, AK(F) 14 Plus	13,4 [10,4]	31,7 [24,6]	52,5 [40,8]	75 [58,3]
AK(F) 42, AK(F) 28 Plus	16,7 [12,6]	39,6 [29,9]	65,6 [49,5]	93,9 [70,9]
AK(F) 56, AK(F) 42 Plus	20 [15]	47,6 [35,6]	78,6 [59]	112,4 [84,3]
AK(F) 70, AK(F) 56 Plus	25,7 [20,9]	60,9 [49,5]	100,9 [82,1]	144,4 [117,4]



Power dissipation details
for AK installation small
distribution boards and
**individually mounted
empty AK enclosures**

individually mounted

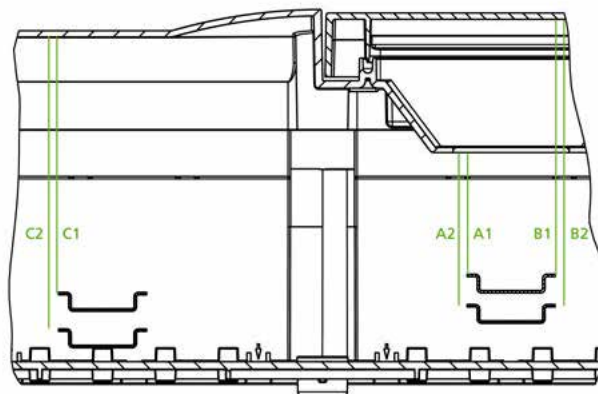
Type	[W]			
	$\Delta T = 10K$	$\Delta T = 20K$	$\Delta T = 30K$	$\Delta T = 40K$
AK 03 / AKi 03	2,4 [1,8]	5,7 [4,4]	9,4 [7,2]	13,4 [10,4]
AK 05 / AKi 05	3,8 [2,9]	9,0 [6,9]	14,9 [11,5]	21,4 [16,4]
AK 09 / AKi 09	5,0 [4,1]	11,8 [9,6]	19,5 [15,9]	27,9 [22,8]
AK 12 / AKi 12	5,7 [4,8]	13,6 [11,4]	22,5 [18,9]	32,2 [27,1]
AK 24 / AKi 24	8,9 [6,9]	21,2 [16,4]	35,1 [27,2]	50,2 [38,8]



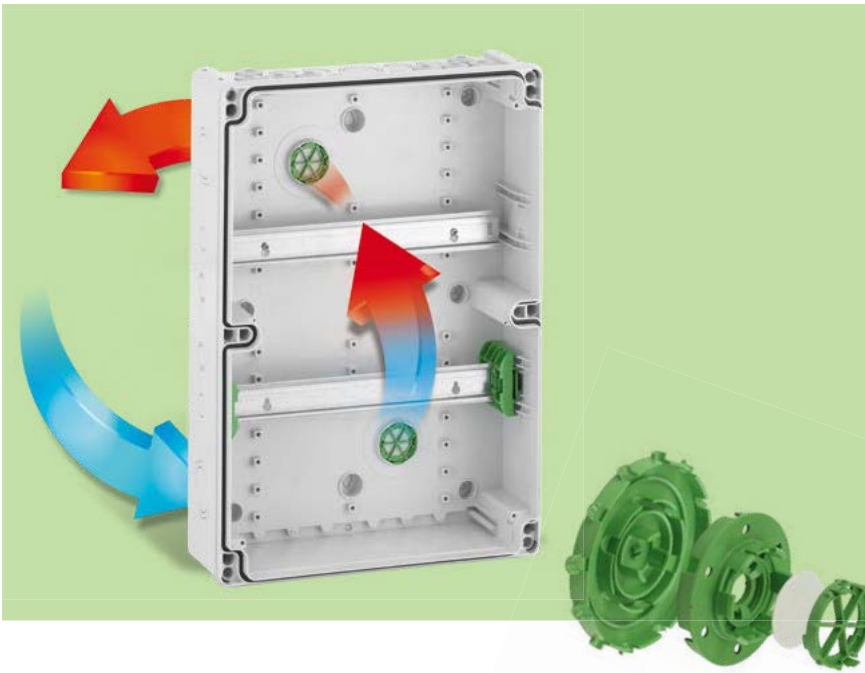
Permissible power loss P_{per} in watts in accordance with DIN VDE 61439-1 Supplement 2 for **individually mounted surface-mounted small distribution boards** and **surface-mounted empty enclosures** with stipulated ΔT . Power loss at 50% of the enclosure height and [75%] of the enclosure height.

Assembly and installation instructions

Installation dimensions of AK small distribution boards



	A1	A2	B1	B2	C1	C2
AK / AK-F 14-70	48 mm	60 mm	95 mm	107 mm		
AK / AK-F Plus 14-42	48 mm	60 mm	95 mm	107 mm	101 mm	115 mm
AK / AKi 03	48 mm		71 mm			
AK / AKi 05-24	48 mm		94 mm			



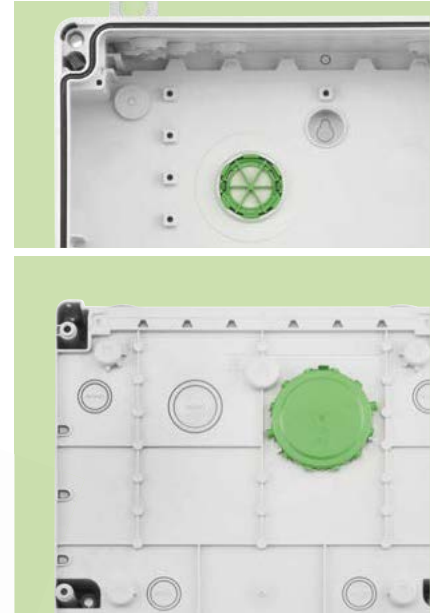
Advantages of the Air ventilation element

The Air ventilation element prevents formation of condensation while maintaining the high protection rating IP65. Any condensation that forms is removed from the enclosure by means of continuous air exchange. Due to the constant and high rate of air exchange the internal air is always able to mix with the ambient air and transports the moisture to the outside. Air exchange also takes place in environments with almost

constant air humidity and temperature, as the air in the interior of the enclosure heats up, due to the components.

Further information such as datasheets, the AK trailer and the AK product manual can be found at:

www.spelsberg.com/ak-simply-more-values



Advantages

- Prevention of condensation whilst maintaining the IP65 high degree of protection.
- High air exchange rate
- 100% pressure compensation
- 100% protection from foreign particles
- Maintenance free

Protection against rain / snow (precipitation)



The protection rating tests carried out under DIN EN 60529 are used as comparative

tests and for classification of properties. The tests are limited to a few minutes and cannot emulate exposure to rain / snow or cleaning with water jets. In addition, the local conditions may differ so greatly that a general exposure test cannot be defined.

The installation regulations for the respective installation situation must be taken into account for this reason.

DIN VDE 0100-520:

522.3.1 Cable and conductor systems must be selected and installed that damage cannot be caused by condensation or ingress of water.

DIN VDE 0100-712: Photovoltaic systems 712.522.8.3 External influences that can be anticipated, such as wind, ice formation, temperatures and solar radiation, must be taken into account.

It should therefore be ensured during installation that the enclosure is protected by a roof construction.

This roof construction may already be present in existing structures; be set up by the user; or be supplied in the form of accessory products from the Spelsberg range.

Socket Distribution Boards / Enclosures



Different versions - specially developed for your needs



An easily and quickly accessible socket makes any workflow easier, be this for servicing and maintenance or during daily working. The socket distribution boards from Spelsberg are suitable both for supplying power to the workplace, and providing sockets in industrial buildings and craft workshops, or on machines to allow easy connection of additional equipment.

Spelsberg socket distribution boards come as connection-ready, type-tested solutions with rail-mounted devices. The pre-wired socket combinations make it easy to satisfy the special requirements of the end customer.

Apart from the standard programme, Spelsberg also offers bespoke solutions for customers.

Socket Distribution Boards / Enclosures

Table of Contents

Types	Series	Page
 Socket enclosures, ready for connection IP44	STG	197
 Socket distribution boards, pre-wired or ready for connection IP44	STV-S / STV-K	199
 Accessories Socket Distribution Boards / Enclosures		207
Technical Information	Socket distribution boards	210

Socket Distribution Boards / Enclosures

STV | STG



STG - Connection-ready, fitted with CEE and protective contact sockets, ready wired for connection.

STV-S - Fitted with CEE and protective contact sockets, pre-wired, including PE/N terminal.

The enclosures are also **combinable** with AKi Compact small distribution boards.

The **special break-out contour** on the enclosure sides of the STG / STV 5 and STG / STV 9 enclosures allows the installation of further components, e.g. load disconnecting switches.

- High mechanical resistance
- Non-sensitive to temperature
- Compact dimensions
- Combinable

All socket distribution boards with 12 modules now come with 3 cable insertions M32/40 on the top providing a simple option for feed-through cabling.

IP44

IK08



400V
AC



Socket Distribution Boards / Enclosures

STG

STG 5

125 x 200 x 122 mm



IP44

IK08

400V
AC

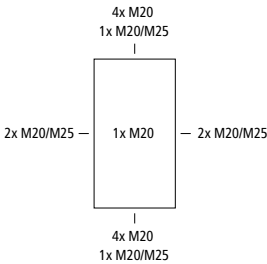
Socket enclosure, protection class IP44, with integrated, pre-wired sockets, high mechanical resilience, non-sensitive to temperature, combinable, halogen-free

Cable insertions:

- Top: Pre-embossing 4 x M20, 1 x M20/25
Bottom: Pre-embossing 4 x M20, 1 x M20/25
Left: Pre-embossingPre-embossing 4 x M20/25
Rear: Pre-embossing 1 x M20

Accessories supplied:

Attachment bushes: 2x M25, 2x M32, sealing plugs



Description	Order no.
STG 004 equipped with: • 4 x SCHUKO® plug socket (on front), 230V	73220401
STG 004 BE/FR equipped with: • 4 x Protective contact socket, French/Belgian standard (on front), 230V	73220405
STG 012 equipped with: • 2 x SCHUKO® plug socket (on front), 230V • 1 x CEE plug socket outlet (on front) 16A, 400V	73221201
STG 012 BE/FR equipped with: • 2 x Protective contact socket, French/Belgian standard (on front), 230V • 1 x CEE plug socket outlet (on front) 16A, 400V	73221205

Socket Distribution Boards / Enclosures

STG

STG 12

250 x 200 x 122 mm



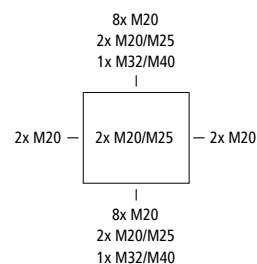
Socket enclosure, protection class IP44, with integrated, pre-wired sockets, high mechanical resilience, non-sensitive to temperature, combinable, halogen-free

Cable insertions:

Top: Pre-embossing 8 x M20, 2 x M20/25, 1 x M32/40
 Bottom: Pre-embossing 8 x M20, 2 x M20/25, 1 x M32/40
 Left: Pre-embossing 2 x M20
 Right: Pre-embossing 2 x M20
 Rear: Pre-embossing 2 x M20/25

Accessories supplied:

Attachment bushes: 2x M25, 2x M32, sealing plugs



Description	Order no.
STG 008 equipped with: • 8 x SCHUKO® plug socket (on front), 230V	73220801
STG 008 BE/FR equipped with: • 8 x Protective contact socket, French/Belgian standard (on front), 230V	73220805
STG 024 equipped with: • 4 x SCHUKO® plug socket (on front), 230V • 2 x CEE plug socket outlet (on front) 16A, 400V	73222401
STG 024 BE/FR equipped with: • 4 x Protective contact socket, French/Belgian standard (on front), 230V • 2 x CEE plug socket outlet (on front) 16A, 400V	73222405

Socket Distribution Boards / Enclosures

STV

STV 502-S

125 x 200 x 122 mm



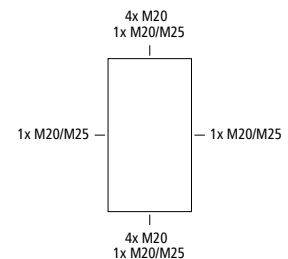
Socket outlet combination, protection class IP44, suitable for installation by the customer of rail mounted devices, with integrated sockets pre-wired to PE/N terminal, high mechanical load capacity, temperature-insensitive, combinable, halogen-free

Cable insertions:

Top: Pre-embossing 4 x M20, 1 x M20/25
Bottom: Pre-embossing 4 x M20, 1 x M20/25
Rear: Pre-embossing 1 x M20

Accessories supplied:

Attachment bushes: 2x M25, sealing plugs, masking and labelling strips



Description	Order no.
STV 502-S available modules: 4 equipped with: • 2 x SCHUKO® plug socket (on side), 230V	72830201
STV 502-S BE/FR available modules: 4 equipped with: • 2 x Protective contact socket with integrated increased contact protection, French/Belgian standard (on front), 230V	72830205

STV 5-S

125 x 400 x 122 mm



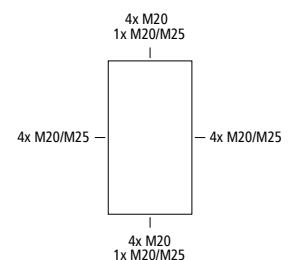
Socket outlet combination, protection class IP44, suitable for installation by the customer of rail mounted devices, with integrated sockets pre-wired to PE/N terminal, high mechanical load capacity, temperature-insensitive, combinable, halogen-free

Cable insertions:

Top: Pre-embossing 4 x M20, 1 x M20/25
Bottom: Pre-embossing 4 x M20, 1 x M20/25
Left: Pre-embossing 4 x M20/25
Right: Pre-embossing 4 x M20/25
Rear: Pre-embossing 2 x M20

Accessories supplied:

Attachment bushes: 2x M25, 2x M32, sealing plugs, masking and labelling strips



Description	Order no.
STV 512-S available modules: 5 equipped with: • 2 x SCHUKO® plug socket (on front), 230V • 1 x CEE plug socket outlet (on front) 16A, 400V	72831201
STV 512-S BE/FR available modules: 5 equipped with: • 1 x CEE plug socket outlet (on front) 16A, 400V • 2 x Protective contact socket with integrated increased contact protection, French/Belgian standard (on front), 230V	72831205

Socket Distribution Boards / Enclosures

STV

STV 904-S

200 x 200 x 122 mm



IP44

8

IK08

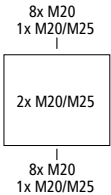
230V
AC

halogen-free

Socket outlet combination, protection class IP44, suitable for installation by the customer of rail mounted devices, with integrated sockets pre-wired to PE/N terminal, high mechanical load capacity, temperature-insensitive, combinable, halogen-free

Cable insertions:

Top: Pre-embossing 8 x M20, 1 x M25/32
Bottom: Pre-embossing 8 x M20, 1 x M25/32
Rear: Pre-embossing 2 x M20/25



Accessories supplied:
Attachment bushes: 2x M25, 2x M32, sealing plugs, masking and labelling strips

Description	Order no.
STV 904-S available modules: 8 equipped with: • 4 x SCHUKO® plug socket (on side), 230V	72930401
STV 904-S BE/FR available modules: 8 equipped with: • 4 x Protective contact socket with integrated increased contact protection, French/Belgian standard (on front), 230V	72930405

Socket Distribution Boards / Enclosures

STV

STV 9-S

200 x 400 x 122 mm



Socket outlet combination, protection class IP44, suitable for installation by the customer of rail mounted devices, with integrated sockets pre-wired to PE/N terminal, high mechanical load capacity, temperature-insensitive, combinable, halogen-free

Cable insertions:

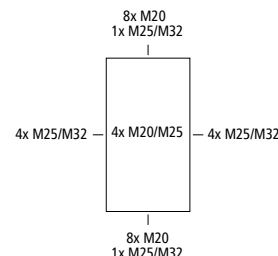
Top: Pre-embossing 8 x M20, 1 x M25/32

Bottom: Pre-embossing 8 x M16/20, 1 x M25/32

Left: Pre-embossing 4 x M20/25

Right: Pre-embossing 4 x M20/25

Rear: Pre-embossing 4 x M20/25



Accessories supplied:

Attachment bushes: 2x M25, 2x M32, sealing plugs, masking and labelling strips

Description	Order no.
STV 912-S available modules: 9 • 2 x SCHUKO® plug socket (on front), 230V • 1 x CEE plug socket outlet (on front) 16A, 400V	72931201
STV 912-S BE/FR available modules: 9 • 1 x CEE plug socket outlet (on front) 16A, 400V • 2 x Protective contact socket with integrated increased contact protection, French/Belgian standard (on front), 230V	72931205
STV 912-S32 available modules: 9 • 2 x SCHUKO® plug socket (on front), 230V • 1 x CEE plug socket outlet (on front) 32A, 400V	72931301
STV 912-S32 BE/FR available modules: 9 • 1 x CEE plug socket outlet (on front) 32A, 400V • 2 x Protective contact socket with integrated increased contact protection, French/Belgian standard (on front), 230V	72931305
STV 922-S available modules: 9 • 2 x SCHUKO® plug socket (on front), 230V • 1 x CEE plug socket outlet (on front) 16A, 400V • 1 x CEE plug socket outlet (on front) 32A, 400V	72932201
STV 922-S BE/FR available modules: 9 • 1 x CEE plug socket outlet (on front) 16A, 400V • 1 x CEE plug socket outlet (on front) 32A, 400V • 2 x Protective contact socket with integrated increased contact protection, French/Belgian standard (on front), 230V	72932205
STV 923-S available modules: 9 • 3 x SCHUKO® plug socket (on front), 230V • 1 x CEE plug socket outlet (on front) 16A, 400V • 1 x CEE plug socket outlet (on front) 32A, 400V	72932301
STV 923-S BE/FR available modules: 9 • 1 x CEE plug socket outlet (on front) 16A, 400V • 1 x CEE plug socket outlet (on front) 32A, 400V • 3 x Protective contact socket with integrated increased contact protection, French/Belgian standard (on front), 230V	72932305

Socket Distribution Boards / Enclosures

STV

STV 12-S

250 x 400 x 122 mm



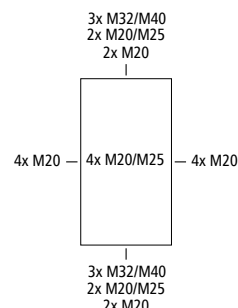
Socket outlet combination, protection class IP44, suitable for installation by the customer of rail mounted devices, with integrated sockets pre-wired to PE/N terminal, high mechanical load capacity, temperature-insensitive, combinable, halogen-free

Cable insertions:

Top: Pre-embossing 2 x M20, 2 x M20/25, 3 x M32/40
Bottom: Pre-embossing 2 x M20, 2 x M20/25, 3 x M32/40
Left: Pre-embossing 4 x M20
Right: Pre-embossing 4 x M20

Accessories supplied:

Attachment bushes: 2x M25, 2x M32, sealing plugs, masking and labelling strips



Description	Order no.
STV 1208-S available modules: 12 equipped with: • 8 x SCHUKO® plug socket (on front), 230V	73130801
STV 1222-S available modules: 12 equipped with: • 2 x SCHUKO® plug socket (on front), 230V • 1 x CEE plug socket outlet (on front) 16A, 400V • 1 x CEE plug socket outlet (on front) 32A, 400V	73132201
STV 1222-S16 available modules: 12 equipped with: • 2 x SCHUKO® plug socket (on front), 230V • 2 x CEE plug socket outlet (on front) 16A, 400V	73122201
STV 1224-S available modules: 12 equipped with: • 4 x SCHUKO® plug socket (on front), 230V • 1 x CEE plug socket outlet (on front) 16A, 400V • 1 x CEE plug socket outlet (on front) 32A, 400V	73132401
STV 1224-S16 available modules: 12 equipped with: • 4 x SCHUKO® plug socket (on front), 230V • 2 x CEE plug socket outlet (on front) 16A, 400V	73122401
STV 1224-S32 available modules: 12 equipped with: • 4 x SCHUKO® plug socket (on front), 230V • 2 x CEE plug socket outlet (on front) 32A, 400V	73112401

Socket Distribution Boards / Enclosures

STV

STV 12-S BE/FR

250 x 400 x 122 mm



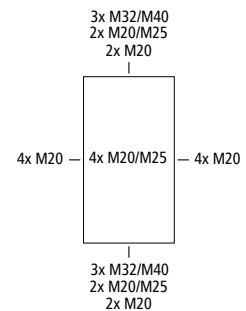
Socket outlet combination, protection class IP44, suitable for installation by the customer of rail mounted devices, with integrated sockets pre-wired to PE/N terminal, high mechanical load capacity, temperature-insensitive, combinable, halogen-free

Cable insertions:

Top: Pre-embossing 2 x M20, 2 x M20/25, 3 x M32/40
Bottom: Pre-embossing 2 x M20, 2 x M20/25, 3 x M32/40
Left: Pre-embossing 4 x M20
Right: Pre-embossing 4 x M20

Accessories supplied:

Attachment bushes: 2x M25, 2x M32, sealing plugs, masking and labelling strips



Description	Order no.
STV 1208-S BE/FR available modules: 12 equipped with: 8 x Protective contact socket with integrated increased contact protection, French/Belgian standard (on front), 230V	73130805
STV 1222-S BE/FR available modules: 12 equipped with: 1 x CEE plug socket outlet (on front) 16A, 400V 1 x CEE plug socket outlet (on front) 32A, 400V 2 x Protective contact socket with integrated increased contact protection, French/Belgian standard (on front), 230V	73132205
STV 1224-S BE/FR available modules: 12 equipped with: 1 x CEE plug socket outlet (on front) 16A, 400V 1 x CEE plug socket outlet (on front) 32A, 400V 4 x Protective contact socket with integrated increased contact protection, French/Belgian standard (on front), 230V	73132405
STV 1224-S16 BE/FR available modules: 12 equipped with: 2 x CEE plug socket outlet (on front) 16A, 400V 4 x Protective contact socket with integrated increased contact protection, French/Belgian standard (on front), 230V	73122405
STV 1224-S32 BE/FR available modules: 12 equipped with: 2 x CEE plug socket outlet (on front) 32A, 400V 4 x Protective contact socket with integrated increased contact protection, French/Belgian standard (on front), 230V	73112405
STV 1222-S16 BE/FR NEW available modules: 12 equipped with: 2 x CEE plug socket outlet (on front) 16A, 400V 2 x Protective contact socket with integrated increased contact protection, French/Belgian standard (on front), 230V	73122205

Socket Distribution Boards / Enclosures

STV

STV 502-L

125 x 200 x 122 mm



Socket empty enclosure, protection class IP44, suitable for installation of rail mounted devices and extension sockets by the customer, with PE/N terminal, adapters and screws for assembling the sockets, high mechanical impact resistance, non-sensitive to temperature, halogen-free

Cable insertions:

Top: Pre-embossing 4 x M20, 1 x M20/25

Bottom: Pre-embossing 4 x M20, 1 x M20/25

Rear: Pre-embossing 1 x M20

Accessories supplied:

Attachment bushes: 2x M25, sealing plugs, masking and labelling strips

Description

STV 502-L

available modules: 4

Openings for sockets: 2 x hole for protective contact sockets with diameter of 44.5mm and drill hole distance for vertical/horizontal mounting of 38/38mm (on side)

Order no.

72890201

STV 5-L

125 x 400 x 122 mm



Socket outlet combination, protection class IP44, suitable for installation of rail mounted devices and extension sockets by the customer, with PE/N terminal, adapters and screws for assembling the sockets, high mechanical impact resistance, non-sensitive to temperature, halogen-free

Cable insertions:

Top: Pre-embossing 4 x M20, 1 x M20/25

Bottom: Pre-embossing 4 x M20, 1 x M20/25

Left: Pre-embossing 2 x M20/25

Right: Pre-embossing 4 x M20/25

Rear: Pre-embossing 2 x M20

Accessories supplied:

Attachment bushes: 2x M25, 2x M32, sealing plugs, masking and labelling strips

Description

STV 504-L

available modules: 5

Openings for sockets: 4 x hole for protective contact sockets with diameter of 44.5mm and drill hole distance for vertical/horizontal mounting of 38/38mm (on front)

Order no.

72890401

STV 512-L

available modules: 5

Openings for sockets: 2 x hole for protective contact sockets with diameter of 44.5mm and drill hole distance for vertical/horizontal mounting of 38/38mm (on front), 1 x drill hole for CEE sockets with a diameter of 66.5mm and drill hole distance for vertical/horizontal mounting of 60/60mm (on front)

72891201

Socket Distribution Boards / Enclosures

STV

STV 904-L

200 x 200 x 122 mm



Socket outlet combination, protection class IP44, suitable for installation of rail mounted devices and extension sockets by the customer, with PE/N terminal, adapters and screws for assembling the sockets, high mechanical impact resistance, non-sensitive to temperature, halogen-free

Cable insertions:

Top: Pre-embossing 8 x M20, 1 x M25/32
Bottom: Pre-embossing 8 x M20, 1 x M25/32
Rear: Pre-embossing 2 x M20/25

Accessories supplied:

Attachment bushes: 2x M25, 2x M32, sealing plugs, masking and labelling strips

Description	Order no.
STV 904-L available modules: 8 Openings for sockets: 2 x hole for protective contact sockets with diameter of 44.5mm and drill hole distance for vertical/horizontal mounting of 38/38mm (on side)	72990401

STV 9-L

200 x 400 x 122 mm



Socket empty enclosure, protection class IP44, suitable for installation of rail mounted devices and extension sockets by the customer, with PE/N terminal, adapters and screws for assembling the sockets, high mechanical impact resistance, non-sensitive to temperature, halogen-free

Cable insertions:

Top: Pre-embossing 8 x M20, 1 x M25/32
Bottom: Pre-embossing 8 x M20, 1 x M25/32
Left: Pre-embossing 4 x M20/25
Right: Pre-embossing 4 x M20/25
Rear: Pre-embossing 4 x M20/25

Accessories supplied:

Attachment bushes: 2x M25, 2x M32, sealing plugs, masking and labelling strips

Description	Order no.
STV 912-L available modules: 9 Openings for sockets: 2 x hole for protective contact sockets with diameter of 44.5mm and drill hole distance for vertical/horizontal mounting of 38/38mm (on front), 1 x drill hole for CEE sockets with a diameter of 66.5mm and drill hole distance for vertical/horizontal mounting of 60/60mm (on front)	72991201
STV 922-L available modules: 9 Openings for sockets: 2 x hole for protective contact sockets with diameter of 44.5mm and drill hole distance for vertical/horizontal mounting of 38/38mm (on front), 2 x drill holes for CEE sockets with a diameter of 66.5mm and drill hole distance for vertical/horizontal mounting of 60/60mm (on front)	72992201
STV 923-L available modules: 9 Openings for sockets: 3 x hole for protective contact sockets with diameter of 44.5mm and drill hole distance for vertical/horizontal mounting of 38/38mm (on front), 2 x drill holes for CEE sockets with a diameter of 66.5mm and drill hole distance for vertical/horizontal mounting of 60/60mm (on front)	72992301

Socket Distribution Boards / Enclosures

STV

STV 12-L

250 x 400 x 122 mm



Socket empty enclosure, protection class IP44, suitable for installation of rail mounted devices and extension sockets by the customer, with PE/N terminal, adapters and screws for assembling the sockets, high mechanical impact resistance, non-sensitive to temperature, halogen-free

Cable insertions:

Top: Pre-embossing 2 x M20, 2 x M20/25, 3 x M32/40

Bottom: Pre-embossing 2 x M20, 2 x M20/25, 3 x M32/40

Left: Pre-embossing 4 x M20

Right: Pre-embossing 4 x M20

Accessories supplied:

Attachment bushes: 2x M25, 2x M32, sealing plugs, masking and labelling strips

Description	Order no.
STV 1208-L available modules: 12 Openings for sockets: 8 x hole for protective contact sockets with diameter of 44.5mm and drill hole distance for vertical/horizontal mounting of 38/38mm (on front)	73190801
STV 1222-L available modules: 12 Openings for sockets: 2 x hole for protective contact sockets with diameter of 44.5mm and drill hole distance for vertical/horizontal mounting of 38/38mm (on front), 2 x drill holes for CEE sockets with a diameter of 66.5mm and drill hole distance for vertical/horizontal mounting of 60/60mm (on front)	73192201
STV 1224-L available modules: 12 Openings for sockets: 4 x hole for protective contact sockets with diameter of 44.5mm and drill hole distance for vertical/horizontal mounting of 38/38mm (on front), 2 x drill holes for CEE sockets with a diameter of 66.5mm and drill hole distance for vertical/horizontal mounting of 60/60 mm (on front)	73192401

Socket Distribution Boards / Enclosures

Meter enclosure/distributor accessories

Double membrane seals, grey



Double membrane seals, IP66, with two sealing membranes, closed, thermoplastic elastomer (TPE), for wall thicknesses 1.5 - 4.5 mm, grey

Description	Sealing range/mm	Order no.
DMS M16	5 - 9	26041601
DMS M20	7 - 13	26042001
DMS M25	9 - 17	26042501
DMS M32	13 - 21	26043201
DMS M40	17 - 28	26044001

Cable gland, grey, with locknut



Cable gland, IP68, with strain relief, polyamide, M_x x 1.5 mm, with locknut, grey

Description	Sealing range/mm	Thread lenght/mm	Order no.
KVR M12-MGM	2 - 6,5	8	22741201
KVR M16-MGM	4 - 10,0	8	22741601
KVR M20-MGM	6 - 12,0	9	22742001
KVR M20-GDB/MGM	7 - 14,0	9	22742101
KVR M25-MGM	9 - 16,0	11	22742501
KVR M32-MGM	11 - 21,0	11	22743201
KVR M40-MGM	16 - 28,0	11	22744001
KVR M50-MGM	27 - 34,5	13	22745001
KVR M63-MGM	30 - 44,5	17	22746301

Ventilation plug



Ventilation Plug, IP44, with labyrinth seal to avoid condensation formation in enclosures, flow rate 100 l/min. at 0.1 bar overpressure, thermoplastic elastomer, recommended for insertion on the left and right enclosure sides in different heights (see Technical Appendix - protection against condensate water), for wall thicknesses 1.5 - 4.5 mm

Description	for wall thickness	Order no.
BST M20 Grey	4,5 - 1,5	26242001
BST M20/sw Black	4,5 - 1,5	26202001

Socket Distribution Boards / Enclosures

Meter enclosure/distributor accessories

Combi connector



Combination socket for connecting enclosures, polyethylene, grey, for wall thickness 1.5 - 4.0 mm

Description	Order no.
KST M32 Length 25 mm, for vertical and horizontal connection of AK/AKi 24 distribution boards, ZKi meter housings and AKL/AKi 1-4 empty enclosures, for vertical connection of AK/AKi 09/12 distribution boards, as well as TK empty enclosures with M32 knock-outs	19303201
KST M25-33 Length 33 mm, for vertical connection of AK 14 - 56, AK/AKi 24 distribution boards, ZKi meter enclosures and AKL/AKi 1 - 4 empty enclosures, as well as for horizontal connection of AK 28 - 56 distribution boards	19302601
KST M25-17 Length 17 mm, for vertical connection of AK/AKi 03 - 12 distribution boards, AKL / AKi 1-4, as well as TK and SVi enclosures with M25 knock-outs	19302501

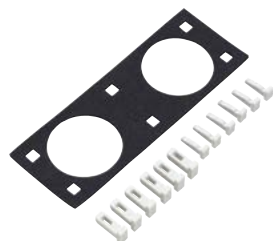
Combi set



Combination set for connecting enclosures with metric entries, polystyrene, grey, complete with locknut and partition seal

Description	Wall thickness	Thread lenght/mm	Order no.
KS M20	2 x 3,0	12	19202001
KS M25	2 x 3,0	12	19202501
KS M25-gro	2 x 8,0	22	19202601
KS M32	2 x 3,5	14	19203201

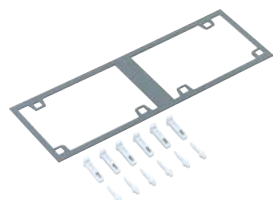
STV KS combi set



For horizontal combination with AKi 05/09 small distributors, complete with wedge connectors and intermediate seals

Description	Order no.
STV KS-IP 65	79100201

AK combi set



Combi set, for horizontal or vertical combination of all AK enclosures (until 04/15) and AKi enclosures from 300 x 150 mm, complete with wedge connectors and intermediate sealing for 150 and 300 mm enclosure sides, each 300 mm = 1 combi set

Description	Order no.
AK KS-IP65	79100101

Socket Distribution Boards / Enclosures

Meter enclosure/distributor accessories

Z wall profile



Z-wall profile, length 2 m, with 8 M6 cylinder screws and 8 captive push nuts, wall clearance 70 mm, material: galvanised steel

Description	Order no.
ZPR	07080001

KD BD blank cover



Blank cleat for empty enclosures, for closing off unused socket openings

Description	Order no.
KD BD/CEE	51006001
KD BD/SCHUKO®	51003801

Handle



Handle made of plastic, for mobile use of enclosures, screw spacing 120 mm

Description	Order no.
TG 2 with self-cutting screws	19180501
TG 1 with screws M6 and nuts made of plastic	19180001

AK lock fittings



Lock fittings, for installation in hinged doors of distribution boards AK 03 to AK/AKi 70 and AK/AKi Plus 14 to 56, with 2 keys and installation instructions

Description	Order no.
AK SGA-1 Identical locks	70610201
AK SGA-2 Different closures, max. 10 different closures possible	70690201

AK external fixing lugs



External fixing lugs, for mounting separate enclosures or small units on flat wall surfaces, can be fixed to the box base at an angle of 0°, 45°, or 90°, wall gap 7 mm, material stainless steel, suitable for all AK enclosures from 300 mm front, Set = 4 pcs.

Description	Order no.
AK ABL-ES Set = 4 pcs.	79300401

Socket Distribution Boards / Enclosures

Technical Information

IP44

Protection rating (IP code)
in accordance with DIN EN 60529
(VDE 0470-1)

IK08

Level of protection (IK code)
against mechanical impact in accordance
with DIN EN 50102 (VDE 0470-100)



Protection class II
Equipment with protective insulation in
accordance with DIN VDE 0100-410

**400V
AC**

Rated voltage
for use in **AC voltage systems**, maximum
permissible nominal voltage of the
electrical system



Halogen-free enclosure,
without halogens such as fluorine,
chlorine and bromine.

Pictograms |
Socket distribution boards / enclosure



**Industrial
Quality**

Overview of the
**ambient conditions and
mechanical properties
of els products**

	Enclosure without fittings			Enclosure with fittings					Protection rating according to DIN EN 60529 (VDE 0470-1) ¹⁾	Shock-proof as per DIN EN 50102 / DE 0470 Part 100
	Ambient temperature Minimum value	Ambient temperature Maximum value	Ambient temperature Average over 24 h	Ambient temperature Minimum value	Ambient temperature Maximum value	Ambient temperature Average over 24 h	Max. relative humidity at 40°C	Max. relative humidity at 25°C (short-term)		
STV / STG socket combinations	-35°C	80°C	60°C	-25°C	40°C	35°C	50%	95%	IP44 ¹⁾	IK08

Additional note: The specified temperatures may be limited by the installed devices.

¹⁾ With closed socket covers

Overview of the properties of the materials used in els installation systems

Material	Used in the products:	Weak acids	Strong acids	Weak alkalis	Strong alkalis	Alcohol	Petrol	Benzene	Mineral oil	Diesel	Ammonia, gaseous (DLG Focus Test)	Vegetable fats	Animal fats	Halogen-free	Heavy metal-, PVC- and silicon-free	Combustion behaviour in accordance with DIN EN 60695 (VDE 0471) / UL94
Polycarbonate, glass-fibre-reinforced	STV/STG	O	X	X	X	O	Ø	X	O	Ø	O	O	Ø	yes	yes	960°C / V-2 (5VA*)
Polycarbonate, transparent	Hinged door STV	O	X	X	X	Ø	Ø	X	O	Ø	O	O	O	yes	yes	850°C / V-2
Polyamide 6, glass-fibre-reinforced	Cable glands IP 68, cover screws	X	X	O	O	O	O	Ø	O	O	O	O	O	yes	yes	750°C / HB/V-2

O = resistant Ø = partially resistant X = not resistant

* 5-inch (127 mm) flame test in accordance with UL 746 C (comparable with the requirements in accordance with UL 94, 5VA)

The materials used by Spelsberg have been subjected to a weathering test in accordance with DIN 53 387 (superseded by DIN EN ISO 4892-2) and a 1000-hour test by the State Testing Office in Dortmund. The materials used for the IQ products achieved optimal results as can be seen here. This material also passed the UV resistance test in accordance with UL 746 C unconditionally.

In principle, not only the level of protection but also the climatic conditions and the occurrence of chemical influences should be assessed when selecting the installation site. Details of the material properties and chemical resistance of the materials used can be taken from the table **though it should be noted that they are only guide values.**

Power dissipation data for STV empty enclosure

Type	[W]			
	ΔT= 10K	ΔT= 20K	ΔT= 30K	ΔT= 40K
STV 502-L / -S	3.8	9.0	14.9	21.4
	[2.9]	[6.9]	[11.5]	[16.4]
STV 512-L / -S	6.5	15.4	25.5	36.5
	[5.1]	12.1	20.0	28.6
STV 904-L / -S	5.0	11.8	19.5	27.9
	[4.1]	[9.6]	[15.9]	[22.8]
STV 912-L / -S STV 922-L / -S STV 923-L / -S	8.3	19.7	32.6	46.6
	[6.3]	[14.8]	24.5	35.1
STV 1222-L / -S /-16 STV 1208-L / -S STV 1224-L / -S / -S32	9.5	22.5	37.3	53.3
	[7.3]	[17.3]	28.6	[40.9]

Permissible power loss P_{per} in watts in accordance with DIN VDE 61439-1 Supplement 2 for **surface-mounted empty enclosures** at specified ΔT. Power loss at 50% of the enclosure height and [75%] of the enclosure height.



Your partner for smart and convenient e-mobility

Take a step into the future with Spelsberg - using electricity from sustainable sources for environmentally friendly means of transport. This requires components that reliably supply e-bikes or electric cars with green electricity. The versatile e-mobility solutions from Spelsberg make it possible.

Whether for charging your bike, pedelec, other light electric vehicles (LEV) or e-cars

- with Spelsberg you always have the right partner for user-friendly e-mobility by your side.

Whether you want to charge your electric car easily and conveniently at home. Or are you planning a charging park for your employees or tenants. The demands you place on wallboxes could not be more different. That's why the Spelsberg Wall-

box is available in two different versions: Spelsberg Wallbox Pure and Smart Pro. This allows you to choose the range of functions to suit your individual needs.

E-Mobility Solutions

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E-Mobility Solutions

Spelsberg Wallbox



Impressive in power and design

The 11 kW wallboxes from Spelsberg with smart technology enable convenient charging of electric vehicles. Both models, Spelsberg Wallbox Pure and Spelsberg Wallbox Smart Pro, benefit from their compact dimensions and easy handling.

- Impressive design
- Simple installation and setup
- Maximum connectivity
- With attached charging cable
- Compact dimensions and low depth of the enclosure
- Simple configuration via Spelsberg Wallbox App (free available for Android and iOS)



reddot winner 2023





Simple initial setup

Configuration of the Spelsberg Wallbox can be performed quickly and conveniently via the app.



Wall mounting by use of a mounting rail

Ensures precise and fast alignment and optimum fixing of the wallbox.

Generously designed installation space

Comfortable and proper connection to the main power supply and to the charging cable.

E-Mobility Solutions

Spelsberg Wallbox



The Spelsberg Wallbox features at a glance



Solar power charging

Your vehicle can be charged with sustainable solar power generated by yourself or with power from your energy storage device. The Spelsberg Wallbox offers suitable communication interfaces for rapid and simple integration into your energy management system.



Numerous interfaces

Whether you use Wifi, ethernet, NFC, EEBus, Modbus TCP or USB – the Spelsberg Wallbox offers numerous interfaces. Thus, smooth integration into your own network or energy management system is assured.



Safe authorisation

Authentication may be needed before starting a charging process. This is a very simple process either through use of an RFID tag or direct communication between wallbox and vehicle via Plug & Charge or AutoCharge.

High-gloss design

Stylish and exclusive, whether in Polar or Graphite, the wallbox will fit in any surroundings.

IP 54 | IK08 | Protection class II

The impact-resistant enclosure provides reliable protection against splash water and dust. This allows the charging station to be used in indoor as well as in protected outdoor areas.

RFID | NFC function

By means of the integrated RFID and NFC functions, the charging process can easily be authorised and the wallbox configured.

Cable lengths

The charging cable, available in both 5 and 7 metre lengths, gives you maximum flexibility in your choice of charging location.

LED + buzzer

The LED provides feedback on the present status of the wallbox – acoustically supported by an integrated buzzer.

IEC 62196 type 2 connector

This is the standard, when it comes to EV charging. With a suitable cap to protect against weather influences.



Statistics

Keep track of your data: The integrated MID meter measures the charged energy. This allows you to analyse and bill for charging processes via the app.



Open communication via OCPP 1.6

OCPP allows standardised data exchange. This gives you maximum flexibility and if necessary the wallbox can be incorporated on your own server-side, e.g. for charging process billing.



Spelsberg Voltage Detect

After a voltage breakdown, the wallbox automatically continues with the charging process. So you do not have to expect any nasty surprises like empty batteries.

E-Mobility Solutions

Spelsberg Wallbox

Spelsberg Wallbox Pure

293 x 293 x 110 mm

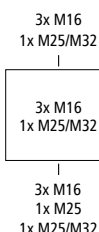


Wallbox - ideal for fast and safe charging of private e-vehicles, charging power up to 11 kW (3-phase)/3.7 kW (1-phase) and a maximum charging current of 16 A, easy connection and charging, variably adjustable charging current in 1A steps, integrated DC fault current detection for DC residual currents of ≥ 6 mA and temperature monitoring for a safe charging process, stylish design and compact enclosure dimensions for wall and pedestal mounting, protection class IP54, maximum connection cross-section of supply terminal 6mm², shock resistance IK08, protection class II.

Simple installation and fast configuration with the free-of-charge Spelsberg Wallbox App (available for iOS, Version 14 and higher, and Android Version 6 and higher), free charging or contactless authorisation of the charging process by RFID, LED and audible signals for clear feedback on status changes.

Accessories supplied:

3 RFID chips, 4 fastening screws 6x60, 4 universal dowels 8x50, 3 DMS M16, 1 DMS M25, 1 DMS M32 and 5 chips for opening the design cover



Description	Order no.
Spelsberg Wallbox Pure Polar 5m NEW Polar, 5m charging cable with Type 2 connector	☐ 59141501
Spelsberg Wallbox Pure Polar 7m NEW Polar, 7m charging cable with Type 2 connector	☐ 59141701
Spelsberg Wallbox Pure Graphite 5m NEW Graphite, 5m charging cable with Type 2 connector	☒ 59151501
Spelsberg Wallbox Pure Graphite 7m NEW Graphite, 7m charging cable with Type 2 connector	☒ 59151701

Spelsberg Wallbox Smart Pro

293 x 293 x 110 mm



Wallbox - ideal for smart charging of private e-vehicles, charging power up to 11 kW (3-phase)/3.7 kW (1-phase) and a maximum charging current of 16 A, variably adjustable charging current in 1A steps, integrated DC fault current detection for DC residual currents of ≥ 6 mA and temperature monitoring for a safe charging process, stylish design and compact housing dimensions for wall and pedestal mounting, protection class IP54, maximum connection cross-section of supply terminal 6 mm², shock resistance IK08, protection class II.

Simple installation and fast configuration and firmware updates with the free-of-charge Spelsberg Wallbox App (available for iOS, Version 14 and higher, and Android Version 6 and higher).

Integrated MID meter for consumption billing, dynamic load management by phase with unbalanced load detection and meter support for external loads, for efficient use of available power, connection to energy management systems (EMS) for external control for charging with solar energy, free charging or contactless authorisation of the charging process by RFID, Plug & Charge (ISO15118) or AutoCharge, LED and audible signals for clear feedback on status changes, analysis of extensive charging statistics via the Spelsberg Wallbox App or external backends.

Supports communication protocols and interfaces:

- USB
- WLAN, Ethernet (2 RJ45 LAN-Ports)
- Modbus TCP, EEBus, SMA SEMP
- OCPP-J 1.6 for connection of external backends

Accessories supplied:

3 RFID chips, 4 fastening screws 6x60, 4 universal dowels 8x50, 3 DMS M16, 1 DMS M25, 1 DMS M32 and 5 chips for opening the design cover



Description	Order no.
Spelsberg Wallbox Smart Pro Polar 5m NEW Polar, 5m charging cable with Type 2 connector	☐ 59143501
Spelsberg Wallbox Smart Pro Polar 7m NEW Polar, 7m charging cable with Type 2 connector	☐ 59143701
Spelsberg Wallbox Smart Pro Graphite 5m NEW Graphite, 5m charging cable with Type 2 connector	☒ 59153501
Spelsberg Wallbox Smart Pro Graphite 7m NEW Graphite, 7m charging cable with Type 2 connector	☒ 59153701

Wallbox pedestal



Wallbox pedestal - including cable holder, stainless steel (V2A) material, for easy mounting outdoors, including fixing screws for Spelsberg Wallbox, drilled holes provided for cable entries and securing of accessories, additional fittings may be required depending on the foundation

Description	Order no.
SF1 NEW Pedestal for mounting a Spelsberg Wallbox, expansion option with weather protection roof and extension kit for a second Spelsberg Wallbox	59180101
SF1 WSD NEW Pedestal for mounting a Spelsberg Wallbox, including weather protection roof in stainless steel (V2A), expansion option with extension kit for a second Spelsberg Wallbox	59180201
SF2 NEW Pedestal for mounting 2 Spelsberg Wallboxes in opposing arrangement, optionally expandable with weather protection roof	59180301
SF2 WSD NEW Pedestal for mounting 2 Spelsberg Wallboxes in opposing arrangement, including weather protection roof in stainless steel (V2A)	59180401

Weather protection roof for wallbox pedestal



Weather protection roof for the wallbox pedestal - for quick and easy expansion of the single- and double-sided pedestal, stainless steel (V2A) materials

Description	Order no.
SF WSD NEW	59180501

Extension kit double pedestal



Extension kit double pedestal - for expanding the single pedestal for a second Spelsberg Wallbox, including additional cable holder and fixing screws for the Spelsberg Wallbox, stainless steel (V2A) material, drilled holes provided for cable glands and fastening of accessories

Description	Order no.
AP-SF2 NEW	59180601

Weather protection roof for wallbox



Weather protection roof to protect the Spelsberg Wallbox from weather influences both from above and from the side, including separate cable holder, stainless steel (V2A) material, for quick and easy mounting on outside walls

Accessories supplied:

Drilling template

Description	Order no.
WB WSD NEW	59181501

Connector holder



Connector holder - for the Type 2 charging connector in accordance with IEC 62196-2, optimum positioning of the charging connector for connecting to the electric vehicle, quick and easy wall mounting, stylish design, a suitable addition to any Spelsberg Wallbox

Accessories supplied:

4 flat plate head screws 6x60, 4 universal dowels UX 8x50 R

Description	Order no.
SH Polar NEW Colour polar	59180701
SH Graphite NEW Colour graphite	59180801

RFID chip



RFID tag - for authorising charging processes on a Spelsberg Wallbox, multifunctional applications in a single tag, handy design, contactless reading and writing by means of RFID technology

Description	Order no.
RFID-C Polar NEW Colour Polar, kit = 5 pieces	59181301
RFID-C Graphite NEW Colour Graphite, kit = 5 pieces	59181401

Wallbox charging cable



Charging cable – AC charging cable with Type 2 charging plug in accordance with IEC 62196 and open cable ends, with cap, cable construction 5 x 2.5 mm² + 1 x 0.5 mm², IP54 (with cap), charging power up to max. 11 kW (3-phase), charging current up to max. 16 A, for installation on a Spelsberg Wallbox

Description	Order no.
LL 5m T2 NEW 5m length with Type 2 plug	59180901
LL 7m T2 NEW 7m length with Type 2 plug	59181001

Wallbox design cover



Design cover - for replacing the design cover of a Spelsberg Wallbox, easy to fit, polycarbonate, UV- and weather-resistant

Description	Order no.
DC Polar NEW Colour Polar	59181101
DC Graphite NEW Colour Graphite	59181201

E-Mobility Solutions

BCS E-Bike Charging Station | Case Study



FORSTHAUS Hotel and Restaurant, Möhnesee - Easy, on-site charging

For decades now, the lakeside FORSTHAUS, has enjoyed a reputation nationwide as a small hotel and restaurant with homestyle cooking. The nearby Möhne and Ruhr cycle paths see many cyclists returning to the region year after year. Accordingly, many guests at the FORSTHAUS bring their bikes with them. "The target group of e-bike riders is becoming increasingly important for us. Out of our desire to be good hosts,

we have decided to extend the services we offer to them by adding a free charging station", explains the owner Karin Schreiner-Schulte.

During the search for a suitable solution, a Smart BCS charging station from Spelsberg was chosen. The innovative and robust BCS, taken out from our high qualitative GEOS enclosure range, are equipped in the standard configuration with original charge controllers, from Bosch and

Shimano, amongst others, and also with SCHUKO sockets. The use of these original components ensures a reliable and safe charging process. At the same time, guests do not have to use their own charge controller. The integrated electronics monitor the system, detect overloads, and if necessary automatically shut down the station. The operating temperature range of -25 °C to +40 °C allows use in protected outdoor areas throughout the year.

IP54



4²

IK08





The e-bike charging station is an important part of the service offering for our guests. Just as important to us was expert advice beforehand and selecting a product that meets our requirements.

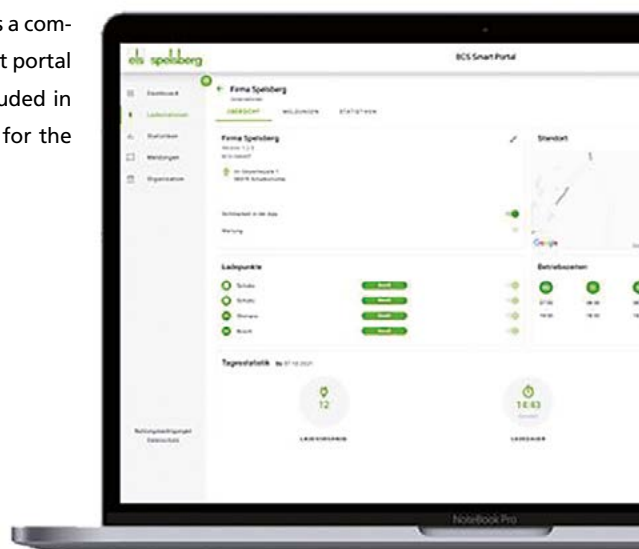
We found the collaboration with Spelsberg to be excellent.

Karin Schreiner-Schulte, owner



Having decided on the Smart version, the management of the hotel and restaurant on the Möhnesee benefit from additional features. On the one hand these allow easy monitoring of the station, and on the other hand increase the advertising effectiveness of the FORSTHAUS. The included BCS management portal provides a display of the charging processes and users, as well as statistics and servicing instructions.

The e-bike charging station includes a comprehensive web-based management portal with many functions. Its use is included in the purchase price of a BCS Smart for the first 24 months.



E-Mobility Solutions

BCS E-Bike Charging Station



Refuel easily with the connection-ready BCS PURE and BCS SMART e-bike charging stations from Spelsberg. These offer an easy and convenient charging option for e-bikes, pedelecs and other light electric vehicles. Equipped with charging systems from Bosch and Shimano, and with SCHUKO® sockets, charging is also possible if the e-bike's own charging unit is unavailable.

CONNECT  e-MOBILITY



www.spelsberg.com/BCS

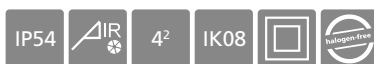


E-Mobility Solutions

BCS E-Bike Charging Station

e-bike charging station BCS Pure

528 x 530 x 226 mm



e-bike charging station, monitored and controlled charging for the e-biker and charging station operator, grey, similar to RAL 7035, with printed cover, fixed cable system, including status display of individual charging points, can be connected to 230/400V-grid, product delivered ready for connection for rapid and easy wall-mounting

Accessories supplied:

With four external fixing lugs 10mm and 40mm wall distance, with integrated ventilation element BEL Air M40 for preventing the accumulation of condensation inside the enclosure

Description	Order no.
BCS Pure Four charging stations, of which 1 x Shimano, 1 x Bosch Standard Charger 4A, 2 x SCHUKO • 2 x SCHUKO® plug socket (on side), 230V • 1 x Shimano charging point • 1 x Bosch charging point	58112201
BCS Pure BOSCH Four charging points, of which 2 x Bosch Standard Charger 4A, 2 x SCHUKO • 2 x SCHUKO® plug socket (on side), 230V • 2 x Bosch charging point	58113201
BCS Pure GB Four charging points, of which 2 sockets Type G 230V, 1 x Shimano, 1 x Bosch Standard Charger 4A • 1 x Shimano charging point • 1 x Bosch charging point	57012201

E-Mobility Solutions

BCS E-Bike Charging Station

E-bike charging station BCS Smart

528 x 530 x 226 mm



E-bike charging station, monitored and controlled charging for the e-biker and operator of the charging station, cloud connection via LAN, WLAN or mobile radio, grey, similar to RAL 7035, with printed lid, with permanently mounted cable system (2.5 m), incl. status display of the individual charging points, connectable to the 230/400V mains, product is delivered ready for connection for quick and easy wall mounting. For use with the BCS management portal (including two year licence from purchase). Upon expiry of the agreed period of use of the management portal, service charges may then apply. The Terms of Use in force shall apply). Use of smart services is subject to prior acceptance of the Terms of Use in force - these can be found at www.spelsberg.com/bcs/terms-of-use. Resellers are required to advise their customers of this regulation.

Accessories supplied:

With four external fixing lugs 10mm and 40mm wall distance, with integrated ventilation element BEL Air M40 for preventing the accumulation of condensation inside the enclosure

Description	Order no.
BCS Smart Four charging stations, of which 1 x Shimano, 1 x Bosch Standard Charger 4A, 2 x SCHUKO • 2 x SCHUKO® plug socket (on side), 230V • 1 x Shimano charging point • 1 x Bosch charging point	58012201
BCS Smart GB Four charging points, of which 2 sockets Type G 230V, 1 x Shimano, 1 x Bosch Standard Charger 4A • 1 x Shimano charging point • 1 x Bosch charging point	57112201
BCS Smart Bosch NEW Four charging stations, of which 2 x socket outlet Schuko 230V, 2 x Bosch Standard Charger 4A • 2 x SCHUKO® plug socket (on side), 230V • 2 x Bosch charging point	58012301

Mast clamp set



Mast clamp set made of hot-dip galvanized steel, set = 2 pieces

Description	Order no.
GEOS MSS-30 mounting on the 300mm enclosure side	72005001
GEOS MSS-40 mounting on the 400mm enclosure side	72005101
GEOS MSS-50 mounting on the 500mm enclosure side	72005201

Design plate



Design plate made of V2A stainless steel, 1 piece

Description	Order no.
GEOS DP-3030 for covering the rear side of GEOS 3030 enclosure when using the GEOS MSS mast clamp set	72013001
GEOS DP-3040 for covering the rear side of GEOS 3040 enclosure when using the GEOS MSS mast clamp set	72013101
GEOS DP-4050 for covering the rear side of GEOS 4050 enclosure when using the GEOS MSS mast clamp set	72013201

Screw clamp set



Screw clamp set made of stainless steel V2A, in conjunction with mast clamp set GEOS MSS, set = 2 pieces

Description	Order no.
SRS 60-90 for mast diameters from 60 to 90mm	72004001
SRS 90-150 for mast diameters from 90 to 150mm	72004101
SRS 150-210 for mast diameters from 150 to 210mm	72004201

E-Mobility Solutions

TG BCS Bicycle Charging Station



The key feature of the station is its customisability: **For this, Spelsberg also offers printing according to customer's specification.** The appearance can then be individually adapted to the installer or operator. From the company logo to colourful images, everything is possible with our in-house printing service at Spelsberg Headquarters.

Even more options for optical effects are provided by the translucent material of the cover.

With the illuminated version, more individualised customer requirements can be accommodated.

IP44

IK08



400V
AC



TG BCS 3

202 x 152 x 110 mm

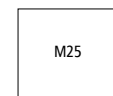


E-Bike charging station, protection class IP44, black, incl. cover screw with special head, cable entries, 1 x M25 rear housing side, 1 x M25 lower housing side, 1 x ventilation seal M20, pre-wired to terminal Wago 221 (L1/L2/L3/N/PE)

Cable insertions:

Bottom: DMS 1 x M25

Rear: DMS 1 x M25



M25

Description	Order no.
TG BCS 3 equipped with: • 3 x SCHUKO® plug socket (on front), 230V	20003001
TG BCS 3 LED with LED lighting equipped with: • 3 x SCHUKO® plug socket (on front), 230V	20003401
TG BCS 3 BE/FR equipped with: • 3 x Protective contact socket, French/Belgian standard (on front), 230V	20013001
TG BCS 3 BE/FR LED with LED lighting equipped with: • 3 x Protective contact socket, French/Belgian standard (on front), 230V	20013401

E-Mobility Solutions

TG BCS Bicycle Charging Station Accessories

BCS weather protection cover



for mounting the TG BCS 3 e-bike charging station, Material: Stainless steel V2A, with M4 internal thread, for tamper-proof fastening of the housing

Description	Order no.
BCS WP1 Weather protection roof, suitable for TG BCS, V2A, dimensions 205x190x110 in mm, mounting holes for TG BCS present with M4 thread, mounting screws included,	20003101

Earth spike



for concreting in, Material: Stainless steel V2A, with 2 x M5 thread, incl. end cap and screws for fastening the weather protection cover, Covered cable routing in the ground spike possible

Description	Order no.
BCS WP2 Ground spike, suitable for weather-proof cover TG BCS WP1, material V2A, dimensions 30x30x1447 in mm, can be embedded in concrete, cable routing in ground spike possible, M5 screw and end cap included,	20003201



E-Mobility Solutions

Small Distribution Boards



For charging at home... The simple solution for your wallbox

The AK E-Mobility distributor, with integrated miniature and residual current circuit breakers, offers a simple and safe solution for adding an 11 kW wallbox to the existing electrical system.

If your wallbox already has integrated 6mA DC monitoring, then an AK E-Mobility distributor with Type A RCD circuit breaker can be used.

In the Comfort versions a Type 2 surge protector is also fitted to protect the sensitive charging electronics, together with an intermediate meter to provide information on the energy consumption of the vehicle.

Simple - Safe - Fast:

- Low planning effort
- Optimum adaptation to the wallbox
- Safe and compliant with the standards
Installation in accordance with VDE 0100-722 and EN 61439-3
- IP65 protection allows use in carport or garage
- Short downtimes when connecting the distributor



E-Mobility Solutions

Small Distribution Boards

AK 14+ EMOBIL Basic

315 x 450 x 155 mm



Small distributions boards, protection class IP65, type-tested to EN 61439-3, prewired ready for connection to input and output terminals 10 mm²

Accessories supplied:

Double membrane seals: 1x M16, 5x M20, 2x M25, 1x M32, 1x M40, cable glands: 1x M20, 2x M40, sealing plugs, cover and labelling strips

Description

AK 14+EMOBIL 11kW-A

1-row, for 11 kW Wallbox with integrated 6mA DC monitoring

equipped with:

- 1 x Miniature circuit breaker C20A, 3-pole
- 1 x Residual Current Circuit Breaker (RCCB), 40/0.03A, 4-pole, type A

Order no.

73301101

AK 28+ EMOBIL Comfort

315 x 600 x 155 mm



Small distributions boards, protection class IP65, type-tested to EN 61439-3, prewired ready for connection to input and output terminals 10 mm²

Accessories supplied:

Double membrane seals: 2x M16, 10x M20, 4x M25, 2x M32, 2x M40, cable glands: 1x M20, 2x M40, sealing plugs, cover and labelling strips

Description

AK 28+EMOBIL 11kW-ÜSS-Z **NEW**

for an 11 kW wallbox with integrated 6mA DC monitoring

equipped with:

- 1 x Miniature circuit breaker C 16 A, 3p
- 1 x Residual Current Circuit Breaker (RCCB), 40/0.03A, 4-pole, type A
- 1 x Surge protection device (SPD) Type 1 + Type 2 for TN-S systems, energy-coordinated protection effect with terminal equipment Type 1 + type 2 + type 3
- 1 x Energy meter for use in 3 or 4 wire systems, max. 65A, MID approved, RS-485 communication over Modbus RTU or EQ Bus

Order no.

73302301

AKi 12 EMOBIL

250 x 200 x 122 mm



Small distributions boards, protection class IP65, type-tested according to EN 61439-3, cabled ready for connection

Cable insertions:

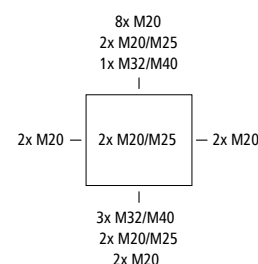
Top: Knockouts 8 x M20

Bottom: Knockouts 2 x M20, 2 x M20/25, 3 x M32/40

Left: Knockouts 2 x M20

Right: Knockouts 2 x M20

rear: Knockouts 2 x M20/25



Description

AKi 12 EMOBIL 11kW **NEW**

1-row for an 11 kW wallbox with integrated 6mA DC monitoring

equipped with:

- 1 x Miniature circuit breaker C 16 A, 3p
- 1 x Residual Current Circuit Breaker (RCCB), 40/0.03A, 4-pole, type A

Order no.

73610101

AKi 12 EMOBIL 11kW-ÜSS **NEW**

1-row for an 11 kW wallbox with integrated 6mA DC monitoring

equipped with:

- 1 x Miniature circuit breaker C 16 A, 3p
- 1 x Residual Current Circuit Breaker (RCCB), 40/0.03A, 4-pole, type A
- 1 x Surge protection device (SPD) Type 1 + Type 2 for TN-S systems, energy-coordinated protection effect with terminal equipment Type 1 + type 2 + type 3

73610201

Abox-i 100 EMOBIL

140 x 140 x 79 mm

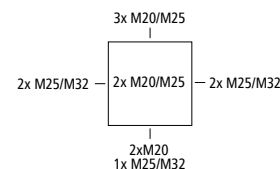


Junction box, protection class IP65, nominal cross-section 6 mm², U_i=450 V AC, knockouts, M20/M25/M32, (2 rear, 10 side), internal fixing points, for installations in industrial environments and protected outdoor areas

Accessories supplied:

2 Double membrane seals IP66 M25 sealing range 9 - 16 mm

4 Double membrane seals IP66 M32 sealing range 14 - 21 mm



Description

Abox-i 100-ÜSS/sw **NEW**

black, equipped with surge protector Type 2 + 3 for TT and TN-S systems to complement an existing lightning protection concept

Order no.

49141005

E-Mobility Solutions

Technical Information

IP65

Protection rating (IP code)
in accordance with
DIN EN 60529 (VDE 0470-1)



Protection class II
Equipment with protective insulation in
accordance with DIN VDE 0100-410

IK08

Level of protection (IK code)
against mechanical impact acc.
to DIN EN 50102 (VDE 0470-100)

4²

Nominal cross section.
The biggest permissible wire cross-section
that can be connected acc. to DIN EN 60998
(VDE 0613) and DIN EN 60999 (VDE 0609)

**400V
AC**

Rated voltage
for use in **AC voltage systems**,
maximum permissible nominal
voltage of the electrical system



AK Air ventilation elements
for preventing condensation while
maintaining the high protection
rating IP65.



DLG focus test
for special innovations in machines and
technical products - predominantly in
agriculture and forestry applications.



Halogen-free enclosure
without halogens such as fluorine,
chlorine and bromine.

Pictograms |
e-mobility solutions



**Industrial
Quality**

Overview of the ambient conditions and mechanical properties of els products	Enclosure with fittings			Max. relative humidity at 40°C	Max. relative humidity at 25°C (short-term)	Protection rating according to DIN EN 60529 / VDE 0470-1	Shock-proof as per DIN EN 50102 / DE 0470 Part 100
	Ambient temperature Minimum value	Ambient temperature Maximum value	Ambient temperature Average over 24 h				
Spelsberg Wallbox Smart Pro / Pure	-25°C	40°C	35°C	15%	100%	IP54 ¹⁾	IK08
BCS Smart / BCS Pure	-25°C	40°C	35°C	50%	95%	IP66/IP67 ¹⁾	IK09
TG BCS	-25°C	40°C	35°C	50%	95%	IP44 ²⁾	IK08
AK EMOBIL small distribution boards	-25°C	40°C	35°C	50%	95%	IP65	IK08

Additional note: The specified temperatures may be limited by the installed devices.

¹⁾ When used with suitable connectors or cable glands

²⁾ With closed socket covers

Overview of the properties of the materials used in els installation systems		Weak acids	Strong acids	Weak alkalis	Strong alkalis	Alcohol	Petrol	Benzene	Mineral oil	Diesel	Ammonia, gaseous (DLG Focus Test)	Vegetable fats	Animal fats	Halogen-free	Heavy metal-, PVC- and silicon-free	Combustion behaviour in accordance with DIN EN 60695 (VDE 0471) / UL94
		Material	Used in the products:													
	Polycarbonate, glass-fibre-reinforced	BCS Smart / BCS Pure, AK EMOBIL	O	X	X	X	O	Ø	X	O	Ø	O	Ø	yes	yes	960 °C / V-2 (5 VA*)
	Polycarbonate, grey	BCS Smart / BCS Pure Cover / door, grey, TG BCS	O	X	X	X	O	Ø	X	O	Ø	O	Ø	yes	yes	960 °C / V-2 (5 VA*)
	Polycarbonate, transparent	Hinged cover AK EMOBIL	O	X	X	X	Ø	Ø	X	O	Ø	O	O	yes	yes	850°C / V-2
	Polyamid 6, glass-fibre-reinforced	cable glands IP 68, cover screws	X	X	O	O	O	Ø	O	O	O	O	O	yes	yes	750°C / HB/V-2

O = resistant Ø = partially resistant X = not resistant

* 5-inch (127 mm) flame test in accordance with UL 746 C (comparable with the requirements in accordance with UL 94, 5VA)

The materials used by Spelsberg have been subjected to a weathering test in accordance with DIN 53 387 (superseded by DIN EN ISO 4892-2) and a 1000-hour test by the State Testing Office in Dortmund. The materials used for the IQ products achieved optimal results as can be seen here. This material also passed the UV resistance test in accordance with UL 746 C unconditionally.

In principle, not only the level of protection but also the climatic conditions and the occurrence of chemical influences should be assessed when selecting the installation site. Details of the material properties and chemical resistance of the materials used can be found in the table **though it should be noted that they are only guide values.**

BCS Smart / BCS Pure e-bike charging station

e-bike charging station	
Input voltage	230/400 V AC 50 Hz
Rated current	10 – 16 A
Charging voltage (sockets)	230 V AC 50 Hz
Charging current (sockets)	2.5 A
Protection rating	IP 54
Protection class	Protection class II 
Operating temperature	0 to +40 °C
Ambient temperature	-25 to +40 °C
Air humidity	max. 80%
Dimensions (w x h x d)	528 x 530 x 226 mm
Weight	12 kg

	Bosch charging plug	Shimano charging plug
Compatible batteries	Active Line, Active Line Plus, Cargo Line, Performance Line, Performance Line CX	Shimano BT-E6000, BT-E6001, BT-E6010, BT-E8010, BT-E8020
Charging voltage	36 V DC	40 V DC / 42 V DC
Charging current	4.0 A	4.4 A / 4.0 A

Technical description

The charge current of both protective contact sockets is limited to max. 2.5 A. The direct connections for the manufacturer-specific rechargeable batteries deliver the supply voltage for the respective LEVs. The cable management for the cable permanently connected supports the correct use with the lines. The e-bike charging station is equipped with a special ventilation and venting system. The station monitors the charging processes and indicates this via LEDs.

The charging station switches off the charging point in case of the following ambient conditions:

-  Overload
-  Temperature too high
-  Temperature too low
-  Humidity too high
-  Sabotage attempts (BCS Smart only)

Below the enclosure cover, there are LEDs that display the status of the respective charging point.

LED	Status
Off	Charging point off
Green	Charging point ready or charging process finished
Green/flashing	Charging process running
Red	Fault at charging point



Whether you run a restaurant, a cafe, or a hotel, we can supply you with fully customised charging stations - whatever suits you best. Add value to the service you offer your guests and put across your own brand. Interested? Please contact us and we'll be happy to assist you further.

Notice on data transfer

We prefer to process vectorised data (eps, ai) - it saves time and money.

Other data formats: TIFF, JPG, PDF

Resolution: minimum 300 dpi for original image size

Colour specifications: HKS, Pantone, RAL

Fonts: must be fully embedded or converted into curves

We also require: Positioning and dimensional information.

Data from programs such as Word, Excel or PowerPoint are not suitable for further processing.



Meter Enclosures / Distributors



The measurement of electrical energy is becoming increasingly important. This may be as a reference measurement of the energy purchased from the utility company or as an internal measurement to differentiate between the consumption of different areas. Spelsberg offers meter enclosures for internal measurement, which if necessary can be expanded by means of additional empty enclosures,

pre-wired meter distributions according to DIN EN 61439 for use in harsh environments or outdoor cabinets, and solutions for single-phase mains connection outdoors according to VDE-AR-N 4100 for energy measurements up to a maximum of 4.6kVA.

Meter Enclosures / Distributors

Meter closures/distributor content

	Types	Series	Page
	Meter enclosure With three-point installation	ZKi	241
	Meter enclosure With three-point installation	AKi-Z	245
	Meter distribution - Compact - in multiple box design Per DIN EN 61439-2 to 3 for surface mounting, for direct grid connection and alternating current measurement, in unmeasured areas	ZVi	250
	Meter distribution in multiple box design Per DIN EN 61439-2 to 3 for surface mounting in unmeasured area. With BKE-I for electronic household meters	ZVi-eHZ	253
	Meter distribution - Compact - in multiple box design Per DIN EN 61439-2 to 3 for surface mounting, for direct grid connection and alternating current measurement, in unmeasured areas	ZVi-K	256
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Meter Enclosures / Distributors

ZKi



- Variants with flat cover for electronic meters with 3-point installation
- Dust- and water-tight for use in harsh environments
- Sealable transparent cover

IP54
IP65

IK08



400V
AC



Meter Enclosures / Distributors

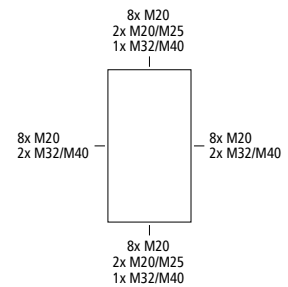
ZKi

ZKi 1

250 x 370 mm



Meter enclosure - Industrial Quality -, with transparent cover, standard version sealable, with mounted meter cross and meter fixing screws, with double membrane seals, sealing and insulating plugs



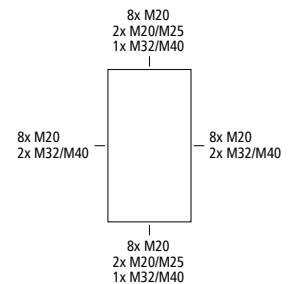
Description	Height/mm	Order no.
ZKi 1 for tri-phase counter	193	74900101
ZKi 1-f Suitable for ripple control receivers according to DIN 43861-2, for meter with three-point mounting and a depth of max. 80 mm	137	74900501

ZKi 11

250 x 520 mm



Meter enclosure - Industrial Quality -, with transparent cover, standard version sealable, with mounted meter cross and meter fixing screws, standard version sealable consumer space at the top, with 35 mm standard rails and PE/N double terminals, with double membrane seals, sealing and insulating plugs



Description	Height/mm	Order no.
ZKi 11 for tri-phase counter	193	74901101
ZKi 11-f Suitable for ripple control receivers according to DIN 43861-2, for meter with three-point mounting and a depth of max. 80 mm	137	74901501

Meter Enclosures / Distributors

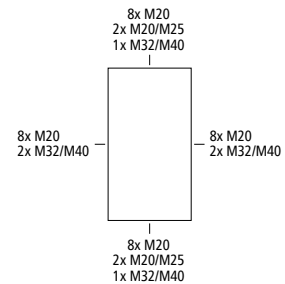
ZKi

ZKi 100

250 x 520 mm



Meter enclosure - Industrial Quality -, with transparent cover, standard version sealable, with mounted meter cross and meter fixing screws, additional connection space 150 mm at the bottom, with 35 mm standard rail, with double membrane seals, sealing and insulating plugs



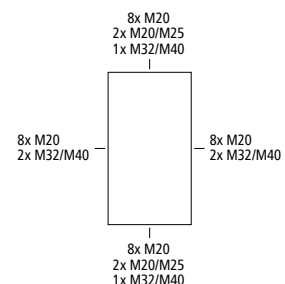
Description	Height/mm	Order no.
ZKi 100 for tri-phase counter	193	74910001
ZKi 100-f Suitable for ripple control receivers according to DIN 43861-2, for meter with three-point mounting and a depth of max. 80 mm	137	74910501

ZKi 110

250 x 670 mm



Meter enclosure - Industrial Quality -, with transparent cover, standard version sealable, with mounted meter cross and meter fixing screws, additional connection space 150 mm at the bottom, with 35 mm standard rail, standard version sealable consumer space at the top, with 35 mm standard rails and PE/N double terminals, with double membrane seals, sealing and insulating plugs



Description	Height/mm	Order no.
ZKi 110 for tri-phase counter	193	74911001
ZKi 110-f Suitable for ripple control receivers according to DIN 43861-2, for meter with three-point mounting and a depth of max. 80 mm	137	74911501

Meter Enclosures / Distributors

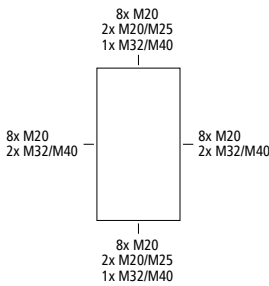
ZKi

ZKi 120

250 x 820 mm



Meter enclosure - Industrial Quality -, with transparent cover, standard version sealable, with mounted meter cross and meter fixing screws, additional connection space 150 mm at the bottom, with 35 mm standard rail, standard version sealable consumer space at the top, with 35 mm standard rails and PE/N double terminals, additional space with 35 mm standard rail, with double membrane seals, sealing and insulating plugs



Description	Height/mm	Order no.
ZKi 120 for tri-phase counter	193	74912001
ZKi 120-f Suitable for ripple control receivers according to DIN 43861-2, for meter with three-point mounting and a depth of max. 80 mm	137	74912501

Meter Enclosures / Distributors

AKi-Z



- Combinable with AKi empty enclosures
- Meter device mounting surface according to DIN 43870-1
- Dust- and watertight, for harsh environments

IP65

IK08



400V
AC



Meter Enclosures / Distributors

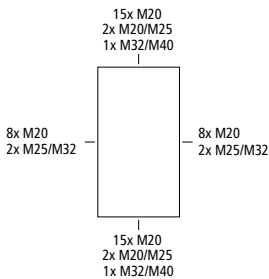
AKi-Z

AKi-Z 2

300 x 300 x 210 mm



Meter enclosure - Industrial Quality -, with transparent cover, standard version sealable, with meter cross fitted for triphase counter and meter fixing screws, with double membrane seals, Sealing and insulating plugs



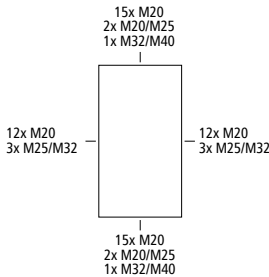
Description	Order no.
AKi-Z 2	75200201

AKi-Z 3

300 x 450 x 210 mm



Meter enclosure - Industrial Quality -, meter panel unit installation surface in accordance to DIN 43870-1, with transparent cover, sealable as standard, with mounted meter cross for three-phase meters and meter fixing screws, with double membrane seals, sealing and insulating plugs



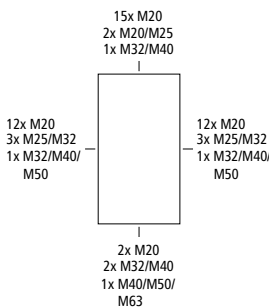
Description	Order no.
AKi-Z 3	75201101

AKi-Z 400

300 x 600 x 210 mm



Meter enclosure - Industrial Quality -, with transparent cover, sealable as standard, with mounted meter cross for three-phase meters and meter fixing screws, with 35 mm standard rail in the terminal compartment, with double membrane seals, sealing and insulating plugs



Description	Order no.
AKi-Z 400	75711001

Meter Enclosures / Distributors

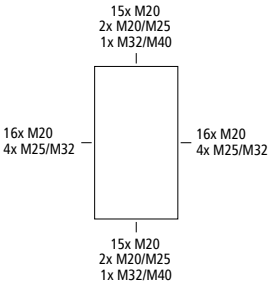
AKi-Z

AKi-Z 401

300 x 600 x 210 mm



Meter enclosure - Industrial Quality -, meter panel device installation surface in accordance to DIN 43870-1, with transparent cover, sealable as standard, with mounted meter cross for three-phase meters and meter fixing screws, separate, additional 150 mm terminal compartment below with 35 mm standard rail, with double membrane seals, sealing and insulating plugs



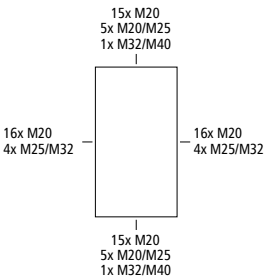
Description	Order no.
AKi-Z 401	75240101

AKi-Z 410

300 x 600 x 210 mm



Meter enclosure - Industrial Quality -, with transparent cover, standard version sealable, with meter cross fitted for triphase counter and meter fixing screws, standard version sealable consumer space at the top, with 35 mm standard rails, with double membrane seals, sealing and insulating plugs



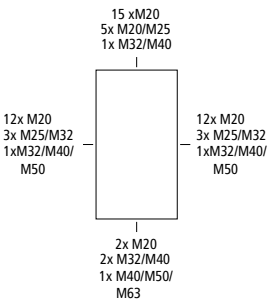
Description	Order no.
AKi-Z 410	75241001

AKi-Z 410 K

300 x 600 x 210 mm



Meter enclosure - Industrial Quality -, with transparent cover, sealable as standard, with mounted meter cross for three-phase meters and meter fixing screws, with additional hinged window for operating a selective main switch, with 35 mm standard rail for installation of a selective main switch, incl. 2 single-pole HA terminals 25/16 mm² for N and PE with double membrane seals, sealing and insulating plugs



Description	Order no.
AKi-Z 410 K	75741001

Meter Enclosures / Distributors

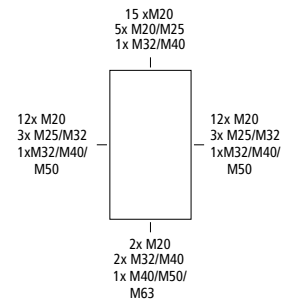
AKi-Z

AKi-Z 410 KK

300 x 600 x 210 mm



Meter enclosure - Industrial Quality -, with grey cover, sealable as standard, with mounted meter cross for three-phase meters and meter fixing screws, with additional hinged window for operating a selective main switch, incl. 2 single-pole HA terminals 25/16 mm² for N and PE, with 35 mm standard rail for installation of a selective main switch, with double membrane seals, sealing and insulating plugs



Description

AKi-Z 410 KK

Order no.

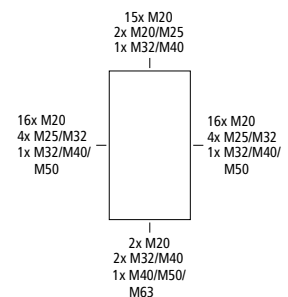
75841001

AKi-Z 502

300 x 750 x 210 mm



Meter enclosure - Industrial Quality -, meter panel device installation surface in accordance to DIN 43870-1, with transparent cover, sealable as standard, with mounted meter cross for three-phase meters and meter fixing screws, separate, additional 300 mm terminal compartment below with 35 mm standard rail, with double membrane seals, sealing and insulating plugs



Description

AKi-Z 502

Order no.

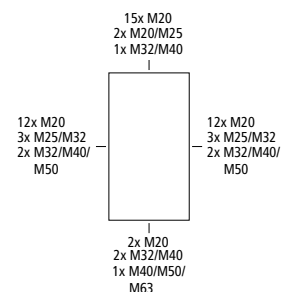
75250201

AKi-Z 511 K

300 x 750 x 210 mm



Meter enclosure - Industrial Quality -, with transparent cover, sealable as standard, with mounted meter cross for three-phase meters and meter fixing screws, with additional hinged window for operating a selective main switch, with 35 mm standard rail for installation of a selective main switch, incl. 2 single-pole HA terminals 25/16 mm² for N and PE, with additional 150 mm terminal compartment above, with 35 mm standard rail, with double membrane seals, sealing and insulating plugs



Description

AKi-Z 511 K

Order no.

75751101

Meter Enclosures / Distributors

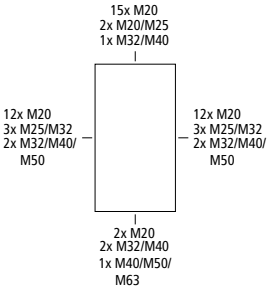
AKi-Z

AKi-Z 511 KK

300 x 750 x 210 mm



Meter enclosure - Industrial Quality -, with transparent cover, sealable as standard, with transparent hinged window, with mounted meter cross for three-phase meters and meter fixing screws, with additional hinged window for operating a selective main switch, incl. 2 single-pole HA terminals 25/16 mm² for N and PE, with 35 mm standard rail for installation of a selective main switch, with additional 150 mm terminal compartment above, with 35 mm standard rail, with double membrane seals, sealing and insulating plugs



Description	Order no.
AKi-Z 511 KK	75851101

Meter Enclosures / Distributors

ZVi - with three-point installation



Application areas

- Stops
- Pumping stations
- Measuring stations
- Charging stations
- Urban furnishings
- Street lighting
- Allotments

Characteristics

- Insulated, encapsulated housing with a high level of protection
- Type-tested according to DIN EN 61439-2/-3
- Pre-cabled
- Flexible combination options
- Combinable with AKi empty enclosures

Benefits

- No corrosion
- For use in harsh environments
- Easy installation
- Individual adaptation to spatial conditions



Meter Enclosures / Distributors

ZVi

ZVi 9030

300 x 900 x 210 mm



Meter enclosure in multiple box-type design according to DIN EN 61439-2/-3, standard version sealable, for the surface mounting in the non-measured area, device installation surfaces according to DIN 43870-1, meter connection lines 5-pole for TN-S networks, use according to the individual release by the responsible operator, with closing and insulating seals, with included ventilation seal (IPx4) to reduce condensate water, with blanking plug, with enclosed ventilation plug IP44 for reduction of condensation water, with insulating seals

Description

ZVi 9030

Upper connection space, 150 mm, equipped with 35 mm standard rail for the support of the main line junction terminal HA 25-53 (accessories), Meter field, 450 mm, with transparent cover, for 1 meter with three-point mounting, with mounted meter cross for three-phase meter and meter fastening screws, fastening dimensions according to DIN 43870-2, Lower connection space, 300 mm, standard version sealable, with 35 mm standard rail for automatic main circuit breakers, with PE/N double terminals, with hinged window 12 modules for layman operation of the automatic main circuit breakers and additional space for overvoltage protection devices, line feed-through via cable gland (IP65, accessories) or stepped nipple M40 (IP55, included)

Order no.

75911001

ZVi 12030

300 x 1200 x 210 mm



Meter distribution in multiple box-type design according to DIN EN 61439-2/-3, standard version sealable, for the surface mounting in the non-measured area, device installation surfaces according to DIN 43870-1, meter connection lines 5-pole for TN-S networks, use according to the individual release by the responsible operator, with closing and insulating seals, with included ventilation seal (IPx4) to reduce condensate water, with blanking plug, with insulating seals, with enclosed ventilation plug IP44 for reduction of condensation water

Description

ZVi 12030

Upper connection space, 300 mm, equipped with 35 mm standard rail for the support of the main line junction terminal HA25-53 (accessories), as well as consumer space with hinged window 12TE for rail-mounted device, incl. screwless PE/N terminal rail with 3 screwable clamping units each, 2.5-16mm², 14 screwless clamping units, 1.5-4mm², Space for additional applications, 150 mm, 12 modules, equipped with 35 mm standard rail for the support of additional operation material of the operator, meter operator or metering service providers, with sealable shock protection and transparent cover, Meter field, 450 mm, with transparent cover, for 1 meter with three-point mounting, with mounted meter crosspiece for three-phase meter and meter fastening screws, fastening dimensions according to DIN 43870-2, Lower connection space, 300 mm, standard version sealable, with 35 mm standard rail for automatic main circuit breakers, with PE/N double terminals, with hinged window 12 modules for layman operation of the automatic main circuit breakers and additional space for overvoltage protection devices, line feed-through via cable gland (IP65, accessories) or stepped nipple M40 (IP55, included)

Order no.

75913001

Meter Enclosures / Distributors

ZVi

ZVi 6060

600 x 600 x 210 mm



Meter distribution in multiple box-type design according to DIN EN 61439-2/-3, standard version sealable, for the surface mounting in the non-measured area, device installation surfaces according to DIN 43870-1, meter connection lines 5-pole for TN-S networks, use according to the individual release by the responsible operator, with closing and insulating seals, with included ventilation seal (IPx4) to reduce condensate water, with blanking plug, with insulating seals, with enclosed ventilation plug IP44 for reduction of condensation water

Description

ZVi 6060

Upper connection space, 150 mm, equipped with 35 mm standard rail for the support of the main line junction terminal HA 25-53 (accessories), Meter field, 450 mm, with transparent cover, for 1 meter with three-point mounting, with mounted meter crosspiece for three-phase meter and meter fastening screws, fastening dimensions according to DIN 43870-2, Lower connection space, 300 mm, standard version sealable, with 35 mm standard rail for automatic main circuit breakers, with PE/N double terminals, with hinged window 12 modules for layman operation of the automatic main circuit breakers and additional space for overvoltage protection devices, line feed-through via cable gland (IP65, accessories) or stepped nipple M40 (IP55, included)

Order no.

75914001

ZVi 9030-W

300 x 900 x 132 mm



Meter distribution in multiple box-type design according to DIN EN 61439-2/-3, standard version sealable, for the surface mounting in the non-measured area, device installation surfaces according to DIN 43870-1, meter connection lines 5-pole for TN-S networks, use according to the individual release by the responsible operator, with closing and insulating seals, with included ventilation seal (IPx4) to reduce condensate water, with blanking plug, with insulating seals, with enclosed ventilation plug IP44 for reduction of condensation water

Description

ZVi 9030-W

Upper connection space, 150 mm, equipped with 35 mm standard rail for the support of the main line junction terminal HA 25-53 (accessories), Converter field 450 mm, with mounting plate made from insulating material, 240 x 240 x 4 mm, for EVU converter, with 35 mm standard rail for the support of the converter terminals, with cable set 5-pole H07V-K 16mm², Lower connection space, 300 mm, standard version sealable, with 35 mm standard rail for automatic main circuit breakers, with PE/N double terminals, with hinged window 12 modules for layman operation of the automatic main circuit breakers and additional space for overvoltage protection devices, line feed-through via cable gland (IP65, accessories) or stepped nipple M40 (IP55, included)

Order no.

75916001

Meter Enclosures / Distributors

ZVi

ZVi 12060-S

600 x 1200 x 210 mm



Meter distribution in multiple box-type design according to DIN EN 61439-2/-3, standard version sealable, for the surface mounting in the non-measured area, device installation surfaces according to DIN 43870-1, meter connection lines 5-pole for TN-S networks, use according to the individual release by the responsible operator, with closing and insulating seals, with included ventilation seal (IPx4) to reduce condensate water, with blanking plug, with insulating seals, with enclosed ventilation plug IP44 for reduction of condensation water

Description

ZVi 12060-S

2 meter panels, each consisting of: Upper connection space, 300 mm, equipped with 35 mm standard rail for the support of the main line junction terminal HA25-53 (accessories), as well as consumer space with hinged window 12TE for rail-mounted device, incl. screwless PE/N terminal rail with 3 screwable clamping units each, 2.5-16mm², 14 screwless clamping units, 1.5-4mm², Space for additional applications, 150 mm, 12 modules, equipped with 35 mm standard rail for the support of additional operation material of the operator, meter operator or metering service providers, with sealable shock protection and transparent cover, Meter field, 450 mm, with transparent cover, for 1 meter with three-point mounting, with mounted meter crosspiece for three-phase meter and meter fastening screws, fastening dimensions according to DIN 43870-2, Lower connection space, 300 mm, standard version sealable, with 5-pole busbar system, 40 mm busbar spacing, CU12x5 mm, rated current 160A, I_{cu}= 2.5 kA (0.2 s), busbar terminal, for N- and PE conductors, for CU conductor 16-35 mm², with hinged window 12TE for layman operation of the automatic main circuit breakers and additional space for surge protection devices, line feed-through via cable gland (IP65, accessories) or stepped nipple M40 (IP55, included)

Order no.

75923001

Meter Enclosures / Distributors

ZVi-eHZ

ZVi 10530-eHZ

300 x 1050 x 210 mm



Meter distribution in multiple box-type design according to DIN EN 61439-2/-3, standard version sealable, for the surface mounting in the non-measured area, device installation surfaces according to DIN 43870-1, meter connection lines 5-pole for TN-S networks, use according to the individual release by the responsible operator, with closing and insulating seals, with included ventilation seal (IPx4) to reduce condensate water, with blanking plug, with insulating seals, with enclosed ventilation plug IP44 for reduction of condensation water

Description

ZVi 10530-eHZ

Upper connection space, 300 mm, equipped with 35 mm standard rail for the support of the main line junction terminal HA25-53 (accessories), a s well as consumer space with hinged window 12TE for rail-mounted device, incl. screwless PE/N terminal rail with 3 screwable clamping units each, 2.5-16mm², 14 screwless clamping units, 1.5-4mm², Space for additional applications, 150 mm, 12 modules, equipped with 35 mm standard rail for the support of additional operation material of the operator, meter operator or metering service providers, with sealable shock protection and transparent cover, Meter field, 300 mm, with transparent cover, with 1 BKE-I for eHZ, can be expanded by another BKE-I (while observing the specifications of the VDE AR 4100), Lower connection space, 300 mm, standard version sealable, with 35 mm standard rail for automatic main circuit breakers, with PE/N double terminals, with hinged window 12 modules for layman operation of the automatic main circuit breakers and additional space for overvoltage protection devices, line feed-through via cable gland (IP65, accessories) or stepped nipple M40 (IP55, included)

Order no.

75932001

ZVi 6060-eHZ

600 x 600 x 210 mm



Meter distribution in multiple box-type design according to DIN EN 61439-2/-3, standard version sealable, for the surface mounting in the non-measured area, device installation surfaces according to DIN 43870-1, meter connection lines 5-pole for TN-S networks, use according to the individual release by the responsible operator, with closing and insulating seals, with included ventilation seal (IPx4) to reduce condensate water, with blanking plug, with insulating seals, with enclosed ventilation plug IP44 for reduction of condensation water

Description

ZVi 6060-eHZ

Upper connection space, 150 mm, equipped with 35 mm standard rail for the support of the main line junction terminal HA 25-53 (accessories), Space for additional applications, 150 mm, 12 modules, equipped with 35 mm standard rail for the support of additional operation material of the operator, meter operator or metering service providers, with sealable shock protection and transparent cover, Meter field, 300 mm, with transparent cover, with 1 BKE-I for eHZ, can be expanded by another BKE-I (while observing the specifications of the VDE AR-N 4100), Lower connection space, 300 mm, standard version sealable, with 35 mm standard rail for automatic main circuit breakers, with PE/N double terminals, with hinged window 12 modules for layman operation of the automatic main circuit breakers and additional space for overvoltage protection devices, line feed-through via cable gland (IP65, accessories) or stepped nipple M40 (IP55, included)

Order no.

75933001

Meter Enclosures / Distributors

ZVi-eHZ

ZVi 10530-S-eHZ

300 x 1050 x 210 mm



Meter distribution in multiple box-type design according to DIN EN 61439-2/-3, standard version sealable, for the surface mounting in the non-measured area, device installation surfaces according to DIN 43870-1, meter connection lines 5-pole for TN-S networks, use according to the individual release by the responsible operator, with closing and insulating seals, with included ventilation seal (IPx4) to reduce condensate water, with blanking plug, with insulating seals, with enclosed ventilation plug IP44 for reduction of condensation water

Description	Order no.
ZVi 10530-S-eHZ Upper connection space, 300 mm, equipped with 35 mm standard rail for the support of the main line junction terminal HA25-53 (accessories), as well as consumer space with hinged window 12TE for rail-mounted device, incl. screwless PE/N terminal rail with 3 screwable clamping units each, 2.5-16mm², 14 screwless clamping units, 1.5-4mm², Space for additional applications, 150 mm, 12 modules, equipped with 35 mm standard rail for the support of additional operation material of the operator, meter operator or metering service providers, with sealable shock protection and transparent cover, Meter field, 300 mm, with transparent cover, with 1 BKE-I for EHZ, can be expanded by another BKE-I (while observing the specifications of the VDE AR-N 4100), Lower connection space, 300 mm, standard version sealable, with 5-pole busbar system, 40 mm busbar spacing, CU12x5 mm, rated current 160A, I_{cu}= 2.5kA (0.2 s), busbar terminal, for N- and PE conductors, for CU conductor 16-35 mm², with hinged window 12TE for layman operation of the automatic main circuit breakers and additional space for surge protection devices, line feed-through via cable gland (IP65, accessories) or stepped nipple M40 (IP55, included)	75942001

Meter Enclosures / Distributors

ZVi-K | SVi - Compact design



Application areas

- Stops
- Pumping stations
- Measuring stations
- Telecommunications devices
- Charging stations
- Urban furnishings
- Allotments

Characteristics

- Compact design
- For single-phase AC connections
- **ZVi-K:**
With integrated, VDE-tested grid connection boxes, fully pre-wired and connection-ready, type-tested according to DIN EN 61439-2/3
- **SVi:**
flexible combination options, numerous enclosures variants

Benefits

- No corrosion
- For use in harsh environments
- Easy installation
- Individual adaptation to spatial conditions
- Application-optimised mains connection solutions, rapid implementation



Meter Enclosures / Distributors

ZVi-K

ZVi 9015-K

150 x 900 x 162 mm



Meter distribution - compact - in multiple box-type design according to DIN EN 61439-2/-3, standard version sealable, for the surface mounting, for direct main connection and alternating current measurement in the non-measured area, use according to the individual release by the responsible operator, with closing and insulating seals, with included ventilation seal (IPx4) for the reduction of condensate water

Description	Order no.
ZVi 9015-K Meter distribution - compact -, consisting of: , Main connection enclosure - Industrial Quality -, for 230 V AC grids (L-N-PE / L-PEN) according to VDE-AR-N 4100 (building connection box for single-phase connection), In=25 A, I _{max} =63 A, equipped with 1x NH00 safety element and PE/N terminal with prism terminal, as well as park bay for unused wires, Meter field, with transparent cover, with 1 BKE-I for alternating current eHZ, incl. meter wiring, Automate box equipped with 35 mm standard rails for the support of terminals, as well as consumer space with hinged window for rail-mounted devices (6TE), incl. PE/N terminal rail	75951001

ZVi 6030-K

300 x 600 x 162 mm



Meter distribution - compact - in multiple box-type design according to DIN EN 61439-2/-3, standard version sealable, for the surface mounting, for direct main connection and alternating current measurement in the non-measured area, use according to the individual release by the responsible operator, with closing and insulating seals, with included ventilation seal (IPx4) for the reduction of condensate water

Description	Order no.
ZVi 6030-K Meter distribution - compact -, consisting of: , Main connection enclosure - Industrial Quality -, for 230 V AC grids (L-N-PE / L-PEN) according to VDE-AR-N 4100 (building connection box for single-phase connection), In=25 A, I _{max} =63 A, equipped with 1x NH00 safety element and PE/N terminal with prism terminal, as well as park bay for unused wires, Meter field, with transparent cover, with 1 BKE-I for alternating current eHZ, incl. meter wiring, Automate box with 2 hinged windows for rail-mounted devices (6 modules), incl. PE/N terminal rail, Empty enclosure for individual expansion with standard rails or mounting plates	75952001

Meter Enclosures / Distributors

ZVi-K

ZVi 3045-K 450 x 300 x 162 mm



Meter distribution - compact - in multiple box-type design according to DIN EN 61439-2/-3, standard version sealable, for the surface mounting, for direct main connection and alternating current measurement in the non-measured area, use according to the individual release by the responsible operator, with closing and insulating seals, with included ventilation seal (IPx4) for the reduction of condensate water

Description	Order no.
ZVi 3045-K Meter distribution - compact -, consisting of: , Main connection enclosure - Industrial Quality -, for 230 V AC grids (L-N-PE / L-PEN) according to VDE-AR-N 4100 (building connection box for single-phase connection), In=25 A, I_{max}=63 A, equipped with 1x NH00 safety element and PE/N terminal with prism terminal, as well as park bay for unused wires, Meter field, with transparent cover, with 1 BKE-I for alternating current eHZ, incl. meter wiring, Automate box equipped with 35 mm standard rails for the support of terminals, as well as consumer space with hinged window for rail-mounted devices (6TE), incl. PE/N terminal rail	75953001

Meter Enclosures / Distributors

SVi H | SVi A | SVi L

SVi H 12P

150 x 300 x 137 mm



Mains connection box - Industrial Quality -, for 230 V alternating current mains (L-N-PE / L-PEN) according to VDE-AR-N 4100 (domestic junction box for single-phase connection), $I_n=25$ A, $I_{max}=63$ A, equipped with:
 1 x NH00 fuse element, 1 x N-terminal, 1 x PE-terminal, 1 x PE-N jumper 10mm², 1 x parking bay for 2 wire connection terminal supply cable:
 Prism terminal (2.5 - 50 mm² CU, 16 - 50 mm² AL)
 Connection terminals Outlet:
 Clamp connection (2x 2.5-50mm² CU)



Description	Order no.
SVi H 12P-t Cover, transparent	59101201
SVi H 12P-g Cover, grey	59101301

SVi H 12R

150 x 300 x 137 mm



Mains connection box - Industrial Quality -, for 230 V alternating current mains (L-N-PE / L-PEN) according to VDE-AR-N 4100 (domestic junction box for single-phase connection), $I_n=25$ A, $I_{max}=63$ A, equipped with:
 1 x NH00 fuse element, 1 x N-terminal, 1 x PE-terminal, 1 x PE-N jumper 10mm², 1 x parking bay for 2 wire connection terminal supply cable:
 Box terminal (6 - 50 mm² CU, 10 - 50 mm² AL)
 Connection terminals Outlet:
 Clamp connection (2x 2.5-50mm² CU)



Description	Order no.
SVi H 12R-t Cover, transparent	59301201
SVi H 12R-g Cover, grey	59301301

Meter Enclosures / Distributors

SVi H | SVi A | SVi L

SVi H 21P

150 x 300 x 137 mm



Mains connection box - Industrial Quality -, for 230 V three-phase mains (L1-L2-PE), In=25 A, I_{max}=63 A, equipped with:
 2 x NH00 fuse element, 1 x PE-terminal, 1 x parking bay for 2 wire
 connection terminal supply cable:
 Prism terminal (2.5 - 50 mm² CU, 16 - 50 mm² AL)
 Connection terminals Outlet:
 Clamp connection (2x 2.5-50mm² CU)



Description	Order no.
SVi H 21P-t Cover, transparent	59102101
SVi H 21P-g Cover, grey	59102301

SVi H 21R

150 x 300 x 137 mm



Mains connection box - Industrial Quality -, for 230 V three-phase mains (L1-L2-PE), In=25 A, I_{max}=63 A, equipped with:
 2 x NH00 fuse element, 1 x PE-terminal, 1 x parking bay for 2 wire
 connection terminal supply cable:
 Box terminal (6 - 50 mm² CU, 10 - 50 mm² AL)
 Connection terminals Outlet:
 Clamp connection (2x 2.5-50mm² CU)



Description	Order no.
SVi H 21R-t Cover, transparent	59302101
SVi H 21R-g Cover, grey	59302301

Meter Enclosures / Distributors

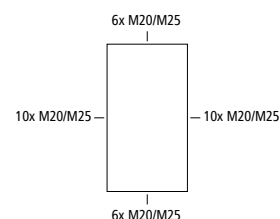
SVi H | SVi A | SVi L

SVi Z-W

150 x 300 x 162 mm



Meter enclosure - Industrial Quality - transparent cover, high, $I_n=25$ A, $I_{max}=63$ A, with BKE-I adapter plate for the electric counter for households in AC design with pre-assembled power cords



Description

SVi Z-W

Order no.

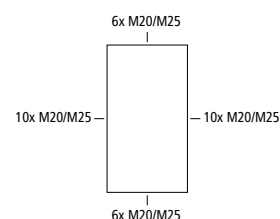
59103201

SVi A 6

150 x 300 x 156 mm



Module enclosure 1-row - Industrial Quality - 6 distribution units, arranged at the top, with hinged window, 1x PE/N terminal (2x (1 x 25 mm² + 7 x 4(6) mm²))



Description

SVi A 6

Order no.

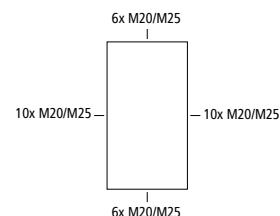
59106101

SVi A 2x6

150 x 300 x 156 mm



Module enclosure 2-row - Industrial Quality - 2 x 6 distribution units, with hinged window, 1x PE/N terminal (2x (1 x 25 mm² + 7 x 4(6) mm²))



Description

SVi A 2x6

Order no.

59106401

Meter Enclosures / Distributors

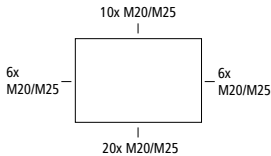
SVi H | SVi A | SVi L

SVi A 12

150 x 300 x 156 mm



Module enclosure 1-row - Industrial Quality - 12 distribution units, with hinged window, 1x PE/N terminal (2x (1 x 25 mm² + 7 x 4(6) mm²))



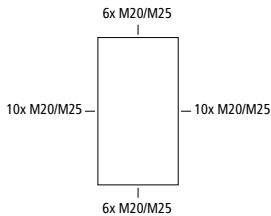
Description	Order no.
SVi A 12	59113201

SVi L

150 x 300 mm



Empty enclosure - Industrial Quality -, for individual expansion with standard rails or mounting plates, halogen-free



Description	Height/mm	Order no.
SVi L-g Cover, grey	137	59112001
SVi L-gh Cover, grey	162	59112101
SVi L-t Cover, transparent	137	59111001
SVi L-th Cover, transparent	162	59111201

Meter Enclosures / Distributors

SVi H | SVi A | SVi L

SVi LS

150 x 300 x 137 mm



Empty enclosure - Industrial Quality -, with sliding seal and cable clamp



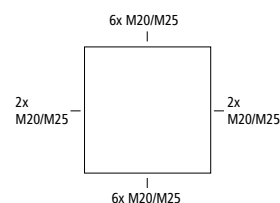
Description	Height/mm	Order no.
SVi LS-g	137	59112201
SVi LS-gh	162	59112301
SVi LS-t	137	59111301
SVi LS-th	162	59111401

SVi LQ

150 x 150 x 137 mm



Empty enclosure - Industrial Quality -, for individual expansion with standard rails or mounting plates



Description	Order no.
SVi LQ-t IP65, Protective insulation, Box + lid polycarbonate, Box grey, simil. RAL 7035, Cover, transparent	59121001
SVi LQ-g IP65, Protective insulation, Box + lid polycarbonate, Grey, simil. RAL 7035	59122001

Meter Enclosures / Distributors

Meter enclosure/distributor accessories

Cable bushing accessories set



Accessory kit for the feeding of the data line to the APL through the upper connection space

Description	Order no.
ZVi DF 150-eHZ for the assembly to the additional space for eHZ application and OAR 150 mm	75980101
ZVi DF 300-eHZ for the assembly to the additional space for eHZ application and OAR 300 mm	75980301
ZVi DF 300-3P for the assembly to the three-point meter position and OAR 300 mm	75983301
ZVi DF 150-3P for the assembly to the three-point meter position and OAR 150 mm	75983101

Customer access accessories set



Accessory kit for the creation of the customer access to the Smart Metering Gateway for HAN applications

Description	Order no.
ZVi KVR-KU Cable gland M25 suitable for lines with RJ45 plug, the drill-holes in the cover must be made on site	75980401

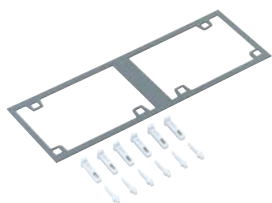
Accessories for eHZ meter support positions



Accessories for eHZ meter support positions

Description	Order no.
ZVi BKE-DSS Visual data interface for the installation in BKE-I	75980601
ZVi BKE-EG Extension kit for second BKE-I	75981601

AK combi set



Combi set, for horizontal or vertical combination of all AK enclosures (until 04/15) and AKi enclosures from 300 x 150 mm, complete with wedge connectors and intermediate sealing for 150 and 300 mm enclosure sides, each 300 mm = 1 combi set

Description	Order no.
AK KS-IP65	79100101

Meter Enclosures / Distributors

Meter enclosure/distributor accessories

Combi set



Combination set for connecting enclosures with metric entries, polystyrene, grey, complete with locknut and partition seal

Description	Wall thickness	Thread lenght/mm	Order no.
KS M20	2 x 3,0	12	19202001
KS M25	2 x 3,0	12	19202501
KS M25-gro	2 x 8,0	22	19202601
KS M32	2 x 3,5	14	19203201

Double membrane seals, grey



Double membrane seals, IP66, with two sealing membranes, closed, thermoplastic elastomer (TPE), for wall thicknesses 1.5 - 4.5 mm, grey

Description	Sealing range/mm	Order no.
DMS M16	5 - 9	26041601
DMS M20	7 - 13	26042001
DMS M25	9 - 17	26042501
DMS M32	13 - 21	26043201
DMS M40	17 - 28	26044001

Cable gland, grey, with locknut



Cable gland, IP68, with strain relief, polyamide, M_ x 1.5 mm, with locknut, grey

Description	Sealing range/mm	Thread lenght/mm	Order no.
KVR M12-MGM	2 - 6,5	8	22741201
KVR M16-MGM	4 - 10,0	8	22741601
KVR M20-MGM	6 - 12,0	9	22742001
KVR M20-GDB/MGM	7 - 14,0	9	22742101
KVR M25-MGM	9 - 16,0	11	22742501
KVR M32-MGM	11 - 21,0	11	22743201
KVR M40-MGM	16 - 28,0	11	22744001
KVR M50-MGM	27 - 34,5	13	22745001
KVR M63-MGM	30 - 44,5	17	22746301

AK external fixing lugs



External fixing lugs, for mounting separate enclosures or small units on flat wall surfaces, can be fixed to the box base at an angle of 0°, 45°, or 90°, wall gap 7 mm, material stainless steel, suitable for all AK enclosures from 300 mm front

Description	Order no.
AK ABL-ES Set = 4 pcs.	79300401

Meter Enclosures / Distributors

Meter enclosure/distributor accessories

Z wall profile



Z-wall profile, length 2 m, with 8 M6 cylinder screws and 8 captive push nuts, wall clearance 70 mm, material: galvanised steel

Description	Order no.
ZPR	07080001

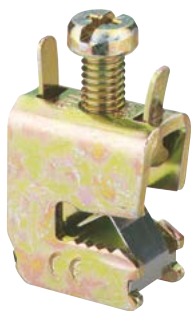
Multiplication terminal potential



Potential multiplication terminal, with 4 screwable clamping points 6 - 16 mm² CU

Description	Order no.
PVK 416	59341601

Busbar terminal SKL 5



Bus bar terminals for copper rails 12/20/25/30 x 5 mm

Description	Order no.
SKL 516 Connection for Cu 1.5-16 mm²	07551601
SKL 535 Connection for Cu 1.5-35 mm², Flat copper 160 A	07553501
SKL 570 Connection for Cu 16-70 mm²	07557001
SKL 512 Connection for Cu 16-120 mm², Flat copper 250 A	07551201

KLS PE/N



PE/N terminal block for mounting onto 35 mm standard rail, e.g. in meter housings

Description	Order no.
KLS PE 35 PE terminal (green) 3 x 25 mm², 2 x 16 mm²	79080501
KLS N 35 N terminal (blue) 3 x 25 mm², 2 x 16 mm²	79090501

HA main cable junction terminal



Main cable junction terminal with 4 clamping points 25 mm², 1-pole

Description	Order no.
HA 25-16 1-pole finger proof	69113201

Meter Enclosures / Distributors

Meter enclosure/distributor accessories

HA main cable junction terminal



Main line T-piece terminal with 4 clamping points 1.5-25 mm² per pole

Description	Order no.
HA 25-43 4-pole - finger proof	69143301
HA 25-53 5-pole - finger proof	69153301

Busbar connector



Busbar connector, universal, 250-630 A, for connecting busbars and bus mounting enclosures, for copper rails of 12 x 5 mm - 30 x 10 mm

Description	Order no.
GSV 56 Set = 5 pieces	07505601

Masking off strips



Masking off strips, to close off unused circuit-breaker positions, detachable, grey

Description	Order no.
AK AS Width 108 mm for 6 distribution units	79901201
AK AS-v Width 216 mm for 12 distribution units, lockable	79901301
AK AS UL Width 108 mm for 6 distribution units	79901252

Support NS



Carrier for standard rails acc. to DIN EN 60715, 35 x 7.5 mm, set = 10 pcs.

Description	Height/mm	Order no.
TR NS35-20	20.2	79502001
TR NS35-34	34.5	79503401
TR NS35-42	42.5	79504201
TR NS35-58	58.5	79505801
TR NS35-64	64	79506401
TR NS35-91	91	79509101

Support NS fastening screws



Fixing screws for 1 TR NS35-xx, set of 30 pieces

Description	Order no.
SR NS35 Fixing screws for 1 support set TR NS35/xx	79541301

Meter Enclosures / Distributors

Meter enclosure/distributor accessories

Assembly plate made from insulating material for SVi series



Assembly plate in melamine-clad insulating material, 4 mm thick, incl. fixing screws, grey

Description	for cover	Dimensions/mm	Order no.
SVI MPI	SVi-L	240 x 112 x 4	59190001

Standard rail NS 35 for SVi series



Standard rail acc. to DIN EN 60715, 35 x 7.5 mm, incl. fixing screws

Description	for cover	Dimensions/mm	Order no.
NS35-125	SVi-L/SVi A 6	35 x 125 x 7,5	59190601
NS35-260	SVi-L	35 x 260 x 7,5	59191201

Meter housings / distributors

Technical information

Device-side connection space

300 mm version

to take RCCBs, overcurrent switches, RCCB with overcurrent protection (RCBO), for up to 3 AC circuits of a maximum 16A each. Thanks to the hinged window, equipment can be operated by a layman.

Including screwless PE/N terminal rail with, respectively, 3 screwable terminal points, 2,5-16mm², 14 screwless terminal points, 1,5-4mm²

Additional top DIN rail to take the main line branch terminal (Accessories, e.g. HA 25-53)

Space for additional applications

For installation of equipment for metering systems of the network operator or metering service provider or rail-mounted controllers. Sealed on all sides with transparent cover and sealable shock protection

The data line to the customer system can be established with the ZVi KVR-KU, IP65 accessories kit. The drill hole must be created on-site (e.g. using the LFR hole cutter).

Alternative: Transparent cover ZVi OT-RJ45 with RJ45 connector and connection line to the SMG.

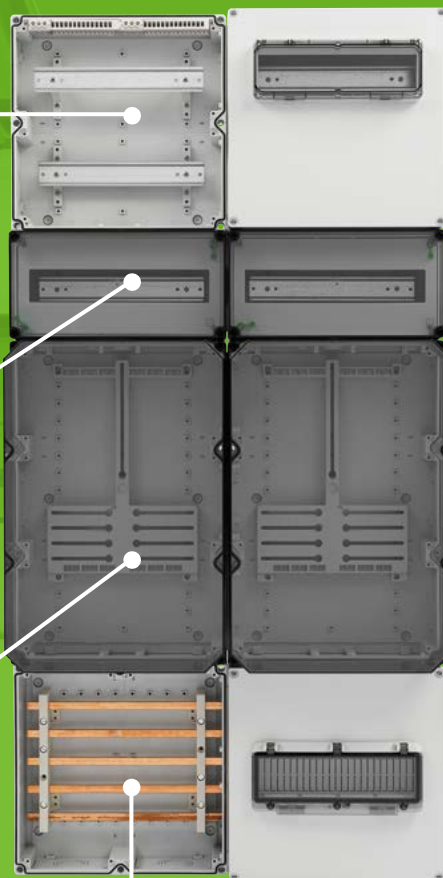
Meter panel

Variant with three-point mounting

The meter panel with DIN VDE 0603 fixing dimensions is suitable for AC and DC meters according to DIN 43857-1/-2 or for a BKE-A for use of an eHZ. Incl. meter cabling H07V-K 10mm²

Max. weight of the meter: 5 kg

ZVi



Supply side connection space

Busbar system version

EMC – compliant, 5-pole busbar system with 40mm busbar spacing as specified by VDE 0603.

Busbar system: CU12x5mm

$I_N = 160A$
 $I_{CW} = 25kA/0.2sec.$
 $I_{Pk} = 52kA$

Compatible SH switch for busbar mounting:

- ABB S750 – Series (2CDS...)
- Hager HTS Series

Includes SKL 516 (CU 4-35mm²) busbar terminals for connection of supply line for N- and PE-wires.

Supply of the outer conductor up to 50mm² takes place via the input terminals of the SH switches. For larger cross-sections, suitable busbar terminals are available as accessories.

12 modules are available. Thus it is, for example, also possible to use an additional surge arrester as required by the network operator.

Device-side connection space

150 mm version

without hinged window to take the main line branch terminal (Accessories, e.g. HA 25-53)

Space for additional applications

For installation of equipment for metering systems of the network operator or metering service provider or rail-mounted controllers. Sealed on all sides with transparent cover and sealable shock protection.

The data line to the customer system can be established with the ZVi KVR-KU, IP65 accessories kit. The drill hole must be created on-site (e.g. using the LFR hole cutter). Alternative: Transparent cover ZVi OT-RJ45 with RJ45 connector and connection line to the SMG.

Meter panel

Version with BKE-I mounting and contacting unit

Equipped as standard with one BKE-I according to DIN 0603-3-2 including 10mm² connection leads to take an electronic household meter. Versions with 16 mm² connection lead similarly possible. Can be retrofitted with ZVi BKE-DSS. data interface. The rated current of the individual BKE-I is, for operating loads according to DIN 18015-1, Curve 1 (in the abovementioned domestic area), 60A. The continuous load (e.g. PV system, charging station, illuminated advertising, etc.) is lower than the permitted rated current of the individual BKE-I. Details are available on the Internet under the product data. Expandable by a further BKE-I (accessories), wherein the load and fitting variants of multiple-field meter panels according to VDE-AR-N 4100 must be taken into account. The basis for this is the loading of both meters according to DIN 18015-1, Curve 1.

Supply side connection space

Version with 35 mm standard rail

Compatible SH switch for top hat rail mounting:

- ABB S750 – Series (2CDH...)
- Hager HTN, HTS Series

With main line branch terminal for N- and PE-wires, 2-pole, 4 terminal points 25 mm² each 12 modules are available.

Thus it is, for example, also possible to use an additional surge arrester as required by the network operator.

Thanks to the hinged window, equipment can be operated by a layman.

Meter Enclosures / Distributors

Technical Information

IP65

Protection rating (IP code)
in accordance with DIN EN 60529
(VDE 0470-1)

IK08

Level of protection (IK code) against
mechanical impact in accordance with
DIN EN 50102 (VDE 0470-100)



Protection class II
Equipment with protective insulation
in accordance with DIN VDE 0100-410

**400V
AC**

Rated voltage
for use in AC voltage systems, maximum
permissible nominal voltage of the
electrical system. The technical data of
the switching device must be taken into
account.



Halogen-free enclosure,
without halogens such as fluorine,
chlorine and bromine.

eHZ

Suitable for the installation of an
electronic household meter



Maximum number of **modules**



The **VDE symbol** stands for the tested
safety of the product in respect of
electrical, mechanical, thermal and
other hazards.

Pictograms | Meter enclosures / distributors



**Industrial
Quality**

Overview of the ambient conditions and mechanical properties of els products

	Enclosure without fittings			Enclosure with fittings						
	Ambient temperature Minimum value	Ambient temperature Maximum value	Ambient temperature Average over 24 h	Ambient temperature Minimum value	Ambient temperature Maximum value	Ambient temperature Average over 24 h	Max. relative humidity at 40°C	Max. relative humidity at 25°C (short-term)	Protection rating according to DIN EN 60529 (VDE 0470-1) ¹⁾	
AKi, ZVi, ZKi housing	-35°C	80°C	60°C	-25°C	40°C	35°C	50%	95%	IP65 ²⁾	IK08
SVi	-35°C	80°C	60°C	-25°C	40°C	35°C	50%	95%	IP65 ²⁾	IK07

Additional note: The specified temperatures may be limited by the installed devices.

¹⁾ When used with suitable connectors or cable glands

²⁾ Housings with insertion sealing have protection class IP54

Overview of the properties of the materials used in els installation systems

Material	Used in the products:	Weak acids	Strong acids	Weak alkalis	Strong alkalis	Alcohol	Petrol	Benzene	Mineral oil	Diesel	Ammonia, gaseous (DLG Focus Test)	Vegetable fats	Animal fats	Halogen-free	Heavy metal-, PVC- and silicon-free	Combustion behaviour in accordance with DIN EN 60695 (VDE 0471) / UL94
Polycarbonate, glass-fibre-reinforced	ZKi, ZVi, SVi, AKi	O	X	X	X	O	Ø	X	O	Ø	O	O	Ø	yes	yes	960°C / V-2 (5VA*)
Polycarbonate	cover ZKi, ZVi, SVi, AKi	O	X	X	X	Ø	Ø	X	O	Ø	O	O	O	yes	yes	850°C / V-2
Polyamid 6, glass-fibre-reinforced	cable glands IP 68, cover screws	X	X	O	O	O	O	Ø	O	O	O	O	O	yes	yes	750°C / HB/V-2

* 5-inch (127 mm) flame test in accordance with UL 746 C (comparable with the requirements in accordance with UL 94, 5VA)

O = resistant Ø = partially resistant X = not resistant

The materials used by Spelsberg have been subjected to a weathering test in accordance with DIN 53 387 (superseded by DIN EN ISO 4892-2) and a 1000-hour test by the State Testing Office in Dortmund. The materials used for the IQ products achieved optimal results as can be seen here. This material also passed the UV resistance test in accordance with UL 746 C unconditionally.

In principle, not only the level of protection but also the climatic conditions and the occurrence of chemical influences should be assessed when selecting the installation site. Details of the material properties and chemical resistance of the materials used can be taken from the table **though it should be noted that they are only guide values.**

Power dissipation data for SVi housing

Type	Transverse mounting				Vertical mounting			
	[W]				[W]			
	ΔT= 10K	ΔT= 20K	ΔT= 30K	ΔT= 40K	ΔT= 10K	ΔT= 20K	ΔT= 30K	ΔT= 40K
SVi housing (150 x 300 x 137 mm)	5.8	13.7	22.7	32.4	6.1	14.3	23.7	34.0
	[5.1]	12.1	[20.1]	[28.7]	[4.6]	[10.8]	17.9	[25.6]
SVi housing (150 x 300 x 162 mm)	6.4	15.1	24.9	35.6	6.7	15.8	26.2	37.5
	[5.6]	13.4	[22.1]	[31.6]	5.0	[11.9]	[19.7]	[28.2]
SVi LQ housing (150 x 150 x 137 mm)	3.7	8.8	14.5	20.8	3.7	8.8	14.5	20.8
	[3.0]	[7.2]	11.8	[16.9]	[3.0]	[7.2]	11.8	[16.9]

Permissible power loss P_{per} in watts in accordance with DIN VDE 61439-1 Supplement 2 for **individually surface-mounted small distribution boards and surface-mounted empty housings** with stipulated ΔT. Power loss at 50% of the housing height and [75%] of the housing height.

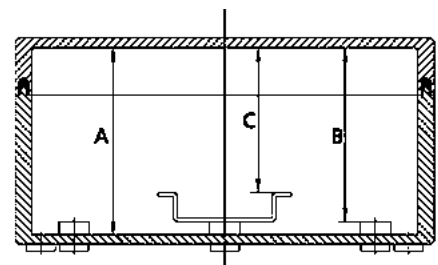
Power dissipation details for SVi empty housings mounted in combination

Type	Transverse mounting				Vertical mounting			
	[W]				[W]			
	ΔT= 10K	ΔT= 20K	ΔT= 30K	ΔT= 40K	ΔT= 10K	ΔT= 20K	ΔT= 30K	ΔT= 40K
SVi housing (150 x 300 x 137 mm)	3.6	8.5	14.1	20.2	3.8	9.0	15.0	21.4
	[3.2]	[7.6]	12.5	17.9	[2.9]	[6.8]	11.3	[16.1]
SVi housing (150 x 300 x 162 mm)	3.9	9.3	15.4	22.0	4.2	9.9	16.4	23.4
	[3.5]	[8.2]	13.6	19.5	[3.1]	[7.4]	12.3	17.6
SVi LQ housing (150 x 150 x 137 mm)	2.3	5.4	8.9	12.8	2.3	5.4	8.9	12.8
	[1.9]	[4.4]	[7.3]	[10.4]	[1.9]	[4.4]	[7.3]	[10.4]

Permissible power loss P_{per} in watts in accordance with DIN VDE 61439-1 Supplement 2 for **surface-mounted empty housings mounted in combination** at specified ΔT. Power loss at 50% of the housing height and [75%] of the housing height.

Installation dimensions of the els installation products (installation height clearance)

	A	B	C
	[mm]	[mm]	[mm]
AKZ- / AKi-Z Meter housing			
AKZ- / AKi-Z meter space	194.5	191	183.5
AKZ / AKi-Z connection space	117.5	114	90
SVi empty housing	[mm]	[mm]	[mm]
SVi housing height 137 mm	119	111.5	—
SVi housing height 162 mm	144	136.5	—



Meter Enclosures / Distributors

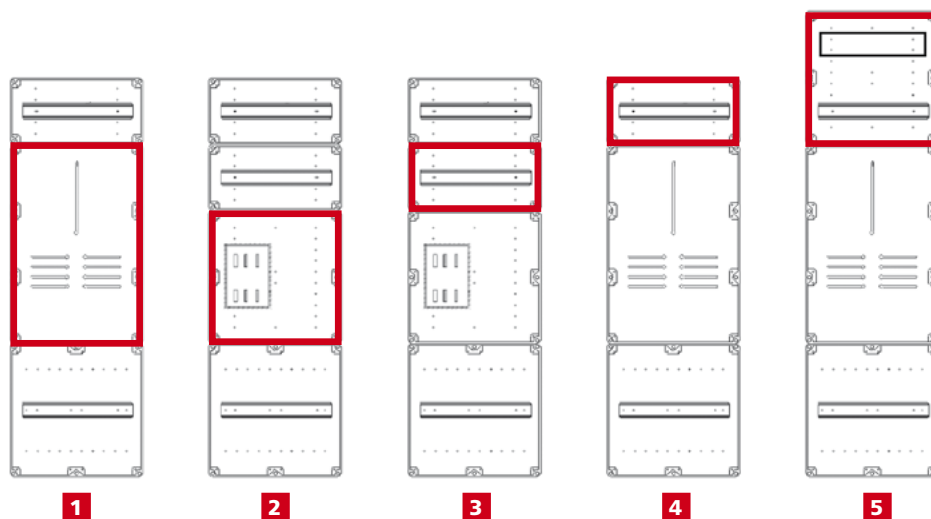
Technical Information

ZVi Meter distributors

Permissible power loss P_{per} in watts in accordance with DIN VDE 61439-1 Supplement 2 for **individually surface-mounted empty housings** at specified ΔT . Power loss at 50% of the enclosure height and [75%] of the enclosure height.

For equipment fitted in the top connection space and in the additional space, in connection with the verification process for switchgear combinations with a single compartment according to DIN EN 61439-1, the rated currents of the current circuits of the switchgear combination may not exceed 80% of the rated currents (I_n) of the electrical equipment in the current circuit.

Housing area		$\Delta T = 10K$	$\Delta T = 20K$	$\Delta T = 30K$	$\Delta T = 40K$
1	Meter panel 450 mm for three-point mounting	13.7	32.4	53.8	76.9
		[10.6]	[25.1]	[41.5]	[59.4]
2	Meter panel 300 mm with BKE-I	9.9	23.4	38.9	55.6
		[8.1]	[19.1]	31.7	[45.3]
3	Additional space for eHZ applications	4.7	11.2	18.5	26.4
		4.2	9.9	[16.4]	[23.5]
4	Device-side connection space 150 mm	5.7	13.4	22.2	31.7
		5.0	[11.9]	[19.7]	[28.2]
5	Device-side connection space 300 mm	8.9	21.1	35.0	50.1
		[7.3]	[17.2]	[28.5]	[40.8]



For the equipping of the bottom connection space, adherence to the temperature limits according to DIN EN 61439-1 was demonstrated by testing.

Enclosure area	1x Meter mounting board Three-point meter	1x Meter mounting board eHZ on BKE-I	2x Meter mounting boards eHZ on BKE-I
With busbar system: Application according to DIN 18015-1	63A	63A	50A + 16A 40A + 16A 35A + 20A
With standard rails Application according to DIN 18015-1	63A	63A	50A + 16A 40A + 16A 35A + 20A

Maximum expansion with 3-pole SH switches in bottom connection space taking into account the maximum permitted heating.

For continuous loads (e.g. PV systems, charging stations) the rated current of the meter mounting board is lower than shown in the table. Corresponding details are available on the Internet under ZVi distributors.

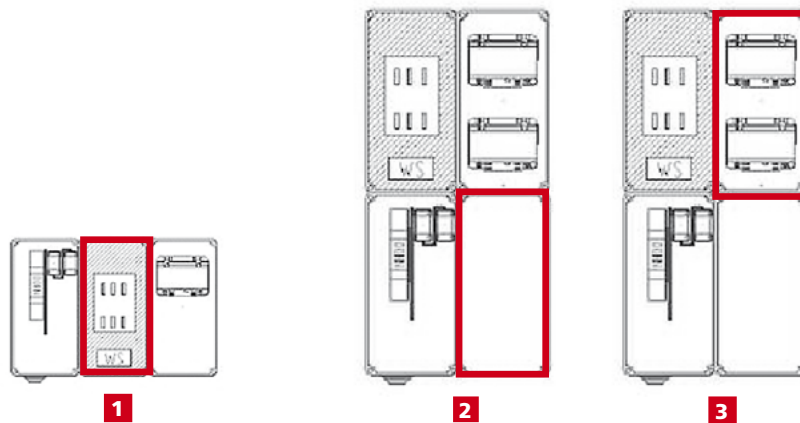
ZVi-K Meter distributors

Permissible power loss P_{per} in watts in accordance with DIN VDE 61439-1 Supplement 2 for **individually surface-mounted empty housings** with stipulated ΔT . Power loss at 50% of the enclosure height and [75%] of the enclosure height.

For equipment fitted in the empty housing and in distribution boards, in connection with the verification process for switchgear combinations with a single compartment according to DIN EN 61439-1, the rated currents of the circuits of the switchgear combination may not exceed 80% of the rated currents (I_n) of the electrical equipment in the current circuit.

Housing area	$\Delta T = 10K$	$\Delta T = 20K$	$\Delta T = 30K$	$\Delta T = 40K$
1 ZVi Meter mounting board AC	5.4 [4.0]	12.7 [9.6]	21.1 [15.9]	30.1 [22.7]
2 ZVi empty housing	5.5 [4.1]	12.9 9.7	21.4 [16.1]	30.6 23.0
3 ZVi – distribution boards	6.0 [4.5]	14.3 [10.7]	23.6 [17.8]	33.8 [25.5]

The SVI-H grid connection box has been type-tested for a constant operating current of $I_n=25$ A, $I_{max}=63$ A.



SVi Single housing

The dissipation details of the SVi single housing for the installation of individual ZVi-K meter distributors can be downloaded from the Internet under SVi housings.

ZKi Meter housing

Permissible power loss P_{per} in watts in accordance with DIN VDE 61439-1 Supplement 2 for **individually surface-mounted empty housings** at specified ΔT . Power loss at 50% of the housing height and [75%] of the housing height.

Enclosure area	$\Delta T = 10K$	$\Delta T = 20K$	$\Delta T = 30K$	$\Delta T = 40K$
1) Meter mounting board with high cover (193 mm)	11.3 [8.7]*	26.7 [20.7]*	44.2 [34.2]*	63.2 [48.9]*
1) Meter mounting board with flat cover (137 mm)	9.4 [7.3]*	22.4 [17.3]*	37.0 [28.7]*	53 [41.0]*
2) Bottomconnection space	4.3 [3.7]*	10.1 [8.8]*	16.7 [14.6]*	24 [20.8]*
3) Topconsumer's compartment	5.1 [4.4]*	12.1 [10.5]*	20.0 [17.4]*	28.6 [24.9]*
4) Additional space	4.3 [3.7]*	10.1 [8.8]*	16.7 [14.6]*	24.0 [20.8]*

*These power dissipations should arise as a maximum in the connection area (red marking) of the meter housing.



Switch and Fuse Enclosures

AKi



Switch and fuse enclosures - IP 54/65

With our AKi Series switch disconnecter and fuse enclosures you will always be on the safe side.

These industrial quality enclosures are suitable, for example, for use in industrial production areas.



Switch and Fuse Enclosures AKi

AKi content

	Types	Series	Page
	Switch disconnect enclosure	AKi-TE	276
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Switch and Fuse Enclosures AKi

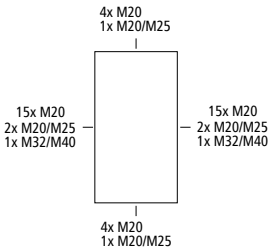
AKi-TE

AKi-TE 106

150 x 300 x 132 mm



Switch disconnecter enclosure - Industrial Quality - with external actuation, lockable, IP65 (when using the corresponding cable infeeds), 1 x load disconnecter switch 63A, 3-pole switching, Cage-type terminal 2.5 - 35 mm², PE/N terminal 16 mm², with IP54 attachment bushes, with insulating seals



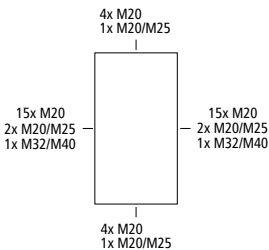
Description	Order no.
AKi-TE 106 with transparent cover	78910601

AKi-TE 108

150 x 300 x 132 mm



Switch disconnecter enclosure - Industrial Quality - with external actuation, lockable, IP65 (when using the corresponding cable infeeds), 1 x load disconnecter switch 80A, 3-pole switching, Cage-type terminal 2.5 - 35 mm², PE/N terminal 35 mm², with IP54 attachment bushes, with insulating seals



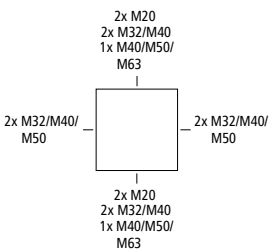
Description	Order no.
AKi-TE 108 with transparent cover	78910801

AKi-TE 210

300 x 300 x 132 mm



Switch disconnecter enclosure - Industrial Quality - with external actuation, lockable, IP65 (when using the corresponding cable infeeds), 1 x load disconnecter switch 100A, 3-pole switching, Cage-type terminal 2.5 - 35 mm², PE/N terminal 35 mm², with IP54 attachment bushes, with insulating seals



Description	Order no.
AKi-TE 210 with transparent cover	78921001

Current prices can be found on our website: www.spelsberg.com

Switch and Fuse Enclosures AKi

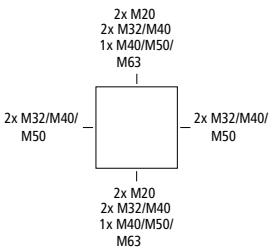
AKi-TE

AKi-TE 216

300 x 300 x 132 mm



Switch disconnecter enclosure - Industrial Quality - with external actuation, lockable, IP65 (when using the corresponding cable infeeds), 1 x load disconnecter switch 160A, 3-pole switching, Cage-type terminal 10 - 70 mm², PE/N terminal 2 x 50 mm², with IP54 attachment bushes, with insulating seals



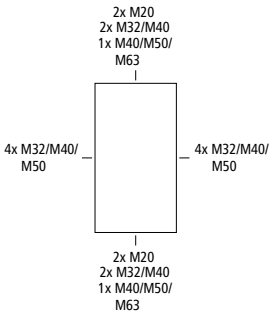
Description	Order no.
AKi-TE 216 with transparent cover	78921601

AKi-TE 425

300 x 600 x 210 mm



Switch disconnecter enclosure - Industrial Quality - with external actuation, lockable, 1 x load disconnecter switch 250A, 3-pole switching, Screw connection M10, PE/N terminal M10, with insulating seals



Description	Order no.
AKi-TE 425 with transparent cover	78942501

Switch and Fuse Enclosures AKi

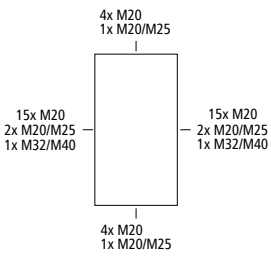
AKi-T

AKi-T 101

150 x 300 x 132 mm



NH fuse enclosure - Industrial Quality-, IP65 (when using the corresponding cable infeeds), 1 x NH 00 fuse switch disconnecter, assembled on mounting plate, Rated current 100 A, Clamp connection 1.5 - 70 mm², PE/N terminal 2 x 50 mm², with IP54 attachment bushes, with insulating seals



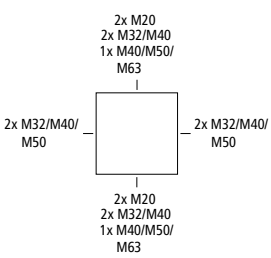
Description	Order no.
AKi-T 101 with transparent cover	78610101

AKi-T 201

300 x 300 x 132 mm



NH fuse enclosure - Industrial Quality-, IP65 (when using the corresponding cable infeeds), 1 x NH 00 fuse switch disconnecter, assembled on mounting plate, Rated current 125 A, Clamp connection 1.5 - 70 mm², PE/N terminal 2 x 50 mm², with IP54 attachment bushes, with insulating seals



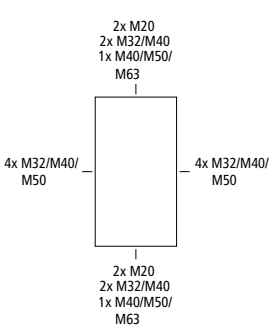
Description	Order no.
AKi-T 201 with transparent cover	78620101

AKi-T 411

300 x 600 x 210 mm



NH fuse enclosure - Industrial Quality-, IP65 (when using the corresponding cable infeeds), 1 x NH 1-fuse switch disconnecter, assembled on mounting plate, Rated current 224 A, Screw connection M10, PE/N terminal M10, with IP54 attachment bushes, with insulating seals



Description	Order no.
AKi-T 411 with transparent cover	78641101

Current prices can be found on our website: www.spelsberg.com

Switch and Fuse Enclosures AKi

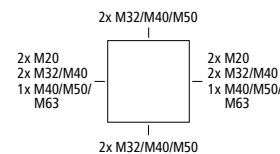
AKi-SS

AKi-SS 21

300 x 300 x 210 mm



NH fuse base enclosure - Industrial Quality -, 1 x NH 00 bus-mounting fuse base, Rated current 125 A, Clamp connection 1.5 - 70 mm², Output on top, on 5-pole busbar, with 5 busbar terminals 16 - 70 mm², N terminal 4 - 35 mm², PE terminal 4 - 35 mm², with insulating seals



Description

AKi-SS 21

on busbar system 250 A, with transparent cover

Order no.

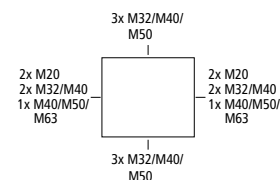
76221501

AKi-SS 32

450 x 300 x 210 mm



NH fuse base enclosure - Industrial Quality -, 2 x NH 00 bus-mounting fuse base, Rated current 100 A, Clamp connection 1.5 - 70 mm², Output on top, on 5-pole busbar, with 5 busbar terminals 16 - 70 mm², N terminal 4 - 35 mm², PE terminal 4 - 35 mm², with insulating seals



Description

AKi-SS 32

on busbar system 250 A, with transparent cover

Order no.

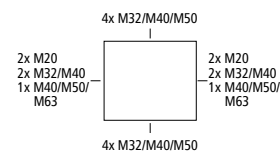
76232501

AKi-SS 43

600 x 300 x 210 mm



NH fuse base enclosure - Industrial Quality -, 3 x NH 00 bus-mounting fuse base, Rated current 100 A, Clamp connection 1.5 - 70 mm², Output on top, on 5-pole busbar, with 5 busbar terminals 16 - 70 mm², N terminal 4 - 35 mm², PE terminal 4 - 35 mm², with insulating seals



Description

AKi-SS 43

on busbar system 250 A, with transparent cover

Order no.

76243501

Switch and Fuse Enclosures AKi

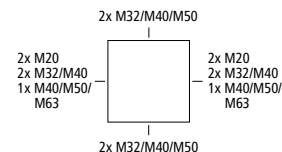
AKi-ST

AKi-ST 21

300 x 300 x 210 mm



NH bus-mounting fuse empty enclosure for switchgear - Industrial Quality -, 1 x NH 00 fuse switch disconnecter enclosure, Rated current 125 A, Clamp connection 1.5 - 70 mm², Universal output, on 5-pole busbar, with 5 busbar terminals 16 - 70 mm², N terminal 4 - 35 mm², PE terminal 4 - 35 mm², with insulating seals



Description

AKi-ST 21

on busbar system 250 A, with transparent cover

Order no.

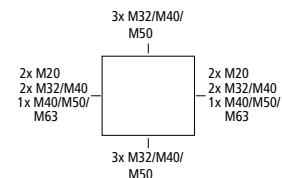
76621501

AKi-ST 32

450 x 300 x 210 mm



NH bus-mounting fuse empty enclosure for switchgear - Industrial Quality -, 2 x NH 00 fuse switch disconnecter enclosure, Rated current 100 A, Clamp connection 1.5 - 70 mm², Universal output, on 5-pole busbar, with 5 busbar terminals 16 - 70 mm², N terminal 4 - 35 mm², PE terminal 4 - 35 mm², with insulating seals



Description

AKi-ST 32

on busbar system 250 A, with transparent cover

Order no.

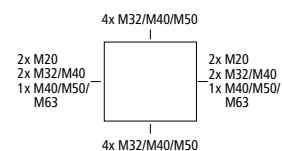
76632501

AKi-ST 43

600 x 300 x 210 mm



NH bus-mounting fuse empty enclosure for switchgear - Industrial Quality -, 3 x NH 00 fuse switch disconnecter enclosure, Rated current 100 A, Clamp connection 1.5 - 70 mm², Universal output, on 5-pole busbar, with 5 busbar terminals 16 - 70 mm², N terminal 4 - 35 mm², PE terminal 4 - 35 mm², with insulating seals



Description

AKi-ST 43

on busbar system 250 A, with transparent cover

Order no.

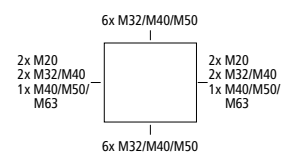
76643501

AKi-ST 64

900 x 300 x 210 mm



NH bus-mounting fuse empty enclosure for switchgear - Industrial Quality -, 4 x NH 00 fuse switch disconnecter enclosure, Rated current 100 A, Clamp connection 1.5 - 70 mm², Universal output, on 5-pole busbar, with 5 busbar terminals 16 - 70 mm², N terminal 4 - 35 mm², PE terminal 4 - 35 mm², with insulating seals



Description

AKi-ST 64

on busbar system 250 A, with transparent cover

Order no.

76664501

Switch and Fuse Enclosures AKi

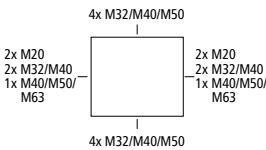
AKi-SK

AKi-SK 451

600 x 300 x 210 mm



Combined fuse enclosure - Industrial Quality -, 1 x NH 00 fuse switch disconnecter enclosure, Rated current 100 A, Clamp connection 1.5 - 70 mm², Universal output, 5 x 3-pole D02 bus-mounting fuse base, E 18 thread, Rated current 63 A, Screw connection 1.5 - 25 mm², on 5-pole busbar, with 5 busbar terminals 16 - 70 mm², N terminal 4 - 35 mm², PE terminal 4 - 35 mm², N terminal 1.5 - 16 mm², PE terminal 1.5 - 16 mm²



Description	Order no.
AKi-SK 451 on busbar system 250 A, with transparent cover	76700101

Switch and Fuse Enclosures AKi

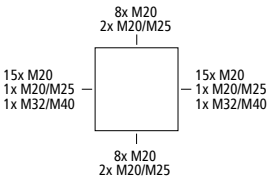
AKi-SN

AKi-SN 25

300 x 300 x 210 mm



NEOZED® fuse enclosure - Industrial Quality -, 5 x 3-pole D02 bus-mounting fuse base, E 18 thread, Rated current 63 A, Screw connection 1.5 - 25 mm², on 5-pole busbar, N terminal 1.5 - 16 mm², PE terminal 1.5 - 16 mm²



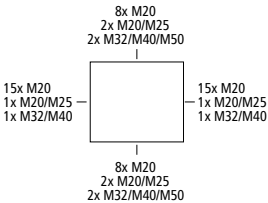
Description	Order no.
AKi-SN 25 on busbar system 250 A, with transparent cover	76720501

AKi-SN 410

600 x 300 x 210 mm



NEOZED® fuse enclosure - Industrial Quality -, 10 x 3-pole D02 bus-mounting fuse base, E 18 thread, Rated current 63 A, Screw connection 1.5 - 25 mm², on 5-pole busbar, N terminal 1.5 - 16 mm², PE terminal 1.5 - 16 mm²



Description	Order no.
AKi-SN 410 on busbar system 250 A, with transparent cover	76741001

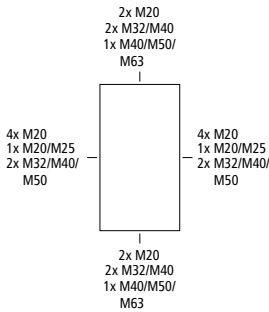
Switch and Fuse Enclosures AKi

AKi-SBZ

AKi-SBZ 352-40 300 x 450 x 150 mm



Lightning protection enclosure - Industrial Quality -, 5-pole, 40 mm busbar distance, with copper rails, L1...L3: 12 x 5 mm, PE/N: 12 x 5 mm, with 10 bus bar terminals for CU conductors 4 - 35 mm², with 6 module width hinged window

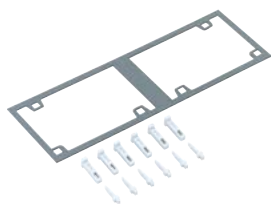


Description	Order no.
AKi-SBZ 352-40 with transparent cover, sealable, with lightning current and surge protection device1+2 according to EN 61643-11 for main power supply systems, TT/TNS network, for use in buildings with exterior lightning protection, Lightning current: (10/350) 7.5/30kA, highest continuous voltage: 255 V AC, max. per. backup fuse: 160A gG, installed ready for connection on busbar system	76735201

Switch and Fuse Enclosures AKi

AKi Accessories

AK combi set



Combi set, for horizontal or vertical combination of all AK enclosures (until 04/15) and AKi enclosures from 300 x 150 mm, complete with wedge connectors and intermediate sealing for 150 and 300 mm enclosure sides, each 300 mm = 1 combi set

Description	Order no.
AK KS-IP65	79100101

AK combi set



Combi set without intermediate enclosure seal, for horizontal or vertical combination of all AK enclosures (until 04/15) and AKi enclosures from 300 x 150 mm, 1 set = 10 wedge connectors

Description	Order no.
AK KS-IP30	59110001

Hinge set



External hinge set for retrofitting the enclosure cover to hinged door, incl. 2 hinges, fixing screws, cover plugs and drilling template

Description	Order no.
ASS-gro	19000501

External hinge set large, from TK PS/PC 1811 and from AKL/AKi 1

AK external fixing lugs



External fixing lugs, for mounting separate enclosures or small units on flat wall surfaces, can be fixed to the box base at an angle of 0°, 45°, or 90°, wall gap 7 mm, material stainless steel, suitable for all AK enclosures from 300 mm front,

Description	Order no.
AK ABL-ES	79300401

Set = 4 pcs.

Z wall profile



Z-wall profile, length 2 m, with 8 M6 cylinder screws and 8 captive push nuts, wall clearance 70 mm, material: galvanised steel

Description	Order no.
ZPR	07080001

Switch and Fuse Enclosures AKi

AKi Accessories

Combi connector



Combination socket for connecting enclosures, polyethylene, grey, for wall thickness 1.5 - 4.0 mm

Description	Order no.
KST M32 Length 25 mm, for vertical and horizontal connection of AK/AKi 24 distribution boards, ZKi meter housings and AKL/AKi 1-4 empty enclosures, for vertical connection of AK/AKi 09/12 distribution boards, as well as TK empty enclosures with M32 knock-outs	19303201
KST M25-33 Length 33 mm, for vertical connection of AK 14 - 56, AK/AKi 24 distribution boards, ZKi meter enclosures and AKL/AKi 1 - 4 empty enclosures, as well as for horizontal connection of AK 28 - 56 distribution boards	19302601
KST M25-17 Length 17 mm, for vertical connection of AK/AKi 03 - 12 distribution boards, AKL / AKi 1-4, as well as TK and SVi enclosures with M25 knock-outs	19302501

Combi set



Combination set for connecting enclosures with metric entries, polystyrene, grey, complete with locknut and partition seal

Description	Wall thickness	Thread length/mm	Order no.
KS M20	2 x 3,0	12	19202001
KS M25	2 x 3,0	12	19202501
KS M25-gro	2 x 8,0	22	19202601
KS M32	2 x 3,5	14	19203201

AKi mounting flange



Enclosure wall, for attachment to components of AKi enclosure system to 300 mm wide sides, with cable covers as standard

Description	Order no.
AKi ABF 1 with knockouts, 2 x M32 / M40 / M50, 1 x M40 / M50 / M63	79605101
AKi ABF 2 Smooth for self-drilling	79605001

Padlock set



Padlock kit for upgrading the enclosure cover to lockable hinged door, incl. padlock, 2 hinges, fixing screws, cover plugs and drilling template

Description	Order no.
VSG from TK PS/PC 1811 onwards and AKL/AKi 1	19010001

Switch and Fuse Enclosures AKi

AKi Accessories

Busbar terminal SKL 1



Busbar terminal, for copper rails 12/20/25/30 x 10 mm

Description	Order no.
SKL 116 for CU conductor 1x (1.5-16mm ²) re/rm/rf+AE	07511601
SKL 135 for CU conductor 1x (4-35mm ²) re/rm/sm/rf+AE, lam. Flat copper 3x9x0.8mm, 6x9x0.8mm	07513501
SKL 112 for CU-wire 1x (16-120mm ²) re/rm/sm/rf+AE, lam. Flat copper 6x16x0.8mm, 10x16x0.8mm	07511201
SKL 170 for CU conductor 1x (16-70mm ²) re/rm/sm/rf+AE, lam. Flat copper 6x9x0.8mm	07517001
SKL 118 for CU conductor 1x (50-185mm ²) re/rm/sm/rf+AE	07511801

Busbar terminal



Busbar terminal, for copper rails 12/20/25/30 x 10 mm

Description	Order no.
SKLAL 116 for connection of AL/CU conductors 1.5-16mm ²	07611601
SKLAL 135 for connection of AL/CU conductors 4-35mm ²	07613501
SKLAL 170 for connection of AL/CU conductors 16-70mm ²	07617001
SKLAL 112 for connection of AL/CU conductors 16-120mm ²	07611201
SKLAL 118 for AL/CU-Conductors 1x (50-185mm ²) re/rm/rf+AE, 1x (50-185mm ²) SM	07611801

Busbar terminal SKL 0



Busbar terminal, for rails 12 x 5 mm / 12 x 10 mm, for aluminium and copper conductors

Description	Order no.
SKL 015 for AL/CU conductors 1x (16-50)re, 1x (16-150)rm, 1x (50-150)se, 1x (35-150)sm	07501501
SKL 024 for AL/CU conductors 1x (35-50)re, 1x (35-240)rm, 1x (50-185)se, 1x (35-240)sm	07502401
SKL 052 for AL/CU conductors 1x (16-50)re, 1x (16-95)rm, 1x (50-95)se, 1x (35-95)sm, 2x (16-35)re/rn, 2x 35sm/se	07505201
SKL 092 for AL/CU conductors 1x (25-50)re, 1x (25-150)rm, 1x (50-150)se, 1x (35-150)sm, 2x (25-50)re, 2x (25-70)rm, 2x (50-70)se, 2x (35-70)sm	07509201

Switch and Fuse Enclosures AKi

AKi Accessories



Switch and Fuse Enclosures AKi

Technical Information

IP65

Protection rating (IP code)
in accordance with DIN EN 60529
(VDE 0470-1)

IK08

Level of protection (IK code) against
mechanical impact in accordance with
DIN EN 50102 (VDE 0470-100)



Protection class II
Equipment with protective insulation in
accordance with DIN VDE 0100-410

**690V
AC**

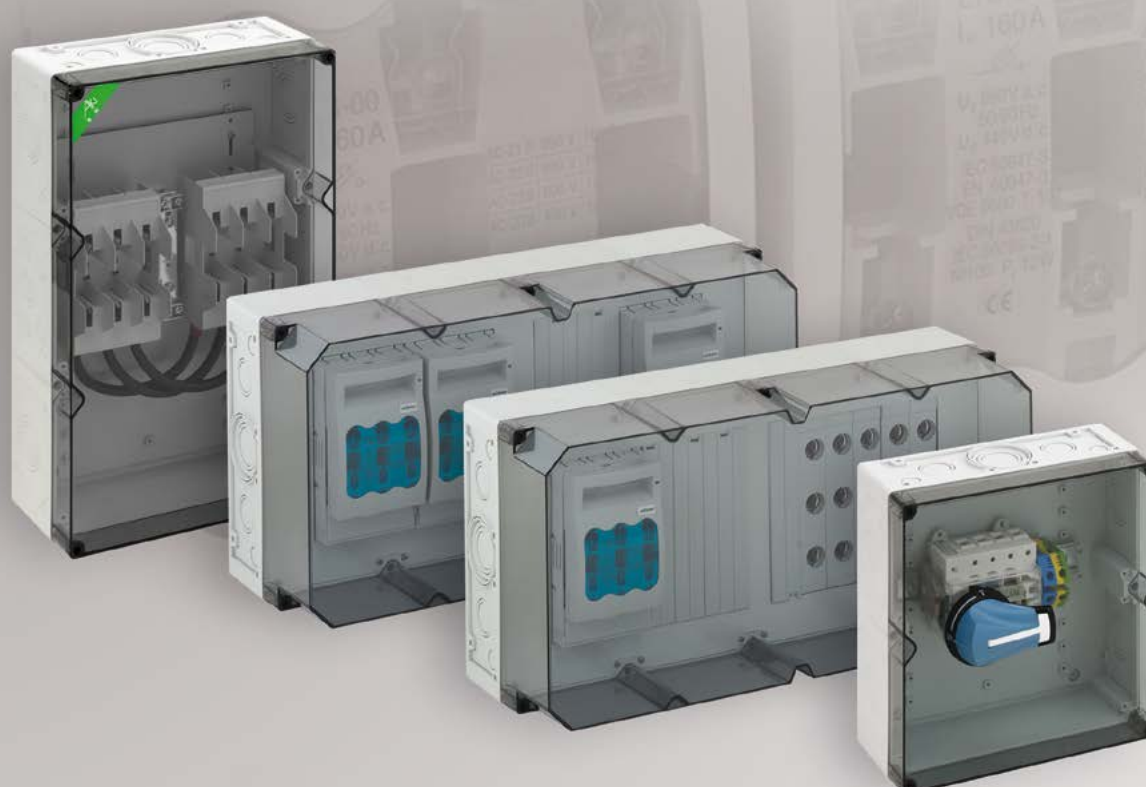
Rated voltage
for use in **AC voltage systems**, maximum
permissible nominal voltage of the
electrical system



Halogen-free housing, without halogens
such as fluorine, chlorine and bromine.

Pictograms | Switch and fuse enclosures

**Industrial
Quality**



Switch and Fuse Enclosures AKi

Technical Information

Overview of the properties of the materials used in els installation systems		Weak acids	Strong acids	Weak alkalis	Strong alkalis	Alcohol	Petrol	Benzene	Mineral oil	Diesel	Ammonia, gaseous (DLG Focus Test)	Vegetable fats	Animal fats	Halogen-free	Heavy metal-, PVC- and silicon-free	Combustion behaviour in accordance with DIN EN 60695 (VDE 0471) / UL94
Material	Used in the products:															
Polycarbonate, glass-fibre-reinforced	AKi system box	O	X	X	X	O	Ø	X	O	Ø	O	O	Ø	yes	yes	960 °C / V-2 (5 VA*)
Polyurethane	All types with foamed lid seal	Ø	Ø	Ø	Ø	Ø	Ø	Ø	X	Ø	O	O	O	yes	yes	650°C / ---
Polyamid 6, glasfaserverstärkt	Cover screws	X	X	O	O	O	O	Ø	O	O	O	O	O	yes	yes	750°C / HB/V-2
Polycarbonate, transparent	AKi cover	O	X	X	X	Ø	Ø	X	O	Ø	O	O	O	yes	yes	850°C / V-2

* 5-inch (127 mm) flame test in accordance with UL 746 C (comparable with the requirements in accordance with UL 94, 5VA)

The materials used by Spelsberg have been subjected to a weathering test in accordance with DIN 53 387 (superseded by DIN EN ISO 4892-2) and a 1000-hour test by the State Testing Office in Dortmund. The materials used for the IQ products achieved optimal results as can be seen here. This material also passed the UV resistance test in accordance with UL 746 C unconditionally.

In principle, not only the level of protection but also the climatic conditions and the occurrence of chemical influences should be assessed when selecting the installation site. Details of the material properties and chemical resistance of the materials used can be taken from the table **though it should be noted that they are only guide values.**

Switch and Fuse Enclosures AKi

Technical Information

Power dissipation data for individually mounted AKi enclosures	Transverse mounting				Vertical mounting			
	[W]				[W]			
Dimensions	$\Delta T = 10K$	$\Delta T = 20K$	$\Delta T = 30K$	$\Delta T = 40K$	$\Delta T = 10K$	$\Delta T = 20K$	$\Delta T = 30K$	$\Delta T = 40K$
300 x 150 x 132 mm	5.7	13.4	22.2	31.7	5.9	14.0	23.2	33.2
	[5.0]	[11.9]	[19.7]	[28.2]	[4.5]	[10.6]	[17.5]	[25.0]
300 x 300 x 132 mm	8.9	21.1	35.0	50.1	8.9	21.1	35.0	50.1
	[7.3]	[17.2]	[28.5]	[40.8]	[7.3]	[17.2]	[28.5]	[40.8]
300 x 300 x 210 mm	11.3	26.8	44.3	63.4	11.3	26.8	44.3	63.4
	[9.2]	[21.8]	[36.1]	[51.7]	[9.2]	[21.8]	[36.1]	[51.7]
300 x 450 x 132 mm	11.8	28.0	46.4	66.4	12.1	28.6	47.4	67.8
	[10.2]	[24.1]	[39.9]	[57.0]	[9.3]	[22.1]	[36.6]	[52.4]
300 x 450 x 210 mm	14.7	34.7	57.5	82.3	15.1	35.7	59.0	84.4
	[12.6]	[29.8]	[49.4]	[70.7]	[11.6]	[27.5]	[45.6]	[65.2]
300 x 600 x 132 mm	14.7	34.8	57.6	82.4	15.2	35.9	59.5	85.1
	[13.0]	[30.9]	[51.1]	[73.1]	[11.4]	[27.1]	[44.8]	[64.1]
300 x 600 x 210 mm	18.0	42.5	70.4	100.8	18.7	44.4	73.5	105.1
	[15.9]	[37.7]	[62.5]	[89.4]	[14.1]	[33.4]	[55.3]	[79.1]

Permissible power loss P_{per} in watts in accordance with DIN VDE 61439-1 Supplement 2 for **individually surface-mounted small distribution boards and surface-mounted empty enclosures** with stipulated ΔT . Power loss at 50% of the enclosure height and [75%] of the enclosure height.

Power dissipation details for AKi empty enclosures mounted in combination	Transverse mounting				Vertical mounting			
	[W]				[W]			
Dimensions	$\Delta T = 10K$	$\Delta T = 20K$	$\Delta T = 30K$	$\Delta T = 40K$	$\Delta T = 10K$	$\Delta T = 20K$	$\Delta T = 30K$	$\Delta T = 40K$
300 x 150 x 132 mm	4.2	9.9	16.3	23.4	4.4	10.4	17.2	24.5
	[3.7]	[8.8]	[14.5]	[20.7]	[3.3]	[7.8]	[12.9]	[18.5]
300 x 300 x 132 mm	7.0	16.5	27.4	39.1	7.0	16.5	27.4	39.1
	5.7	[13.5]	[22.3]	[31.9]	5.7	[13.5]	[22.3]	[31.9]
300 x 300 x 210 mm	8.3	19.6	32.4	46.4	8.3	19.6	32.4	46.4
	[6.7]	[16.0]	[26.4]	[37.8]	[6.7]	[16.0]	[26.4]	[37.8]
300 x 450 x 132 mm	9.5	22.5	37.2	53.2	9.7	22.9	38.0	54.3
	[8.2]	[19.3]	[32.0]	[45.7]	7.5	[17.7]	[29.3]	[42.0]
300 x 450 x 210 mm	11.0	26.1	43.2	61.8	11.3	26.8	44.4	63.4
	[9.5]	[22.4]	[37.1]	[53.1]	[8.7]	[20.7]	[34.3]	[49.0]
300 x 600 x 132 mm	12.0	28.3	46.9	67.0	12.3	29.2	48.3	69.1
	[10.6]	[25.1]	[41.6]	[59.5]	[9.3]	[22.0]	[36.4]	[52.0]
300 x 600 x 210 mm	13.7	32.4	53.7	76.8	14.3	33.8	56.0	80.1
	[12.2]	[28.8]	[47.7]	[68.2]	[10.8]	[25.5]	[42.2]	[60.3]

Permissible power loss P_{per} in watts in accordance with DIN VDE 61439-1 Supplement 2 for **surface-mounted empty enclosures mounted in combination** with stipulated ΔT . Power loss at 50% of the enclosure height and [75%] of the enclosure height.

Switch and Fuse Enclosures AKi

Technical Information

AKi Switching device (fitted in)	Size	Rated current	Power dissipation at 100% rated current (without fuses)	Max. permitted power dissipation per fuse insert	Cable connection	Tightening torque	Rated operational voltage
Fuse base (AKi-S)	NH 00	$I_e = 160 \text{ A}$	12.5 W	12 W	Clamp-type terminal 1.5-70 mm ²	3 Nm	$U_e = 690 \text{ V}$
	NH 1	$I_e = 250 \text{ A}$	16.4 W	32 W	Flat terminal M10	20 Nm	$U_e = 690 \text{ V}$
	NH 2	$I_e = 400 \text{ A}$	36 W	45 W	Flat terminal M10	20 Nm	$U_e = 690 \text{ V}$
Fuse switch-disconnector (AKi-T)	NH 00	$I_e = 160 \text{ A}$	7 W	12 W	Clamp-type terminal 1.5-70 mm ²	3 Nm	$U_e = 690 \text{ V}$
	NH 1	$I_e = 250 \text{ A}$	14.1 W	23 W	Flat terminal M10	25 Nm	$U_e = 690 \text{ V}$
	NH 2	$I_e = 400 \text{ A}$	28 W	34 W	Flat terminal M10	35 Nm	$U_e = 690 \text{ V}$
Bar-mounting fuse base (AKi-SS)	NH 00	$I_e = 160 \text{ A}$	14 W	12 W	Clamp-type terminal 1.5-70 mm ²	3 Nm	$U_e = 690 \text{ V}$
Bar-mounting fuse switch-disconnector (AKi-ST)	NH 00	$I_e = 160 \text{ A}$	17.7 W	12 W	Clamp-type terminal 1.5-70 mm ²	3 Nm	$U_e = 690 \text{ V}$
D-Bar-mounting fuse mount (GSN/GSD)	D02	$I_e = 63 \text{ A}$	3 W	5.5 W	Box terminal 1.5-25 mm ²	2.6 Nm	$U_e = 400 \text{ V}$
	DII	$I_e = 25 \text{ A}$	1.5 W	4 W	Box terminal 1.5-25 mm ²	2.6 Nm	$U_e = 500 \text{ V}$
	DIII	$I_e = 63 \text{ A}$	6.5 W	7 W	Box terminal 1.5-25 mm ²	2.6 Nm	$U_e = 690 \text{ V}$
Fuse switch-disconnector (AKi-TE)	-	$I_e = 63 \text{ A}$	4.5 W	-	Cage clamp terminal 2.5-35 mm ²	3.5 Nm	$U_e = 690 \text{ V}$
	-	$I_e = 80 \text{ A}$	7.2 W	-	Cage clamp terminal 2.5-35 mm ²	3.5 Nm	$U_e = 690 \text{ V}$
	-	$I_e = 100 \text{ A}$	10.8 W	-	Cage clamp terminal 10-70 mm ²	4 Nm	$U_e = 690 \text{ V}$
	-	$I_e = 160 \text{ A}$	24.9 W	-	Cage clamp terminal 10 - 70 mm ²	4 Nm	$U_e = 690 \text{ V}$
	-	$I_e = 250 \text{ A}$	17.4 W	-	Flat terminal M10	20 Nm	$U_e = 690 \text{ V}$

Loading factor for switchgear combinations

Example calculation:

9 NH 00 fuses with a power loss of 9 W
per device

The loading factor per EN 61439-2,
Table 101 is 0.7.

$$P_{\text{vred.}} = P_v \cdot \text{Rated loading factor}^2 \\ = 9 \text{ W} \cdot 0.7 \cdot 0.7 = \mathbf{4.41 \text{ W}} \text{ (per fuse)}$$

Because 9 fuses are installed this gives:

$$P_{\text{vges}} = 4.41 \text{ W} \cdot 9 \\ = \mathbf{36.69 \text{ W}}$$

DIN EN 61439-2, 5.4

If there is no agreement between the manufacturer of the switchgear combination and the user with regard to the actual load currents, the assumed loading of the output circuits or a group of output circuits of the switchgear combination shall be based on the values in the following table.

Type of loading	Assumed loading factor
2 and 3 circuits	0.9
4 and 5 circuits	0.8
6 and 9 circuits	0.7
10 or more circuits	0.6

Universal Accessories

Universal Accessories

Twist plug, grey



Twist plug, IP54, M_ x 1.5 mm, with closed sealing membrane, grey

Description	Sealing range/mm	Thread lenght/mm	Order no.
WST M16	5 - 10	9	20341601
WST M20	8 - 13,5	12	20342001
WST M25	9 - 16	12	20342501
WST M32	11 - 22	14	20343201
WST M40	17 - 24	14	20344001
WST M50	22 - 35	18	20345001
WST M63	24 - 43	20	20346301

Twist plug, black



Twist plug, IP54, M_ x 1.5 mm, with closed sealing membrane, black

Description	Sealing range/mm	Thread lenght/mm	Order no.
WST M16/sw	5 - 10	9	20301601
WST M20/sw	8 - 13,5	12	20302001
WST M25/sw	9 - 16	12	20302501

Twist nipple, grey



Twist nipple, IP54, M_ x 1.5 mm with open sealing membrane, polyethylene, grey

Description	Sealing range/mm	Thread lenght/mm	Order no.
WNI M16	5 - 10	9	21341601
WNI M20	8 - 13,5	12	21342001
WNI M25	9 - 16	12	21342501
WNI M32	11 - 22	14	21343201

Twist nipple, black



Twist nipple, IP54, M_ x 1.5 mm with open sealing membrane, polyethylene, black

Description	Sealing range/mm	Thread lenght/mm	Order no.
WNI M16/sw	5 - 10	9	21301601
WNI M20/sw	8 - 13,5	12	21302001
WNI M25/sw	9 - 16	12	21302501

Universal Accessories

Universal Accessories

Sealing plug, grey



Sealing plugs, IP55, with closed sealing membrane, thermoplastic elastomer (TPE), for wall thickness 1.5 - 4.0 mm, for sealing of metric enclosure apertures that are not required, grey

Description	Sealing range/mm	Order no.
VST M16	6 - 10	23141601
VST M20	8 - 13,5	23142001
VST M25	9 - 16	23142501
VST M32	13 - 23	23143201
VST M40	17 - 30	23144001

PA blanking plug



Locking bolt, IP68, M_ x 1.5 mm, polyamide, grey, for housing with internal thread. When using locknuts, maximum enclosure wall thickness of 3 mm

Description	Thread length/mm	Order no.
VSS PA M16	6	21111601
VSS PA M20	6	21112001
VSS PA M25	7	21112501
VSS PA M32	8	21113201

Attachment bushes, grey



Mounting socket IP55, with open sealing membrane, thermoplastic elastomer (TPE), for wall thicknesses from 1.5 - 4.0 mm, grey

Description	Sealing range/mm	Order no.
AST M16	6 - 10	23041601
AST M20	8 - 13,5	23042001
AST M25	9 - 18,5	23042501
AST M32	13 - 23	23043201
AST M40	17 - 30	23044001

Double membrane seals, grey



Double membrane seals, IP66, with two sealing membranes, closed, thermoplastic elastomer (TPE), for wall thicknesses 1.5 - 4.5 mm, grey

Description	Sealing range/mm	Order no.
DMS M16	5 - 9	26041601
DMS M20	7 - 13	26042001
DMS M25	9 - 17	26042501
DMS M32	13 - 21	26043201
DMS M40	17 - 28	26044001

Universal Accessories

Universal Accessories

Double membrane seals, black



Double membrane seals, IP66, with two sealing membranes, closed, thermoplastic elastomer (TPE), for wall thicknesses 1.5 - 4.5 mm, black

Description	Sealing range/mm	Order no.
DMS M16/sw	5 - 9	26001601
DMS M20/sw	7 - 13	26002001
DMS M25/sw	9 - 17	26002501
DMS M32/sw	13 - 21	26003201
DMS M40/sw NEW	17 - 28	26004001

4-fold double membrane seals, grey



Double membrane seals, IP66, with two sealing membranes, closed, max. four cable insertions for control lines, thermoplastic elastomer (TPE), grey, for wall thicknesses 1.5 - 4.5 mm

Description	Sealing range/mm	Order no.
DMS M32/4	3,5 - 6	26043301

Stepped nipple, grey



Stepped nipple, IP55, with closed sealing membrane, can be cut into multiple steps, thermoplastic elastomer (TPE), grey, for wall thicknesses from 1.5 - 4 mm

Description	Sealing range/mm	Order no.
SNI M20	5 - 16	21642001
SNI M25	5 - 21	21642501
SNI M32	13 - 26,5	21643201
SNI M40	13 - 34,0	21644001
SNI M63	14 - 54	21646301

Ventilation plug



Ventilation Plug, IP44, with labyrinth seal to avoid condensation formation in enclosures, flow rate 100 l/min. at 0.1 bar overpressure, thermoplastic elastomer, recommended for insertion on the left and right enclosure sides in different heights (see Technical Appendix - protection against condensate water), for wall thicknesses 1.5 - 4.5 mm

Description	for wall thickness	Order no.
BST M20 Grey	4,5 - 1,5	26242001
BST M20/sw Black	4,5 - 1,5	26202001

Ventilation element set



BEL Air ventilation element set, for preventing condensation build-up in enclosure, for vertical installation in enclosure walls and GFL combi flanges with corresponding knock-outs, at least two ventilation elements are required per enclosure

Description	Order no.
BEL Air M40 M40, set = 2 pcs., air exchange rate: 30 l / day / set	26344001

Universal Accessories

Universal Accessories

Pressure compensation device



Pressure compensation device with air-permeable and waterproof special membrane foil to prevent condensation in enclosures, flow rate 0.8l/min. at 0.1 bar overpressure, polyamide, grey

Description	Order no.
DAE M12 M12 x 1.5 mm, Thread length 10 mm	26241201

Combi connector



Combination socket for connecting enclosures, polyethylene, grey, for wall thickness 1.5 - 4.0 mm

Description	Order no.
KST M32 Length 25 mm, for vertical and horizontal connection of AK/AKi 24 distribution boards, ZKi meter housings and AKL/AKi 1-4 empty enclosures, for vertical connection of AK/AKi 09/12 distribution boards, as well as TK empty enclosures with M32 knock-outs	19303201
KST M25-33 Length 33 mm, for vertical connection of AK 14 - 56, AK/AKi 24 distribution boards, ZKi meter enclosures and AKL/AKi 1 - 4 empty enclosures, as well as for horizontal connection of AK 28 - 56 distribution boards	19302601
KST M25-17 Length 17 mm, for vertical connection of AK/AKi 03 - 12 distribution boards, AKL / AKi 1-4, as well as TK and SVi enclosures with M25 knock-outs	19302501

Combi set



Combination set for connecting enclosures with metric entries, polystyrene, grey, complete with locknut and partition seal

Description	Wall thickness	Thread length/mm	Order no.
KS M20	2 x 3,0	12	19202001
KS M25	2 x 3,0	12	19202501
KS M25-gro	2 x 8,0	22	19202601
KS M32	2 x 3,5	14	19203201

Cable gland, grey



Cable gland, IP68, with strain relief, polyamide, M_x 1.5 mm, without locknut, grey

Description	Sealing range/mm	Thread length/mm	Order no.
KVR M12	2 - 6,5	8	24741201
KVR M16	4 - 10	8	24741601
KVR M20	6 - 12	9	24742001
KVR M20-GDB	7 - 14	9	24742101
KVR M25	9 - 16	11	24742501
KVR M32	11 - 21	11	24743201
KVR M40	16 - 28	11	24744001
KVR M50	27 - 34,5	13	24745001

Universal Accessories

Universal Accessories

Cable gland grey, long thread



Cable gland, IP68, with strain relief, long thread, M_x 1.5 mm, without locknut, polyamide, grey

Description	Sealing range/mm	Thread lenght/mm	Order no.
KVR M12 LG	2 - 6,5	12	24841201
KVR M16 LG	4 - 10	12	24841601
KVR M20 LG	6 - 12	15	24842001
KVR M25 LG	9 - 16	15	24842501
KVR M32 LG	11 - 21	15	24843201
KVR M40 LG	16 - 28	18	24844001
KVR M50 LG	27 - 34,5	18	24845001
KVR M63	30 - 44,5	17	24746301

Cable gland, grey, with locknut



Cable gland, IP68, with strain relief, polyamide, M_x 1.5 mm, with locknut, grey

Description	Sealing range/mm	Thread lenght/mm	Order no.
KVR M12-MGM	2 - 6,5	8	22741201
KVR M16-MGM	4 - 10,0	8	22741601
KVR M20-MGM	6 - 12,0	9	22742001
KVR M20-GDB/MGM	7 - 14,0	9	22742101
KVR M25-MGM	9 - 16,0	11	22742501
KVR M32-MGM	11 - 21,0	11	22743201
KVR M40-MGM	16 - 28,0	11	22744001
KVR M50-MGM	27 - 34,5	13	22745001
KVR M63-MGM	30 - 44,5	17	22746301

Cable gland, grey, with locknut, long thread



Cable gland, IP68 with strain relief, long connection thread, M_x 1.5 mm, with lock nut, polyamide, grey

Description	Sealing range/mm	Thread lenght/mm	Order no.
KVR M12 LG-MGM	2 - 6,5	12	22941201
KVR M16 LG-MGM	4 - 10,0	12	22941601
KVR M20 LG-MGM	6 - 12,0	15	22942001
KVR M25 LG-MGM	9 - 16	15	22942501
KVR M32 LG-MGM	11 - 21,0	15	22943201
KVR M40 LG-MGM	16 - 28,0	18	22944001
KVR M50 LG-MGM	27 - 34,5	18	22945001

Universal Accessories

Universal Accessories

Cable gland, black, with locknut



Cable gland, IP68, with strain relief, polyamide, M_x 1.5 mm, with locknut, black

Description	Sealing range/mm	Thread lenght/mm	Order no.
KVR M16-MGM/sw NEW	4 - 10	8	22701601
KVR M20-MGM/sw	6 - 12	9	22702001
KVR M20-GDB/MGM/sw	7 - 14	9	22702101
KVR M25-MGM/sw	9 - 16	11	22702501
KVR M32-MGM/sw	11 - 21	11	22703201
KVR M40-MGM/sw	16 - 28	11	22704001
KVR M50-MGM/sw	27 - 34,5	13	22705001

Cable gland, black, with locknut, long thread



Cable gland, IP68, with strain relief, long thread, M_x 1.5 mm, with locknut, polyamide, black

Description	Sealing range/mm	Thread lenght/mm	Order no.
KVR M12 LG-MGM/sw	2 - 6,5	12	22901201
KVR M16 LG-MGM/sw	4 - 10,0	12	22901601
KVR M20 LG-MGM/sw	6 - 12	15	22902001
KVR M25 LG-MGM/sw	9 - 16	15	22902501
KVR M32 LG-MGM/sw	11 - 21	15	22903201
KVR M40 LG-MGM/sw	16 - 28	18	22904001
KVR M50 LG-MGM/sw	27 - 34,5	18	22905001

Pipe plug, grey



Pipe socket to take smooth pipes, with locknut, polystyrene, grey

Description	for conduits Ø	Order no.
RST M16	16	28841601
RST M20	20	28842001
RST M20-16	16	28842101
RST M20-19	19	28842201
RST M25	25	28842501
RST M32	32	28843201

Universal Accessories

Universal Accessories

Locknut, polyamide, grey



Lock nut for metric twist nipple and cable glands, polyamide

Description	Nominal size	Order no.
GMU PA M12 Thread M12x1.5	M12	20841201
GMU PA M16 Thread M16x1.5	M16	20841601
GMU PA M20 Thread M20x1.5	M20	20842001
GMU PA M25 Thread M25x1.5	M25	20842501
GMU PA M32 Thread M32x1.5	M32	20843201
GMU PA M40 Thread M40x1.5	M40	20844001
GMU PA M50 Thread M50x1.5	M50	20845001
GMU PA M63 Thread M63x1.5	M63	20846301

Sealing washers



Sealing washers for twist nipple and cable gland with metric thread, polyethylene

Description	Order no.
ADR M12 natural, internal diameter 12 mm, external diameter 16 mm, thickness 1.5 mm	24901201
ADR M16 natural, internal diameter 16 mm, external diameter 20 mm, thickness 1.5 mm	24901601
ADR M20 natural, internal diameter 20 mm, external diameter 25 mm, thickness 1.5 mm	24902001
ADR M25 natural, internal diameter 25 mm, external diameter 30 mm, thickness 2 mm	24902501
ADR M32 natural, internal diameter 32 mm, external diameter 38 mm, thickness 2 mm	24903201
ADR M40 natural, internal diameter 40 mm, external diameter 45 mm, thickness 2 mm	24904001
ADR M50 natural, internal diameter 50 mm, external diameter 56 mm, thickness 2 mm	24905001
ADR M63 natural, internal diameter 63 mm, external diameter 70 mm, thickness 2 mm	24906301

Combination possibilities | with combi connector IP54



Combinations **vertical** | **AKL / AKi-L / AKe**



Combinations **vertical** | **AK**





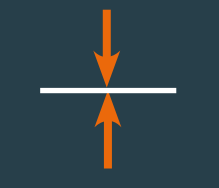
Combinations **horizontal** | **AKL / AKi-L / AKe**



Combinations **horizontal** | **AK**



Combination possibilities | with combi connector IP54

Combinations **vertical** | **AK / AKi Compact**



		 AKi 05 STG 04 / STG 012	 AKi 09	 AK 24 AKe 24 / AKi 24	 ZKi 1
 AKi 05 STG 04 STG 012	 AKi 05 STG 04 STG 012	 KST M25-17	 KST M25-17		
 AKi 09		 KST M25-17	 KST M25-17		
 AK 24 AKi 24 AKe 24				 KST M32	 KST M32
 ZKi 1				 KST M32	 KST M32

Combinations **horizontal** | **AK / AKi Compact**

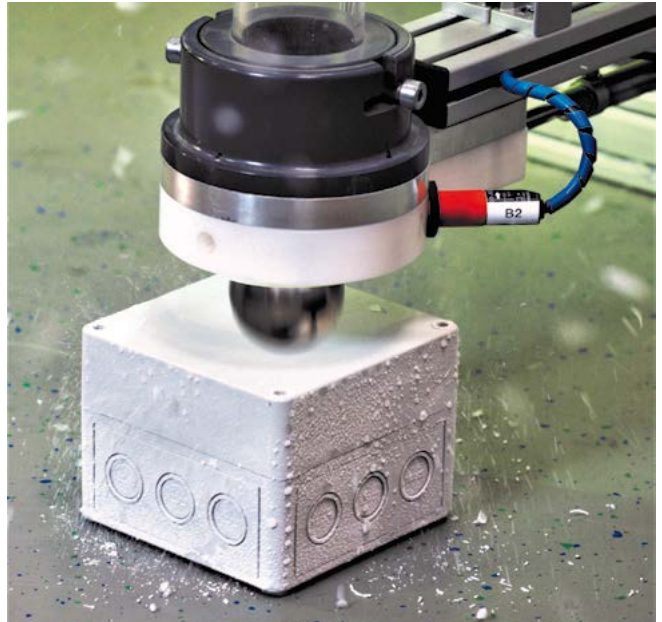




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Technical Appendix



Technical Appendix

Definition of Terms as per DIN VDE 0660-600-1 (vergl. DIN VDE 0100-200)

Rated voltage U_n

The manufacturer's specified maximum nominal AC voltage (effective value) or DC voltage for which the main circuits of the switchgear assembly are designed.

Rated operating voltage U_e

The manufacturer's specified voltage value which, combined with the rated current, determines the usage.

Rated insulation voltage U_i

Withstand voltage (effective value), which is specified by the manufacturer for a device or a part thereof and which specifies the defined (long-term) endurance of its associated insulation.

Rated surge voltage U_{imp}

The value of an impulse voltage specified by the manufacturer, which specifies the defined endurance of the insulation with respect to transient overvoltages.

Rated current I_n

The manufacturer's stated current value, which takes into account the ratings of the equipment and their location and use and which can be fulfilled without exceeding the specified temperature limits of the various parts of the switchgear assembly under specified conditions.

Short-circuit current I_c

Overcurrent that occurs in the case of a short circuit due to an error or an incorrect connection in an electrical circuit.

Prospective short-circuit current I_{cp}

Current that flows in a circuit due to a short circuit caused by a conductor of negligible impedance in the immediate vicinity of the terminals of the switchgear assembly.

Rated surge current resistance I_{pk}

The largest instantaneous value of the short-circuit current specified by the manufacturer, which will be sustained under the specified conditions.

Rated short-term current resistance I_{cw}

The effective value of the short-time current specified by the manufacturer, indicated as current and time, which can be fulfilled under specified conditions without damage.

Rated conditional short-circuit current I_{cc}

The value of the prospective short-circuit current specified by the manufacturer, which can be withstood by a circuit protected by a short-circuit protection device (SCPD¹⁾) during the total break time (duration of current flow) of the device under specified conditions.

Rated load factor $RDF^{2)}$

The manufacturer's specified percentage of the rated current, with which the outflow of a switchgear assembly can be loaded continuously and simultaneously taking into account the mutual thermal influences.

¹⁾ SCPD = **S**hort **C**ircuit **P**rotection **D**evice

²⁾ RDF = **R**ated **D**iversity **F**actor

Technical Appendix

Assembly and Installation Notes

1. Mounting of junction boxes on wood and other combustible materials

According to the **VdS Directive 2023**, electrical connections and conductor connections may only be installed, in the case of mounting on flammable supports, with terminals in suitable electrical installation enclosures and boxes, as outlined by **DIN VDE 0606** and **DIN EN 60670**. This is because the enclosures are closed towards the mounting surface and also because of the strict safety requirements of the standard with respect to fire resistance.

Examples: Entire wooden buildings, buildings with wooden construction elements, wooden construction materials or other flammable materials, cavity walls constructed from flammable materials, but also synthetic heat- and sound-insulation materials.

All Spelsberg installation system products meet these requirements.



2. Halogen-free installation materials

Because of the reduction in toxic materials released in the case of fire, DIN VDE 0100-718 provides for some deviations (simplifications) from the prescribed installation methods, however, with respect to the use of halogen-free conductors. These deviations are of a highly specialised nature and are therefore not described in detail here. However, the Building Regulations of the various Federal States and other regulations for installations in public areas (rescue routes, lifts) increasingly require the use of halogen-free installation systems. In such situations, the use of high-grade, halogen-free materials is definitely advisable. The reason for this is the improved level of protection of people and materials in the case of fire, since halogen-free materials produce less smoke in the case of fire, the proportion of toxic combustion gases is reduced to a minimum and no corrosive gases are released, which can react with extinguishing agents to form hydrochloric acid. Material damage to buildings and their contents is thereby reduced.

Spelsberg offers completely halogen-free Spelsberg installation systems for these areas.



Technical Appendix

Assembly and Installation Notes

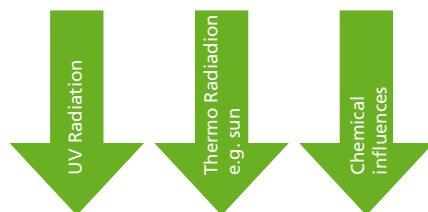
3. Outdoor installation – damp and wet areas and rooms

3.1 Basics

In general when selecting components, the manufacturer's instructions as to the product properties simply act as a guide for the user. These properties should always be viewed in the context of the relevant installation requirements such as the installation regulations according to DIN VDE 0100-ff.

Depending on the local circumstances, additional protective measures may have to be fulfilled by the user. The individual factors are described in greater detail below.

There are many influencing factors for outdoor installations!



3.2 Protection against UV radiation

UV radiation can cause severe structural damage or even destruction in a wide variety of plastics. Products made from the material polystyrene (PS) must therefore not be used outdoors. Spelsberg developed the IQ series products for this scenario. A material is used for these products that has a high resistance to UV radiation. In a weathering test according to DIN 53 387 (replaced by DIN EN ISO 4892-2), this material produced optimum results in a 1000-hour test. This material also passed a weathering test according to UL 746 C, without any limitations.

3.3 Protection against high temperatures

Installed electrical appliances generate power loss during operation. The enclosures manufactured by Spelsberg are tested during the approval test for the maximum power loss in the enclosure. Detailed tables on this topic are provided in the catalogue, taking account of the ambient temperature and the installation type.

Switchgear assemblies are designed for ambient temperatures of between -25°C and +35°C (24-hour average). A temporary increase in temperature to 40°C is not a problem.

Even if, for example, iQ products from Spelsberg are suitable for temperatures of between -40°C and +80°C, the manufacturer's instructions and the requirements of the relevant product safety standards must be checked for installed devices such as line protection, fault-current circuit breakers or fuses when designing the housing. Solar radiation or other heat sources can cause additional increases in the internal temperature which are not permitted and must therefore be avoided. Reliable operation of electrical equipment no longer be guaranteed under certain circumstances.

DIN VDE 0100-520 (VDE 0100-520):

522.1.2 cable and conductor systems including accessories may only be installed or moved under ambient temperatures which are within the limit values specified by the manufacturer or in the relevant product standard.



3.4 Protection against chemical influences

For installations in areas with increased levels of hazardous substances in the environment, the suitability may be correspondingly reduced. Information is available in the table „Material characteristics“. **iQ products are resistant to mineral oil, vegetable fats and animal fats.**

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3.5 Protection against condensation

The more tightly sealed the equipment, for example junction boxes or distribution boards, the bigger the likelihood of condensation forming. This is especially the case at locations where highly fluctuating temperatures are to be expected. These effects are intensified by the power loss generated in the enclosures.

Owing to the differences in temperature, a difference also arises in the pressure conditions, which causes the enclosure to draw in air when the temperature changes. The next time the temperature increases, the humidity in this air condenses on the cold surface of the enclosure, for example on the lid. This process is only reversible to a limited extent, so the water accumulates in the enclosure. Since this effect occurs regularly, even daily to an extent, a considerable volume of water may accumulate internally. If this enclosure has an increased protection rating, it no longer discharges this water with the result that its seal actually has a negative impact. Severe damage will be the result.

According to **DIN VDE 0100-520** precautions must be taken with respect to drainage of water if water accumulates or condensation can occur within cable and conductor systems.

Spelsberg junction boxes in the various product groups have break-out condensation openings on the back of the enclosure or mounting surfaces. These should be opened in such a way that when installed they are on the bottom side of the enclosure so that any condensation can drain off.

This only applies under the condition that no increased demands are imposed with respect to protection against accidental contact or foreign bodies (> IP2X or dust protection).

If requirements for contact protection or foreign body protection are also imposed on the enclosure, for example IP3X, we recommend use of air ventilation seals. These seals come in the size M20, are fitted in the corresponding cable inlet openings on the bottom side and the side surfaces and offer splash water protection up to IPX4 when properly installed. We recommend an installation that offers a so-called chimney effect.



AK Air and BEL Air ventilation elements

The Air ventilation elements prevent condensation, whilst maintaining the high IP65 protection rating. Any condensate occurring is transported out of the enclosure immediately via air exchange. The continuous and high rate of air exchange allows the interior air to mix constantly with the environmental air and transports the moisture outwards. Air exchange also takes place in environments with almost constant air humidity and temperature, as the air in the interior of the enclosure heats up, e.g. due to the components.

Recommendation: At least one complete air exchange is provided per day via the BEL Air. With one set, this is achieved with a enclosure volume of up to 35 dm³.

All enclosure parts, such as the seals, are permanently relieved of pressure through the constant pressure equalisation. The high air exchange rate guarantees a permanent exchange of the moist air with the surroundings. No appreciable pressure differences are required for this. However, with the pressure equalisation elements it is exactly these appreciable pressure differences that are required, at least temporarily, in order to implement an air exchange. The Air ventilation elements therefore have a very large, open filter surface that guarantees a high air exchange without influencing the air flow. The constant pressure equalisation prevents pressure differences thus ensuring that no mechanical forces can be exerted on the enclosure and seals.

Section 8.2.2 **DIN EN 61439-1** concerns the protection against contact with live parts and the prevention of penetration of solid foreign objects and water. In addition, closed switchgear assemblies must be protected from condensate inside the enclosure without changing the type of protection.

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3.6 Protection against rain / snow (precipitation)

The protection rating tests carried out under DIN EN 60529 are used as comparative tests and for classification of properties. The tests are limited to a few minutes and cannot emulate exposure to rain / snow or cleaning with water jets. In addition, the local conditions may differ so greatly that a general exposure test cannot be defined. The installation regulations for the respective installation situation must be taken into account for this reason.

DIN VDE 0100-520, 522.3.1 Cable and conductor systems must be selected and installed such that damage cannot be caused by condensation or ingress of water.



Installation only in protected outdoor areas!

Please note that in the case of installations under solar fields, the joints between modules must not be above the enclosures, or the enclosures must also be covered by a protective shelter.

3.7 Protection against retained water (frost)

Water frequently accumulates on surfaces and in recesses in installations that are not protected against precipitation. If this collected water cannot drain off unhindered, it will accumulate. In the event of low temperatures, this water can freeze and cause unpermitted mechanical strains on the enclosure. This can cause damage to the enclosure. **Therefore, before starting the installation make sure that the enclosures are protected by roofing.**

This roof construction may

- already be present in existing structures
- be set up by the user
- be supplied in the form of accessory products from the Spelsberg range.

3.8 Protection against plants and/or mould growth

The plastics used in electrical installation are organic materials. The risk of harm from plants, algae or mould must therefore be considered. **DIN VDE 0100-520**, 522.9.1 If experience or empirical evidence shows that plants and / or mould growth can cause damage, the cable and conductor system must be selected accordingly or special protection measures must be provided.

Comment: A laying method that allows corresponding removal of such vegetation must be selected (see Section 529).

Conclusion:

Taking account of the aforementioned parameters, a protected installation is absolutely mandatory for outdoor use and is also described extensively in the installation standards. This is the only way to ensure safe operation of the protective devices.

Supplementary information on outdoor installation –

UV-resistance:

The information on the type of protection and UV-resistance is often considered the only characteristics for outdoor installations. However, other factors such as absolute temperature, frequency of temperature change, humidity and chemical influences in particular play an important role with outdoor installations. In addition to impairments through UV-effects, in outdoor installations damage is expected to arise predominantly as a result of chemical influences. So, the outside areas in the vicinity of filling stations, chemical facilities, land-fill sites, compressors, sewerage treatment plants etc. should be subjected to particularly critical investigations beforehand.

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4. Installing cables in concrete

The commonly-used NYM sheathed cables may be installed in concrete, with the exception of concrete which is stamped or vibrated during pouring. According to VDE 0276, high-voltage NYY cables may, however, be used without restriction in concrete. However, in comparison with NYM, a considerably larger minimum bending radius must be complied with.

Spelsberg recommends laying the cables within protective conduits. The enclosures include appropriate holding fixtures.



5. Protection classes of electrical equipment

This classification is not for the purpose of describing the safety level of the equipment but is simply a statement of the measures with which this safety level can be achieved.

Protection Class I equipment is that in which protection against electric shock is not just provided by the basic insulation. Additional protection is provided by the fact that parts are connected to the earth lead of the fixed installation so that in case of failure of the basic insulation no voltage can remain.

Protection Class II equipment is that in which protection against electric shock is not just provided by the basic insulation but also by additional safety measures, such as double insulation or reinforced insulation. There is no possibility of connecting an earth lead.

In the enclosures of **protection class II**, it is not allowed to lead conductive parts (e.g. fixing screws) through the double or reinforced insulation, through which a potential can be transferred.

Enclosures of **protection class II** do not have a connecting possibility for an earthing conductor.

Protection Class III equipment is that in which protection against electric shock is based on a protective low voltage (SELV¹) and in which voltages that are higher than the protective low voltage cannot be produced.

All Spelsberg empty enclosures made from plastic comply with **Class II** protection requirements. Metal enclosures, or metal-coated housings are intended for connection of an earth lead and comply with **Class I** protection requirements.

¹) SELV = (Safety Extra Low Voltage)



Protection class I

(only symbolises the earthing, protection class I itself does not have a symbol)



Protection class II



Protection class III

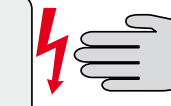
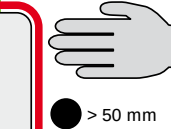
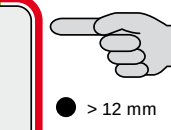
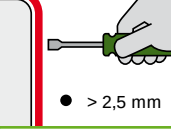
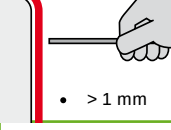
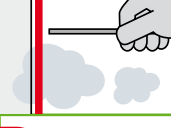
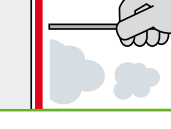
According to DIN EN 61140 (VDE 0140-1) equipment is classified into protection classes according to its construction.

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Assembly and Installation Notes

6. Protection types according to DIN EN 60529 (VDE 0470-1)

The appropriate degree of protection is demonstrated in our in-house test laboratory. The tests are performed according to DIN EN 60670-1, DIN EN 61439-1 and DIN EN 62208 (depending on type). **The first digit of the IP Code** for the level of protection against contact with dangerous parts and the ingress of solid bodies.

	IP	Protection level	Definition
	0x	No contact protection, no protection against solid foreign bodies	
	1x	Protection against large area contact (with the hand), protection against foreign bodies > 50 mm Ø	The object probe, a sphere 50 mm in diameter, must not fully penetrate
	2x	Protection against contact with the fingers, protection against foreign bodies > 12 mm Ø	The object probe, a sphere 12.5 mm in diameter, must not fully penetrate
	3x	Protection against contact with tools, wires etc. > 2.5 mm Ø, protection against foreign bodies > 2.5 mm Ø	The object probe, a sphere 2.5 mm in diameter, must not penetrate at all
	4x	Protection against contact with tools, wires etc. > 1 mm Ø, protection against foreign bodies > 1 mm Ø	The object probe, a sphere 1.0 mm in diameter, must not penetrate at all
	5x	Contact protection, protection against dust deposits on the inside	The ingress of dust is not totally prevented, but dust must not penetrate in a quantity to interfere with satisfactory operation of the devices
	6x	Full contact protection, protection against ingress of dust	No penetration of dust

Spelsberg-products with NEMA protection class

Els-products	Nema
TK PC-o	4X, 12
TK PC-m	4X, 12K
TG PC-o	12*

* on request TG PC-o in Nema 4X, 12 design

Comparison table between IP code and NEMA types

IEC 60529	Nema 250													IEC 60529
Contact / Dust	1	2	3	3R	3S	4	4X	5	6	6P	12	12K	13	Water
														x8
														x7
6x														x6
5x														x5
4x														x4
3x														x3
2x														x2
1x														x1
0x														x0
IP	21	22	55	24	55	66	66	53	67	68	54	54	54	

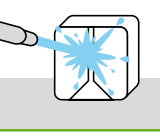
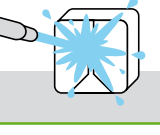
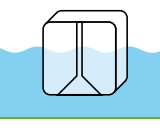
Interpretationrule

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The second digit of the IP code stands for the level of protection against the harmful ingress of water.



	IP	Protection level	Definition
	x0	no protection	
	x1	Protection against vertically falling dripping water	Vertically falling drops shall have no harmful effects
	x2	Protection against vertically falling water drops when the enclosure is tilted up to 15°	Vertically falling drops must not have any harmful effects when the enclosure is tilted up to 15° on either side of the vertical
	x3	Protection against falling spray water if angled up to 60° from the vertical	Water sprayed at an angle of up to 60° on either side of the vertical shall have no harmful effects
	x4	Protection against splash water from all directions	Water splashed on the enclosure from any direction shall have no harmful effects
	x5	Protection against jet water from all directions	Water directed at the enclosure from any direction in a jet shall have no harmful effects
	x6	Protection against heavy jet water	Water directed at the enclosure from every direction in a powerful jet shall have no harmful effects
	x7	Protection against temporary immersion in water	Ingress of water in quantities causing harmful effects shall not be possible when the enclosure is temporarily immersed in water
	x8	Protection against effects of long-term immersion in water	Ingress of water in quantities causing harmful effects shall not be possible when the enclosure is continuously immersed in water
	x9	Protection against heavy jet water (high pressure) with high temperature	Water directed at the enclosure from every direction in a powerful jet shall have no harmful effects

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7. Protection against mechanical stress, IK code

According to DIN EN 62262 (VDE 0470-100) «Protection types from enclosures for electrical operating media (equipment) against external mechanical damage (IK code)», the degree of protection provided by an enclosure against mechanical damage is indicated by an IK code. The IK codes allocated to the individual stress energy values are given in the adjacent table.

The data on the IK values of the individual products is given in the tables of the technical information in each product group chapter.

IK-Code	stress energy [J]
IK00	---
IK01	0,15
IK02	0,2
IK03	0,35
IK04	0,5
IK05	0,7
IK06	1
IK07	2
IK08	5
IK09	10
IK10	20

8. PE/N disconnection terminal

The **DIN VDE 0100-718** requires that the distributors of power supply are designed in a way that the insulation resistance of all conductors can easily be measured against earth of each individual outgoing circuit.

For electrical circuits with conductor cross sections below 10 mm², this measurement must be possible without disconnecting the neutral wire, e.g. by installation of neutral wire disconnect terminals.

Additionally, **DIN EN 61439-1** (VDE 0660-600-1) requires that neutral and neutral wire terminals must be arranged near the belonging phase conductors. Due to the extended connection space there is enough space available for the installation of commercial disconnect terminal blocks.

Overview of cable entries and the associated sealing ranges

					
Gland size	Cable gland IP68		Double-membrane seal IP66	Stepped nipple IP55	Attachment bush IP55
	Sealing range [mm]	Rated torque [Nm]	Sealing range [mm]	Sealing range [mm]	Sealing range [mm]
M12	2 – 6,5	2	---	---	---
M16	4 – 10	2,5	5 – 9	---	6 – 10
M20	6 – 12	4	7 – 13	5 – 16	8 – 13,5
M20	7 – 14	4	---	---	---
M25	9 – 16	6	9 – 17	5 – 21	9 – 18,5
M32	11 – 21	7	13 – 21	13 – 26,5	13 – 23
M32/4	---	---	4 x 3,5 – 6	---	---
M40	16 – 28	7,5	17 – 28	13 – 24	17 – 30
M40/4	---	---	4 x 6 – 9"	---	---
M50	21 – 34,5	8	---	---	---
M63	32 – 44,5	9	---	---	---

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Outside diameter of average cable cross-sections

Cable cross section mm²	NYM mm Ø	NYY NYCWY" mm Ø	„NYCY mm Ø
1 x 4	8	9	-
1 x 6	8,5	10	-
1 x 10	9,5	10,5	-
1 x 16	11	12	-
1 x 25	-	14	-
1 x 32	-	15	-
1 x 50	-	16,5	-
1 x 70	-	18	-
1 x 95	-	20	-
1 x 120	-	21	-
1 x 150	-	23	-
1 x 185	-	25	-
1 x 240	-	28	-
1 x 300	-	30	-
2 x 1,5	10	12	13
2 x 2,5	11	13	14
2 x 4	12	15	16
2 x 6	14	16	17
2 x 10	17	18	18
2 x 16	20	20	21
2 x 25	24	-	-
2 x 35	27	-	-
3 x 1,5	10,5	12,5	13
3 x 2,5	11	13	14
3 x 4	13	16	16
3 x 6	15	17	17
3 x 10	18	19	18
3 x 16	20	21	21
3 x 25	26	25	-
3 x 35	28	-	-
3 x 25/16	-	26,5	27
3 x 35/35	-	28	27
3 x 50/25	-	32	32
3 x 70/35	-	32-35	36
3 x 95/50	-	37-41	40
3 x 120/70	-	42	43
3 x 150/70	-	46	47
3 x 185/95	-	52	48-54
3 x 240/120	-	57-62	60
3 x 300/150	63-68	-	

Cable cross section mm²	NYM mm Ø	NYY NYCWY" mm Ø	„NYCY mm Ø
4 x 1,5	11	13,5	14
4 x 2,5	12,5	14,5	15
4 x 4	14,5	17,5	17
4 x 6	16,5	18	18
4 x 10	18,5	20	20
4 x 16	23,5	23	23
4 x 25	28,5	28	28
4 x 35	32	26-30	29
4 x 50	-	30-33	34
4 x 70	-	34-40	37
4 x 95	-	38-44	42
4 x 120	-	42-58	47
4 x 150	-	46-52	52
4 x 185	-	53-58	60
4 x 240	-	59-71	70
4 x 25/16	-	-	30
4 x 35/16	-	-	30
4 x 50/25	-	-	36,5
4 x 70/35	-	-	40
4 x 95/50	-	-	44,5
4 x 120/70	-	-	48,5
4 x 150/70	-	-	53
5 x 1,5	12	15	15
5 x 2,5	13,5	16	17
5 x 4	15,5	16,5	18
5 x 6	18	19	20
5 x 10	20	21	-
5 x 16	26	24	-
5 x 25	31,5	-	-
7 x 1,5	13	16	-
7 x 2,5	14,5	16,5	-
19 x 1,5	-	22	-
24 x 1,5	-	25	-

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Overview of the Installation Areas and the recommended els Installation Systems

	Red Range / HP Junction boxes	Abox Junction boxes	Abox Pro Junction boxes	TG-PC / TK-PC Empty enclosures	TG-ABS / TK-PS Empty enclosures	RK / RKA Terminal block housings	RKi Terminal Block Housings	AK Compact Small distribution boards 3-24 modules / AK Empty enclosures	AK Air Small distribution boards / AKi Empty enclosures	STV / STG Socket combinations	ZKi Meter housings	HW Cavity wall installation system	IBT / IBTronic Concrete installation system	GEOS Industrial and Outdoor Enclosures
Protection against direct contact (basic protection) according to DIN VDE 0100-410	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Rooms with bathtubs or showers according to DIN VDE 0100-701	●	●	●	●	●	●	●	●	●	●	●	●	●	
Covered swimming pools and outdoor swimming pools according to DIN VDE 0100-702			●			●			●	●	●			●
Agricultural and horticultural estates according to DIN VDE 0100-705		●	●	●		●	●	●	●	●	●			●
Electrical equipment at camping and caravan sites and similar areas according to DIN VDE 0100-708	●	●	●	●	●	●	●	●	●	●	●			●
Electrical equipment for pleasure craft or houseboat marinas and similar areas according to DIN VDE 0100-709 Electrical equipment for caravans and motor caravans according to DIN VDE 0100-721			●	●			●		●	●	●	●		●
Photovoltaic systems according to DIN VDE 0100-712				●		●	●		●		●			●
Electrical equipment in furniture according to DIN VDE 0100-713												●		
● Damp and wet environments and rooms ▲ Protected outdoor installations ■ Unprotected outdoor installations according to DIN VDE 0100-737	●	●	● ▲ ■	● ▲	●	●	● ▲	●	● ▲	● ▲	● ▲			● ▲ ■
Temporary electrical equipment, for example at fairgrounds, amusement parks and circuses according to DIN VDE 0100-740	●	●	●	●	●	●	●	●	●	●	●			●

Additional information for outdoor installations, UV resistance:

Statements regarding the protection rating and UV resistance are often seen as the only criteria for outdoor installation. However, other factors such as temperature, frequency of temperature change, air humidity and particularly chemical influences also play a significant role for outdoor installations.

In addition to the effects of UV, chemical influences can be expected to be the main source of damage for outdoor installations. From the outset, outdoor areas of filling stations, chemical works, waste disposal sites, compressors, sewage works etc, should be examined particularly carefully.

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Overview Installation Areas

Protection against direct contact (basic protection) under standard conditions according to DIN VDE 0100-410

Important protection requirements:

Live parts (AC voltages higher than 50 V and DC voltages higher than 120 V) must be enclosed or mounted behind covers which at least conform to protection rating IPXXD or IP2X. Horizontal upper surfaces of covers or enclosures that are easily accessible must at least conform to protection rating IPXXD or IP4X.

Covers and enclosures must be securely fixed and have sufficient strength and durability to maintain the required protection class and sufficient distance from the live components under the conditions and external influences to be expected under normal operation. The covers must only be able to be removed using tools.

All Spelsberg products meet these requirements.



Example: Living rooms, hotel rooms, attics, heated and ventilated cellars

Rooms with bathtub or shower per DIN VDE 0100-701

Important protection requirements:

The following switchgear, controllers and installation devices are permitted in these areas:

Area 0 - None.

- Area 1** - Junction boxes and terminal boxes for the supply of electrical consumers that are permitted in zones 0 and 1 per 701.55.
- Installation devices, including sockets for power circuits that are protected through low voltage by means of SELV¹ or PELV² with a nominal voltage that does not exceed 25 VAC or 60 VDC. The current source must be installed outside area 0 or 1

- Area 2** - Installation devices, with the exception of sockets.
- Installation devices, including sockets for power circuits that are protected through low voltage by means of SELV¹ or PELV². The current source must be installed outside area 0 or 1.
 - Shaver points per DIN EN 61558-2-5 (VDE 0570-2-5).
 - Installation devices, including sockets for signalling and communications equipment assuming that such equipment is protected through low voltage by means of SELV¹ or PELV².

Electrical equipment must have the following type of protection as a minimum:

In area 0: IPX7;

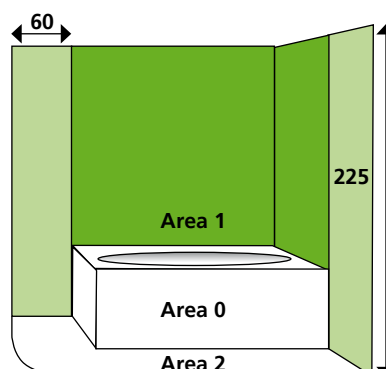
In area 1: IPX4;

In area 2: IPX4.

The requirements do not apply to shaver points per DIN EN 61558-2-5 (VDE 0570-2-5), that are installed in area 2 and that are unlikely to be hit by direct spray whilst showering. Electrical equipment that is exposed to water jets, e.g. for cleaning purposes in public baths, must comply with protection type IPX5 as a minimum when installed in areas 1 and 2.

Particularly suitable: Abox Pro, AK, AKi and GTi housing systems.

- 1) SELV = Safety Extra Low Voltage
2) PELV = Protective Extra Low Voltage



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Overview Installation Areas

Swimming pool basins and other basins according to DIN VDE 0100-702

Important protection requirements:

- When using SELV¹, protection from direct contact must be ensured, regardless of the voltage level, though:

- Coverings or enclosures of protection type IP2X or IPXXB (protected against access by fingers) as a minimum, or
- Insulation that can withstand a test voltage of 500 VAC for a minimum of one minute.

- Electrical equipment must comply with the following types of protection as a minimum:

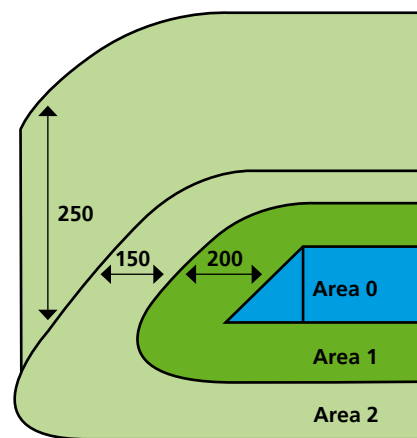
Area	Outdoors, for cleaning work with water jet	Outdoors, without water jet	Indoors, for cleaning work with water jet	Indoors, without water jet
0	IPX5/IPX8	IPX8	IPX5/IPX8	IPX8
1	IPX5	IPX4	IPX5	IPX4
2	IPX5	IPX4	IPX5	IPX2

- It is not permitted to install junction boxes in area 0. In area 1, only junction boxes for electrical circuits with protection through low voltage by means of SELV¹ are permitted.

Particularly suitable:

Abox Pro, the STV range as well as the AK, AKi, GTi, TK-PC, TG-PC and GEOS enclosure systems.

1) SELV = Safety Extra Low Voltage



Agricultural and horticultural estates according to DIN VDE 0100-705

Important protection requirements:

The following shut-off equipment should be provided in circuits, regardless of which systems, depending on the type of earth connection:

In end circuits with sockets, a fault-current circuit breaker (RCD²) with a trip current = 30 mA

In all other circuits, excluding those that supply distributors, fault-current circuit breakers (RCD²) with a trip current = 300 mA.

Fault-current circuit breakers (RCD²) with a trip current = 300 mA must be set up for fire protection. The fault-current circuit breakers (RCD²) must disconnect all live conductors. In cases where improved maintenance of supply is required, these fault-current circuit breakers (RCD²) must comply with design type S or disconnect with a time delay.

In areas where there is a risk of fire, conductors for low-voltage circuits must either be supplied with covers or sheathing with protection rating IPXXD or IP4X or be supplied with sheathing made from insulating material in addition to their basic protection insulation.

Particularly suitable: STV, Abox-i, the AK Air, AKi-, GTi-, TK-PC, TG-PC and GEOS enclosure system.

2) RCD = Residual Current Device

Note:

For installations in areas with increased levels of air contamination, the suitability may be correspondingly limited.

The following products have passed the DLG Focus Test „Resistance to ammonia“:

- Abox, Abox Pro**
- TK – PC**
- TG – PC**
- GEOS**
- AK Air**

Small distribution boards
(14-70 distribution units)



Example:

Stables, henhouses, pig-fattening units, incubation rooms and hatcheries, rooms for fodder preparation, hay-lofts, storage areas for straw, fertilizer and cereals

Technical Appendix

Overview Installation Areas

Damp and wet areas and rooms and systems installed outdoors per DIN VDE 0100-737

Important protection requirements:

In damp and wet areas and rooms, the electrical equipment must be protected from dripping water (protection type IPX1) as a minimum.

- In areas and rooms where water will be jetted and where electrical equipment will not normally be directly jetted for cleaning purposes, the equipment must be protected from splashed water (protection type IPX4) as a minimum. In areas and rooms where water will be jetted, electrical equipment that is directly exposed to the water stream must have a type of water protection appropriate to the type of water jet exposure or must have an additional protective measure that does not impair the operation of the equipment protected by it.

Note: The scope of protection afforded by protection type IPX5 does not permit the cleaning of the equipment with pressurised water, e.g. spraying with a water hose or with high pressure cleaners.

- Metal parts exposed to corrosive vapours or mists must be protected against corrosion, e.g. through protective coatings or by using corrosion-proof materials.



Examples:

Commercial kitchens, unheated and unventilated cellar, laundry rooms, cold rooms, a wine cellar, greenhouses, laundry

Systems installed outdoors

Important protection requirements:

In protected outdoor systems, the equipment must be protected from dripping water (protection type IPX1) as a minimum.

In unprotected outdoor systems, the equipment must be protected from sprayed water (protection type IPX3) as a minimum.

The requirements for protection through automatic shutoff of the power supply for

- sockets in outdoor installations and
- sockets intended for the occasional supply of outdoor portable equipment, are contained in DIN VDE 0100-470 (VDE 0100 part 470):1996-02

Particularly suitable:

Abox, Abox Pro, AK-, AKi, GTi, STV/STG, TG-PC, TK-PC and GEOS enclosure system. In unprotected outdoor areas: Abox Pro and GEOS

In addition, ventilation and/or drainage is essential!



Examples of unprotected outdoor installations:

Streets, paths and plazas, courtyards, passages and gardens, on construction sites, railway platforms, ramps and roofs, on cranes, construction machinery, filling stations and walls of buildings and external walls

Examples of protected outdoor installations:

Systems in covered railway platforms, in entrance gates and covered filling stations, on houses with sufficient roof projection, with additional weather protection

Technical Appendix

Overview Installation Areas

Electrical systems on caravan pitches, camping pitches and similar areas per DIN VDE 0100-708

Important protection requirements:

- The use of equipment with protection class 0 is not permitted.
- Equipment on a caravan pitch must have a protection type of IPX4 as a minimum in order to protect it from splashed water.

Note: If the electrical equipment will be sprayed during the washing process with high pressure cleaners etc., protection type IPX5 must be selected for the equipment itself or the use of an additional protective housing should be considered.

- Equipment that will be erected on a caravan/tent pitch must have or be provided with a protection type of IP4X as a minimum in order to protect it from penetration of very small objects.
- Equipment that will be erected on a caravan pitch must be protected against mechanical stresses.

The protection is achieved through one or more of the following measures: The position or location of the equipment must be selected such that damage due to any reasonably foreseeable event is avoided; provision of local or general mechanical protection; electrical equipment must be erected in compliance with a minimum protection against external mechanical stresses per IK07.

Particularly suitable: Abox Pro, RKi, AK Air, AKi, GTi, GEOS enclosure systems and the STV range.



Electrical systems for caravans and motorhomes per DIN VDE 0100-721

Important protection requirements:

- The nominal AC power supply for the caravan system must not exceed 230 V in the case of single-phase power or 400 V in the case of 3-phase power. The nominal DC power supply for the caravan system must not exceed 48V.
- Where accessories are sited in a position where moisture may be present, the accessory must be constructed or enclosed such that a protection class of no less than IP44 is achieved.



Technical Appendix

Overview Installation Areas

Electrical systems for water sport vehicles or houseboats, marinas and similar areas per DIN VDE 0100-709

Important protection requirements:

- In marinas, equipment erected at or above a landing stage, launching point, pier or pontoon must be selected in accordance with the external influences that may occur, as follows:
Splashed water (AD4): IPX4
Water jet (AD5): IPX5
Waves (AD6): IPX6
- Equipment that will be erected at or above a landing stage, launching point, pier or pontoon must be selected with a protection class of at least IP4X in order to prevent penetration by very small foreign objects (AE3).
- Equipment that will be erected at or above a landing stage, launching point, pier or pontoon must be suitable for exposure to corrosive atmospheres or contaminated substances (AF2). AF3 should be used if exposure to hydrocarbons is possible.

Primarily electrical systems erected, for example at fairgrounds, amusement parks and circuses per DIN VDE 0100-740

Important protection requirements:

- The nominal supply voltage shall not exceed 230/400 VAC or 440 VDC.
- Regardless of the number of current sources for power supply, outer conductors and neutral conductors for the various current sources shall not be connected to one another after the feed point. The instructions from the DSO² shall be complied with.
- All final circuits for lights, sockets up to 32 A rated current and portable equipment that is connected via flexible cable or wiring with a current load capacity up to 32 A, must be additionally protected with residual current devices (RCD³) with a rated fault current = 30 mA.
- Each separated electrical system and each distribution circuit that supplies an outdoor system, must be equipped with its own, easily accessible and correctly identifiable disconnection device.
- Switchgear and controllers shall only be installed in boxes that can be opened exclusively with keys or tools. Exceptions to this are parts that are intended to be operated by electrical lay-persons.
- Electrical equipment must comply with protection type IP44 as a minimum.
- Each electrical system must have its own easily-accessible device for disconnection and switching and to provide over-current protection.
- Enclosures that contain rectifiers and transformers must be reasonably ventilated and the openings must not be covered during operation.

- Equipment that will be erected at or above a landing stage, launching point, pier or pontoon must be protected against mechanical stresses (medium mechanical stresses AG2). The protection must be achieved through one or more of the following requirements:
- The position or location of the equipment must be selected such that damage due to any reasonably foreseeable event is avoided
- Provision of local or general mechanical protection
- Equipment erected in compliance with a minimum protection against external mechanical stresses per IK07

Particularly suitable after the feed point:

Abox Pro, Abox Pro XT, AK Air, AKi, GTi, TK-PC, TG-PC, GEOS, STV and the STG-series.

- 1) Abbreviation for the classification of external influences per DIN VDE 0100-510, table ZA.1

Particularly suitable: Red Range, Abox, Abox Pro, RK, RKA, AK, AKi, GTi, GEOS and the STV range.

²⁾ DSO = Distribution System Operator

³⁾ RCD = Residual Current Device



Technical Appendix

Overview Installation Areas

Electrical systems in furniture and similar furnishings DIN VDE 0100-724

Important protection requirements:

- Electrical installation equipment for flush-mounting must be inserted in flush mounted wall-boxes. Flush-mounted wall-boxes must be installed in a way that they are protected from damages.
- **NOTE:**
This can be done by means of installation in inaccessible cavities, in recesses or through additional mechanical protection, for example.
- VDE 0100-520 applies with further amendments:
- The use of flexible cables is required if it is connected by plugs and sockets or installation connectors and for lines within furniture that could be exposed to movements.
- Rigid lines are to be used for the connection of pieces of furniture to the electrical systems if they are connected with permanent cable and conductor systems.

- Cables must be protected against damages in an appropriate way. Damages of cables must be prevented by avoiding squeezing or laying them over sharp edges.

Particularly suitable: The cavity wall socket range HW



Photovoltaic systems per DIN VDE 0100-712

Important protection requirements:

The peripherals for photovoltaic systems are generally installed outdoors. For this reason, the following important protection requirements apply:

- External influences that are to be expected such as wind, ice formation, temperature and solar radiation must be taken into account.
- The heat arising from direct solar radiation in photovoltaic systems must be reliably dissipated.
- All terminal boxes (PV generator terminal boxes and PV sub-array terminal boxes) must be equipped with a warning that active components in the terminal boxes may still be live after being separated from the PV inverter.
- The requirements for switching off the PV system for maintenance work are contained in VDE 0100-712, section 537.

Particularly suitable:

RK-PV, AK Air, AKi, GTi, TK-PC, TG-PC and GEOS

In addition, ventilation and/or drainage is essential!!



Technical Appendix

Tests and Test Methods according to IEC-/EN-Standard

Tests and test methods according to IEC-/EN-Standard

The mentioned tests are based on the following standards:

- **DIN EN 60670-1 (VDE 0606-1),**
- **DIN EN 61439-1 (VDE 0660-600-1),**
- **DIN EN 62208 (VDE 0660-511)**

with all associated amendments and extensions.

DIN EN 60670-1, VDE 0606-1

This standard applies for sockets, enclosures and enclosure parts for electrical installation equipment with a rated voltage of less than 1000 VAC and 1500 VDC, which are intended for household and similar fixed electrical installations both indoors and outdoors. (DIN EN 60670-1, 1 Application Area)

DIN EN 61439-1, VDE 0660-600-1

This standard defines terms and specifies the operating conditions, construction requirements, technical characteristics and requirements for certification of low-voltage switch gear assemblies whose rated voltage is below 1000 VAC and 1500 VDC and which are movable or fixed. (DIN EN 61439-1, 1 Application Area)

DIN EN 62208, VDE 0660-511

This standard applies for empty enclosures, as supplied by the manufacturer before any equipment is installed by the manufacturer of the switchgear assembly. (DIN EN 62208, 1 Application Area)

Note:

Our in-house testing laboratory is certified according to

- UL (Underwriters Laboratories)
- VDE

The tests described below are carried out, documented, analysed and evaluated there.



Proof of mechanical structure

DIN EN 60670-1

Lids, covers or cover plates or parts thereof

DIN EN 61439-1

Design verification of switchgear assemblies

DIN EN 62208

Type testing of empty enclosures

Proof of non-removable lids

DIN EN 60670-1:

The forces are applied perpendicular to the mounting surface, at the middle of the lid, gradually increasing for one minute

Proof of removable lids

DIN EN 60670-1:

The forces are applied ten times, gradually increasing, to the device to remove the lid. The equipment under test shall be free of damage afterwards

Proof of resistance to ingress of solid foreign bodies

DIN EN 60670-1:

DIN EN 62208:

The equipment under test is set up as in normal use and any existing cable inlets are fitted with cables. Protection is achieved if the probe cannot penetrate into the tested equipment (IP4X).

For protection level IP5X, no part of the inner surface may be covered by dust from the outside. For protection level IP6X, no dust may penetrate the into the tested equipment. (See IP code)

Technical Appendix

Tests and Test Methods according to IEC-/EN-Standard

Proof of resistance against harmful ingress of water

DIN EN 60670-1:

DIN EN 61439-1:

DIN EN 62208:

The equipment under test is set up as in normal use and any existing cable inlets are fitted with cables. The equipment under test has amounts of water applied in accordance with its protection rating (see IP code). The ingress of water is detected by lining the interior of the equipment under test with absorbent paper. The indicator paper is examined immediately after the test.



Proof of the strength of materials and parts

DIN EN 60670-1:

Mechanical strength of boxes and enclosures

DIN EN 61439-1:

Corrosion resistance of switchgear assemblies

DIN EN 62208:

Corrosion resistance of empty enclosures



Proof of resistance against heat

DIN EN 60670-1:

A steel ball with a 5-mm diameter is pressed down on the surface of the box or enclosure with a force of 20 ± 2 N. This formation is set up in a heating cabinet and left there for an hour at a temperature of $70 \pm 2^\circ\text{C}$. After the time has elapsed, the equipment under test must be cooled to room temperature within 10 seconds by immersing it in a water tank. Proof is furnished if the diameter of the impression left behind by the sphere is not larger than 2 mm.

Proof of durability of plastics against excessive heat and fire

DIN EN 60670-1:

DIN EN 61439-1:

DIN EN 62208:

The resistance is determined by the glow wire test. The equipment under test is brought into contact with the hot filament for 30 seconds. The temperature amounts to:

- $960 \pm 15^\circ\text{C}$ for parts containing live components,
- $850 \pm 15^\circ\text{C}$ for cavity wall parts,
- $650 \pm 15^\circ\text{C}$ for all others.

The test is passed if the enclosure does not burn or glow or if the flames and the glow extinguish independently 30 seconds after removal of the glow wire. The tissue paper spread below the test set must not be ignited by falling parts.



Start of the test



End of the test

Technical Appendix

Tests and Test Methods according to IEC-/EN-Standard

Proof of electrical stability

DIN EN 60670-1:

Insulation resistance and electric strength of boxes and enclosures

DIN EN 61439-1:

Protection against electric shock and continuity of earth leads in switchgear assemblies

DIN EN 62208:

Proof of insulation resistance of empty enclosures



Proof of protection against electric shock

DIN EN 61439-1:

DIN EN 62208:

The test must demonstrate that all conductive parts of the device are effectively connected to the external earth lead. A resistance meter must be used here, which can supply at least 10 A. The test must result in a circuit resistance of $\leq 0,1 \Omega$.



Proof of electric strength

DIN EN 60670-1:

The test voltage is applied between two metal foils as for proof of insulation resistance. The test starts with about half the specified voltage and then increases rapidly to full voltage. The test is passed if no breakdown or flashover occurs.

Rated insulation voltage [V]	Test voltage [V]	Test voltage protection class II [V]
130	1250	1875
> 130 and ≤ 250	2000	3000
> 250 and ≤ 450	2500	3750
> 450 and ≤ 750	3000	4500
> 750	3500	5250

DIN EN 61439-1:

The test voltage is applied

- between the connected poles of the main circuit and the earthed enclosure
- between the unconnected poles of the main circuit
- between the control and auxiliary circuit and the main circuit as well as the earthed enclosure.

In order to furnish proof, the overcurrent relay must not trigger and there should be no breakdown.

Rated insulation voltage (phase-to-phase) [V]	Insulation test voltage (AC) [V]	Insulation test voltage (DC) [V]
$U_i \leq 60$	1000	1415
$60 < U_i \leq 300$	1500	2120
$300 < U_i \leq 690$	1890	2670
$690 < U_i \leq 800$	2000	2830
$800 < U_i \leq 1000$	2200	3110
$1000 < U_i \leq 1500$	2700	3820

Rated isolation voltage Auxiliary circuits (Ladder against ladder) [V]	Insulation test voltage (AC) [V]	Isolation test voltage (DC) [V]
$U_i \leq 12$	250	355
$12 < U_i \leq 60$	500	710
$60 < U_i$	see table Main circuits	see table Main circuits

Technical Appendix

Tests and Test Methods according to IEC-/EN-Standard

Proof of clearances and creepage distances and distances through casting compound

DIN EN 60670-22:

DIN EN 61439-1:

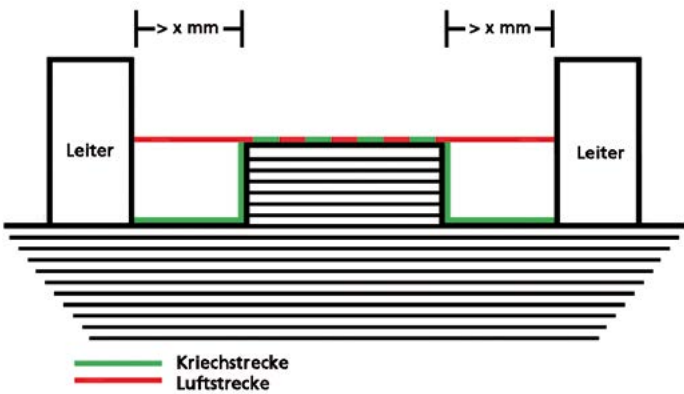
The intervals may not be less than described in table 21 and are measured between live parts of different polarity, live parts and metal caps or sockets without insulation and live parts and the base mounting surface.

Rated insulation voltage [V]	Creepage distances, clearances and distances through casting compound [mm]
≤ 130	1,5
> 130 and ≤ 250	3
> 250 and ≤ 450	4
> 450 and ≤ 750	6
> 750	8

The distance x must be between 0.25 mm and 2.5 mm depending on the degree of contamination (see the table below), otherwise it may not be used to extend the creepage. In this case, the creepage distance would be equal to the clearance, based on the example in the figure below (DIN EN 61439-1, Appendix F).

Degree of contamination	Smallest width x of grooves [mm]
1	0,25
2	1
3	1,5
4	2,5

The clearances and creepage distances are evaluated as follows:



Technical Appendix

Tests and Test Methods according to UL – Underwriters Laboratories

Tests and test methods UL – Underwriters Laboratories



The tests referred to are based on the following standards

- UL 94
- UL 50
- UL 746C

with all associated amendments and extensions.

UL 94

“Tests for Flammability of Plastic Materials for Parts in Devices and Applications”

This regulation describes the test for evaluating and classifying the flammability of plastics.

UL 50 / UL 50E

“Standard for electrical equipment intended to be installed and used in non-hazardous locations”

This regulation sets standards for electrical appliances that are not intended for use in areas subject to explosion hazards.

UL 746C

“Standard for safety for polymeric materials – use in electrical equipment evaluations”

This regulation sets standards for materials made of polymer, for use in electrical equipment.

Test of proof against mechanical stress

UL 746C

In order to prove protection against mechanical stress, impact stress must be applied to the equipment under test. Equipment intended for outdoor use is cooled for three hours in a cold chamber at $-35 \pm 2^{\circ}\text{C}$ and then mounted on a rigid frame appropriate to its planned use. In the cold state, a single blow is applied with a steel ball of 50.8 mm (2 inches) in diameter and weighing 0.535 kg (1.18 pounds) to the surface being tested.

In order to furnish proof, the equipment under test must be free of any damage that may interfere with its proper use. Furthermore, the intended protection rating must not be changed negatively.



The splinters are ice residue from the cooling process at -35°C .

Technical Appendix

Tests and Test Methods according to UL – Underwriters Laboratories

Tests for Flammability of Plastic Materials for Parts in Devices and Applications

UL 94

The test is conducted with an open flame. Depending on the classification, the flame has a power of 50 watts (20 mm high flame) or 500 watts (125 mm high flame). The ignition source acts on the test object for 30 s in the case of the horizontal burning test (HB), twice for 10 s with the vertical burn test (V) and five times for 5 s with the 5V test and is then removed again. The burning time and also the fragmentation of burning parts in the case of V-tests are assessed. A cotton ball placed under the test set must not ignite.

Classifications:

A material sample (thickness <3 mm) is placed horizontally above a 50 W flame 20 mm high.

Classification	Conditions
HB	Self-extinguishing
HB75	Burning < 75 mm/min.
HB45	Burning < 40 mm/min.

A material sample is placed vertically above a 50 W flame with a height of 20 mm.

Classification	Conditions
V-2	Self-extinguishing up to 30 s following removal of the flame, burning drops permitted
V-1	Self-extinguishing up to 30 s following removal of the flame, no burning drops permitted
V-0	Self-extinguishing up to 10 s following removal of the flame, no burning drops permitted

A material sample is placed vertically above a 500 W flame with a height of 125 mm ± 10 mm.

Classification	Conditions
5VB	Self-extinguishing, no burning drops, burn holes are permitted
5VA	Self-extinguishing, no burning drops, burn holes are not permitted

Note:

In accordance with UL50, an end product made of insulating material must pass the UL 746C, Chapter 17 „Flammability - 127 mm (5 inch) flame“ flame test.

It is therefore possible that an end product manufactured from material with a material qualification lower than 5VA, can achieve certification/qualification to UL 50.



Technical Appendix

Conformity to Specifications and Standards

The development, testing and production per national regulations, European standards and special approvals document the high safety standard of els brand products.

Quality management system per DIN EN ISO 9001

„Register number: QM_UM 00905 DMSZ
from the VDE testing and certification institute“

DIN VDE 60670

Boxes and enclosures for electrical accessories for household and similar fixed electrical installations

Part 1: General requirements

Part 21: Special requirements for boxes and enclosures with hanging fasteners

Part 22: Special requirements for junction boxes

Part 23: Special requirements for underfloor boxes

Part 24: Special requirements on enclosures for the installation of protective equipment and similar energy-consuming devices

DIN EN 60999 (VDE 0609)

Connection materials (electrical copper conductors) safety requirements for screw terminal points and screw-less terminal points

Part 1: General requirements and special requirements for clamping points for conductors with a cross-section of 0.2 mm² up to and including 35 mm²

DIN EN 60998 (VDE 0613)

Connection materials for low voltage circuits for households and similar purposes

Part 1: Allgemeine Anforderungen

Part 2-1: Special requirements for connection materials as independent equipment with screw terminals

Part 2-2: Special requirements for connection materials as independent equipment with screw-less clamping points

DIN EN 60947-7-1 (VDE 0611 part 1)

Low voltage switchgear

Part 7-1: Auxiliary devices – terminal blocks –
for copper conductors

DIN VDE 0603

Meter support positions AC 400 V

Part 1: General requirements

Part 2-1: Meter support positions for direct measurement up to 63 A

Part 2-2: Meter support positions for semi-direct measurements (Transducer measurement) up to 1 000 A

Part 3-2: Fastening and contacting component (BKE) for electronic house service meters (eHZ) for the application in meter support positions

Part 3-1: Main cable junction terminal (HLAK)

Part 3-3: Screwless terminal for meter (ZSK)

DIN EN 62208 (VDE 0660-511)

Empty enclosures for low-voltage switchgear combinations, general requirements

DIN EN 61439 (VDE 0660-600)

Low-voltage switchgear combinations

Part 1: General predefinitions

Part 2: Energy switchgear assemblies (PSC)

Part 3: Installation distributor for operation by laypeople (DBO)

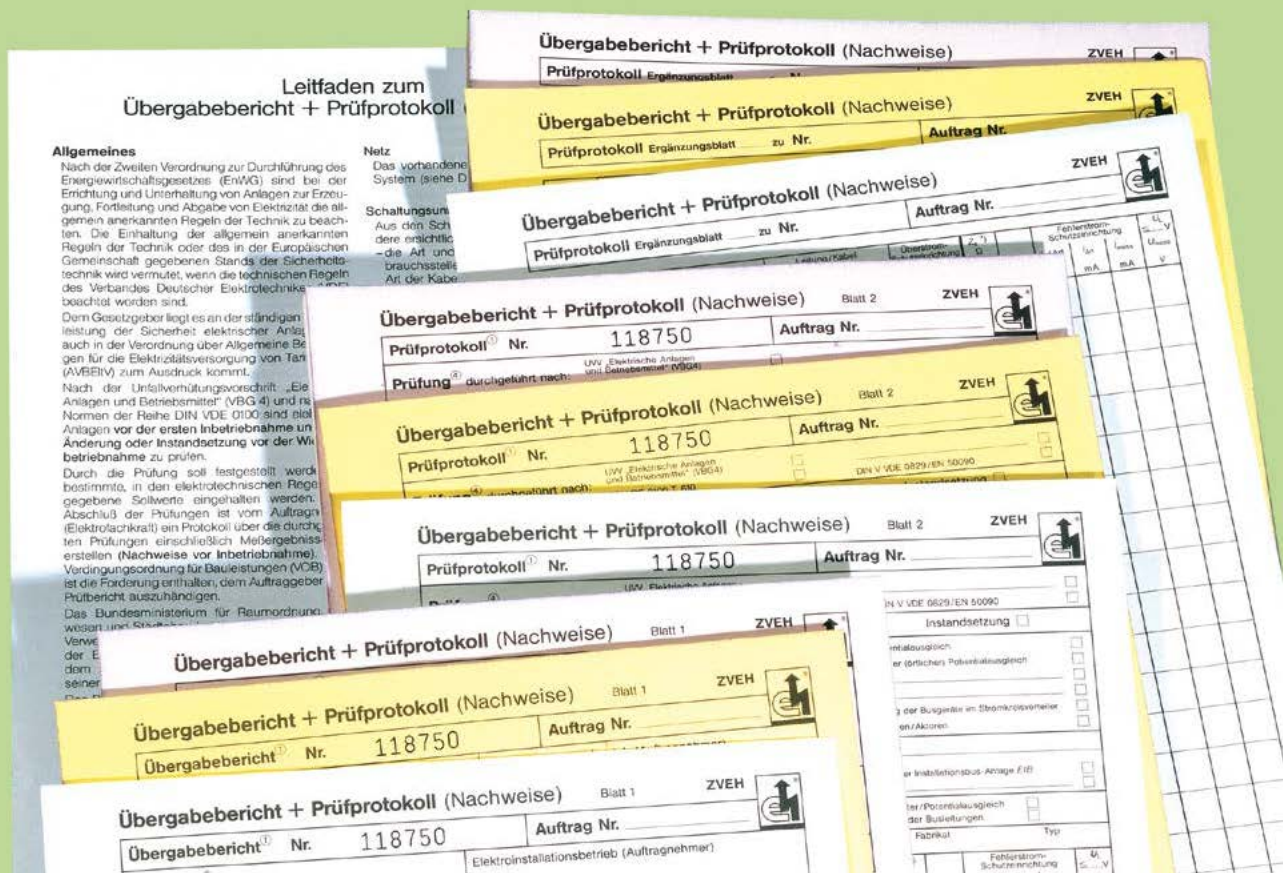
DIN EN 61439-7 (VDE 0660-600-7)

Switchgear assemblies for certain applications e.g. marinas, campsites, marketplaces, charging stations for electric vehicles



Technical Appendix

Test Report - Handover to end-user



Extract from the determination of inspection intervals from the DGUV regulation 3 (formerly BGV A3):

Electrical systems and stationary equipment:

Inspection interval 4 years

Portable electrical equipment:

Guide value 6 months,

3 months on construction sites

Fault current, differential current and fault voltage circuit breakers:

6 months in stationary systems,

every working day in non-stationary systems

Acceptance by the end customer and handover of fully functional system

An acceptance procedure and handover to the end customer is carried out at the conclusion of the commissioning. The order is completed with the issue of the associated final documentation, test logs and handover reports. It is advisable to generate a handover report and a test log. There is a template from the ZVEH available for this.

Inspection intervals

The operator shall ensure that the electrical system and equipment is checked to ensure that it is in a proper condition:

1. Prior to initial commissioning and after any change or repair work, before the recommissioning by an electrician or under the guidance and supervision of an electrician.
2. At defined intervals. The intervals are to be set such that defects that would normally be expected to arise are detected in good time.

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24905001	ADR M50	400	299
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79020701	AK 09 PEN-S	320	186
79021101	AK 12 PEN-S	320	186
79021801	AK 24 PEN-S	320	186
79032001	KLS L 1/14-SL	360	186
79032101	KLS N 1/14-SL	360	186
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79300401	AK ABL-ES	320	264
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79504201	TR NS35-42	340	266
79505801	TR NS35-58	340	266
79506401	TR NS35-64	340	266
79509101	TR NS35-91	340	266
79541301	SR NS35	340	266
79605001	AKi ABF 2	340	285
79605101	AKi ABF 1	340	285
79901201	AK AS	320	266
79901252	AK AS UL	320	187
79901301	AK AS-v	340	187
80200001	Abox 025-L/sw	120	19
80200101	Abox 025 AB-L/sw	120	19
80200201	Abox 025/2-L/sw	120	20
80200301	Abox 025/2 AB-L/sw	120	20
80210001	Abox 025-L/w	120	19
80210201	Abox 025/2-L/w	120	20
80212001	Abox 025-2,5 ² /w	120	19
80240001	Abox 025-L	120	19
80240101	Abox 025 AB-L	120	19
80240201	Abox 025/2-L	120	20
80240301	Abox 025/2 AB-L	120	20
80242001	Abox 025-2,5 ²	120	19
80242101	Abox 025 AB-2,5 ²	120	19
80243001	Abox 040-2,5 ²	120	21
80247001	Abox SLK-2,5 ²	120	39
80270001	Abox 025-L/SB	120	19
80270101	Abox 025 AB-L/SB	120	19
80270201	Abox 025/2-L/SB	120	20
80270301	Abox 025/2 AB-L/SB	120	20
80400001	Abox 040-L/sw	120	21
80400101	Abox 040 AB-L/sw	120	21
80410001	Abox 040-L/w	120	21
80412001	Abox 040-4 ² /w	120	21
80440001	Abox 040-L	120	21
80440101	Abox 040 AB-L	120	21
80442001	Abox 040-4 ²	120	21
80442101	Abox 040 AB-4 ²	120	21
80442701	Abox 025 AB-Pot	130	19
80444001	Abox SL-4 ²	120	40
80447001	Abox SLK-4 ²	120	39
80470001	Abox 040-L/SB	120	21
80470101	Abox 040 AB-L/SB	120	21
80600001	Abox 060-L/sw	120	22
80602001	Abox 060-6 ² /sw	120	22
80610001	Abox 060-L/w	120	22
80612001	Abox 060-6 ² /w	120	22
80640001	Abox 060-L	120	22
80640101	Abox 060 AB-L	120	22
80642001	Abox 060-6 ²	120	22
80642101	Abox 060 AB-6 ²	120	22
80644001	Abox SL-6 ²	120	40
80647001	Abox SLK-6 ²	120	39
80670001	Abox 060-L/SB	120	22
80670101	Abox 060 AB-L/SB	120	22
81010001	Abox 100-L/w	120	23
81012001	Abox 100-10 ² /w	120	23
81040001	Abox 100-L	120	23
81040101	Abox 100 AB-L	120	23
81042001	Abox 100-10 ²	120	23
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81644001	Abox SL-16 ²	120	41
82540001	Abox 250-L	120	24
82542001	Abox 250-25 ²	120	24
83540001	Abox 350-L	120	25
83542001	Abox 350-35 ²	120	25
84000201	Abox 025/040 KLH-SL 0,2/4 ²	120	55
84000401	Abox 025/040 KLS-2,5 ² /4 ²	120	55
84000601	Abox 060 KLS-6 ²	120	55
84001001	Abox 100 KLS-10 ²	120	55
84001601	Abox 160 KLS-16 ²	120	55
84003501	Abox 250/350 KLS-25 ² /35 ²	120	55
84007001	Abox 700 KLS-70 ²	120	55
86040001	WKE 200 ABL	200	130
86228201	WKE 202 SL	200	115
86228301	WKE 203 SL	200	115
86228401	WKE 204 SL	200	120
86238201	WKE 302 SL	200	115
86238301	WKE 303 SL	200	116
86238401	WKE 304 SL	200	120
86240501	WKE 405 LSA	200	127
86248201	WKE 402 SL	200	116
86248301	WKE 403 SL	200	116
86248401	WKE 404 SL	200	120
86248501	WKE 404 SL 8x6 ² 2F5	200	121
86300101	WKE B5 F2A	200	129
86310001	WKE BK 1	200	128
86650201	WKE 2 - 5 x 1,5 ²	200	107
86650401	WKE 4 - 5 x 4 ²	200	108
86650601	WKE 6 - 5 x 6 ²	200	110
86651201	WKE 2 - 3 x 4 ²	200	107
86740001	WKE 2 - Duo 3 x 4 ²	200	108
86741001	WKE 4 - Duo 5 x 6 ²	200	109
86742001	WKE 6 - Duo 7 x 6 ²	200	110
86750001	WKE 4 - Duo 3 x 10 ²	200	111
86751001	WKE 6 - Duo 5 x 10 ²	200	111
86760001	WKE 6 - Duo 3 x 16 ²	200	112
86761001	WKE 6 - Duo 5 x 16 ²	200	112
86763001	WKE 6 T Duo 5 x 16 ²	200	123
86771001	WKE 4 - Duo 5/3 x 6 ²	200	109
86850801	WKE 4 - 8 x 1,5 ²	200	125
86851601	WKE 6 - 16 x 1,5 ²	200	125
86853201	WKE 6 - 32 x 1,5 ²	200	126
86911101	WKE 4 - 3/3 x 6 ² 15B	200	118
86912101	WKE 4 - 5/3 x 6 ² 15B	200	118
86922120	WKE 6 - 5/3 x 10 ² 1D0	200	119
86932120	WKE 6 - 5/3 x 16 ² 1D0	200	119
86963101	WKE 6 T 1D01	200	123
86963201	WKE 6 T 2D01	200	123
86963301	WKE 6 T 3D01	200	123
87041001	Abox 700-70 ² /4	120	25
87041101	Abox 700-70 ² /5	120	25
87091001	Abox 700-L	120	25
89001001	Abox PST	120	55
89401601	NS35-144/2	120	56
89403501	NS35-216/2	120	56
89500101	Abox PST 025-100	120	53
89500201	Abox TW 025/2	120	52
89500601	Abox 060 MPI	120	56
89501001	Abox 100 MPI	120	56
89501601	Abox 160 MPI	120	56
89502501	Abox 250 MPI	120	56
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89512501	Abox MPI 250	120	52
89513501	Abox MPI 350	120	52
89520201	Abox 025 TS15	120	52
89520301	Abox 025/2 TS15	120	52
89520401	Abox 040 TS15	120	52
89530601	Abox 060 NS35	120	52
89531001	Abox 100 NS35	120	52
89531601	Abox 160/250 NS35	120	52
89533501	Abox 250/350 NS35	120	52
89600201	Abox 025/040 KH 2273 2,5 ²	120	51
89600301	Abox 025/040 KH 221 4 ²	120	51
89600401	Abox 060 KH 221 4 ²	120	51
89600501	Abox 100 KH 221 6 ²	120	51
89600601	Abox 100 KH 2006 6 ²	120	51
89600701	Abox 160 KH 2010 10 ²	120	51
89600801	Abox 250 KH 2016 16 ²	120	51
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89601001	MABF 65-1	120	53
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89601201	MABF 65-3	120	53
89602001	MABF 100-1	120	53
89603001	MABF 150-1	120	53
89603101	MABF 150-2	120	53
89603201	MABF 150-3	120	53
89603301	MABF 150-4	120	53
89604001	MABF 215-1	120	53
89640401	Abox 025/040 KLS-2,5 ² /4 ²	120	51
89640601	Abox 060 KLS-6 ²	120	51
89641001	Abox 100 KLS-10 ²	120	51
89641601	Abox 160 KLS-16 ²	120	51
89643501	Abox 250/350 KLS-25 ² /35 ²	120	51
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92005001	HW 050	100	85
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92036501	HW 065 WD	100	85
92305001	HW 050/2	100	86
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92404001	HW 040	100	84
92510001	HW VD-67	100	88
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34491201	2K-12-L	100	62
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34861601	2K-16 AB-L/w	100	64
34691601	2K-16-L	100	64
34661601	2K-16-L/w	100	64
34570801	2K-Mini AB SB-L	100	61
34590801	2K-Mini AB-L	100	61
34560801	2K-Mini AB-L/w	100	61
34470801	2K-Mini SB-L	100	60
34490801	2K-Mini-L	100	60
34420801	2K-Mini-L/sw	100	60
34460801	2K-Mini-L/w	100	60
80242101	Abox 025 AB-2,5 ²	120	19
80240101	Abox 025 AB-L	120	19
80270101	Abox 025 AB-L/SB	120	19
80200101	Abox 025 AB-L/sw	120	19
80442701	Abox 025 AB-Pot	130	19
89520201	Abox 025 TS15	120	52
80242001	Abox 025-2,5 ²	120	19
80212001	Abox 025-2,5 ² /w	120	19
80240001	Abox 025-L	120	19
80270001	Abox 025-L/SB	120	19
80200001	Abox 025-L/sw	120	19
80210001	Abox 025-L/w	120	19
89600301	Abox 025/040 KH 221 4 ²	120	51
89600201	Abox 025/040 KH 2273 2,5 ²	120	51
84000201	Abox 025/040 KLH-SL 0,2/4 ²	120	55
84000401	Abox 025/040 KLS-2,5 ² /4 ²	120	55
89640401	Abox 025/040 KLS-2,5 ² /4 ²	120	51
80240301	Abox 025/2 AB-L	120	20
80270301	Abox 025/2 AB-L/SB	120	20
80200301	Abox 025/2 AB-L/sw	120	20
89520301	Abox 025/2 TS15	120	52
80240201	Abox 025/2-L	120	20
80270201	Abox 025/2-L/SB	120	20
80200201	Abox 025/2-L/sw	120	20
80210201	Abox 025/2-L/w	120	20
80442101	Abox 040 AB-4 ²	120	21
80440101	Abox 040 AB-L	120	21
80470101	Abox 040 AB-L/SB	120	21
80400101	Abox 040 AB-L/sw	120	21
89520401	Abox 040 TS15	120	52
80243001	Abox 040-2,5 ²	120	21
80442001	Abox 040-4 ²	120	21
80412001	Abox 040-4 ² /w	120	21
80440001	Abox 040-L	120	21
80470001	Abox 040-L/SB	120	21
80400001	Abox 040-L/sw	120	21
80410001	Abox 040-L/w	120	21
80642101	Abox 060 AB-6 ²	120	22
80640101	Abox 060 AB-L	120	22
80670101	Abox 060 AB-L/SB	120	22
89600401	Abox 060 KH 221 4 ²	120	51
84000601	Abox 060 KLS-6 ²	120	55
89640601	Abox 060 KLS-6 ²	120	51
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80640001	Abox 060-L	120	22
80670001	Abox 060-L/SB	120	22
80600001	Abox 060-L/sw	120	22
80610001	Abox 060-L/w	120	22
81042101	Abox 100 AB-10 ²	120	23
81040101	Abox 100 AB-L	120	23
89600601	Abox 100 KH 2006 6 ²	120	51
89600501	Abox 100 KH 221 6 ²	120	51
84001001	Abox 100 KLS-10 ²	120	55
89641001	Abox 100 KLS-10 ²	120	51
89501001	Abox 100 MPI	120	56
89531001	Abox 100 NS35	120	52
81042001	Abox 100-10 ²	120	23
81012001	Abox 100-10 ² /w	120	23
81040001	Abox 100-L	120	23
81010001	Abox 100-L/w	120	23
89600701	Abox 160 KH 2010 10 ²	120	51
84001601	Abox 160 KLS-16 ²	120	55
89641601	Abox 160 KLS-16 ²	120	51
89501601	Abox 160 MPI	120	56
81642001	Abox 160-16 ²	120	24
81640001	Abox 160-L	120	24
89531601	Abox 160/250 NS35	120	52
89600801	Abox 250 KH 2016 16 ²	120	51
89502501	Abox 250 MPI	120	56
82542001	Abox 250-25 ²	120	24
82540001	Abox 250-L	120	24
84003501	Abox 250/350 KLS-25 ² /35 ²	120	55
89643501	Abox 250/350 KLS-25 ² /35 ²	120	51
89533501	Abox 250/350 NS35	120	52
89503501	Abox 350 MPI	120	56
83542001	Abox 350-35 ²	120	25
83540001	Abox 350-L	120	25
84007001	Abox 700 KLS-70 ²	120	55
87041001	Abox 700-70 ² /4	120	25
87041101	Abox 700-70 ² /5	120	25
87091001	Abox 700-L	120	25
48142501	Abox HA 250	130	26
48143501	Abox HA 350	130	26
89510601	Abox MPI 060	120	52
89511001	Abox MPI 100	120	52
89511601	Abox MPI 160	120	52
89512501	Abox MPI 250	120	52
89513501	Abox MPI 350	120	52
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40442101	Abox Pro 040 AB-4 ²	130	29
40440101	Abox Pro 040 AB-L	130	29
40243001	Abox Pro 040-2,5 ²	130	29
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40402001	Abox Pro 040-4 ² /sw	130	29
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41642001	Abox Pro 160-16 ²	130	32
41602001	Abox Pro 160-16 ² /sw	130	32
41640001	Abox Pro 160-L	130	32
41600001	Abox Pro 160-L/sw	130	32
42542001	Abox Pro 250-25 ²	130	32
42502001	Abox Pro 250-25 ² /sw	130	32
42540001	Abox Pro 250-L	130	32
42500001	Abox Pro 250-L/sw	130	32
43542001	Abox Pro 350-35 ²	130	33
43502001	Abox Pro 350-35 ² /sw	130	33
43540001	Abox Pro 350-L	130	33
43500001	Abox Pro 350-L/sw	130	33
40247001	Abox Pro SLK-2,5 ²	130	43
40447001	Abox Pro SLK-4 ²	130	43
40647001	Abox Pro SLK-6 ²	130	44
41044001	Abox Pro SL-10 ²	130	45
41644001	Abox Pro SL-16 ²	130	46
40444001	Abox Pro SL-4 ²	130	44
40644001	Abox Pro SL-6 ²	130	45
40246001	Abox Pro XT SLK-2,5 ²	130	48
40446001	Abox Pro XT SLK-4 ²	130	48
40546001	Abox Pro XT SL-4 ²	130	49
40646001	Abox Pro XT SL-6 ²	130	49
41045001	Abox Pro XT-10 ²	130	50
40645001	Abox Pro XT-6 ²	130	50
89001001	Abox PST	120	55
89500101	Abox PST 025-100	120	53
80247001	Abox SLK-2,5 ²	120	39
80447001	Abox SLK-4 ²	120	39
80647001	Abox SLK-6 ²	120	39
81044001	Abox SL-10 ²	120	40
81644001	Abox SL-16 ²	120	41
80444001	Abox SL-4 ²	120	40
80644001	Abox SL-6 ²	120	40
89500201	Abox TW 025/2	120	52
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49058501	Abox-i 1500 DK-150 ² /4	130	35
49058601	Abox-i 1500 DK-150 ² /5	130	35
49048501	Abox-i 1500-150 ² /4	130	34
49048601	Abox-i 1500-150 ² /5	130	34
49049101	Abox-i 2400 240 ² /5	130	36
49059401	Abox-i 2400 DK-240 ² /4	130	37
49059101	Abox-i 2400 DK-240 ² /5	130	37
49049401	Abox-i 2400-240 ² /4	130	36
49047001	Abox-i 700-70 ² /4	130	33
49047101	Abox-i 700-70 ² /5	130	33
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24901601	ADR M16	400	299
24902001	ADR M20	400	299
24902501	ADR M25	400	299
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24904001	ADR M40	400	299
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73341452	AK 14 UL	320	174
73341001	AK 14 L-g	320	171
73341101	AK 14 L-t	320	171
73361401	AK 14 Plus	320	158
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73345601	AK 56	320	167
73345652	AK 56 UL	320	174
73347001	AK 70	320	169
79300401	AK ABL-ES	320	209
79901201	AK AS	320	266
79901252	AK AS UL	320	187
79901301	AK AS-v	340	266
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70690201	AK SGA-2	320	186
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73385001	AK3 3/14 PE	320	185
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20302001	WST M20/sw	400	292
20342501	WST M25	400	292
20302501	WST M25/sw	400	292
20343201	WST M32	400	292
20344001	WST M40	400	292
20345001	WST M50	400	292
20346301	WST M63	400	292
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74900101	ZKi 1	321	241
74910001	ZKi 100	321	242
74910501	ZKi 100-f	321	242
74901101	ZKi 11	321	241
74911001	ZKi 110	321	242
74911501	ZKi 110-f	321	242
74901501	ZKi 11-f	321	241
74912001	ZKi 120	321	243
74912501	ZKi 120-f	321	243
74900501	ZKi 1-f	321	241
07080001	ZPR	360	265
75932001	ZVi 10530-eHZ	340	253
75942001	ZVi 10530-S-eHZ	340	254
75913001	ZVi 12030	340	250
75923001	ZVi 12060-S	340	252
75953001	ZVi 3045-K	340	257
75952001	ZVi 6030-K	340	256
75914001	ZVi 6060	340	251
75933001	ZVi 6060-eHZ	340	253
75951001	ZVi 9015-K	340	256
75911001	ZVi 9030	340	250
75916001	ZVi 9030-W	340	251
75980601	ZVi BKE-DSS	341	263
75981601	ZVi BKE-EG	341	263
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75980101	ZVi DF 150-eHZ	341	263
75983301	ZVi DF 300-3P	341	263
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75980401	ZVi KVR-KU	341	263

General Terms and Conditions

1. For all deliveries

– including deliveries from our agents' stocks – the following terms shall be applied:

- 1.1 the "Warranty regulations of manufacturers of installation devices and installation systems"
- 1.2 "General Conditions for the Supply of Products and Services of the Electrical and Electronics Industry for Commercial Transactions between Businesses" in the version as amended by Zentralverband der Elektrotechnik und Elektronikindustrie (ZVEI) e.V.", the German Electrical and Electronic Manufacturers' Association
- 1.3 in addition, the following paragraphs 2 to 12. We will happily send you the above mentioned standards, delivery terms and clauses, if required. The documents can also be downloaded from our web site (www.spelsberg.de). We here-with reject the conditions of purchase of our customer unless they are explicitly acknowledged by us. Our terms will be acknowledged will be considered the sole binding legal foundation when delivery is taken of objects supplied by. Order confirmations will only be sent if requested expressly.

2. Small orders

for less than 100 euro will not be granted any discount but invoiced gross for net.

3. Sea- proof packing

Will be supplementary invoiced only in case of packing in containers.

4. Delivery freight prepaid

(freight paid, packing included) will be carried out within the territory of Germany for a net order value of more than 1,000 euro. Haulage payable at destination shall be borne by the receiver of the goods.

5. Dispatch

will always be carried out at receiver's risk, even in case of agreed delivery freight prepaid.

6. Suitability and nature of goods

Any indication and information concerning suitability, nature and application of goods shall not discharge our customer from their own controls and tests. The customer processing our goods shall be assume liability for dispositions prescribed by law, public agencies and electric supply companies.

7. Claims

shall only be acknowledged within 8 days of the receipt of the consignment. On receipt of the goods, the person delivering the goods must confirm any visible damage to goods in transit on the relevant delivery notes.

8. Return of goods

shall be rejected unless we have given our prior acceptance. In case of non-compliance the company /person returning the goods shall assume liability for any costs and disadvantages.

9. Our payment terms

are within 10 days net from the invoice date, unless otherwise agreed. If the customer is in arrears of payment, we are entitled to claim interest in the amount of the current base interest. Should the customer's solvency be doubted, in particular in case of payment in arrears, we are entitled, subject to all other claims, to demand payment in advance or guarantees or revoke already granted credit terms.

10. Place of performance

for delivery, payment and other contractual performances of both parties is Schalksmühle. Place of jurisdiction is Lüdenscheid. German law governs the relationship between the contracting parties.

11. Data protection

We are entitled to use data arising from the business relationship with our customers, regardless their origin, within the meaning of the BDSG (the German Federal Data protection Act).



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