

Solutions for tunnel construction



THINK CONNECTED.

Solutions for tunnels

When operating a tunnel, the smooth functionality of systems as well a maximum level of safety for a high number of people is vital in the case of any type of incident. Our systems help you to fulfil the stringent demands placed on electro-technical infrastructure and in making the passage even safer – no matter whether it be a road, railway, maintenance or pedestrian tunnel.



Comprehensive solutions

OBO systems for tunnel construction

- Create passive safety
- Function reliably if there is a fault
- Ensure a reliable power supply
- Ensure error-free data transmission
- Fulfil all the requirements of modern fire protection

Our selection for your project

This solutions catalogue contains a selection of our products for tunnel construction projects. When selecting the articles, we prioritised articles made of stainless steel. You can find over 30,000 additional products for all areas of electrical installations in our seven main catalogues or on the Internet.



Cable routing

Distributing and connecting

Construction fire protection

Fire protection ducts

Lightning and overvoltage protection

Directories

Knowledge meets experience



Tailor-made solutions

With regard to the accompanying planning for tunnel systems, experience has shown us that each project will have its own conditions and requirements for technical equipment. The OBO consultants and developers know exactly what is required and include important requirements with regard to the environment, corrosion protection and safety into the planning and construction processes from the very start.

Competent consultation

We like short routes – in any phase of a project. Therefore OBO provides everything from a single source: personal, on-site consultation, planning and highly modern production as well as quality assurance and logistics. With comprehensive in-house storage capacities and an extremely high availability in specialist wholesalers, OBO products are always available quickly and anywhere in the world. And OBO Customer Services are available to offer help and advice for special requirements.

In-house testing centre

A perfectly equipped testing centre is available for this, in which not only our standard products are tested but also project-specific special solutions. The highly-modern, flexible production facility enables the constant availability of OBO products.





Specifications and standards

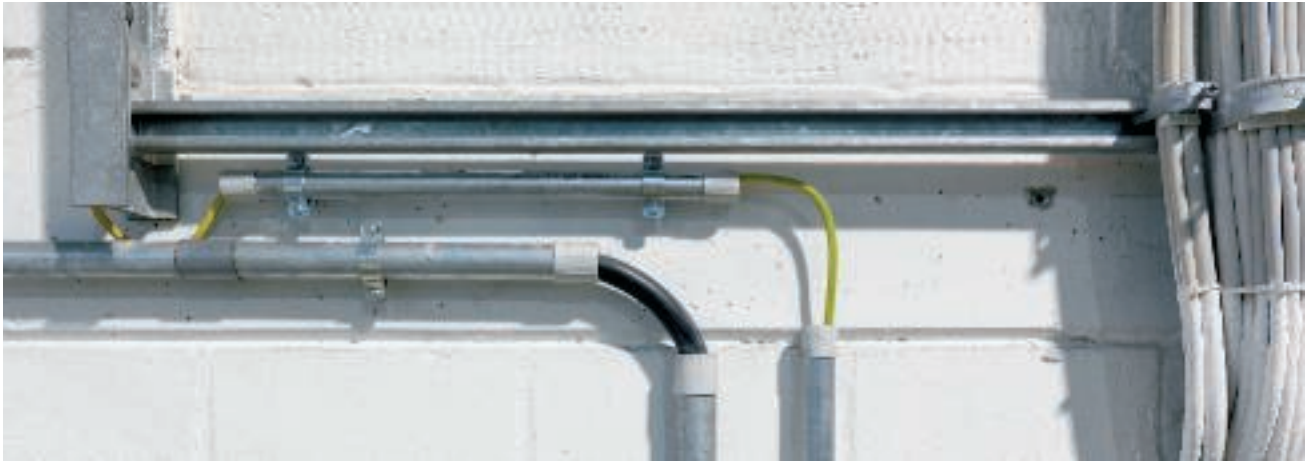


Construction fire protection for tunnel structures

Engineered structures include tunnels and bridges for roadways and railway lines. To fulfil the requirements placed on these structures, the technical engineer must be particularly careful during static and constructive planning.

After the fires in the Gotthard Tunnel and Mont Blanc Tunnels, the safety measures and standards were subjected to testing. The results of the analysis flowed into Directive 2004/54/EC of the European Parliament and the European Commission about the minimum requirements for the safety of tunnels in the trans-European network (EU Tunnel Directive), which was introduced as the basic principles for the appropriate national implementations.

In Germany, these specifications have been implemented in the 2006 edition of the "Directive for the equipment and operation of road tunnels" (RABT) and are thus the specifications for new and existing tunnels. The directive for railway tunnels is the EBA. There are other international ordinances which regulate the construction of tunnels, the SIA (Switzerland) and the RWS ordinance (Netherlands). In Germany, more detailed information on material selection for structural and plant components can be found in ZTV-Ing., part 5. This covers fastening parts and suspended structures for structural installations of hazard class II. The use of steel with surface protection in order to achieve a longer life span is excluded.



Classification of pipe systems according to DIN EN 61386

Pipe systems from OBO Bettermann are manufactured and tested according to the following regulations:

- DIN EN 60423 "Outside diameters of conduits for electrical installations and threads for conduits and fittings"
- DIN EN 61386 "Conduit systems for cable management"

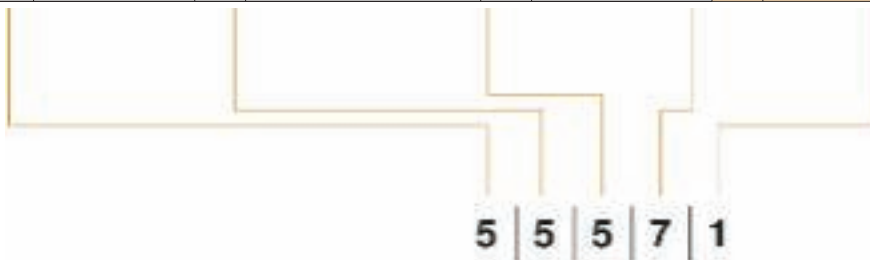
Numeric code

DIN EN 61386 classifies installation pipes using an eleven-digit numeric code, which provides information on the pressure resistance, impact resistance or use temperatures. You can find the first five digits in the product descriptions of the pipe systems. The table below provides an overview of the different meanings of the numbers.



Classification code according to DIN EN 61386 with application example (orange)

	First digit		Second digit		Third digit		Fourth digit		Fifth digit
	Pressure resistance		Impact resistance		Minimum use temperature		Maximum use temperature		Bending behaviour
1	Very light (125 N)	1	Very light (0.5 kg/100 mm)	1	+ 5 °C	1	+ 60 °C	1	Rigid
2	Light (320 N)	2	Light (1.0 kg/100 mm)	2	- 5 °C	2	+ 90 °C	2	Bendable
3	Medium (750 N)	3	Medium (2.0 kg/100 mm)	3	- 15 °C	3	+ 105 °C	3	Bendable, self-healing
4	Heavy (1250 N)	4	Heavy (2.0 kg/300 mm)	4	- 25 °C	4	+ 120 °C	4	Flexible
5	Very heavy (4000 N)	5	Very heavy (6.8 kg/300 mm)	5	- 45 °C	5	+ 150 °C		
						6	+ 250 °C		
						7	+ 400 °C		



Materials in tunnel construction

OBO systems are available in various different materials: our portfolio comprises an almost unique stainless steel product range for road tunnels as well as halogen-free components for control centres. This solutions catalogue only contains a selection of products, with the focus being on stainless steel products, you can find the entire product range in our seven main catalogues.



Halogen-free materials

- OBO Code: PC/ABS
- Briefly up to approx. 105° C, melting range at approx. 200° C,
- Thermal decomposition at 300° C
- At material thicknesses of 1 mm or more, the glow wire temperature of 960° C according to IEC 60695-2-12 is achieved
- Material thicknesses of 1.5 mm or more can achieve UL94 V-0
- Resistant to mineral acids, organic acids and aqueous salt solutions

FT, hot-dip galvanisation

- OBO Code: FT
- Hot galvanisation using the dipping method according to DIN EN ISO 1461
- Coating thickness to DIN EN ISO 1461 approx. 40–60 µm
- Any interfaces added at a later date must also be galvanised to protect against corrosion

FS, strip galvanisation

- OBO Code: FS
- Hot-dip galvanised according to the strip-galvanising method in accordance with DIN EN 10327 (formerly DIN EN 10147 and DIN EN 10142)
- Average coating thickness approx. 20 µm
- Joints in the metal are protected by cathodic corrosion protection up to a thickness of 2.0 mm



pic/ki - Fotolia



SS304 stainless steel

- OBO Code: V2A
- European material number 1.4301
- American material designation: 304
- Chromium-nickel steel, rust-proof
- Resistant to outside atmosphere
- High-resistant to hole formation, tension corrosion and gap corrosion
- Welded components are additionally passivated
- Unwelded components are rinsed and degreased

SS316 stainless steel

- OBO Code: V4A
- European material number 1.4571
- American material designation: 316/316 T
- Chromium-nickel steel, rust-proof
- Increased corrosion resistance through titanium stabilisation
- High-resistant to hole formation, tension corrosion and gap corrosion
- Welded components are additionally passivated
- Unwelded components are rinsed and degreased

V5A stainless steel

- OBO Code: V5A
- European material numbers: 1.4404, 1.4529 and 1.4547
- Chromium-nickel steel, rust-proof
- Increased corrosion protection through molybdenum
- High-resistant to hole formation, tension corrosion and gap corrosion
- Suitable for outdoor use in extreme environments, with regard to temperature, humidity and aggressive exhaust gases
- Welded components are stained
- Unwelded components are rinsed and degreased

Solutions for tunnels



Cable support systems with function maintenance



Wide span systems



Mesh cable tray systems



Fire protection systems



Junction boxes



Anchor systems





Mounting systems



Pipe systems and fastening clips



Mounting rails and accessories



Surge protection systems



Equipotential bonding, lightning protection and earthing systems



Cable routing systems

Solutions for railway and underground train tunnels



Toughest loads

The requirements placed on systems in underground and railway tunnels are particularly high. Pressure waves through trains passing by, moisture and dirt subject the entire electrical infrastructure to the highest loads.

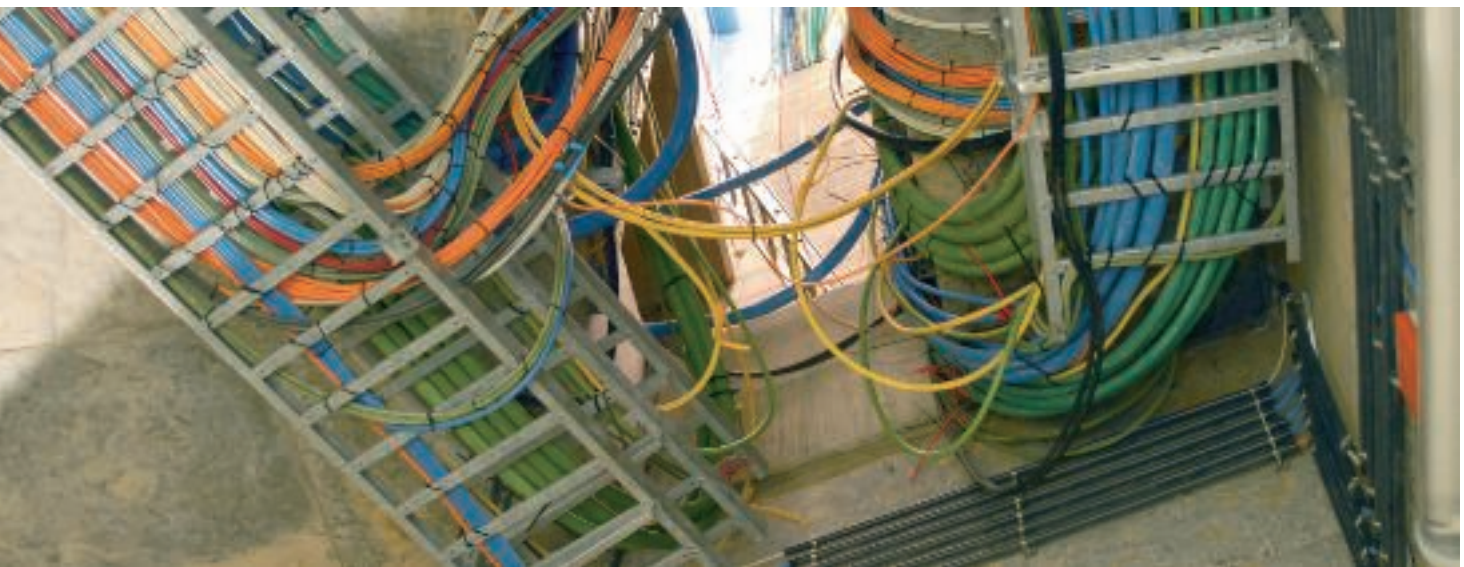
Reliable systems

Our systems fulfil all the key international standards of the railway industry and can offer you long-term safe solutions of the highest quality.



From our customer list

- Stadttunnel Waidhofen / Ybbs, Austria
- Lainzer Tunnel / Vienna, Austria
- Brenner Approach, Tyrol, Austria
- North-South Connection, Antwerp
- Vienna Metro
- Oullier Metro
- Milan subway
- Brescia subway
- Budapest subway
- Prague subway



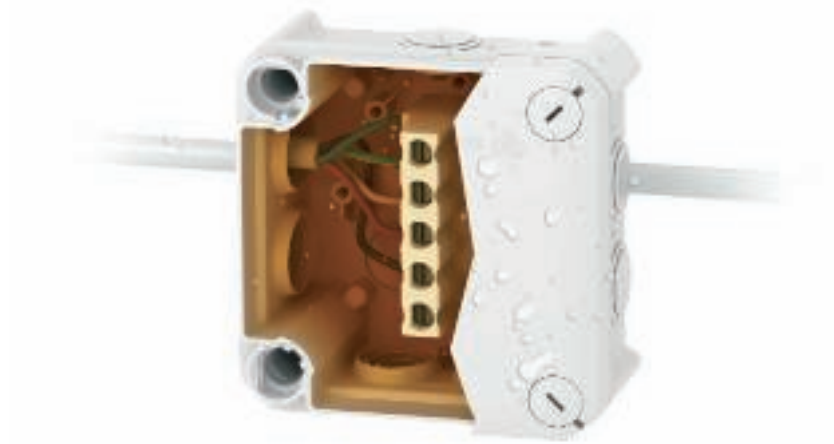
Solutions for pedestrian tunnels



A glutton for punishment

Installations in pedestrian and supply tunnels must be tough cookies. They must be able to resist vandalism as well as moisture and even occasional flooding. Our comprehensive range of pipes, impact-resistant junction boxes and glands guarantee the continuous function of electrical systems.

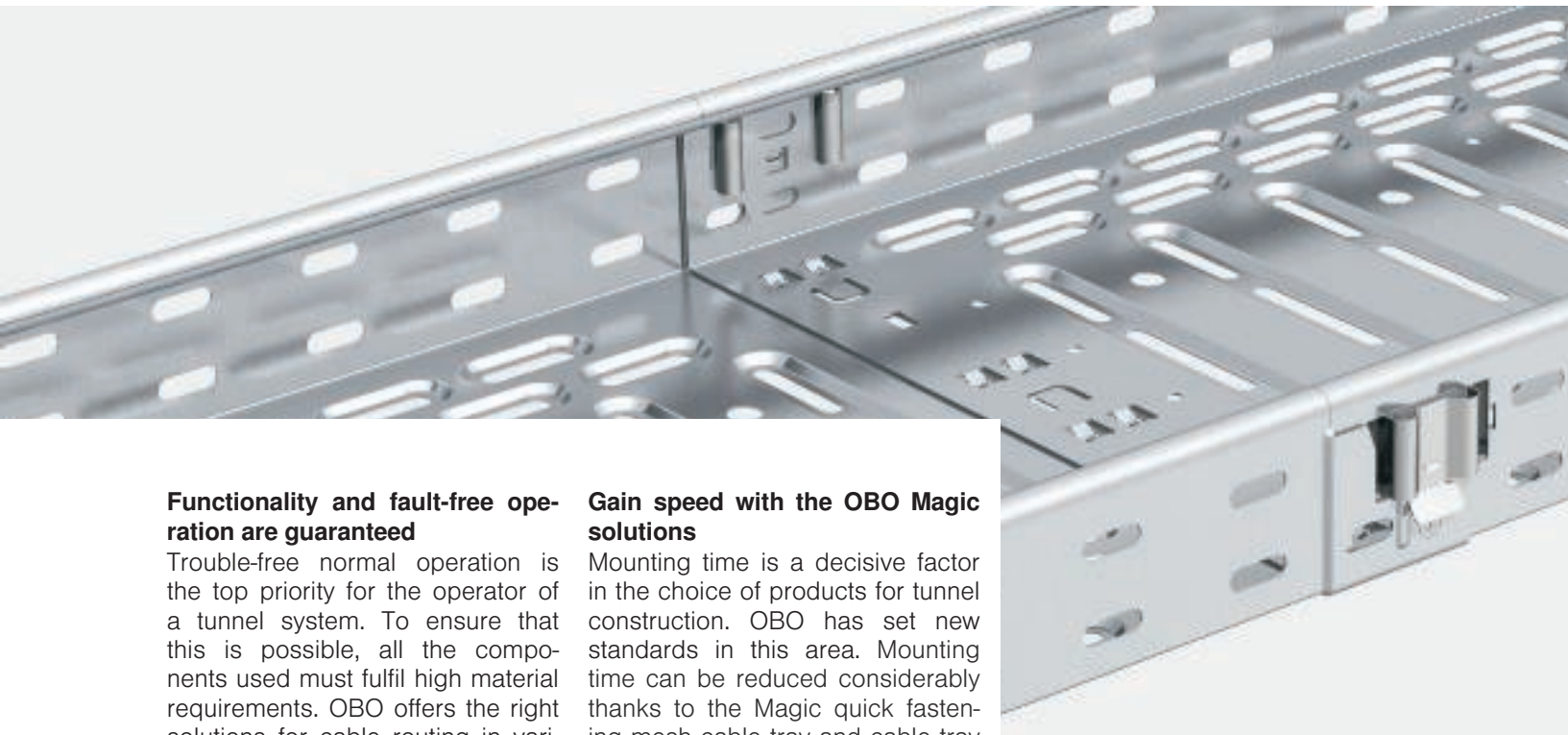
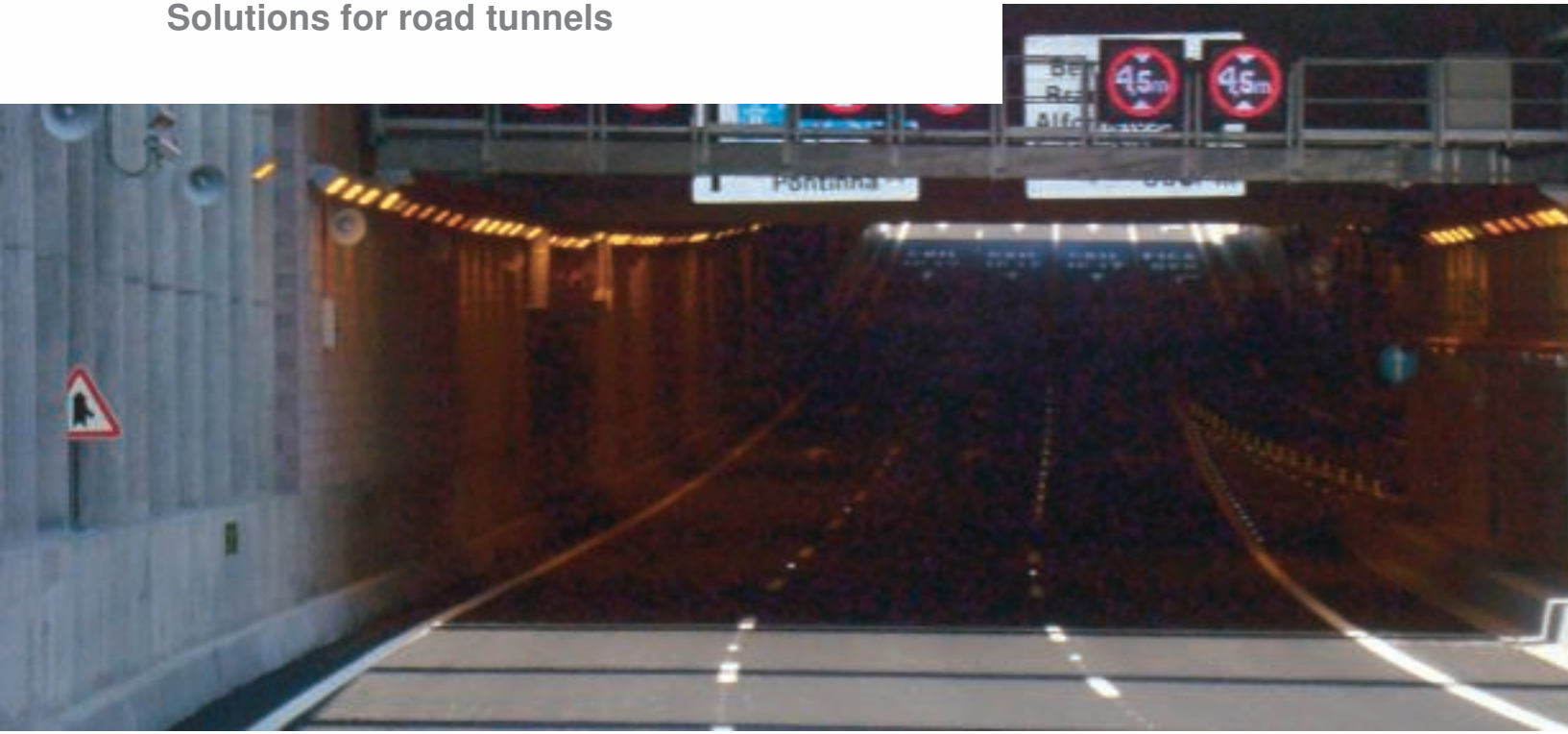




Aquasit - cold casting compound for junction boxes, protection rating IP68



Solutions for road tunnels



Functionality and fault-free operation are guaranteed

Trouble-free normal operation is the top priority for the operator of a tunnel system. To ensure that this is possible, all the components used must fulfil high material requirements. OBO offers the right solutions for cable routing in various different qualities of stainless steel. If requested, a high quality coloured coating can be applied and a wealth of installation material for the toughest jobs is available. Our products are suitable for outdoor use in extreme environments, with regard to temperature, humidity and aggressive exhaust gases.

Gain speed with the OBO Magic solutions

Mounting time is a decisive factor in the choice of products for tunnel construction. OBO has set new standards in this area. Mounting time can be reduced considerably thanks to the Magic quick fastening mesh cable tray and cable tray systems. The OBO GR-Magic® and RKS-Magic® quick mounting systems are the ideal solution if the tunnel project has to be completed quickly. They minimise downtimes and guarantee compliance with time schedules for construction projects - even if they are tight.



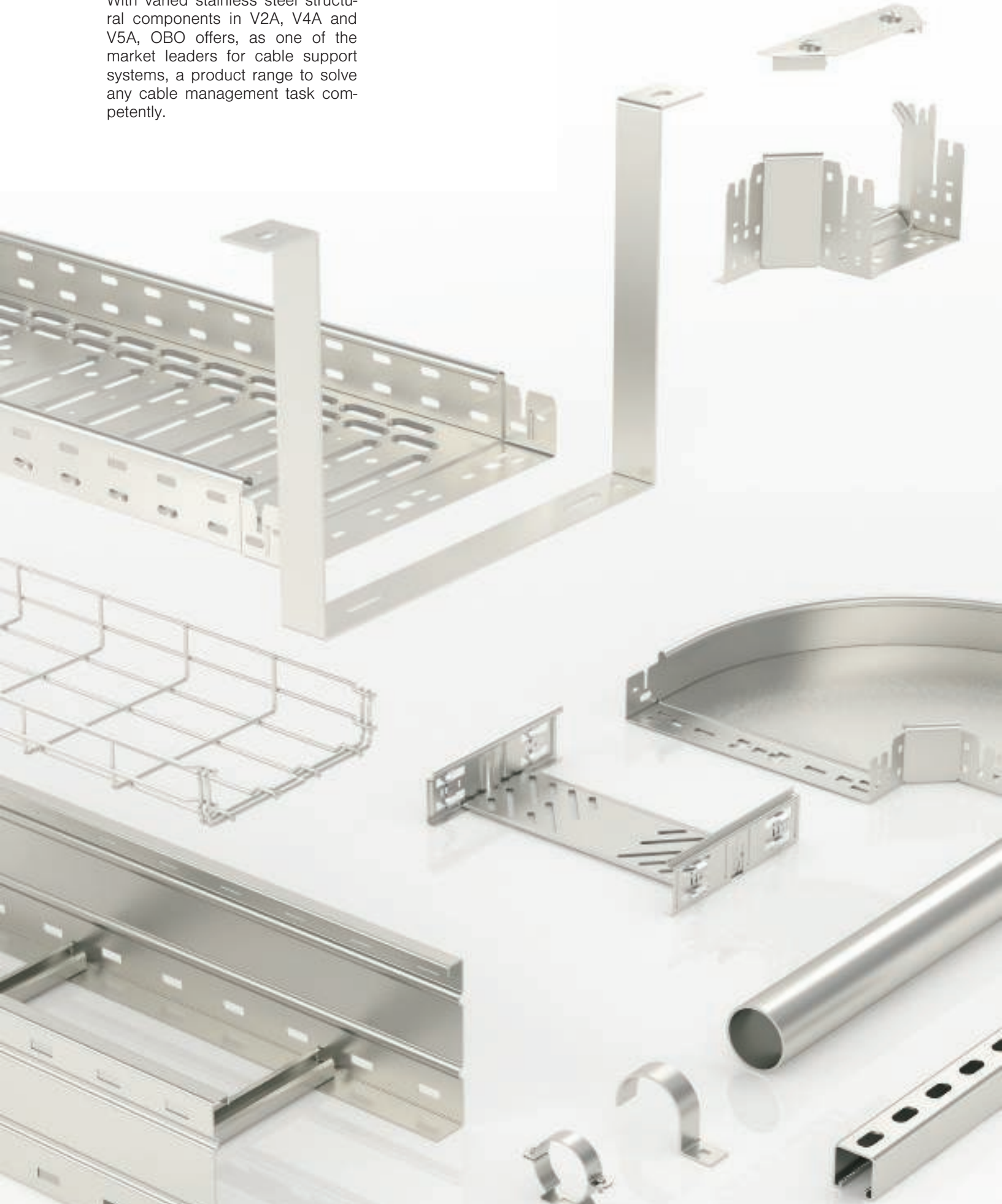
From our customer list

- Birth Tunnel, A44 motorway, Germany
- Wimpassing Tunnel (under construction), A94 motorway, Germany
- Harter Plateau Linz, Leonding, Austria
- Zürich Western Bypass, Switzerland
- Flüelen Bypass, Switzerland
- Northern Ring Road 1-4 Basle, Switzerland
- Seelisberg Tunnel, Switzerland
- Rigamonti SA, Contone, Switzerland
- Kirchenwald Tunnel, Switzerland
- Hergiswil Noise Protection Gallery, Switzerland
- Stansstad Noise Protection Gallery, Switzerland
- A14 Motorway - Forli Bypass, Italy
- Coen Tunnel, Netherlands
- Roer Tunnel, Netherlands
- Cril Tunnel, Lisbon, Portugal
- Sitina Tunnel, Bratislava, Slovakia
- Borik Tunnel, Mengusovce, Slovakia
- Strahovský Tunnel, Prague, Czech Republic
- Těšnovský Tunnel, Prague, Czech Republic
- Mrázovka Tunnel, Prague, Czech Republic
- Zlíčovský Tunnel, Prague, Czech Republic
- Dobrovského Tunnel, Brno, Czech Republic
- Klimkovice Tunnel, Northern Moravia, Czech Republic

Stainless steel systems

Unique product range

With varied stainless steel structural components in V2A, V4A and V5A, OBO offers, as one of the market leaders for cable support systems, a product range to solve any cable management task competently.



Tunnel clamps for every application



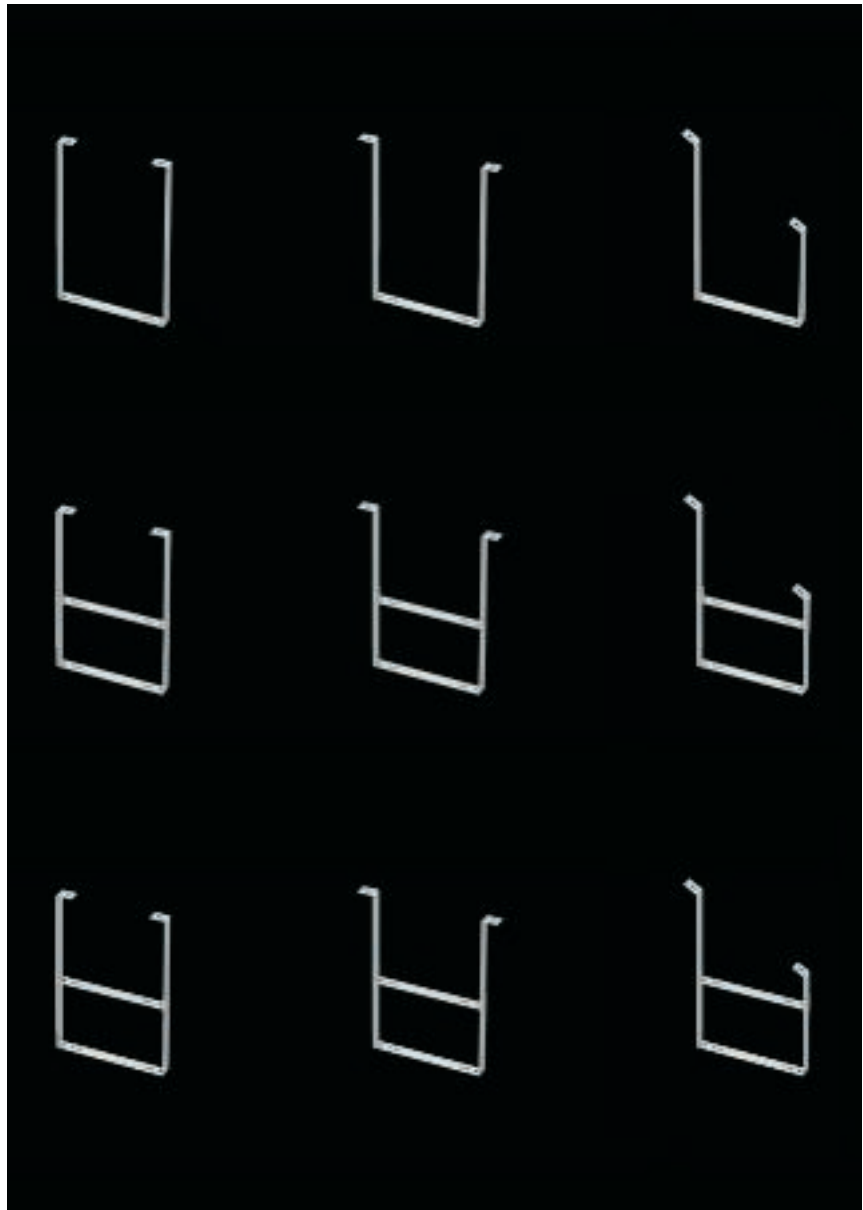
Solutions for all kinds of tunnels

Whether a round or square cross-section, with or without a supply shaft, emergency exit route, inflow and exhaust air supply or direct ventilation and deaeration – whatever the parameters of your tunnel project area, OBO has the right solutions for cable routing.

Function maintenance according to DIN 4102 part 12

Tunnel clamps, cable trays and specific cables together form a cable application with function maintenance.

Our tunnel clamps provide the basis of the installation. They are tested to DIN 4102, part 12 and guarantee function maintenance over the specified period of time. Their varied basic forms can be adapted to almost any required tunnel form.



Selection from our available tunnel clamps

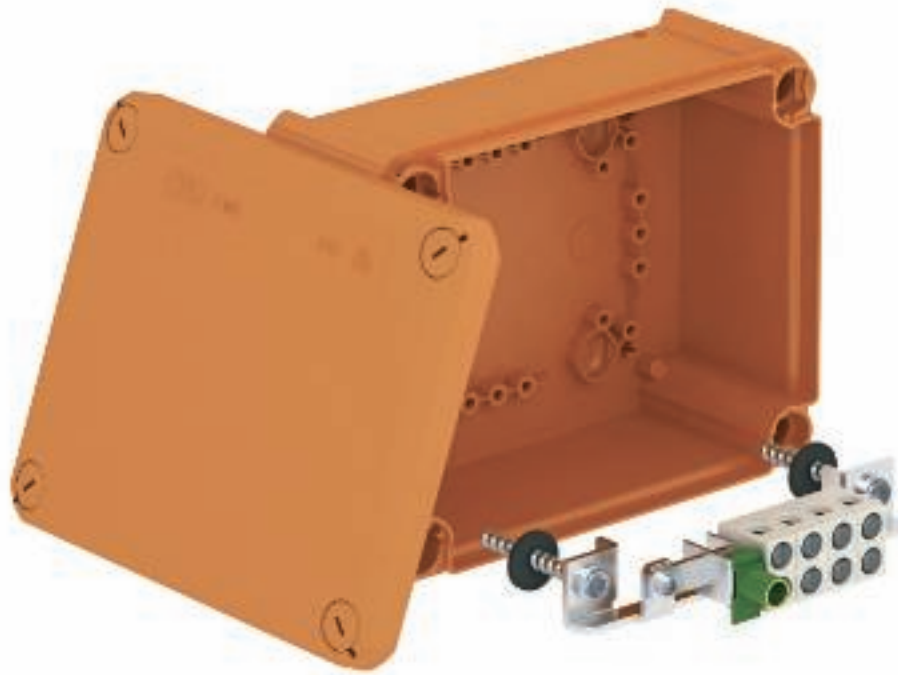
Function maintenance systems



Function maintenance

OBO function maintenance systems are tested and approved according to DIN 4102-12. The cable support systems were developed especially for function maintenance in the classes E30 and E90. Their hallmarks are spans of up to 1.5 m and a load capacity of up to 20 kg/m. Then the cable tray can be routed in one or two layers. Individual holes can be made with single clips or clamp clips.





Function maintenance with the Fi-reBox.



Insulation

The emergency: now every second counts

Wherever a fault in the tunnel occurs, the safety of the people in the tunnel has priority over everything else. For example, if there is a fire, the systems for emergency lighting, emergency contacts, smoke gas removal, monitoring and public address must work perfectly. OBO systems can make a significant contribution to personnel protection and the restriction of the spread of a fire.

Insulation

Tunnel constructions have a dense network of power and data cables, even running through walls and ceilings. These construction limitations for fires must be particularly protected in order to prevent a fire from spreading via these wall penetrations - the OBO insulation systems can guarantee this.





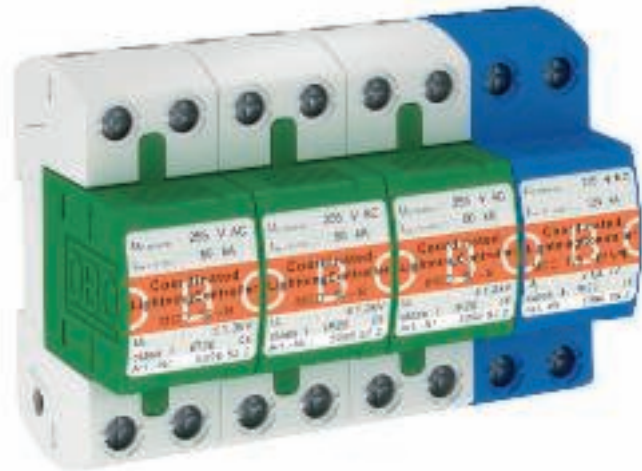
2-component fire protection foam

Safe.
**Solutions for external
lightning protection and surge protection**



Complete lightning protection system from OBO

OBO lightning protection systems provide reliable protection of people and property. Interception systems, arrestors and earthing systems ensure external lightning protection. Equipotential bonding and surge protection systems provide protection against the effects of the lightning current. Real protection is only guaranteed when all the components have been installed. OBO supplies all the elements, which are matched to each other, from a single source.



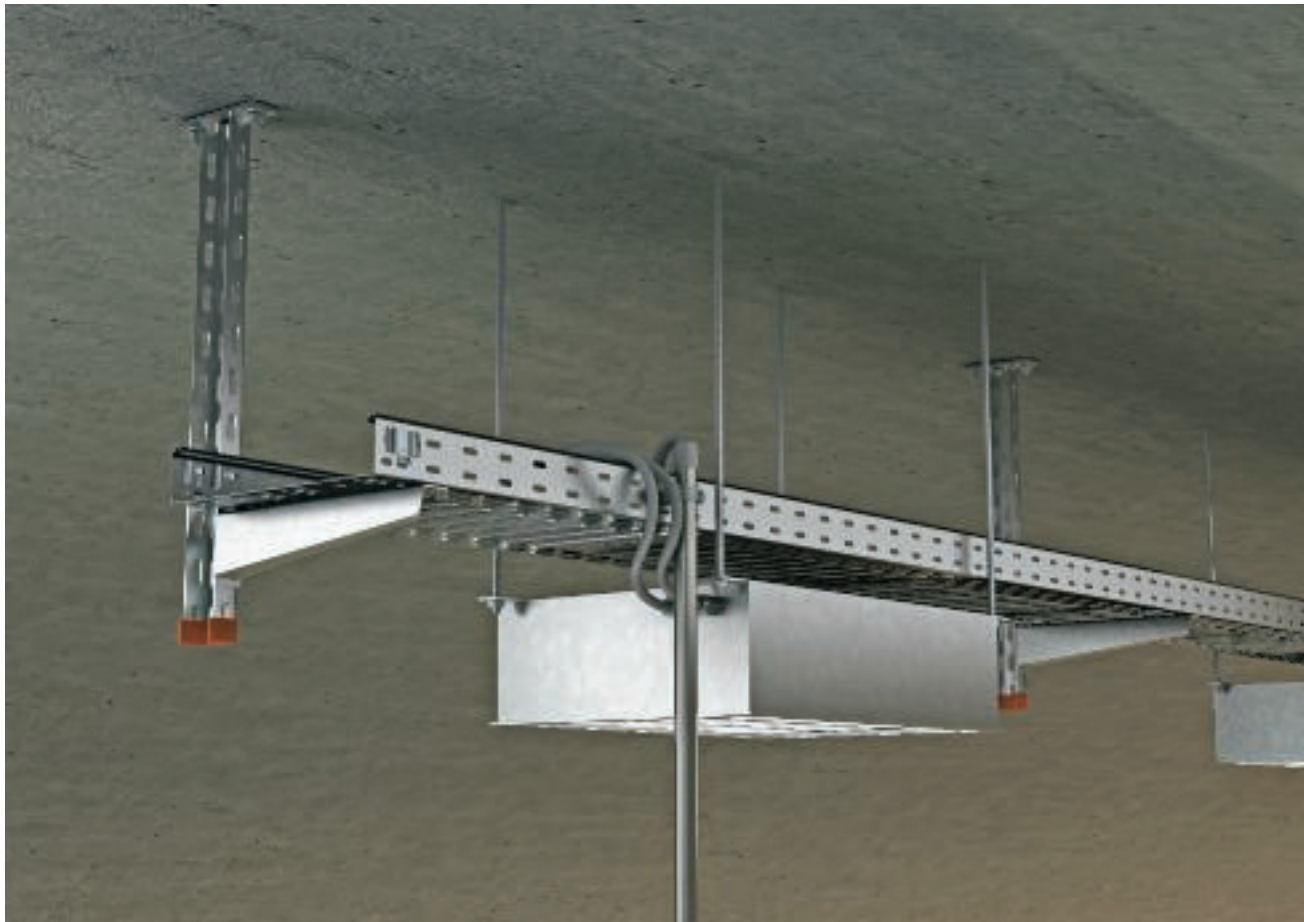
Surge protection with combination arrester MCD



A very long millisecond

Lightning strikes in buildings endanger people and property. Damage to electrical devices are often the result of surge voltages. These are triggered either by lightning strikes in the vicinity or by switching operations in medium and low voltage networks. The result is damaged electrical devices and communications equipment, including the loss of data. And this can put the very existence of companies at risk.





Installation for basic installations

The following pages contain our range of practical and easy mounting cable routing systems. Our routing systems are available in various material qualities and are suitable for a wide range of applications. These include the routing of large volumes of cables in cable trays or mesh cable trays as well as open or closed routing with pipes and single clips.

Installation of safety-relevant function maintenance systems

To aid orientation, at the end of this section, you will find the function maintenance systems and fire protection ducts specially developed and tested for this area.









The cable trays tested for function maintenance excel through the choice of different materials and a large proportion of holes. This means that cable trays of type DKS, which is more than 30% holes, can be used under sprinkler systems and can drain any collected liquid with ease.

Quality makes the difference

The following pages contain a small overview of our product range for cable routing, specifically for the requirements of tunnel construction. When choosing products, we placed emphasis on stainless steel articles, as this material is particularly suitable for tunnel use on account of its corrosion resistance and other material properties.

Of course, all the systems listed here, as well as others, are available in other materials and surfaces. The main catalogues of the different product units contain a detailed overview of our complete product range.

Cable routing

	Function maintenance systems	Cable tray RKS-Magic® Suspension clamp Fittings Mesh cable tray GR-Magic® Suspension clamp Fittings	28
	Cable tray systems	RKS-Magic®, DKS and SKS Connectors Fittings AZ small duct Accessories	36
	Mesh cable tray systems	GR-Magic® Connectors Accessories	47
	Cable ladder and ladder systems	Cable ladder LG 60 Wide span cable ladder WKLG 110 Wide span cable ladder WKLG 160	58
	Mounting systems	Suspension clamp Suspended supports Wall and support bracket Bolt, knock-in and nail ties	61
	Rail systems	Profile and mounting rails Rails, system accessories Clamp clips	71
	Pipe systems	Electrical installation pipe Bends and sleeves Accessories	85
	Wall and ceiling duct, halogen-free	Duct depth 30 mm, duct height 45 mm Duct depth 40 mm, duct height 60 mm Duct depth 60 mm, duct height 90 mm Duct depth 60 mm, duct height 110 mm Duct depth 60 mm, duct height 150 mm	90

Function maintenance

Cable routing

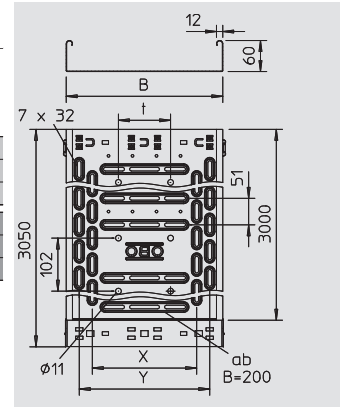


Cable tray RKS-Magic®

Type	Width mm	Plate thickness mm	Length mm	Useful cross- section cm ²	Dimen- sion x mm	Dimen- sion y mm	Dimen- sion t mm	Weight kg/100 m	Item No.
RKSM 610 VA4301	100	0.75	3,050	58	—	50	—	134.300	6047 61 3
RKSM 620 VA4301	200	0.75	3,050	118	100	150	—	183.000	6047 64 0
RKSM 630 VA4301	300	0.75	3,050	178	200	250	100	239.000	6047 65 6
RKSM 610 VA4571	100	0.75	3,050	58	—	50	—	134.300	6047 61 4
RKSM 620 VA4571	200	0.75	3,050	118	100	150	—	183.000	6047 64 1
RKSM 630 VA4571	300	0.75	3,050	178	200	250	100	239.000	6047 65 7

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti Stained /m

RKSM 60 = efficient magic cable tray system with 60 mm side height.
Magnetic shield insulation without cover 20 dB, with cover 50 dB.

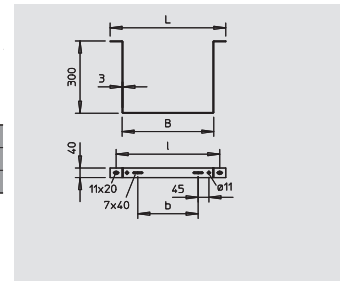


Suspension clamp, tunnel V4A (1.4571)

Type	Dimen- sion B mm	Dimen- sion L mm	Dimen- sion b mm	Dimen- sion l mm	Pack. pcs	Weight kg/100 pcs.	Item No.
AHB-T1712 VA4571	120	220	—	180	11	67.000	6363 99 9
AHB-T1722 VA4571	220	320	125	280	14	78.000	6364 00 9
AHB-T1732 VA4571	320	420	225	380	14	91.000	6364 01 9

V4A Stainless steel, grade 316 Ti /pc.

Special suspension clamp for cable support systems in tunnels. Additional variants, such as adapter or connection clamps, as well as various head shapes, on request.

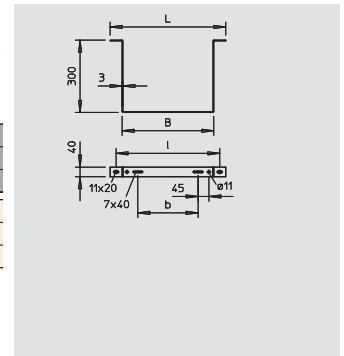


Suspension clamp, tunnel V5A 1.4529 and 1.4547

Type	Dimen- sion B mm	Dimen- sion L mm	Dimen- sion b mm	Dimen- sion l mm	Pack. pcs	Weight kg/100 pcs.	Item No.
AHB-T1712 VA4529	120	220	—	180	11	67.000	6363 99 5
AHB-T1722 VA4529	220	320	125	280	14	78.000	6364 00 5
AHB-T1732 VA4529	320	420	225	380	14	91.000	6364 01 5
AHB-T1712 VA4547	120	220	—	180	11	67.000	6363 99 7
AHB-T1722 VA4547	220	320	125	280	14	78.000	6364 00 7
AHB-T1732 VA4547	320	420	225	380	14	91.000	6364 01 7

V5A Stainless steel, 1.4529 V5A Stainless steel, 1.4547 /pc.

Special suspension clamp for cable support systems in tunnels. Additional variants, such as adapter or connection clamps, as well as various head shapes, on request.

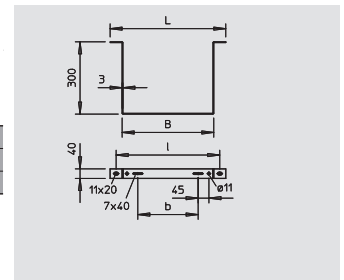


Suspension clamp, tunnel V5A 1.4529

Type	Dimen- sion B mm	Dimen- sion L mm	Dimen- sion b mm	Dimen- sion l mm	Pack. pcs	Weight kg/100 pcs.	Item No.
AHB-T 200	280	380	150	330	1	94.000	6363 88 8
AHB-T 300	380	480	250	430	1	103.000	6363 89 2
AHB-T 400	480	580	350	530	1	113.000	6363 89 6

V5A Stainless steel, 1.4529 /pc.

Special suspension clamp for cable support systems in tunnels. Additional variants, such as adapter or connection clamps, as well as various head shapes, on request.

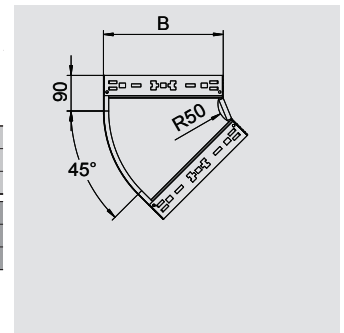


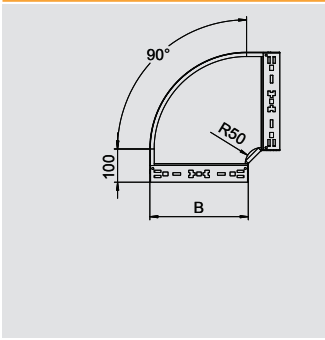
45° bend

Type	Width mm	Pack. pcs	Weight kg/100 pcs.	Item No.
RBM 45 610VA4301	100	1	50.400	6041 08 0
RBM 45 620VA4301	200	1	86.000	6041 08 4
RBM 45 630VA4301	300	1	128.300	6041 08 6
RBM 45 610VA4571	100	1	50.400	6041 10 0
RBM 45 620VA4571	200	1	86.000	6041 10 4
RBM 45 630VA4571	300	1	128.300	6041 10 6

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /pc.

45° bend with quick connector system. For all cable tray types of 60 mm side height.

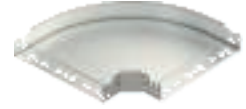




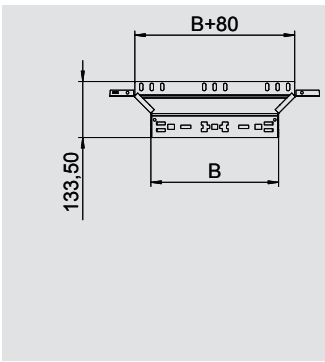
90° bend



Type	Width mm	Pack. pcs	Weight kg/100 pcs.	Item No.
RBM 90 610VA4301	100	1	65.700	6041 18 0
RBM 90 620VA4301	200	1	122.100	6041 18 4
RBM 90 630VA4301	300	1	192.800	6041 18 6
RBM 90 610VA4571	100	1	65.700	6041 20 0
RBM 90 620VA4571	200	1	122.100	6041 20 4
RBM 90 630VA4571	300	1	192.800	6041 20 6



V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /pc.
90° bend with quick connector system. For all cable tray types of 60 mm side height.



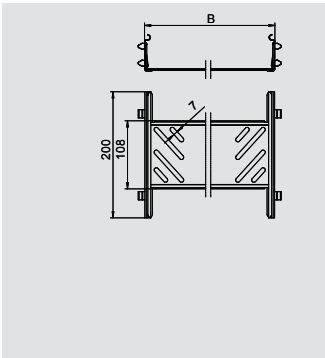
Mounting/branch piece



Type	Width mm	Pack. pcs	Weight kg/100 pcs.	Item No.
RAAM 610 VA4301	100	1	37.900	6041 27 0
RAAM 620 VA4301	200	1	50.600	6041 27 5
RAAM 630 VA4301	300	1	63.500	6041 27 7
RAAM 610 VA4571	100	1	37.900	6041 29 0
RAAM 620 VA4571	200	1	50.600	6041 29 4
RAAM 630 VA4571	300	1	63.500	6041 29 6



V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /pc.
Mounting/branch piece with quick connector system. For all cable tray types of 60 mm side height.



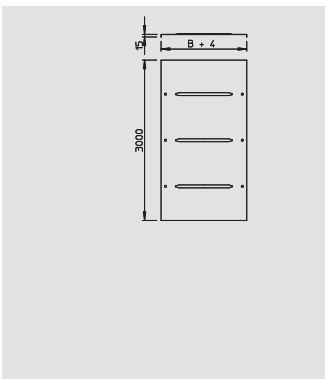
Connector



Type	Side height mm	Width mm	Pack. pcs	Weight kg/100 pcs.	Item No.
KTSMV 610 VA4301	60	100	1	30.500	6068 95 8
KTSMV 620 VA4301	60	200	1	37.200	6068 96 2
KTSMV 630 VA4301	60	300	1	44.000	6068 96 4
KTSMV 610 VA4571	60	100	1	30.500	6068 98 0
KTSMV 620 VA4571	60	200	1	37.200	6068 98 4
KTSMV 630 VA4571	60	300	1	44.000	6068 98 6



V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /pc.
Cable tray connector with quick fastening straight, screwless connection of cable trays and fittings with a side height of 60 mm.

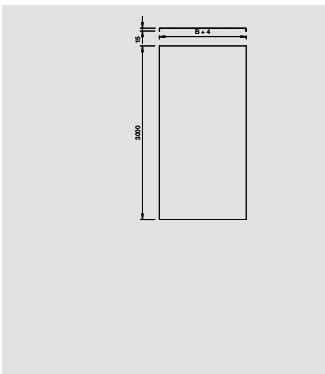


Lid with sash lock

Type	Width mm	Plate thickness mm	Length mm	Weight kg/100 m	Item No.
DRL 100 VA4301	100	1	3,000	105.000	6052 87 8
DRL 200 VA4301	200	1	3,000	185.000	6052 89 4
DRL 300 VA4301	300	1	3,000	264.000	6052 90 8
DRL 100 VA4571	100	—	3,000	105.000	6052 98 0
DRL 200 VA4571	200	—	3,000	185.000	6052 98 1
DRL 300 VA4571	300	—	3,000	275.000	6052 98 3



V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /m
Cover for cable trays and cable ladders with three pairs of turn-buckles.
Ensure protective measures for construction if there are high wind speeds.



Lid, unperforated

Type	Width mm	Plate thickness mm	Length mm	Weight kg/100 m	Item No.
DRLU 100 VA4301	100	1	3,000	104.000	6052 82 4
DRLU 200 VA4301	200	1	3,000	178.000	6052 83 1
DRLU 300 VA4301	300	1	3,000	256.000	6052 83 4
DRLU 100 VA4571	100	1	3,000	99.000	6052 99 1
DRLU 200 VA4571	200	1	3,000	178.000	6052 99 3
DRLU 300 VA4571	300	1	3,000	256.000	6052 99 4



V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /m
Cover for cable trays and mesh cable trays.
Take appropriate constructive protection measures if there are high wind speeds.

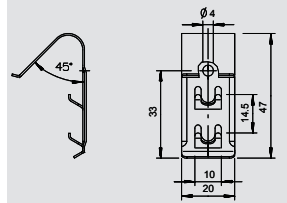
Function maintenance



Lid clamp

Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
DKU 60 VA4310	60	0.800	6065 60 0

V2A Stainless steel, grade 301 /100 pc.
Cover clamp for universal fastening of covers on cable trays, mesh cable trays and AZ small ducts.

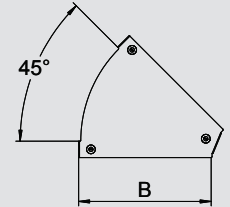


Lid for 45° bend



Type	Width	Plate thickness	Pack.	Weight	Item No.
	mm	mm	pcs	kg/100 pcs.	
DFBM 45 100 V2A	100	1.25	1	13.100	7138 43 0
DFBM 45 200 V2A	200	1.25	1	28.100	7138 43 4
DFBM 45 300 V2A	300	1.25	1	49.300	7138 43 6
DFBM 45 100 V4A	100	1.25	1	13.100	7138 45 0
DFBM 45 200 V4A	200	1.25	1	28.100	7138 45 4
DFBM 45 300 V4A	300	1.25	1	49.300	7138 45 6

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /pc.
Lid for 45° bend with pre-mounted sash locks.

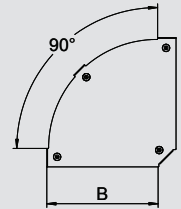


Lid for 90° bend



Type	Width	Plate thickness	Pack.	Weight	Item No.
	mm	mm	pcs	kg/100 pcs.	
DFBM 90 100 V2A	100	1.25	1	18.500	7138 57 0
DFBM 90 200 V2A	200	1.25	1	44.400	7138 57 4
DFBM 90 300 V2A	300	1.25	1	83.000	7138 57 6
DFBM 90 100 V4A	100	1.25	1	18.500	7138 59 0
DFBM 90 200 V4A	200	1.25	1	44.400	7138 59 4
DFBM 90 300 V4A	300	1.25	1	83.000	7138 59 6

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /pc.
Lid for 90° bend with pre-mounted sash locks.

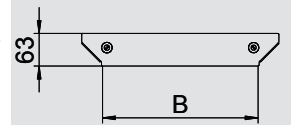


Lid for mounting/branch piece



Type	Width	Plate thickness	Pack.	Weight	Item No.
	mm	mm	pcs	kg/100 pcs.	
DFAAM 100 V2A	100	1.25	1	11.100	7138 72 0
DFAAM 200 V2A	200	1.25	1	14.500	7138 72 4
DFAAM 300 V2A	300	1.25	1	20.900	7138 72 6
DFAAM 100 V4A	100	1.25	1	11.100	7138 74 0
DFAAM 200 V4A	200	1.25	1	14.500	7138 74 4
DFAAM 300 V4A	300	1.25	1	20.900	7138 74 6

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /pc.
Cover for add-on tee with pre-mounted turn-buckles.

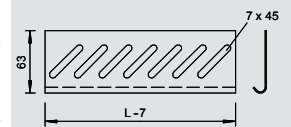


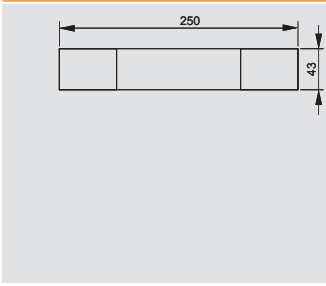
Floor end plate



Type	Width	Pack.	Weight	Item No.
	mm	pcs	kg/100 pcs.	
BEB 100 VA4301	100	100	5.500	7084 01 3
BEB 200 VA4301	200	100	11.400	7084 04 8
BEB 300 VA4301	300	100	17.200	7084 06 4
BEB 100 VA4571	100	100	5.500	7084 14 1
BEB 200 VA4571	200	100	11.400	7084 14 3
BEB 300 VA4571	300	100	17.200	7084 14 5

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /pc.
For base reinforcement at the ends of the tray and as cable protection.





Identification plate for cable system

Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
KS-E DE	10	0.600	7205 42 3
KS-E EN	10	0.600	7205 43 2
KS-E HU	10	0.600	7205 43 4



PVC Polyvinylchloride /pc.
 Self-adhesive identification plate for approved cable system labelling for function maintenance as required by DIN 4102 part 12.



Function maintenance



Cable routing

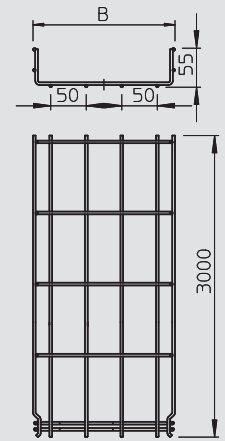


Mesh cable tray GR-Magic®

Type	Width mm	Wire Ø mm	Length mm	Useful cross- section cm²	Weight kg/100 m	Item No.
GRM 55 300VA4301	300	4.8	3.000	129	191.100	6001 07 8
GRM 55 300VA4401	300	4.8	3.000	129	191.100	6001 09 3

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Stained /m

Mesh cable tray with shaped connector of side height 55 mm.
Magnetic shield insulation without cover 15 dB, with cover 25 dB.

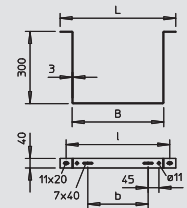


Suspension clamp, tunnel V4A (1.4571)

Type	Dimen- sion B mm	Dimen- sion L mm	Dimen- sion b mm	Dimen- sion l mm	Pack. pcs	Weight kg/100 pcs.	Item No.
AHB-T1712 VA4571	120	220	—	180	11	67.000	6363 99 9
AHB-T1722 VA4571	220	320	125	280	14	78.000	6364 00 9
AHB-T1732 VA4571	320	420	225	380	14	91.000	6364 01 9

V4A Stainless steel, grade 316 Ti /pc.

Special suspension clamp for cable support systems in tunnels. Additional variants, such as adapter or connection clamps, as well as various head shapes, on request.

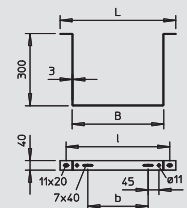


Suspension clamp, tunnel V5A 1.4529 and 1.4547

Type	Dimen- sion B mm	Dimen- sion L mm	Dimen- sion b mm	Dimen- sion l mm	Pack. pcs	Weight kg/100 pcs.	Item No.
AHB-T1712 VA4529	120	220	—	180	11	67.000	6363 99 5
AHB-T1722 VA4529	220	320	125	280	14	78.000	6364 00 5
AHB-T1732 VA4529	320	420	225	380	14	91.000	6364 01 5
AHB-T1712 VA4547	120	220	—	180	11	67.000	6363 99 7
AHB-T1722 VA4547	220	320	125	280	14	78.000	6364 00 7
AHB-T1732 VA4547	320	420	225	380	14	91.000	6364 01 7

V5A Stainless steel, 1.4529 V5A Stainless steel, 1.4547 /pc.

Special suspension clamp for cable support systems in tunnels. Additional variants, such as adapter or connection clamps, as well as various head shapes, on request.

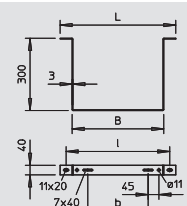


Suspension clamp, tunnel V5A 1.4529

Type	Dimen- sion B mm	Dimen- sion L mm	Dimen- sion b mm	Dimen- sion l mm	Pack. pcs	Weight kg/100 pcs.	Item No.
AHB-T 200	280	380	150	330	1	94.000	6363 88 8
AHB-T 300	380	480	250	430	1	103.000	6363 89 2
AHB-T 400	480	580	350	530	1	113.000	6363 89 6

V5A Stainless steel, 1.4529 /pc.

Special suspension clamp for cable support systems in tunnels. Additional variants, such as adapter or connection clamps, as well as various head shapes, on request.

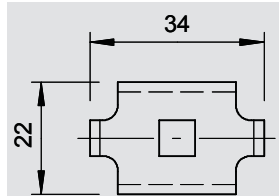


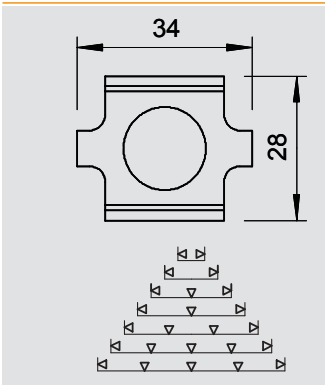
Clamping piece

Type	Pack. pcs	Weight kg/100 pcs.	Item No.
GKS 34 VA4301	100	2.000	6016 83 9
GKS 34 VA4401 SP	10	2.000	6016 85 9

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 /pc.

Clamp for fixing mesh cable trays to wall or support brackets.

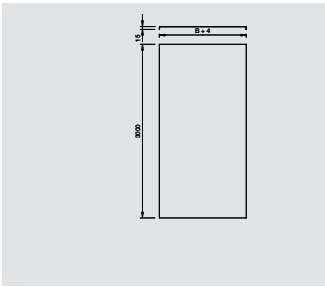




Connector

Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
GSV 34 VA4301	25	3.000	6016 64 2
GSV 34 VA4401	10	3.000	6016 64 8

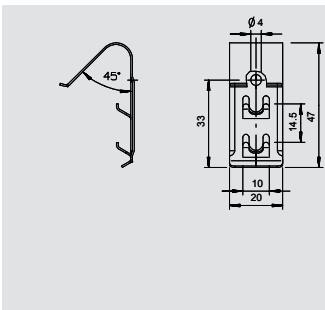
V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 /pc.
Screwed version of joint connector for mesh cable trays.



Lid, unperforated

Type	Width	Plate thickness	Length	Weight	Item No.
	mm	mm	mm		
DRLU 300 VA4301	300	1	3.000	256.000	6052 83 4
DRLU 300 VA4571	300	1	3.000	256.000	6052 99 4

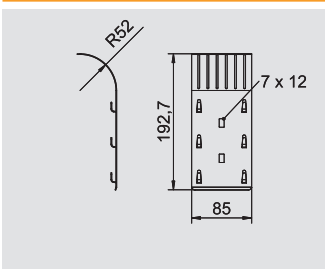
V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /m
Cover for cable trays and mesh cable trays.
Take appropriate constructive protection measures if there are high wind speeds.



Lid clamp

Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
DKU 60 VA4310	60	0.800	6065 60 0

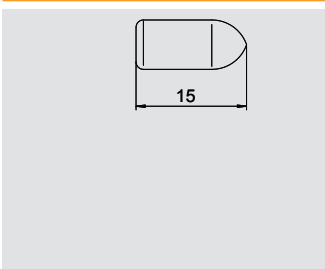
V2A Stainless steel, grade 301 /100 pc.
Cover clamp for universal fastening of covers on cable trays, mesh cable trays and AZ small ducts.



Cable exit plate

Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
KAB GR VA 1.4301	10	14.100	6220 14 5

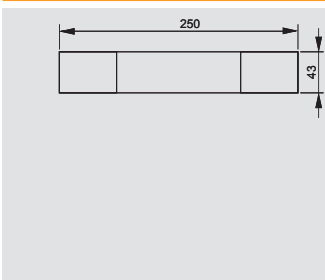
V2A Stainless steel, grade 304 Bright /pc.
Cable exit plate for mesh cable trays.



Protective cap for mesh cable tray

Type	Colour	Pack.	Weight	Item No.
		pcs	kg/100 pcs.	
GR KS 4.8 OR	Pastel orange	500	0.030	6003 75 4

PE Polyethylene /100 pc.
Protective cap for attachment to cut wire ends of mesh cable trays.



Identification plate for cable system

Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
KS-E DE	10	0.600	7205 42 3
KS-E EN	10	0.600	7205 43 2
KS-E HU	10	0.600	7205 43 4

PVC Polyvinylchloride /pc.
Self-adhesive identification plate for approved cable system labelling for function maintenance as required by DIN 4102 part 12.



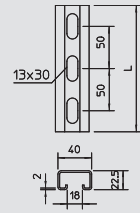
Function maintenance



Profile rail, slot 18 mm

Type	Version	Dimension b x h mm	Material thickness mm	Length mm	Pack. m	Weight kg/100 m	Item No.
CPS 4L 2M V4A	Perforated	40 x 22,5	2	2,000	10	147.600	1121 96 3
CPS 4L 6M V4A	Perforated	40 x 22,5	2	6,000	1	147.600	1121 90 3

V4A Stainless steel, grade 316 Ti /100 m

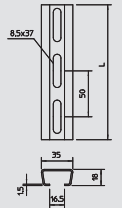


Profile rail, slot 16.5 mm

Type	Version	Dimension b x h mm	Material thickness mm	Length mm	Pack. m	Weight kg/100 m	Item No.
2068 L 2M VA	Perforated	35 x 18	1.5	2,000	20	80.000	1119 70 2
2068 L 6M VA	Perforated	35 x 18	1.5	6,000	6	80.000	1119 72 9

V2A Stainless steel, grade 304 /100 m

Profile rail, perforated, slot width 16.5 mm.

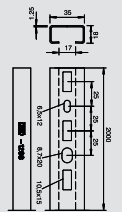


Profile rail, slot 17 mm

Type	Version	Dimension b x h mm	Material thickness mm	Length mm	Bundle m	Weight kg/100 m	Item No.
1268 L 1M VA	Perforated	35 x 18	1.25	1,000	10	71.000	1104 49 8
1268 L 2M VA	Perforated	35 x 18	1.25	2,000	20	71.000	1104 50 1

V2A Stainless steel, grade 304 /100 m

Light-duty profile rail, perforated, slot width 17 mm.

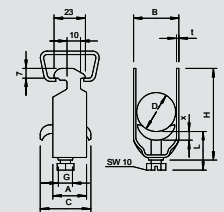


Clamp clip, single, metal pressure trough V2A

Type	Clamping range D mm	Dimension A mm	Dimension B mm	Dimension C mm	Dimension G mm	Dimension t mm	Dimension H mm	Dimension L mm	Pack. pcs	Weight kg/100 pcs.	Item No.
2056 M 12 VA	8-12	23	16	30	M6	1.5	44	32.5	50	3.200	1159 71 2
2056 M 16 VA	12-16	23	20	30	M6	1.5	44	32.5	50	3.500	1159 71 6
2056 M 22 VA	16-22	23	27	30	M6	1.5	60	32.5	50	4.400	1159 72 2
2056 M 28 VA	22-28	23	33	30	M6	2	58	44	50	6.100	1159 72 8
2056 M 34 VA	28-34	23	39	35	M8	2	66	44	50	7.700	1159 73 4
2056 M 40 VA	34-40	23	45	35	M8	2	72	44	25	8.600	1159 74 0
2056 M 46 VA	40-46	23	51	35	M8	2	79	44	25	9.600	1159 74 6
2056 M 52 VA	46-52	23	57	35	M8	2	86	44	25	10.400	1159 75 2
2056 M 58 VA	52-58	23	64	35	M8	2	93	44	15	13.100	1159 75 8
2056 M 64 VA	58-64	23	70	35	M8	2.5	99	56	15	14.500	1159 76 4
2056 M 70 VA	64-70	25	76	35	M8	2.5	106	56	15	16.100	1159 77 0
2056 M 76 VA	70-76	25	82	40	M8	2.5	114	56	10	18.300	1159 77 6

V2A Stainless steel, grade 304 /100 pc.

Suitable for all C profile rails with slot width 16–17 mm.
Clip, bolt and pressure trough all made of rust-proof stainless steel.

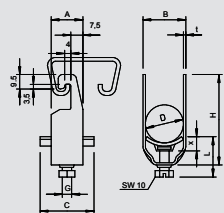


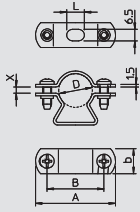
Clamp clip, single, metal pressure trough V4A

Type	Clamping range D mm	Dimension A mm	Dimension B mm	Dimension C mm	Dimension G mm	Dimension t mm	Dimension H mm	Dimension L mm	Pack. pcs	Weight kg/100 pcs.	Item No.
2056U M 12 V4A	8-12	—	16	34	—	1.5	—	—	100	3.300	1158 20 7
2056U M 16 V4A	12-16	—	20	34	—	1.5	—	—	100	3.520	1158 21 1
2056U M 22 V4A	16-22	—	27	34	—	1.5	—	—	100	3.960	1158 21 5
2056U M 28 V4A	22-28	—	33	34	—	2	—	—	100	5.890	1158 21 9
2056U M 34 V4A	28-34	—	39	34	—	2	—	—	100	7.650	1158 22 3
2056U M 40 V4A	34-40	—	45	—	—	2	—	—	100	8.360	1158 22 7
2056U M 46 V4A	40-46	—	51	40	—	2	—	—	100	10.890	1158 23 1
2056U M 52 V4A	46-52	—	57	40	—	2	—	—	100	11.660	1158 23 5
2056U M 58 V4A	52-58	—	64	40	—	2.5	—	—	100	14.740	1158 23 9
2056U M 64 V4A	58-64	—	70	40	—	2.5	—	—	100	15.730	1158 24 3
2056U M 70 V4A	64-70	—	76	40	—	2.5	—	—	50	18.200	1158 24 7
2056U M 76 V4A	70-76	—	82	40	—	2.5	—	—	25	20.600	1158 25 1

V4A Stainless steel, grade 316 Ti /100 pc.

Suitable for all C profile rails with slot width 18 and 22 mm. Also suitable for flat, angle and U irons of 4 - 12 mm material thickness.
Clip, bolt and pressure trough all made of rust-proof stainless steel.





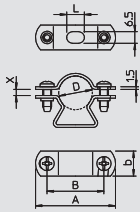
Cable and pipe spacer clip, V2A

Type	Clamping range D mm	Hole size mm	Material thickness mm	Size	Bolt	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
733 16 VA	14-16	6,5 x 10	1.5	M16	M5 x 12	500	50	2.430	1362 01 1
733 19 VA	17-19	6,5 x 10	1.5	Pg11	M5 x 16	500	50	2.800	1362 03 8
733 21 VA	19-21	6,5 x 10	1.5	M20	M5 x 16	500	50	2.740	1362 04 6
733 23 VA	21-23	6,5 x 10	1.5	Pg16	M5 x 16	500	50	2.800	1362 05 4
733 29 VA	24-29	6,5 x 10	1.5	M25	M5 x 16	450	50	3.475	1362 06 2
733 38 VA	30-38	6,5 x 10	1.5	M32	M5 x 18	250	25	4.500	1362 07 0
733 48 VA	39-48	6,5 x 10	1.5	M40	M5 x 18	300	25	5.200	1362 08 9
733 54 VA	48-54	6,5 x 14	1.5	M50	M5 x 18	300	25	5.800	1362 09 7
733 61 VA	53-61	6,5 x 14	1.5	Pg48	M5 x 18	240	20	6.800	1362 10 0
733 63 VA	63	8 x 18	2	M63	M5 x 18	160	20	6.940	1362 12 7



V2A Stainless steel, grade 304 /100 pc.

Bolt material: VA
 * Size M16 not suitable for nail device.
 * Sizes M16 to PG16 not suitable for bolt-firing tool.



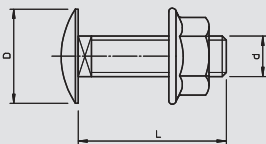
Cable and pipe spacer clip, V4A

Type	Clamping range D mm	Hole size mm	Material thickness mm	Size	Bolt	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
733 13 V4A	11-13	6,5 x 10	1.5	M 12	M5 x 12	600	50	2.310	1361 64 3
733 16 V4A	14-16	6,5 x 10	1.5	M 16	M5 x 14	500	50	2.430	1361 64 7
733 19 V4A	17-19	6,5 x 10	1.5	Pg 11	M5 x 14	500	50	2.500	1361 65 1
733 21 V4A	19-21	6,5 x 10	1.5	M 20	M5 x 14	500	50	2.730	1361 65 5
733 23 V4A	21-23	6,5 x 10	1.5	Pg 16	M5 x 14	500	50	2.710	1361 65 9
733 29 V4A	24-29	6,5 x 10	1.5	M 25	M5 x 18	450	50	3.420	1361 66 3
733 38 V4A	30-38	6,5 x 10	1.5	M 32	M5 x 18	250	25	4.040	1361 66 7
733 48 V4A	39-48	6,5 x 10	1.5	M 40	M5 x 18	300	25	4.810	1361 67 1
733 54 V4A	48-54	6,5 x 10	1.5	M 50	M5 x 18	300	25	5.800	1361 67 5
733 61 V4A	53-61	6,5 x 10	1.5	Pg48	M5 x 18	239	20	6.370	1361 67 9
733 63 V4A	63	6,5 x 10	2	M 63	M5 x 18	160	20	6.940	1361 68 3



V4A Stainless steel, grade 316 Ti /100 pc.

Steel bolt material.
 * Size M16 are not suitable for nail device.
 * Sizes M16 to PG16 not suitable for bolt-firing tool.



Truss-head bolt

Type	Grade	Dimension mm	Dimension L mm	Dimension d mm	Dimension D mm	Pack. pcs	Weight kg/100 pcs.	Item No.
FRSB 6X12 VA4301	1.43	M6 x 12	12	6	13.5	100	0.830	6406 13 8
FRSB 6X16 VA4301	1.43	M6 x 16	16	6	13.5	100	0.800	6406 18 9
FRSB 6X12 VA4401	1.44	M6 x 12	12	6	13.5	100	0.796	6406 14 2
FRSB 6X16 VA4401	1.44	M6 x 16	16	6	13.5	100	0.800	6406 19 3



V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 /100 pc.

Truss-head bolt with square neck including nut-and-washer assembly.

Cable tray systems

Cable routing

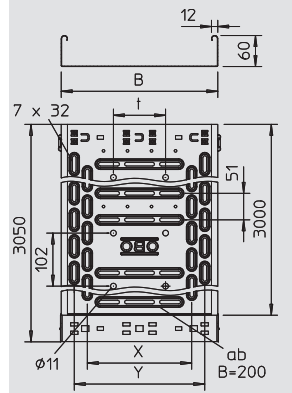


RKSM cable tray

Type	Width mm	Plate thick- ness mm	Length mm	Useful cross- section cm ²	Dimen- sion x mm	Dimen- sion y mm	Dimen- sion t mm	Weight kg/100 m	Item No.
RKSM 610 VA4301	100	0.75	3,050	58	—	50	—	134.300	6047 61 3
RKSM 615 VA4301	150	0.75	3,050	88	50	100	—	157.700	6047 63 2
RKSM 620 VA4301	200	0.75	3,050	118	100	150	—	183.000	6047 64 0
RKSM 630 VA4301	300	0.75	3,050	178	200	250	100	239.000	6047 65 6
RKSM 640 VA4301	400	0.9	3,050	238	300	350	200	331.300	6047 69 1
RKSM 650 VA4301	500	0.9	3,050	298	400	450	300	392.300	6047 72 1
RKSM 660 VA4301	600	0.9	3,050	358	450	550	400	453.330	6047 73 7
RKSM 610 VA4571	100	0.75	3,050	58	—	50	—	134.300	6047 61 4
RKSM 615 VA4571	150	0.75	3,050	88	50	100	—	157.700	6047 63 3
RKSM 620 VA4571	200	0.75	3,050	118	100	150	—	183.000	6047 64 1
RKSM 630 VA4571	300	0.75	3,050	178	200	250	100	239.000	6047 65 7
RKSM 640 VA4571	400	0.9	3,050	238	300	350	200	331.300	6047 69 2
RKSM 650 VA4571	500	0.9	3,050	298	400	450	300	392.300	6047 72 2
RKSM 660 VA4571	600	0.9	3,050	358	450	550	400	453.330	6047 73 8

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti Stained /m

RKSM 60 = efficient magic cable tray system with 60 mm side height.
Magnetic shield insulation without cover 20 dB, with cover 50 dB.

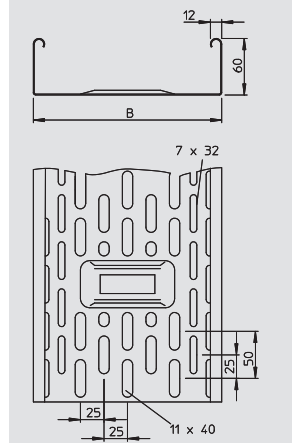


Cable tray DKS

Type	Width mm	Plate thick- ness mm	Length mm	Useful cross- section cm ²	Weight kg/100 m	Item No.
DKS 610 VA4301	100	0.8	3,000	58	157.000	6085 60 1
DKS 620 VA4301	200	0.8	3,000	118	213.000	6085 62 8
DKS 630 VA4301	300	0.8	3,000	178	214.000	6085 63 6
DKS 640 VA4301	400	1	3,000	238	294.000	6085 64 4
DKS 650 VA4301	500	1	3,000	298	350.000	6085 65 2
DKS 660 VA4301	600	1	3,000	358	437.000	6085 66 0
DKS 610 VA4571	100	0.8	3,000	58	157.000	6085 66 8
DKS 620 VA4571	200	0.8	3,000	118	213.000	6085 67 2
DKS 630 VA4571	300	1	3,000	178	264.000	6085 67 3
DKS 640 VA4571	400	1	3,000	238	294.000	6085 67 5
DKS 650 VA4571	500	1	3,000	298	350.000	6085 67 7
DKS 660 VA4571	600	1	3,000	358	437.000	6085 67 9

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /m

DKS 60 = perforated cable tray system with 60 mm side height.
Magnetic shield insulation without cover 20 dB, with cover 50 dB.

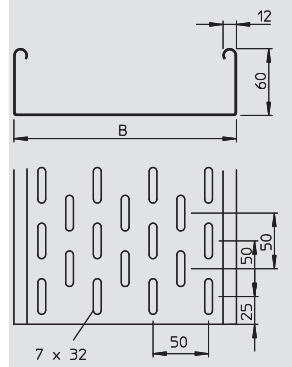


Cable tray SKS

Type	Width mm	Plate thick- ness mm	Length mm	Useful cross- section cm ²	Weight kg/100 m	Item No.
SKS 610 VA4301	100	1.5	3,000	58	263.300	6056 73 5
SKS 620 VA4301	200	1.5	3,000	118	356.700	6056 73 7
SKS 630 VA4301	300	1.5	3,000	178	466.700	6056 73 9
SKS 640 VA4301	400	1.5	3,000	238	566.700	6056 74 2
SKS 650 VA4301	500	1.5	3,000	298	666.700	6056 74 4
SKS 660 VA4301	600	1.5	3,000	358	766.700	6056 74 6
SKS 610 VA4571	100	1.5	3,000	58	263.300	6056 75 0
SKS 620 VA4571	200	1.5	3,000	118	356.700	6056 75 5
SKS 630 VA4571	300	1.5	3,000	178	466.700	6056 75 7
SKS 640 VA4571	400	1.5	3,000	238	566.700	6056 75 9
SKS 650 VA4571	500	1.5	3,000	298	666.700	6056 76 1
SKS 660 VA4571	600	1.5	3,000	358	766.700	6056 76 3

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /m

SKS 60 = Heavy-duty cable tray system with 60 mm side height.
Magnetic shield insulation without cover 20 dB, with cover 50 dB.

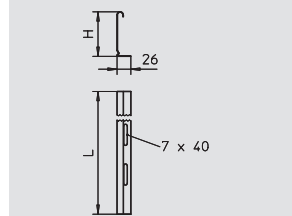


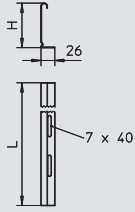
Barrier strip

Type	Dimen- sion H mm	Dimen- sion L mm	Pack. m	Weight kg/100 m	Item No.
TSG 60 VA4301	60	3,000	45	55.700	6062 08 4
TSG 60 VA4571	60	3,000	45	55.700	6062 08 6

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /m

Barrier strip for separation of cables of different voltages or functions.

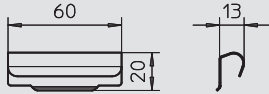




Barrier strip

Type	Dimension H mm	Dimension L mm	Pack. m	Weight kg/100 m	Item No.
TSG 45 VA4301	45	3,000	45	46.700	6062 02 5
TSG 45 VA4571	45	3,000	45	46.700	6062 02 8

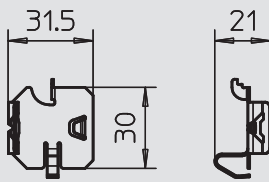
V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /m
Barrier strip for separation of cables of different voltages or functions.



Barrier strip connector

Type	Pack. pcs	Weight kg/100 pcs.	Item No.
TSGV VA4310	10	1.000	6067 97 0

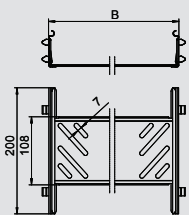
V2A Stainless steel, grade 301 /pc.
Barrier strip connector for screwless connection of the TSG barrier strip in all side heights.



Clamping piece for barrier strip fastening

Type	Pack. pcs	Weight kg/100 pcs.	Item No.
KS KR VA4310	30	0.580	6062 28 0

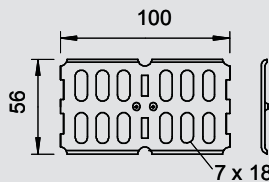
V2A Stainless steel, grade 301 /100 pc.
Clamping piece for screwless fastening of barrier strips in the cable tray types RKSM, MKS and SKS.



Magic straight connector set

Type	Side height mm	Width mm	Pack. pcs	Weight kg/100 pcs.	Item No.
KTSMV 610 VA4301	60	100	1	30.500	6068 95 8
KTSMV 615 VA4301	60	150	1	34.900	6068 96 0
KTSMV 620 VA4301	60	200	1	37.200	6068 96 2
KTSMV 630 VA4301	60	300	1	44.000	6068 96 4
KTSMV 640 VA4301	60	400	1	50.700	6068 96 6
KTSMV 650 VA4301	60	500	1	57.400	6068 96 8
KTSMV 660 VA4301	60	600	1	64.200	6068 97 0
KTSMV 610 VA4571	60	100	1	30.500	6068 98 0
KTSMV 615 VA4571	60	150	1	34.900	6068 98 2
KTSMV 620 VA4571	60	200	1	37.200	6068 98 4
KTSMV 630 VA4571	60	300	1	44.000	6068 98 6
KTSMV 640 VA4571	60	400	1	50.700	6068 98 8
KTSMV 650 VA4571	60	500	1	57.400	6068 99 0
KTSMV 660 VA4571	60	600	1	64.200	6068 99 2

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /pc.
Cable tray connector with quick fastening straight, screwless connection of cable trays and fittings with a side height of 60 mm.



Straight connector

Type	Side height mm	Pack. pcs	Weight kg/100 pcs.	Item No.
RLVK 60 VA4301	60	10	8.800	6067 65 4
RLVK 60 VA4571	60	10	9.000	6067 67 5

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /pc.
Straight connector for straight connection of cable trays and fittings with a side height of 60 mm.



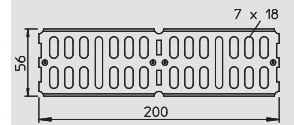
Cable tray systems



Angle connector

Type	Side height mm	Pack. pcs	Weight kg/100 pcs.	Item No.
RWVL 60 VA4301	60	10	17.500	6067 66 2
RWVL 60 VA4571	60	10	17.500	6067 66 4

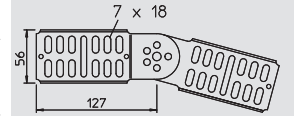
V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /pc.
Straight and angle connector for cable trays and fittings with a side height of 60 mm.



Articulated connector

Type	Side height mm	Pack. pcs	Weight kg/100 pcs.	Item No.
RGV 60 VA4301	60	10	24.000	7082 25 8
RGV 60 VA4571	60	10	25.000	7082 26 5

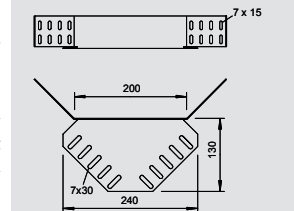
V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /pc.
Articulated connector for cable trays with a side height of 60 mm.



Corner connector

Type	Side height mm	Pack. pcs	Weight kg/100 pcs.	Item No.
REV 60 VA4301	60	5	33.400	6068 02 2
REV 60 VA4571	60	5	33.400	6068 05 4

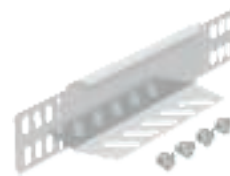
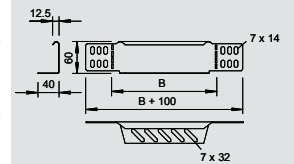
V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /pc.
Corner connector for cable trays with side height 60 mm.



Reducing bracket and end closure plate

Type	Width mm	Pack. pcs	Weight kg/100 pcs.	Item No.
RWEB 610 VA4301	100	1	9.000	7109 81 4
RWEB 620 VA4301	200	1	18.000	7109 83 0
RWEB 630 VA4301	300	1	26.000	7109 85 7
RWEB 640 VA4301	400	1	34.000	7109 87 3
RWEB 650 VA4301	500	1	42.000	7109 90 3
RWEB 660 VA4301	600	1	49.000	7109 93 8

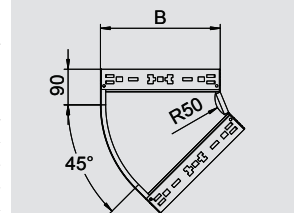
V2A Stainless steel, grade 304 /pc.
Reducer / stop-end for cable trays with side height 60 mm.

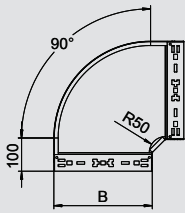


45° Magic bend

Type	Width mm	Pack. pcs	Weight kg/100 pcs.	Item No.
RBM 45 610VA4301	100	1	50.400	6041 08 0
RBM 45 615VA4301	150	1	67.300	6041 08 2
RBM 45 620VA4301	200	1	86.000	6041 08 4
RBM 45 630VA4301	300	1	128.300	6041 08 6
RBM 45 640VA4301	400	1	174.800	6041 08 8
RBM 45 650VA4301	500	1	232.700	6041 09 0
RBM 45 660VA4301	600	1	298.300	6041 09 2
RBM 45 610VA4571	100	1	50.400	6041 10 0
RBM 45 615VA4571	150	1	67.300	6041 10 2
RBM 45 620VA4571	200	1	86.000	6041 10 4
RBM 45 630VA4571	300	1	128.300	6041 10 6
RBM 45 640VA4571	400	1	174.800	6041 10 8
RBM 45 650VA4571	500	1	232.700	6041 11 0
RBM 45 660VA4571	600	1	298.300	6041 11 2

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /pc.
45° bend with quick connector system. For all cable tray types of 60 mm side height.

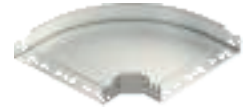




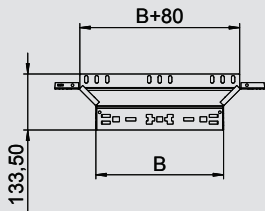
90° Magic bend



Type	Width mm	Pack.	Weight	Item No.
		pcs	kg/100 pcs.	
RBM 90 610VA4301	100	1	65.700	6041 18 0
RBM 90 615VA4301	150	1	92.000	6041 18 2
RBM 90 620VA4301	200	1	122.100	6041 18 4
RBM 90 630VA4301	300	1	192.800	6041 18 6
RBM 90 640VA4301	400	1	275.400	6041 18 8
RBM 90 650VA4301	500	1	377.200	6041 19 0
RBM 90 660VA4301	600	1	494.300	6041 19 2
RBM 90 610VA4571	100	1	65.700	6041 20 0
RBM 90 620VA4571	200	1	122.100	6041 20 4
RBM 90 630VA4571	300	1	192.800	6041 20 6
RBM 90 640VA4571	400	1	275.400	6041 20 8
RBM 90 650VA4571	500	1	377.200	6041 21 0
RBM 90 660VA4571	600	1	494.300	6041 21 2
RBM 90 615VA4571	150	1	92.000	6041 20 2



V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /pc.
90° bend with quick connector system. For all cable tray types of 60 mm side height.



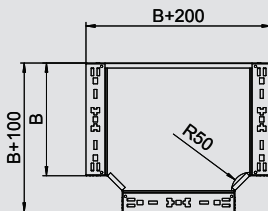
Magic mounting/branch piece



Type	Width mm	Pack.	Weight	Item No.
		pcs	kg/100 pcs.	
RAAM 610 VA4301	100	1	37.900	6041 27 0
RAAM 615 VA4301	150	1	44.300	6041 27 1
RAAM 620 VA4301	200	1	50.600	6041 27 5
RAAM 630 VA4301	300	1	63.500	6041 27 7
RAAM 640 VA4301	400	1	76.500	6041 27 9
RAAM 650 VA4301	500	1	89.300	6041 28 2
RAAM 660 VA4301	600	1	102.700	6041 28 4
RAAM 610 VA4571	100	1	37.900	6041 29 0
RAAM 615 VA4571	150	1	44.300	6041 29 2
RAAM 620 VA4571	200	1	50.600	6041 29 4
RAAM 630 VA4571	300	1	63.500	6041 29 6
RAAM 640 VA4571	400	1	76.500	6041 29 8
RAAM 650 VA4571	500	1	89.300	6041 30 0
RAAM 660 VA4571	600	1	102.700	6041 30 3



V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /pc.
Mounting/branch piece with quick connector system. For all cable tray types of 60 mm side height.



T branch piece Magic



Type	Width mm	Pack.	Weight	Item No.
		pcs	kg/100 pcs.	
RTM 610 VA4301	100	1	83.600	6041 36 0
RTM 615 VA4301	150	1	114.700	6041 36 3
RTM 620 VA4301	200	1	150.600	6041 36 5
RTM 630 VA4301	300	1	235.700	6041 36 7
RTM 640 VA4301	400	1	335.600	6041 36 9
RTM 650 VA4301	500	1	460.500	6041 37 1
RTM 660 VA4301	600	1	605.000	6041 37 3
RTM 610 VA4571	100	1	83.600	6041 38 0
RTM 615 VA4571	150	1	114.700	6041 38 2
RTM 620 VA4571	200	1	150.600	6041 38 4
RTM 630 VA4571	300	1	235.700	6041 38 6
RTM 640 VA4571	400	1	335.600	6041 38 8
RTM 650 VA4571	500	1	460.500	6041 39 0
RTM 660 VA4571	600	1	605.000	6041 39 2



V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /pc.
T branch piece with quick connector system. For all cable tray types of 60 mm side height.

Cable tray systems

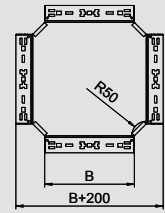


Magic intersection

Type	Width mm	Pack. pcs	Weight kg/100 pcs.	Item No.
RKM 610 VA4301	100	1	93.200	7027 04 1
RKM 615 VA4301	150	1	124.600	7027 04 3
RKM 620 VA4301	200	1	168.000	7027 04 5
RKM 630 VA4301	300	1	246.100	7027 04 7
RKM 640 VA4301	400	1	343.400	7027 04 9
RKM 650 VA4301	500	1	468.300	7027 05 1
RKM 660 VA4301	600	1	612.800	7027 05 3
RKM 610 VA4571	100	1	93.200	7027 06 1
RKM 615 VA4571	150	1	124.600	7027 06 3
RKM 620 VA4571	200	1	168.000	7027 06 5
RKM 630 VA4571	300	1	246.100	7027 06 7
RKM 640 VA4571	400	1	343.400	7027 06 9
RKM 650 VA4571	500	1	468.300	7027 07 1
RKM 660 VA4571	600	1	612.800	7027 07 3

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /pc.

Intersection with quick connector system. For all cable tray types of 60 mm side height.

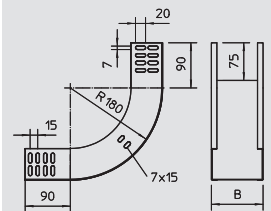


90° vertical bend, rising

Type	Width mm	Pack. pcs	Weight kg/100 pcs.	Item No.
RBV 610 S VA4301	100	1	66.000	7007 10 5
RBV 620 S VA4301	200	1	109.000	7007 10 9
RBV 630 S VA4301	300	1	145.000	7007 11 3
RBV 640 S VA4301	400	1	181.000	7007 11 7
RBV 650 S VA4301	500	1	216.000	7007 11 9
RBV 660 S VA4301	600	1	252.000	7007 12 1
RBV 610 S VA4571	100	1	73.000	7006 72 0
RBV 620 S VA4571	200	1	105.000	7006 72 4
RBV 630 S VA4571	300	1	145.000	7006 72 8
RBV 640 S VA4571	400	1	181.000	7006 73 2
RBV 650 S VA4571	500	1	216.000	7006 73 6
RBV 660 S VA4571	600	1	252.000	7006 74 0

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /pc.

90° rising vertical bend, for all cable tray types of 60 mm side height.

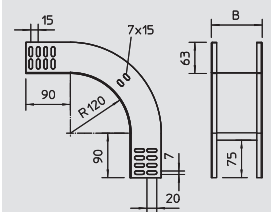


90° vertical bend, falling

Type	Width mm	Pack. pcs	Weight kg/100 pcs.	Item No.
RBV 610 F VA4301	100	1	73.000	7007 15 5
RBV 620 F VA4301	200	1	95.000	7007 15 7
RBV 630 F VA4301	300	1	124.000	7007 15 9
RBV 640 F VA4301	400	1	153.000	7007 16 1
RBV 650 F VA4301	500	1	181.000	7007 16 3
RBV 660 F VA4301	600	1	210.000	7007 16 5
RBV 610 F VA4571	100	1	66.000	7006 75 0
RBV 620 F VA4571	200	1	95.000	7006 75 4
RBV 630 F VA4571	300	1	124.000	7006 75 8
RBV 640 F VA4571	400	1	153.000	7006 76 2
RBV 650 F VA4571	500	1	181.000	7006 76 6
RBV 660 F VA4571	600	1	210.000	7006 77 0

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /pc.

90° vertical bend, falling, for all cable tray types of 60 mm side height.

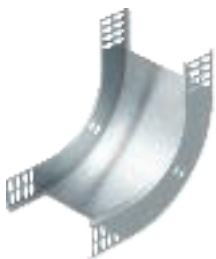
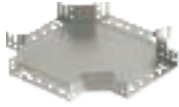
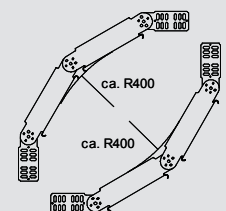


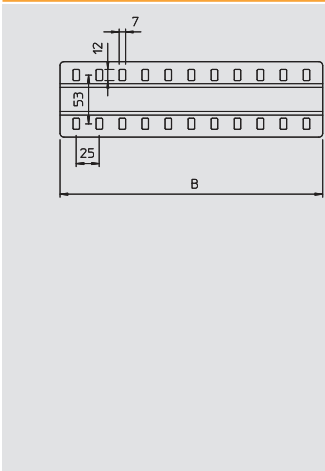
90° adjustable vertical bend

Type	Width mm	Pack. pcs	Weight kg/100 pcs.	Item No.
RGBV 610 VA4301	100	1	172.000	7138 11 3
RGBV 620 VA4301	200	1	218.000	7138 12 1
RGBV 630 VA4301	300	1	265.000	7138 14 8
RGBV 640 VA4301	400	1	311.000	7138 15 6
RGBV 650 VA4301	500	1	394.500	7138 16 4
RGBV 660 VA4301	600	1	486.000	7138 17 2

V2A Stainless steel, grade 304 /pc.

90° adjustable vertical bend, for all cable tray types with a side height of 60 mm.



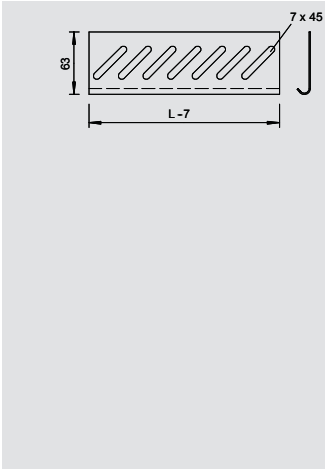


Joint plate

Type	Width mm	Quantity of screws pc.	Pack. pcs	Weight kg/100 pcs.	Item No.
SSLB 100 VA4301	85	2	20	7.700	7070 35 3
SSLB 200 VA4301	185	2	20	16.700	7070 36 1
SSLB 300 VA4301	285	3	20	25.700	7070 36 5
SSLB 400 VA4301	385	4	20	34.700	7070 36 9
SSLB 500 VA4301	485	5	20	43.700	7070 37 3
SSLB 600 VA4301	585	6	20	52.700	7070 38 1
SSLB 100 VA4571	85	2	20	7.700	7070 39 0
SSLB 200 VA4571	185	2	20	16.700	7070 39 2
SSLB 300 VA4571	285	3	20	25.700	7070 39 4
SSLB 400 VA4571	385	4	20	34.700	7070 39 6
SSLB 500 VA4571	485	5	20	43.700	7070 39 8
SSLB 600 VA4571	585	6	20	52.700	7070 40 0



V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /pc.
Wide joint plate for use in all cable trays and wide span cable trays.

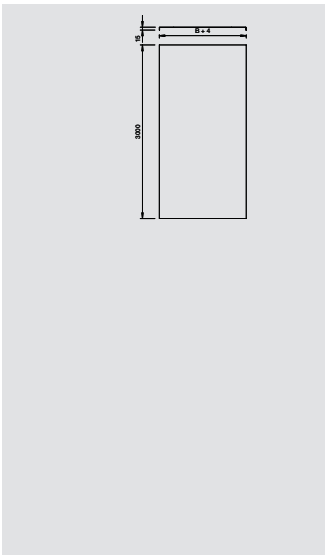


Floor end plate

Type	Width mm	Pack. pcs	Weight kg/100 pcs.	Item No.
BEB 100 VA4301	100	100	5.500	7084 01 3
BEB 200 VA4301	200	100	11.400	7084 04 8
BEB 300 VA4301	300	100	17.200	7084 06 4
BEB 400 VA4301	400	100	23.100	7084 08 0
BEB 500 VA4301	500	50	29.000	7084 10 2
BEB 600 VA4301	600	50	35.000	7084 12 9
BEB 100 VA4571	100	100	5.500	7084 14 1
BEB 200 VA4571	200	100	11.400	7084 14 3
BEB 300 VA4571	300	100	17.200	7084 14 5
BEB 400 VA4571	400	100	23.100	7084 14 7
BEB 500 VA4571	500	50	29.000	7084 14 9
BEB 600 VA4571	600	50	35.000	7084 15 1



V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /pc.
For base reinforcement at the ends of the tray and as cable protection.

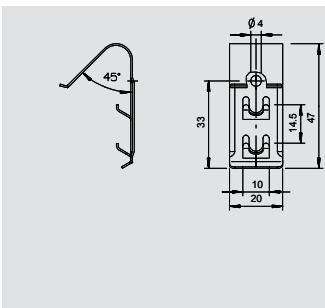


Lid, unperforated

Type	Width mm	Plate thick- ness mm	Length mm	Weight kg/100 m	Item No.
DRLU 100 VA4301	100	1	3,000	104.000	6052 82 4
DRLU 150 VA4301	150	1	3,000	138.200	6052 82 8
DRLU 200 VA4301	200	1	3,000	178.000	6052 83 1
DRLU 300 VA4301	300	1	3,000	256.000	6052 83 4
DRLU 400 VA4301	400	1	3,000	334.300	6052 83 7
DRLU 500 VA4301	500	1.25	3,000	516.100	6052 84 1
DRLU 600 VA4301	600	1.25	3,000	614.300	6052 84 4
DRLU 100 VA4571	100	1	3,000	99.000	6052 99 1
DRLU 150 VA4571	150	—	3,000	138.200	6052 99 2
DRLU 200 VA4571	200	1	3,000	178.000	6052 99 3
DRLU 300 VA4571	300	1	3,000	256.000	6052 99 4
DRLU 400 VA4571	400	1	3,000	334.400	6052 99 5
DRLU 500 VA4571	500	1.25	3,000	516.100	6052 99 6
DRLU 600 VA4571	600	1.25	3,000	614.300	6052 99 8



V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /m
Cover for cable trays and mesh cable trays.
Take appropriate constructive protection measures if there are high wind speeds.



Lid clamp, universal

Type	Pack. pcs	Weight kg/100 pcs.	Item No.
DKU 60 VA4310	60	0.800	6065 60 0
DKU 120 VA4310	120	0.800	6065 61 0



V2A Stainless steel, grade 304 /100 pc.
Cover clamp for universal fastening of covers on cable trays, mesh cable trays and AZ small ducts.

Cable tray systems

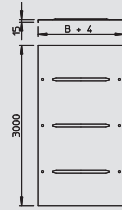
Lid with sash lock



Type	Width mm	Plate thick- ness mm	Length mm	Weight kg/100 m	Item No.
DRL 100 VA4301	100	1	3,000	105.000	6052 87 8
DRL 200 VA4301	200	1	3,000	185.000	6052 89 4
DRL 300 VA4301	300	1	3,000	264.000	6052 90 8
DRL 400 VA4301	400	1	3,000	340.000	6052 93 2
DRL 500 VA4301	500	1.25	3,000	625.000	6052 95 9
DRL 600 VA4301	600	1.25	3,000	745.000	6052 97 5
DRL 100 VA4571	100	–	3,000	105.000	6052 98 0
DRL 200 VA4571	200	–	3,000	185.000	6052 98 1
DRL 300 VA4571	300	–	3,000	275.000	6052 98 3
DRL 400 VA4571	400	–	3,000	361.670	6052 98 4
DRL 500 VA4571	500	–	3,000	625.000	6052 98 5
DRL 600 VA4571	600	–	3,000	745.000	6052 98 6

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /m

Cover for cable trays and cable ladders with three pairs of turn-buckles.
Ensure protective measures for construction if there are high wind speeds.



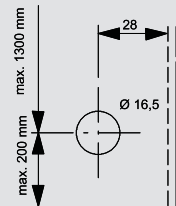
Sash lock



Type	Pack. pcs	Weight kg/100 pcs.	Item No.
DRLM 316 VA4301	10	2.800	6222 35 8

V2A Stainless steel, grade 304 /pc.

Turn-buckle for additional installation or installation at a later date.



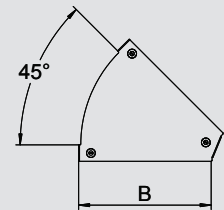
Lid for 45° Magic bend



Type	Width mm	Plate thick- ness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
DFBM 45 100 V2A	100	1.25	1	13.100	7138 43 0
DFBM 45 150 V2A	150	1.25	1	19.800	7138 43 2
DFBM 45 200 V2A	200	1.25	1	28.100	7138 43 4
DFBM 45 300 V2A	300	1.25	1	49.300	7138 43 6
DFBM 45 400 V2A	400	1.25	1	95.100	7138 43 8
DFBM 45 500 V2A	500	1.25	1	137.600	7138 44 0
DFBM 45 600 V2A	600	1.25	1	187.200	7138 44 2
DFBM 45 100 V4A	100	1.25	1	13.100	7138 45 0
DFBM 45 150 V4A	150	1.25	1	19.800	7138 45 2
DFBM 45 200 V4A	200	1.25	1	28.100	7138 45 4
DFBM 45 300 V4A	300	1.25	1	49.300	7138 45 6
DFBM 45 400 V4A	400	1.25	1	95.100	7138 45 8
DFBM 45 500 V4A	500	1.25	1	137.600	7138 46 0
DFBM 45 600 V4A	600	1.25	1	187.200	7138 46 2

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /pc.

Lid for 45° bend with pre-mounted sash locks.



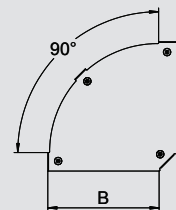
Lid for 90° Magic bend

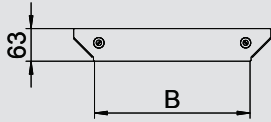


Type	Width mm	Plate thick- ness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
DFBM 90 100 V2A	100	1.25	1	18.500	7138 57 0
DFBM 90 150 V2A	150	1.25	1	29.900	7138 57 2
DFBM 90 200 V2A	200	1.25	1	44.400	7138 57 4
DFBM 90 300 V2A	300	1.25	1	83.000	7138 57 6
DFBM 90 400 V2A	400	1.25	1	166.400	7138 57 8
DFBM 90 500 V2A	500	1.25	1	245.500	7138 58 0
DFBM 90 600 V2A	600	1.25	1	339.500	7138 58 2
DFBM 90 100 V4A	100	1.25	1	18.500	7138 59 0
DFBM 90 150 V4A	150	1.25	1	29.900	7138 59 2
DFBM 90 200 V4A	200	1.25	1	44.400	7138 59 4
DFBM 90 300 V4A	300	1.25	1	83.000	7138 59 6
DFBM 90 400 V4A	400	1.25	1	166.400	7138 59 8
DFBM 90 500 V4A	500	1.25	1	245.500	7138 60 0
DFBM 90 600 V4A	600	1.25	1	339.500	7138 60 2

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /pc.

Lid for 90° bend with pre-mounted sash locks.



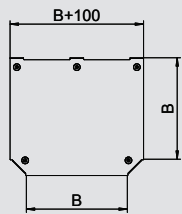


Lid for Magic mounting/branch piece

Type	Width mm	Plate thick- ness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
DFAAM 100 V2A	100	1.25	1	11.100	7138 72 0
DFAAM 150 V2A	150	1.25	1	13.500	7138 72 2
DFAAM 200 V2A	200	1.25	1	14.500	7138 72 4
DFAAM 300 V2A	300	1.25	1	20.900	7138 72 6
DFAAM 400 V2A	400	1.25	1	31.700	7138 72 8
DFAAM 500 V2A	500	1.25	1	37.900	7138 73 0
DFAAM 600 V2A	600	1.25	1	44.100	7138 73 2
DFAAM 100 V4A	100	1.25	1	11.100	7138 74 0
DFAAM 150 V4A	150	1.25	1	13.500	7138 74 2
DFAAM 200 V4A	200	1.25	1	14.500	7138 74 4
DFAAM 300 V4A	300	1.25	1	20.900	7138 74 6
DFAAM 400 V4A	400	1.25	1	31.700	7138 74 8
DFAAM 500 V4A	500	1.25	1	37.900	7138 75 0
DFAAM 600 V4A	600	1.25	1	44.100	7138 75 2



V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /pc.
Cover for add-on tee with pre-mounted turn-buckles.

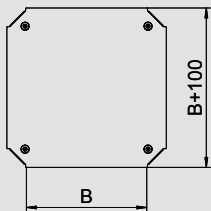


Lid for Magic T branch piece

Type	Width mm	Plate thick- ness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
DFTM 100 V2A	100	1.25	1	31.000	7138 86 0
DFTM 150 V2A	150	1.25	1	40.300	7138 86 2
DFTM 200 V2A	200	1.25	1	59.700	7138 86 4
DFTM 300 V2A	300	1.25	1	110.600	7138 86 6
DFTM 400 V2A	400	1.25	1	220.300	7138 86 8
DFTM 500 V2A	500	1.25	1	322.700	7138 87 0
DFTM 600 V2A	600	1.25	1	444.600	7138 87 2
DFTM 100 V4A	100	1.25	1	31.000	7138 88 0
DFTM 150 V4A	150	1.25	1	40.300	7138 88 2
DFTM 200 V4A	200	1.25	1	59.700	7138 88 4
DFTM 300 V4A	300	1.25	1	110.600	7138 88 6
DFTM 400 V4A	400	1.25	1	220.300	7138 88 8
DFTM 500 V4A	500	1.25	1	322.700	7138 89 0
DFTM 600 V4A	600	1.25	1	444.600	7138 89 2



V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /pc.
Cover for tee with pre-mounted turn-buckle.



Lid for Magic intersection

Type	Width mm	Plate thick- ness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
DFKM 100 V2A	100	1.25	1	31.000	7139 02 0
DFKM 150 V2A	150	1.25	1	48.500	7139 02 2
DFKM 200 V2A	200	1.25	1	69.900	7139 02 4
DFKM 300 V2A	300	1.25	1	124.500	7139 02 6
DFKM 400 V2A	400	1.25	1	242.900	7139 02 8
DFKM 500 V2A	500	1.25	1	350.500	7139 03 0
DFKM 600 V2A	600	1.25	1	477.600	7139 03 2
DFKM 100 V4A	100	1.25	1	31.000	7139 04 0
DFKM 150 V4A	150	1.25	1	48.500	7139 04 2
DFKM 200 V4A	200	1.25	1	69.900	7139 04 4
DFKM 300 V4A	300	1.25	1	124.500	7139 04 6
DFKM 400 V4A	400	1.25	1	242.900	7139 04 8
DFKM 500 V4A	500	1.25	1	350.500	7139 05 0
DFKM 600 V4A	600	1.25	1	477.600	7139 05 2



V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /pc.
Cover for cross-over with pre-mounted turn-buckles.

Cable tray systems

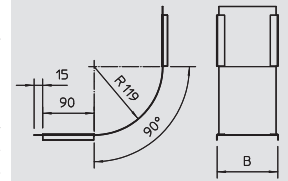
Cable routing



Lid for 90° vertical bend, falling

Type	Width mm	Plate thick- ness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
DBV 100 S VA4301	100	0.75	1	25.000	7130 90 5
DBV 200 S VA4301	200	0.75	1	50.000	7130 90 7
DBV 300 S VA4301	300	0.75	1	72.000	7130 90 9
DBV 400 S VA4301	400	0.75	1	94.000	7130 91 1
DBV 500 S VA4301	500	0.75	1	115.000	7130 91 3
DBV 600 S VA4301	600	0.75	1	137.000	7130 91 5
DBV 100 S VA4571	100	0.75	1	29.000	7130 92 0
DBV 200 S VA4571	200	0.75	1	50.000	7130 92 2
DBV 300 S VA4571	300	0.75	1	72.000	7130 92 4
DBV 400 S VA4571	400	0.75	1	94.000	7130 92 6
DBV 500 S VA4571	500	0.75	1	115.000	7130 92 8
DBV 600 S VA4571	600	0.75	1	137.000	7130 93 0

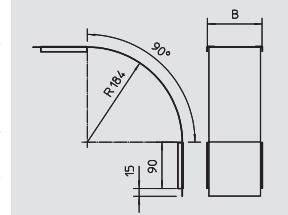
V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /pc.
Cover for all rising vertical bends.



Lid for 90° vertical bend, falling, side height 60

Type	Width mm	Plate thick- ness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
DBV60100F VA4301	100	0.75	1	25.000	7130 95 2
DBV60200F VA4301	200	0.75	1	62.000	7130 95 4
DBV60300F VA4301	300	0.75	1	89.000	7130 95 6
DBV60400F VA4301	400	0.75	1	117.000	7130 95 8
DBV60500F VA4301	500	0.75	1	145.000	7130 96 0
DBV60600F VA4301	600	0.75	1	173.000	7130 96 2
DBV60100F VA4571	100	0.75	1	35.000	7130 97 2
DBV60200F VA4571	200	0.75	1	62.000	7130 97 4
DBV60300F VA4571	300	0.75	1	89.000	7130 97 6
DBV60400F VA4571	400	0.75	1	117.000	7130 97 8
DBV60500F VA4571	500	0.75	1	145.000	7130 98 0
DBV60600F VA4571	600	0.75	1	173.000	7130 98 2

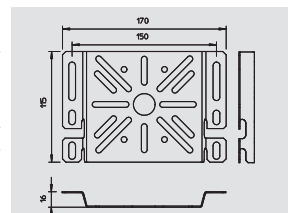
V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /pc.
Cover for falling vertical bends of side height 60.



Mounting plate

Type	Height mm	Width mm	Pack. pcs	Weight kg/100 pcs.	Item No.
MP UNI VA4301	115	170	40	13.300	7085 13 3

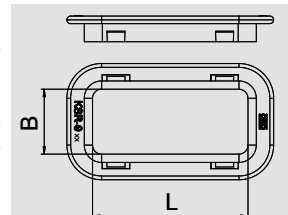
V2A Stainless steel, grade 304 /pc.
Mounting plate, for fastening on the side rail of cable support systems.



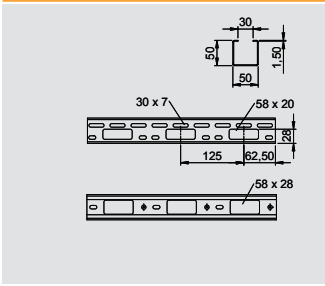
Cable protection ring

Type	Colour	For perforation mm	Pack. pcs	Weight kg/100 pcs.	Item No.
KSR-910 PE	Light grey	20 x 58	25	0.500	6066 71 2

PE Polyethylene /pc.
Cable protection ring for floor penetrations in cable trays of type IKS and for side penetrations in AZ channels and luminaire support trays.



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AZ small duct 050

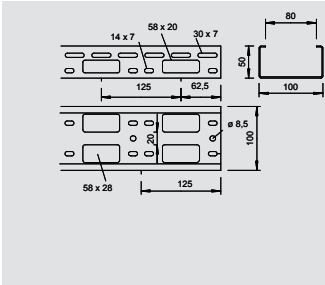


Type	Width mm	Plate thick- ness mm	Length mm	Weight kg/100 m	Item No.
AZK 050 VA4301	50	1.5	3,000	137.000	6075 15 0
AZK 050 VA4571	50	1.5	3,000	137.000	6075 15 2

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /m

AZ channel with a side height of 50 mm.

Magnetic shield insulation without cover 20 dB, with cover 50 dB.



AZ small duct 100

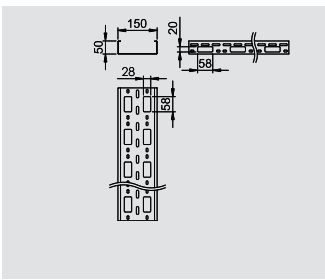


Type	Width mm	Plate thick- ness mm	Length mm	Weight kg/100 m	Item No.
AZK 100 VA4301	100	1.5	3,000	180.000	6075 30 4
AZK 100 VA4571	100	1.5	3,000	180.000	6075 30 6

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /m

AZ channel with a side height of 50 mm.

Magnetic shield insulation without cover 20 dB, with cover 50 dB.



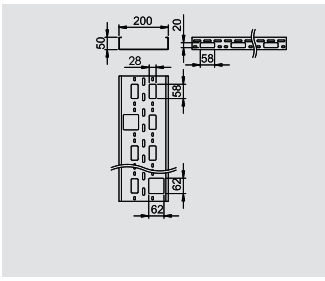
AZ small duct 150

Type	Width mm	Plate thick- ness mm	Length mm	Weight kg/100 m	Item No.
AZK 150 VA4301	150	1.5	3,000	231.700	6075 33 0
AZK 150 VA4571	150	1.5	3,000	231.700	6075 33 2

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti Bright /m

AZ channel with a side height of 50 mm.

Magnetic shield insulation without cover 20 dB, with cover 50 dB.



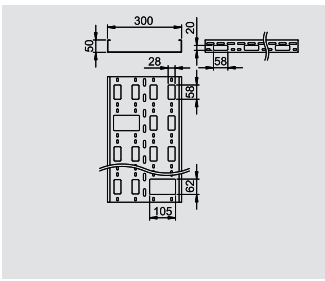
AZ small duct 200

Type	Width mm	Plate thick- ness mm	Length mm	Weight kg/100 m	Item No.
AZK 200 VA4301	200	1.5	3,000	280.300	6075 35 5
AZK 200 VA4571	200	1.5	3,000	280.300	6075 35 7

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti Bright /m

AZ channel with a side height of 50 mm.

Magnetic shield insulation without cover 20 dB, with cover 50 dB.



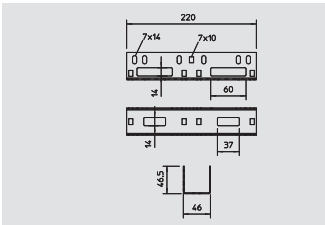
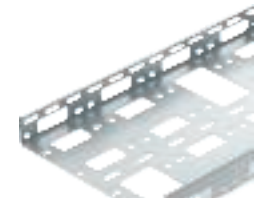
AZ small duct 300

Type	Width mm	Plate thick- ness mm	Length mm	Weight kg/100 m	Item No.
AZK 300 VA4301	300	1.5	3,000	359.300	6075 38 0
AZK 300 VA4571	300	1.5	3,000	359.300	6075 38 2

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti Bright /m

AZ channel with a side height of 50 mm.

Magnetic shield insulation without cover 20 dB, with cover 50 dB.

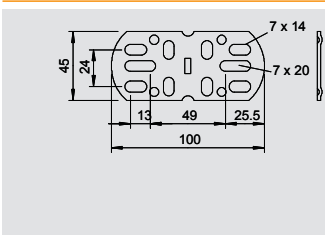


Straight connector

Type	Pack.	Weight	Item No.
VF AZK 50 VA4301	25 pcs	27.200 kg/100 pcs.	6066 62 9

V2A Stainless steel, grade 304 /pc.

Straight connector for connection of luminaire support trays and AZ channels.



Straight and angle connector

Type	Pack.	Weight	Item No.
VF AZK VA4301	10 pcs	7.000 kg/100 pcs.	6066 56 9
VF AZK VA4571	10 pcs	7.000 kg/100 pcs.	6066 57 1

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /pc.

Straight and angle connector for connection of AZ channels.



Cable tray systems

Cable routing



Cable protection ring

Type	Colour	For perforation mm	Pack. pcs	Weight kg/100 pcs.	Item No.
KSR-910 PE	Light grey	20 x 58	25	0.500	6066 71 2

PE Polyethylene /pc.
Cable protection ring for floor penetrations in cable trays of type IKS and for side penetrations in AZ channels and luminaire support trays.



Type	Colour	For perforation mm	Pack. pcs	Weight kg/100 pcs.	Item No.
KSR-915 PE	Light grey	28 x 58	25	0.500	6066 70 4

PE Polyethylene /pc.
Cable protection ring for bottom penetrations in AZ channels and luminaire support trays.



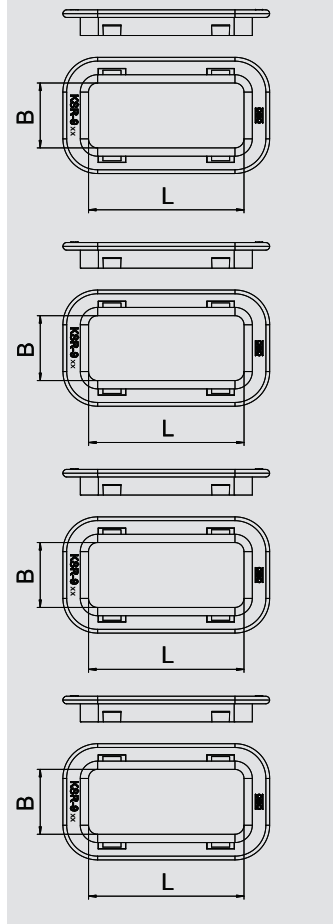
Type	Colour	For floor perforation mm	Pack. pcs	Weight kg/100 pcs.	Item No.
KSR-920 PE	Light grey	64 x 64	25	0.680	6066 69 6

PE Polyethylene /pc.
Cable protection ring for bottom penetrations in AZ channels and luminaire support trays.



Type	Colour	For floor perforation mm	Pack. pcs	Weight kg/100 pcs.	Item No.
KSR-925 PE	Light grey	101 x 58	25	0.920	6066 68 8

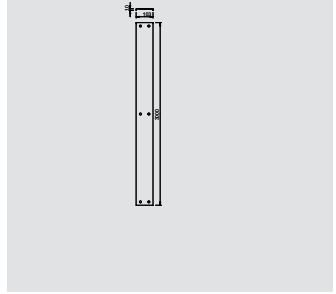
PE Polyethylene /pc.
Cable protection ring for bottom penetrations in AZ channels and luminaire support trays.



Lid with sash lock

Type	Width mm	Dimen- sion H mm	Length mm	Weight kg/100 m	Item No.
AZDMD 50 VA4301	53	10	3,000	57.300	6080 19 7
AZDMD 100 VA4301	103	10	3,000	93.330	6080 29 4
AZDMD 150 VA4301	153	10	3,000	132.700	6080 87 0
AZDMD 200 VA4301	203	10	3,000	172.000	6080 89 5
AZDMD 300 VA4301	303	10	3,000	258.000	6080 92 0

V2A Stainless steel, grade 304 /m
Cover with turn-buckle for AZ channel.



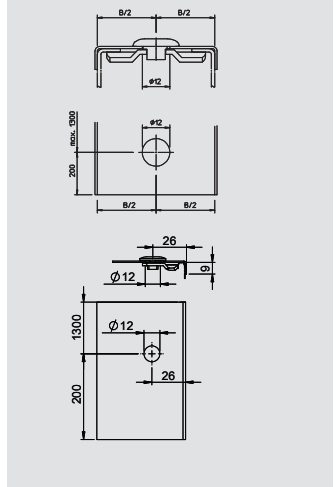
Sash lock

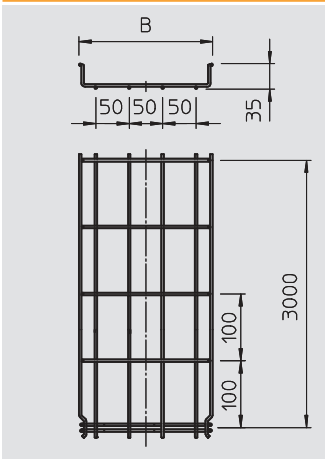
Type	For width mm	Pack. pcs	Weight kg/100 pcs.	Item No.
AZDR 50 VA4301	50	10	2.800	6065 30 9

V2A Stainless steel, grade 304 /pc.
Turn-buckle for installation in the cover for AZ channel of width 50 mm at a later date.

Type	For width mm	Pack. pcs	Weight kg/100 pcs.	Item No.
AZDR 100 VA4301	100	10	2.600	6065 31 7

V2A Stainless steel, grade 304 /pc.
Turn-buckle for installation in the cover for AZ channel and BKK system at a later date.



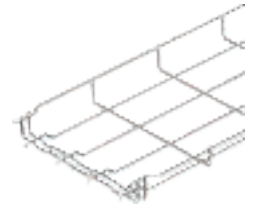


Mesh cable tray GR-Magic®, side height 35

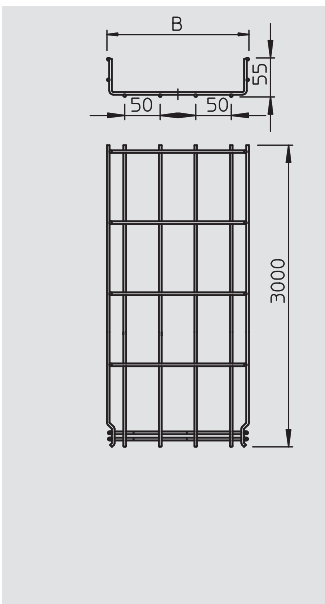


Type	Width	Wire Ø	Length	Useful cross-section	Weight	Item No.
	mm	mm	mm	cm ²	kg/100 m	
GRM 35 50VA4301	50	3.9	3,000	17.5	45.000	6000 05 4
GRM 35 100VA4301	100	3.9	3,000	35	49.000	6000 05 5
GRM 35 150VA4301	150	3.9	3,000	52.5	62.600	6000 05 6
GRM 35 200VA4301	200	3.9	3,000	70	76.300	6000 05 7
GRM 35 300VA4301	300	4.8	3,000	105	157.900	6000 05 9
GRM 35 100VA4401	100	3.9	3,000	35	49.000	6000 08 7
GRM 35 150VA4401	150	3.9	3,000	52.5	62.600	6000 08 9
GRM 35 200VA4401	200	3.9	3,000	70	76.300	6000 09 0
GRM 35 300VA4401	300	4.8	3,000	105	157.900	6000 09 1

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 /m
 Mesh cable tray with shaped connector of side height 35 mm.
 Magnetic shield insulation without cover 15 dB, with cover 25 dB.



Cable routing

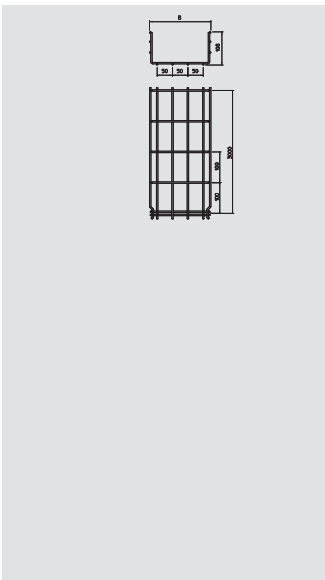


Mesh cable tray GR-Magic®, side height 55



Type	Width	Wire Ø	Length	Useful cross-section	Weight	Item No.
	mm	mm	mm	cm ²	kg/100 m	
GRM 55 50VA4301	50	3.9	3,000	16	67.000	6001 07 0
GRM 55 100VA4301	100	3.9	3,000	40	72.700	6001 07 2
GRM 55 150VA4301	150	3.9	3,000	63	88.000	6001 07 4
GRM 55 200VA4301	200	3.9	3,000	87	97.000	6001 07 6
GRM 55 300VA4301	300	4.8	3,000	129	191.100	6001 07 8
GRM 55 400VA4301	400	4.8	3,000	175	243.000	6001 08 0
GRM 55 500VA4301	500	4.8	3,000	220	287.000	6001 08 2
GRM 55 600VA4301	600	4.8	3,000	265	331.000	6001 08 5
GRM 55 50VA4401	50	3.9	3,000	16	67.000	6001 08 7
GRM 55 100VA4401	100	3.9	3,000	40	72.700	6001 08 8
GRM 55 150VA4401	150	3.9	3,000	63	88.000	6001 09 0
GRM 55 200VA4401	200	3.9	3,000	87	97.000	6001 09 1
GRM 55 300VA4401	300	4.8	3,000	129	191.100	6001 09 3
GRM 55 400VA4401	400	4.8	3,000	175	243.000	6001 09 5
GRM 55 500VA4401	500	4.8	3,000	220	287.000	6001 09 7
GRM 55 600VA4401	600	4.8	3,000	265	331.000	6001 09 9

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Stained /m
 Mesh cable tray with shaped connector of side height 55 mm.
 Magnetic shield insulation without cover 15 dB, with cover 25 dB.

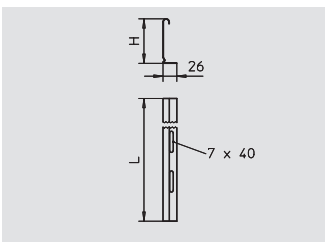


Mesh cable tray GR-Magic®, side height 105



Type	Width	Wire Ø	Length	Useful cross-section	Weight	Item No.
	mm	mm	mm	cm ²	kg/100 m	
GRM105 100VA4301	100	3.9	3,000	82	99.000	6002 45 1
GRM105 150VA4301	150	3.9	3,000	130	110.000	6002 45 5
GRM105 200VA4301	200	4.8	3,000	175	193.000	6002 45 7
GRM105 300VA4301	300	4.8	3,000	268	235.000	6002 46 0
GRM105 400VA4301	400	4.8	3,000	363	277.000	6002 46 3
GRM105 500VA4301	500	4.8	3,000	459	319.000	6002 46 6
GRM105 600VA4301	600	4.8	3,000	554	361.100	6002 46 9
GRM105 100VA4401	100	3.9	3,000	82	99.000	6002 47 5
GRM105 150VA4401	150	3.9	3,000	130	110.000	6002 47 6
GRM105 200VA4401	200	4.8	3,000	175	193.000	6002 47 7
GRM105 300VA4401	300	4.8	3,000	268	235.000	6002 47 9
GRM105 400VA4401	400	4.8	3,000	363	277.000	6002 48 1
GRM105 450VA4401	450	4.8	3,000	411	282.900	6002 48 2
GRM105 500VA4401	500	4.8	3,000	459	319.000	6002 48 3
GRM105 600VA4401	600	4.8	3,000	554	361.100	6002 48 5

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Stained /m
 Mesh cable tray with shaped connector of side height 105 mm.
 Magnetic shield insulation without cover 15 dB, with cover 25 dB.



Barrier strip

Type	Dimension H	Dimension L	Pack.	Weight	Item No.
	mm	mm	m	kg/100 m	
TSG 30 VA4301	30	3,000	45	38.000	6062 05 2
TSG 30 VA4571	30	3,000	45	38.000	6062 05 4

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /m
 Barrier strip for separation of cables of different voltages or functions.



Mesh cable tray GR-Magic®

Cable routing



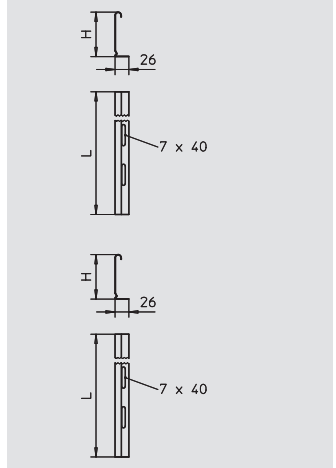
Barrier strip

Type	Dimension H mm	Dimension L mm	Pack. m	Weight kg/100 m	Item No.
TSG 45 VA4301	45	3,000	45	46.700	6062 02 5
TSG 45 VA4571	45	3,000	45	46.700	6062 02 8

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /m
Barrier strip for separation of cables of different voltages or functions.

Type	Dimension H mm	Dimension L mm	Pack. m	Weight kg/100 m	Item No.
TSG 85 VA4301	85	3,000	45	70.300	6062 17 3

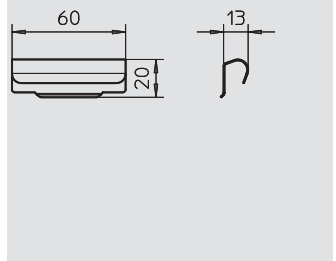
V2A Stainless steel, grade 304 /m
Barrier strip for separation of cables of different voltages or functions.



Barrier strip connector

Type	Pack. pcs	Weight kg/100 pcs.	Item No.
TSGV VA4310	10	1.000	6067 97 0

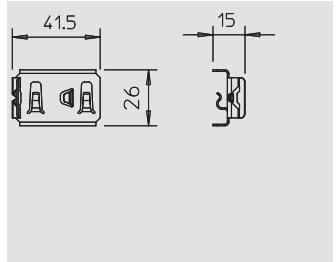
V2A Stainless steel, grade 301 /pc.
Barrier strip connector for screwless connection of the TSG barrier strip in all side heights.



Clamping piece for barrier strip fastening

Type	Pack. pcs	Weight kg/100 pcs.	Item No.
KS GR VA4310	30	0.830	6062 28 2

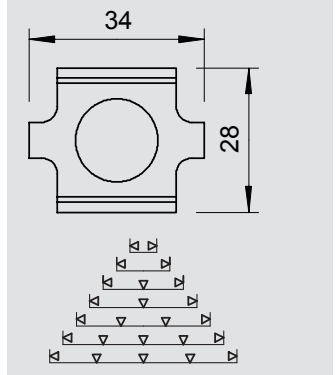
V2A Stainless steel, grade 301 /100 pc.
Clamping piece for fastening barrier strips in mesh cable trays.



Joint connector

Type	Pack. pcs	Weight kg/100 pcs.	Item No.
GSV 34 VA4301	25	3.000	6016 64 2
GSV 34 VA4401	10	3.000	6016 64 8

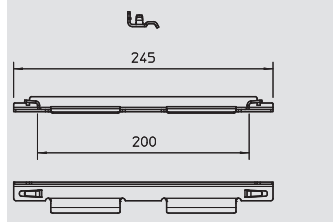
V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 /pc.
Screwed version of joint connector for mesh cable trays.



Quick connector

Type	Width mm	Pack. pcs	Weight kg/100 pcs.	Item No.
GRV 245 VA4404	245	50	13.500	6016 68 8

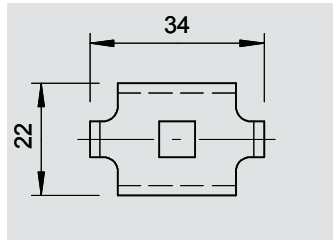
V4A Stainless steel, grade 316 L /pc.
Long mesh cable tray connection for screwless straight connection of mesh cable trays.

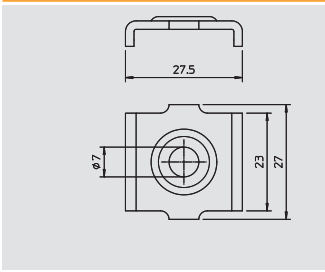


Clamping piece

Type	Pack. pcs	Weight kg/100 pcs.	Item No.
GKS 34 VA4301	100	2.000	6016 83 9
GKS 34 VA4401 SP	10	2.000	6016 85 9

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 /pc.
Clamp for fixing mesh cable trays to wall or support brackets.

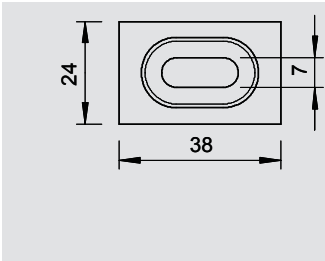




Clamping piece

Type	Pack.	Weight		Item No.
		pcs	kg/100 pcs.	
GKB 34 VA	50	1.000	6016 67 6	

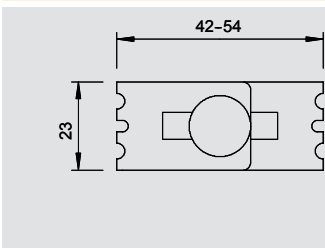
V2A Stainless steel, grade 304 /pc.
Clamping piece for fastening mesh cable trays of width 50 mm to the floor.



Clamping piece

Type	Pack.	Weight		Item No.
		pcs	kg/100 pcs.	
GKT 38 VA4301	100	2.200	6017 04 5	
GKT 38 VA4401 SP	10	2.200	6017 09 2	

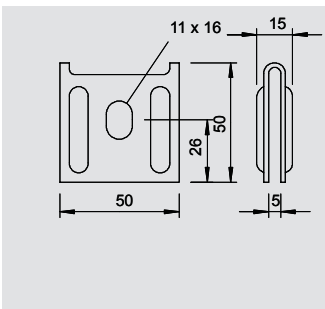
V2A Stainless steel, grade 304 **V4A** Stainless steel, grade 316 /pc.
Clamp for fastening barrier strip in mesh cable trays.



Corner connector

Type	Pack.	Weight		Item No.
		pcs	kg/100 pcs.	
GEV 36 VA4301	100	3.000	6016 73 1	
GEV 36 VA4401 SP	10	3.000	6016 76 4	

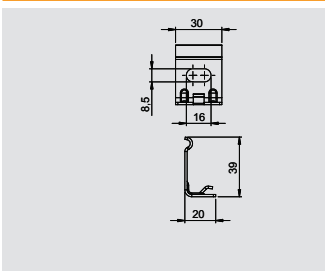
V2A Stainless steel, grade 304 **V4A** Stainless steel, grade 316 /pc.
Corner connector for the creation of mesh cable tray bends.



Wall and floor fastener

Type	Pack.	Weight		Item No.
		pcs	kg/100 pcs.	
K12 1818 VA4301	25	7.600	6016 42 1	

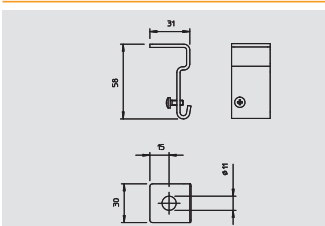
V2A Stainless steel, grade 304 /pc.
Wall and floor fastener for mesh cable trays.



Wall mounting for GRM 35 50

Type	Side height mm	Width mm	Pack.	Weight		Item No.
				pcs	kg/100 pcs.	
WH GRM35 VA4401	35	50	10	1.950	6016 44 5	

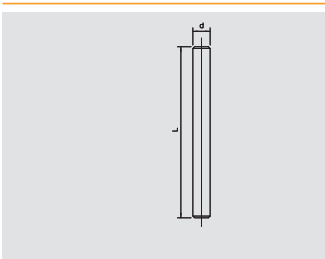
V4A Stainless steel, grade 316 /pc.
Wall mounting for wall fastening of mesh cable trays GRM 35 50



Side holder

Type	For threaded rod	Pack.	Weight		Item No.
			pcs	kg/100 pcs.	
SH M10 VA4401	M10	20	5.500	6015 34 0	

V4A Stainless steel, grade 316 /pc.
Side holder for suspension of mesh cable trays.



Threaded rod

Type	Thread	Dimension d mm	Dimension L mm	Breaking load kN	Pack.	Weight		Item No.
						pcs	kg/100 pcs.	
2078 M8 1M V2A	M8	8	1,000	18.3	50	30.000	3141 31 0	
2078 M10 1M V2A	M10	10	1,000	29	25	49.000	3141 31 2	
2078 M12 1M V2A	M12	12	1,000	42.2	20	70.000	3141 31 4	

V2A Stainless steel, grade 304 /100 pc.
Threaded rod to DIN 976.



Mesh cable tray GR-Magic®



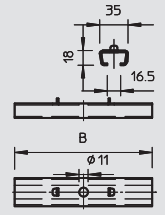
Centre suspension

Type	Dimension B mm	Pack. pcs	Weight		Item No.
			kg/100 pcs.		
GMS 170 VA4404	170	25	20.000		6015 41 8
GMS 270 VA4404	270	25	32.000		6015 41 9
GMS 370 VA4404	370	25	43.000		6015 42 0
GMS 470 VA4404	470	10	55.000		6015 42 1
GMS 570 VA4404	570	10	67.000		6015 42 2

V4A Stainless steel, grade 316 L

/pc.

Central suspension including clamp for mesh cable tray suspensions.



Lid, unperforated

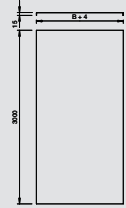
Type	Width mm	Plate thick- ness mm	Length mm	Weight kg/100 m	Item No.
DRLU 100 VA4301	100	1	3,000	104.000	6052 82 4
DRLU 150 VA4301	150	1	3,000	138.200	6052 82 8
DRLU 200 VA4301	200	1	3,000	178.000	6052 83 1
DRLU 300 VA4301	300	1	3,000	256.000	6052 83 4
DRLU 400 VA4301	400	1	3,000	334.300	6052 83 7
DRLU 500 VA4301	500	1.25	3,000	516.100	6052 84 1
DRLU 600 VA4301	600	1.25	3,000	614.300	6052 84 4
DRLU 100 VA4571	100	1	3,000	99.000	6052 99 1
DRLU 200 VA4571	200	1	3,000	178.000	6052 99 3
DRLU 300 VA4571	300	1	3,000	256.000	6052 99 4
DRLU 400 VA4571	400	1	3,000	334.400	6052 99 5
DRLU 500 VA4571	500	1.25	3,000	516.100	6052 99 6
DRLU 600 VA4571	600	1.25	3,000	614.300	6052 99 8

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti

/m

Cover for cable trays and mesh cable trays.

Take appropriate constructive protection measures if there are high wind speeds.



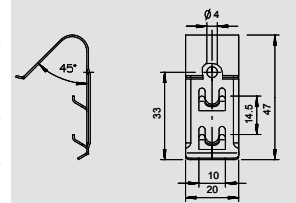
Lid clamp

Type	Pack. pcs	Weight		Item No.
		kg/100 pcs.		
DKU 60 VA4310	60	0.800		6065 60 0
DKU 120 VA4310	120	0.800		6065 61 0

V2A Stainless steel, grade 301

/100 pc.

Cover clamp for universal fastening of covers on cable trays, mesh cable trays and AZ small ducts.



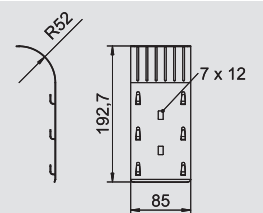
Cable exit plate

Type	Pack. pcs	Weight		Item No.
		kg/100 pcs.		
KAB GR VA 1.4301	10	14.100		6220 14 5

V2A Stainless steel, grade 304 Bright

/pc.

Cable exit plate for mesh cable trays.

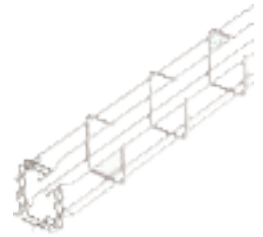


G-mesh cable tray Magic, side height 50



Type	Dimension B mm	Dimension H mm	Dimension C mm	Dimension A mm	Length mm	Weight kg/100 m	Item No.
G-GRM 50 50V2A	55	55	33	40	3,000	67.100	6005 55 0
G-GRM 50 50V4A	55	55	33	40	3,000	67.100	6005 56 5

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 /m
G-shaped mesh cable tray made of spot-welded steel wire with different side heights and widths. Magnetic shield insulation 15 dB.

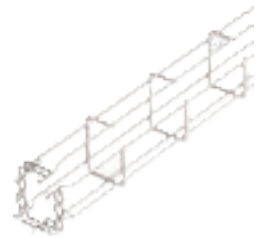


G-mesh cable tray Magic, side height 75



Type	Dimension B mm	Dimension H mm	Dimension C mm	Dimension A mm	Length mm	Weight kg/100 m	Item No.
G-GRM 75 50V2A	53	73	40	53	3,000	79.900	6005 55 3
G-GRM 75 50V4A	53	73	40	53	3,000	79.900	6005 56 8

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 /m
G-shaped mesh cable tray made of spot-welded steel wire with different side heights and widths. Magnetic shield insulation 15 dB.

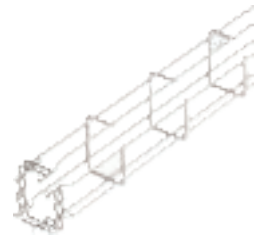


G-mesh cable tray Magic, side height 125



Type	Dimension B mm	Dimension H mm	Dimension C mm	Dimension A mm	Length mm	Weight kg/100 m	Item No.
G-GRM 125 75V2A	75	125	40	96	3,000	108.200	6005 55 6
G-GRM 125 75V4A	75	125	40	96	3,000	108.200	6005 57 1

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 /m
G-shaped mesh cable tray made of spot-welded steel wire with different side heights and widths. Magnetic shield insulation 15 dB.

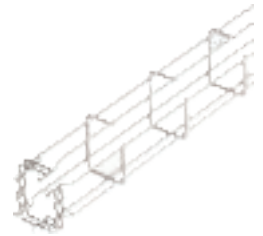


G-mesh cable tray Magic, side height 150



Type	Dimension B mm	Dimension H mm	Dimension C mm	Dimension A mm	Length mm	Weight kg/100 m	Item No.
G-GRM 150 100V2A	100	155	70	120	3,000	128.000	6005 55 9
G-GRM 150 100V4A	100	155	70	120	3,000	128.000	6005 57 4

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 /m
G-shaped mesh cable tray made of spot-welded steel wire with different side heights and widths. Magnetic shield insulation 15 dB.



Accessories, mesh cable trays



Identification plate

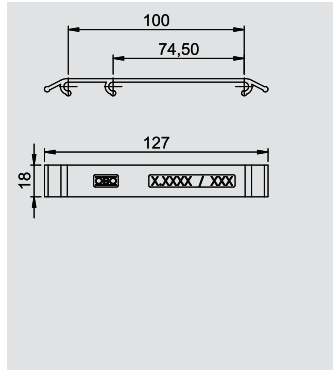
Type	Colour	Pack.	Weight	Item No.
		pcs	kg/100 pcs.	
KS GR LGR	Light grey	10	0.920	6017 71 0
KS GR VKG	Traffic grey B	10	0.920	6017 71 1
KS GR OR	Pastel orange	10	0.920	6017 71 2
KS GR ZGB	Zinc yellow	10	0.920	6017 71 3
KS GR LBL	Light blue	10	0.920	6017 71 4
KS GR SGN	Signal green	10	0.920	6017 71 5

PA Polyamide

/pc.

Identification plate for screwless fastening on mesh cable trays.

Versions in light grey and traffic grey B with labelling of VA 1.4301 and VA 1.4571 or in zinc yellow, pastel orange, light blue and signal green with blank labelling panel.



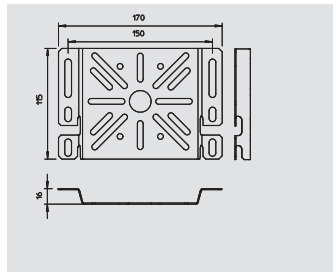
Mounting plate V2A

Type	Height	Width	Pack.	Weight	Item No.
	mm	mm	pcs	kg/100 pcs.	
MP UNI VA4301	115	170	40	13.300	7085 13 3

V2A Stainless steel, grade 304

/pc.

Mounting plate, for fastening on the side rail of cable support systems.



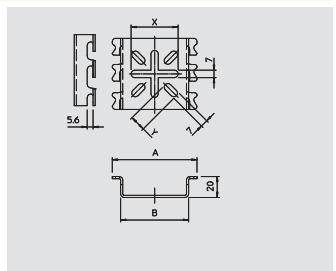
Mounting plate V4A

Type	Dimension A	Dimension B	Dimension x	Dimension y	Pack.	Weight	Item No.
	mm	mm	mm	mm	pcs	kg/100 pcs.	
MPG 65 VA4404	81	65	45	15	30	8.800	6006 48 8
MPG 90 VA4404	111	95	45	38	30	16.100	6006 48 9

V4A Stainless steel, grade 316 L

/pc.

Mounting plate for screwless fastening on mesh cable trays.



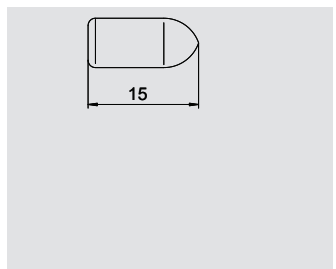
Protective caps

Type	Colour	Pack.	Weight	Item No.
		pcs	kg/100 pcs.	
GR KS 3.9 OR	Pastel orange	500	0.025	6003 75 0
GR KS 4.8 OR	Pastel orange	500	0.030	6003 75 4
GR KS 6.0 OR	Pastel orange	500	0.036	6003 75 8

PE Polyethylene

/100 pc.

Protective cap for attachment to cut wire ends of mesh cable trays.



Earthing clip

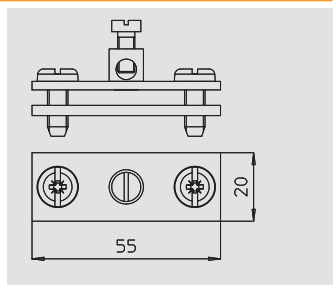
Type	Shipping box	Pack.	Weight	Item No.
	pcs	pcs	kg/100 pcs.	
939	150	25	5.932	5043 10 7

St Steel

G Electrogalvanised

/100 pc.

- For cables to 16 mm² and flat conductors
- Fit: cable to 16 mm² x max. FL 30
- With riveted brass connection terminal and one cylinder bolt, M5 x 12, with two cylinder bolts, M6 x 16



Earthing screw

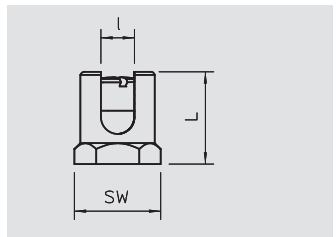
Type	Dimension L	Dimension I	Cross-section	SW	Thread	Pack.	Weight	Item No.
	mm	mm	mm ²	mm		pcs	kg/100 pcs.	
B 33020	22	8	25	18	M6	50	3.100	6404 00 6
B 33021	26	10	35	21	M6	50	4.800	6404 01 4

CuZn Brass

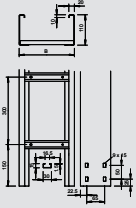
Bright

/100 pc.

Earthing screw for fastening the equipotential bonding wire to the cable support system.



Wide span cable ladder WKLG 110



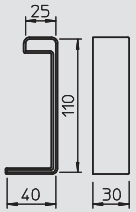
Type	Width mm	Plate thick- ness mm	Length mm	Useful cross- section cm ²	Weight kg/100 m	Item No.
WKLG 1120 VA4301	200	2	6,000	186	567.000	6311 20 2
WKLG 1130 VA4301	300	2	6,000	281	593.000	6311 20 6
WKLG 1140 VA4301	400	2	6,000	376	620.000	6311 21 0
WKLG 1150 VA4301	500	2	6,000	471	630.000	6311 21 4
WKLG 1160 VA4301	600	2	6,000	566	674.000	6311 21 8
WKLG 1120 VA4571	200	2	6,000	186	567.000	6311 22 5
WKLG 1130 VA4571	300	2	6,000	281	593.000	6311 22 7
WKLG 1140 VA4571	400	2	6,000	376	620.000	6311 22 9
WKLG 1150 VA4571	500	2	6,000	471	630.000	6311 23 1
WKLG 1160 VA4571	600	2	6,000	566	674.000	6311 23 3

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /m
 WKLG 110 = wide span cable ladder with perforated side rails of side height of 110 mm.
 Magnetic shield insulation without cover 10 dB, with cover 15 dB.



Cable routing

Protective cap

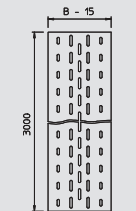


Type	Colour	Pack. pair	Weight kg/100 pairs	Item No.
SKHW 110 OR	Pastel orange	20	4.400	6310 39 8

PE Polyethylene /pair
 Protective cap to cover the ends of wide span cable ladders.



Insertion plate

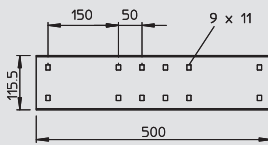


Type	Width mm	Length mm	Weight kg/100 m	Item No.
ELB-L20 VA4301	200	3,000	132.000	6103 61 4
ELB-L30 VA4301	300	3,000	199.000	6103 61 8
ELB-L40 VA4301	400	3,000	264.000	6103 62 2
ELB-L50 VA4301	500	3,000	330.000	6103 62 6
ELB-L60 VA4301	600	3,000	395.000	6103 63 0

V2A Stainless steel, grade 304 /m
 Insert plate for use in cable ladders.



Straight connector

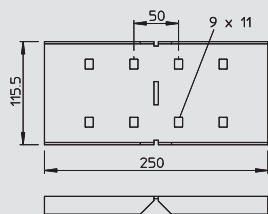


Type	Side height mm	Pack. pcs	Weight kg/100 pcs.	Item No.
WRVL 110 VA4301	110	2	143.000	6091 22 9
WRVL 110 VA4571	110	2	143.000	6091 23 4

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /pc.
 Straight connector for connections of cable trays, wide span cable trays and ladders with a side height of 110 mm.



Angle connector

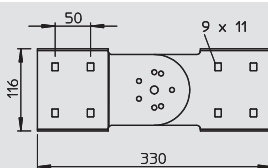


Type	Side height mm	Pack. pcs	Weight kg/100 pcs.	Item No.
WRWVK 110 VA4301	110	2	69.000	6091 39 3
WRWVK 110 VA4571	110	2	69.000	6091 39 7

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /pc.
 Angle connector for wide span cable trays and ladders with a side height of 110 mm.



Articulated connector



Type	Side height mm	Pack. pcs	Weight kg/100 pcs.	Item No.
WRGV 110 VA4301	110	2	120.000	6091 33 8
WRGV 110 VA4571	110	2	125.000	6091 34 3

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /pc.
 Adjustable connector for wide span cable trays and ladders with a side height of 110 mm.



Wide span systems



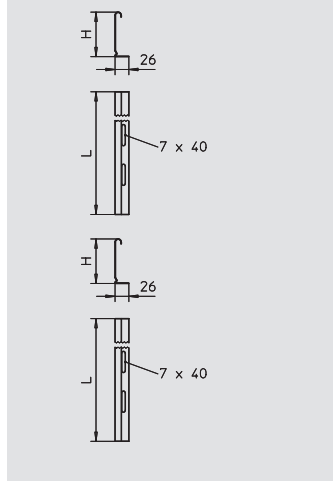
Barrier strip

Type	Dimension H mm	Dimension L mm	Pack. m	Weight kg/100 m	Item No.
TSG 85 VA4301	85	3,000	45	70.300	6062 17 3

V2A Stainless steel, grade 304 /m
Barrier strip for separation of cables of different voltages or functions.

Type	Dimension H mm	Dimension L mm	Pack. m	Weight kg/100 m	Item No.
TSG 110 VA4301	110	3,000	30	85.000	6062 25 5

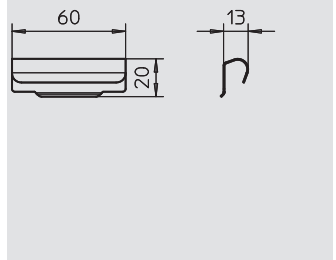
V2A Stainless steel, grade 304 /m
Barrier strip for separation of cables of different voltages or functions.



Barrier strip connector

Type	Pack. pcs	Weight kg/100 pcs.	Item No.
TSGV VA4310	10	1.000	6067 97 0

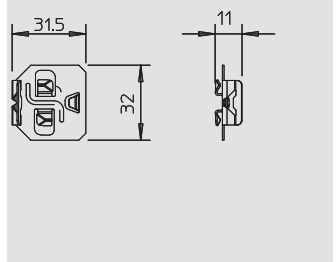
V2A Stainless steel, grade 301 /pc.
Barrier strip connector for screwless connection of the TSG barrier strip in all side heights.



Clamping piece for barrier strip fastening

Type	Pack. pcs	Weight kg/100 pcs.	Item No.
KS KL VA4310	30	0.512	6062 28 4

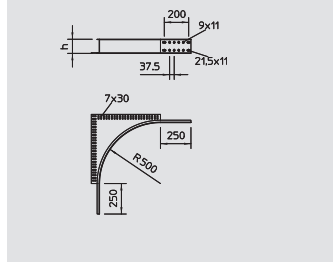
V2A Stainless steel, grade 301 /100 pc.
Clamping piece for screwless fastening of barrier strips in cable ladders.



Corner extension piece

Type	Side height mm	Pack. pcs	Weight kg/100 pcs.	Item No.
WEAS 110 VA4301	110	6	504.000	6098 48 3

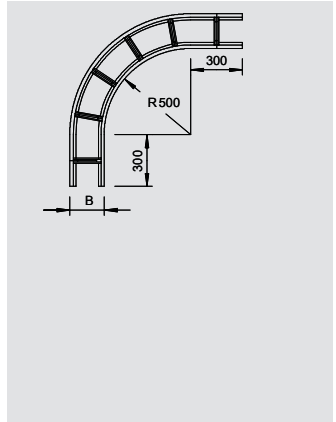
V2A Stainless steel, grade 304 /pc.
Add-on corner for wide span cable trays and ladders with a side height of 110 mm.

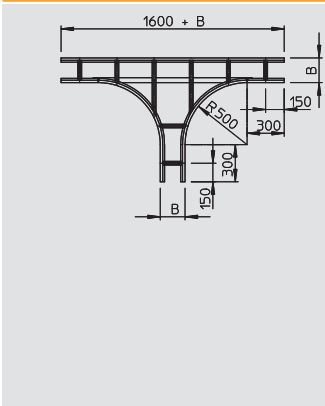


90° bend

Type	Width mm	Pack. pcs	Weight kg/100 pcs.	Item No.
WLB 90 112VA4301	200	1	900.000	6312 53 9
WLB 90 113VA4301	300	1	1,030.000	6312 54 1
WLB 90 114VA4301	400	1	1,105.000	6312 54 3
WLB 90 115VA4301	500	1	1,230.000	6312 54 5
WLB 90 116VA4301	600	1	1,330.000	6312 54 7
WLB 90 112VA4571	200	1	900.000	6312 55 0
WLB 90 113VA4571	300	1	1,030.000	6312 55 2
WLB 90 114VA4571	400	1	1,105.000	6312 55 4
WLB 90 115VA4571	500	1	1,230.000	6312 55 6
WLB 90 116VA4571	600	1	1,330.000	6312 55 8

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /pc.
90° bend, horizontal, for all wide span cable ladders of 110 mm side height.

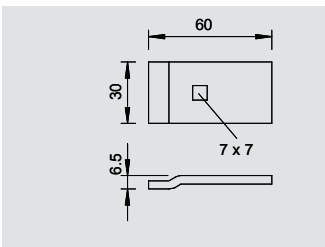




T branch piece

Type	Width mm	Pack. pcs	Weight kg/100 pcs.	Item No.
WLT 1120 VA4301	—	1	1,750.000	6312 80 2
WLT 1130 VA4301	—	1	1,870.000	6312 80 4
WLT 1140 VA4301	—	1	1,990.000	6312 80 6
WLT 1160 VA4301	—	1	2,340.000	6312 81 0
WLT 1120 VA4571	200	1	1,750.000	6312 81 5
WLT 1130 VA4571	300	1	1,870.000	6312 81 7
WLT 1140 VA4571	400	1	1,990.000	6312 81 9
WLT 1150 VA4571	500	1	2,147.000	6312 82 1
WLT 1160 VA4571	600	1	2,340.000	6312 82 3

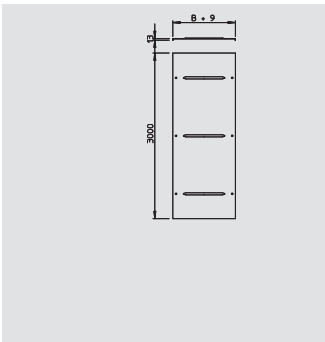
V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /pc.
Horizontal tee, for all wide span cable ladders of 110 mm side height.



Clamping piece

Type	Pack. pcs	Weight kg/100 pcs.	Item No.
LKS 60 4 VA4301	50	8.000	6221 13 0
LKS60 4 VA4571	50	7.000	6221 15 7

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /pc.
Clamp for fastening cable ladders.



Lid

Type	Width mm	Plate thick- ness mm	Length mm	Weight kg/100 m	Item No.
WDRL 1116 20 V2A	200	1.5	3,000	184.000	6227 36 0
WDRL 1116 30 V2A	300	1.5	3,000	260.000	6227 36 2
WDRL 1116 40 V2A	400	1.5	3,000	425.000	6227 36 4
WDRL 1116 50 V2A	500	1.5	3,000	625.000	6227 36 6
WDRL 1116 60 V2A	600	1.5	3,000	745.000	6227 36 8

V2A Stainless steel, grade 304 Bright /m
Lid for wide span trays and ladders with the side height 110 and 160 mm.
Ensure protective measures for construction if there are high wind speeds.



Wide span systems

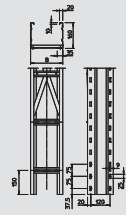


Wide span cable ladder WKLG 160

Type	Width mm	Plate thick- ness mm	Length mm	Useful cross- section cm ²	Weight kg/100 m	Item No.
WKLG 1620 VA4571	200	2	6,000	282	737.300	6227 17 0
WKLG 1630 VA4571	300	2	6,000	427	767.300	6227 17 2
WKLG 1640 VA4571	400	2	6,000	572	797.300	6227 17 4
WKLG 1650 VA4571	500	2	6,000	717	828.500	6227 17 6
WKLG 1660 VA4571	600	2	6,000	857	859.300	6227 17 8

V4A Stainless steel, grade 316 Ti /m

WKLG 160 = wide span cable ladder with perforated side rails of side height of 160 mm. Magnetic shield insulation without cover 10 dB, with cover 15 dB.

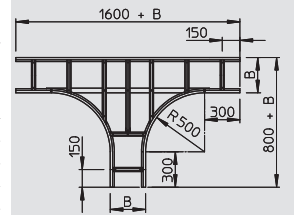


T branch piece

Type	Width mm	Pack. pcs	Weight kg/100 pcs.	Item No.
WLT 1620 VA4571	200	1	2,249.000	6229 82 0
WLT 1630 VA4571	300	1	2,452.000	6229 82 2
WLT 1640 VA4571	400	1	2,604.000	6229 82 4
WLT 1650 VA4571	500	1	2,756.000	6229 82 6
WLT 1660 VA4571	600	1	2,907.000	6229 82 8

V4A Stainless steel, grade 316 Ti /pc.

Horizontal tee, for all wide span cable ladders of 160 mm side height.



Lid

Type	Width mm	Plate thick- ness mm	Length mm	Weight kg/100 m	Item No.
WDRL 1116 20 V2A	200	1.5	3,000	184.000	6227 36 0
WDRL 1116 30 V2A	300	1.5	3,000	260.000	6227 36 2
WDRL 1116 40 V2A	400	1.5	3,000	425.000	6227 36 4
WDRL 1116 50 V2A	500	1.5	3,000	625.000	6227 36 6
WDRL 1116 60 V2A	600	1.5	3,000	745.000	6227 36 8

V2A Stainless steel, grade 304 Bright /m

Lid for wide span trays and ladders with the side height 110 and 160 mm. Ensure protective measures for construction if there are high wind speeds.

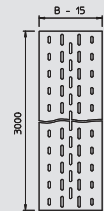


Insertion plate

Type	Width mm	Length mm	Weight kg/100 m	Item No.
ELB-L20 VA4301	200	3,000	132.000	6103 61 4
ELB-L30 VA4301	300	3,000	199.000	6103 61 8
ELB-L40 VA4301	400	3,000	264.000	6103 62 2
ELB-L50 VA4301	500	3,000	330.000	6103 62 6
ELB-L60 VA4301	600	3,000	395.000	6103 63 0

V2A Stainless steel, grade 304 /m

Insert plate for use in cable ladders.

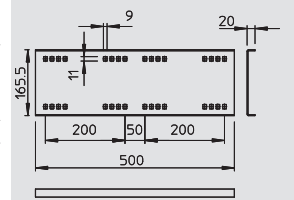


Straight connector

Type	Side height mm	Pack. pcs	Weight kg/100 pcs.	Item No.
WRVL 160 VA4571	160	2	186.000	6227 73 0

V4A Stainless steel, grade 316 Ti /pc.

Straight connector for straight connections of cable trays, wide span cable trays and ladders with a side height of 160 mm.

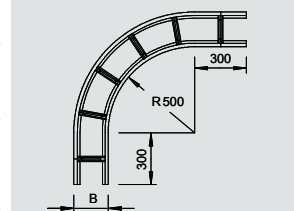


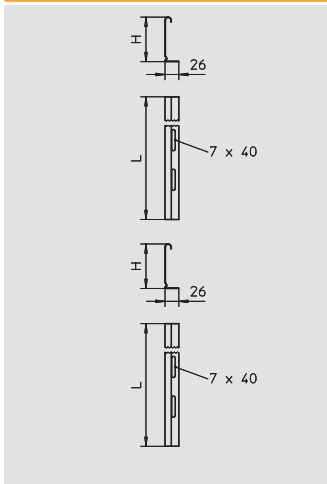
90° bend

Type	Width mm	Pack. pcs	Weight kg/100 pcs.	Item No.
WLB 90 162VA4571	200	1	1,145.000	6229 50 0
WLB 90 163VA4571	300	1	1,250.000	6229 50 2
WLB 90 164VA4571	400	1	1,356.000	6229 50 4
WLB 90 165VA4571	500	1	1,504.000	6229 50 6
WLB 90 166VA4571	600	1	1,618.000	6229 50 8

V4A Stainless steel, grade 316 Ti /pc.

90° bend, horizontal, for all wide span cable ladders of 160 mm side height.





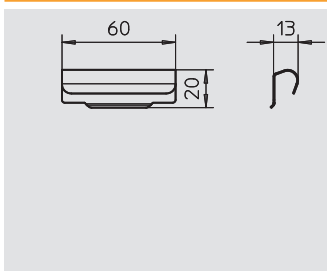
Barrier strip

Type	Dimension H mm	Dimension L mm	Pack. m	Weight kg/100 m	Item No.
TSG 85 VA4301	85	3,000	45	70.300	6062 17 3

V2A Stainless steel, grade 304 /m
Barrier strip for separation of cables of different voltages or functions.

Type	Dimension H mm	Dimension L mm	Pack. m	Weight kg/100 m	Item No.
TSG 110 VA4301	110	3,000	30	85.000	6062 25 5

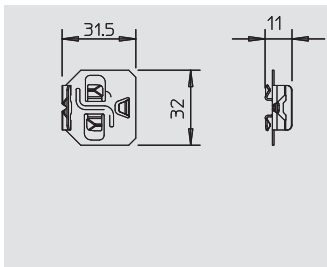
V2A Stainless steel, grade 304 /m
Barrier strip for separation of cables of different voltages or functions.



Barrier strip connector

Type	Pack. pcs	Weight kg/100 pcs.	Item No.
TSGV VA4310	10	1.000	6067 97 0

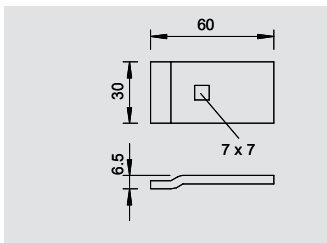
V2A Stainless steel, grade 301 /pc.
Barrier strip connector for screwless connection of the TSG barrier strip in all side heights.



Clamping piece for barrier strip fastening

Type	Pack. pcs	Weight kg/100 pcs.	Item No.
KS KL VA4310	30	0.512	6062 28 4

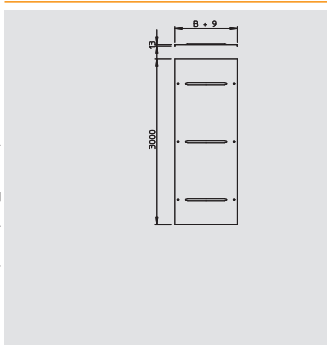
V2A Stainless steel, grade 301 /100 pc.
Clamping piece for screwless fastening of barrier strips in cable ladders.



Clamping piece

Type	Pack. pcs	Weight kg/100 pcs.	Item No.
LKS 60 4 VA4301	50	8.000	6221 13 0
LKS60 4 VA4571	50	7.000	6221 15 7

V2A Stainless steel, grade 304 **V4A** Stainless steel, grade 316 Ti /pc.
Clamp for fastening cable ladders.



Lid

Type	Width mm	Plate thick- ness mm	Length mm	Weight kg/100 m	Item No.
WDRL 1116 20 V2A	200	1.5	3,000	184.000	6227 36 0
WDRL 1116 30 V2A	300	1.5	3,000	260.000	6227 36 2
WDRL 1116 40 V2A	400	1.5	3,000	425.000	6227 36 4
WDRL 1116 50 V2A	500	1.5	3,000	625.000	6227 36 6
WDRL 1116 60 V2A	600	1.5	3,000	745.000	6227 36 8

V2A Stainless steel, grade 304 Bright /m
Lid for wide span trays and ladders with the side height 110 and 160 mm.
Ensure protective measures for construction if there are high wind speeds.



Cable ladder and ladder systems



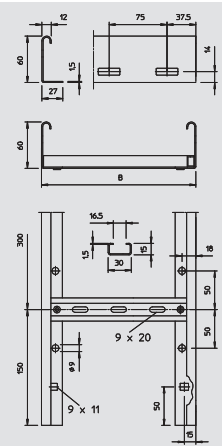
Cable ladder LG 60

Type	Width mm	Rail thickness mm	Length mm	Weight kg/100 m	Item No.
LG 620 VS VA4301	200	1.5	6.000	273.800	6208 70 0
LG 630 VS VA4301	300	1.5	6.000	298.000	6208 70 3
LG 640 VS VA4301	400	1.5	6.000	322.200	6208 70 6
LG 650 VS VA4301	500	1.5	6.000	346.300	6208 70 9
LG 660 VS VA4301	600	1.5	6.000	378.300	6208 71 2
LG 620 VS VA4571	200	1.5	6.000	273.800	6101 20 0
LG 630 VS VA4571	300	1.5	6.000	298.000	6101 20 8
LG 640 VS VA4571	400	1.5	6.000	322.200	6101 21 6
LG 650 VS VA4571	500	1.5	6.000	346.300	6101 22 3
LG 660 VS VA4571	600	1.5	6.000	378.300	6101 23 2

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /m

Cable ladder with perforated side rail of side height 60 mm with riveted C profile rungs, open in an upwards direction (VS version).

Magnetic shield insulation without cover 10 dB, with cover 15 dB.



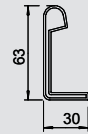
Cable routing

Protective cap

Type	Colour	Pack.	Weight	Item No.
		pair	kg/100 pairs	
SKH 60 OR	Pastel orange	40	1.100	6222 53 7

PE Polyethylene /pair

Protective cap to cover cable ladder ends of side height 60 mm.

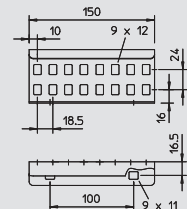


Straight connector

Type	Side height mm	Pack.	Weight	Item No.
		pcs	kg/100 pcs.	
LVG 60 VA4301	60	20	22.000	6208 84 6
LVG 60 VA4571	60	20	22.000	6208 83 5

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti Bright /pc.

Straight connector as external connector to connect cable ladders and fittings with a side height of 60 mm and continuous rail perforation.

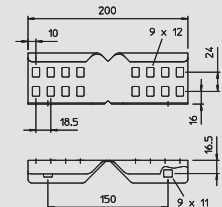


Angle connector

Type	Side height mm	Pack.	Weight	Item No.
		pcs	kg/100 pcs.	
LWVG 60 VA4301	60	20	24.000	6208 89 8
LWVG 60 VA4571	60	20	22.000	6208 89 1

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti Bright /pc.

Angle connector as external connector to join cable ladders and fittings with a side height of 60 mm and continuous rail perforation.

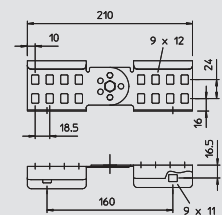
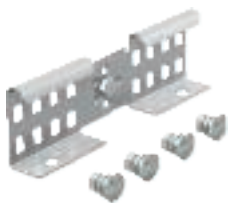


Articulated connector

Type	Side height mm	Pack.	Weight	Item No.
		pcs	kg/100 pcs.	
LGVG 60 VA4301	60	10	29.000	6208 94 7
LGVG 60 VA4571	60	10	29.000	6208 93 2

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti Bright /pc.

Adjustable connector as external connector to join cable ladders and fittings with a side height of 60 mm and continuous rail perforation. Angle can be adjusted vertically.

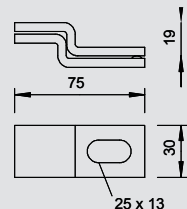


Wall strap

Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
WB 30 75 VA4301	10	20.000	6019 66 8

V2A Stainless steel, grade 304 /pc.

Wall bracket for fastening vertical ladders, type LG 60, to concrete walls and masonry.



Cable ladder and ladder systems



Cable routing



Clamp clip 2056U

Type	Clamping range D	Dimension A	Dimension B	Dimension C	Dimension G	Dimension t	Dimension H	Dimension L	Pack.	Weight	Item No.
	mm	mm	mm	mm	mm	mm	mm	mm	pcs	kg/100 pcs.	
2056U 12 VA	8-12	20	16	34	M6	1.5	42	34	100	3.000	1178 50 4
2056U 16 VA	12-16	20	20	34	M6	1.5	46	34	100	3.200	1178 51 2
2056U 22 VA	16-22	20	27	34	M6	1.5	53	34	100	3.800	1178 52 0
2056U 28 VA	22-28	20	33	34	M6	2	59	34	100	5.350	1178 53 9
2056U 34 VA	28-34	20	39	34	M8	2	67	37.5	100	7.200	1178 54 7
2056U 40 VA	34-40	20	45	34	M8	2	73	37.5	100	8.100	1178 55 5
2056U 46 VA	40-46	20	51	40	M8	2	79	37.5	100	9.900	1178 56 3
2056U 52 VA	46-52	20	57	40	M8	2	85	38.5	100	11.200	1178 57 1
2056U 58 VA	52-58	23	64	40	M8	2.5	91	38.5	100	13.400	1178 59 8
2056U 64 VA	58-64	23	70	40	M8	2.5	97	38.5	100	14.300	1178 60 1
2056U 70 VA	64-70	23	76	40	M8	2.5	103	38.5	50	20.500	1178 62 8
2056U 76 VA	70-76	25	82	40	M8	2.5	110	45.5	25	19.100	1178 63 6

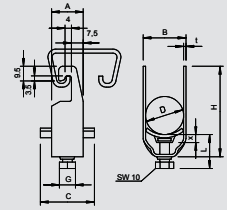
V2A Stainless steel, grade 304

/100 pc.

Suitable for all C profile rails with slot width 18 and 22 mm. Also suitable for flat, angle and U irons of 4 - 12 mm material thickness.

Stainless steel clip and bolt.

Polypropylene pressure sleeve, halogen-free, colour light grey RAL 7035.



Clamp clip 2056U M

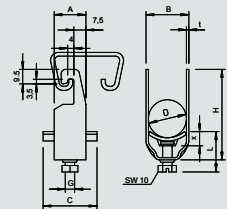
Type	Clamping range D	Dimension A	Dimension B	Dimension C	Dimension G	Dimension t	Dimension H	Dimension L	Pack.	Weight	Item No.
	mm	mm	mm	mm	mm	mm	mm	mm	pcs	kg/100 pcs.	
2056U M 12 V4A	8-12	—	16	34	—	1.5	—	—	100	3.300	1158 20 7
2056U M 16 V4A	12-16	—	20	34	—	1.5	—	—	100	3.520	1158 21 1
2056U M 22 V4A	16-22	—	27	34	—	1.5	—	—	100	3.960	1158 21 5
2056U M 28 V4A	22-28	—	33	34	—	2	—	—	100	5.890	1158 21 9
2056U M 34 V4A	28-34	—	39	34	—	2	—	—	100	7.650	1158 22 3
2056U M 40 V4A	34-40	—	45	—	—	2	—	—	100	8.360	1158 22 7
2056U M 46 V4A	40-46	—	51	40	—	2	—	—	100	10.890	1158 23 1
2056U M 52 V4A	46-52	—	57	40	—	2	—	—	100	11.660	1158 23 5
2056U M 58 V4A	52-58	—	64	40	—	2.5	—	—	100	14.740	1158 23 9
2056U M 64 V4A	58-64	—	70	40	—	2.5	—	—	100	15.730	1158 24 3
2056U M 70 V4A	64-70	—	76	40	—	2.5	—	—	50	18.200	1158 24 7
2056U M 76 V4A	70-76	—	82	40	—	2.5	—	—	25	20.600	1158 25 1

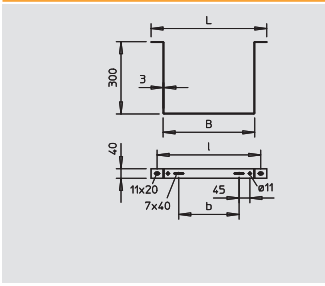
V4A Stainless steel, grade 316 Ti

/100 pc.

Suitable for all C profile rails with slot width 18 and 22 mm. Also suitable for flat, angle and U irons of 4 - 12 mm material thickness.

Clip, bolt and pressure trough all made of rust-proof stainless steel.



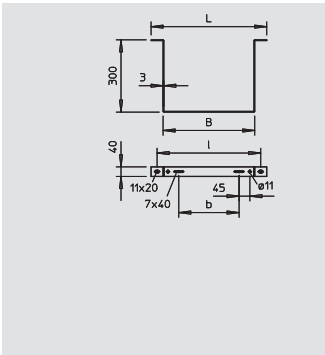


Suspension clamp, tunnel V4A (1.4571)

Type	Dimension B mm	Dimension L mm	Dimension b mm	Dimension l mm	Pack. pcs	Weight kg/100 pcs.	Item No.
AHB-T1712 VA4571	120	220	—	180	11	67.000	6363 99 9
AHB-T1722 VA4571	220	320	125	280	14	78.000	6364 00 9
AHB-T1732 VA4571	320	420	225	380	14	91.000	6364 01 9

V4A Stainless steel, grade 316 Ti /pc.

Special suspension clamp for cable support systems in tunnels. Additional variants, such as adapter or connection clamps, as well as various head shapes, on request.

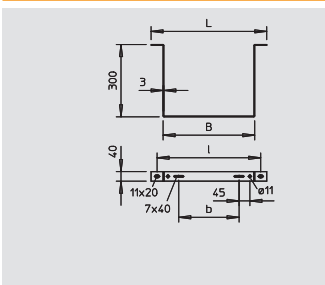


Suspension clamp, tunnel V5A 1.4529 and 1.4547

Type	Dimension B mm	Dimension L mm	Dimension b mm	Dimension l mm	Pack. pcs	Weight kg/100 pcs.	Item No.
AHB-T1712 VA4529	120	220	—	180	11	67.000	6363 99 5
AHB-T1722 VA4529	220	320	125	280	14	78.000	6364 00 5
AHB-T1732 VA4529	320	420	225	380	14	91.000	6364 01 5
AHB-T1712 VA4547	120	220	—	180	11	67.000	6363 99 7
AHB-T1722 VA4547	220	320	125	280	14	78.000	6364 00 7
AHB-T1732 VA4547	320	420	225	380	14	91.000	6364 01 7

V5A Stainless steel, 1.4529 **V5A** Stainless steel, 1.4547 /pc.

Special suspension clamp for cable support systems in tunnels. Additional variants, such as adapter or connection clamps, as well as various head shapes, on request.

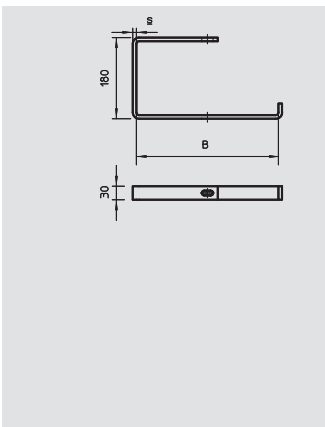


Suspension clamp, tunnel V5A 1.4529

Type	Dimension B mm	Dimension L mm	Dimension b mm	Dimension l mm	Pack. pcs	Weight kg/100 pcs.	Item No.
AHB-T 200	280	380	150	330	1	94.000	6363 88 8
AHB-T 300	380	480	250	430	1	103.000	6363 89 2
AHB-T 400	480	580	350	530	1	113.000	6363 89 6

V5A Stainless steel, 1.4529 /pc.

Special suspension clamp for cable support systems in tunnels. Additional variants, such as adapter or connection clamps, as well as various head shapes, on request.



Suspension clamp

Type	Width mm	Dimension s mm	Hole- Ø mm	F in ceiling kN	Pack. pcs	Weight kg/100 pcs.	Item No.
AHB 100 VA4571	100	6	11	0.6	1	53.000	6363 90 5
AHB 150 VA4571	150	8	11	0.6	1	86.000	6363 90 9
AHB 200 VA4571	200	8	11	0.6	1	100.000	6363 91 3
AHB 300 VA4571	300	8	11	0.35	1	128.000	6363 94 0
AHB 400 VA4571	400	8	11	0.3	1	155.000	6363 94 8
AHB 100 VA4529	100	6	11	0.6	1	53.000	6363 90 6
AHB 150 VA4529	150	8	11	0.6	1	86.000	6363 91 0
AHB 200 VA4529	200	8	11	0.6	1	100.000	6363 91 4
AHB 300 VA4529	300	8	11	0.35	1	128.000	6363 94 1
AHB 400 VA4529	400	8	11	0.2	1	155.000	6363 94 9

V4A Stainless steel, grade 316 Ti **V5A** Stainless steel, 1.4529 /pc.

Ceiling bracket for cable support systems.



Mounting systems

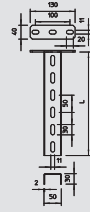
Cable routing



US 3 suspended support

Type	Length mm	Material thickness mm	Tensile load kN	Pack. pcs	Weight kg/100 pcs.	Item No.
US 3 K 20VA4301	200	2	5	4	44.000	6342 40 1
US 3 K 30VA4301	300	2	5	4	58.000	6342 40 3
US 3 K 40VA4301	400	2	5	4	71.000	6342 40 5
US 3 K 50VA4301	500	2	5	4	84.000	6342 40 7
US 3 K 60VA4301	600	2	5	4	97.000	6342 40 9
US 3 K 70VA4301	700	2	5	4	110.000	6342 41 1
US 3 K 80VA4301	800	2	5	4	123.000	6342 41 3
US 3 K 90VA4301	900	2	5	4	137.000	6342 41 5
US 3 K 100VA4301	1,000	2	5	4	150.000	6342 41 7
US 3 K 20VA4571	200	2	5	4	44.000	6342 37 5
US 3 K 30VA4571	300	2	5	4	58.000	6342 53 0
US 3 K 40VA4571	400	2	5	4	71.000	6342 37 9
US 3 K 50VA4571	500	2	5	4	84.000	6342 38 1
US 3 K 60VA4571	600	2	5	4	97.000	6342 38 9
US 3 K 70VA4571	700	2	5	4	110.000	6342 39 1
US 3 K 80VA4571	800	2	5	4	123.000	6342 39 3
US 3 K 90VA4571	900	2	5	4	137.000	6342 39 5
US 3 K 100VA4571	1,000	2	5	4	150.000	6342 39 7
US 3 K110 VA4571	1,100	2	-	1	166.000	6342 39 6
US 3 K120 VA4571	-	2	-	1	110.000	6342 39 8

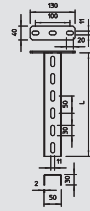
V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti Stained /pc.
Suspended support (U profile) of dimensions 50 x 30 mm with welded head plate.



US 3 suspended support V5A

Type	Length mm	Material thickness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
US 3 K 20 VA4529	200	2	1	44.000	6342 42 2
US 3 K 30 VA4529	300	2	1	58.000	6342 42 4
US 3 K 40 VA4529	400	2	1	71.000	6342 42 6
US 3 K 50 VA4529	500	2	1	84.000	6342 42 8
US 3 K 60 VA4529	600	2	1	97.000	6342 43 1
US 3 K 70 VA4529	700	2	1	110.000	6342 43 3
US 3 K 80 VA4529	800	2	1	123.000	6342 43 5
US 3 K 90 VA4529	900	2	1	137.000	6342 43 7
US 3 K100 VA4529	1,000	2	1	150.000	6342 43 9
US 3 K110 VA4529	1,100	2	1	179.000	6342 44 1
US 3 K120 VA4529	1,200	2	1	179.000	6342 44 3

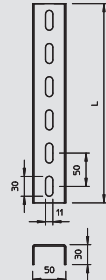
V5A Stainless steel, 1.4529 /pc.
Suspended support (U profile) of dimensions 50 x 30 mm with welded head plate.



US 3 support

Type	Length mm	Material thickness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
US 3 30 VA4301	300	2	4	40.000	6342 45 5
US 3 50 VA4301	500	2	4	66.000	6342 45 7
US 3 100 VA4301	1,000	2	4	132.000	6342 46 0
US 3 150 VA4301	1,500	2	1	198.000	6342 46 3
US 3 200 VA4301	2,000	2	1	263.000	6342 46 6
US 3 600 VA4301	6,000	2	1	790.000	6342 46 8
US 3 100 VA4571	1,000	2	4	132.000	6342 49 1
US 3 150 VA4571	1,500	2	1	198.000	6342 49 4
US 3 200 VA4571	2,000	2	1	263.000	6342 49 7
US 3 30 VA4571	300	2	4	40.000	6342 48 5
US 3 50 VA4571	500	2	4	66.000	6342 48 8
US 3 600 VA4571	6,000	2	1	790.000	6342 50 5

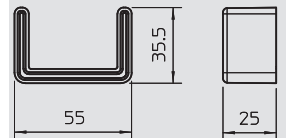
V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti Stained /pc.
U support in fixed lengths. Dimensions 30 x 50 mm.



Protective cap

Type	Colour	Pack. pcs	Weight kg/100 pcs.	Item No.
US 3 KS OR	Pastel orange	20	1.070	6338 45 8

PE Polyethylene /pc.
Protective cap to cover the ends of US 3 supports.



Mounting systems

Cable routing

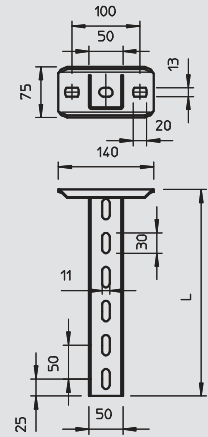


US 5 suspended support

Type	Length mm	Material thickness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
US 5 K 20 VA4301	200	2.5	2	100.000	6341 35 8
US 5 K 30 VA4301	300	2.5	2	125.000	6341 36 2
US 5 K 40 VA4301	400	2.5	2	150.000	6341 36 6
US 5 K 50 VA4301	500	2.5	2	175.000	6341 37 0
US 5 K 60 VA4301	600	2.5	2	200.000	6341 37 4
US 5 K 70 VA4301	700	2.5	2	225.000	6341 37 8
US 5 K 80 VA4301	800	2.5	2	255.000	6341 38 2
US 5 K 90 VA4301	900	2.5	2	280.000	6341 38 6
US 5 K 100VA4301	1,000	2.5	2	300.000	6341 39 0
US 5 K 110VA4301	1,100	2.5	2	330.000	6341 39 4
US 5 K 120VA4301	1,200	2.5	2	360.000	6341 39 8
US 5 K 20 VA4571	200	2.5	2	100.000	6341 20 9
US 5 K 30 VA4571	300	2.5	2	125.000	6341 21 3
US 5 K 40 VA4571	400	2.5	2	150.000	6341 21 7
US 5 K 50 VA4571	500	2.5	2	175.000	6341 22 1
US 5 K 60 VA4571	600	2.5	2	200.000	6341 22 5
US 5 K 70 VA4571	700	2.5	2	225.000	6341 22 8
US 5 K 80 VA4571	800	2.5	2	255.000	6341 23 3
US 5 K 90 VA4571	900	2.5	2	280.000	6341 23 7
US 5 K 100VA4571	1,000	2.5	2	300.000	6341 24 1
US 5 K 110VA4571	1,100	2.5	2	360.000	6341 24 5
US 5 K 120VA4571	1,200	2.5	2	360.000	6341 24 9

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti Stained /pc.

U support with welded head plate.
For fastening to horizontal concrete ceilings and steel girders.

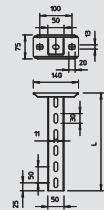


US 5 suspended support V5A

Type	Length mm	Material thickness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
US 5 K 20 VA4529	200	2.5	1	100.000	6341 31 0
US 5 K 30 VA4529	300	2.5	1	125.000	6341 31 2
US 5 K 40 VA4529	400	2.5	1	150.000	6341 31 4
US 5 K 50 VA4529	500	2.5	1	175.000	6341 31 6
US 5 K 60 VA4529	600	2.5	1	200.000	6341 31 8
US 5 K 70 VA4529	700	2.5	1	225.000	6341 32 0
US 5 K 80 VA4529	800	2.5	1	255.000	6341 32 3
US 5 K 90 VA4529	900	2.5	1	280.000	6341 32 5
US 5 K100 VA4529	1,000	2.5	1	300.000	6341 32 7
US 5 K110 VA4529	1,100	2.5	1	360.000	6341 32 9
US 5 K120 VA4529	1,200	2.5	1	360.000	6341 33 1

V5A Stainless steel, 1.4529 /pc.

U support with welded head plate.
For fastening to horizontal concrete ceilings and steel girders.



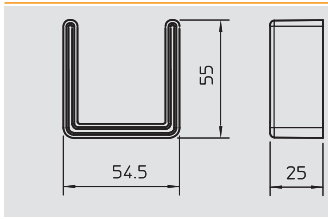
US 5 support

Type	Length mm	Material thickness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
US 5 20 VA4301	200	2.5	4	48.000	6341 10 1
US 5 30 VA4301	300	2.5	4	72.000	6341 10 5
US 5 40 VA4301	400	2.5	4	97.000	6341 10 9
US 5 50 VA4301	500	2.5	4	121.000	6341 11 3
US 5 70 VA4301	700	2.5	4	169.000	6341 12 1
US 5 80 VA4301	800	2.5	4	193.000	6341 12 5
US 5 90 VA4301	900	2.5	4	217.000	6341 12 9
US 5 100 VA4301	1,000	2.5	4	242.000	6341 13 3
US 5 110 VA4301	1,100	2.5	4	266.000	6341 13 7
US 5 120 VA4301	1,200	2.5	4	290.000	6341 14 1
US 5 300 VA4301	3,000	2.5	1	726.000	6341 15 2
US 5 30 VA4571	300	2.5	4	73.000	6341 05 3
US 5 40 VA4571	400	2.5	4	97.000	6341 05 5
US 5 50 VA4571	500	2.5	4	121.000	6341 05 7
US 5 60 VA4571	600	2.5	4	145.000	6341 05 9
US 5 80 VA4571	800	2.5	4	193.000	6341 06 3
US 5 90 VA4571	900	2.5	4	217.000	6341 06 5
US 5 300 VA4571	3,000	2.5	1	726.000	6341 07 3

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /pc.

U support in fixed lengths. Dimensions 50 x 50 mm.



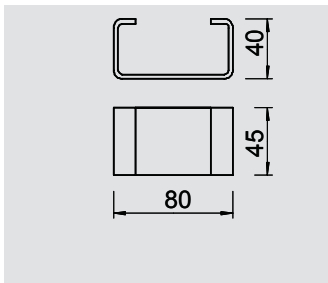


Protective cap



Type	Colour	Pack.	Weight	Item No.
		pcs	kg/100 pcs.	
US 5 KS OR	Pastel orange	20	1.300	6338 46 2

PE Polyethylene /pc.
Protective cap for end covering of US 5 supports.

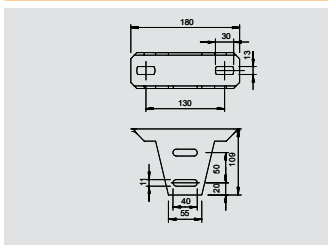


Spacer



Type	Shipping box	Pack.	Weight	Item No.
	pcs	pcs	kg/100 pcs.	
DSK 45 VA4301	25	25	15.000	6416 48 9
DSK 45 VA4571	25	25	15.000	6416 46 2

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti V5A Stainless steel, 1.4529 /pc.
Spacer for use in U 5 supports.

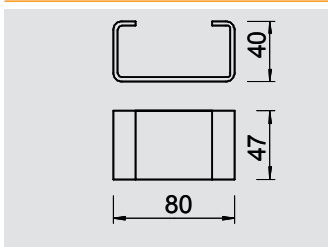


Head plate



Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
KU 5 V VA4301	4	81.000	6348 92 5
KU 5 V VA4571	4	81.000	6348 92 7

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti Stained /pc.
Variable head plate for installation on US 5 support.

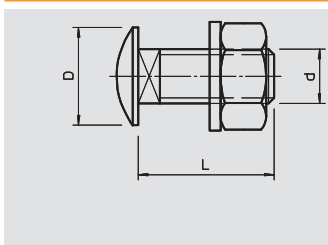


Spacer



Type	Shipping box	Pack.	Weight	Item No.
	pcs	pcs	kg/100 pcs.	
DSK 47 VA4301	25	25	16.000	6416 50 7
DSK 47 VA4571	25	25	16.000	6416 51 1

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /pc.
Spacer for use in head plate, type KU 5 V.

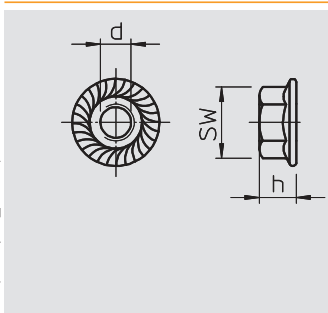


Truss-head bolt



Type	Dimension mm	Dimension L mm	Dimension d mm	Dimension D mm	Pack.	Weight	Item No.
					pcs	kg/100 pcs.	
FRS 10x25 VA4301	M10 x 25	25	10	24	50	4.500	6406 71 8
FRS 10x25 VA4401	M10 x 25	25	10	24	50	4.500	6407 52 4

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 /100 pc.
Truss-head bolt with square neck including washer and hexagonal nut.



Hexagonal bolt



Type	Dimension mm	Dimension L mm	Dimension d mm	SW mm	Pack.	Weight	Item No.
					pcs	kg/100 pcs.	
SKS 10x90 VA4301	M10 x 90	90	10	17	20	10.038	6418 25 5
SKS 10x80 VA4401	M10 x 80	80	10	17	20	7.800	6418 24 8
SKS 10x90 VA4401	M10 x 90	90	10	17	20	7.800	6418 25 6
SKS 10x80 VA4529	M10 x 90	90	10	17	20	7.520	6418 24 7
SKS 10x90 VA4529	M10 x 90	90	10	17	20	10.040	6418 25 7

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 V5A Stainless steel, 1.4529 /100 pc.
Hexagonal bolt for universal fastening of construction components.

Mounting systems

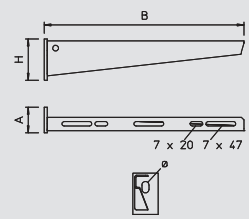
Cable routing



Wall and support bracket AW 15

Type	Width mm	Dimen- sion H mm	Dimen- sion A mm	Hole- Ø mm	F in kN kN	Pack. pcs	Weight kg/100 pcs.	Item No.
AW 15 21 VA4301	210	60	40	11	1.5	30	25.600	6421 02 4
AW 15 31 VA4301	310	65	40	11	1.5	30	32.500	6421 03 2
AW 15 41 VA4301	410	70	40	11	1.5	30	55.000	6421 03 6
AW 15 51 VA4301	510	75	40	11	1.5	20	68.000	6421 04 0
AW 15 61 VA4301	610	80	40	11	1.5	20	85.000	6421 04 4
AW 15 11 VA4571	110	50	40	11	1.5	30	14.100	6392 00 8
AW 15 21 VA4571	210	60	40	11	1.5	30	25.600	6392 01 6
AW 15 31 VA4571	310	65	40	11	1.5	30	35.200	6392 02 4
AW 15 41 VA4571	410	70	40	11	1.5	30	55.000	6392 03 2
AW 15 61 VA4571	610	80	40	11	1.5	20	85.000	6392 05 9

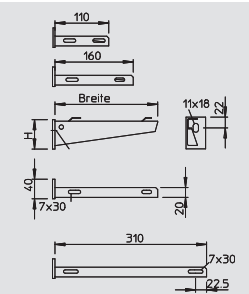
V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti Stained /pc.
Light-duty wall and support bracket with welded head plate.



Wall and support bracket AWG 15

Type	Width mm	Dimen- sion H mm	Dimen- sion A mm	Hole- Ø mm	F in kN kN	Pack. pcs	Weight kg/100 pcs.	Item No.
AWG 15 21 VA4301	210	60	40	11	1.5	30	25.000	6420 62 8
AWG 15 31 VA4301	310	65	40	11	1.5	30	33.000	6420 63 1
AWG 15 41 VA4301	410	70	40	11	1.5	30	53.000	6420 63 4
AWG 15 51 VA4301	510	75	40	11	1.5	20	65.000	6420 63 7
AWG 15 61 VA4301	610	80	40	11	1.5	20	80.000	6420 64 0
AWG 15 11 VA4571	110	50	40	11	1.5	30	13.000	6420 64 2
AWG 15 21 VA4571	210	60	40	11	1.5	30	25.000	6420 64 4
AWG 15 31 VA4571	310	65	40	11	1.5	30	33.000	6420 64 6
AWG 15 41 VA4571	410	70	40	11	1.5	30	53.000	6420 64 8
AWG 15 51 VA4571	510	75	40	11	1.5	20	65.000	6420 65 0
AWG 15 61 VA4571	610	80	40	11	1.5	20	80.000	6420 65 2

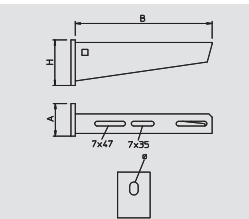
V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti Stained /pc.
Light-duty wall and support bracket with welded head plate for screwless mesh cable tray fastening.



Wall and support bracket AW 30

Type	Width mm	Dimen- sion H mm	Dimen- sion A mm	Hole- Ø mm	F in kN kN	Pack. pcs	Weight kg/100 pcs.	Item No.
AW 30 21 VA4301	210	70	50	13	3	25	38.200	6442 83 8
AW 30 31 VA4301	310	80	50	13	3	25	61.000	6442 85 4
AW 30 41 VA4301	410	80	50	13	3	20	86.000	6442 87 0
AW 30 51 VA4301	510	90	50	13	3	10	126.000	6442 89 7
AW 30 61 VA4301	610	100	50	13	3	10	154.000	6442 91 9
AW 30 11 VA4571	110	60	50	13	3	30	21.200	6443 61 5
AW 30 21 VA4571	210	70	50	13	3	25	38.000	6443 31 1
AW 30 31 VA4571	310	80	50	13	3	25	61.000	6443 62 1
AW 30 41 VA4571	410	80	50	13	3	20	86.000	6443 34 6
AW 30 51 VA4571	510	90	50	13	3	10	126.000	6443 62 5
AW 30 61 VA4571	610	100	50	13	3	10	154.000	6443 62 7

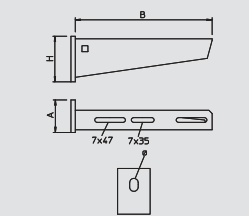
V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti Stained /pc.
Medium-duty wall and support bracket with welded head plate.



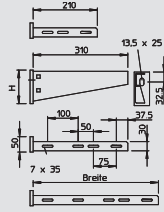
Wall and support bracket AW 30 V5A

Type	Width mm	Dimen- sion H mm	Dimen- sion A mm	Hole- Ø mm	F in kN kN	Pack. pcs	Weight kg/100 pcs.	Item No.
AW 30 21 VA4529	210	70	50	13	3	1	38.000	6443 63 2
AW 30 31 VA4529	310	80	50	13	3	1	61.000	6443 63 4
AW 30 41 VA4529	410	80	50	13	3	1	86.000	6443 63 6
AW 30 51 VA4529	510	90	50	13	3	1	126.000	6443 63 8
AW 30 61 VA4529	610	100	50	13	3	1	154.000	6443 64 0

V5A Stainless steel, 1.4529 /pc.
Medium-duty wall and support bracket with welded head plate.



Wall and support bracket AW 55



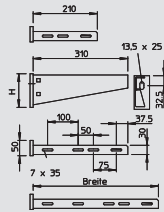
Type	Width mm	Dimension H mm	Dimension A mm	Hole- Ø mm	F in kN kN	Pack. pcs	Weight kg/100 pcs.	Item No.
AW 55 21 VA4301	210	90	50	13.5	5.5	1	77.000	6443 06 3
AW 55 31 VA4301	310	110	50	13.5	5.5	1	123.000	6443 06 7
AW 55 41 VA4301	410	130	50	13.5	5.5	1	167.000	6443 07 1
AW 55 51 VA4301	510	145	60	13.5	5.5	1	249.000	6443 07 5
AW 55 61 VA4301	610	165	60	13.5	5.5	1	305.000	6443 07 9
AW 55 71 VA4301	710	195	60	13.5	5.5	1	415.000	6443 08 3
AW 55 21 VA4571	210	90	50	13.5	5.5	1	77.000	6418 55 7
AW 55 31 VA4571	310	110	50	13.5	5.5	1	123.000	6418 57 3
AW 55 41 VA4571	410	130	50	13.5	5.5	1	167.000	6418 60 1
AW 55 51 VA4571	510	145	60	13.5	5.5	1	249.000	6418 62 2
AW 55 61 VA4571	610	165	60	13.5	5.5	1	305.000	6418 63 8

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti Stained /pc.
Heavy-duty wall and support bracket with welded head plate.



Cable routing

Wall and support bracket AW 55 V5A

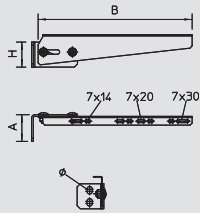


Type	Width mm	Dimension H mm	Dimension A mm	Hole- Ø mm	F in kN kN	Pack. pcs	Weight kg/100 pcs.	Item No.
AW 55 21 VA4529	210	90	50	13.5	5.5	1	77.000	6443 09 0
AW 55 31 VA4529	310	110	50	13.5	5.5	1	123.000	6443 09 2
AW 55 41 VA4529	410	130	50	13.5	5.5	1	167.000	6443 09 4
AW 55 51 VA4529	510	145	60	13.5	5.5	1	249.000	6443 09 6
AW 55 61 VA4529	610	165	60	13.5	5.5	1	305.000	6443 09 8

V5A Stainless steel, 1.4529 /pc.
Heavy-duty wall and support bracket with welded head plate.



Wall bracket, variable AWVL

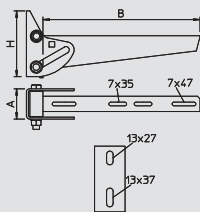


Type	Width mm	Dimension H mm	Dimension A mm	Hole- Ø mm	F in kN kN	Pack. pcs	Weight kg/100 pcs.	Item No.
AWVL 11 VA4571	170	60	64	—	0.75	1	43.900	6419 51 9
AWVL 16 VA4571	220	60	64	—	0.65	1	50.300	6419 52 0
AWVL 21 VA4571	270	60	64	—	0.55	1	51.700	6419 52 1
AWVL 31 VA4571	370	60	64	—	0.4	1	62.000	6419 52 2
AWVL 41 VA4571	470	60	64	—	0.25	1	67.500	6419 52 3
AWVL 11 VA4529	170	60	64	—	0.75	1	43.900	6419 52 4
AWVL 16 VA4529	220	60	64	—	0.65	1	50.030	6419 52 5
AWVL 21 VA4529	270	60	64	—	0.55	1	51.700	6419 52 6
AWVL 31 VA4529	370	60	64	—	0.4	1	62.000	6419 52 7
AWVL 41 VA4529	470	60	64	—	0.25	1	67.500	6419 52 8

V4A Stainless steel, grade 316 Ti V5A Stainless steel, 1.4529 /pc.
Variable wall bracket for fixing to sloping or vaulted walls.



Wall bracket, variable AWW



Type	Width mm	Dimension H mm	Dimension A mm	F in kN kN	Pack. pcs	Weight kg/100 pcs.	Item No.
AWV 21 VA4571	210	130	60	0.9	1	152.400	6419 64 0
AWV 31 VA4571	310	130	60	0.9	1	143.000	6419 64 2
AWV 41 VA4571	410	130	60	0.9	1	193.700	6419 64 4
AWV 51 VA4571	510	130	60	0.9	1	244.200	6419 64 6
AWV 61 VA4571	610	130	60	0.9	1	231.000	6419 64 8
AWV 21 VA4529	210	130	60	0.9	1	152.400	6419 65 0
AWV 31 VA4529	310	130	60	0.9	1	143.000	6419 65 2
AWV 41 VA4529	410	130	60	0.9	1	193.700	6419 65 4
AWV 51 VA4529	510	130	60	0.9	1	244.200	6419 65 6
AWV 61 VA4529	610	130	60	0.9	1	231.000	6419 65 9

V4A Stainless steel, grade 316 Ti V5A Stainless steel, 1.4529 /pc.
Variable wall bracket for fixing to sloping or vaulted walls.



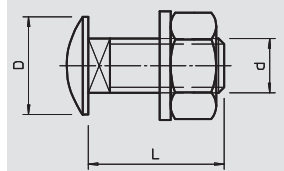
Mounting systems



Truss-head bolt

Type	Dimension mm	Dimension L mm	Dimension d mm	Dimension D mm	Pack. pcs	Weight kg/100 pcs.	Item No.
FRS 6X12 VA4301	M6 x 12	12	6	13.5	100	0.760	6406 52 1
FRS 6X16 VA4301	M6 x 16	15	6	13.5	100	0.900	6406 55 6
FRS 6X20 VA4301	M6 x 20	20	6	13.5	100	1.000	6406 60 2
FRS 8X16 VA4301	M8 x 16	16	8	20	50	2.200	6406 69 6
FRS 8X20 VA4301	M8 x 20	20	8	20	50	2.100	6406 80 7
FRS 8X25 VA4301	M8 x 25	25	8	20	50	2.300	6406 81 5
FRS 8X35 VA4301	M8 x 35	35	8	20	50	2.700	6406 82 3
FRS 10X20 VA4301	M10 x 20	20	10	24	50	3.900	6406 86 6
FRS 10X25 VA4301	M10 x 25	25	10	24	50	4.500	6406 71 8
FRS 10X30 VA4301	M10 x 30	30	10	24	50	4.500	6406 72 6
FRS 12X25 VA4301	M12 x 25	25	12	30	25	6.400	6406 75 0
FRS 12X30 VA4301	M12 x 30	30	12	30	25	6.800	6406 76 9
FRS 6X12 VA4401	M6 x 12	12	6	13.5	100	0.820	6406 56 4
FRS 6X16 VA4401	M6 x 16	16	6	13.5	100	0.900	6406 58 0
FRS 6X20 VA4401	M6 x 20	20	6	13.5	100	1.000	6406 61 0
FRS 10X20 VA4401	M10 x 20	20	10	24	50	4.000	6406 87 0
FRS 10X20SVA4401	M10 x 20	20	10	24	50	4.100	6406 87 2
FRS 10x25 VA4401	M10 x 25	25	10	24	50	4.500	6407 52 4
FRS 12X25 VA4401	M12 x 25	25	12	30	25	6.400	6406 78 5

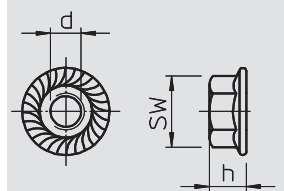
V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 /100 pc.
Truss-head bolt with square neck including washer and hexagonal nut.

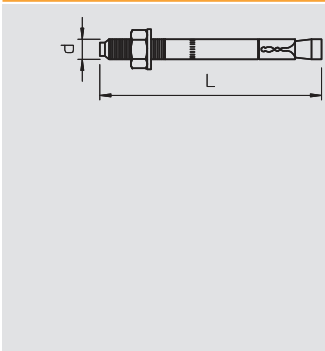


Hexagonal bolt

Type	Dimension mm	Dimension L mm	Dimension d mm	SW mm	Pack. pcs	Weight kg/100 pcs.	Item No.
SKS 10X80 VA4401	M10 x 80	80	10	17	20	7.800	6418 24 8
SKS 10X60 VA4301	M10 x 60	60	10	17	20	6.000	6408 51 7
SKS 10x90 VA4301	M10 x 90	90	10	17	20	10.038	6418 25 5
SKS 10X30 VA	M10 x 30	30	10	17	50	3.000	3160 75 2
SKS 10x90 VA4401	M10 x 90	90	10	17	20	7.800	6418 25 6
SKS 10X80 VA4529	M10 x 90	90	10	17	20	7.520	6418 24 7
SKS 10x90 VA4529	M10 x 90	90	10	17	20	10.040	6418 25 7

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 V5A Stainless steel, 1.4529 /100 pc.
Hexagonal bolt for universal fastening of construction components.



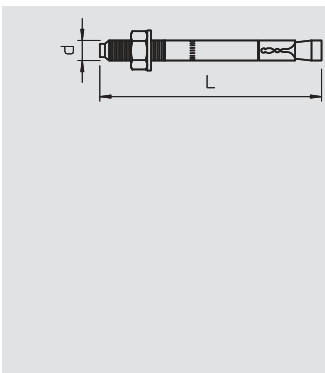


Bolt tie, V4A

Type	Thread	Dimension L mm	Dimension d mm	Clamping range mm	Perm. load range, tension zone kN	Pack. pcs	Weight kg/100 pcs.	Item No.
FAZ II 810VA4401	M8	75	8	10	2.4	50	3.720	3498 50 9
FAZ II 830VA4401	M8	95	8	30	2.4	50	3.800	3498 48 7
FAZ II 10/10GS V	M 10	95	10	10	4.3	50	7.680	3498 82 4
FAZ II 10/50 V4A	M10	135	10	50	4.3	20	8.280	3498 83 5
FAZ II 12/10 VA	M12	110	12	10	4.76	20	10.400	3498 85 9
FAZ II 10100 V4A	M10	185	10	100	4.3	1	10.500	3498 60 1

V4A Stainless steel, grade 316 Stained /100 pc.

Bolt tie for fastening high loads. Matches OBO mounting systems and wall support brackets and supports.

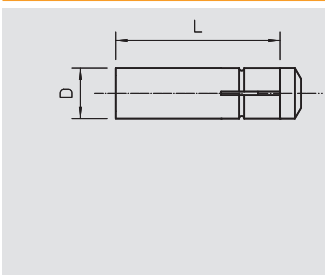


Bolt tie, V5A

Type	Thread	Dimension L mm	Dimension d mm	Clamping range mm	Perm. load range, tension zone kN	Pack. pcs	Weight kg/100 pcs.	Item No.
FAZ II 8 10CV5A	M8	75	8	10	2.4	1	3.460	3498 51 2
FAZ II 8 30CV5A	M8	95	8	30	2.4	1	4.180	3498 49 0
FAZ II 10 10CV5A	M10	95	10	10	4.3	10	6.909	3498 55 4
FAZ II 10 30CV5A	M10	115	10	30	4.3	1	7.999	3498 58 6
FAZ II 10 50 V5A	M10	135	10	50	4.3	1	7.000	3498 83 7
FAZ II 10100 V5A	M10	185	10	100	4.3	1	9.000	3498 60 3
FAZ II 12 10CV5A	M12	110	12	10	7.6	1	11.303	3498 65 9

V5A Stainless steel, 1.4529 /100 pc.

Bolt tie for fastening high loads. Matches OBO mounting systems and wall support brackets and supports.

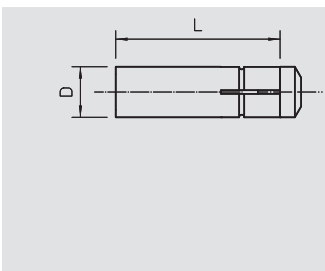


Impact tie, V4A

Type	Thread	Dimension D mm	Dimension L mm	Screw-in depth min.-max. mm	Perm. load range, tension zone kN	Pack. pcs	Weight kg/100 pcs.	Item No.
FZEA II 10X40 VA	M8	10	40	11-17	1.6	100	1.550	3492 14 5
FZEA II 12X40 VA	M10	12	40	13-19	3	100	2.075	3492 15 0
FZEA II 14X40V4A	M12	14	40	15-21	3.6	50	2.750	3492 09 7

V4A Stainless steel, grade 316 /100 pc.

Impact tie with internal thread

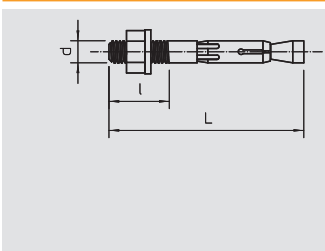


Impact tie, V5A

Type	Thread	Dimension D mm	Dimension L mm	Screw-in depth min.-max. mm	Perm. load range, tension zone kN	Pack. pcs	Weight kg/100 pcs.	Item No.
FZEA II10x40CV5A	M8	10	40	10-17	1.6	1	1.545	3492 16 7
FZEA II12x40CV5A	M10	12	40	13-19	3	1	2.028	3492 17 2
FZEA II 14X40V5A	M12	14	40	15-21	3.6	50	3.200	3492 09 9

V5A Stainless steel, 1.4529 /100 pc.

Impact tie with internal thread.

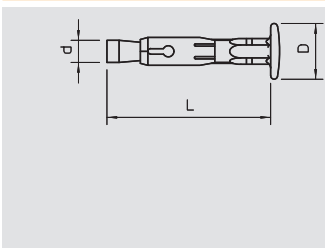


Nail tie

Type	Thread	Dimension d mm	Dimension l mm	Bore hole depth mm	Dimension L mm	Pack. pcs	Weight kg/100 pcs.	Item No.
FNA II 6x30 M6/5	M6	6	13	—	53	100	1.400	3498 42 6

V5A Stainless steel, 1.4529 /100 pc.

Nail tie with M6 thread. European technical approval for concrete. Fire resistance class to F120 according to fire protection testing report.



Nail tie

Type	Thread	Dimension d mm	Dimension l mm	Bore hole depth mm	Dimension L mm	Pack. pcs	Weight kg/100 pcs.	Item No.
FNA II 6x30/5	—	6	40	—	40	100	1.120	3498 46 9

V5A Stainless steel, 1.4529 /100 pc.

Nail tie with drive-in head. European technical approval for concrete. Fire resistance class to F120 according to fire protection testing report.



Bolt, knock-in and nail ties



Impact mandrel

Type	Pack.	Weight		Item No.
		pcs	kg/100 pcs.	
FZED 10X40 G	5		10.500	3492 62 1
FZED 12X40 G	5		17.800	3492 66 4
FZED 14X40 G	5		25.000	3492 69 9

St Steel **G** Electrogalvanised /pc.

The impact mandrel guarantees correct, approved mounting of the FZEA tie.



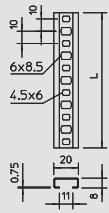
Universal drill

Type	Bore hole Ø mm	Shipping box pcs	Pack.	Weight		Item No.
				pcs	kg/100 pcs.	
FZUB 10X40	10	10	1	11.800		3492 33 8
FZUB 12X40	12	10	1	12.200		3492 36 2
FZUB 14X40	14	10	1	12.500		3492 39 7

St Steel Bright /pc.

The universal drill for SDS seats guarantees correct, approved mounting of the FZEA tie.

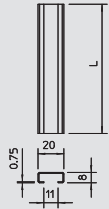




Profile rail, slot 11 mm, V2A, perforated

Type	Version	Dimension b x h mm	Material thickness mm	Length mm	Bundle m	Weight kg/100 m	Item No.
2060 L 2M VA	Perforated	20 x 8	0.75	2,000	20	21.400	1106 62 8

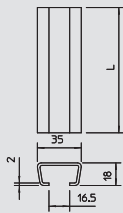
V2A Stainless steel, grade 304 Bright /100 m
Profile rail with 11 mm slot width.



Profile rail, slot 11 mm, V2A, unperforated

Type	Version	Dimension b x h mm	Material thickness mm	Length mm	Bundle m	Weight kg/100 m	Item No.
2060 2M VA	Unperforated	20 x 8	0.75	2,000	20	23.550	1105 12 5

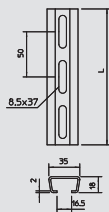
V2A Stainless steel, grade 304 Bright /100 m
Profile rail with 11 mm slot width.



Profile rail, slot 16.5 mm, V2A, unperforated

Type	Version	Dimension b x h mm	Material thickness mm	Length mm	Bundle m	Weight kg/100 m	Item No.
2063 2M VA	Unperforated	35 x 18	2	2,000	20	116.000	1110 00 5

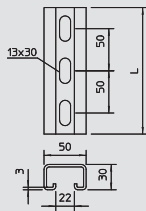
V2A Stainless steel, grade 304 Bright /100 m
Profile rail with 16.5 mm slot width.



Profile rail, slot 16.5 mm, V2A, perforated

Type	Version	Dimension b x h mm	Material thickness mm	Length mm	Bundle m	Weight kg/100 m	Item No.
2063 L 2M VA	Perforated	35 x 18	2	2,000	20	108.000	1112 70 9

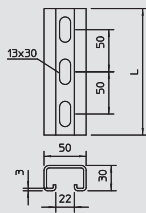
V2A Stainless steel, grade 304 Bright /100 m
Profile rail with 16.5 mm slot width.



Profile rail, slot 22 mm, V2A

Type	Version	Dimension b x h mm	Material thickness mm	Length mm	Pack. m	Weight kg/100 m	Item No.
CPS 5 L 2M VA	Perforated	50 x 30	3	2,000	2	282.500	1121 48 0
CPS 5 L 6M VA	Perforated	50 x 30	3	6,000	6	282.500	1121 49 9

V2A Stainless steel, grade 304 /100 m
Heavy-weight profile rail with continuous perforation, slot width 22 mm.



Profile rail, slot 22 mm, V4A

Type	Version	Dimension b x h mm	Material thickness mm	Length mm	Pack. pcs	Weight kg/100 pcs.	Item No.
CPS 5 L 200 V4A	Perforated	50 x 30	3	200	5	57.000	1121 39 3
CPS 5 L 300 V4A	Perforated	50 x 30	3	300	5	85.500	1121 24 5
CPS 5 L 400 V4A	Perforated	50 x 30	3	400	5	114.000	1121 28 0
CPS 5 L 500 V4A	Perforated	50 x 30	3	500	5	142.500	1121 40 7
CPS 5 L 600 V4A	Perforated	50 x 30	3	600	5	171.000	1121 29 6
CPS 5 L 700 V4A	Perforated	50 x 30	3	700	5	199.500	1121 33 4
CPS 5 L 800 V4A	Perforated	50 x 30	3	800	5	228.000	1121 31 0
CPS 5 L 900 V4A	Perforated	50 x 30	3	900	5	256.500	1121 33 8
CPS 5 L 1.5M V4A	Perforated	50 x 30	3	1,500	5	427.500	1121 36 5
CPS 5 L 2M V4A	Perforated	50 x 30	3	2,000	10	285.000	1121 46 5
CPS 5 L 3M V4A	Perforated	50 x 30	3	3,000	1	285.000	1121 46 9
CPS 5 L 6M V4A	Perforated	50 x 30	3	6,000	1	285.000	1121 47 3

V4A Stainless steel, grade 316 Ti /100 m /pc.
Heavy-duty profile rail with continuous perforation, slot width 22 mm.



Rail systems

Cable routing

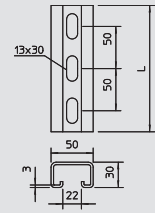


Profile rail, slot 22 mm, V5A

Type	Version	Dimension b x h mm	Material thickness mm	Length mm	Pack. pcs	Weight kg/100 pcs.	Item No.
CPS 5 L 200 V5A	Perforated	50 x 30	3	200	5	57.000	1123 33 0
CPS 5 L 300 V5A	Perforated	50 x 30	3	300	5	85.000	1123 33 2
CPS 5 L 400 V5A	Perforated	50 x 30	3	400	5	113.000	1123 33 4
CPS 5 L 500 V5A	Perforated	50 x 30	3	500	5	142.000	1123 33 6
CPS 5 L 600 V5A	Perforated	50 x 30	3	600	5	169.000	1123 33 8
CPS 5 L 700 V5A	Perforated	50 x 30	3	700	5	198.000	1123 34 0
CPS 5 L 800 V5A	Perforated	50 x 30	3	800	5	226.000	1123 34 2
CPS 5 L 900 V5A	Perforated	50 x 30	3	900	5	255.000	1123 34 4

V5A Stainless steel, 1.4529

/pc.

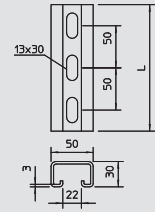


Profile rail, slot 22 mm, V5A

Type	Version	Dimension b x h mm	Material thickness mm	Length mm	Pack. pcs	Weight kg/100 pcs.	Item No.
CPS 5 L 1.5M V5A	Perforated	50 x 30	3	-	10	424.000	1123 34 8
CPS 5 L 2M V5A	Perforated	50 x 30	3	2,000	10	282.500	1123 35 0
CPS 5 L 3M V5A	Perforated	50 x 30	3	3,000	1	282.660	1123 35 2

V5A Stainless steel, 1.4529

/100 m /pc.



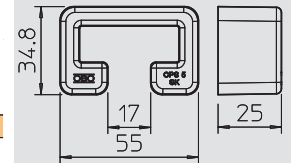
Protective cap, CPS 5

Type	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
CPS 5 SK OR SP	Pastel orange	300	25	1.260	1124 56 3

PE Polyethylene

/100 pc.

End caps for profile rail, types CPS 5 and CPS 5G.



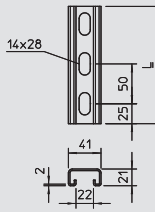
Mounting rail, MS 21 V2A

Type	Version	Dimension b x h mm	Material thickness mm	Length mm	Pack. m	Weight kg/100 m	Item No.
MS 21 L 3M V2A	Perforated	41x21	2	3,000	1	141.900	1122 92 8
MS 21 L 6M V2A	Perforated	41x21	2	6,000	1	141.900	1122 92 9

V2A Stainless steel, grade 304

/100 m

Heavy-duty profile/mounting rail with continuous perforation in base, slot width 22 mm.



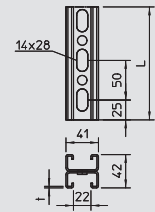
Mounting rail, MS 21, double version, V2A

Type	Version	Dimension b x h mm	Material thickness mm	Length mm	Pack. m	Weight kg/100 m	Item No.
MS 21 D L3M 2V2A	Perforated	41x21	2	3,000	1		1122 95 2
MS 21 D L6M 2V2A	Perforated	41x21	2	6,000	1		1122 95 4

V2A Stainless steel, grade 304

/100 m

Heavy-duty profile/mounting rail with continuous perforation in base, slot width 22 mm. Double version, i.e. two profile rails are interconnected on the base (welded).



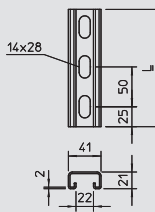
Mounting rail, MS 21 V4A

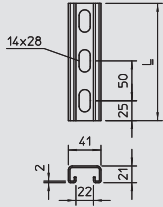
Type	Version	Dimension b x h mm	Material thickness mm	Length mm	Pack. pcs	Weight kg/100 pcs.	Item No.
MS 21 L 200 V4A	Perforated	41x21	2	200	30	28.380	1122 46 8
MS 21 L 300 V4A	Perforated	41x21	2	300	25	42.570	1122 46 9
MS 21 L 400 V4A	Perforated	41x21	2	400	10	56.760	1122 47 0
MS 21 L 500 V4A	Perforated	41x21	2	500	1	70.950	1122 47 1
MS 21 L 600 V4A	Perforated	41x21	2	600	1	85.140	1122 47 2
MS 21 L 700 V4A	Perforated	41x21	2	700	1	99.330	1122 47 3
MS 21 L 800 V4A	Perforated	41x21	2	800	1	113.520	1122 47 4
MS 21 L 900 V4A	Perforated	41x21	2	900	1	127.710	1122 47 5

V4A Stainless steel, grade 316 Ti

/100 pc.

Heavy-duty profile/mounting rail with continuous perforation in base, slot width 22 mm.

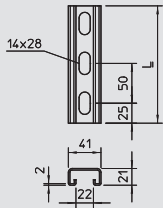




Mounting rail, MS 21 V4A

Type	Version	Dimension b x h mm	Material thickness mm	Length mm	Pack. m	Weight kg/100 m	Item No.
MS 21 L 2M V4A	Perforated	41x21	2	2,000	10	141.900	1122 47 6
MS 21 L 3M V4A	Perforated	41x21	2	3,000	1	141.900	1122 93 1
MS 21 L 6M V4A	Perforated	41x21	2	6,000	1	141.900	1122 93 2

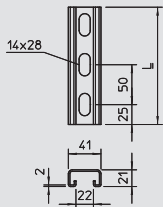
V4A Stainless steel, grade 316 Ti /100 m
Heavy-duty profile/mounting rail with continuous perforation in base, slot width 22 mm.



Mounting rail, MS 21 V5A

Type	Version	Dimension b x h mm	Material thickness mm	Length mm	Pack. pcs	Weight kg/100 pcs.	Item No.
MS 21 L 200 V5A	Perforated	41x21	2	200	30	28.380	1123 36 0
MS 21 L 300 V5A	Perforated	41x21	2	300	25	42.570	1123 36 2
MS 21 L 400 V5A	Perforated	41x21	2	400	10	56.760	1123 36 4
MS 21 L 500 V5A	Perforated	41x21	2	500	1	70.950	1123 36 6
MS 21 L 600 V5A	Perforated	41x21	2	600	1	85.140	1123 36 8
MS 21 L 700 V5A	Perforated	41x21	2	700	1	99.330	1123 37 0
MS 21 L 800 V5A	Perforated	41x21	2	800	1	113.520	1123 37 2
MS 21 L 900 V5A	Perforated	41x21	2	900	1	127.710	1123 37 4

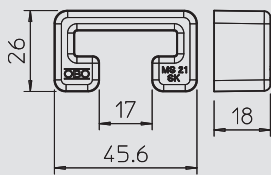
V5A Stainless steel, 1.4529 /100 pc.



Mounting rail, MS 21 V5A

Type	Version	Dimension b x h mm	Material thickness mm	Length mm	Pack. m	Weight kg/100 m	Item No.
MS 21 L 2M V5A	Perforated	41x21	2	2,000	10	141.900	1123 37 8
MS 21 L 3M V5A	Perforated	41x21	2	3,000	1	141.900	1123 38 0

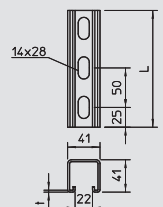
V5A Stainless steel, 1.4529 /100 m
Heavy-duty profile/mounting rail with continuous perforation in base, slot width 22 mm.



Protective cap MS 21

Type	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
MS 21 SK OR SP	Pastel orange	300	25	0.650	1122 90 2

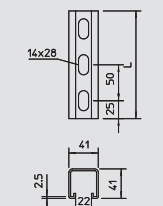
PE Polyethylene /100 pc.
Protective caps for profile rail, types MS 21.



Mounting rail, MS 41 V2A

Type	Version	Dimension b x h mm	Material thickness mm	Length mm	Pack. m	Weight kg/100 m	Item No.
MS 41 L 1M 2 V2A	Perforated	41x41	2	1,000	5	201.100	1122 97 8
MS 41 L 3M 2 V2A	Perforated	41x41	2	3,000	1	201.100	1122 98 0
MS 41 L 6M 2 V2A	Perforated	41x41	2	6,000	1	201.100	1122 98 2

V2A Stainless steel, grade 304 /100 m
Heavy-duty profile rail with continuous perforation in base, slot width 22 mm.



Mounting rail, MS 41 V4A

Type	Version	Dimension b x h mm	Material thickness mm	Length mm	Pack. pcs	Weight kg/100 pcs.	Item No.
MS 41 L 200 V4A	Perforated	41x41	2.5	200	6	49.500	1123 03 1
MS 41 L 300 V4A	Perforated	41x41	2.5	300	6	74.300	1123 03 3
MS 41 L 400 V4A	Perforated	41x41	2.5	400	6	99.000	1123 03 5
MS 41 L 500 V4A	Perforated	41x41	2.5	500	6	123.800	1123 03 7
MS 41 L 600 V4A	Perforated	41x41	2.5	600	6	148.500	1123 03 9
MS 41 L 700 V4A	Perforated	41x41	2.5	700	6	173.300	1123 04 1
MS 41 L 800 V4A	Perforated	41x41	2.5	800	6	198.000	1123 04 3
MS 41 L 900 V4A	Perforated	41x41	2.5	900	6	222.800	1123 04 5

V4A Stainless steel, grade 316 Ti /100 pc.
Heavy-duty profile/mounting rail with continuous perforation in base, slot width 22 mm.



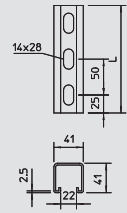
Rail systems



Mounting rail, MS 41 V4A

Type	Version	Dimension b x h mm	Material thickness mm	Length mm	Pack. m	Weight kg/100 m	Item No.
MS 41 L 1M V4A	Perforated	41x41	2.5	1,000	6	247.500	1123 04 7
MS 41 L 3M V4A	Perforated	41x41	2.5	3,000	1	247.500	1123 04 9
MS 41 L 6M V4A	Perforated	41x41	2.5	6,000	1	2.475	1123 05 1

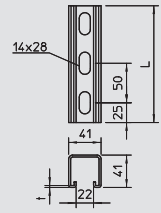
V4A Stainless steel, grade 316 Ti /100 m
Heavy-duty profile rail with continuous perforation in base, slot width 22 mm.



Mounting rail, MS 41 V2A

Type	Version	Material thickness mm	Length mm	Pack. m	Weight kg/100 m	Item No.
MS 41 LS1M 2 V2A	Perforated	2	1,000	5	179.400	1123 01 4
MS 41 LS3M 2 V2A	Perforated	2	3,000	1	179.400	1123 01 6
MS 41 LS6M 2 V2A	Perforated	2	6,000	1	179.400	1123 01 8

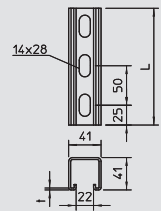
V2A Stainless steel, grade 304 /100 m
Heavy-duty profile rail with continuous, three-sided perforation, slot width 22 mm.



Mounting rail, MS 41 V4A

Type	Version	Inter- face	Dimension b x h mm	Material thickness mm	Length mm	Pack. m	Weight kg/100 m	Item No.
MS 41 LS1M 2 V4A	Perforated	-	41x41	2	1,000	5	179.400	1123 02 1
MS 41 LS3M 2 V4A	Perforated	-	41x41	2	3,000	1	179.400	1123 02 3
MS 41 LS6M 2 V4A	Perforated	-	41x41	2	6,000	1	179.400	1123 02 5

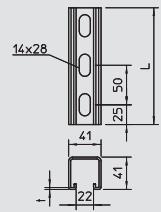
V4A Stainless steel, grade 316 Ti /100 m
Heavy-duty profile rail with continuous, three-sided perforation, slot width 22 mm.



Mounting rail, MS 41 V4A

Type	Version	Material thickness mm	Length mm	Pack. m	Weight kg/100 m	Item No.
MS 41 LS 1M V4A	Perforated	2.5	1,000	6	225.500	1123 07 7
MS 41 LS 6M V4A	Perforated	2.5	6,000	1	225.500	1123 07 9

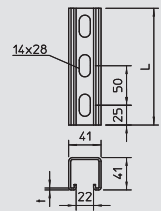
V4A Stainless steel, grade 316 Ti /100 m
Heavy-duty profile rail with continuous, three-sided perforation, slot width 22 mm.



Mounting rail, MS 41 V4A

Type	Version	Dimension b x h mm	Material thickness mm	Length mm	Pack. m	Weight kg/100 m	Item No.
MS 41 L 1M 2 V4A	Perforated	41x41	2	1,000	5	201.100	1122 98 8
MS 41 L 3M 2 V4A	Perforated	41x41	2	3,000	1	201.100	1122 99 0
MS 41 L 6M 2 V4A	Perforated	41x41	2	6,000	1	201.100	1122 99 2

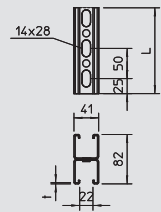
V4A Stainless steel, grade 316 Ti /100 m
Heavy-duty profile rail with continuous perforation in base, slot width 22 mm.



Mounting rail, MS 41, double version, V2A

Type	Version	Dimension b x h mm	Material thickness mm	Length mm	Pack. m	Weight kg/100 m	Item No.
MS 41 D L3M 2V2A	Perforated	41x82	2	2,000	1		1122 68 2
MS 41 D L6M 2V2A	Perforated	41x82	2	6,000	1		1122 68 4

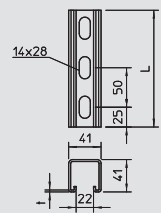
V2A Stainless steel, grade 304 /100 m
Heavy-duty profile/mounting rail with continuous perforation in base, slot width 22 mm. Double version, i.e. two profile rails are interconnected on the base (welded).

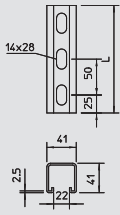


Mounting rail, MS 41, 2 mm, V5A

Type	Version	Dimension b x h mm	Material thickness mm	Length mm	Pack. m	Weight kg/100 m	Item No.
MS 41 L 1M 2 V5A	Perforated	41x41	2	1,000	6	201.100	1123 39 4
MS 41 L 3M 2 V5A	Perforated	41x41	2	3,000	1	201.100	1123 39 6

V5A Stainless steel, 1.4529 /100 m

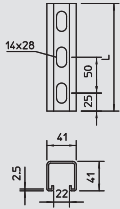




Mounting rail, MS 41, 2.5 mm, V5A

Type	Version	Dimension b x h mm	Material thickness mm	Length mm	Pack. pcs	Weight kg/100 pcs.	Item No.
MS 41 L 200 V5A	Perforated	41x41	2.5	200	6	49.500	1123 40 2
MS 41 L 300 V5A	Perforated	41x41	2.5	300	6	74.300	1123 40 4
MS 41 L 400 V5A	Perforated	41x41	2.5	400	6	99.000	1123 40 6
MS 41 L 500 V5A	Perforated	41x41	2.5	500	6	123.800	1123 40 7
MS 41 L 600 V5A	Perforated	41x41	2.5	600	6	148.500	1123 41 0
MS 41 L 700 V5A	Perforated	41x41	2.5	700	6	173.300	1123 41 2
MS 41 L 800 V5A	Perforated	41x41	2.5	800	6	198.000	1123 41 4
MS 41 L 900 V5A	Perforated	41x41	2.5	900	6	222.800	1123 41 5

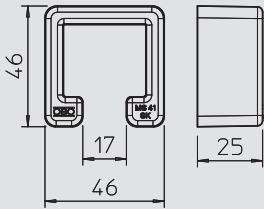
V5A Stainless steel, 1.4529 /100 pc.
Heavy-duty profile/mounting rail with continuous perforation in base, slot width 22 mm.



Mounting rail, MS 41, 2.5 mm, V5A

Type	Version	Dimension b x h mm	Material thickness mm	Length mm	Pack. m	Weight kg/100 m	Item No.
MS 41 L 1M V5A	Perforated	41x41	2.5	1,000	6	247.500	1123 41 8
MS 41 L 3M V5A	Perforated	41x41	2.5	3,000	1	247.500	1123 42 0

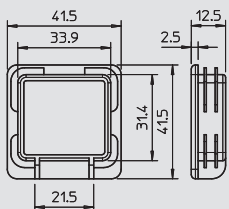
V5A Stainless steel, 1.4529 /100 m



Protective cap MS 41

Type	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
MS 41 SK OR SP	Pastel orange	300	25	1.320	1122 90 0

PE Polyethylene /100 pc.
Protective caps for profile rail, types MS 41.



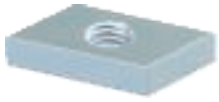
End cap MS 41

Type	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
MS 41 EDK OR	Pastel orange	50	50	0.645	1122 90 6

PE Polyethylene /100 pc.
End cap for profile rail, type MS 41.



Profile rails, system accessory



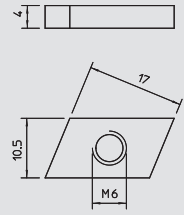
Slide nut, 11 mm slot width, VA

Type	Thread	Version	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
5015 M6 OS VA	M6	No bolt	2,600	100	0.440	1141 10 4

V2A Stainless steel, grade 304

/100 pc.

Slide nut for profile rails with a slot width of 11–12 mm. For NS rung, mountable from above.



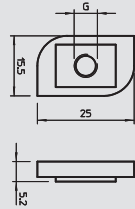
Slide nut, 16 mm slot width, V4A

Type	Thread	Version	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
5017 M6 OS VA	M6	No bolt	1,000	100	0.985	1143 12 3
5017 M8 OS VA	M8	No bolt	600	100	1.432	1143 12 5
5017 M10 OS VA	M10	No bolt	600	100	1.310	1143 12 7

V4A Stainless steel, grade 316 Ti

/100 pc.

Slide nut for profile rails with a slot width of 16–17 mm. For VS rung, mountable from above.



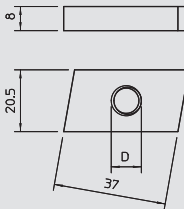
Slide nut, 22 mm slot width, V4A

Type	Thread	Dimension D mm	Recommended load capacity kN	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
GMH22 M6 VA	M6	6	1.94	300	50	4.500	1146 64 6
GMH22 M8 VA	M8	8	3.57	300	50	4.300	1146 64 8
GMH22 M10 VA	M10	10	5.7	300	50	4.300	1146 65 0
GMH22 M12 VA	M12	12	8.32	300	50	4.200	1146 65 2

V4A Stainless steel, grade 316

/100 pc.

Slide nut for profile rails with a slot width of 22 mm. Cannot be used for the mounting rail MS21 and MS41.



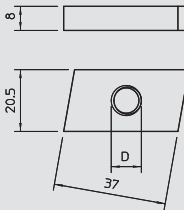
Slide nut, 22 mm slot width, for MS 21 / 41, V5A

Type	Thread	Dimension D mm	Recommended load capacity kN	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
GMH22 M6 V5A	M6	6	1.94	300	50	4.500	1146 66 6
GMH22 M8 V5A	M8	8	3.57	300	50	4.300	1146 66 8
GMH22 M10 V5A	M10	10	5.7	300	50	4.300	1146 67 0
GMH22 M12 V5A	M12	12	8.32	300	50	4.200	1146 67 2

V5A Stainless steel, 1.4529

/100 pc.

Slide nut for profile rails with a slot width of 22 mm. Cannot be used for the mounting rail MS21 and MS41.



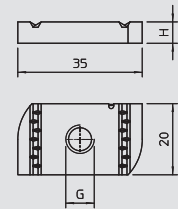
Slide nut, 22 mm slot width, for MS 21 / 41, V4A

Type	Thread	Dimension H mm	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
G22 M6 V4A	M6	6	300	50	2.700	1146 40 1
G22 M8 V4A	M8	6	300	50	2.470	1146 40 3
G22 M10 V4A	M10	8	300	50	3.200	1146 40 6
G22 M12 V4A	M12	9.5	300	50	3.700	1146 40 8

V4A Stainless steel, grade 316

/100 pc.

Slide nut for profile rail MS 21 / 41, without tensioning spring with tothing, fixing by 90° rotation.



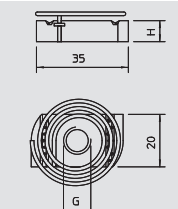
Slide nut, 22 mm slot width, for MS 21 / 41, V4A

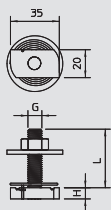
Type	Thread	Dimension H mm	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
GMF22 M6 V4A	M6	6	300	50	2.926	1146 43 0
GMF22 M8 V4A	M8	6	300	50	2.867	1146 43 4
GMF22 M10 V4A	M10	8	200	50	3.470	1146 43 8
GMF22 M12 V4A	M12	9.5	200	50	4.110	1146 44 2

V4A Stainless steel, grade 316

/100 pc.

Slide nut for profile rail MS 21 / 41, with tensioning spring and tothing, fixing by 90° rotation.





Hammer-head bolt, for MS 21 / 41

Type	Thread	Dimension L mm	Dimension H mm	Washer Ø mm	Grade	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
HKF22 M8x30 V4A	M8	30	6	40	1.44	100	25	7.288	1148 99 0
HKF22 M8x50 V4A	M8	50	6	40	1.44	100	25	8.134	1148 99 2
HKF22 M10x30 V4A	M10	30	8	40	1.44	100	25	9.191	1148 99 6
HKF22 M10x50 V4A	M10	50	8	40	1.44	100	25	10.187	1148 99 8
HKF22 M12x30 V4A	M12	30	9.5	40	1.44	100	25	10.567	1149 00 2

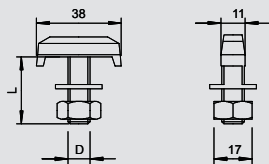
V4A Stainless steel, grade 316

/100 pc.

V4A hammer-head bolt for profile rail MS 21 / 41, with tensioning spring and tothing, fixing by 90° rotation



Cable routing



Hook-head bolt, 22 mm slot width V4A

Type	Thread	Dimension L mm	Dimension D mm	Washer Ø mm	Grade	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
5024 M6x30 V4A	M6	30	6	16	1.46	500	50	2.450	1154 40 9
5024 M10x30 V4A	M10	30	10	20	1.46	200	50	5.540	1154 50 7
5024 M10x40 V4A	M10	40	10	20	1.46	250	25	7.980	1154 52 3
5024 M12x30 V4A	M12	30	12	24	1.46	150	25	7.610	1154 70 1
5024 M12x35 V4A	M12	35	12	24	1.46	150	25	7.944	1154 71 5
5024 M12x40 V4A	M12	40	12	24	1.46	150	25	8.160	1154 72 8
5024 M12x50 V4A	M12	50	12	24	1.46	150	25	8.336	1154 73 6

V4A Stainless steel, grade 316 Ti

/100 pc.

Hook-head bolt with washer and nut for profile rails with slot width 22 mm. Cannot be used for the mounting rail MS21 and MS41.



Rail mounting system, MS 41

Cable routing



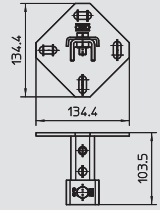
Wall, floor and ceiling bracket with 3 holes, stainless steel

Type	Version	Dimension b x h mm	Material thickness mm	Length mm	Pack. pcs	Weight kg/100 pcs.	Item No.
WBDHE 41 V2A	Perforated	134,35x110,5	5	102	10	73.000	1123 19 5
WBDHE 41 V4A	Perforated	134,35x110,5	5	102	10	73.000	1123 19 7

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /100 pc.

The wall, floor and ceiling bracket can ideally be used as a panel for wall, floor and ceiling mounting.

Also suitable for stand and frame construction in conjunction with the MS 41 mounting rails.



Rail connector SV with 3 holes, stainless steel

Type	Version	Dimension b x h mm	Material thickness mm	Length mm	Inter- face	Pack. pcs	Weight kg/100 pcs.	Item No.
SVE 41 V2A	Perforated	47x39,4	4	100	-	10	37.870	1123 12 6
SVE 41 V4A	Perforated	47x39,4	4	100	-	10	37.870	1123 12 8

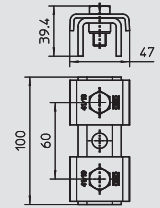
V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /100 pc.

The rail connector is used to extend the mounting rail MS 41. The connection can be made simply and securely on the construction site or prefabricated in the workshop.

There is a guarantee that there is no weakpoint in the area of the rail coupling. The static values of the mounting rail apply here.

Scope of delivery:

Retaining plates, type 41, and matching hexagonal bolts included loosely.

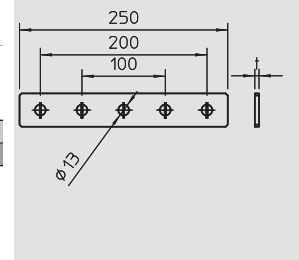


Connection plate with 5 holes, stainless steel

Type	Version	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
GMS 5 VP V2A	With continuous perforation 13 mm	10	10	28.900	1124 69 1
GMS 5 VP V4A	With continuous perforation 13 mm	10	10	28.900	1124 73 1

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /100 pc.

Connection plate with five holes for straight connection of profile rails 41 x 41 mm and 41 x 21 mm.

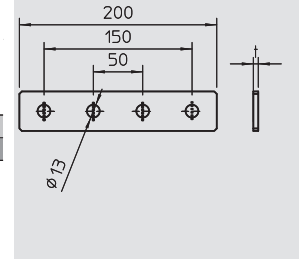


Connection plate with 4 holes, stainless steel

Type	Version	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
GMS 4 VP V2A	With continuous perforation 13 mm	40	10	23.300	1124 68 9
GMS 4 VP V4A	With continuous perforation 13 mm	40	10	23.300	1124 72 9

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /100 pc.

Connection plate with four holes for straight connection of profile rails 41 x 41 mm and 41 x 21 mm.

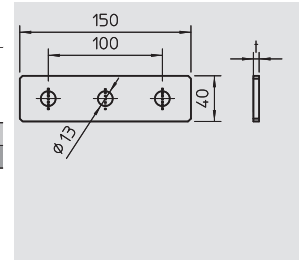


Connection plate with 3 holes, stainless steel

Type	Version	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
GMS 3 VP V2A	With continuous perforation 13 mm	80	20	17.200	1124 68 7
GMS 3 VP V4A	With continuous perforation 13 mm	80	20	17.200	1124 72 7

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /100 pc.

Connection plate with three holes for straight connection of profile rails 41 x 41 mm and 41 x 21 mm.

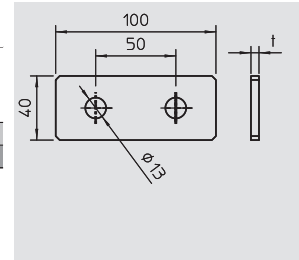


Connection plate with 2 holes, stainless steel

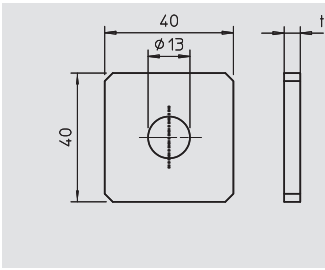
Type	Version	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
GMS 2 VP V2A	With continuous perforation 13 mm	40	10	11.500	1124 68 5
GMS 2 VP V4A	With continuous perforation 13 mm	40	10	11.500	1124 72 5

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /100 pc.

Connection plate with two holes for straight connection of profile rails 41 x 41 mm and 41 x 21 mm.



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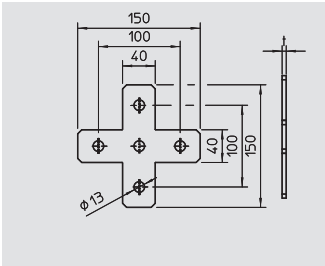


Connection plate with 1 hole, stainless steel

Type	Version	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
GMS 1 VP V2A	With continuous perforation 13 mm	150	10	4.450	1124 68 3
GMS 1 VP V4A	With continuous perforation 13 mm	150	10	4.450	1124 72 3

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /100 pc.

Connection plate with slot, for example for mounting threaded rods to profile rails 41 x 41 mm and 41 x 21 mm.

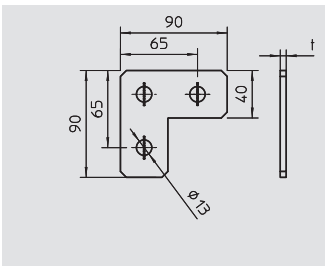


Connection plate, X-shaped, stainless steel

Type	Version	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
GMS 5 VP X V2A	With gland hole 13 mm	10	10	29.600	1124 69 7
GMS 5 VP X V4A	With gland hole 13 mm	10	10	29.600	1124 73 7

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /100 pc.

Connection plate with five holes for cross connection of profile rails 41 x 41 mm and 41 x 21 mm.

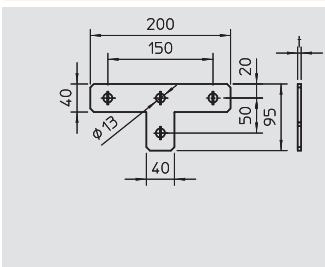


Connection plate, L-shaped, stainless steel

Type	Version	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
GMS 3 VP L V2A	With gland hole 13 mm	40	10	15.900	1124 69 3
GMS 3 VP L V4A	With gland hole 13 mm	40	10	15.900	1124 73 3

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /100 pc.

Connection plate with three holes for angle connection of profile rails 41 x 41 mm and 41 x 21 mm.

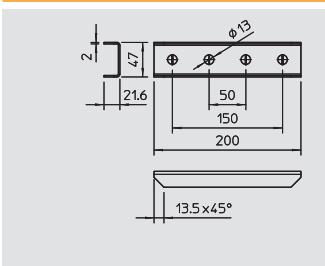


Connection plate, T-shaped, stainless steel

Type	Version	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
GMS 4 VP T V2A	With gland hole 13 mm	10	10	30.200	1124 69 5
GMS 4 VP T V4A	With gland hole 13 mm	10	10	30.200	1124 73 5

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /100 pc.

Connection plate with four holes for T-shaped connection of profile rails 41 x 41 mm and 41 x 21 mm.

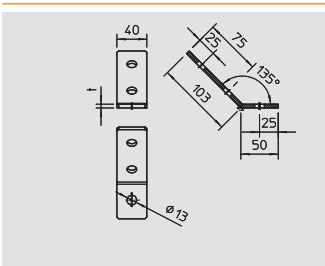


U-shaped connector, stainless steel

Type	Version	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
GVMS 4 ASV V2A	With continuous perforation 13 mm	60	10	24.900	1124 68 1
GVMS 4 ASV V4A	With continuous perforation 13 mm	60	10	24.900	1124 71 5

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /100 pc.

Connector gripping from outside with four holes for straight connection of profile rails 41 x 41 mm and 41 x 21 mm

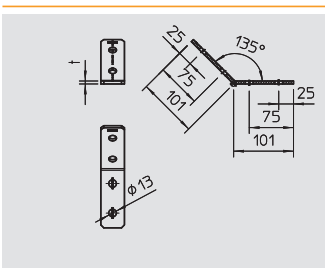


Mounting bracket, 45° with 3 holes, stainless steel

Type	Version	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
GMS 3 VW 45 V2A	45° angle	40	10	17.200	1124 70 7
GMS 3 VW 45 V4A	45° angle	40	10	17.200	1124 74 7

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /100 pc.

Mounting bracket with three holes to connect profile rails 41 x 41 mm and 41 x 21 mm at an angle of 45°.



Mounting bracket, 45° with 4 holes, stainless steel

Type	Version	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
GMS 4 VW 45 V2A	45° angle	40	10	23.300	1124 70 9
GMS 4 VW 45 V4A	45° angle	40	10	23.300	1124 74 9

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /100 pc.

Mounting bracket with four holes to connect profile rails 41 x 41 mm and 41 x 21 mm at an angle of 45°.



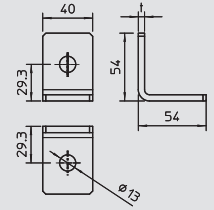
Rail mounting system, MS 41



Mounting bracket, 90° with 2 holes, stainless steel

Type	Version	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
GMS 2 VW 90 V2A	90° angle	60	10	11.500	1124 69 9
GMS 2 VW 90 V4A	90° angle	60	10	11.500	1124 73 9

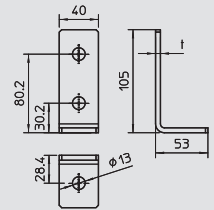
V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /100 pc.
 Mounting bracket with two holes to connect profile rails 41 x 41 mm and 41 x 21 mm at an angle of 90°.



Mounting bracket, 90° with 3 holes, stainless steel

Type	Version	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
GMS 3 VW 90 V2A	90° angle	40	10	17.200	1124 70 1
GMS 3 VW 90 V4A	90° angle	40	10	17.200	1124 74 1

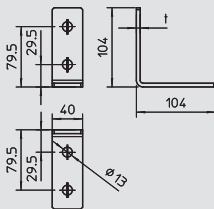
V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /100 pc.
 Mounting bracket with three holes to connect profile rails 41 x 41 mm and 41 x 21 mm at an angle of 90°.



Mounting bracket, 90° with 4 holes, stainless steel

Type	Version	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
GMS 4 VW 90 V2A	90° angle	30	10	23.300	1124 70 3
GMS 4 VW 90 V4A	90° angle	30	10	23.300	1124 74 3

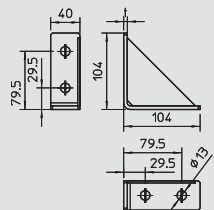
V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /100 pc.
 Mounting bracket with two holes to connect profile rails 41 x 41 mm and 41 x 21 mm at an angle of 90°.



Triangular node, stainless steel

Type	Version	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
GMS 4 KD 90 V2A	90° bracket	10	10	35.000	1124 70 5
GMS 4 KD 90 V4A	90° bracket	10	10	35.000	1124 74 5

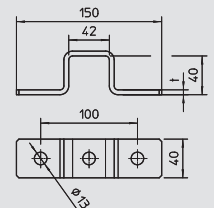
V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /100 pc.
 Reinforced mounting bracket with four holes to connect profile rails 41 x 41 mm and 41 x 21 mm at an angle of 90°.

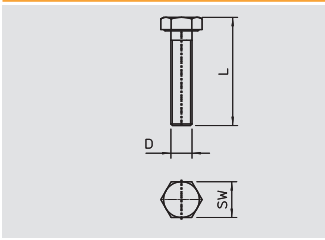


Omega clamp 41 21, stainless steel

Type	Version	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
GMS 3 O 4141 V2A	With continuous perforation 13 mm	10	10	25.400	1124 71 3
GMS 3 O 4141 V4A	With continuous perforation 13 mm	10	10	25.400	1124 75 3

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /100 pc.
 Fastening clip with 3 holes for cross-wise connection of profile rails 41 x 41 mm.





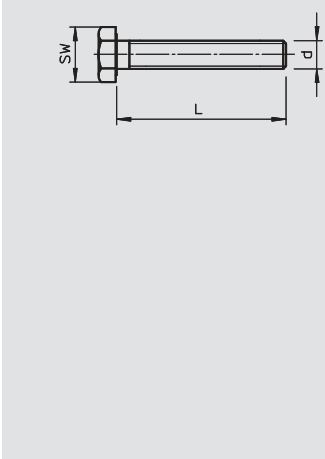
Hexagonal bolts DIN 933, stainless steel

Type	Dimension L mm	Dimension D mm	SW mm	Pack. pcs	Weight kg/100 pcs.	Item No.
DIN 933 M10x45VA	45	10	17	50	3.370	3156 04 0
DIN 933 M12x45VA	45	10	19	50	4.850	3156 04 2

V2A Stainless steel, grade 304

/100 pc.

Hexagonal bolt according to DIN 933 with metric thread.



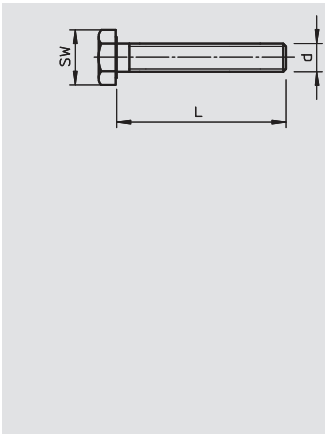
Hexagonal bolts DIN 933, stainless steel

Type	Dimension mm	Dimension L mm	Dimension d mm	SW mm	Pack. pcs	Weight kg/100 pcs.	Item No.
933 M6x16 V4A	M6 x 16	16	6	10	100	0.511	3156 01 6
933 M6x20 V4A	M6 x 20	20	6	10	100	0.580	3156 01 8
933 M6x25 V4A	M6 x 25	25	6	10	100	0.665	3156 01 9
933 M8x20 V4A	M8 x 20	20	8	13	100	1.230	3156 02 4
933 M8x25 V4A	M8 x 25	25	8	13	100	1.390	3156 02 5
933 M8x30 V4A	M8 x 30	30	8	13	100	1.550	3156 02 6
933 M10x20 V4A	M10 x 20	20	10	17	100	2.320	3156 03 1
933 M10x30 V4A	M10 x 30	30	10	17	100	2.620	3156 03 2
933 M10x40 V4A	M10 x 40	40	10	17	50	3.120	3156 03 3
933 M12x30 V4A	M12 x 30	30	12	19	50	3.770	3156 03 6
933 M12x40 V4A	M12 x 40	40	—	19	50	4.740	3156 02 9
933 M12x50 V4A	M12 x 50	50	—	19	50	5.200	3156 03 7

V4A Stainless steel, grade 316 Ti

/100 pc.

Hexagonal bolt M6 x 16 mm

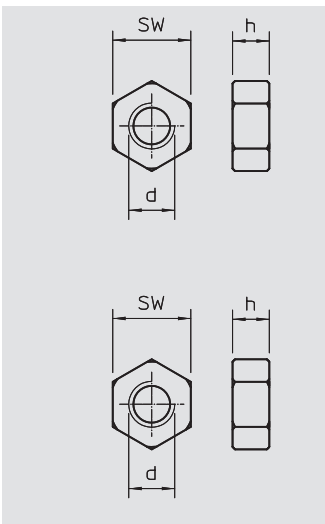


Hexagonal bolts DIN 933, stainless steel, V5A

Type	Dimension mm	Dimension L mm	Dimension d mm	SW mm	Pack. pcs	Weight kg/100 pcs.	Item No.
933 M6x16 V5A	M6 x 16	16	6	10	100	0.511	3156 04 6
933 M6x20 V5A	M6 x 20	20	6	10	100	0.580	3156 04 8
933 M6x25 V5A	M6 x 20	25	6	10	100	0.665	3156 04 9
933 M8x20 V5A	M8 x 20	20	8	13	100	1.230	3156 05 4
933 M8x25 V5A	M8 x 25	25	8	13	100	1.390	3156 05 5
933 M8x30 V5A	M8 x 30	30	8	13	100	1.550	3156 05 6
933 M10x20 V5A	M10 x 20	20	10	17	100	2.120	3156 06 1
933 M10x30 V5A	M10 x 30	30	10	17	100	2.620	3156 06 2
933 M10x40 V5A	M10 x 40	40	10	17	50	3.120	3156 06 3
933 M12x30 V5A	M12 x 30	30	12	19	50	3.770	3156 06 6
933 M12x40 V5A	M12 x 40	40	12	19	50	4.490	3156 06 7
933 M12x50 V5A	M12 x 50	50	12	—	50	5.200	3156 06 8

V5A Stainless steel, 1.4529

/100 pc.



Hexagonal nut DIN 934, stainless steel

Type	Thread	SW mm	Dimension h mm	Dimension d mm	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
DIN 934 M6 VA	M6	10	5.2	6	4,000	100	0.250	3397 06 8
DIN 934 M8 VA	M8	13	6.8	8	2,400	100	0.520	3397 08 4
DIN 934 M10 VA	M10	17	8.4	10	1,000	100	1.160	3397 10 6
DIN 934 M12 VA	M12	19	10.8	12	600	100	1.730	3397 11 4

V2A Stainless steel, grade 304

/100 pc.

Hexagonal nut to DIN 934 with metric thread.

Type	Thread	SW mm	Dimension h mm	Dimension d mm	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
DIN 934 M6 V4A	M6	10	5.2	6	4,000	100	0.250	3400 17 3
DIN 934 M8 V4A	M8	13	6.8	8	2,400	100	0.520	3400 17 5
DIN 934 M10 V4A	M10	17	8.4	10	1,000	100	1.084	3400 17 7
DIN 934 M12 V4A	M12	19	10.8	12	600	100	1.730	3397 14 5

V4A Stainless steel, grade 316 Ti

/100 pc.

Hexagonal nut to DIN 934 with metric thread.



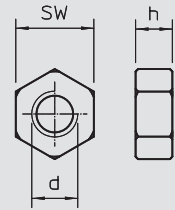
Bolts, stainless steel

Hexagonal nut DIN 934, stainless steel, V5A



Type	Thread	SW mm	Dimen- sion h mm	Dimen- sion d mm	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
DIN 934 M6 V5A	M6	10	5.2	6	4,000	100	0.250	3400 18 3
DIN 934 M8 V5A	M8	13	6.8	8	2,400	100	0.520	3400 18 5
DIN 934 M10 V5A	M10	17	8.4	10	1,000	100	1.160	3400 18 7
DIN 934 M12 V5A	M12	19	10.8	12	600	100	1.730	3400 18 9

V5A Stainless steel, 1.4529 /100 pc.
Hexagonal nut to DIN 934 with metric thread.

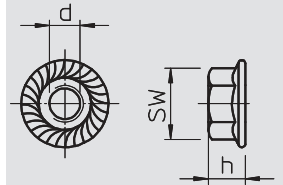


Combination nut DIN 6923



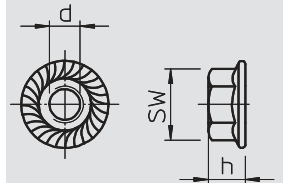
Type	Dimen- sion d mm	Dimen- sion h mm	SW mm	Pack. pcs	Weight kg/100 pcs.	Item No.
KM M6 VA4301	6	6	10	100	0.315	6408 96 6

V2A Stainless steel, grade 304 /100 pc.
Nut with pressed washer.



Type	Dimen- sion d mm	Dimen- sion h mm	SW mm	Pack. pcs	Weight kg/100 pcs.	Item No.
KM M6 VA4401	6	6	10	100	0.315	6408 97 0
KM M8 VA4401	8	—	13	100	0.800	6408 92 0
KM M10 VA4401	10	—	17	100	1.320	6408 93 0
KM M12 VA4401	12	—	19	100	2.260	6408 94 0

V4A Stainless steel, grade 316 /100 pc.
Combination nut with pressed washer.

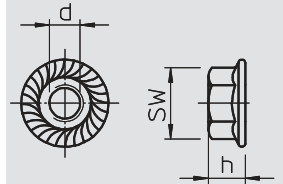


Combination nut DIN 6923 V5A



Type	Thread	Pack. pcs	Item No.
KM M6 VA4529	—	100	6408 97 2
KM M8 VA4529	—	100	6408 92 2
KM M10 VA4529	—	100	6408 93 2
KM M12 VA4529	—	100	6408 94 2

V5A Stainless steel, 1.4529 /100 pc.
Combination nut with pressed washer.



Washer, DIN 125, stainless steel



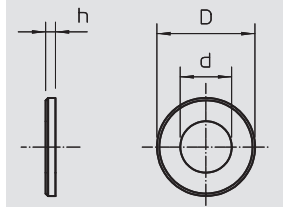
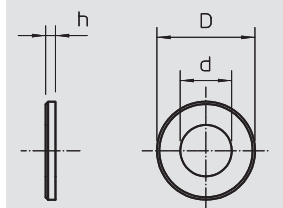
Type	Thread	Dimen- sion d mm	Dimen- sion D mm	Dimen- sion h mm	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
966 M6 VA	M6	6.4	12	1.6	10,000	100	0.114	3402 30 4
966 M8 VA	M8	8.4	16	1.6	5,000	100	0.214	3402 31 2
966 M10 VA	M10	10.5	20	2	3,000	100	0.408	3402 32 0
966 M12 VA	M12	13	24	2.5	2,400	100	0.627	3402 33 9

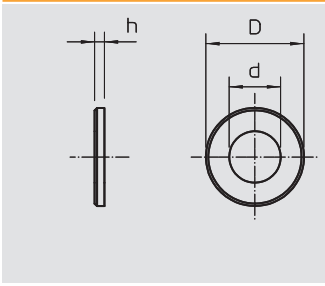
V2A Stainless steel, grade 304 /100 pc.
Washer according to DIN 125, shape A, for universal use.



Type	Thread	Dimen- sion d mm	Dimen- sion D mm	Dimen- sion h mm	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
966 M6 V4A	M6	6.4	12	1.6	10,000	100	0.114	3402 30 6
966 M8 V4A	M8	8.4	16	1.6	5,000	100	0.214	3402 31 4
966 M10 V4A	M10	10.5	20	2	3,000	100	0.408	3402 32 2
966 M12 V4A	M12	13	24	2.5	2,400	100	0.627	3402 34 5

V4A Stainless steel, grade 316 Ti /100 pc.
Washer according to DIN 125, shape A, for universal use.





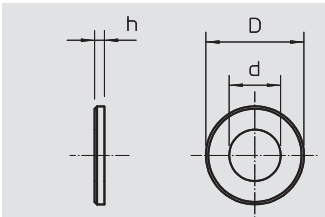
Washer, DIN 125, stainless steel V5A

Type	Thread	Dimension d	Dimension D	Dimension h	Shipping box	Pack.	Weight	Item No.
		mm	mm	mm	pcs	pcs	kg/100 pcs.	
966 M6 V5A	M6	6.4	12	1.6	10,000	100	0.114	3402 30 8
966 M8 V5A	M8	8.4	16	1.6	5,000	100	0.214	3402 31 6
966 M10 V5A	M10	10.5	20	2	3,000	100	0.408	3402 32 4
966 M12 V5A	M12	13	24	2.5	2,400	100	0.627	3402 34 7

V5A Stainless steel, 1.4529

/100 pc.

Washer according to DIN 125, shape A, for universal use.



Large washer, DIN 964, stainless steel

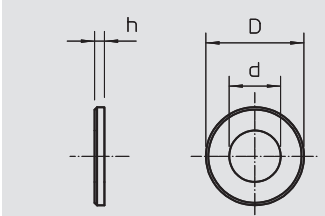
Type	Thread	Dimension d	Dimension D	Dimension h	Pack.	Weight	Item No.
		mm	mm	mm	pcs	kg/100 pcs.	
964 M8 G20 V2A	M8	8.4	20	1.5	100	0.240	3403 12 5
964 M8 G25 V2A	M8	8.4	25	1.2	100	0.370	3403 13 5
964 M8 G40 V2A	M8	8.5	40	1.5	100	0.370	3403 14 5
964 M10 G30 V2A	M10	10.5	30	1.5	100	0.592	3403 15 5
964 M10 G40 V2A	M10	10.5	40	1.5	100	0.592	3403 17 5

V2A Stainless steel, grade 304

/100 pc.

Washer of particularly large outer diameter.

In the case of connections on the MS 41 mounting rail, we recommend the external diameter of 40 mm.



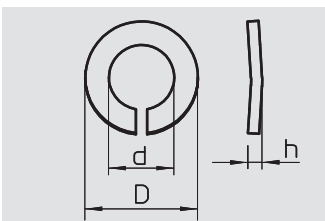
Type	Thread	Dimension d	Dimension D	Dimension h	Pack.	Weight	Item No.
		mm	mm	mm	pcs	kg/100 pcs.	
964 M8 G20 V4A	M8	8.4	20	1.5	100	0.240	3403 12 7
964 M8 G25 V4A	M8	8.4	25	1.2	100	0.370	3403 13 7
964 M8 G40 V4A	M8	8.4	40	1.5	100	0.370	3403 14 7
964 M10 G30 V4A	M10	10.5	30	1.5	100	0.592	3403 16 3
964 M10 G40 V4A	M10	10.5	40	1.5	100	0.592	3403 17 7

V4A Stainless steel, grade 316 Ti

V4A Stainless steel, grade 316

/100 pc.

Washer of particularly large outer diameter. In the case of connections on the MS 41 mounting rail, we recommend the external diameter of 40 mm.



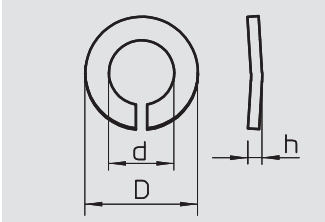
Lock washer, DIN 128, stainless steel

Type	Thread	Dimension d	Dimension D	Dimension h	Pack.	Weight	Item No.
		mm	mm	mm	pcs	kg/100 pcs.	
DIN 128 A M6 V4A	M6	6.3	11.8	2.1	100	0.070	3405 06 2
DIN 128 A M8 V4A	M8	8.3	14.8	2.6	100	0.130	3405 08 9
DIN 128 A M10V4A	M10	10.5	18.1	3	100	0.210	3405 11 1
DIN 128 A M12V4A	M12	12.5	21.1	3.5	100	0.320	3405 12 7

V4A Stainless steel, grade 316 Ti

/100 pc.

Lock washer according to DIN 128, shape A.

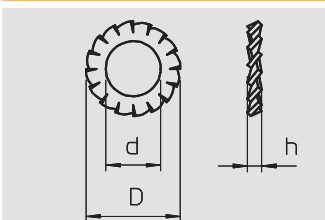


Type	Thread	Dimension d	Dimension D	Dimension h	Pack.	Weight	Item No.
		mm	mm	mm	pcs	kg/100 pcs.	
DIN 128 A M6 V5A	M6	6.3	11.8	2.1	100	0.070	3405 06 4
DIN 128 A M8 V5A	M8	8.3	14.8	2.6	100	0.130	3405 09 1
DIN 128 A M10V5A	M10	10.5	18.1	3	100	0.210	3405 11 3
DIN 128 A M12V5A	M12	12.5	21.1	3.5	100	0.320	3405 12 9

V5A Stainless steel, 1.4529

/100 pc.

Lock washer according to DIN 128, shape A.



Serrated washer DIN 6798, stainless steel

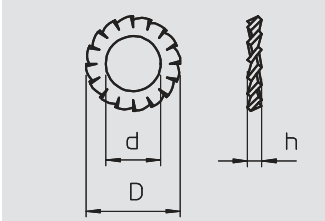
Type	Dimension d	Dimension D	Dimension h	Pack.	Weight	Item No.
	mm	mm	mm	pcs	kg/100 pcs.	
DIN 6798 M6 VA	6.4	11	2.1	100	0.040	3404 33 1
DIN 6798 M8 VA	8.4	15	2.4	100	0.080	3404 35 8

V2A Stainless steel, grade 304

V2A Stainless steel, grade 301

/100 pc.

Serrated washer to DIN 6798, shape A.



Type	Dimension d	Dimension D	Dimension h	Pack.	Weight	Item No.
	mm	mm	mm	pcs	kg/100 pcs.	
DIN 6798 M6 V4A	6.4	11	2.1	100	0.036	3404 37 3
DIN 6798 M8 V4A	8.4	15	2.4	100	0.080	3404 37 8
DIN 6798 M10 V4A	10.5	18	2.7	100	0.125	3404 38 2
DIN 6798 M12 V4A	13	20.5	3	100	0.170	3404 38 6

V4A Stainless steel, grade 316 Ti

/100 pc.

Serrated washer to DIN 6798, shape A.



Bolts, stainless steel

Serrated washer DIN 6798, stainless steel, V5A

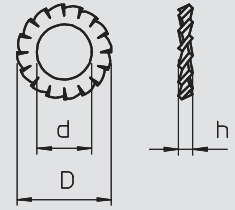


Type	Dimension d		Dimension D	Dimension h	Pack.	Weight		Item No.
	mm	mm				pcs	kg/100 pcs.	
DIN 6798 M6 V5A	6.4	11	2.1		100	0.036		3404 37 6
DIN 6798 M8 V5A	8.4	15	2.4		100	0.080		3404 38 0
DIN 6798 M10 V5A	10.5	18	2.7		100	0.125		3403 38 4
DIN 6798 M12 V5A	13	20.5	3		100	0.160		3404 38 8

V5A Stainless steel, 1.4529

/100 pc.

Serrated washer to DIN 6798, shape A.



Truss-head bolt

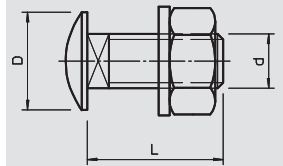


Type	Dimension	Dimension L	Dimension d	Dimension D	Pack.	Weight		Item No.
						mm	mm	
FRS 6X12 VA4301	M6 x 12	12	6	13.5	100	0.760		6406 52 1
FRS 6X16 VA4301	M6 x 16	15	6	13.5	100	0.900		6406 55 6
FRS 6X20 VA4301	M6 x 20	20	6	13.5	100	1.000		6406 60 2
FRS 8X16 VA4301	M8 x 16	16	8	20	50	2.200		6406 69 6
FRS 8X20 VA4301	M8 x 20	20	8	20	50	2.100		6406 80 7
FRS 8X25 VA4301	M8 x 25	25	8	20	50	2.300		6406 81 5
FRS 8X35 VA4301	M8 x 35	35	8	20	50	2.700		6406 82 3
FRS 10X20 VA4301	M10 x 20	20	10	24	50	3.900		6406 86 6
FRS 10X25 VA4301	M10 x 25	25	10	24	50	4.500		6406 71 8
FRS 10X30 VA4301	M10 x 30	30	10	24	50	4.500		6406 72 6
FRS 12X25 VA4301	M12 x 25	25	12	30	25	6.400		6406 75 0
FRS 12X30 VA4301	M12 x 30	30	12	30	25	6.800		6406 76 9
FRS 6X12 VA4401	M6 x 12	12	6	13.5	100	0.820		6406 56 4
FRS 6X16 VA4401	M6 x 16	16	6	13.5	100	0.900		6406 58 0
FRS 6X20 VA4401	M6 x 20	20	6	13.5	100	1.000		6406 61 0
FRS 10X20 VA4401	M10 x 20	20	10	24	50	4.000		6406 87 0
FRS 10X20SVA4401	M10 x 20	20	10	24	50	4.100		6406 87 2
FRS 12X25 VA4401	M12 x 25	25	12	30	25	6.400		6406 78 5
FRS 10x25 VA4401	M10 x 25	25	10	24	50	4.500		6407 52 4

V2A Stainless steel, grade 304 **V4A** Stainless steel, grade 316

/100 pc.

Truss-head bolt with square neck including washer and hexagonal nut.



Hexagonal bolt with washers and hexagonal nut

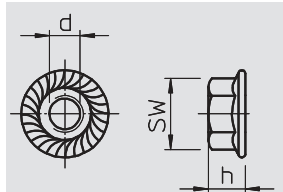


Type	Dimension	Dimension L	Dimension d	SW	Pack.	Weight		Item No.
						mm	mm	
SKS 10x90 VA4401	M10 x 90	90	10	17	20	7.800		6418 25 6
SKS 10x90 VA4301	M10 x 90	90	10	17	20	10.038		6418 25 5
SKS 10x90 VA4529	M10 x 90	90	10	17	20	10.040		6418 25 7
SKS 10X80 VA4529	M10 x 90	90	10	17	20	7.520		6418 24 7

V2A Stainless steel, grade 304 **V4A** Stainless steel, grade 316 **V5A** Stainless steel, 1.4529

/100 pc.

Hexagonal bolt for universal fastening of construction components.



Electrical installation pipe



Type	Dimension M	Dimension L	Dimension t	Pack.	Weight	Item No.
		mm	mm	m	kg/100 m	
S16 W V2A	M16	3.000	1	30	36.700	2046 72 0
S20 W V2A	M20	3.000	1	30	46.700	2046 72 1
S25 W V2A	M25	3.000	1	30	60.000	2046 72 2
S32 W V2A	M32	3.000	1.2	21	93.400	2046 72 3
S40 W V2A	M40	3.000	1.2	15	116.700	2046 72 4
S50 W V2A	M50	3.000	1.5	15	180.000	2046 72 5
S63 W V2A	M63	3.000	1.5	9	230.000	2046 72 6

V2A Stainless steel, grade 304 L /100 m
 Electrical installation pipe without threaded ends to EN 61386-1 for mechanical protection of cables. With burr-free inner wall.



Type	Dimension M	Dimension L	Dimension t	Pack.	Weight	Item No.
		mm	mm	m	kg/100 m	
S16 W V4A	M16	3.000	1	15	36.700	2046 75 0
S20 W V4A	M20	3.000	1	15	46.700	2046 75 1
S25 W V4A	M25	3.000	1	15	60.000	2046 75 2
S32 W V4A	M32	3.000	1.2	15	93.400	2046 75 3
S40 W V4A	M40	3.000	1.2	9	116.700	2046 75 4
S50 W V4A	M50	3.000	1.5	9	180.000	2046 75 5
S63 W V4A	M63	3.000	1.5	9	230.000	2046 75 6

V4A Stainless steel, grade 316 Ti /100 m
 Electrical installation pipe without threaded ends to EN 61386-1 for mechanical protection of cables. With burr-free inner wall.



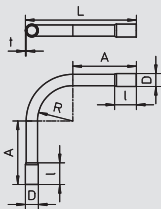
5 | 5 | 5 | 7 | 1



5 | 5 | 5 | 7 | 1

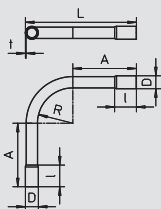
Cable routing

90° bend



Type	Dimension M	Dimension L	Dimension t	Dimension R	Pack.	Weight	Item No.
		mm	mm	mm	pcs	kg/100 pcs.	
SB16 W V2A	M16	153	1	46	15	10.000	2046 73 0
SB20 W V2A	M20	183	1	67	25	10.000	2046 73 1
SB25 W V2A	M25	208	1	82	25	20.000	2046 73 2
SB32 W V2A	M32	258	1.2	120	20	30.000	2046 73 3
SB40 W V2A	M40	276	1.2	130	15	50.000	2046 73 4
SB50 W V2A	M50	317	1.5	150	5	90.000	2046 73 5
SB63 W V2A	M63	376	1.5	191	3	120.000	2046 73 6

V2A Stainless steel, grade 304 L /100 pc.
 Accessory part: 90° bend with moulded sleeves, for electrical installation pipes according to EN 61386-1.
 With burr-free inner wall.



Type	Dimension M	Dimension L	Dimension t	Dimension R	Pack.	Weight	Item No.
		mm	mm	mm	pcs	kg/100 pcs.	
SB16 W V4A	M16	153	1	46	5	10.000	2046 76 0
SB20 W V4A	M20	183	1	67	10	10.000	2046 76 1
SB25 W V4A	M25	208	1	82	10	20.000	2046 76 2
SB32 W V4A	M32	258	1.2	120	10	30.000	2046 76 3
SB40 W V4A	M40	276	1.2	130	5	50.000	2046 76 4
SB50 W V4A	M50	317	1.5	150	5	90.000	2046 76 5
SB63 W V4A	M63	376	1.5	191	3	120.000	2046 76 6

V4A Stainless steel, grade 316 Ti /100 pc.
 Accessory part: 90° bend with moulded sleeves, for electrical installation pipes according to EN 61386-1.
 With burr-free inner wall.

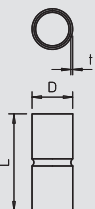


5 | 5 | 5 | 7 | 1



5 | 5 | 5 | 7 | 1

Pipe connection sleeve



Type	Dimension M	Dimension L	Dimension D	Dimension t	Pack.	Weight	Item No.
		mm	mm	mm	pcs	kg/100 pcs.	
SV16 W V2A	M16	45	18.2	1.6	25	2.000	2046 74 0
SV20 W V2A	M20	50	22.2	1.6	50	2.000	2046 74 1
SV25 W V2A	M25	60	27.2	1.6	50	4.000	2046 74 2
SV32 W V2A	M32	70	34.6	1.8	50	10.000	2046 74 3
SV40 W V2A	M40	80	42.6	1.8	25	10.000	2046 74 4
SV50 W V2A	M50	100	53.2	2.1	10	20.000	2046 74 5
SV63 W V2A	M63	110	66.3	2.15	5	30.000	2046 74 6

V2A Stainless steel, grade 304 L /100 pc.
 Accessory part: plug-in sleeve for the connections between electrical installation pipes. With burr-free inner wall.



5 | 5 | 5 | 7 | 1

Pipe systems



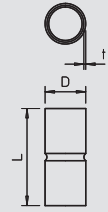
5 | 5 | 5 | 7 | 1

Pipe connection sleeve

Type	Dimension M	Dimension L	Dimension D	Dimension t	Pack.	Weight	Item No.
	mm	mm	mm	mm	pcs	kg/100 pcs.	
SV16 W V4A	M16	45	18.2	1.6	10	2.000	2046 77 0
SV20 W V4A	M20	50	22.2	1.6	15	2.000	2046 77 1
SV25 W V4A	M25	60	27.2	1.6	15	4.000	2046 77 2
SV32 W V4A	M32	70	34.6	1.8	15	10.000	2046 77 3
SV40 W V4A	M40	80	42.6	1.8	10	10.000	2046 77 4
SV50 W V4A	M50	100	53.2	2.1	5	20.000	2046 77 5
SV63 W V4A	M63	110	66.3	2.15	3	30.000	2046 77 6

V4A Stainless steel, grade 316 Ti /100 pc.

Accessory part: plug-in sleeve for the connections between electrical installation pipes. With burr-free inner wall.

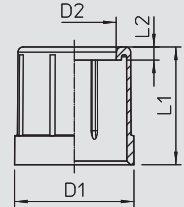


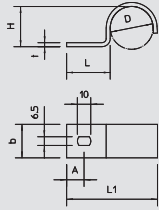
Stapa pipe end cap

Type	Size	Colour	Dimension D1	Dimension D2	Dimension L1	Dimension L2	Shipping box	Pack.	Weight	Item No.
			mm	mm	mm	mm	pcs	pcs	kg/100 pcs.	
129 M16	M16	Light grey	19.4	12.5	18	2	1,000	100	0.235	2047 81 0
129 M20	M20	Light grey	23.4	16	22.5	2.5	1,200	100	0.326	2047 82 9
129 M25	M25	Light grey	28.4	21	27.5	2.5	600	50	0.614	2047 83 7
129 M32	M32	Light grey	35.4	27.5	34	3	600	50	1.070	2047 85 3
129 M40	M40	Light grey	43.4	35	41	3	50	50	1.444	2047 86 1
129 M50	M50	Light grey	53.4	44.5	48	3	25	25	2.176	2047 88 8
129 M63	M63	Light grey	66.4	55	59	4	25	25	2.808	2047 89 6
129 M16 SW	M16	Black	19.4	12.5	18	2	1,000	100	0.235	2047 93 4
129 M20 SW	M20	Black	23.4	16	22.5	2.5	1,200	100	0.326	2047 94 2
129 M25 SW	M25	Black	28.4	21	27.5	2.5	600	50	0.614	2047 95 0
129 M32 SW	M32	Black	35.4	27.5	34	3	600	50	1.070	2047 96 9
129 M40 SW	M40	Black	43.4	35	41	3	50	50	1.444	2047 97 7
129 M50 SW	M50	Black	53.4	44.5	48	3	25	25	2.176	2047 98 5
129 M63 SW	M63	Black	66.4	55	59	4	25	25	2.808	2047 99 3

PE Polyethylene /100 pc.

Cable protection sleeve for attachment on electrical installation pipes.





Fastening clip, heavy-duty, stainless steel

Type	For Ø	Size	Shipping box	Pack.	Weight	Item No.
	mm		pcs	pcs	kg/100 pcs.	
822 6 V4A	6	—	1,000	100	0.885	1013 86 1
822 10 V4A	10	—	1,200	100	1.075	1013 86 5
822 12 V4A	12	M12	400	100	1.450	1013 86 9
822 14 V4A	14	—	400	100	1.600	1013 87 3
822 16 V4A	15,2	M16	400	100	1.733	1013 87 7
822 18 V4A	18,6	PG11	400	100	1.946	1013 88 1
822 20 V4A	20	M20	600	100	2.125	1013 88 5
822 22.5 V4A	22.5	PG16	500	50	2.338	1013 88 9
822 25 V4A	25	M25	500	50	2.400	1013 89 3
822 28.3 V4A	28.3	PG21	200	50	4.420	1013 89 7
822 32 V4A	32	M32	100	100	5.490	1013 90 3
822 37 V4A	37	PG29	100	100	7.100	1013 90 7
822 40 V4A	40	M40	100	100	6.590	1013 91 1
822 47 V4A	47	PG36	100	100	8.500	1013 91 7
822 50 V4A	50	M50	100	100	7.690	1013 92 1
822 63 V4A	63	M63	100	100	9.260	1013 92 5

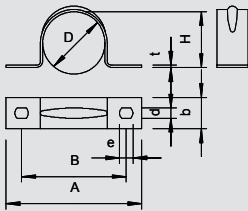
V4A Stainless steel, grade 316 Ti

/100 pc.

Single-lobe fastening clip for cables and pipes.



Cable routing



Fastening clip, medium-duty, stainless steel

Type	For Ø	Hole size	Material thickness	Shipping box	Pack.	Weight	Item No.
	mm	mm	mm	pcs	pcs	kg/100 pcs.	
605 7 V4A	7	4,5 x 6	1	4,800	100	0.183	1018 64 3
605 8 V4A	8	4,5 x 6	1	5,000	100	0.203	1018 64 5
605 9 V4A	9	4,5 x 6	1	5,000	100	0.246	1018 64 7
605 10 V4A	10	4,5 x 6	1	1,800	100	0.432	1018 64 9
605 11 V4A	11	4,5 x 6	1	1,800	100	0.462	1018 65 1
605 12 V4A	12	4,5 x 6	1	2,000	100	0.485	1018 65 3
605 13 V4A	13	4,5 x 6	1	2,400	100	0.532	1018 65 5
605 14 V4A	14	4,5 x 6	1	2,400	100	0.560	1018 65 7
605 15 V4A	15	4,5 x 6	1	2,000	100	0.584	1018 65 9
605 16 V4A	16	4,5 x 6	1	1,200	100	0.585	1018 66 1
605 17 V4A	17	4,5 x 6	1	1,500	100	0.604	1018 66 3
605 18 V4A	18	4,5 x 6	1	1,200	100	0.640	1018 66 5
605 19 V4A	19	4,5 x 6	1	1,200	100	0.671	1018 66 7
605 20 V4A	20	4,5 x 6	1	1,000	100	0.664	1018 66 9
605 21 V4A	21	4,5 x 6	1	1,000	100	0.678	1018 67 1
605 23 V4A	23	4,5 x 6	1	1,000	100	0.826	1018 67 5
605 25 V4A	25	4,5 x 6	1	1,200	100	0.992	1018 67 9
605 26 V4A	26	4,5 x 6	1	1,000	100	0.975	1018 68 1
605 28 V4A	28	4,5 x 6	1	1,200	100	1.067	1018 68 5
605 30 V4A	30	4,5 x 6	1	1,200	100	1.150	1018 68 9
605 32 V4A	32	4,5 x 6	1	1,200	100	1.260	1018 69 3
605 35 V4A	35	5,5 x 7	1	1,200	100	1.921	1018 69 7
605 37 V4A	37	5,5 x 7	1	1,200	100	2.007	1018 70 1
605 40 V4A	40	5,5 x 7	1.5	600	50	1.900	1018 70 5
605 43 V4A	43	5,5 x 7	1.5	600	50	2.324	1018 70 9
605 47 V4A	47	5,5 x 7	1.5	600	50	2.366	1018 71 3
605 50 V4A	50	5,5 x 7	1.5	300	25	2.770	1018 71 7
605 55 V4A	55	5,5 x 7	1.5	300	25	3.840	1018 72 1
605 60 V4A	60	5,5 x 7	1.5	300	25	3.800	1018 72 5
605 63 V4A	63	5,5 x 7	1.5	300	25	3.670	1018 72 9

V4A Stainless steel, grade 316 Ti

/100 pc.

Two lobe fastening clips for cables and pipes.



Fastening clips, VA

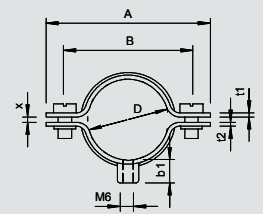


Cable and pipe spacer clip, stainless steel

Type	Clamping range D mm	Hole size mm	Material thickness mm	Size	Bolt	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
732 6 V4A	5-6	M6	1	-	M5 x 10	-	1		1360 64 4
732 8 V4A	7-8	M6	1	-	M5 x 10	-	1		1360 64 6
732 10 V4A	9-10	M6	1	-	M5 x 12	-	1		1360 64 8
732 12 V4A	10.5-12	M6	1	M12	M5 x 12	-	1		1360 65 0
732 14 V4A	12.5-14	M6	1	PG7	M5 x 12	-	1		1360 65 2
732 15 V4A	13.5-15	M6	1	PG9	M5 x 12	-	1		1360 65 4
732 16 V4A	14.5-16	M6	1	M16	M5 x 12	-	1		1360 65 6
732 18 V4A	16.5-18	M6	1	PG11	M5 x 12	-	1		1360 65 8
732 20 V4A	18.5-20	M6	1	M20	M5 x 12	-	1		1360 66 0
732 22 V4A	20-22	M6	1	PG13,5	M5 x 12	-	1		1360 66 2
732 24 V4A	22-24	M6	1	PG16	M5 x 12	-	1		1360 66 4
732 26 V4A	24-26	M6	1	M25	M5 x 12	-	1		1360 66 6
732 28 V4A	26-28	M6	1.5	PG21	M5 x 12	-	1		1360 66 8
732 30 V4A	28-30	M6	1.5	PG21	M5 x 12	-	1		1360 67 0
732 33 V4A	31-33	M6	1.5	M32	M5 x 12	-	1		1360 67 2
732 35 V4A	33-35	M6	1.5	-	M5 x 12	-	1		1360 67 4
732 38 V4A	36-38	M6	1.5	PG29	M5 x 12	-	1		1360 67 6
732 40 V4A	38-40	M6	1.5	M40	M5 x 12	-	1		1360 67 8
732 42 V4A	40-42	M6	1.5	M40	M5 x 12	-	1		1360 68 0
732 45 V4A	43-45	M6	1.5	-	M5 x 12	-	1		1360 68 2
732 48 V4A	46-48	M6	1.5	PG36	M5 x 12	-	1		1360 68 4
732 50 V4A	48-50	M6	1.5	M50	M5 x 14	-	1		1360 68 6
732 60 V4A	58-60	M6	1.5	PG48	M5 x 14	-	1		1360 68 8
732 63 V4A	61-63	M6	1.5	M63	M5 x 14	-	1		1360 69 0

V4A Stainless steel, grade 316 Ti /100 pc.

With M6 thread.



Cable and pipe spacer clip, stainless steel

Type	Clamping range D mm	Hole size mm	Material thickness mm	Size	Bolt	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
733 16 VA	14-16	6,5 x 10	1,5	M16	M5 x 12	500	50	2.430	1362 01 1
733 19 VA	17-19	6,5 x 10	1,5	Pg11	M5 x 16	500	50	2.800	1362 03 8
733 21 VA	19-21	6,5 x 10	1,5	M20	M5 x 16	500	50	2.740	1362 04 6
733 23 VA	21-23	6,5 x 10	1,5	Pg16	M5 x 16	500	50	2.800	1362 05 4
733 29 VA	24-29	6,5 x 10	1,5	M25	M5 x 16	450	50	3.475	1362 06 2
733 38 VA	30-38	6,5 x 10	1,5	M32	M5 x 18	250	25	4.500	1362 07 0
733 48 VA	39-48	6,5 x 10	1,5	M40	M5 x 18	300	25	5.200	1362 08 9
733 54 VA	48-54	6,5 x 14	1,5	M50	M5 x 18	300	25	5.800	1362 09 7
733 61 VA	53-61	6,5 x 14	1,5	Pg48	M5 x 18	240	20	6.800	1362 10 0
733 63 VA	63	8 x 18	2	M63	M5 x 18	160	20	6.940	1362 12 7

V2A Stainless steel, grade 304 /100 pc.

Bolt material: VA

* Size M16 not suitable for nail device.

* Sizes M16 to PG16 not suitable for bolt-firing tool.

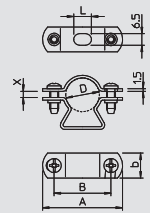
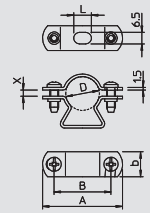
Type	Clamping range D mm	Hole size mm	Material thickness mm	Size	Bolt	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
733 13 V4A	11-13	6,5 x 10	1,5	M 12	M5 x 12	600	50	2.310	1361 64 3
733 16 V4A	14-16	6,5 x 10	1,5	M 16	M5 x 14	500	50	2.430	1361 64 7
733 19 V4A	17-19	6,5 x 10	1,5	Pg 11	M5 x 14	500	50	2.500	1361 65 1
733 21 V4A	19-21	6,5 x 10	1,5	M 20	M5 x 14	500	50	2.730	1361 65 5
733 23 V4A	21-23	6,5 x 10	1,5	Pg 16	M5 x 14	500	50	2.710	1361 65 9
733 29 V4A	24-29	6,5 x 10	1,5	M 25	M5 x 18	450	50	3.420	1361 66 3
733 38 V4A	30-38	6,5 x 10	1,5	M 32	M5 x 18	250	25	4.040	1361 66 7
733 48 V4A	39-48	6,5 x 10	1,5	M 40	M5 x 18	300	25	4.810	1361 67 1
733 54 V4A	48-54	6,5 x 10	1,5	M 50	M5 x 18	300	25	5.800	1361 67 5
733 61 V4A	53-61	6,5 x 10	1,5	Pg48	M5 x 18	239	20	6.370	1361 67 9
733 63 V4A	63	6,5 x 10	2	M 63	M5 x 18	160	20	6.940	1361 68 3

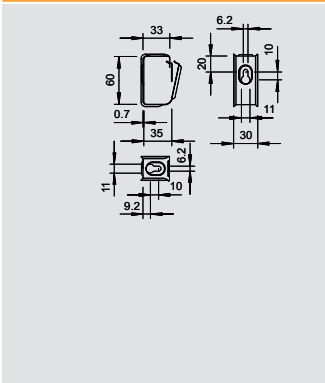
V4A Stainless steel, grade 316 Ti /100 pc.

Steel bolt material.

* Size M16 are not suitable for nail device.

* Sizes M16 to PG16 not suitable for bolt-firing tool.





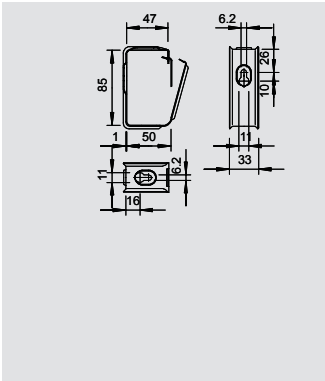
GRIP "M" 15 stainless steel

Type	No. of conductors NYM 3 x 1.5	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
2031 M 15 VA	15	50	50	3.000	2207 08 0
2031 M 15 V4A	15	50	50	3.000	2207 13 2

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /100 pc.

Metal grouped support for high mechanical stability, even in case of fire. Halogen-free, fire load-free. Suitable for secure mounting above fire protection ceilings. Also approved as a cable-specific variant for electrical function maintenance to DIN 4102 part 12. For wall and ceiling mounting. Lock can be opened without tools. Type 2031 M 70 FS incl. fire protection screw tie MMS 6x50.

Detailed information on the approved routing variants can be found in the appropriate testing documentation.



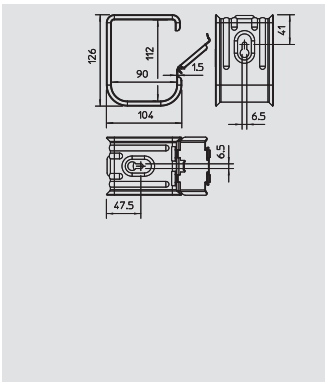
GRIP "M" 30 stainless steel

Type	No. of conductors NYM 3 x 1.5	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
2031 M 30 VA	30	25	25	6.500	2207 08 8
2031 M 30 V4A	30	25	25	6.500	2207 14 0

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /100 pc.

Metal grouped support for high mechanical stability, even in case of fire. Halogen-free, fire load-free. Suitable for secure mounting above fire protection ceilings. Also approved as a cable-specific variant for electrical function maintenance to DIN 4102 part 12. For wall and ceiling mounting. Lock can be opened without tools. Type 2031 M 70 FS incl. fire protection screw tie MMS 6x50.

Detailed information on the approved routing variants can be found in the appropriate testing documentation.



GRIP "M" 70 stainless steel

Type	No. of conductors NYM 3 x 1.5	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
2031 M 70 VA	70	10	10	37.000	2207 11 2
2031 M 70 V4A	70	10	10	37.000	2207 16 4

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /100 pc.

Metal grouped support for high mechanical stability, even in case of fire. Halogen-free, fire load-free. Suitable for secure mounting above fire protection ceilings. Also approved as a cable-specific variant for electrical function maintenance to DIN 4102 part 12. For wall and ceiling mounting. Lock can be opened without tools. Type 2031 M 70 FS incl. fire protection screw tie MMS 6x50.

Detailed information on the approved routing variants can be found in the appropriate testing documentation.



Wall and ceiling trunking, halogen-free

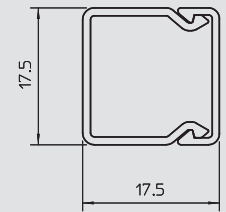


Trunking, type WDKH-20020

Type	Colour	Length mm	Pack. m	Weight kg/100 m	Item No.
WDKH-20020RW	Pure white	2.000	48	8.800	6175 40 0
WDKH-20020CW	Cream	2.000	48	8.800	6175 43 5
WDKH-20020LGR	Light grey	2.000	48	8.800	6175 46 0

PC/ABS Polycarbonate/Acrylonitrile-butadiene-styrene /m

Trunking cover and base. With base perforation. made of halogen-free plastic.

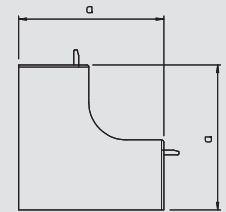


Internal corner cover

Type	Colour	Dimension a mm	Pack. pcs	Weight kg/100 pcs.	Item No.
WDKH-I20020RW	Pure white	38.5	4	0.450	6175 58 1
WDKH-I20020CW	Cream	38.5	4	0.450	6175 78 0
WDKH-I20020LGR	Light grey	38.5	4	0.450	6175 96 4

PC/ABS Polycarbonate/Acrylonitrile-butadiene-styrene /pc.

Internal corner cover for changing the direction of the halogen-free WDKH trunkings.

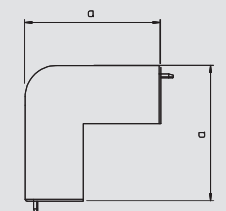


External corner cover

Type	Colour	Dimension a mm	Pack. pcs	Weight kg/100 pcs.	Item No.
WDKH-A20020RW	Pure white	38.5	4	0.520	6175 62 4
WDKH-A20020CW	Cream	38.5	4	0.520	6175 81 6
WDKH-A20020LGR	Light grey	38.5	4	0.520	6176 00 0

PC/ABS Polycarbonate/Acrylonitrile-butadiene-styrene /pc.

External corner cover for changing the direction of the halogen-free WDKH trunkings.

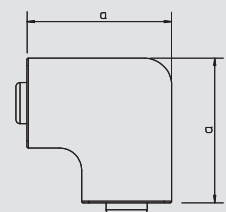


Flat angle cover

Type	Colour	Dimension a mm	Pack. pcs	Weight kg/100 pcs.	Item No.
WDKH-F20020RW	Pure white	38	4	0.440	6175 65 8
WDKH-F20020CW	Cream	38	4	0.440	6175 85 2
WDKH-F20020LGR	Light grey	38	4	0.440	6176 03 6

PC/ABS Polycarbonate/Acrylonitrile-butadiene-styrene /pc.

Flat angle cover for changing the direction of the halogen-free WDK-H trunking.

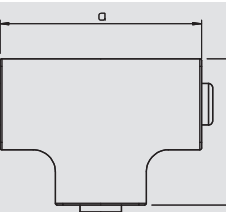


T piece cover

Type	Colour	Dimension a mm	Pack. pcs	Weight kg/100 pcs.	Item No.
WDKH-T20020RW	Pure white	57	4	0.520	6175 69 4
WDKH-T20020CW	Cream	57	4	0.520	6175 88 8
WDKH-T20020LGR	Light grey	57	4	0.520	6176 07 2

PC/ABS Polycarbonate/Acrylonitrile-butadiene-styrene /pc.

T piece cover for changing the direction of the halogen-free WDK-H trunkings.

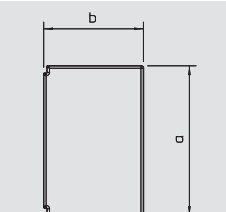


End piece

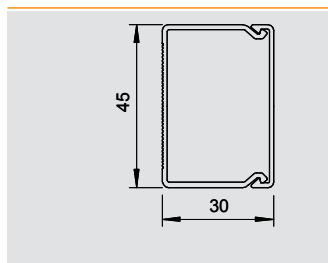
Type	Colour	Dimension a mm	Dimension b mm	Pack. pcs	Weight kg/100 pcs.	Item No.
WDKH-E20020RW	Pure white	19	18	20	0.130	6175 55 0
WDKH-E20020CW	Cream	19	18	20	0.130	6175 74 4
WDKH-E20020LGR	Light grey	19	18	20	0.130	6175 92 8

PC/ABS Polycarbonate/Acrylonitrile-butadiene-styrene /pc.

End piece for closing the WDK-H trunking.



Wall and ceiling trunking, halogen-free



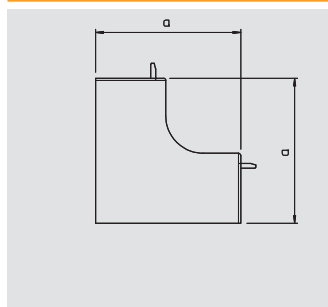
Trunking, type WDKH-30045



Type	Colour	Length mm	Pack. m	Weight kg/100 m	Item No.
WDKH-30045RW	Pure white	2.000	48	24.900	6175 40 5
WDKH-30045CW	Cream	2.000	48	24.900	6175 43 8
WDKH-30045LGR	Light grey	2.000	48	24.900	6175 46 3

PC/ABS Polycarbonate/Acrylonitrile-butadiene-styrene /m

Trunking cover and base. With base perforation. made of halogen-free plastic.



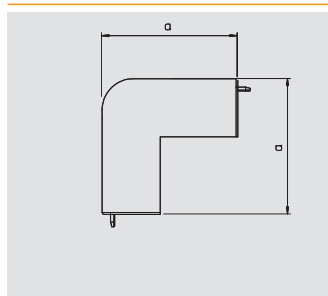
Internal corner cover



Type	Colour	Dimension a mm	Pack. pcs	Weight kg/100 pcs.	Item No.
WDKH-I30045RW	Pure white	60	4	1.600	6175 59 0
WDKH-I30045CW	Cream	60	4	1.600	6175 78 4
WDKH-I30045LGR	Light grey	60	4	1.600	6175 96 8

PC/ABS Polycarbonate/Acrylonitrile-butadiene-styrene /pc.

Internal corner cover for changing the direction of the halogen-free WDKH trunkings.



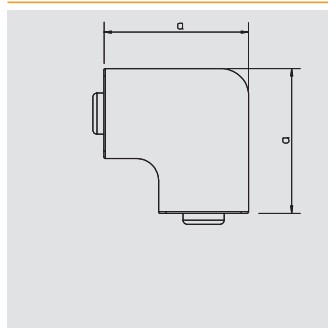
External corner cover



Type	Colour	Dimension a mm	Pack. pcs	Weight kg/100 pcs.	Item No.
WDKH-A30045RW	Pure white	57	4	2.000	6175 62 6
WDKH-A30045CW	Cream	57	4	2.000	6175 82 0
WDKH-A30045LGR	Light grey	57	4	2.000	6176 00 4

PC/ABS Polycarbonate/Acrylonitrile-butadiene-styrene /pc.

External corner cover for changing the direction of the halogen-free WDKH trunkings.



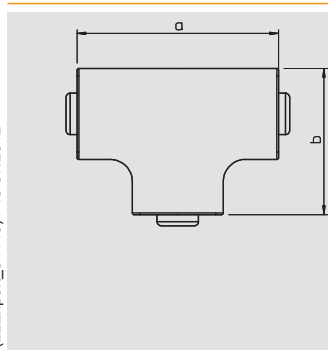
Flat angle cover



Type	Colour	Dimension a mm	Pack. pcs	Weight kg/100 pcs.	Item No.
WDKH-F30045RW	Pure white	60	4	2.000	6175 66 2
WDKH-F30045CW	Cream	85	4	2.000	6175 85 6
WDKH-F30045LGR	Light grey	60	4	2.000	6176 04 0

PC/ABS Polycarbonate/Acrylonitrile-butadiene-styrene /pc.

Flat angle cover for changing the direction of the halogen-free WDKH trunking.



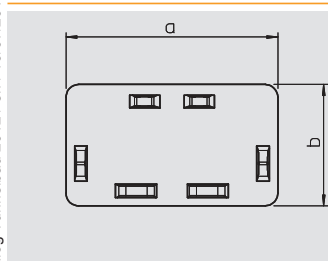
T piece cover



Type	Colour	Dimension a mm	Pack. pcs	Weight kg/100 pcs.	Item No.
WDKH-T30045RW	Pure white	130	4	2.400	6175 69 8
WDKH-T30045CW	Cream	130	4	2.400	6175 89 2
WDKH-T30045LGR	Light grey	130	4	2.400	6176 07 6

PC/ABS Polycarbonate/Acrylonitrile-butadiene-styrene /pc.

T piece cover for changing the direction (rising or falling exit) of the halogen-free WDK trunkings.



End piece



Type	Colour	Dimension a mm	Dimension b mm	Pack. pcs	Weight kg/100 pcs.	Item No.
WDKH-E30045RW	Pure white	45	30	20	0.500	6175 55 4
WDKH-E30045CW	Cream	45	30	20	0.500	6175 74 8
WDKH-E30045LGR	Light grey	45	30	20	0.500	6175 93 2

PC/ABS Polycarbonate/Acrylonitrile-butadiene-styrene /pc.

End piece for closing the WDK-H trunking.



Wall and ceiling trunking halogen-free

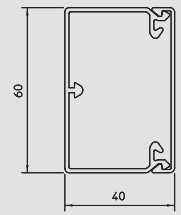


Trunking, type WDKH 40060

Type	Colour	Length mm	Pack. m	Weight kg/100 m	Item No.
WDKH-40060RW	Pure white	2.000	24	44.000	6175 41 0
WDKH-40060CW	Cream	2.000	24	44.000	6175 44 1
WDKH-40060LGR	Light grey	2.000	24	44.000	6175 46 6

PC/ABS Polycarbonate/Acrylonitrile-butadiene-styrene /m

Trunking cover and base. With base perforation. made of halogen-free plastic including cover fixing devices.

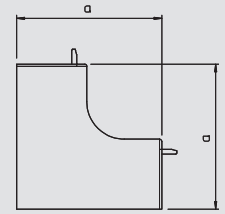


Internal corner cover

Type	Colour	Dimension a mm	Pack. pcs	Weight kg/100 pcs.	Item No.
WDKH-I40060RW	Pure white	85	2	6.200	6175 59 4
WDKH-I40060CW	Cream	85	2	6.200	6175 78 8
WDKH-I40060LGR	Light grey	85	2	6.200	6175 97 2

PC/ABS Polycarbonate/Acrylonitrile-butadiene-styrene /pc.

Internal corner cover for changing the direction of the halogen-free WDKH trunkings.

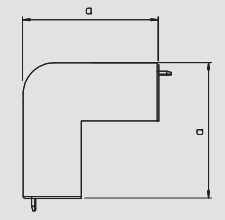


External corner cover

Type	Colour	Dimension a mm	Pack. pcs	Weight kg/100 pcs.	Item No.
WDKH-A40060RW	Pure white	45	2	7.000	6175 63 0
WDKH-A40060CW	Cream	45	2	7.000	6175 82 4
WDKH-A40060LGR	Light grey	45	2	7.000	6176 00 8

PC/ABS Polycarbonate/Acrylonitrile-butadiene-styrene /pc.

External corner cover for changing the direction of the halogen-free WDKH trunkings.

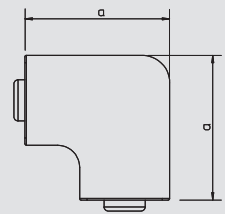


Flat angle cover

Type	Colour	Dimension a mm	Pack. pcs	Weight kg/100 pcs.	Item No.
WDKH-F40060RW	Pure white	85	2	5.100	6175 66 6
WDKH-F40060CW	Cream	85	2	5.100	6175 86 0
WDKH-F40060LGR	Light grey	85	2	5.100	6176 04 4

PC/ABS Polycarbonate/Acrylonitrile-butadiene-styrene /pc.

Flat angle cover for changing the direction of the halogen-free WDK-H trunking.

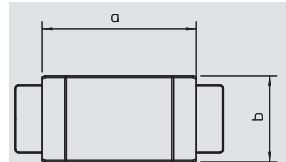


T and intersection cover

Type	Colour	Dimension a mm	Pack. pcs	Weight kg/100 pcs.	Item No.
WDKH-T40060RW	Pure white	170	2	7.600	6175 70 2
WDKH-T40060CW	Cream	170	2	7.600	6175 89 6
WDKH-T40060LGR	Light grey	170	2	7.600	6176 08 0

PC/ABS Polycarbonate/Acrylonitrile-butadiene-styrene /pc.

T and intersection cover for changing the direction of the halogen-free WDK-H trunking.

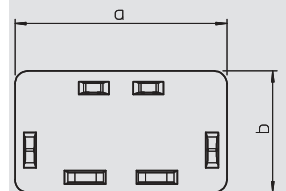


End piece

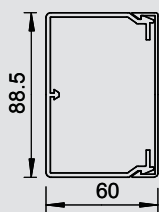
Type	Colour	Dimension a mm	Dimension b mm	Pack. pcs	Weight kg/100 pcs.	Item No.
WDKH-E40060RW	Pure white	40	60	20	1.000	6175 55 8
WDKH-E40060CW	Cream	40	60	20	1.000	6175 75 2
WDKH-E40060LGR	Light grey	40	60	20	1.000	6175 93 6

PC/ABS Polycarbonate/Acrylonitrile-butadiene-styrene /pc.

End piece for closing the WDK-H trunking.



Wall and ceiling trunking, halogen-free



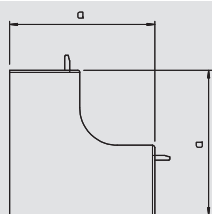
Trunking, type WDKH-60090



Type	Colour	Length mm	Pack. m	Weight kg/100 m	Item No.
WDKH-60090RW	Pure white	2,000	24	81.500	6175 41 5
WDKH-60090CW	Cream	2,000	24	81.500	6175 44 4
WDKH-60090LGR	Light grey	2,000	24	81.500	6175 46 9

PC/ABS Polycarbonate/Acrylonitrile-butadiene-styrene /m

Trunking cover and base. With base perforation. made of halogen-free plastic including cover fixing devices.



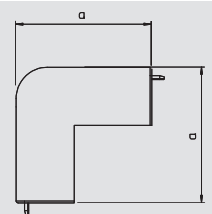
Internal corner cover



Type	Colour	Dimension a mm	Pack. pcs	Weight kg/100 pcs.	Item No.
WDKH-I60090RW	Pure white	130	2	10.700	6175 59 8
WDKH-I60090CW	Cream	130	2	10.700	6175 79 2
WDKH-I60090LGR	Light grey	130	2	10.700	6175 97 6

PC/ABS Polycarbonate/Acrylonitrile-butadiene-styrene /pc.

Internal corner cover for changing the direction of the halogen-free WDKH trunkings.



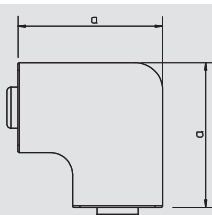
External corner cover



Type	Colour	Dimension a mm	Pack. pcs	Weight kg/100 pcs.	Item No.
WDKH-A60090RW	Pure white	69	2	10.700	6175 63 4
WDKH-A60090CW	Cream	69	2	10.700	6175 82 8
WDKH-A60090LGR	Light grey	69	2	10.700	6176 01 2

PC/ABS Polycarbonate/Acrylonitrile-butadiene-styrene /pc.

External corner cover for changing the direction of the halogen-free WDKH trunkings.



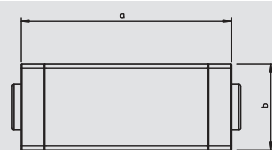
Flat angle cover



Type	Colour	Dimension a mm	Pack. pcs	Weight kg/100 pcs.	Item No.
WDKH-F60090RW	Pure white	129	2	17.100	6175 67 0
WDKH-F60090CW	Cream	129	2	17.100	6175 86 4
WDKH-F60090LGR	Light grey	129	2	17.100	6176 04 8

PC/ABS Polycarbonate/Acrylonitrile-butadiene-styrene /pc.

Flat angle cover for changing the direction of the halogen-free WDK-H trunking.



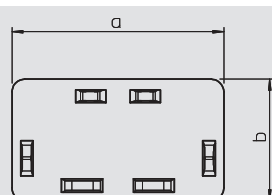
T and intersection cover



Type	Colour	Dimension a mm	Pack. pcs	Weight kg/100 pcs.	Item No.
WDKH-T60090RW	Pure white	230	2	21.500	6175 70 6
WDKH-T60090CW	Cream	230	2	21.500	6175 90 0
WDKH-T60090LGR	Light grey	230	2	21.500	6176 08 4

PC/ABS Polycarbonate/Acrylonitrile-butadiene-styrene /pc.

T and intersection cover for changing the direction of the halogen-free WDK-H trunking.



End piece



Type	Colour	Dimension a mm	Dimension b mm	Pack. pcs	Weight kg/100 pcs.	Item No.
WDKH-E60090RW	Pure white	90	60	20	1.240	6175 56 2
WDKH-E60090CW	Cream	90	60	20	1.240	6175 75 6
WDKH-E60090LGR	Light grey	90	60	20	1.240	6175 94 0

PC/ABS Polycarbonate/Acrylonitrile-butadiene-styrene /pc.

End piece for closing the WDK-H trunking.



Wall and ceiling trunking, halogen-free

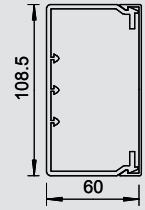


Trunking, type WDKH-60110

Type	Colour	Length mm	Pack. m	Weight kg/100 m	Item No.
WDKH-60110RW	Pure white	2,000	16	95.900	6175 42 0
WDKH-60110CW	Cream	2,000	16	95.900	6175 44 7
WDKH-60110LGR	Light grey	2,000	16	95.900	6175 47 2

PC/ABS Polycarbonate/Acrylonitrile-butadiene-styrene /m

Trunking cover and base. With base perforation. made of halogen-free plastic including cover fitting devices.

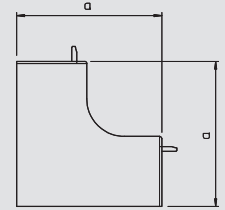


Internal corner cover

Type	Colour	Dimension a mm	Pack. pcs	Weight kg/100 pcs.	Item No.
WDKH-I60110RW	Pure white	130	2	11.000	6175 60 2
WDKH-I60110CW	Cream	130	2	11.000	6175 79 6
WDKH-I60110LGR	Light grey	130	2	11.000	6175 98 0

PC/ABS Polycarbonate/Acrylonitrile-butadiene-styrene /pc.

Internal corner cover for changing the direction of the halogen-free WDKH trunkings.

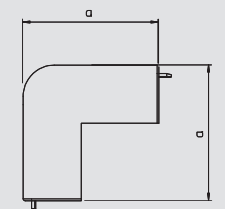


External corner cover

Type	Colour	Dimension a mm	Pack. pcs	Weight kg/100 pcs.	Item No.
WDKH-A60110RW	Pure white	100	2	11.200	6175 63 8
WDKH-A60110CW	Cream	100	2	11.200	6175 83 2
WDKH-A60110LGR	Light grey	100	2	11.200	6176 01 6

PC/ABS Polycarbonate/Acrylonitrile-butadiene-styrene /pc.

External corner cover for changing the direction of the halogen-free WDKH trunkings.

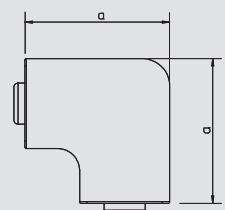


Flat angle cover

Type	Colour	Dimension a mm	Pack. pcs	Weight kg/100 pcs.	Item No.
WDKH-F60110RW	Pure white	149	2	11.400	6175 67 4
WDKH-F60110CW	Cream	149	2	11.400	6175 86 8
WDKH-F60110LGR	Light grey	149	2	11.400	6176 05 2

PC/ABS Polycarbonate/Acrylonitrile-butadiene-styrene /pc.

Flat angle cover for changing the direction of the halogen-free WDK-H trunking.

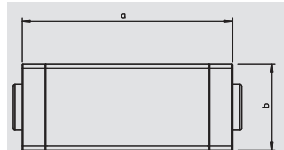


T and intersection cover

Type	Colour	Dimension a mm	Pack. pcs	Weight kg/100 pcs.	Item No.
WDKH-T60110RW	Pure white	272	2	21.000	6175 71 0
WDKH-T60110CW	Cream	272	2	21.000	6175 90 4
WDKH-T60110LGR	Light grey	272	2	21.000	6176 08 8

PC/ABS Polycarbonate/Acrylonitrile-butadiene-styrene /pc.

T and intersection cover for changing the direction of the halogen-free WDK-H trunking.

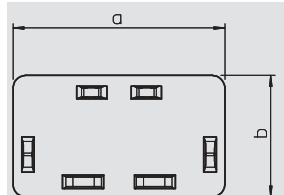


End piece

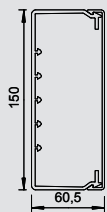
Type	Colour	Dimension a mm	Dimension b mm	Pack. pcs	Weight kg/100 pcs.	Item No.
WDKH-E60110RW	Pure white	110	60	20	2.420	6175 56 6
WDKH-E60110CW	Cream	110	60	20	2.420	6175 76 0
WDKH-E60110LGR	Light grey	110	60	20	2.420	6175 94 4

PC/ABS Polycarbonate/Acrylonitrile-butadiene-styrene /pc.

End piece for closing the WDK-H trunking.



Wall and ceiling trunking, halogen-free



Trunking, type WDKH-60150



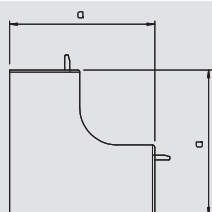
Type	Colour	Length mm	Pack. m	Weight kg/100 m	Item No.
WDKH-60150RW	Pure white	2,000	8	146.650	6175 42 5
WDKH-60150CW	Cream	2,000	8	146.650	6175 45 0
WDKH-60150LGR	Light grey	2,000	8	146.650	6175 47 5

PC/ABS Polycarbonate/Acrylonitrile-butadiene-styrene /m

Trunking cover and base. With base perforation. made of halogen-free plastic including cover fixing devices.



Cable routing



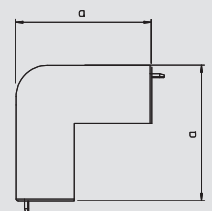
Internal corner cover



Type	Colour	Dimension a mm	Pack. pcs	Weight kg/100 pcs.	Item No.
WDKH-I60150RW	Pure white	130	2	12.300	6175 60 6
WDKH-I60150CW	Cream	130	2	12.300	6175 80 0
WDKH-I60150LGR	Light grey	130	2	12.300	6175 98 4

PC/ABS Polycarbonate/Acrylonitrile-butadiene-styrene /pc.

Internal corner cover for changing the direction of the halogen-free WDKH trunkings.



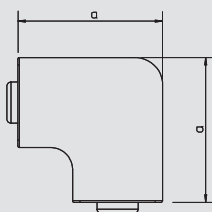
External corner cover



Type	Colour	Dimension a mm	Pack. pcs	Weight kg/100 pcs.	Item No.
WDKH-A60150RW	Pure white	100	2	12.400	6175 64 2
WDKH-A60150CW	Cream	100	2	12.400	6175 83 6
WDKH-A60150LGR	Light grey	100	2	12.400	6176 02 0

PC/ABS Polycarbonate/Acrylonitrile-butadiene-styrene /pc.

External corner cover for changing the direction of the halogen-free WDKH trunkings.



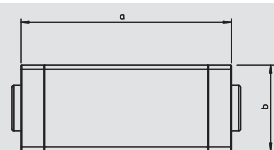
Flat angle cover



Type	Colour	Dimension a mm	Pack. pcs	Weight kg/100 pcs.	Item No.
WDKH-F60150RW	Pure white	190	2	19.000	6175 67 8
WDKH-F60150CW	Cream	190	2	19.000	6175 87 2
WDKH-F60150LGR	Light grey	190	2	19.000	6176 05 6

PC/ABS Polycarbonate/Acrylonitrile-butadiene-styrene /pc.

Flat angle cover for changing the direction of the halogen-free WDK-H trunking.



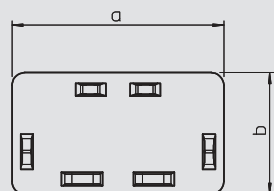
T and intersection cover



Type	Colour	Dimension a mm	Dimension b mm	Pack. pcs	Weight kg/100 pcs.	Item No.
WDKH-T60150RW	Pure white	291		2	21.800	6175 71 4
WDKH-T60150CW	Cream	291		2	21.800	6175 90 8
WDKH-T60150LGR	Light grey	291		2	21.800	6176 09 2

PC/ABS Polycarbonate/Acrylonitrile-butadiene-styrene /pc.

T and intersection cover for changing the direction of the halogen-free WDK-H trunking.



End piece



Type	Colour	Dimension a mm	Dimension b mm	Pack. pcs	Weight kg/100 pcs.	Item No.
WDKH-E60150RW	Pure white	150	60	10	3.500	6175 57 0
WDKH-E60150CW	Cream	150	60	10	3.500	6175 76 4
WDKH-E60150LGR	Light grey	150	60	10	3.500	6175 94 8

PC/ABS Polycarbonate/Acrylonitrile-butadiene-styrene /pc.

End piece for closing the WDK-H trunking.



Accessories, wall and ceiling trunking, halogen-free

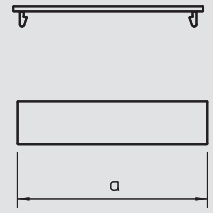


Cover clip, halogen-free 60



Type	Colour	Cover width mm	Pack. pcs	Weight kg/100 pcs.	Item No.
OTK H60	Pure white	60	100	0.400	6176 12 2

PC/ABS Polycarbonate/Acrylonitrile-butadiene-styrene /100 pc.
Cover bracket for better and easier laying of lines in the WDK trunking.

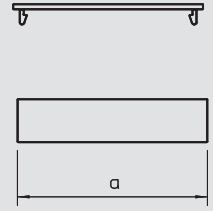


Cover clip, halogen-free 90



Type	Colour	Cover width mm	Pack. pcs	Weight kg/100 pcs.	Item No.
OTK H90	Pure white	90	100	0.900	6176 12 5

PC/ABS Polycarbonate/Acrylonitrile-butadiene-styrene /100 pc.
Cover bracket for better and easier laying of lines in the WDK trunking.

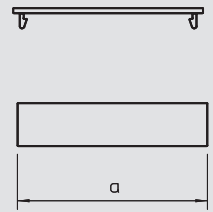


Cover clip, halogen-free 110



Type	Colour	Cover width mm	Pack. pcs	Weight kg/100 pcs.	Item No.
OTK H110	Pure white	110	100	1.200	6176 12 8

PC/ABS Polycarbonate/Acrylonitrile-butadiene-styrene /100 pc.
Cover bracket for better and easier laying of lines in the WDK trunking.

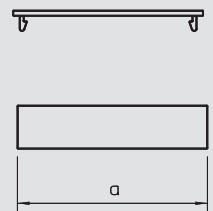


Cover clip, halogen-free 150



Type	Colour	Cover width mm	Pack. pcs	Weight kg/100 pcs.	Item No.
OTK H150	Pure white	150	50	2.500	6176 13 1

PC/ABS Polycarbonate/Acrylonitrile-butadiene-styrene /100 pc.
Cover bracket for better and easier laying of lines in the WDK trunking.

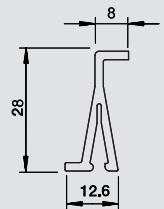


Partition, halogen-free 40



Type	Colour	Dimension a mm	Pack. m	Weight kg/100 m	Item No.
WDKH-TW40GR	Light grey	2,000	60	13.350	6175 50 0

PC/ABS Polycarbonate/Acrylonitrile-butadiene-styrene /m

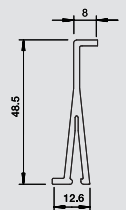


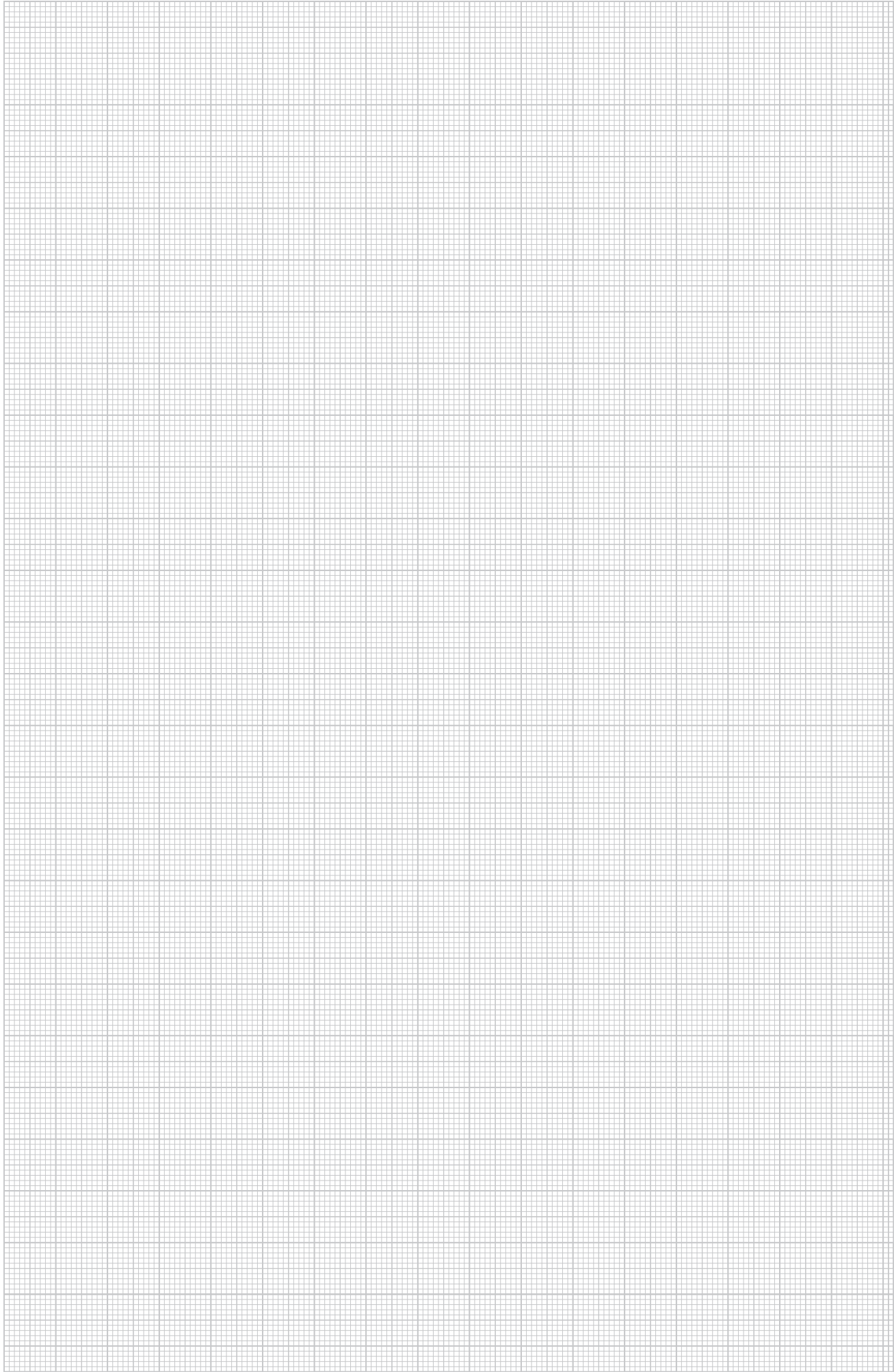
Partition, halogen-free 60

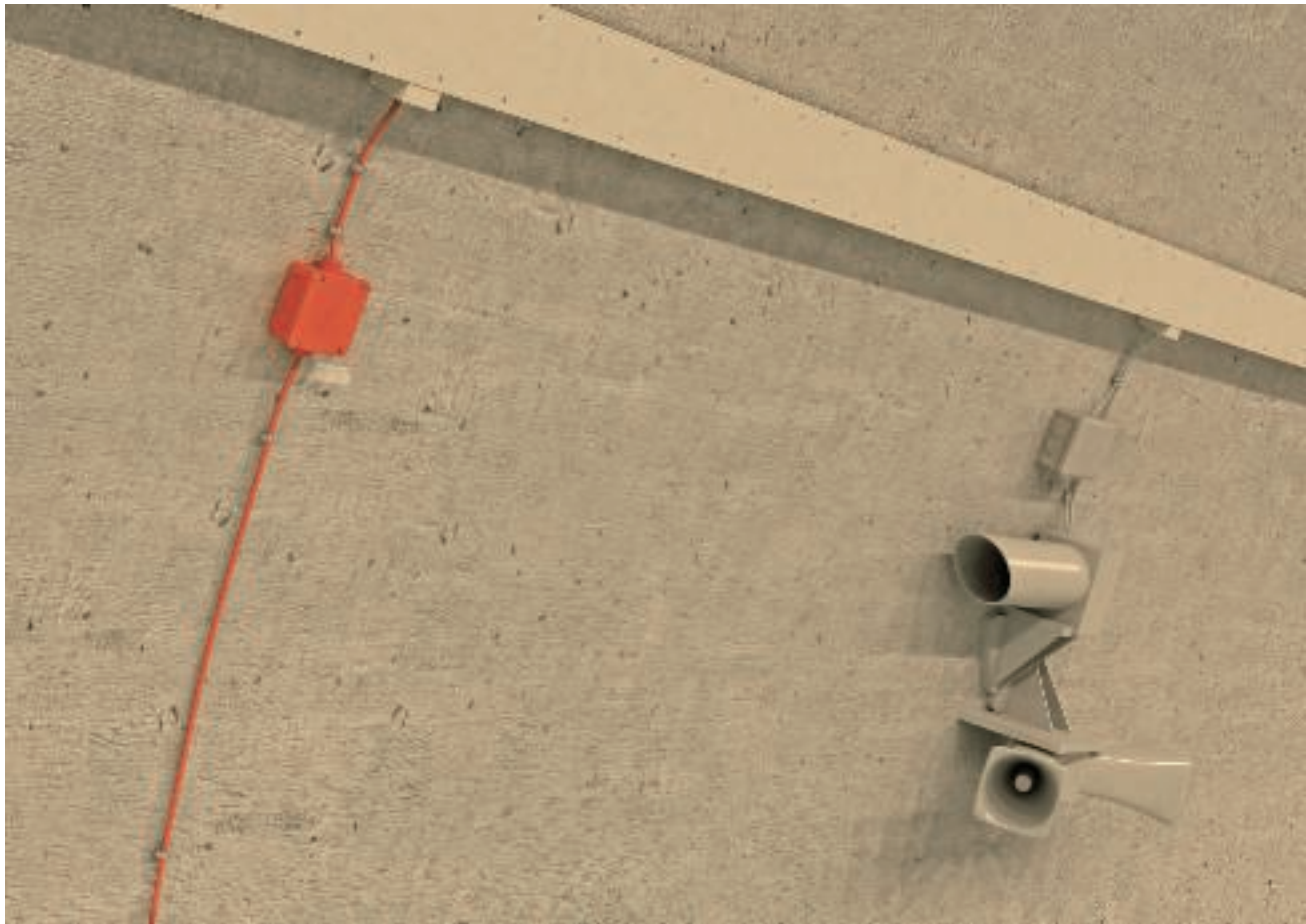


Type	Colour	Dimension a mm	Pack. m	Weight kg/100 m	Item No.
WDKH-TW60GR	Light grey	2,000	40	20.650	6175 50 4

PC/ABS Polycarbonate/Acrylonitrile-butadiene-styrene /m










It's all about making the right connection

Junction boxes for classic surface mounting are used to connect cables and to distribute electrical power. The perfectly matched systems, made up of junction box, glands and terminals, can offer maximum IP protection against contact and foreign bodies as well as against the ingress of water.

Much more versatile

The following pages contain a small overview of our product range for distributing and connecting cables, specifically for the requirements of tunnel construction. This selection is simply an extract from our main VBS connection and fastening systems catalogue. That can provide you with a detailed overview of our complete product range for connection and fastening systems.

Distributing and connecting

	Junction boxes	FireBox	100
	Junction boxes	T series	102
	Accessories T series	AQUASIT casting compound	104

FireBox

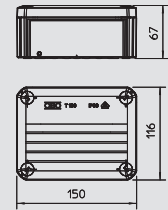
FireBox T100E



Type	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
T 100 E 4-5	Pastel orange	17	1	27.400	7205 51 0

PP Polypropylene /pc.

Halogen-free junction box, approved for electrical function maintenance according to DIN 4102 part 12. Function maintenance classes E30 to E90. Including premounted connection unit made of high temperature-resistant special ceramic and labelled protective conductor terminal. Supplied with fire protection screw ties for anchorless fastening. Power cable nominal cross-sections: 1.5 to 4 mm², data cables with 0.8 mm wire Ø. Maximum of 2 1.5 mm² rigid copper cables per terminal (remove wire protection). High protection rating IP65, impact resistance class IK07. VDE-tested. Details on the cable types and manufacturers can be found in the general construction test certificate of the material testing institute MPA NRW, Erwitte. Number of terminals including protective conductor terminal Internal clearance: 136 x 102 x 57 mm



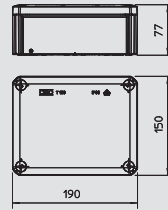
FireBox T160E



Type	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
T 160 E 10-5	Pastel orange	5	1	48.700	7205 52 4

PP Polypropylene /pc.

Halogen-free junction box, approved for electrical function maintenance according to DIN 4102 part 12. Function maintenance classes E30 to E90. Including premounted connection unit made of high temperature-resistant special ceramic and labelled protective conductor terminal. Supplied with fire protection screw ties for anchorless fastening. Power cable nominal cross-sections: 10 mm², data cables with 0.8 mm wire Ø. Maximum of two 4 mm² rigid copper cables per terminal (remove wire protection). High protection rating IP65, impact resistance class IK07. VDE-tested. Details on the cable types and manufacturers can be found in the general construction test certificate of the material testing institute MPA NRW, Erwitte. Number of terminals including protective conductor terminal Internal clearance: 176 x 135 x 67 mm

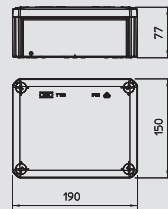


Number of terminals including protective conductor terminal Internal clearance: 176 x 135 x 67 mm

Type	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
T 160 E 16-5	Pastel orange	5	1	53.800	7205 52 8

PP Polypropylene /pc.

Halogen-free junction box, approved for electrical function maintenance according to DIN 4102 part 12. Function maintenance classes E30 to E90. Including premounted connection unit made of high temperature-resistant special ceramic and labelled protective conductor terminal. Supplied with fire protection screw ties for anchorless fastening. Power cable nominal cross-sections: 16 mm², data cables with 0.8 mm wire Ø. Maximum of two 6 mm² rigid copper cables per terminal (remove wire protection). High protection rating IP65, impact resistance class IK07. VDE-tested. Details on the cable types and manufacturers can be found in the general construction test certificate of the material testing institute MPA NRW, Erwitte. Number of terminals including protective conductor terminal Internal clearance: 176 x 135 x 67 mm



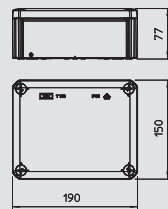
FireBox T160E for data cables



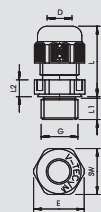
Type	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
T 160 E 4-8D	Pastel orange	5	1	46.500	7205 52 0

PP Polypropylene /pc.

Halogen-free junction box, approved for electrical function maintenance according to DIN 4102 part 12. Function maintenance classes E30 to E90. Including premounted connection unit made of high temperature-resistant special ceramic with fire protection screw ties for anchorless fastening. Nominal cross-section: data cables with 0.8 mm wire Ø. High protection rating IP65, impact resistance class IK06. VDE-tested. Details on the cable types and manufacturers can be found in the general construction test certificate of the material testing institute MPA NRW, Erwitte. Number of terminals without protective conductor terminal Internal clearance: 176 x 135 x 67 mm



Cap nut cable gland



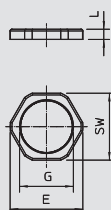
Type	Thread	Colour	Pack.	Weight	Item No.
			pcs	kg/100 pcs.	
V-TEC VM20 OR	M20 x 1,5	Pastel orange	50	0.856	7205 59 4
V-TEC VM25 OR	M25 x 1,5	Pastel orange	25	1.360	7205 59 7
V-TEC VM32 OR	M32 x 1,5	Pastel orange	20	2.235	7205 60 0
V-TEC VM40 OR	M40 x 1,5	Pastel orange	10	3.496	7205 60 3

PA Polyamide /100 pc.

Robust cap nut cable gland with metric connecting thread to IEC 423. For high tightness requirements. Strain relief, wringing protection and tightness over the whole clamping area. Sealing ring made of polychloroprene/acrylnitrilbutadiene rubber. Moulded shaped sealing lip on intermediate support, no connection thread sealing ring required. VDE-tested to DIN EN 50262, protection rating IP 68 at 5 bar for 1 hr. For electrical function maintenance according to DIN 4102 part 12 in connection with the junction boxes of the FireBox T series.



Locknut



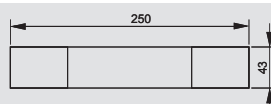
Type	Thread	SW	Dimension E	Dimension L	Colour	Pack.	Weight	Item No.
		mm	mm	mm		pcs	kg/100 pcs.	
116 M20 OR PA	M20 x 1,5	26	29	6	Pastel orange	100	0.250	7205 64 4
116 M25 OR PA	M25 x 1,5	32	36	6.5	Pastel orange	100	0.350	7205 64 7
116 M32 OR PA	M32 x 1,5	41	46	7	Pastel orange	50	0.570	7205 65 0
116 M40 OR PA	M40 x 1,5	50	56	7.5	Pastel orange	25	0.466	7205 65 3

PA Polyamide /100 pc.

Locknut DIN 46319, with metric thread IEC 423. For electrical function maintenance according to DIN 4102 part 12 in connection with the junction boxes of the FireBox T series.



Identification plate for cable system



Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
KS-E DE	10	0.600	7205 42 3
KS-E EN	10	0.600	7205 43 2

PVC Polyvinylchloride /pc.

Self-adhesive identification plate for approved cable system labelling for function maintenance as required by DIN 4102 part 12.



Junction box, T series



Junction box, T series, T60

Type	Version	Entries	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
T 60 F	960 °C flame-resistant	7 x M25	Light grey	60	5	12.300	2007 33 9
T 60 RO-LGR	With red cover	7 x M25	Red grey	60	5	12.300	2007 63 8
T 60 KL	With terminal strip	7 x M25	Light grey	60	5	16.700	2007 43 4

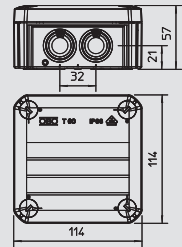
PP Polypropylene /100 pc.

The junction boxes are made of a thermoplastic polypropylene polymer with plug-in seals made of ethylene vinyl acetate (EVA). This allows installation of cables either directly through the 7 x M25 seals, or the seals can be cut with a knife at the pre-marked points, in order to create an insertion opening for cables or pipes. Alternatively, cable glands can be pushed through the openings instead of the seals and locked with a locknut from the inside.

The junction boxes can be mounted on mounting plates in the openings on the floor using steel screws 3.5 x 9.5.

Clear internal dimensions: 100 x 100 x 48 mm.

Cover with labelling panel and lead-sealed.



Junction box, T series, T100

Type	Version	Entries	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
T 100 F	960 °C flame-resistant	10 x M25	Light grey	40	1	16.270	2007 34 7
T 100 KL	With terminal strip	10 x M25	Light grey	40	1	40.000	2007 43 6
T 100 RO-LGR	With red cover	10 x M25	Red grey	40	1	16.270	2007 64 4

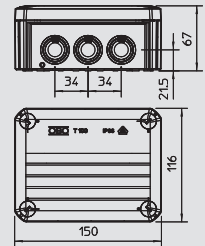
PP Polypropylene /100 pc.

The junction boxes are made of a thermoplastic polypropylene polymer with plug-in seals made of ethylene vinyl acetate (EVA). This allows installation of cables either directly through the 10 x M25 seals, or the seals can be cut with a knife at the pre-marked points, in order to create an insertion opening for cables or pipes. Alternatively, cable glands can be pushed through the openings instead of the seals and locked with a locknut from the inside.

The junction boxes can be mounted on mounting plates in the openings on the floor using steel screws 3.5 x 9.5.

Clear internal dimensions: 136 x 102 x 57 mm.

Cover with labelling panel and lead-sealed.



Junction box, T series, T160

Type	Version	Entries	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
T 160 F	960 °C flame-resistant	7 x M25 5 x M32	Light grey	20	1	30.000	2007 35 5
T 160 RO-LGR	With red cover	7 x M25 5 x M32	Red grey	20	1	30.000	2007 64 9
T 160 KL	With terminal strip	7 x M25 5 x M32	Light grey	20	1	64.200	2007 44 0

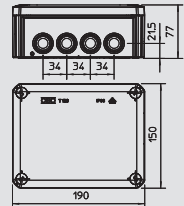
PP/GF Polypropylene, Glass-fibre reinforced /100 pc.

The junction boxes are made of a thermoplastic polypropylene polymer with plug-in seals made of ethylene vinyl acetate (EVA). This allows installation of cables either directly through the 7x M25 + 5x M32 seals, or the seals can be cut with a knife at the pre-marked points, in order to create an insertion opening for cables or pipes. Alternatively, cable glands can be pushed through the openings instead of the seals and locked with a locknut from the inside.

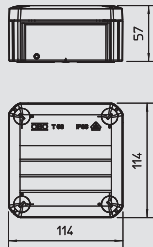
The junction boxes can be mounted on mounting plates in the openings on the floor using steel screws 3.5 x 9.5.

Clear internal dimensions: 176 x 135 x 67 mm.

Cover with labelling panel and lead-sealed.



Junction box, T series, closed



Junction box, T series, T60, closed



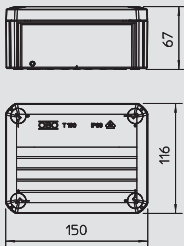
Type	Version	Entries	Colour	Shipping box	Pack.	Weight	Item No.
				pcs	pcs	kg/100 pcs.	
T 60 OE	Closed	None	Light grey	60	5	12.000	2007 23 9

PP Polypropylene /100 pc.

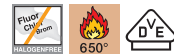
The junction boxes are made of a thermoplastic polypropylene polymer with closed side walls. This means that the required openings can be made wherever they are required. EDK plug-in seals or cable glands with locknuts can be inserted in these openings, to allow cable insertion. The junction boxes can be mounted on mounting plates in the openings on the floor using steel screws 3.5 x 9.5.

Clear internal dimensions: 100 x 100 x 46 mm.

Cover with labelling panel and lead-sealed.



Junction box, T series, T100, closed



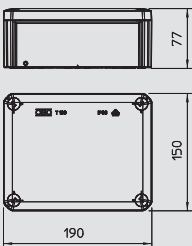
Type	Version	Entries	Colour	Shipping box	Pack.	Weight	Item No.
				pcs	pcs	kg/100 pcs.	
T 100 OE	Closed	None	Light grey	40	1	16.200	2007 25 5

PP Polypropylene /100 pc.

The junction boxes are made of a thermoplastic polypropylene polymer with closed side walls. This means that the required openings can be made wherever they are required. EDK plug-in seals or cable glands with locknuts can be inserted in these openings, to allow cable insertion. The junction boxes can be mounted on mounting plates in the openings on the floor using steel screws 3.5 x 9.5.

Clear internal dimensions: 136 x 102 x 57 mm.

Cover with labelling panel and lead-sealed.



Junction box, T series, T160, closed



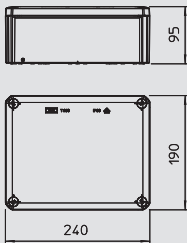
Type	Version	Entries	Colour	Shipping box	Pack.	Weight	Item No.
				pcs	pcs	kg/100 pcs.	
T 160 OE	Closed	None	Light grey	20	1	30.000	2007 27 1

PP/GF Polypropylene, Glass-fibre reinforced /100 pc.

The junction boxes are made of a thermoplastic polypropylene polymer with closed side walls. This means that the required openings can be made wherever they are required. EDK plug-in seals or cable glands with locknuts can be inserted in these openings, to allow cable insertion. The junction boxes can be mounted on mounting plates in the openings on the floor using steel screws 3.5 x 9.5.

Clear internal dimensions: 176 x 135 x 67 mm.

Cover with labelling panel and lead-sealed.



Junction box, T series, T250, closed



Type	Version	Entries	Colour	Shipping box	Pack.	Weight	Item No.
				pcs	pcs	kg/100 pcs.	
T 250 OE	Closed	None	Light grey	8	1	48.300	2007 28 7

PP/GF Polypropylene, Glass-fibre reinforced /100 pc.

The junction boxes are made of a thermoplastic polypropylene polymer with closed side walls. This means that the required openings can be made wherever they are required. EDK plug-in seals or cable glands with locknuts can be inserted in these openings, to allow cable insertion. The junction boxes can be mounted on mounting plates in the openings on the floor using steel screws 3.5 x 9.5.

Clear internal dimensions: 225 x 173 x 86 mm.

Cover with labelling panel and lead-sealed.



Accessories, T series junction boxes

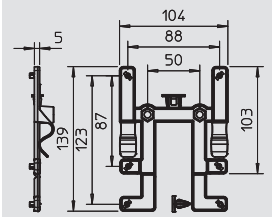


Fastening element for cable tray

Type	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
BE TS KR	10	10	2.800	2007 83 5

PC Polycarbonate /100 pc.

The fastening element BE TS KR can be used to attach OBO junction boxes, type T60 and T100, to all standard cable trays in a few actions, quickly and without tools. This keeps the junction box securely in position. However, it can be quickly dismantled as necessary. This is all done without using tools.

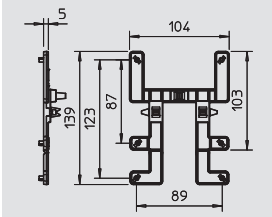


Fastening element for mesh cable tray

Type	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
BE TS GR	10	10	2.300	2007 83 3

PC Polycarbonate /100 pc.

The fastening element BE TS GR can be used to attach OBO junction boxes, type T60 and T100, to all standard mesh cable trays in a few actions, quickly and without tools. This is all done without using tools. This keeps the junction box securely in position. However, it can be quickly dismantled as necessary.

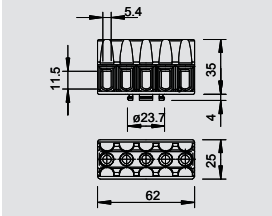


Terminal strip, junction box, T series

Type	Colour	No. of screwless terminals	Nominal cross section mm ²	Nominal voltage V	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
KL-T 02-06	Light grey	5	1.5-6	400	120	10	4.380	2016 18 5

PA Polyamide /100 pc.

Steel terminal block and bolts, galvanised and transparently passivated, nominal 1,5 - 6 mm², nominal voltage 400 V, 5-pole, with terminal sockets, Max. connectable cross-sections per terminal: 3 x 6 mm², 4 x 4 mm² or 6 x 2.5 mm².

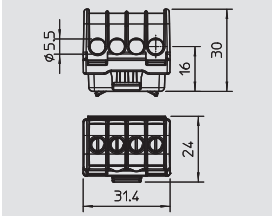


Terminal strip, junction box, T series

Type	Colour	No. of screwless terminals	Nominal cross section mm ²	Nominal voltage V	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
KL-T 06-16	Light grey	4	6-16	400	120	10		2016 19 0

PA Polyamide /100 pc.

Brass terminals, steel screws, electrogalvanised and transparently passivated, nominal cross-section 6 - 16 mm², nominal voltage 400 V, 1-pole, with terminal sockets, Max. connectable conductors per terminal max. 4 x 16 mm², 4 x 10 mm², 8 x 6 mm² or 12 x 4 mm².

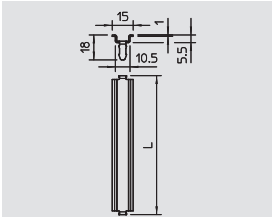


Hat profile rail, junction box T series

Type	Version	Material thickness mm	Length mm	Weight kg/100 pcs.	Item No.
46277 T160 Q GTP	For T160 lengthwise + T100 crosswise	1	99	9.641	1115 27 0
46277 T250 Q GTP	For T250 lengthwise + T160 crosswise	1	139	13.520	1115 27 4
46277 T250 L GTP	For T250 lengthwise	1	189	17.900	1115 27 8
46277 T350 Q GTP	For T350 crosswise	1	161	15.670	1115 28 2

St Steel **GTP** Electrogalvanised, transparently passivated /100 pc.

Hat profile rail 15 x 5 mm to DIN EN 60715 (formerly DIN EN 50045).

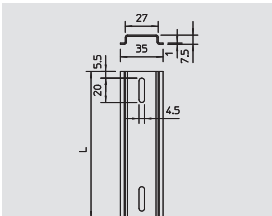


Hat rail, junction box, T-series

Type	Version	Material thickness mm	Length mm	Pack. pcs	Weight kg/100 pcs.	Item No.
2069 T60 GTP	For T60 lengthwise + T00 crosswise	1	89	10	3.070	1115 38 0
2069 T100 GTP	For T100 lengthwise + T160 crosswise	1	118	10	4.070	1115 38 2
2069 T160 GTP	For T160 lengthwise + T250, T350 crosswise	1	157	10	5.520	1115 38 4
2069 T250 GTP	For T250 lengthwise	1	206	10	7.110	1115 38 6

St Steel **GTP** Electrogalvanised, transparently passivated /100 pc.

Hat profile rail 35 x 7.5 mm to DIN EN 60715 (formerly DIN EN 50022).



Accessories, T series junction boxes



AQUASIT casting compound



Type	Contents	Pack.	Weight	Item No.
	ml	pcs	kg/100 pcs.	
KVM	250	1	42.000	2363 01 0

/pc.

Aquasit is a two-component casting compound in a cartridge, for applications in areas with continuous and extremely high levels of moisture. It can also be used against mechanical shock and vibrations.

The cartridge is suitable for use in standard cartridge pistols. At room temperature, the unopened aluminium packaging can be stored for up to 18 months. When the cartridge is opened, the material should be used within 24 hours.

Aquasit properties:

Protection rating: IP68 at 1.8 bar/1,000 h

Rated voltage: 400 V

Penetration resistance: >20 kv/mm to VDE 0291 part 2

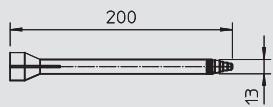
Insulation resistance: > 50 MΩ

Operating temperature: -40 to +90 °C

Processing temperature: 0 to +40 °C

Halogen-free, silicon-free, isocyanite-free

Environmentally friendly and without the need to be labelled.



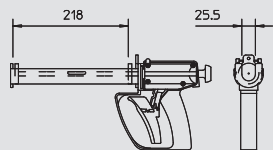
Mixer tubes

Type	Pack.	Weight	Item No.
	PU	kg/100 PUs	
KVM-M	1	17.000	2363 01 5

/VPE

10 mixer pipes in the set.

Simple, automatic mixing of OBO AQUASIT when pressing out the compound from the cartridge.



Cartridge pistol

Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
KVM-P	2	100.000	2363 01 9

/pc.

High-quality one-component cartridge pistol for use with the AQUASIT cold casting compound. The cartridge pistol can also be used with normal 300 ml cartridges.





Perfect fire protection for any area




OBO can offer a complete range of professional products for all application areas of fire protection systems in building installation. Tested cable insulation systems have proved the required effect in a fire test. The approvals are based on fire tests, which are carried out by official materials testing offices on the basis of DIN 4102 part 9.

In addition, we can also offer the knowledgeable advice of an experienced, competent system manufacturer.

And much, much more....

On the following pages, you will find an extract from our main catalogue, which will inform you about the various different insulation systems. You can find additional detailed explanations and planning aids in our BSS catalogue (Fire protection systems).

Construction fire protection

	Mortar insulation PYROMIX®	Dry mortar Insulation layer creator Accessories	108
	Soft insulation, PYROPLATE® Fibre	Mineral fibre plate Ablation coating Accessories	111
	Fire protection foam PYROSIT® NG	Fire protection foam Fire protection box Accessories	113

Mortar insulation PYROMIX®

Dry mortar in paper sack



Type	Contents	Pack.	Weight	Item No.
	kg	pcs	kg/100 pcs.	
MSX-S1	20	1	2,000.000	7206 10 4

Special mortar /pc.

Mortar to create cable and combination insulation in solid walls and ceilings. Suitable for pumping, pressing and for manual installation. Adding approx. 6 litres of water to 20 kg of dry mortar produces about 20 litres of workable compound.

In dry, frost-free rooms, the dry mortar can be stored for at least 12 months in closed original containers.

Dry mortar in bucket



Type	Contents	Pack.	Weight	Item No.
	kg	pcs	kg/100 pcs.	
MSX-E1	10	1	1,000.000	7206 05 8

Special mortar /pc.

Mortar to create cable and combination insulation in solid walls and ceilings. Suitable for pumping, pressing and for manual installation. Adding approx. 3 litres of water to 10 kg of dry mortar produces about 10 litres of workable compound.

In dry, frost-free rooms, the dry mortar can be stored for at least 12 months in closed original containers.

Insulation layer creator in a cartridge



Type	Contents	Pack.	Weight	Item No.
	ml	pcs	kg/100 pcs.	
DSX-K	300	1	50.000	7202 30 0

Intumescent material /pc.

Dispersion-based fire protection compound for interior areas, to fill residual joints and close openings. Approved material for closing core drill holes for individual cable glands.

Material class DIN 4102 - B2, normally flammable. In dry, frost-free rooms, the compound can be stored at temperatures from +5 °C to +25 °C for up to 12 months in closed, upright original containers.

Insulation layer creator in a bucket



Type	Contents	Pack.	Weight	Item No.
	kg	pcs	kg/100 pcs.	
DSX-E	5	1	500.000	7202 30 2

Intumescent material /pc.

Dispersion-based fire protection compound for interior areas, to fill residual joints and close openings. Approved material for closing core drill holes for individual cable glands.

Material class DIN 4102 - B2, normally flammable. In dry, frost-free rooms, the compound can be stored at temperatures from +5 °C to +25 °C for up to 12 months in closed, upright original containers.

Pipe sleeve with 2 fastening straps



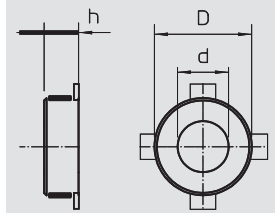
Type	Pipe Ø	Dimension h	Dimension D	Dimension d	Pack.	Weight	Item No.
	mm	mm	mm	mm	pcs	kg/100 pcs.	
TCX-032	32	26	50	36	1	6.500	7202 20 0
TCX-040	40	26	58	44	1	7.000	7202 20 1
TCX-050	50	26	68	54	1	8.000	7202 20 3

Intumescent material /pc.

Pipe sleeve for combustible pipes.

If there is a fire, fire protection inserts inside the sheet steel housing expand, exerting a very great pressure onto the burning thermoplastic pipes.

Fastening with anchors of M6 threaded rods.



Pipe sleeve with 4 fastening straps



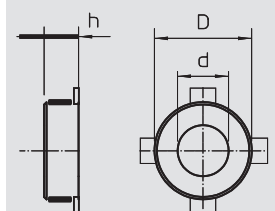
Type	Pipe Ø	Dimension h	Dimension D	Dimension d	Pack.	Weight	Item No.
	mm	mm	mm	mm	pcs	kg/100 pcs.	
TCX-063	63	26	94	67	1	15.500	7202 20 4
TCX-075	75	26	106	79	1	19.000	7202 20 5
TCX-090	90	26.6	132	94	1	37.000	7202 20 6
TCX-110	110	26.6	155	114	1	46.000	7202 20 7
TCX-125	125	40	172	129	1	70.000	7202 20 8

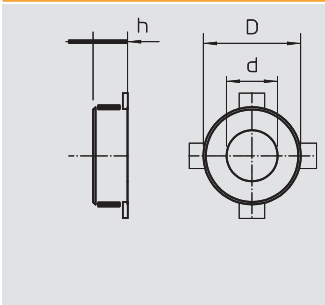
Intumescent material /pc.

Pipe sleeve for combustible pipes.

If there is a fire, fire protection inserts inside the sheet steel housing expand, exerting a very great pressure onto the burning thermoplastic pipes.

Fastening with anchors of M6 threaded rods up to size 75, then M8.



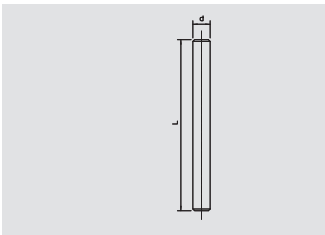


Pipe sleeve with 6 fastening straps

Type	Pipe Ø	Dimension h	Dimension D	Dimension d	Pack.	Weight	Item No.
	mm	mm	mm	mm	pcs	kg/100 pcs.	
TCX-140	140	40	200	144	1	106.000	7202 20 9
TCX-160	160	40	220	164	1	107.000	7202 21 0



Intumescent material /pc.
 Pipe sleeve for combustible pipes.
 If there is a fire, fire protection inserts inside the sheet steel housing expand, exerting a very great pressure onto the burning thermoplastic pipes.
 Fastening with anchors of M8 threaded rods.

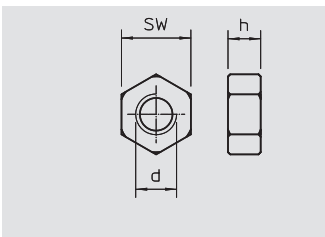


Threaded rod

Type	Thread	Dimension d	Dimension L	Breaking load	Pack.	Weight	Item No.
		mm	mm	kN	pcs	kg/100 pcs.	
2078 M6 1M G	M6	6	1,000	8.04	100	18.300	3141 04 7
2078 M8 1M G	M8	8	1,000	14.6	50	30.000	3141 12 8



St Steel **G** Electrogalvanised /100 pc.
 Threaded rod to DIN 976.

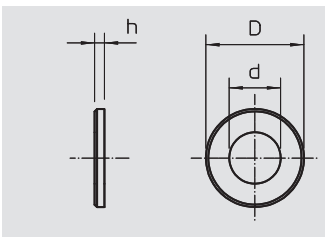


Hexagonal nut

Type	Thread	SW	Dimension h	Dimension d	Shipping box	Pack.	Weight	Item No.
		mm	mm	mm	pcs	pcs	kg/100 pcs.	
DIN 934 M6 G	M6	10	5.2	6	2,600	100	0.225	3400 06 9
DIN 934 M8 G	M8	13	6.8	8	2,400	100	0.474	3400 08 5



St Steel **G** Electrogalvanised /100 pc.
 Hexagonal nut to DIN 934 with metric thread.

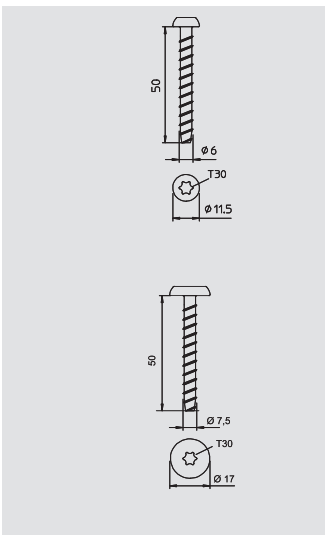


Washer

Type	Thread	Dimension d	Dimension D	Dimension h	Shipping box	Pack.	Weight	Item No.
		mm	mm	mm	pcs	pcs	kg/100 pcs.	
967 M6 G	M6	6.5	28	2.5	1,000	100	1.150	3402 20 7
967 M8 G	M8	8.5	28	2.5	1,400	100	1.100	3402 21 5



St Steel **G** Electrogalvanised /100 pc.
 Washer of large outer diameter for universal use.



Bolt tie

Type	Dimension	Pack.	Weight	Item No.
	mm	pcs	kg/100 pcs.	
MMS6X50	6 x 50	100	0.960	3498 10 7



St Steel **GC** Electrogalvanised, yellow-chromated /100 pc.
 Fire protection bolt tie with pan head for direct mounting without additional anchors. Drive T30, drill hole 5 mm. Fire protection tested according to DIN 4102 for concrete and masonry.

Type	Dimension	Pack.	Weight	Item No.
	mm	pcs	kg/100 pcs.	
MMS-MS7,5x50	7.5 x 50	100	1.522	3498 26 0



St Steel **G** Electrogalvanised /100 pc.
 Fire protection bolt tie with large pan head for direct mounting without additional anchors. Drive T30, drill hole 6 mm. Fire protection tested according to DIN 4102 for concrete and masonry.

Mineral wool

Type	Dimension	Pack.	Weight	Item No.
		pcs	kg/100 pcs.	
MIW-S	25 litre	1	250.000	7202 30 6



Mineral fibres /pc.
 Universal filling wool for various fire protection applications, packed in compressed form.
 Material class EN 13 501 - A1, non-combustible; melting point ≥ 1000 °C.



Mortar insulation PYROMIX®

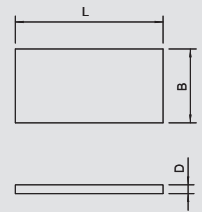


Calcium silicate plate

Type	Dimen- sion L mm	Dimen- sion B mm	Dimen- sion D mm	Pack.	Weight	Item No.
				pcs	kg/100 pcs.	
KSI-P1	500	150	20	1	42.000	7202 28 3
KSI-P2	500	250	30	1	111.000	7202 90 4
KSI-P3	1.000	250	30	1	222.000	7202 91 2

Calcium silicate /pc.

Calcium silicate plate, as support plate, for the construction of frames in the penetration and to double thin wall thicknesses.
Materials class EN 13501 - A1 non-combustible.

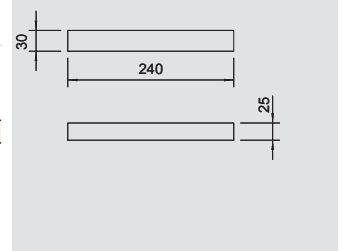


Retrofit wedge

Type	Dimen- sion mm	Dimen- sion H mm	Dimen- sion h mm	Pack.	Weight	Item No.
				pcs	kg/100 pcs.	
NIK-G	25 x 30 x 240	30	30	1	67.000	7206 20 8

Calcium silicate /pc.

Retrofit wedge set for mortar ballast, for installation in the fresh ballast. 1 set consists of 4 straight calcium silicate strips.
Materials class EN 13501 A1 non-combustible.

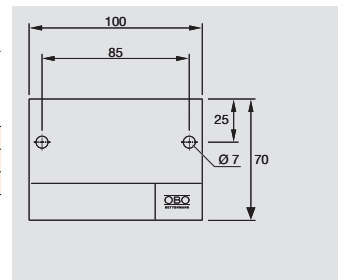


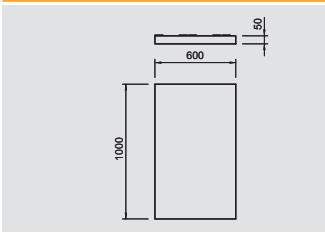
Identification plate

Type	Pack.	Weight	Item No.
		kg/100 pcs.	
KS-S DE	1	2.400	7205 42 5
KS-S EN	1	2.400	7205 42 9
KS-S ES	1	2.400	7205 42 7

/pc.

Universal identification plate to be written on for all OBO insulation. For approved identification, including two push-fit anchors.



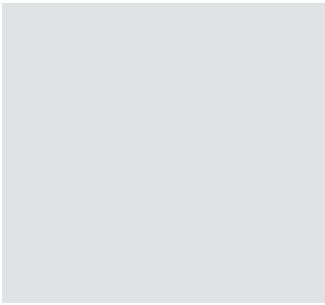


Mineral fibre plate, precoated

Type	Length mm	Width mm	Height mm	Pack. pcs	Weight kg/100 pcs.	Item No.
PSX-P	1,000	600	50	4	625.000	7202 29 5



Mineral fibres /pc.
Mineral fibre plate, precoated with the ablation coating ASX, as the basis for the soft insulation.

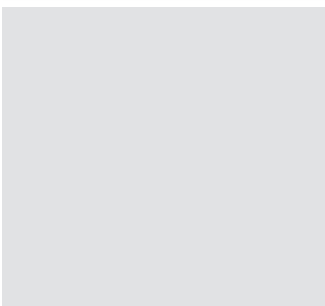


Ablation coating in a cartridge

Type	Contents ml	Pack. pcs	Weight kg/100 pcs.	Item No.
ASX-K	300	1	50.000	7202 31 0



Intumescent material /pc.
Combined, endothermic and weatherproof coating for internal and external areas. Universal protection coating for cable and cable support structures. Use as direct filler, as paint when stirred. Material class DIN 4102 - B2, normally flammable.
In dry, frost-free rooms, the coating can be stored at temperatures from +5 °C to +25 °C for up to 18 months in closed, upright original containers.

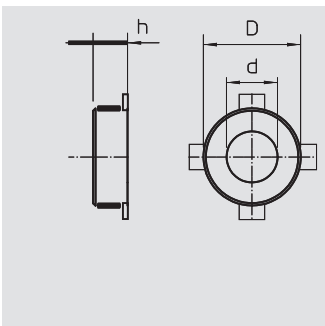


Ablation coating in a bucket

Type	Contents kg	Pack. pcs	Weight kg/100 pcs.	Item No.
ASX-E	5	1	500.000	7202 31 2



Intumescent material /pc.
Combined, endothermic and weatherproof coating for internal and external areas. Universal protection coating for cable and cable support structures. Use as direct filler, as paint when stirred. Material class DIN 4102 - B2, normally flammable.
In dry, frost-free rooms, the coating can be stored at temperatures from +5 °C to +25 °C for up to 18 months in closed, upright original containers.

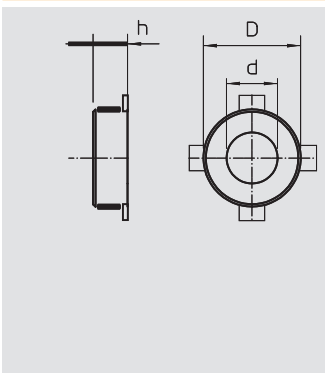


Pipe sleeve with 2 fastening straps

Type	Pipe Ø mm	Dimen- sion h mm	Dimen- sion D mm	Dimen- sion d mm	Pack. pcs	Weight kg/100 pcs.	Item No.
TCX-032	32	26	50	36	1	6.500	7202 20 0
TCX-040	40	26	58	44	1	7.000	7202 20 1
TCX-050	50	26	68	54	1	8.000	7202 20 3



Intumescent material /pc.
Pipe sleeve for combustible pipes.
If there is a fire, fire protection inserts inside the sheet steel housing expand, exerting a very great pressure onto the burning thermoplastic pipes.
Fastening with anchors of M6 threaded rods.

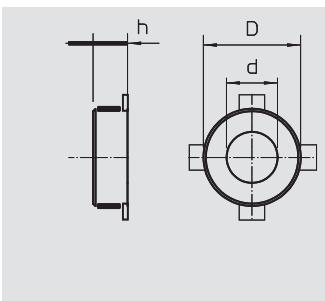


Pipe sleeve with 4 fastening straps

Type	Pipe Ø mm	Dimen- sion h mm	Dimen- sion D mm	Dimen- sion d mm	Pack. pcs	Weight kg/100 pcs.	Item No.
TCX-063	63	26	94	67	1	15.500	7202 20 4
TCX-075	75	26	106	79	1	19.000	7202 20 5
TCX-090	90	26.6	132	94	1	37.000	7202 20 6
TCX-110	110	26.6	155	114	1	46.000	7202 20 7
TCX-125	125	40	172	129	1	70.000	7202 20 8



Intumescent material /pc.
Pipe sleeve for combustible pipes.
If there is a fire, fire protection inserts inside the sheet steel housing expand, exerting a very great pressure onto the burning thermoplastic pipes.
Fastening with anchors of M6 threaded rods up to size 75, then M8.



Pipe sleeve with 6 fastening straps

Type	Pipe Ø mm	Dimen- sion h mm	Dimen- sion D mm	Dimen- sion d mm	Pack. pcs	Weight kg/100 pcs.	Item No.
TCX-140	140	40	200	144	1	106.000	7202 20 9
TCX-160	160	40	220	164	1	107.000	7202 21 0



Intumescent material /pc.
Pipe sleeve for combustible pipes.
If there is a fire, fire protection inserts inside the sheet steel housing expand, exerting a very great pressure onto the burning thermoplastic pipes.
Fastening with anchors of M8 threaded rods.

Soft insulation, PYROPLATE® Fibre

Threaded rod



Type	Thread	Dimension d mm	Dimension L mm	Breaking load kN	Pack. pcs	Weight kg/100 pcs.	Item No.
2078 M6 1M G	M6	6	1,000	8.04	100	18.300	3141 04 7
2078 M8 1M G	M8	8	1,000	14.6	50	30.000	3141 12 8

St Steel **G** Electrogalvanised /100 pc.

Threaded rod to DIN 976.



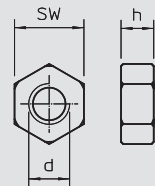
Hexagonal nut



Type	Thread	SW mm	Dimension h mm	Dimension d mm	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
DIN 934 M6 G	M6	10	5.2	6	2,600	100	0.225	3400 06 9
DIN 934 M8 G	M8	13	6.8	8	2,400	100	0.474	3400 08 5

St Steel **G** Electrogalvanised /100 pc.

Hexagonal nut to DIN 934 with metric thread.



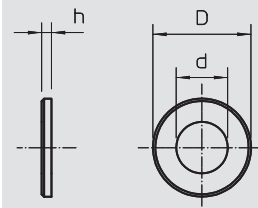
Washer



Type	Thread	Dimension d mm	Dimension D mm	Dimension h mm	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
967 M6 G	M6	6.5	28	2.5	1,000	100	1.150	3402 20 7
967 M8 G	M8	8.5	28	2.5	1,400	100	1.100	3402 21 5

St Steel **G** Electrogalvanised /100 pc.

Washer of large outer diameter for universal use.



Mineral wool



Type	Dimension	Pack. pcs	Weight kg/100 pcs.	Item No.
MIW-S	25 litre	1	250.000	7202 30 6

Mineral fibres /pc.

Universal filling wool for various fire protection applications, packed in compressed form. Material class EN 13 501 - A1, non-combustible; melting point ≥ 1000 °C.

Calcium silicate plate

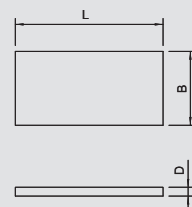


Type	Dimension L mm	Dimension B mm	Dimension D mm	Pack. pcs	Weight kg/100 pcs.	Item No.
KSI-P1	500	150	20	1	42.000	7202 28 3
KSI-P2	500	250	30	1	111.000	7202 90 4
KSI-P3	1,000	250	30	1	222.000	7202 91 2

Calcium silicate /pc.

Calcium silicate plate, as support plate, for the construction of frames in the penetration and to double thin wall thicknesses.

Materials class EN 13501 - A1 non-combustible.



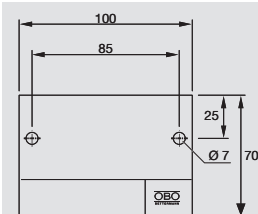
Identification plate



Type	Pack. pcs	Weight kg/100 pcs.	Item No.
KS-S DE	1	2.400	7205 42 5
KS-S EN	1	2.400	7205 42 9
KS-S ES	1	2.400	7205 42 7

/pc.

Universal identification plate to be written on for all OBO insulation. For approved identification, including two push-fit anchors.



Fire protection foam PYROSIT® NG

2-component fire protection foam

Type	Contents	Pack.	Weight	Item No.
	ml	pcs	kg/100 pcs.	
FBS-S	380	1	64.600	7203 80 0

/pc.

PYROSIT® NG 2-component fire protection foam in a cartridge, including 2 mixer pipes.
To create cable and combination insulation; always process with the cartridge pistols FBS-PH or FBS-PA. In dry, frost-free rooms, the compound can be stored at temperatures from +5 °C to +30 °C for up to 12 months in closed, upright original containers.



Mixer pipe set

Type	Pack.	Weight	Item No.
	PU	kg/100 PUs	
FBS-M	1	10.000	7203 80 3

/VPE

10 mixing tubes and 5 extension tubes in the set for PYROSIT® NG fire protection foam.



Fire protection case

Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
FBS-K	1	420.000	7203 80 9

/pc.

The PYROSIT® NG fire protection case contains all the products required for mounting localised foam insulation. The complete set consists of: 3 x FBS-S, 1 x FBS-PH, 6 mixing and 5 extension pipes.



Professional cartridge pistol

Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
FBS-PH	2	120.000	7203 80 6

/pc.

High-quality 2-component cartridge pistol for use with the PYROSIT® NG fire protection foam. The parallel movement of the outlet to the holding grip ensures easy working.



Battery-operated cartridge pistol

Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
FBS-PA	1	630.000	7203 81 2

/pc.

High-quality, motor-operated 2-component cartridge pistol for use with the PYROSIT® NG fire protection foam. The hard-shell case contains a FBS-PA pistol, a charging device and a rechargeable battery.



Replacement battery

Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
FBS-EA	1	33.400	7203 81 5

/pc.

Replacement battery for motor-operated cartridge pistol FBS-PA



Cable coil

Type	Dimension	Pack.	Weight	Item No.
	mm	pcs	kg/100 pcs.	
FBA-WI	5000 x 150	2	83.000	7202 51 0

/pc.

Intumescent material
Selfadhesive, intumescent cable coil for use in cable insulation FBA-B120 for cable diameters > 18 mm (also on executed cable support systems).



Fire protection foam PYROSIT® NG

Adhesive tape



Type	Width mm	Pack. pcs	Weight kg/100 pcs.	Item No.
SHT	50	5	12.000	7202 52 1

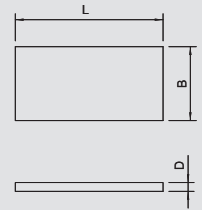
PE Polyethylene /pc.
Fibre-reinforced, transparent adhesive tape as insulation aid for applications with PYROSIT® NG fire protection foam and for universal fix. One roll contains 25 m².

Calcium silicate plate



Type	Dimen- sion L mm	Dimen- sion B mm	Dimen- sion D mm	Pack. pcs	Weight kg/100 pcs.	Item No.
KSI-P1	500	150	20	1	42.000	7202 28 3
KSI-P2	500	250	30	1	111.000	7202 90 4
KSI-P3	1,000	250	30	1	222.000	7202 91 2

Calcium silicate /pc.
Calcium silicate plate, as support plate, for the construction of frames in the penetration and to double thin wall thicknesses.
Materials class EN 13501 - A1 non-combustible.

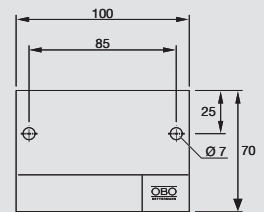


Identification plate



Type	Pack. pcs	Weight kg/100 pcs.	Item No.
KS-S DE	1	2.400	7205 42 5
KS-S EN	1	2.400	7205 42 9
KS-S ES	1	2.400	7205 42 7









Universal identification plate to be written on for all OBO insulation. For approved identification, including two push-fit anchors.







Contents fire protection ducts

	PYROLINE® Rapid - Fire protection duct for direct and suspended mounting	BSKM 07 fire protection duct I30 - I120	118
		BSKM 1025 fire protection duct I30 - I120	121
		BSKM accessories	124
	PYROLINE® Con D - Fire protection duct for direct wall and ceiling mounting	BSK 09 fire protection duct I90/E90	126
	Fire protection duct for direct wall and ceiling mounting	BSK 12 fire protection duct I120/E90	128
		BSK accessories	129
	PYROLINE® Con S - Fire protection duct for suspended mounting	BSKH 09 fire protection duct I90/E30	131
		BSKH 09 mounting systems	134



Fire protection duct PYROLINE® Rapid - BSKM 0711

Metal fire protection duct, I30 to I120



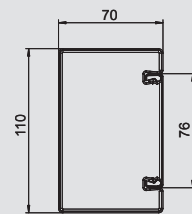
Type	Height	Width	Length	Pack.	Weight	Item No.
	mm	mm	mm	m	kg/100 m	
BSKM 0711	70	110	2,000	2	387.000	7216 30 0

St Steel **FS** Strip-galvanised /m

Sheet steel duct with intumescent interior coating. In case of fire, actively prevents the spread of fire in the duct and protects emergency and escape routes against the impacts of a cable fire. The cover and base are securely interconnected using the self-contacting patented locking brackets. This also creates the equipotential bonding. Fire resistance classes I30 to I120 according to DIN 4102 part 11.

Mounting options: directly on the wall or under the ceiling, beneath system floors on the raw floor, or suspended on support systems or using connector elements (support spacing, max. 1 m).

Scope of delivery: cover and base as complete unit. Coloured versions available on request in various RAL shades.



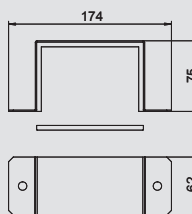
Connector



Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
BSKM-VD 0711	1	37.600	7216 31 0

St Steel **FS** Strip-galvanised /pc.

Clamp with integrated seal for BSKM 0711, for connection and smoke-proof sealing of duct joints. Usable at min. 30 mm side distance of the duct to the ceiling or wall.



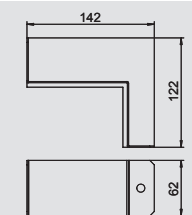
Connector for corner mounting



Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
BSKM-VE 0711	5	25.600	7216 31 2

St Steel **FS** Strip-galvanised /pc.

Clamp with integrated seal for BSKM 0711, for smoke-proof sealing of duct joints in the case of corner mounting without duct spacing to the ceiling or wall.



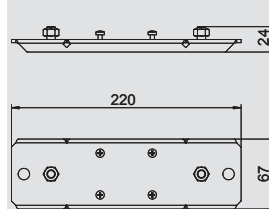
Support



Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
BSKM-AD 0711	1	45.000	7216 31 5

St Steel **FS** Strip-galvanised /pc.

Support profile for suspended mounting of BSKM 0711, suitable as a suspension point to accept two M10 threaded rods and as the counterbearing to seal the joint, including nuts.



Connecting screw

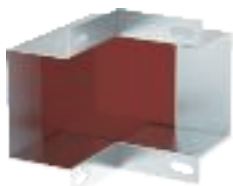


Type	Dimension	Pack.	Weight	Item No.
		pcs	kg/100 pcs.	
BSKM-S4010	M4x10	100	0.180	3498 09 4

St Steel **G** Electrogalvanised /100 pc.

Self-tapping screw to fix the BSKM fire protection ducts to the BSKM-AD support profiles and to secure the lid support on the BSKM 1025.

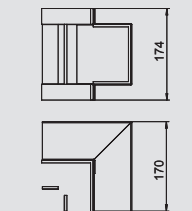
External corner



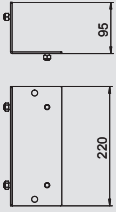
Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
BSKM-AE 0711	1	124.200	7216 32 0

St Steel **FS** Strip-galvanised /pc.

Hood to cover two BSKM 0711 duct ends as external cover for direct wall and ceiling mountings, including seals.



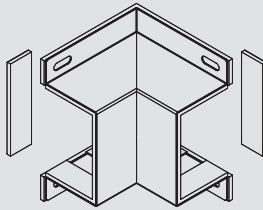
Fire protection duct PYROLINE® Rapid - BSKM 0711



Lock plate for external corner

Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
BSKM-GA 0711	1	99.600	7216 32 5

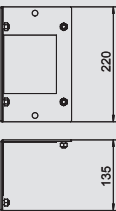
St Steel **FS** Strip-galvanised /pc.
 Adapter plate for suspended mounting of the external corner hood BSKM-AE 0711, with acceptance option for M10 threaded rods, including nuts.



Internal corner

Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
BSKM-IE 0711	1	94.000	7216 34 0

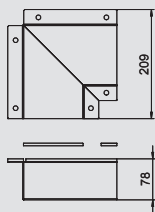
St Steel **FS** Strip-galvanised /pc.
 Hood to cover two BSKM 0711 duct ends as internal corner for direct wall and ceiling mountings, including seals.



Lock plate for internal corner

Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
BSKM-GI 0711	1	145.800	7216 34 5

St Steel **FS** Strip-galvanised /pc.
 Adapter plate for suspended mounting of the internal corner hood BSKM-IE 0711, with acceptance option for M10 threaded rods, including nuts.



Flat angle

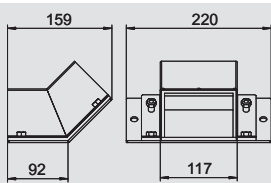
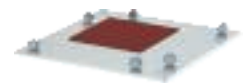
Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
BSKM-FW 0711	1	116.300	7216 33 0

St Steel **FS** Strip-galvanised /pc.
 Hood to cover two BSKM 0711 duct ends as flat angle for direct wall and ceiling mountings, including seals.



Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
BSKM-GF 0711	1	122.400	7216 33 5

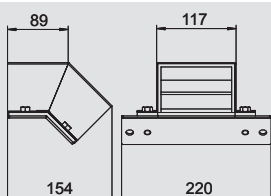
St Steel **FS** Strip-galvanised /pc.
 Adapter plate for suspended mounting of the flat angle hood BSKM-FW 0711, with acceptance option for M10 threaded rods, including nuts.



45° vertical bend, rising

Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
BSKM-ES 0711	1	181.000	7216 35 0

St Steel **FS** Strip-galvanised /pc.
 For creation of vertical jumps for suspended mounting of the BSKM 0711, with acceptance option for M10 threaded rods, including seals and nuts.



45° vertical bend, falling

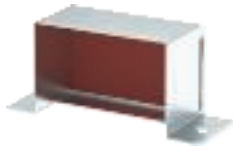
Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
BSKM-EF 0711	1	139.400	7216 35 5

St Steel **FS** Strip-galvanised /pc.
 For creation of vertical jumps for suspended mounting of the BSKM 0711, with acceptance option for M10 threaded rods, including seals and nuts.



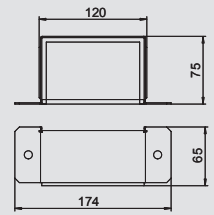
Fire protection duct PYROLINE® Rapid - BSKM 0711

End piece



Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
BSKM-VK 0711	1	51.300	7216 36 0

St Steel **FS** Strip-galvanised /pc.
For smoke-tight end closure of the BSKM 0711 for direct wall and ceiling mounting, in connection with the support profile BSKM-AD 0711, even for suspended mounting; including seals.



Cable clamp for wall mounting



Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
BSKM-BW 0711	10	7.400	7216 37 0

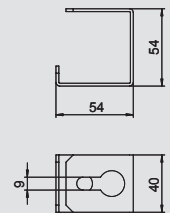
St Steel **FS** Strip-galvanised /pc.
Installation aid to prevent the cables from falling out for wall mounting of the BSKM 0711.

Cable clamp for ceiling mounting

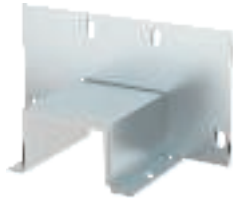


Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
BSKM-BD 0711	10	9.200	7216 37 2

St Steel **FS** Strip-galvanised /pc.
Installation aid to prevent the cables from falling out for ceiling mounting of the BSKM 0711.



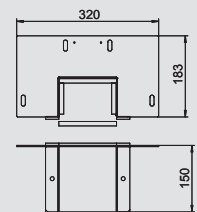
Wall connection I120



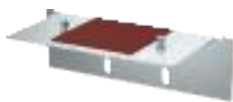
Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
BSKM-WA 0711	1	252.000	7216 38 0

St Steel **FS** Strip-galvanised /pc.
Frame as additional insulation in the area of the wall transition for direct wall and ceiling mounting of the BSKM 0711, including seals and screen.

Only needed for I120 requirements.

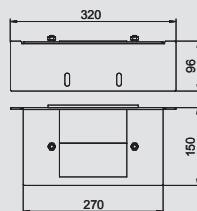


Lock plate for wall connection I120

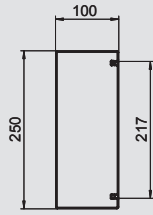


Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
BSKM-GW 0711	1	299.200	7216 38 5

St Steel **FS** Strip-galvanised /pc.
Adapter plate for suspended mounting of the wall connection BSKM-WA 0711, with acceptance option for M10 threaded rods, including nuts.



Fire protection duct PYROLINE® Rapid - BSKM 1025



Metal fire protection duct, I30 to I120

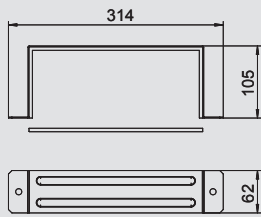
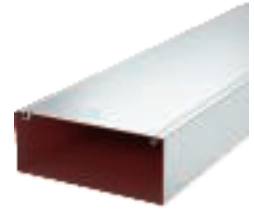
Type	Height	Width	Length	Pack.	Weight	Item No.
	mm	mm	mm	m	kg/100 m	
BSKM 1025	100	250	2,000	2	710.600	7216 40 0

St Steel **FS** Strip-galvanised /m

Sheet steel duct with intumescent interior coating. In case of fire, actively prevents the spread of fire in the duct and protects emergency and escape routes against the impacts of a cable fire. The cover and base are securely interconnected using the self-contacting patented locking brackets. This also creates the equipotential bonding. Fire resistance classes I30 to I120 according to DIN 4102 part 11.

Mounting options: directly on the wall or under the ceiling, beneath system floors on the raw floor, or suspended on support systems or using connector elements (support spacing, max. 1 m).

Scope of delivery: cover and base as complete unit. Coloured versions available on request in various RAL shades.

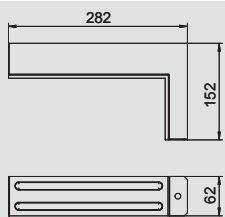


Connector

Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
BSKM-VD 1025	1	67.200	7216 41 0

St Steel **FS** Strip-galvanised /pc.

Clamp with integrated seal for BSKM 1025, for connection and smoke-proof sealing of duct joints. Usable at min. 30 mm side distance of the duct to the ceiling or wall.

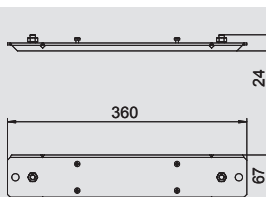


Connector for corner mounting

Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
BSKM-VE 1025	5	45.200	7216 41 2

St Steel **FS** Strip-galvanised /pc.

Clamp with integrated seal for BSKM 1025, for smoke-proof sealing of duct joints in the case of corner mounting without duct spacing to the ceiling or wall.



Support

Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
BSKM-AD 1025	5	70.100	7216 41 5

St Steel **FS** Strip-galvanised /pc.

Support profile for suspended mounting of BSKM 1025, suitable as a suspension point to accept two M10 threaded rods and as the counterbearing to seal the joint, including nuts.

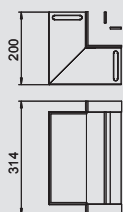


Connecting screw

Type	Dimension	Pack.	Weight	Item No.
		pcs	kg/100 pcs.	
BSKM-S4010	M4x10	100	0.180	3498 09 4

St Steel **G** Electrogalvanised /100 pc.

Self-tapping screw to fix the BSKM fire protection ducts to the BSKM-AD support profiles and to secure the lid support on the BSKM 1025.

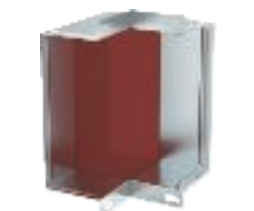


External corner

Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
BSKM-AE 1025	1	245.300	7216 42 0

St Steel **FS** Strip-galvanised /pc.

Hood to cover two BSKM 1025 duct ends as external corner for direct wall and ceiling mountings, including seals.



Fire protection duct PYROLINE® Rapid - BSKM 1025

Lock plate for external corner



Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
BSKM-GA 1025	1	160.800	7216 42 5

St Steel **FS** Strip-galvanised /pc.

Adapter plate for suspended mounting of the external corner hood BSKM-AE 1025, with acceptance option for M10 threaded rods, including nuts.



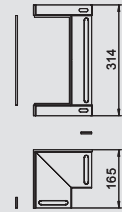
Internal corner



Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
BSKM-IE 1025	1	157.600	7216 44 0

St Steel **FS** Strip-galvanised /pc.

Hood to cover two BSKM 1025 duct ends as internal corner for direct wall and ceiling mountings, including seals.



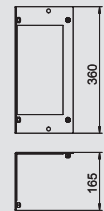
Lock plate for internal corner



Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
BSKM-GI 1025	1	275.800	7216 44 5

St Steel **FS** Strip-galvanised /pc.

Adapter plate for suspended mounting of the internal corner hood BSKM-IE 1025, with acceptance option for M10 threaded rods, including nuts.



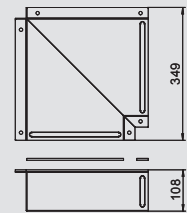
Flat angle



Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
BSKM-FW 1025	1	289.800	7216 43 0

St Steel **FS** Strip-galvanised /pc.

Hood to cover two BSKM 1025 duct ends as flat angle for direct wall and ceiling mountings, including seals.



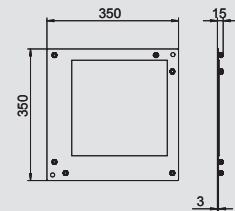
Lock plate for flat angle



Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
BSKM-GF 1025	1	295.600	7216 43 5

St Steel **FS** Strip-galvanised /pc.

Adapter plate for suspended mounting of the flat angle hood BSKM-FW 1025, with acceptance option for M10 threaded rods, including nuts.



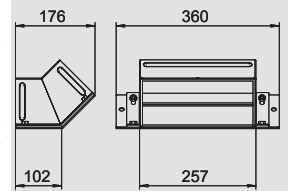
45° vertical bend, rising



Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
BSKM-ES 1025	1	282.900	7216 45 0

St Steel **FS** Strip-galvanised /pc.

For creation of vertical jumps for suspended mounting of the BSKM 1025, with acceptance option for M10 threaded rods, including seals and nuts.



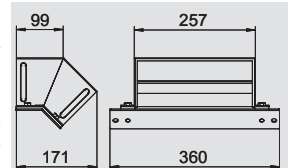
45° vertical bend, falling



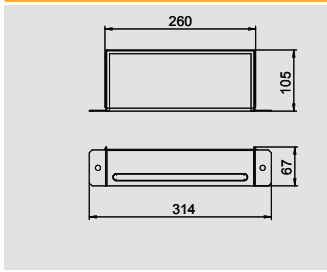
Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
BSKM-EF 1025	1	235.000	7216 45 5

St Steel **FS** Strip-galvanised /pc.

For creation of vertical jumps for suspended mounting of the BSKM 1025, with acceptance option for M10 threaded rods, including seals and nuts.



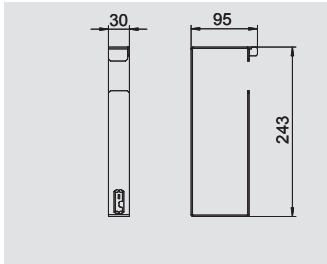
Fire protection duct PYROLINE® Rapid - BSKM 1025



End piece

Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
BSKM-VK 1025	1	106.900	7216 46 0

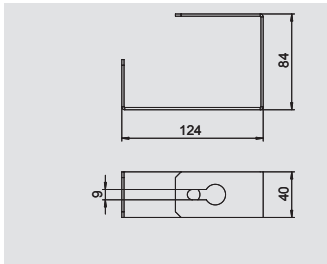
St Steel **FS** Strip-galvanised /pc.
For smoke-tight end closure of the BSKM 1025 for direct wall and ceiling mounting, in connection with the support profile BSKM-AD 1025, even for suspended mounting; including seals.



Cable clamp for wall mounting

Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
BSKM-BW 1025	10	16.500	7216 47 0

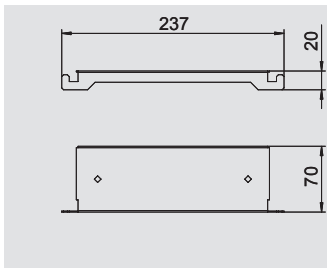
St Steel **FS** Strip-galvanised /pc.
Installation aid to prevent the cables from falling out for wall mounting of the BSKM 1025.



Cable clamp for ceiling mounting

Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
BSKM-BD 1025	10	19.200	7216 47 2

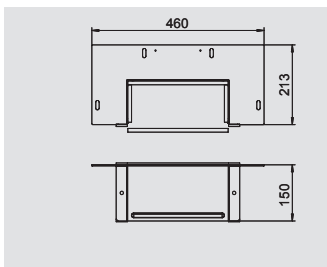
St Steel **FS** Strip-galvanised /pc.
Installation aid to prevent the cables from falling out for ceiling mounting of the BSKM 1025.



Lid support

Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
BSKM-DS 1025	10	13.500	7216 47 4

St Steel **FS** Strip-galvanised /pc.
Stiffener with intumescent coating (one-sided) for lid support in the joint area of the BSKM 1025. Arrangement: 2 pieces on each side of the premarked breaking point in the wall penetration, in the case of duct connections, 1 piece centrally over the joint

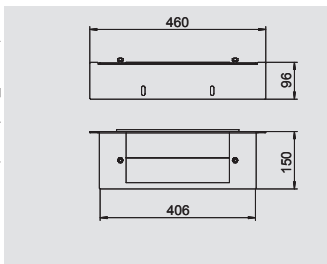


Wall connection I120

Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
BSKM-WA 1025	1	408.500	7216 48 0

St Steel **FS** Strip-galvanised /pc.
Frame as additional insulation in the area of the wall transition for direct wall and ceiling mounting of the BSKM 1025, including seals and screen.

Only needed for I120 requirements.



Lock plate for wall connection I120

Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
BSKM-GW 1025	1	125.000	7216 48 5

St Steel **FS** Strip-galvanised /pc.
Adapter plate for suspended mounting of the wall connection BSKM-WA 1025, with acceptance option for M10 threaded rods, including nuts.



Fire protection duct PYROLINE® Rapid - BSKM accessories



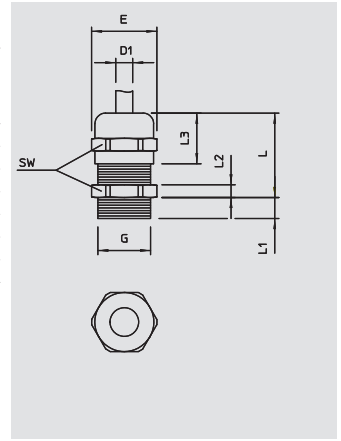
V-Tec brass cable outlet

Type	Thread	Surface finish	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
V-TEC VM12 MS	M12 x 1,5	Nickel-plated	500	50	1.200	2086 01 8
V-TEC VM16 MS	M16 x 1,5	Nickel-plated	600	50	1.640	2086 02 4
V-TEC VM20 MS	M20 x 1,5	Nickel-plated	250	25	3.140	2086 03 0
V-TEC VM25 MS	M25 x 1,5	Nickel-plated	250	25	4.260	2086 03 6
V-TEC VM32 MS	M32 x 1,5	Nickel-plated	160	20	7.160	2086 04 2
V-TEC VM40 MS	M40 x 1,5	Nickel-plated	60	5	12.240	2086 04 8
V-TEC VM50 MS	M50 x 1,5	Nickel-plated	45	5	22.700	2086 05 4

CuZn Brass **N** Nickel-plated /100 pc.

With metric connecting thread to IEC 423 robust cap-nut cable gland with large sealing area. Strain relief, wringing protection and tightness over the whole clamping area. Neoprene sealing ring. Polyamide terminal insert. With pre-mounted sealing ring on connection thread, VDE-tested to DIN EN 50262, protection rating IP 68 at 5 bar for 1 hr.

* Prices according to DEL notation.



Cable outlet, locknut, brass

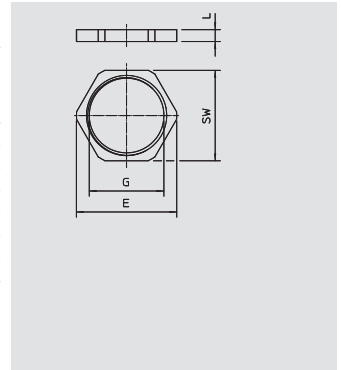


Type	Thread	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
169 MS M12	M12 x 1,5	2,600	100	0.220	2091 60 7
169 MS M16	M16 x 1,5	4,800	100	0.310	2091 61 5
169 MS M20	M20 x 1,5	3,200	100	0.580	2091 62 3
169 MS M25	M25 x 1,5	1,800	100	0.880	2091 63 1
169 MS M32	M32 x 1,5	1,200	100	1.120	2091 65 8
169 MS M40	M40 x 1,5	600	50	1.920	2091 66 6
169 MS M50	M50 x 1,5	500	50	3.070	2091 67 4

CuZn Brass **N** Nickel-plated /100 pc.

Locknuts DIN 46319 with metric thread IEC 423.

* Price according to DEL notation.



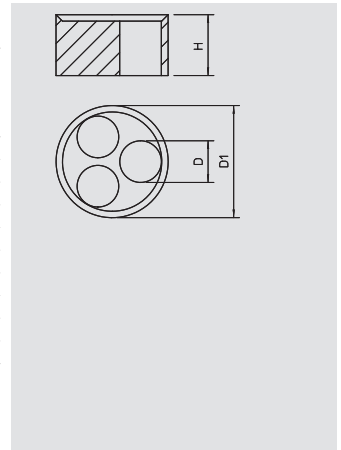
Cable outlet, multiple sealing ring for V-Tec



Type	Size	Dimension D	Dimension H	Dimension D1	Number of drill holes	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
107 C VM 20 2x4	M20	4	8.1	15.1	2	750	50	0.130	2029 67 2
107 C VM 20 4x5	M20	5	8.1	15.1	4	750	50	0.080	2029 67 5
107 C VM 20 2x6	M20	6	8.1	15.1	2	750	50	0.100	2029 67 7
107 C VM 25 5x4	M25	4	10	19.8	5	500	50	0.180	2029 67 9
107 C VM 25 3x6	M25	6	10	19.8	3	500	50	0.210	2029 68 2
107 C VM 25 2x6	M25	6	10	19.8	2	500	50	0.260	2029 68 5
107 C VM 25 3x7	M25	7	10	19.8	3	500	50	0.180	2029 68 8
107 C VM 25 2x8	M25	8	10	19.8	2	500	50	0.200	2029 69 0
107 C VM 32 2x8	M32	8	13.4	25.1	2	500	25	0.530	2029 69 3
107 C VM 32 4x8	M32	8	13.4	25.1	4	500	25	0.400	2029 69 6

NBR-SBR Rubber mixture /100 pc.

Use to insert multiple thin cables in the V-TEC VM cable glands, is replaced with the simple sealing ring of the cable gland.



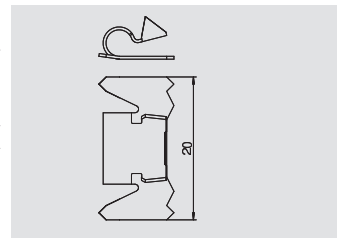
Locking bracket



Type	Pack. pcs	Weight kg/100 pcs.	Item No.
RKV3V	20	0.120	6288 70 0

/pc.

Locking bracket for the mechanical and electrical connection of trunking covers and trunking bases.



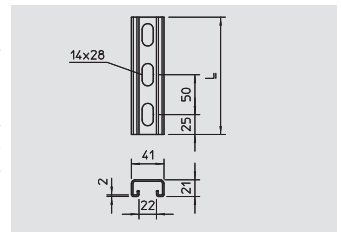
Profile rail in fixed lengths



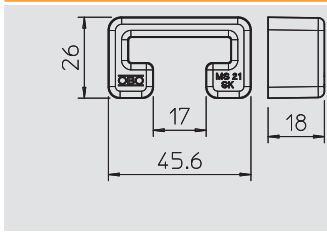
Type	Version	Dimension b x h	Material thickness	Length	Pack. pcs	Weight kg/100 pcs.	Item No.
MS 21 L 200 FT	Perforated	41x21	2	200	30	30.300	1122 93 3
MS 21 L 400 FT	Perforated	41x21	2	400	10	60.600	1122 93 5

St Steel **FT** Hot-dip galvanised /100 pc.

Heavy-duty profile/mounting rail with continuous perforation in base, slot width 22 mm.



Fire protection duct PYROLINE® Rapid - BSKM accessories

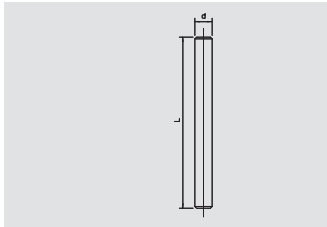


Protective cap for profile rail



Type	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
MS 21 SK OR SP	Pastel orange	300	25	0.650	1122 90 2

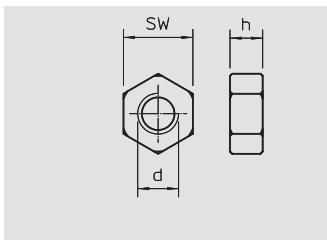
PE Polyethylene /100 pc.
Protective caps for profile rail, types MS 21.



Threaded rod

Type	Thread	Dimension d mm	Dimension L mm	Breaking load kN	Pack. pcs	Weight kg/100 pcs.	Item No.
2078 M10 1M G	M10	10	1,000	23.2	25	49.000	3141 20 9

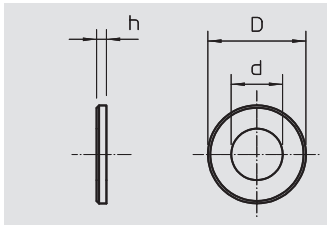
St Steel **G** Electrogalvanised /100 pc.
Threaded rod to DIN 976.



Hexagonal nut

Type	Thread	SW mm	Dimension h mm	Dimension d mm	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
DIN 934 M10 G	M10	17	8.4	10	1,000	100	1.084	3400 10 7

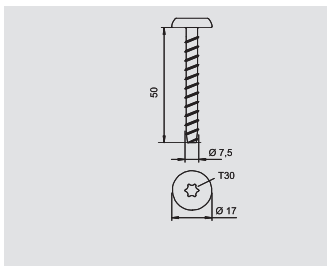
St Steel **G** Electrogalvanised /100 pc.
Hexagonal nut to DIN 934 with metric thread.



Large washer

Type	Thread	Dimension d mm	Dimension D mm	Dimension h mm	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
967 M10 G	M10	11	28	2.5	1,400	100	1.020	3402 22 3

St Steel **G** Electrogalvanised /100 pc.
Washer of large outer diameter for universal use.



Fire protection bolt tie

Type	Dimension mm	Pack. pcs	Weight kg/100 pcs.	Item No.
MMS-MS7,5x50	7.5 x 50	100	1.522	3498 26 0

St Steel **G** Electrogalvanised /100 pc.
Fire protection bolt tie with large pan head for direct mounting without additional anchors. Drive T30, drill hole 6 mm. Fire protection tested according to DIN 4102 for concrete and masonry.



Fire protection ducts



Fire protection duct PYROLINE® Con D - BSK 09



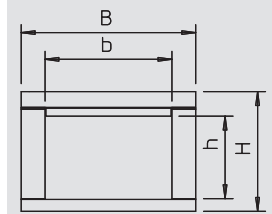
Fire protection duct I90/E30, internal height 50 mm

Type	Dimension B mm	Dimension H mm	Dimension h mm	Dimension b mm	Length mm	Weight kg/100 m	Item No.
BSK 090506	120	95	50	60	1,000	730.000	7215 15 0
BSK 090511	170	95	50	110	1,000	940.000	7215 15 4
BSK 090521	270	95	50	210	1,000	1,350.000	7215 15 8

Glass-fibre lightweight concrete

/m

Fire protection duct I90/I30, to DIN 4102 part 11 and part 12, incl. 12 x countersunk head screws and 3 x 1 m sealing strip.



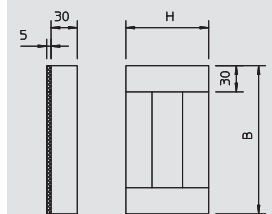
End piece I90/E30 for internal height 50 mm

Type	Dimension B mm	Dimension H mm	Pack. pcs	Weight kg/100 pcs.	Item No.
BSK-E090506	120	95	1	38.000	7215 25 0
BSK-E090511	170	95	1	51.000	7215 25 2
BSK-E090521	270	95	1	78.000	7215 25 4

Glass-fibre lightweight concrete

/pc.

End piece for fire protection duct BSK I90/E30. Including bolts and sealing strip.



Wall connection collar I90 for internal height 50 mm

Type	Pack. pcs	Weight kg/100 pcs.	Item No.
BSK-K0506	1	40.000	7215 53 3
BSK-K0511	1	45.000	7215 53 7
BSK-K0521	1	55.000	7215 54 1

Glass-fibre lightweight concrete

/pc.

Wall connection collar for BSK, consisting of three single plates, to double the insulation for wall penetrations. Incl. fastening material. Only for I90 classification.



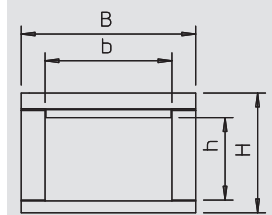
Fire protection duct I90/E30, internal height 105 mm

Type	Dimension B mm	Dimension H mm	Dimension h mm	Dimension b mm	Length mm	Weight kg/100 m	Item No.
BSK 091016	220	150	105	160	1,000	1,430.000	7215 16 2
BSK 091026	320	150	105	260	1,000	1,830.000	7215 16 6

Glass-fibre lightweight concrete

/m

Fire protection duct I90/I30, to DIN 4102 part 11 and part 12, incl. 12 x countersunk head screws and 3 x 1 m sealing strip.



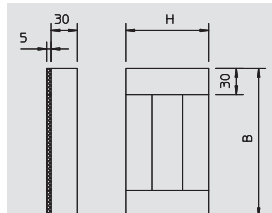
End piece I90/E30 for internal height 105 mm

Type	Dimension B mm	Dimension H mm	Pack. pcs	Weight kg/100 pcs.	Item No.
BSK-E091016	220	150	1	93.000	7215 25 6
BSK-E091026	320	150	1	131.000	7215 25 8

Glass-fibre lightweight concrete

/pc.

End piece for fire protection duct BSK I90/E30. Including bolts and sealing strip.



Wall connection collar I90 for internal height 105 mm

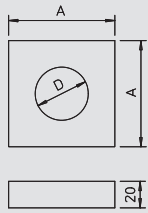
Type	Pack. pcs	Weight kg/100 pcs.	Item No.
BSK-K1016	1	65.000	7215 54 5
BSK-K1026	1	75.000	7215 54 9

Glass-fibre lightweight concrete

/pc.

Wall connection collar for BSK, consisting of three single plates, to double the insulation for wall penetrations. Incl. fastening material. Only for I90 classification.

Fire protection duct PYROLINE® Con D - BSK 09



Doubler I 90

Type	Dimen- sion A mm	Dimen- sion D mm	Pack.	Weight	Item No.
			pcs	kg/100 pcs.	
BSK-A0908	80	40	1	10.000	7215 45 2
BSK-A0910	100	60	1	14.000	7215 45 8



Glass-fibre lightweight concrete

/pc.

Doubler for cable routing for BSK I90 and for BSKH I90:
BSK-A0908 for duct heights to 95 mm,
BSK-A0910 for duct heights from 110 mm.
Including fastening screws.

Sealing strip I90/E30

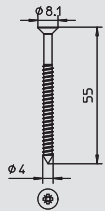
Type	Dimen- sion mm	Length m	Weight	Item No.
			kg/100 pcs.	
BSK-D0930	5 x 30	15	37.500	7215 42 3



Foam

/pc.

Self-adhesive sealing strip for BSK I90/E30 and BSKH I90/E30.



Counter-sunk head screw I90/E30

Type	Dimen- sion mm	Pack.	Weight	Item No.
		pcs	kg/100 pcs.	
BSK-S0955	4.0 x 55	50	0.340	7215 40 0



St Steel **G** Electrogalvanised

/100 pc.

Counter-sunk head screw for fire protection duct I90/E30, for lid and doubler fastening.



Fire protection duct PYROLINE® Con D - BSK 12

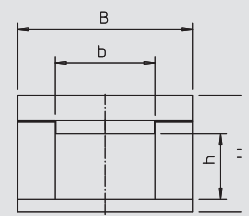
Fire protection duct I120/E90, internal height 50 mm



Type	Dimension B mm	Dimension H mm	Dimension b mm	Dimension h mm	Length mm	Weight kg/100 m	Item No.
BSK 120506	180	130	60	50	1,000	1,490.000	7215 21 0
BSK 120511	230	130	110	50	1,000	1,800.000	7215 21 6
BSK 120521	330	130	210	50	1,000	2,420.000	7215 22 2

Glass-fibre lightweight concrete /m

Fire protection duct I120/E90, to DIN 4102 part 11 and part 12, incl. 12 x countersunk head screws and 3 x 1 m sealing strip.



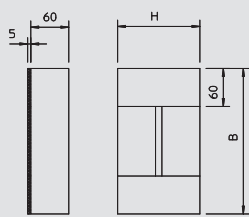
End piece I120/E90 for internal height 50 mm



Type	Dimension B mm	Dimension H mm	Pack. pcs	Item No.
BSK-E120506	180	130	1	7215 27 0
BSK-E120511	230	130	1	7215 27 2
BSK-E120521	330	130	1	7215 27 4

Glass-fibre lightweight concrete /pc.

End piece for fire protection duct BSK I120/E90. Including bolts and sealing strip.



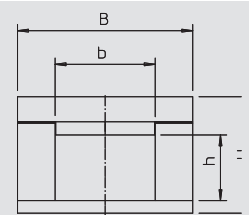
Fire protection duct I120/E90, internal height 105 mm



Type	Dimension B mm	Dimension H mm	Dimension b mm	Dimension h mm	Length mm	Weight kg/100 m	Item No.
BSK 121016	280	185	105	160	1,000	2,570.000	7215 22 8
BSK 121026	380	185	105	260	1,000	3,190.000	7215 23 4

Glass-fibre lightweight concrete /m

Fire protection duct I120/E90, to DIN 4102 part 11 and part 12, incl. 12 x countersunk head screws and 3 x 1 m sealing strip.



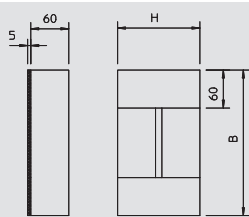
End piece I120/E90 for internal height 105 mm



Type	Dimension B mm	Dimension H mm	Pack. pcs	Item No.
BSK-E121016	280	185	1	7215 27 6
BSK-E121026	380	185	1	7215 27 8

Glass-fibre lightweight concrete /pc.

End piece for fire protection duct BSK I120/E90. Including bolts and sealing strip.



Sealing strip I120/E90



Type	Dimension mm	Length m	Weight kg/100 pcs.	Item No.
BSK-D1260	5 x 60	15	74.200	7215 43 2

Foam /pc.

Self-adhesive sealing strip for BSK I120/E90.

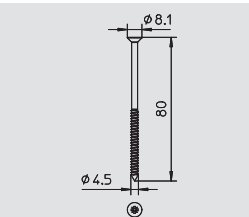
Counter-sunk head screw I120/E90



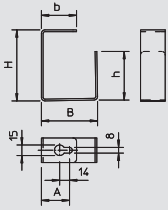
Type	Dimension mm	Pack. pcs	Weight kg/100 pcs.	Item No.
BSK-S1280	4.5 x 80	50	0.500	7215 41 2

St Steel G Electrogalvanised /100 pc.

Countersunk head screw for BSK I120/E90, for cover fastening.



Fire protection duct PYROLINE® Con D - BSK accessories

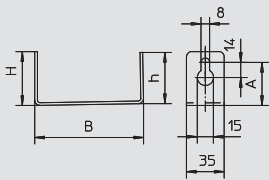


Separating clamp for ceiling mounting

Type	Dimen- sion H	Dimen- sion h	Dimen- sion B	Dimen- sion b	Dimen- sion A	Pack. pcs	Weight kg/100 pcs.	Item No.
	mm	mm	mm	mm	mm			
BSK-B0511	46	18	55	37.5	36.5	25	7.500	7215 35 6
BSK-B0521	46	18	105	62.5	52.5	25	14.500	7215 36 2
BSK-B1016	101	69	80	50	40	25	19.000	7215 36 8
BSK-B1026	101	69	130	75	65	25	29.000	7215 37 4

St Steel **FS** Strip-galvanised /100 pc.

Separating clamp for BSK fire protection duct, as installation aid for ceiling mounting. Fastening by clamping under the fire protection bolt tie.

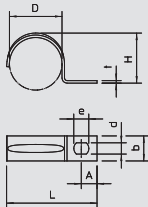


Separating bracket for wall mounting

Type	Dimen- sion B	Dimen- sion H	Dimen- sion h	Dimen- sion A	Pack. pcs	Weight kg/100 pcs.	Item No.
	mm	mm	mm	mm			
BSK-W0511	46	37.5	22.5	37.5	25	5.000	7215 31 2
BSK-W0521	46	62.5	52.5	52.5	25	9.000	7215 31 8
BSK-W1016	101	50	40	40	25	12.500	7215 32 4
BSK-W1026	101	75	97.5	65	25	17.500	7215 33 0

St Steel **FS** Strip-galvanised /100 pc.

Separating bracket for BSK fire protection duct, as installation aid for wall mounting. Fastening by clamping under the fire protection bolt tie.



Fastening clips

Type	For Ø	Shipping box	Pack. pcs	Weight kg/100 pcs.	Item No.
	mm	pcs			
604 3 G	3	12,000	100	0.052	1003 03 8
604 4 G	4	12,000	100	0.067	1003 04 6
604 5 G	5	5,000	100	0.084	1003 05 4
604 6 G	6	5,000	100	0.099	1003 06 2
604 7 G	7	5,000	100	0.120	1003 07 0
604 8 G	8	5,000	100	0.123	1003 08 9
604 9 G	9	5,000	100	0.139	1003 09 7
604 10 G	10	4,800	100	0.150	1003 10 0
604 11 G	11	4,800	100	0.270	1003 11 9
604 12 G	12	5,000	100	0.240	1003 12 7
604 13 G	13	5,000	100	0.280	1003 13 5
604 16 G	16	3,900	100	0.348	1003 17 8
604 19 G	19	1,800	100	0.411	1003 19 4
604 20 G	20	1,800	100	0.431	1003 20 8
604 21 G	21	3,000	100	0.447	1003 21 6
604 23 G	23	2,400	100	0.490	1003 23 2
604 25 G	25	1,000	100	0.560	1003 25 9
604 28 G	28	1,000	100	0.874	1003 28 3
604 32 G	32	800	100	1.420	1003 32 1
604 35 G	35	800	100	1.355	1003 35 6
604 37 G	37	800	100	1.567	1003 37 2
604 40 G	40	1,200	100	1.860	1003 40 2
604 47 G	47	500	50	2.484	1003 46 1

St Steel **G** Electrogalvanised /100 pc.

Single-lobe fastening clip for cables and pipes.

* Sizes 3 and 4 not suitable for nail device.

* Sizes 3 to 21 not suitable for bolt-firing tool.



Fire protection ducts

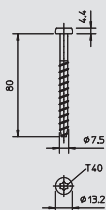


Bolt for cable fastening

Type	Dimension	Pack. pcs	Weight kg/100 pcs.	Item No.
BSKP-S5020	5x20	100	0.260	3498 09 8

St Steel **GTP** Electrogalvanised, transparently passivated /100 pc.

Bolt with special milled ribs for universal fastening of cable clips, connector elements and barrier strip in fibre glass lightweight concrete of the BSK fire protection ducts.



Bolt tie

Type	Dimen- sion mm	Pack. pcs	Weight kg/100 pcs.	Item No.

St Steel **G** Electrogalvanised /100 pc.

Fire protection bolt tie with pan head for direct mounting without additional anchors. Drive T40, drill hole 6 mm. Fire protection tested according to DIN 4102 for concrete and masonry. Fire resistance class to F90.



Fire protection duct PYROLINE® Con D - BSK accessories



Mortar

Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
BSK-M	1	350.000	7215 50 0

Special mortar /pc.

Fire protection duct mortar, dried ready-to-use mortar in a bucket for filling joints and small cracks when mounting the fire protection ducts BSK and BSKH.

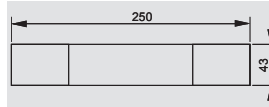


Identification plate for function maintenance

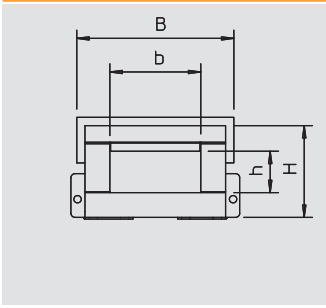
Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
KS-E DE	10	0.600	7205 42 3
KS-E EN	10	0.600	7205 43 2

PVC Polyvinylchloride /pc.

Self-adhesive identification plate for approved cable system labelling for function maintenance as required by DIN 4102 part 12.



Fire protection duct PYROLINE® Con S - BSKH 09



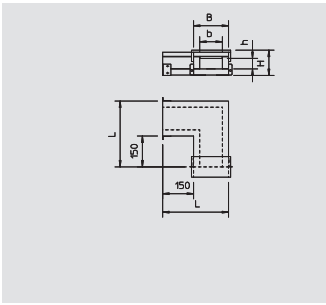
Fire protection duct, internal height 50 mm

Type	Dimension B mm	Dimension H mm	Dimension b mm	Dimension h mm	Length mm	Weight kg/100 m	Item No.
BSKH 090506	120	110	60	50	1,000	915.000	7215 17 3
BSKH 090511	170	110	110	50	1,000	1,195.000	7215 17 7
BSKH 090521	270	110	210	50	1,000	1,640.000	7215 18 1



Glass-fibre lightweight concrete /m

Fire protection duct BSKH I90/E30, suspended, flammable on four sides, to DIN 4102 part 11 and part 12, for installation on OBO mounting systems. Including mounted connector on both duct ends, 3 x 1 m self-adhesive sealing strip and connecting bolts.



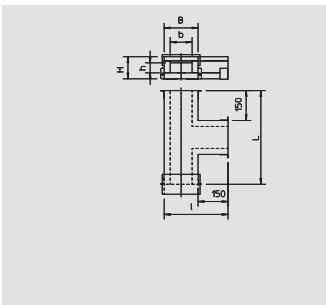
90° bend, internal height 50 mm

Type	Dimension B mm	Dimension H mm	Dimension b mm	Dimension h mm	Dimension L mm	Weight kg/100 pcs.	Item No.
BSKH-FB090506	120	110	60	50	270	430.000	7215 60 2
BSKH-FB090511	170	110	110	50	320	595.000	7215 60 6
BSKH-FB090521	270	110	210	50	420	1,005.000	7215 61 0



Glass-fibre lightweight concrete /pc.

90° bend for BSKH I90/E30, to DIN 4102 part 11 and part 12, for installation on OBO mounting systems. Fittings must be supported by additional brackets. Including mounted connector on both duct ends, 3 x 1 m self-adhesive sealing strip and connecting bolts.



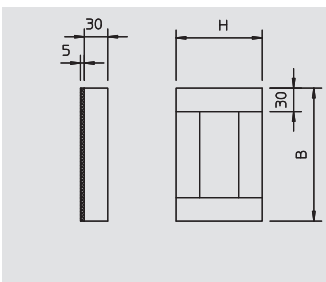
T piece, internal height 50 mm

Type	Dimension B mm	Dimension H mm	Dimension b mm	Dimension h mm	Dimension L mm	Dimension I mm	Weight kg/100 pcs.	Item No.
BSKH-FT090506	120	110	60	50	420	270	565.000	7215 63 1
BSKH-FT090511	170	110	110	50	470	320	747.000	7215 63 5
BSKH-FT090521	270	110	210	50	570	420	1,225.000	7215 63 9



Glass-fibre lightweight concrete /pc.

T piece for BSKH I90/E30, to DIN 4102 part 11 and part 12, for installation on OBO mounting systems. Fittings must be supported by additional brackets. Including mounted connector on all duct ends, 3 x 1 m self-adhesive sealing strip and connecting bolts.



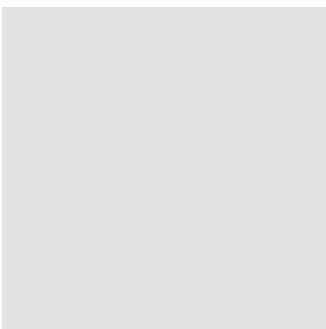
End piece for internal height 50 mm

Type	Dimension B mm	Dimension H mm	Pack. pcs	Weight kg/100 pcs.	Item No.
BSKH-E090506	120	110	1	42.000	7215 59 0
BSKH-E090511	170	110	1	57.000	7215 59 2
BSKH-E090521	270	110	1	87.000	7215 59 4



Glass-fibre lightweight concrete /pc.

End piece for fire protection duct BSKH I90/E30. Including bolts and sealing strip.



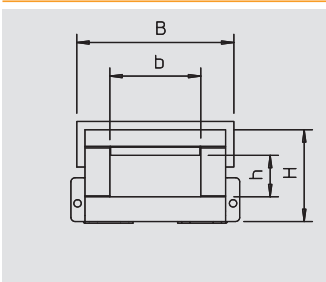
Wall connection collar I 90 for internal height 50 mm

Type	Pack. pcs	Weight kg/100 pcs.	Item No.
BSKH-K0506	1	53.000	7215 57 0
BSKH-K0511	1	64.000	7215 57 4
BSKH-K0521	1	83.000	7215 57 8



Glass-fibre lightweight concrete /pc.

Wall connection collar for BSKH, consisting of four single plates, to double the insulation for wall penetrations. Incl. fastening material Only for I90 classification.



Fire protection duct, internal height 105 mm

Type	Dimension B mm	Dimension H mm	Dimension b mm	Dimension h mm	Length mm	Weight kg/100 m	Item No.
BSKH 091016	220	165	160	105	1,000	1,705.000	7215 18 5
BSKH 091026	320	165	260	105	1,000	2,245.000	7215 18 9



Glass-fibre lightweight concrete /m

Fire protection duct BSKH I90/E30, suspended, flammable on four sides, to DIN 4102 part 11 and part 12, for installation on OBO mounting systems. Including mounted connector on both duct ends, 3 x 1 m self-adhesive sealing strip and connecting bolts.

Fire protection duct PYROLINE® Con S - BSKH 09



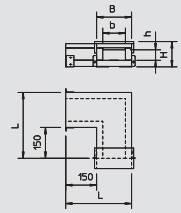
90° bend, internal height 105 mm

Type	Dimen- sion B	Dimen- sion H	Dimen- sion b	Dimen- sion h	Dimen- sion L	Weight kg/100 pcs.	Item No.
	mm	mm	mm	mm	mm		
BSKH-FB091016	220	165	160	105	370	920.000	7215 61 4
BSKH-FB091026	320	165	260	105	470	1,405.000	7215 61 8

Glass-fibre lightweight concrete

/pc.

90° bend for BSKH I90/E30, to DIN 4102 part 11 and part 12, for installation on OBO mounting systems. Fittings must be supported by additional brackets. Including mounted connector on both duct ends, 3 x 1 m self-adhesive sealing strip and connecting bolts.



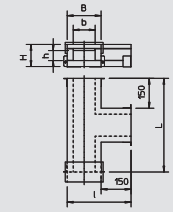
T piece, internal height 105 mm

Type	Dimen- sion B	Dimen- sion H	Dimen- sion b	Dimen- sion h	Dimen- sion L	Dimen- sion l	Weight kg/100 pcs.	Item No.
	mm	mm	mm	mm	mm	mm		
BSKH-FT091016	220	165	160	105	520	370	1,180.000	7215 64 3
BSKH-FT091026	320	165	260	105	620	470	1,715.000	7215 64 7

Glass-fibre lightweight concrete

/pc.

T piece for BSKH I90/E30, to DIN 4102 part 11 and part 12, for installation on OBO mounting systems. Fittings must be supported by additional brackets. Including mounted connector on all duct ends, 3 x 1 m self-adhesive sealing strip and connecting bolts.



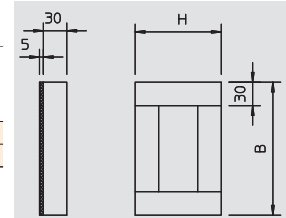
End piece for internal height 105 mm

Type	Dimen- sion B	Dimen- sion H	Pack. pcs	Weight kg/100 pcs.	Item No.
	mm	mm			
BSKH-E091016	220	165	1	101.000	7215 59 6
BSKH-E091026	320	165	1	142.000	7215 59 8

Glass-fibre lightweight concrete

/pc.

End piece for fire protection duct BSKH I90/E30. Including bolts and sealing strip.



Wall connection collar I90 for internal height 105 mm

Type	Pack. pcs	Weight kg/100 pcs.	Item No.
BSKH-K1016	1	87.000	7215 58 2
BSKH-K1026	1	105.000	7215 58 6

Glass-fibre lightweight concrete

/pc.

Wall connection collar for BSKH, consisting of four single plates, to double the insulation for wall penetrations. Incl. fastening material Only for I90 classification.

Sealing strip I90/E30

Type	Dimen- sion	Length	Weight kg/100 pcs.	Item No.
	mm	m		
BSK-D0930	5 x 30	15	37.500	7215 42 3

Foam

/pc.

Self-adhesive sealing strip for BSK I90/E30 and BSKH I90/E30.



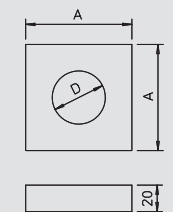
Doubler I 90

Type	Dimen- sion A	Dimen- sion D	Pack. pcs	Weight kg/100 pcs.	Item No.
	mm	mm			
BSK-A0908	80	40	1	10.000	7215 45 2
BSK-A0910	100	60	1	14.000	7215 45 8

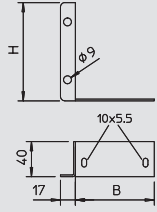
Glass-fibre lightweight concrete

/pc.

Doubler for cable routing for BSK I90 and for BSKH I90:
BSK-A0908 for duct heights to 95 mm,
BSK-A0910 for duct heights from 110 mm.
Including fastening screws.



Fire protection duct PYROLINE® Con S - BSKH 09



Connector set

Type	Dimension B mm	Dimension H mm	Pack. pcs	Weight kg/100 pcs.	Item No.
BSKH-V050	58	55	1	22.000	7215 38 1
BSKH-V052	90	55	1	26.000	7215 38 5
BSKH-V101	90	112	1	40.000	7215 38 9

St Steel **FS** Strip-galvanised /pc.

Connection set as replacement, consisting of a pair of connection plates, left/right, bolts for fastening the connectors to the duct and bolts with nuts to connect the individual duct lengths.
 BSKH-V050 for ...090506 and ...090511
 BSKH-V052 for ...090521
 BSKH-V101 for ...091016 and ...091026



Mortar

Type	Pack. pcs	Weight kg/100 pcs.	Item No.
BSK-M	1	350.000	7215 50 0

Special mortar /pc.

Fire protection duct mortar, dried ready-to-use mortar in a bucket for filling joints and small cracks when mounting the fire protection ducts BSK and BSKH.



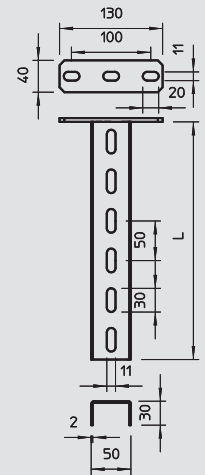
Fire protection duct PYROLINE® Con S - BSKH mounting systems

US 3 suspended support



Type	Length	Material thickness	Tensile load	Pack.	Weight	Item No.
	mm	mm	kN	pcs	kg/100 pcs.	
US 3 K 20 FT	200	2	5	4	50.500	6342 35 1
US 3 K 30 FT	300	2	5	4	64.400	6342 35 3
US 3 K 40 FT	400	2	5	4	78.300	6342 35 5
US 3 K 50 FT	500	2	5	4	92.300	6342 35 7
US 3 K 60 FT	600	2	5	4	106.200	6342 35 9
US 3 K 70 FT	700	2	5	4	120.200	6342 36 2
US 3 K 80 FT	800	2	5	4	134.100	6342 36 4
US 3 K 90 FT	900	2	5	4	147.800	6342 36 6
US 3 K 100 FT	1.000	2	5	4	162.000	6342 36 8
US 3 K 110 FT	1.100	2	5	4	175.900	6342 37 0
US 3 K 120 FT	1.200	2	5	4	189.900	6342 37 2

St Steel **FT** Hot-dip galvanised /pc.
Suspended support (U profile) of dimensions 50 x 30 mm with welded head plate.

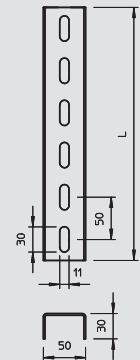


US 3 support



Type	Length	Material thickness	Pack.	Weight	Item No.
	mm	mm	pcs	kg/100 pcs.	
US 3 20 FS	200	2	4	27.000	6342 30 2
US 3 30 FS	300	2	4	40.000	6342 30 4
US 3 40 FS	400	2	4	53.000	6342 30 6

St Steel **FS** Strip-galvanised /pc.
U support in fixed lengths. Dimensions 30 x 50 mm.

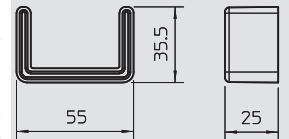


Protective cap for US 3 support



Type	Colour	Pack.	Weight	Item No.
		pcs	kg/100 pcs.	
US 3 KS OR	Pastel orange	20	1.070	6338 45 8

PE Polyethylene /pc.
Protective cap to cover the ends of US 3 supports.

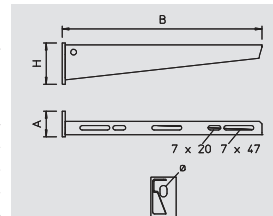


Wall and support bracket AW 15



Type	Width	Dimension H	Dimension A	Hole-Ø	F in kN	Pack.	Weight	Item No.
	mm	mm	mm	mm	kN	pcs	kg/100 pcs.	
AW 15 16 FT	160	55	40	11	1.5	30	21.000	6420 66 4
AW 15 21 FT	210	60	40	11	1.5	30	26.000	6420 68 0
AW 15 31 FT	310	65	40	11	1.5	30	32.500	6420 71 0
AW 15 41 FT	410	70	40	11	1.5	30	55.000	6420 74 5

St Steel **FT** Hot-dip galvanised /pc.
Light-duty wall and support bracket with welded head plate.

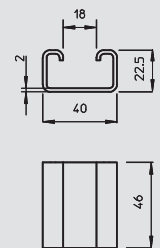


Spacer DSK 25



Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
DSK 25 FT	25	7.500	6416 44 6

St Steel **FT** Hot-dip galvanised /pc.
Spacer for use in U 3 supports.

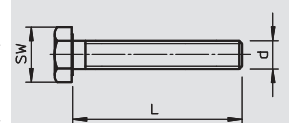


Hexagonal bolt

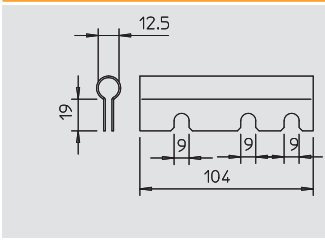


Type	Dimension	Dimension L	Dimension d	SW	Pack.	Weight	Item No.
	mm	mm	mm	mm	pcs	kg/100 pcs.	
SKS 10X80 F	M10 x 80	80	10	17	20	7.700	6418 25 0

St Steel **F** Hot-dip galvanised /100 pc.
Hexagonal bolt for universal fixing of structure components.



Fire protection duct PYROLINE® Con S - BSKH mounting systems

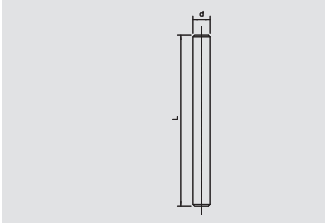


Threaded rod adapter E30

Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
BSKH-G	1	5.700	7215 39 5

St Steel **FS** Strip-galvanised /pc.

Adapter to accept threaded rods for the E duct application for function maintenance. The adapter is clamped between the connectors.

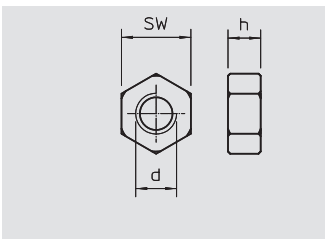


Threaded rod

Type	Thread	Dimension d	Dimension L	Breaking load	Pack.	Weight	Item No.
		mm	mm	kN	pcs	kg/100 pcs.	
2078 M10 1M G	M10	10	1,000	23.2	25	49.000	3141 20 9

St Steel **G** Electrogalvanised /100 pc.

Threaded rod to DIN 976.

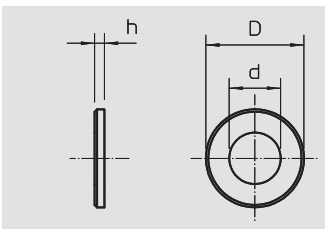


Hexagonal nut

Type	Thread	SW	Dimension h	Dimension d	Shipping box	Pack.	Weight	Item No.
		mm	mm	mm	pcs	pcs	kg/100 pcs.	
DIN 934 M10 G	M10	17	8.4	10	1,000	100	1.084	3400 10 7

St Steel **G** Electrogalvanised /100 pc.

Hexagonal nut to DIN 934 with metric thread.

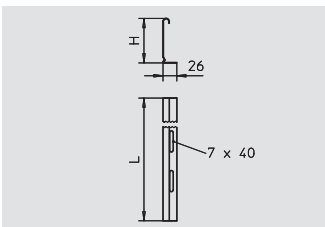


Washer

Type	Thread	Dimension d	Dimension D	Dimension h	Shipping box	Pack.	Weight	Item No.
		mm	mm	mm	pcs	pcs	kg/100 pcs.	
966 M10 G	M10	10.5	20	2	3,000	100	0.408	3402 09 6

St Steel **G** Electrogalvanised /100 pc.

Washer according to DIN 125, shape A, for universal use.

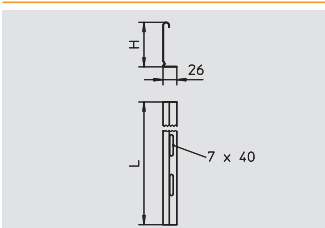


Barrier strip for 50 mm internal height

Type	Dimension H	Dimension L	Pack.	Weight	Item No.
	mm	mm	m	kg/100 m	
TSG 45 FS	45	3,000	45	46.700	6062 03 3

St Steel **FS** Strip-galvanised /m

Barrier strip for separation of cables of different voltages or functions.



Barrier strip for 105 mm internal height

Type	Dimension H	Dimension L	Pack.	Weight	Item No.
	mm	mm	m	kg/100 m	
TSG 85 FS	85	3,000	45	70.300	6062 11 4

St Steel **FS** Strip-galvanised /m

Barrier strip for separation of cables of different voltages or functions.



Bolt for barrier strip and fittings

Type	Dimension	Pack.	Weight	Item No.
		pcs	kg/100 pcs.	
BSKH-S6030	6x30	200	0.276	3498 10 0

St Steel **GTP** Electrogalvanised, transparently passivated /100 pc.

Bolt with special milled ribs for universal fastening of cable clips, connector elements and barrier strip in fibre glass lightweight concrete of the BSK fire protection ducts.



Fire protection duct PYROLINE® Con S - BSKH mounting systems

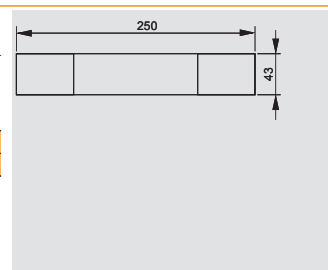
Identification plate for function maintenance



Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
KS-E DE	10	0.600	7205 42 3
KS-E EN	10	0.600	7205 43 2

PVC Polyvinylchloride /pc.

Self-adhesive identification plate for approved cable system labelling for function maintenance as required by DIN 4102 part 12.









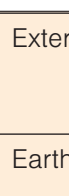

To avoid failures

OBO lightning and surge protection systems help to maintain the function of tunnel constructions if there are direct lightning strikes or, which is much more common, surge voltages, and thus are able to guarantee unimpeded traffic flow and protect the power supply.

And much, much more....

On the following pages you will find an extract from our main catalogue, which will inform you about the various different systems for internal and external lightning and surge protection. You can find additional detailed explanations and planning aids in our TBS catalogue (transient and lightning protection systems).

External and internal lightning and surge protection

	External lightning protection	Round cable, aluminium Interception rod, one end rounded Stand FangFix system 16 kg	140
	Earthing and equipotential bonding	Stainless steel flat conductor Equipotential bonding rail Strip earthing clip	142
	Surge protection in energy technology	Combination arrester Lightning current and surge arrester Surge arrester	144
	Surge protection in data and video technology and MCR systems	Surge protection MCR protection Combined protection	148

External lightning protection

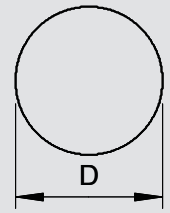
Round cable, stainless steel



Type	Nominal size Ø mm	Cross-section mm ²	Normal ring ca. m	Normal ring ca. kg	Weight kg/100 m	Item No.
RD 8-V2A	8	50	125	50	40.000	5021 23 5
RD 10-V2A	10	78	80	50	63.000	5021 23 9
RD 8-V4A	8	50	125	50	40.000	5021 64 4
RD 10-V4A	10	78	80	50	63.000	5021 64 7

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /100 m

- According to DIN EN 50164-2 (VDE 0185 part 202)
- Corresponds to the requirements of VDE 0185-305 (IEC 62305)
- RD 10-V4A for applications in the earth
- According to the foundation earther standard DIN 18014, V4A is required in the earth



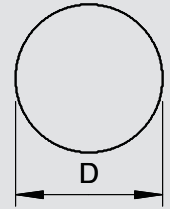
Round cable, aluminium



Type	Nominal size Ø mm	Cross-section mm ²	Normal ring ca. m	Normal ring ca. kg	Weight kg/100 m	Item No.
RD 8-ALU-T	8	50	150	20	13.500	5021 29 4
RD 8-ALU	8	50	150	20	13.500	5021 28 6
RD 10-ALU	10	78	95	20	21.000	5021 30 8

Al Aluminium /100 m

- According to DIN EN 50164-2 (VDE 0185 part 202)
- Meets the requirements of VDE 0185-305 (IEC 62305)
- RD 8/ALU: Semi-hard (E-AlMgSi0.5 corresponds to DIN 48801)
- RD 8/ALU-T: Twistable (E-AlMgSi0.5 corresponds to DIN 48801)
- RD 10/ALU: Pure aluminium (E-Al corresponds to DIN 48801)
- AL and ALMgSi may not be routed directly on, in or under the plaster, mortar or concrete nor underground



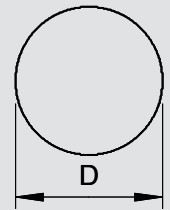
Round cable, galvanised steel



Type	Nominal size Ø mm	Cross-section mm ²	Normal ring ca. m	Normal ring ca. kg	Weight kg/100 m	Item No.
RD 8-FT	8	50	125	50	40.000	5021 08 1
RD 10	10	78	80	50	63.000	5021 10 3

St Steel FT Hot-dip galvanised /100 m

- According to DIN EN 50164-2 (VDE 0185 part 202)
- Conforms to the requirements according to DIN VDE 0185-305 (IEC 62305)
- RD 10 can also be used in earth
- Zinc coating: 350 g/m² (approx. 50 µm)



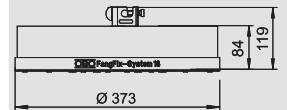
Stand FangFix system 16 kg



Type	Fit	Nominal size Ø	Pack.	Weight	Item No.
	mm	mm	pcs	kg/100 pcs.	
F-FIX-16	Rd 8	373	1	1,732.500	5403 20 0

/100 pc.

- System consists of FangFix stone with base and clamp
- FangFix clamp made of VA; lightning current tested with 100 kA (10/350)
- 16 kg stone of Ø 365 mm, high level of stability
- Quick and easy mounting of interception rod using anchors
- Concrete, frost-resistant
- The FangFix stone can be stacked



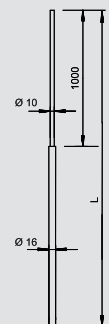
Tapered pipe interception rod

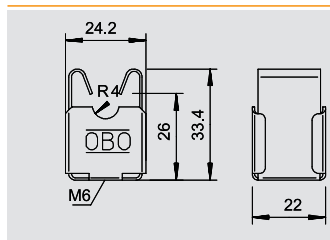


Type	Length mm	Nominal size Ø mm	Pack.	Weight	Item No.
			pcs	kg/100 pcs.	
101 VL1500	1,500	10/16	10	38.000	5401 98 0
101 VL2000	2,000	10/16	10	55.000	5401 98 3
101 VL2500	2,500	10/16	10	72.000	5401 98 6
101 VL3000	3,000	10/16	10	88.000	5401 98 9
101 VL3500	3,500	10/16	10	105.000	5401 99 3
101 VL4000	4,000	10/16	10	120.000	5401 99 5

Al Aluminium /100 pc.

- Suitable for high wind loads
- Final metre tapered from Ø 16 mm to Ø 10 mm
- Suitable for FangFix stand system





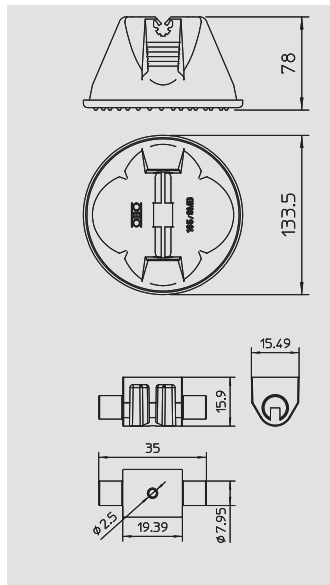
Screwless cable brackets

Type	Fit	Installation height	Pack.	Weight	Item No.
	mm	mm	pcs	kg/100 pcs.	
177 20 VA M6	Rd 8	20	50	2.500	5207 33 9

V2A Stainless steel, grade 304

/100 pc.

- With female thread M6 or through hole Ø 5 mm
- From stainless steel (V2A)



Roof cable holder for flat roofs

Type	Fit	Pack.	Weight	Item No.
	mm	pcs	kg/100 pcs.	
165 MBG-10	Rd 10	12	106.000	5218 67 5
165 MBG-8	Rd 8	12	106.000	5218 69 1

PA/PE Polyamide/Polyethylene

/100 pc.

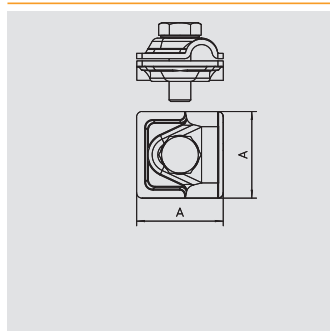
- DIN 48829 Form B 1
- Closed form with bottom
- With double conductor holder
- Filling weight 1 kg (frost-resistant concrete)
- Sleeve from polyethylene, black, bottom polypropylene, black

Type	Colour	Fit	Pack.	Weight	Item No.
		mm	pcs	kg/100 pcs.	
165 MBG UH	Black	Rd 8	25	0.280	5218 88 2

PP Polypropylene

/pc.

Universal adapter with drill hole Ø 2.5 mm e.g. for OBO Golden Sprint screw, type 4758 4 x L (L = depending on application), for fastening to 165/MBG.



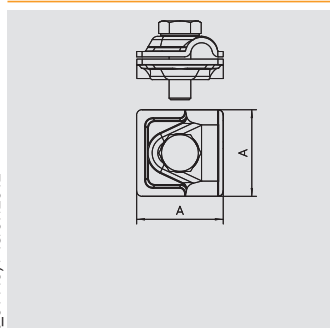
Vario quick connector, Vario quick connector, aluminium/stainless steel

Type	Fit	Dimension A	Material symbol	Pack.	Weight	Item No.
	mm	mm		pcs	kg/100 pcs.	
249 8-10 ALU	Rd 8-10	44	-	30	6.600	5311 51 9
249 8-10 VA	Rd 8-10	40	V2A	50	10.700	5311 55 1

V2A Stainless steel, grade 304 **Al** Aluminium

/100 pc.

- For T, cross and parallel connectors
- Quick installation using hexagonal bolt M10 x 30, high-grade stainless steel
- Conforms to the requirements according to DIN VDE 0185-305 (IEC 62305)



Vario quick connector

Type	Fit	Dimension A	Pack.	Weight	Item No.
	mm	mm	pcs	kg/100 pcs.	
249 8-10 ST	Rd 8-10	40	50	10.800	5311 50 0

St Steel **FT** Hot-dip galvanised

/100 pc.

- For T, cross and parallel connectors
- Quick installation using hexagonal bolt M10 x 30, high-grade stainless steel
- Conforms to the requirements according to DIN VDE 0185-305 (IEC 62305)



Earthing and equipotential bonding

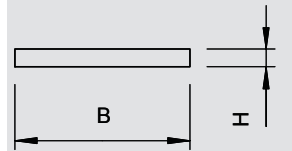
Stainless steel flat conductor



Type	Dimension b x h mm	Cross- section mm ²	Normal ring ca. m	Normal ring ca. kg	Weight kg/100 m	Item No.
5052 V2A 30X3.5	30 x 3.5	105	50	42	82.500	5018 50 1
5052 V4A 30X3.5	30 x 3.5	105	50	42	82.425	5018 70 6
5052 V4A 30X3.5	30 x 3.5	105	25	21	82.425	5018 73 0

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /100 m

- According to DIN EN 50164-2 (VDE 0185 part 202)
- Corresponds to the requirements of VDE 0185-305 (IEC 62305)
- According to the foundation earthing standard DIN 18014, V4A is required in the earth
- For use in areas at risk of corrosion
- For lightning protection, earthing systems and ring equipotential bonding



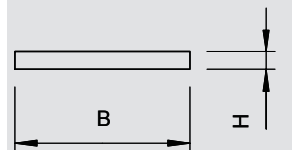
Galvanised steel flat conductor



Type	Dimension b x h mm	Cross- section mm ²	Normal ring ca. m	Normal ring ca. kg	Weight kg/100 m	Item No.
5052 DIN 20X2.5	20 x 2,5	50	122	50	41.000	5019 34 0
5052 DIN 25X3	25 x 3	75	84	50	59.700	5019 34 2
5052 DIN 30X3	30 x 3	90	71	50	70.650	5019 34 4
5052 DIN 30X3.5	30 x 3,5	105	60	50	84.000	5019 34 7
5052 DIN 30X3.5	30 x 3,5	105	30	25	84.000	5019 34 5
5052 DIN 30X4	30 x 4	120	52	50	97.000	5019 35 0
5052 DIN 40X4	40 x 4	160	40	50	128.000	5019 35 5
5052 DIN 40X5	40 x 5	200	30	50	162.000	5019 36 0

St Steel FT Hot-dip galvanised /100 m

- According to DIN EN 50164-2 (VDE 0185 part 202)
- Meets the requirements of VDE 0185-305 (IEC 62305)
- Zinc coating: 500 g/m² (approx. 70 µm)
- For lightning protection, earthing systems and ring equipotential bonding



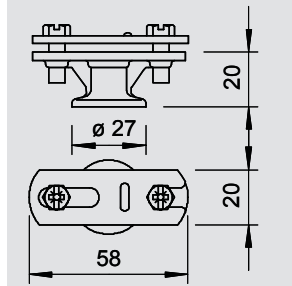
Wall mounting for flat conductors



Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
113 BZ-FL	100	6.280	5230 44 6
113 B-Z-HD-FL	100	7.000	5230 46 2

Zn Die-cast zinc G Electrogalvanised /100 pc.

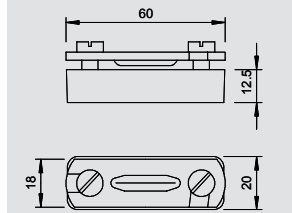
- With female thread M8 or through hole for wood screws
- For flat conductor FL 30
- Sliding over-piece for quick installation



Type	Fit	Dimension B	Pack.	Weight	Item No.
	mm	mm	pcs	kg/100 pcs.	
833 35	max. FL30	60	25	4.228	5033 03 9

St Steel FT Hot-dip galvanised /100 pc.

- Fit: FL 30
- With mounting hole 6.2 x 22 mm
- With 2 cylinder bolts M6 x 16 and over-piece from hot-dip galvanised steel
- Bottom section from polyamide, black



Equipotential bonding rail for outside installation

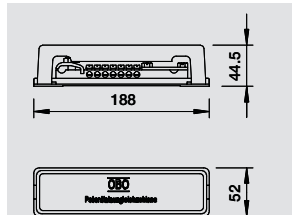


Type	Colour	Pack.	Weight	Item No.
		pcs	kg/100 pcs.	
1809 A	Black	1	23.000	5015 11 1

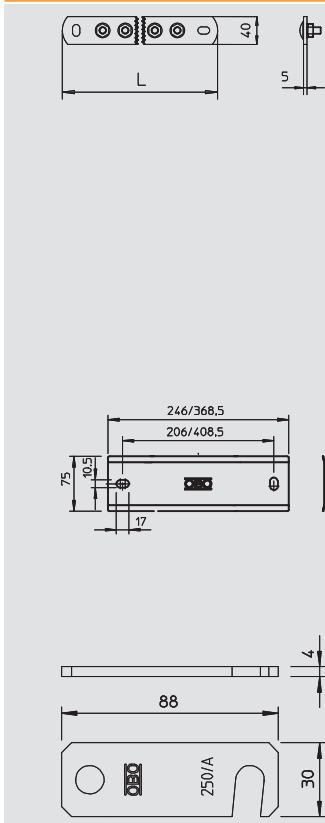
V2A Stainless steel, grade 304 /pc.

Connection options:

- 7 single or multi-core conductors to 25 mm² or fine-core conductors to 16 mm²
- 1 round conductor Rd 8-10
- 1 flat strip to FL30 or round conductor Rd 8-10
- Base plate and covering hood from polystyrene
- Colour: black, UV-resistant
- Screws and over-piece from VA
- Capable of carrying lightning current 100 kA (10/350)



Earthing and equipotential bonding



BigBar equipotential bonding bar



Type	Number of connections	Width mm	Length mm	Height mm	Pack. pcs	Weight kg/100 pcs.	Item No.
1802 10 VA	10	40	408.5	6	1	190.000	5015 86 6
1802 5 VA	5	40	246	6	1	90.000	5015 85 4

V2A Stainless steel, grade 304 /pc.

- Main potential equalisation to VDE 0100 part 410 and part 540, and also lightning protection potential equalisation to VDE 0185-305 (IEC 62305)
- Insulation feet
- Quick, simple assembly of connection conductors to the contact rail using lock bolts M10
- The high-grade stainless steel versions (V2A) are suitable for outdoor use
- Complete with anchors and bolts for wall mounting
- With lock washer (DIN 137) for bolt locking against loosening (e.g. required in industry and explosion-protected areas)

Type	Number of connections	Pack. pcs	Weight kg/100 pcs.	Item No.
1802 AH 5	5	1	25.800	5015 88 0
1802 AH 10	10	1	36.300	5015 88 4

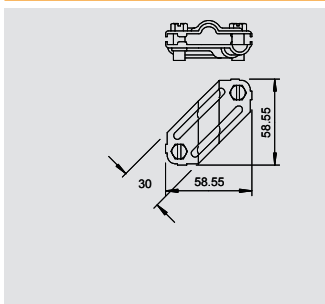
V2A Stainless steel, grade 304 /pc.

- Complete with all installation components

Type	Connection option	Pack. pcs	Weight kg/100 pcs.	Item No.
1802 KL	FL20-FL40	1	7.000	5015 89 0

V2A Stainless steel, grade 304 /pc.

- To clamp the flat conductors 30 x 3.5 and 40 x 5
- Suitable for equipotential bonding rail BigBar, type 1802



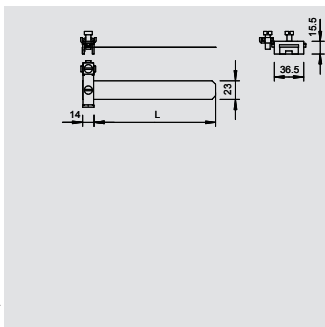
Cross-connectors, stainless steel



Type	Fit mm	Pack. pcs	Weight kg/100 pcs.	Item No.
250 VA	Rd 8-10/FL30	25	10.260	5312 92 2
250 V4A	Rd 8-10/FL30	25	10.260	5312 92 5

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti /100 pc.

- Fit: Rd 8-10 x Rd 8-10
- Fit: Rd 8-10 x FL 30
- Fit: FL 30 x FL 30
- Installed with 2 hexagonal bolts M8 x 20 (F)

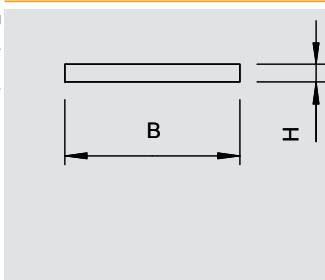


Strip earthing clip

Type	For pipe Ø inch	For pipe Ø mm	Pack. pcs	Weight kg/100 pcs.	Item No.
927 2	3/8-4	17.2-114	10	8.550	5057 52 3
927 1	3/8-11/2	17.2-48	10	7.780	5057 51 5
927 4	3/8-6	17.2-185	10	8.900	5057 55 8

V2A Stainless steel, grade 304 /100 pc.

- For pipes of Ø 3/8 - 6"
- Connection options: Max. 2 cables 2.5-25 mm²
- Round conductor Rd 8
- Clip element, bolts and tightening strap made of rustproof stainless steel (VA)



Plastic corrosion protection strip

Type	Width mm	Length m	Pack. pcs	Weight kg/100 pcs.	Item No.
356 50	50	10	1	71.500	2360 05 5
356 100	100	10	1	122.200	2360 10 1

Petrolatum /pc.

- Approx. 1.1 mm thick
- Width: 50 mm or 100 mm, made of petrolatum-coated chemical fibre fabric
- Can be processed cold



Surge protection in energy technology



Combination arrester/ MCD, 255 V for TN-S and TT networks

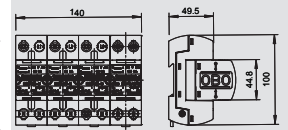
Type	Max.continuous operating voltage V	Version	Pack. pcs	Weight kg/100 pcs.	Item No.
MCD 50-B 3+1	255	3 + NPE	1	168.000	5096 87 9

/pc.

Combination arrester, type 1, according to DIN EN 61643-11(B according to VDE 0675 part 6). Completely pre-terminated and ready for connection, consisting of:
 MCD 50-B: Coordinated lightning current arrester, type 1 (Class B) to EN 61643-11 and MCD 125-B/NPE: Coordinated N-PE spark gap, type 1 (Class B) to EN 61643-11 for use in TN-S and TT systems. Interface 0 to 1 according to lightning protection zone concept according to IEC 61312-1 and VDE 0185-305 (IEC62305).

- Arresting capacity 50 kA 10/350 µs per pole (L-N)
- Arresting capacity 125 kA (10/350 µs) per pole (N-PE)
- Suitable for any TN or TT system
- Conforms to VDN Directive 2nd Edition 2004
- Protection level < 1.3 kV
- Line follow current quenching 25 kA Ipeak
- Incl. plug caps for identifying the connections
- Encapsulated, non-extinguishing spark gap

Application: Lightning protection equipotential bonding in buildings with external lightning protection of Class I to IV and in standard distributor housings.



Combination arrester/MCD, 255 V for TN-C networks

Type	Max.continuous operating voltage V	Version	Pack. pcs	Weight kg/100 pcs.	Item No.
MCD 50-B 3	255	3-pole	1	117.000	5096 87 7

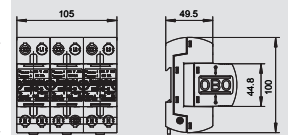
/pc.

Combination arrester, 3-pole, for use in TN-C networks.

Completely pre-terminated and ready for connection, consisting of:
 MCD 50-B: Type 1 (Class B) coordinated lightning current arrester to DIN EN 61643-11. For interface 0 to 2 (LPZ) in accordance with lightning protection zone concept to IEC 61312-1 and DIN VDE 0185-305.

- Arresting capacity 50 kA 10/350 µs per pole
- Conforms to VDN Directive 2nd Edition 2004
- Protection level < 1.3 kV
- Line follow current quenching 25 kA Ipeak
- Incl. plug caps for identifying the connections
- Encapsulated, non-extinguishing spark gap
- Can be used in standard distributor housings

Application example: Compact surge protection concepts and installations of requirement class B+C arrestors in a distributor without decoupling inductances and/or line lengths, e.g. direct on mobile radio system.



Lightning current and surge arrester / V50, 280 V, 3+NPE

Type	Max.continuous operating voltage V	Version	Pack. pcs	Weight kg/100 pcs.	Item No.
V50-B+C 3+NPE	280	3+NPE	1	55.000	5093 65 4

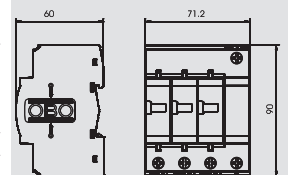
/pc.

Combination arrester set, lightning and surge arrester type 1+2 to DIN EN 61643-11 (B+C to VDE 0675 part 6).

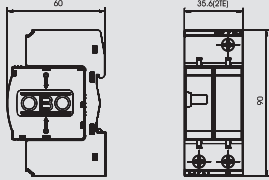
- For lightning protection equipotential bonding to VDE 0185-305 (IEC 62305)
- Lightning current arresting capacity 12.5 kA (10/350) per pole and 50 kA (10/350) in total
- Universally suitable for TN and TT systems
- With new MultiBase base with multi-connection terminals
- Complete unit, consisting of cover and base, pre-mounted and ready for connection
- Arrester, connectable with dynamic cut-off unit
- With visual function display
- Voltage protection level < 1,3 kV
- Encapsulated, non-extinguishing zinc oxide varistor arrester for use in distributor housings
- Labelled connections

Application: Equipotential bonding in buildings, even those with external lightning protection of class III and IV, and in standard distributor housings.

* Complete = cover and base



Lightning current and surge arrester / V50, 280 V, 1+NPE



Type	Max.continuous operating voltage V	Version	Pack. pcs	Weight kg/100 pcs.	Item No.
V50-B+C 1+NPE	280	1 + NPE	1	31.300	5093 65 3



/pc.

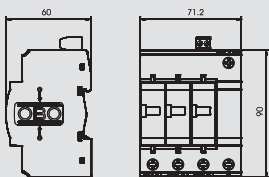
Combination arrester set, lightning and surge arrester type 1+2 to DIN EN 61643-11 (B+C to VDE 0675 part 6).

- For lightning protection equipotential bonding to VDE 0185-305 (IEC 62305)
- Lightning current arresting capacity 12.5 kA (10/350) per pole and 50 kA (10/350) in total
- Universally suitable for TN and TT systems
- With new MultiBase base with multi-connection terminals
- Complete unit, consisting of cover and base, pre-mounted and ready for connection
- Arrester, connectable with dynamic cut-off unit
- With visual function display
- Voltage protection level < 1,3 kV
- Encapsulated, non-extinguishing zinc oxide varistor arrester for use in distributor housings
- Labelled connections

Application: Equipotential bonding in buildings, even those with external lightning protection of class III and IV, and in standard distributor housings.

* Complete = cover and base

Lightning current and surge arrester / V50, 280 V, 3+NPE with remote signalling



Type	Max.continuous operating voltage V	Version	Pack. pcs	Weight kg/100 pcs.	Item No.
V50-B+C 3+NPE+FS	280	3+NPE with FS	1	55.000	5093 66 2



/pc.

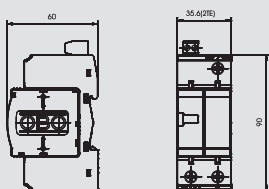
V 50-B+C/3+NPE+FS: combination arrester set, lightning and surge arrester type 1+2 to DIN EN 61643-11 (B+C to VDE 0675 part 6).

- For lightning current equipotential bonding to VDE 0185-305 (IEC 62305)
- Lightning current dissipation capacity 12.5 kA (10/350) per pole
- Universally suitable for TN and TT systems
- With new MultiBase base with multiple connection terminals
- Complete unit, consisting of cover and base, pre-mounted and ready for connection
- Arrester, connectable with dynamic cut-off unit
- With optical function display
- Voltage protection level < 1,3 kV
- Encapsulated, non-extinguishing zinc oxide varistor arrester for use in distributor housing
- Labelled connections
- -FS variant with remote signalling contact (potential-free NO contact)

Application: lightning protection equipotential bonding in buildings which also have external lightning protection of Classes III and IV and in standard distributor housings.

* Complete = cover and base

Lightning current and surge arrester / V50, 280 V, 1+NPE with remote signalling



Type	Max.continuous operating voltage V	Version	Pack. pcs	Weight kg/100 pcs.	Item No.
V50-B+C 1+NPE+FS	280	1+NPE with FS	1	26.100	5093 66 1



/pc.

V 50-B+C/3+NPE+FS: combination arrester set, lightning and surge arrester type 1+2 to DIN EN 61643-11 (B+C to VDE 0675 part 6).

- For lightning current equipotential bonding to VDE 0185-305 (IEC 62305)
- Lightning current dissipation capacity 12.5 kA (10/350) per pole
- Universally suitable for TN and TT systems
- With new MultiBase base with multiple connection terminals
- Complete unit, consisting of cover and base, pre-mounted and ready for connection
- Arrester, connectable with dynamic cut-off unit
- With optical function display
- Voltage protection level < 1,3 kV
- Encapsulated, non-extinguishing zinc oxide varistor arrester for use in distributor housing
- Labelled connections
- -FS variant with remote signalling contact (potential-free NO contact)

Application: lightning protection equipotential bonding in buildings which also have external lightning protection of Classes III and IV and in standard distributor housings.

* Complete = cover and base

Surge protection in energy technology



Surge arrester V20, 280 V, 3+NPE

Type	Max.continuous operating voltage V	Version	Pack. pcs	Weight kg/100 pcs.	Item No.
V20-C 3+NPE-280	280	3 + NPE	1	41.700	5094 65 6

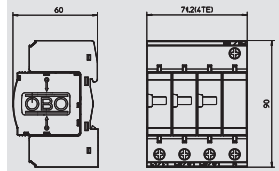
/pc.

V 20-C/...: Surge protection device type 2 (Class C) to VDE 0675 part 6-11 (DIN EN 61643-11).

- With new MultiBase base part and Multi-connection clamps
- Complete unit consisting of upper part and base, pre-mounted and ready for connection
- VDE-tested
- Suitable for TN- and TT network systems
- Plug-in upper part; upper part can be separated from base without tools
- Including thermal and dynamic separating device
- With visual display of defects
- High current conductivity and long service life
- Marked connections

Application example: residential buildings, single-family homes without outer lightning protection system.

* Complete = cover and base



Surge arrester V20, 280 V, 1+NPE

Type	Max.continuous operating voltage V	Version	Pack. pcs	Weight kg/100 pcs.	Item No.
V20-C 1+NPE-280	280	1+NPE	1	22.300	5094 65 0

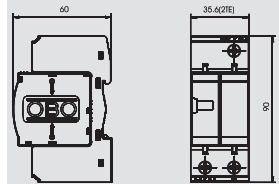
/pc.

V 20-C/...: Surge protection device type 2 (Class C) to VDE 0675 part 6-11 (DIN EN 61643-11).

- With new MultiBase base part and Multi-connection clamps
- Complete unit consisting of upper part and base, pre-mounted and ready for connection
- VDE-tested
- Suitable for TN- and TT network systems
- Plug-in upper part; upper part can be separated from base without tools
- Including thermal and dynamic separating device
- With visual display of defects
- High current conductivity and long service life
- Marked connections

Application example: residential buildings, single-family homes without outer lightning protection system.

* Complete = cover and base



Surge arrester / V20, 280 V, 3+NPE with remote signalling

Type	Max.continuous operating voltage V	Version	Pack. pcs	Weight kg/100 pcs.	Item No.
V20-C 3+NPE+FS	280	3 + NPE	1	43.300	5094 76 5

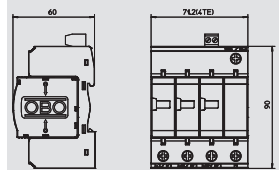
/pc.

V 20-C/...: Surge protection device type 2 Class C) to VDE 0675 part 6-11 (DIN EN 61643-11).

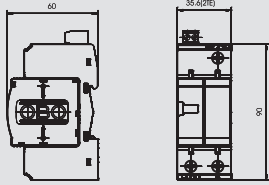
- With new MultiBase base part and Multi-connection clamps
- Complete unit consisting of upper part and base, pre-mounted and ready for connection
- VDE-tested
- Suitable for TN- and TT- network systems
- Plug-in upper part; upper part can be separated from base without tools
- With remote signalling, potential-free changeover contact, for function monitoring
- Including thermal and dynamic separating device
- With visual display of defects
- High current conductivity and long service life
- Marked connections

Application example: residential buildings, single-family homes

* Complete = cover and base



Surge arrester / V20, 280 V, 1+NPE with remote signalling



Type	Max.continuous operating voltage V	Version	Pack. pcs	Weight kg/100 pcs.	Item No.
V20-C 1+NPE+FS	280	1+NPE	1	22.500	5094 76 0

/pc.

V 20-C/...: Surge protection device type 2 Class C to VDE 0675 part 6-11 (DIN EN 61643-11).

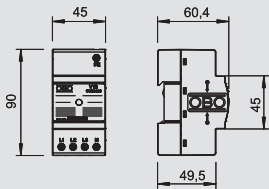
- With new MultiBase base part and Multi-connection clamps
- Complete unit consisting of upper part and base, pre-mounted and ready for connection
- VDE-tested
- Suitable for TN- and TT- network systems
- Plug-in upper part; upper part can be separated from base without tools
- With remote signalling, potential-free changeover contact, for function monitoring
- Including thermal and dynamic separating device
- With visual display of defects
- High current conductivity and long service life
- Marked connections

Application example: residential buildings, single-family homes

* Complete = cover and base



Surge arrester / V10 Compact, 255 V



Type	Max.continuous operating voltage V	Version	Pack. pcs	Weight kg/100 pcs.	Item No.
V10 COMPACT 255	255	3 + NPE	1	15.800	5093 38 0

/pc.

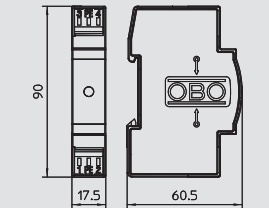
Surge arrester, type 2+3 to EN 61643-11 (Class C+D to VDE 0675 parts 6-11)

- Suitable for TN and TT network systems
- Integrated 3+1 solution
- Incl. thermal and dynamic cut-off unit
- With visual function display
- High current conductivity with long lifespan
- Labelled connections
- Separation unit only 45 mm

Application: Industrial, housing and protection of rotary current systems



Surge arrester / VF, 255 V



Type	Version	U max AC V	U max DC V	Pack. pcs	Weight kg/100 pcs.	Item No.
VF230-AC/DC	230 V version	255	350	1	8.000	5097 65 0

/pc.

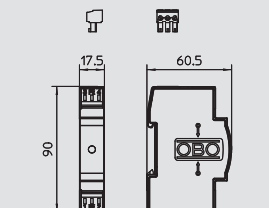
Surge protection device, fine protection type 3 to EN 61643-11 (Class D to VDE 0675, parts 6-11)

- Suitable for DC and AC voltage systems
- With visual function display
- With installation-friendly, screwless connection terminals
- In a space-saving 17.5 mm grid
- Y circuit

Application: Universal use on 35 mm hat profile rail in every normal commercially available distributor housings.



Surge arrester / VF, 255 V, with remote signalling



Type	U max AC V	U max DC V	Pack. pcs	Weight kg/100 pcs.	Item No.
VF230-AC-FS	255	-	1	6.910	5097 85 8

/pc.

Surge protection device, fine protection type 3 for distributor installation

- Suitable for DC and AC voltage systems
- With visual function display
- With installation-friendly, screwless connection clamps
- In a space-saving 17.5 mm grid
- Y connection

Application: Universal use on 35 mm U-rail in every normal commercially available distribution housing.



Surge protection in data and video technology and MCR systems



Surge protection for telecommunication systems

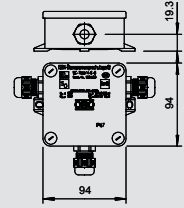
Type	Version	Connection system	Pack.	Weight	Item No.
			pcs	kg/100 pcs.	
SC-TELE 4-C-G	Combi protection	Terminal	1	30.000	5081 68 8

/pc.

Data cable protection device for telecommunication systems in insulated housing

- Suitable for any analogue, ISDN or DSL system
- Supports ADSL 2
- With two-level protective circuit
- Insulating housing to IP 54
- With screwless terminals for quick mounting
- For 2 DA systems (4 protected cores)

Application: For use at supply location on line, upstream of NT-S0 or splitter interface.



Surge protection for LSA-Plus systems

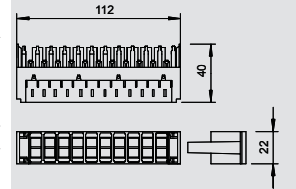
Type	Max.continuous operating voltage V	Pack.	Weight	Item No.
		pcs	kg/100 pcs.	
LSA-B-MAG	180	1	8.600	5084 02 0

/pc.

LSA-B-MAG: LSA basic protection magazine for use in multi-core data cable systems, MCR systems and telephone switchboards.

- Basic protection
- Fitted with 20 gas discharge protectors
- Max. voltage: 180 V

Application: Direct on LSA-Plus separation or connection bars



MCR protection for two-core systems

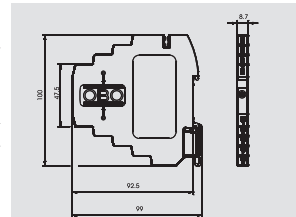
Type	Nominal voltage V	Maximum continuous voltage Vc/AC V	Maximum continuous voltage Vc/DC V	Pack.	Weight	Item No.
				pcs	kg/100 pcs.	
MDP-4 D-24-T	24	20	28	1	5.800	5098 43 1

/pc.

MDP.../D...T: Lightning barrier with test function

- Protection device for multi-wire systems
- Direct shield earthing
- With easy-to-mount screwless connection terminals
- Space-saving width of just 8.1 mm
- Protection circuit testable with Life Control
- High bandwidth to 100 MHz

Application: Use on 35 mm hat profile rail in any standard distribution housing.



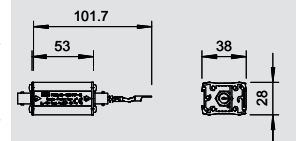
Surge protection for coaxial systems

Type	Version	Connection system	Pack.	Weight	Item No.
			pcs	kg/100 pcs.	
KOAX B-E2 MF-F	Fine protection	Coax connector	1	9.800	5082 42 0

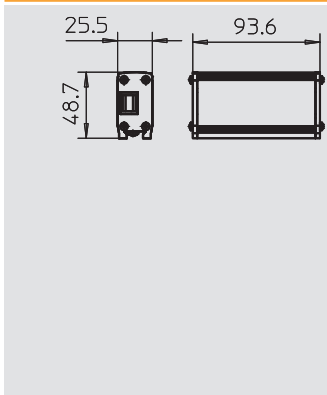
/pc.

Data line protection device for coaxial Ethernet network systems.

- In aluminium housing
- BNC connector for Cheapernet, 10BASE2
- Simple installation with adapter plug
- Two-stage protection circuit
- Suitable for the protection of video signals; cameras and/or TV systems



Surge protection in data and video technology and MCR systems



Surge protection for network technology



Type	Version	Connection system	Pack. pcs	Weight kg/100 pcs.	Item No.
ND-CAT6A/EA	8-pole	RJ45	1	16.600	5081 80 0

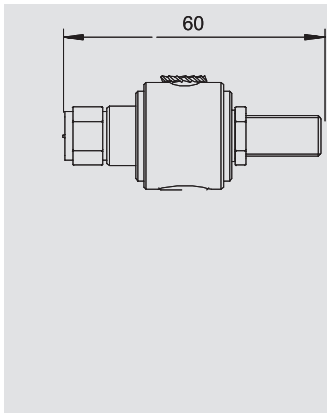


/pc.

Data cable protection devices for high-speed networks

- High-quality RJ-45 sockets
- Low protection level at high current load
- Support for Power over Ethernet + up to 1 A
- Tested transmission quality in networks up to 10 GBit (Class EA) or CAT6A
- Quick installation through connectable version

Application example: 10 GBit Ethernet, 10/100 MBit Ethernet, PoE applications



Coaxial protection device for F connection



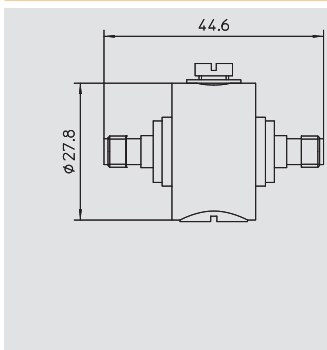
Type	Connection system	Pack. pcs	Weight kg/100 pcs.	Item No.
DS-F W/W	SAT-F	1	9.000	5093 27 2
DS-F M/W	SAT-F	1	9.000	5093 27 5



/pc.

Coaxial data cable protection devices

- Basic protection
- High pulsed current carrying capacity 2 x 2.5 kA (10/350 µs)
- Simple installation (adapter plug), m = plug/f = female connector
- Various plug combinations
- With F connector
- Optimised transmission behaviour
- Including OBO M25 Quick clip for simple installation



Coaxial protection device for SMA connection



Type	Connection system	Pack. pcs	Weight kg/100 pcs.	Item No.
DS-SMA W/W	—	1	7.500	5093 27 7



/pc.

Data cable protection devices for transmission and reception technology





- Different connection systems available
- Low protection level at high current load
- Low reflection behaviour
- Bandwidth-optimised for secure transmission
- Available in 50 Ω and 75 Ω technology

Application: BOS radio, SAT and TV systems, mobile radio





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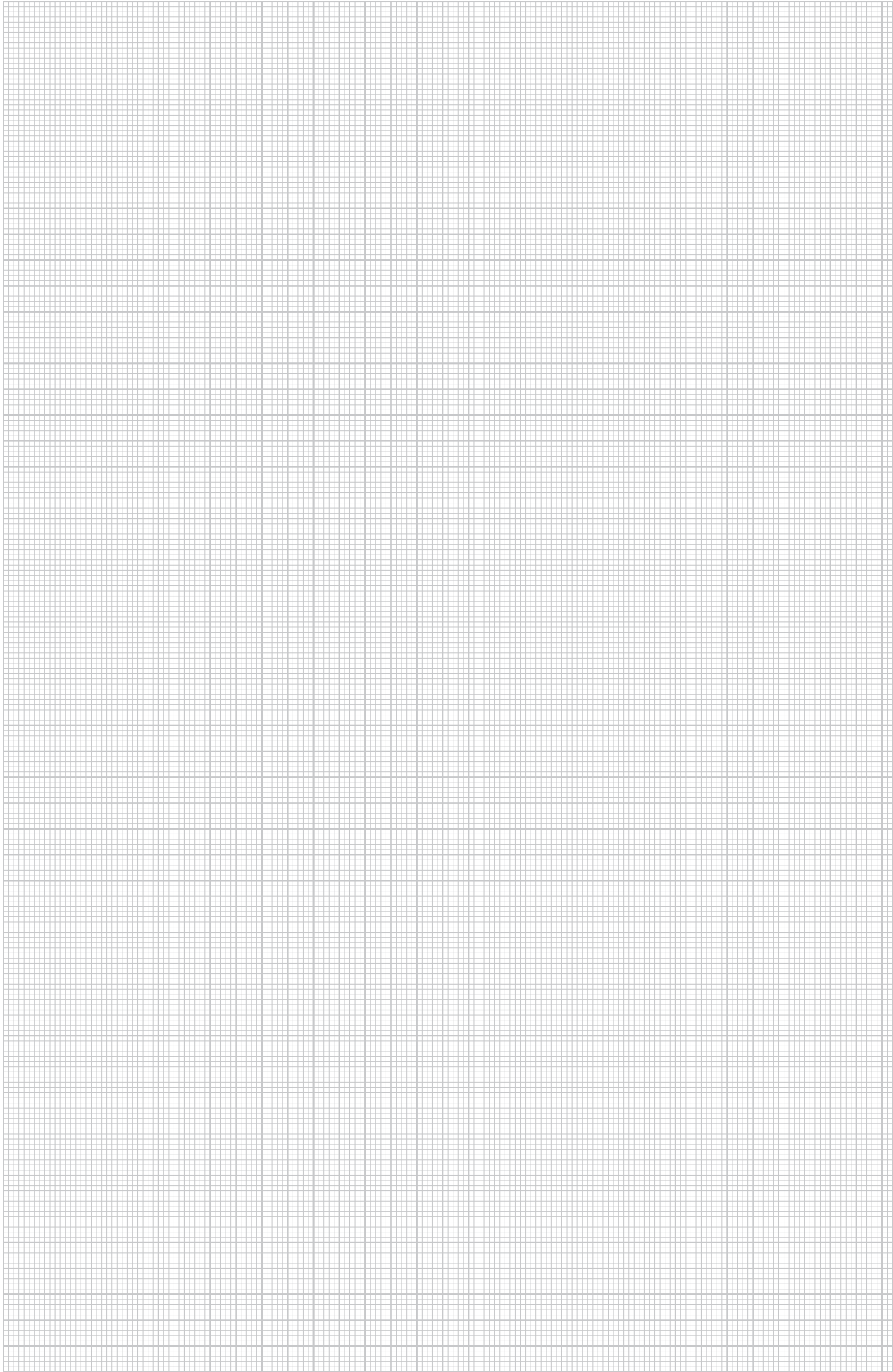
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524686	2007 27 1		103	546921	2047 97 7		86	529821	3400 10 7		125	580273	3498 55 4		69
524687	2007 28 7		103	546927	2047 98 5		86	590929	3400 17 3		81	580274	3498 58 6		69
528650	2007 33 9		102	546933	2047 99 3		86	590930	3400 17 5		81	590988	3498 60 1		69
528654	2007 34 7		102					561807	3400 17 7		81	590989	3498 60 3		69
528655	2007 35 5		102					590935	3400 18 3		82	580278	3498 65 9		69
544118	2007 43 4		102	580899	2086 01 8		124	590936	3400 18 5		82	569271	3498 82 4		69
544121	2007 43 6		102	580923	2086 02 4		124	590939	3400 18 7		82	568880	3498 83 5		69
568218	2007 44 0		102	580941	2086 03 0		124	590940	3400 18 9		82	590995	3498 83 7		69
530327	2007 63 8		102	580959	2086 03 6		124					569265	3498 85 9		69
530328	2007 64 4		102	580977	2086 04 2		124	530013	3402 09 6		135			/pc.	
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584060	2007 83 3		104	581007	2086 05 4		124	530037	3402 21 5		109	595942	5015 11 1		142
584064	2007 83 5		104					530043	3402 22 3		125	500227	5015 85 4		143
				547413	2091 60 7		124	530049	3402 30 4		82	500228	5015 86 6		143
594283	2016 18 5		104	593169	2091 61 5		124	590941	3402 30 6		82	503361	5015 88 0		143
589695	2016 19 0		104	593175	2091 62 3		124	590942	3402 30 8		83	503367	5015 88 4		143
				593181	2091 63 1		124	530055	3402 31 2		82	503373	5015 89 0		143
				593187	2091 65 8		124	590947	3402 31 4		82			/100 m	
503583	2029 67 2		124	547419	2091 66 6		124	590948	3402 31 6		83				
503589	2029 67 5		124	547479	2091 67 4		124	530061	3402 32 0		82	580041	5018 50 1		142
503595	2029 67 7		124					561808	3402 32 2		82	580047	50		

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Structure of the GTIN: Country code **40**

Manufacturer code **1219**

Individual GTIN **5647589**

GTIN	Art. no.	Price	Page	GTIN	Art. no.	Price	Page	GTIN	Art. no.	Price	Page	GTIN	Art. no.	Price	Page
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568048	5019 34 7		142	565059	6000 05 4		47	590346	6017 71 4		52	603205	6052 83 1		29
568049	5019 35 0		142	546770	6000 05 5		47	590347	6017 71 5		52	603217	6052 83 4		29
568050	5019 35 5		142	546773	6000 05 6		47					603223	6052 83 7		41
568051	5019 36 0		142	547072	6000 05 7		47	570600	6018 51 7		63	603229	6052 84 1		41
				547073	6000 05 9		47	561845	6018 52 0		63	603235	6052 84 4		41
538155	5021 08 1		140	536075	6000 08 7		47					605887	6052 87 8		29
538161	5021 10 3		140	536076	6000 08 9		47	601465	6019 58 7		59	605893	6052 89 4		29
568052	5021 23 5		140	536077	6000 09 0		47	601477	6019 66 8		58	605899	6052 90 8		29
568056	5021 23 9		140	536078	6000 09 1		47					605905	6052 93 2		42
538191	5021 28 6		140					588167	6041 08 0		28	605911	6052 95 9		42
590127	5021 29 4		140	543093	6001 07 0		47	588168	6041 08 2		38	605917	6052 97 5		42
538197	5021 30 8		140	610129	6001 07 2		47	588169	6041 08 4		28	567567	6052 98 0		29
568057	5021 64 4		140	610135	6001 07 4		47	588170	6041 08 6		28	586616	6052 98 1		29
568058	5021 64 7		140	610141	6001 07 6		47	588171	6041 08 8		38	695581	6052 98 3		29
				610177	6001 07 8		32	588172	6041 09 0		38	587088	6052 98 4		42
		/100 pc.		610219	6001 08 0		47	588173	6041 09 2		38	587089	6052 98 5		42
538443	5033 03 9		142	610225	6001 08 2		47	588174	6041 10 0		28	586619	6052 98 6		42
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538857	5057 51 5		143	516602	6001 09 0		47	588178	6041 10 8		38	502116	6052 99 4		29
538863	5057 52 3		143	516606	6001 09 1		47	588179	6041 11 0		38	502121	6052 99 5		41
538869	5057 55 8		143	516607	6001 09 3		32	588180	6041 11 2		38	502122	6052 99 6		41
				516608	6001 09 5		47	588195	6041 18 0		29	502124	6052 99 8		41
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568485	5082 42 0		148	514963	6002 45 7		47	587839	6041 19 2		39	612079	6056 74 4		36
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541791	531														

GTIN	Art. no.	Price	Page	GTIN	Art. no.	Price	Page	GTIN	Art. no.	Price	Page	GTIN	Art. no.	Price	Page
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588966	6068 98 4		29	581395	6175 56 6		94	581514	6176 09 2		95	612139	6312 80 2		55
588967	6068 98 6		29	581396	6175 57 0		95			/100 pc.	96	612145	6312 80 4		55
588968	6068 98 8		37	592278	6175 58 1		90	581786	6176 12 2		96	612151	6312 80 6		55
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588972	6068 99 2		37	581402	6175 59 4		92	581790	6176 12 8		96	678325	6312 81 0		55
				581403	6175 59 8		93	581791	6176 13 1		96	591036	6312 81 5		55
		/m		581404	6175 60 2		94					591037	6312 81 7		55
606907	6075 15 0		45	581405	6175 60 6		95					591038	6312 81 9		55
586621	6075 15 2		45	592284	6175 62 4		90			/m		591043	6312 82 1		55
606925	6075 30 4		45	581406	6175 62 6		91	506441	6208 70 0		58	591044	6312 82 3		55
586622	6075 30 6		45	581407	6175 63 0		92	506442	6208 70 3		58				
581114	6075 33 0		45	581408	6175 63 4		93	506443	6208 70 6		58				
586625	6075 33 2		45	581409	6175 63 8		94	506444	6208 70 9		58	566803	6338 45 8		62
581120	6075 35 5		45	581410	6175 64 2		95	506447	6208 71 2		58	566804	6338 46 2		65
586626	6075 35 7		45	592289	6175 65 8		90								
581126	6075 38 0		45	581411	6175 66 2		91	666679	6208 83 5		58				
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503736	6103 61 8		53	581458	6175 90 8		95					591067	6341 33 1		64
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581249	6175 42 0		94	581490	6175 97 6		93	503729	6311 20 6		53	635077	6341 39 4		64
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GTIN	Art. no.	Price	Page	GTIN	Art. no.	Price	Page	GTIN	Art. no.	Price	Page	GTIN	Art. no.	Price	Page
622543	6342 37 2	/pc.	134	604908	6404 00 6	/100 pc.	52	591132	6419 65 2	/pc.	67	588617	7007 16 5	/pc.	40
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570564	6342 37 9		62	607759	6406 13 8		35	591139	6419 65 9		67	592760	7027 04 3		40
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591288	6342 39 8		62	620047	6406 71 8		63	570605	6420 64 8		66	592774	7027 07 1		40
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570535	6342 40 1		62	620059	6406 75 0		68	570635	6420 65 2		66				
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570539	6342 40 9		62	620077	6406 81 5		68	620725	6420 71 0		134	609590	7070 36 9		41
570540	6342 41 1		62	620083	6406 82 3		68	620731	6420 74 5		134	609596	7070 37 3		41
570541	6342 41 3		62	620089	6406 86 6		68					609602	7070 38 1		41
570542	6342 41 5		62	682207	6406 87 0		68					502152	7070 39 0		41
570543	6342 41 7		62	643789	6406 87 2		68	620755	6421 00 8		66	502158	7070 39 2		41
591068	6342 42 2		62					620761	6421 02 4		66	502160	7070 39 4		41
591071	6342 42 4		62	592526	6407 52 4		63	620767	6421 03 2		66	502176	7070 39 6		41
591072	6342 42 6		62					506195	6421 03 6		66	502171	7070 39 8		41
591073	6342 42 8		62					506196	6421 04 0		66	502182	7070 40 0		41
591074	6342 43 1		62	562639	6408 51 7		68	506197	6421 04 4		66				
591079	6342 43 3		62									623083	7082 25 8		38
591080	6342 43 5		62	591096	6408 92 0		82	620893	6442 80 3		66	608011	7082 26 5		38
591083	6342 43 7		62	591097	6408 92 2		82	620905	6442 83 8		66				
591084	6342 43 9		62	591098	6408 93 0		82	620911	6442 85 4		66	623203	7084 01 3		30
591289	6342 44 1		62	591103	6408 93 2		82	620917	6442 87 0		66	623209	7084 04 8		30
591290	6342 44 3		62	591104	6408 94 0		82	620923	6442 89 7		66	623215	7084 06 4		30
570570	6342 45 5		62	591107	6408 94 2		82	620929	6442 91 9		66	623221	7084 08 0		41
570571	6342 45 7		62	607855	6408 96 6		82					623227	7084 10 2		41
570572	6342 46 0		62	607861	6408 97 0		82	644143	6443 06 3		67	623233	7084 12 9		41
570576	6342 46 3		62	591108	6408 97 2		82	644149	6443 06 7		67	586633	7084 14 1		30
570577	6342 46 6		62					661711	6443 07 1		67	586634	7084 14 3		30
570637	6342 46 8		62			/pc.		666109	6443 07 5		67	586635	7084 14 5		30
570578	6342 48 5		62	622927	6416 44 6		134	666115	6443 07 9		67	586636	7084 14 7		41
570582	6342 48 8		62	570604	6416 44 8		63	666187	6443 08 3		67	586637	7084 14 9		41
570583	6342 49 1		62	561848	6416 45 0		63	591152	6443 09 0		67	586638	7084 15 1		41
570584	6342 49 4		62	591109	6416 45 4		63	591155	6443 09 2		67				
570587	6342 49 7		62	681823	6416 46 2		65	591156	6443 09 4		67	516632	7085 13 3		44
561847	6342 50 5		62	591110	6416 46 6			591157	6443 09 6		67				
539535	6342 53 0		62	620275	6416 48 9		65	591158	6443 09 8		67	624205	7109 81 4		38
				501834	6416 50 7		65	634975	6443 31 1		66	624211	7109 83 0		38
570603	6348 88 4		63	501840	6416 51 1		65	655447	6443 34 6		66	624217	7109 85 7		38
539539	6348 88 5		63					502104	6443 61 5		66	624223	7109 87 3		38
501836	6348 92 5		65			/100 pc.		695587	6443 62 1		66	624229	7109 90 3		38
501845	6348 92 7		65	591115	6418 24 7		63	502109	6443 62 5		66	624235	7109 93 8		38
								502110	6443 62 7		66				
507972	6363 88 8		28	682213	6418 24 8		63	591163	6443 63 0		66	588660	7130 90 5		44
507973	6363 89 2		28	643747	6418 25 0		134	591164	6443 63 2		66	588630	7130 90 7		44
507974	6363 89 6		28					591167	6443 63 4		66	588632	7130 90 9		44
591291	6363 90 5		61	591116	6418 25 5		63	591168	6443 63 6		66	588636	7130 91 1		44
591085	6363 90 6		61					591169	6443 63 8		66	588638	7130 91 3		44
591292	6363 90 9		61	575904	6418 25 6		63	591170	6443 64 0		66	588641	7130 91 5		44
591086	6363 91 0		61									588646	7130 92 0		44
591293	6363 91 3		61	591119	6418 25 7		63	588657	7006 72 0		40	588649	7130 92 2		44
591091	6363 91 4		61			/pc.		588658	7006 72 4		40	588651	7130 92 4		44
591294	6363 94 0		61	591296	6418 55 7		67	588659	7006 72 8		40	588652	7130 92 6		44
591092	6363 94 1		61	591297	6418 57 3		67	588660	7006 73 2		40	588655	7130 92 8		44
591295	6363 94 8		61	591298	6418 60 1		67	588661	7006 73 6		40	588656	7130 93 0		44
591095	6363 94 9		61	591299	6418 62 2		67	588662	7006 74 0		40	588661	7130 95 2		44
592442	6363 99 5		28	591300	6418 63 8		67	588645	7006 75 0		40	588625	7130 95 4		44
592445	6363 99 7		28					588647	7006 75 4		40	588626	7130 95 6		44
592448	6363 99 9		28	591301	6419 51 9		67	588648	7006 75 8		40	588627	7130 95 8		44
				591302	6419 52 0		67	588650	7006 76 2		40	588628	7130 96 0		44
592443	6364 00 5		28	591303	6419 52 1		67	588653	7006 76 6		40	588629	7130 96 2		44
592446	6364 00 7		28	591304	6419 52 2		67	588654	7006 77 0		40	588631	7130 97 2		44
592451	6364 00 9		28	591305	6419 52 3		67					588635	7130 97 4		44
592444	6364 01 5		28	591120	6419 52 4		67	568855	7007 10 5		40	588637	7130 97 6		44
592447	6364 01 7		28	591121	6419 52 5		67	588618	7007 10 9		40	588642	7130 97 8		44
592452	6364 01 9		28	591122	6419 52 6		67	588619	7007 11 3		40	588643	7130 98 0		44
				591127	6419 52 7										

GTIN	Art. no.	Price	Page	GTIN	Art. no.	Price	Page	GTIN	Art. no.	Price	Page
592894	7138 43 0	/pc.	30	585014	7202 30 2	/pc.	108	688765	7215 40 0	/100 pc.	127
592895	7138 43 2		42	591892	7202 30 6		109	688777	7215 41 2		128
592896	7138 43 4		30	585018	7202 31 0		111			/pc.	
592897	7138 43 6		30	585019	7202 31 2		111	602555	7215 42 3		127
592898	7138 43 8		42	542827	7202 51 0		113	664597	7215 43 2		128
592899	7138 44 0		42	584791	7202 52 1		114	677905	7215 45 2		127
592900	7138 44 2		42	584786	7202 90 4		110	677911	7215 45 8		127
592901	7138 45 0		30	584787	7202 91 2		110	688821	7215 50 0		130
592902	7138 45 2		42					602592	7215 53 3		126
592903	7138 45 4		30	581749	7203 80 0		113	602604	7215 53 7		126
592904	7138 45 6		30					602616	7215 54 1		126
592905	7138 45 8		42	581750	7203 80 3		113	602628	7215 54 5		126
592906	7138 46 0		42					602640	7215 54 9		126
592907	7138 46 2		42	581753	7203 80 6		113	507793	7215 57 0		131
592926	7138 57 0		30	581754	7203 80 9		113	507794	7215 57 4		131
592927	7138 57 2		42	581755	7203 81 2		113	507797	7215 57 8		131
592928	7138 57 4		30	581756	7203 81 5		113	507798	7215 58 2		132
592929	7138 57 6		30					507799	7215 58 6		132
592930	7138 57 8		42	584783	7205 42 3		31	543049	7215 59 0		131
592931	7138 58 0		42	544825	7205 42 5		110	543050	7215 59 2		131
592932	7138 58 2		42	570380	7205 42 7		110	543053	7215 59 4		131
592933	7138 59 0		30	572569	7205 42 9		110	543054	7215 59 6		132
592934	7138 59 2		42	581168	7205 43 2		31	543055	7215 59 8		132
592935	7138 59 4		30	588375	7205 43 4		31	508424	7215 60 2		131
592936	7138 59 6		30	593014	7205 51 0		100	508427	7215 60 6		131
592937	7138 59 8		42	593015	7205 52 0		100	508428	7215 61 0		131
592938	7138 60 0		42	593016	7205 52 4		100	508429	7215 61 4		132
592939	7138 60 2		42	593017	7205 52 8		100	508430	7215 61 8		132
593072	7138 72 0		30					508433	7215 63 1		131
593075	7138 72 2		43	587529	7205 59 4		101	508434	7215 63 5		131
593076	7138 72 4		30	587530	7205 59 7		101	508435	7215 63 9		131
593077	7138 72 6		30	581082	7205 60 0		101	508436	7215 64 3		132
593078	7138 72 8		43	581083	7205 60 3		101	508439	7215 64 7		132
593079	7138 73 0		43	587531	7205 64 4		101				
593080	7138 73 2		43	587532	7205 64 7		101			/m	
593081	7138 74 0		30	581084	7205 65 0		101	591722	7216 30 0		118
593082	7138 74 2		43	581088	7205 65 3		101			/pc.	
593083	7138 74 4		30					591724	7216 31 0		118
593084	7138 74 6		30					592561	7216 31 2		118
593085	7138 74 8		43	585008	7206 05 8		108	591725	7216 31 5		118
593086	7138 75 0		43	585007	7206 10 4		108	591727	7216 32 0		118
593087	7138 75 2		43	626413	7206 20 8		110	591726	7216 32 5		119
593107	7138 86 0		43					591728	7216 33 0		119
593108	7138 86 2		43					591729	7216 33 5		119
593111	7138 86 4		43	602483	7215 15 0		126	591730	7216 34 0		119
593112	7138 86 6		43	602495	7215 15 4		126	591731	7216 34 5		119
593113	7138 86 8		43	602507	7215 15 8		126	591732	7216 35 0		119
593114	7138 87 0		43	602519	7215 16 2		126	591733	7216 35 5		119
593115	7138 87 2		43	602531	7215 16 6		126	591734	7216 36 0		120
593116	7138 88 0		43	507780	7215 17 3		131	591738	7216 37 0		120
593117	7138 88 2		43	507781	7215 17 7		131	591739	7216 37 2		120
593118	7138 88 4		43	507782	7215 18 1		131	591740	7216 38 0		120
593119	7138 88 6		43	507785	7215 18 5		131	591743	7216 38 5		120
593120	7138 88 8		43	507786	7215 18 9		131			/m	
593123	7138 89 0		43	664579	7215 21 0		128	591723	7216 40 0		121
593124	7138 89 2		43	664585	7215 21 6		128			/pc.	
				688747	7215 22 2		128	591744	7216 41 0		121
593141	7139 02 0		43	688753	7215 22 8		128	592562	7216 41 2		121
593142	7139 02 2		43	688759	7215 23 4		128	591745	7216 41 5		121
593143	7139 02 4		43					591746	7216 42 0		121
593144	7139 02 6		43	543036	7215 25 0		126	591749	7216 42 5		122
593145	7139 02 8		43	543038	7215 25 2		126	591754	7216 43 0		122
593146	7139 03 0		43	543039	7215 25 4		126	591755	7216 43 5		122
593147	7139 03 2		43	543040	7215 25 6		126	591756	7216 44 0		122
593148	7139 04 0		43	543041	7215 25 8		126	591757	7216 44 5		122
593149	7139 04 2		43	543042	7215 27 0		128	591758	7216 45 0		122
593150	7139 04 4		43	543043	7215 27 2		128	591762	7216 45 5		122
593151	7139 04 6		43	543044	7215 27 4		128	591763	7216 46 0		123
593152	7139 04 8		43	543047	7215 27 6		128	591764	7216 47 0		123
593153	7139 05 0		43	543048	7215 27 8		128	591765	7216 47 2		123
593154	7139 05 2		43					591766	7216 47 4		123
				689611	7215 31 2		129	591767	7216 48 0		123
				689617	7215 31 8		129	591768	7216 48 5		123
585655	7202 20 0		108	689623	7215 32 4		129				
585656	7202 20 1		108	689629	7215 33 0		129				
585659	7202 20 3		108	689635	7215 35 6		129				
585660	7202 20 4		108	689641	7215 36 2		129				
585661	7202 20 5		108	689647	7215 36 8		129				
585662	7202 20 6		108	689653	7215 37 4		129				
585666	7202 20 7		108								
585667	7202 20 8		108	507787	7215 38 1		133			/pc.	
585668	7202 20 9		109	507788	7215 38 5		133				
585671	7202 21 0		109	507791	7215 38 9		133				
584785	7202 28 3		110	507792	7215 39 5		135				
585012	7202 29 5		111								
585013	7202 30 0		108								

Type listing

Structure of the GTIN: Country code **40**

Manufacturer code **1219**

Individual GTIN **5647589**

Type	Dimensions/colour/div.	GTIN	Art. no.	Price	Page	Type	Dimensions/colour/div.	GTIN	Art. no.	Price	Page
101 VL1500	1500/ Al	5105619	5401 98 0	/100 pc.	140	604 25 G	251000/ St / G	5566892	1003 25 9	/100 pc.	129
101 VL2000	2000/ Al	5107774	5401 98 3		140	604 28 G	281000/ St / G	5001751	1003 28 3		129
101 VL2500	2500/ Al	5108672	5401 98 6		140	604 3 G	312000/ St / G	5000792	1003 03 8		129
101 VL3000	3000/ Al	5108733	5401 98 9		140	604 32 G	32800/ St / G	5566953	1003 32 1		129
101 VL3500	3500/ Al	5045359	5401 99 3		140	604 35 G	35800/ St / G	5001812	1003 35 6		129
101 VL4000	4000/ Al	5050803	5401 99 5		140	604 37 G	37800/ St / G	5001874	1003 37 2		129
						604 4 G	412000/ St / G	5000853	1003 04 6		129
						604 40 G	401200/ St / G	5001935	1003 40 2		129
107 C VM 20 2x4	M204/ NBR-SBR	5035831	2029 67 2		124	604 47 G	47500/ St / G	5002055	1003 46 1		129
107 C VM 20 2x6	M206/ NBR-SBR	5035954	2029 67 7		124	604 5 G	55000/ St / G	5000914	1003 05 4		129
107 C VM 20 4x5	M205/ NBR-SBR	5035893	2029 67 5		124	604 6 G	65000/ St / G	5000976	1003 06 2		129
107 C VM 25 2x6	M256/ NBR-SBR	5036135	2029 68 5		124	604 7 G	75000/ St / G	5001034	1003 07 0		129
107 C VM 25 2x8	M258/ NBR-SBR	5036258	2029 69 0		124	604 8 G	85000/ St / G	5001096	1003 08 9		129
107 C VM 25 3x6	M256/ NBR-SBR	5036074	2029 68 2		124	604 9 G	95000/ St / G	5001157	1003 09 7		129
107 C VM 25 3x7	M257/ NBR-SBR	5036197	2029 68 8		124						
107 C VM 25 5x4	M254/ NBR-SBR	5036012	2029 67 9		124	605 10 V4A	10 4,5 x 6/ V4A	5911982	1018 64 9		87
107 C VM 32 2x8	M328/ NBR-SBR	5036319	2029 69 3		124	605 11 V4A	11 4,5 x 6/ V4A	5911999	1018 65 1		87
107 C VM 32 4x8	M328/ NBR-SBR	5036371	2029 69 6		124	605 12 V4A	12 4,5 x 6/ V4A	5912002	1018 65 3		87
						605 13 V4A	13 4,5 x 6/ V4A	5912033	1018 65 5		87
						605 14 V4A	14 4,5 x 6/ V4A	5912040	1018 65 7		87
113 BZ-FL	/ Zn / G	5739999	5230 44 6		142	605 15 V4A	15 4,5 x 6/ V4A	5912057	1018 65 9		87
113 B-Z-HD-FL	/ Zn / G	5740056	5230 46 2		142	605 16 V4A	16 4,5 x 6/ V4A	5912064	1018 66 1		87
						605 17 V4A	17 4,5 x 6/ V4A	5912071	1018 66 3		87
						605 18 V4A	18 4,5 x 6/ V4A	5912088	1018 66 5		87
116 M20 OR PA	M20 x 1,526/ PA	5875314	7205 64 4		101	605 19 V4A	19 4,5 x 6/ V4A	5912095	1018 66 7		87
116 M25 OR PA	M25 x 1,532/ PA	5875321	7205 64 7		101	605 20 V4A	20 4,5 x 6/ V4A	5912101	1018 66 9		87
116 M32 OR PA	M32 x 1,541/ PA	5810841	7205 65 0		101	605 21 V4A	21 4,5 x 6/ V4A	5912118	1018 67 1		87
116 M40 OR PA	M40 x 1,550/ PA	5810889	7205 65 3		101	605 23 V4A	23 4,5 x 6/ V4A	5912125	1018 67 5		87
						605 25 V4A	25 4,5 x 6/ V4A	5912132	1018 67 9		87
						605 26 V4A	26 4,5 x 6/ V4A	5912149	1018 68 1		87
129 M16	M16 Light grey/ PE	5490753	2047 81 0		86	605 28 V4A	28 4,5 x 6/ V4A	5912156	1018 68 5		87
129 M16 SW	M16 Black/ PE	5468851	2047 93 4		86	605 30 V4A	30 4,5 x 6/ V4A	5912163	1018 68 9		87
129 M20	M20 Light grey/ PE	5490692	2047 82 9		86	605 32 V4A	32 4,5 x 6/ V4A	5912170	1018 69 3		87
129 M20 SW	M20 Black/ PE	5468912	2047 94 2		86	605 35 V4A	35 5,5 x 7/ V4A	5912187	1018 69 7		87
129 M25	M25 Light grey/ PE	5490630	2047 83 7		86	605 37 V4A	37 5,5 x 7/ V4A	5912224	1018 70 1		87
129 M25 SW	M25 Black/ PE	5468974	2047 95 0		86	605 40 V4A	40 5,5 x 7/ V4A	5912231	1018 70 5		87
129 M32	M32 Light grey/ PE	5487692	2047 85 3		86	605 43 V4A	43 5,5 x 7/ V4A	5912248	1018 70 9		87
129 M32 SW	M32 Black/ PE	5469155	2047 96 9		86	605 47 V4A	47 5,5 x 7/ V4A	5906469	1018 71 3		87
129 M40	M40 Light grey/ PE	5037699	2047 86 1		86	605 50 V4A	50 5,5 x 7/ V4A	5906476	1018 71 7		87
129 M40 SW	M40 Black/ PE	5469216	2047 97 7		86	605 55 V4A	55 5,5 x 7/ V4A	5906483	1018 72 1		87
129 M50	M50 Light grey/ PE	5037637	2047 88 8		86	605 60 V4A	60 5,5 x 7/ V4A	5906490	1018 72 5		87
129 M50 SW	M50 Black/ PE	5469278	2047 98 5		86	605 63 V4A	63 5,5 x 7/ V4A	5906506	1018 72 9		87
129 M63	M63 Light grey/ PE	5037576	2047 89 6		86	605 7 V4A	7 4,5 x 6/ V4A	5905691	1018 64 3		87
129 M63 SW	M63 Black/ PE	5469339	2047 99 3		86	605 8 V4A	8 4,5 x 6/ V4A	5911937	1018 64 5		87
						605 9 V4A	9 4,5 x 6/ V4A	5911944	1018 64 7		87
				/pc.		732 10 V4A	9-10 M6/ V4A	5912392	1360 64 8		88
165 MBG UH	Black/ PP	5674580	5218 88 2	/100 pc.	141	732 12 V4A	10,5-12 M6/ V4A	5912408	1360 65 0		88
						732 14 V4A	12,5-14 M6/ V4A	5912415	1360 65 2		88
165 MBG-10	/ PA/PE	5408734	5218 67 5		141	732 15 V4A	13,5-15 M6/ V4A	5912422	1360 65 4		88
165 MBG-8	/ PA/PE	5408857	5218 69 1		141	732 16 V4A	14,5-16 M6/ V4A	5912439	1360 65 6		88
						732 18 V4A	16,5-18 M6/ V4A	5912446	1360 65 8		88
						732 20 V4A	18,5-20 M6/ V4A	5912453	1360 66 0		88
169 MS M12	M12 x 1,52600/ CuZn / N	5474135	2091 60 7		124	732 22 V4A	20-22 M6/ V4A	5912460	1360 66 2		88
169 MS M16	M16 x 1,54800/ CuZn / N	5931690	2091 61 5		124	732 24 V4A	22-24 M6/ V4A	5912477	1360 66 4		88
169 MS M20	M20 x 1,53200/ CuZn / N	5931751	2091 62 3		124	732 26 V4A	24-26 M6/ V4A	5912484	1360 66 6		88
169 MS M25	M25 x 1,51800/ CuZn / N	5931812	2091 63 1		124	732 28 V4A	26-28 M6/ V4A	5912491	1360 66 8		88
169 MS M32	M32 x 1,51200/ CuZn / N	5931874	2091 65 8		124	732 30 V4A	28-30 M6/ V4A	5912507	1360 67 0		88
169 MS M40	M40 x 1,5600/ CuZn / N	5474197	2091 66 6		124	732 33 V4A	31-33 M6/ V4A	5912514	1360 67 2		88
169 MS M50	M50 x 1,5500/ CuZn / N	5474791	2091 67 4		124	732 35 V4A	33-35 M6/ V4A	5912521	1360 67 4		88
						732 38 V4A	36-38 M6/ V4A	5912538	1360 67 6		88
						732 40 V4A	38-40 M6/ V4A	5912545	1360 67 8		88
177 20 VA M6	/ V2A	5404774	5207 33 9		141	732 42 V4A	40-42 M6/ V4A	5912583	1360 68 0		88
						732 45 V4A	43-45 M6/ V4A	5912590	1360 68 2		88
249 8-10 ALU	44/ Al	5417736	5311 51 9		141	732 48 V4A	46-48 M6/ V4A	5912606	1360 68 4		88
249 8-10 ST	40/ St / FT	5417675	5311 50 0		141	732 50 V4A	48-50 M6/ V4A	5912637	1360 68 6		88
249 8-10 VA	40/ V2A	5417910	5311 55 1		141	732 6 V4A	5-6 M6/ V4A	5912378	1360 64 4		88
						732 60 V4A	58-60 M6/ V4A	5912644	1360 68 8		88
250 V4A	/ V4A	5700876	5312 92 5		143	732 63 V4A	61-63 M6/ V4A	5912651	1360 69 0		88
250 VA	/ V2A	5418757	5312 92 2		143	732 8 V4A	7-8 M6/ V4A	5912385	1360 64 6		88
				/pc.		733 13 V4A	11-13 6,5 x 10/ V4A	5912668	1361 64 3		35
356 100	10010	5230595	2360 10 1		143	733 13 V4A	11-13 6,5 x 10/ V4A	5912668	1361 64 3		35
356 50	5010	5230533	2360 05 5		143	733 16 V4A	14-16 6,5 x 10/ V4A	5912705	1361 64 7		35
						733 16 V4A	14-16 6,5 x 10/ V4A	5912705	1361 64 7		35
						733 16 VA	14-16 6,5 x 10/ V2A	5116714	1362 01 1		35
						733 16 VA	14-16 6,5 x 10/ V2A	5116714	1362 01 1		88
604 10 G	104800/ St / G	5001218	1003 10 0	/100 pc.	129	733 19 V4A	17-19 6,5 x 10/ V4A	5912712	1361 65 1		35
604 11 G	114800/ St / G	5001270	1003 11 9		129	733 19 V4A	17-19 6,5 x 10/ V4A	5912712	1361 65 1		35
604 12 G	125000/ St / G	5001331	1003 12 7		129	733 19 VA	17-19 6,5 x 10/ V2A	5116776	1362 03 8		35
604 13 G	135000/ St / G	5001393	1003 13 5		129	733 19 VA	17-19 6,5 x 10/ V2A	5116776	1362 03 8		88
604 16 G	163900/ St / G	5001454	1003 17 8		129	733 21 V4A	19-21 6,5 x 10/ V4A	5912729	1361 65 5		35
604 19 G	191800/ St / G	5001515	1003 19 4		129	733 21 V4A	19-21 6,5 x 10/ V4A	5912729	1361 65 5		35
604 20 G	201800/ St / G	5001577	1003 20 8		129	733 21 VA	19-21 6,5 x 10/ V2A	5116837	1362 04 6		35
604 21 G	213000/ St / G	5001638	1003 21 6		129	733 21 VA	19-21 6,5 x 10/ V2A	5116837	1362 04 6		88
604 23 G	232400/ St / G	5001690	1003 23 2		129	733 23 V4A	21-23 6,5 x 10/ V4A	5912750	1361 65 9		35

Type	Dimensions/colour/div.	GTIN	Art. no.	Price	Page	Type	Dimensions/colour/div.	GTIN	Art. no.	Price	Page
				/100 pc.						/100 pc.	
733 23 V4A	21-23 6,5 x 10/ V4A	5912750	1361 65 9		35	964 M8 G20 V4A	M88,4/ V4A	5944409	3403 12 7		83
733 23 VA	21-23 6,5 x 10/ V2A	5116899	1362 05 4		35	964 M8 G25 V2A	M88,4/ V2A	5944386	3403 13 5		83
733 23 VA	21-23 6,5 x 10/ V2A	5116899	1362 05 4		88	964 M8 G25 V4A	M88,4/ V4A	5944447	3403 13 7		83
733 29 V4A	24-29 6,5 x 10/ V4A	5912767	1361 66 3			964 M8 G40 V2A	M88,5/ V2A	5946250	3403 14 5		83
733 29 V4A	24-29 6,5 x 10/ V4A	5912767	1361 66 3		35	964 M8 G40 V4A	M88,4/ V4A	5946267	3403 14 7		83
733 29 VA	24-29 6,5 x 10/ V2A	5116950	1362 06 2		35						
733 29 VA	24-29 6,5 x 10/ V2A	5116950	1362 06 2		88	966 M10 G	M10 10,5/ ST / G	5300137	3402 09 6		135
733 38 V4A	30-38 6,5 x 10/ V4A	5912774	1361 66 7			966 M10 V4A	M10 10,5/ V4A	5618089	3402 32 2		82
733 38 V4A	30-38 6,5 x 10/ V4A	5912774	1361 66 7		35	966 M10 V5A	M10 10,5/ V5A	5909514	3402 32 4		83
733 38 VA	30-38 6,5 x 10/ V2A	5117018	1362 07 0		35	966 M10 VA	M10 10,5/ V2A	5300618	3402 32 0		82
733 38 VA	30-38 6,5 x 10/ V2A	5117018	1362 07 0		88	966 M12 V4A	M12 13/ V4A	5894780	3402 34 5		82
733 48 V4A	39-48 6,5 x 10/ V4A	5912781	1361 67 1			966 M12 V5A	M12 13/ V5A	5909521	3402 34 7		83
733 48 V4A	39-48 6,5 x 10/ V4A	5912781	1361 67 1		35	966 M12 VA	M12 13/ V2A	5300670	3402 33 9		82
733 48 VA	39-48 6,5 x 10/ V2A	5117070	1362 08 9		35	966 M6 V4A	M6,6,4/ V4A	5909415	3402 30 6		82
733 48 VA	39-48 6,5 x 10/ V2A	5117070	1362 08 9		88	966 M6 V5A	M6,6,4/ V5A	5909422	3402 30 8		83
733 54 V4A	48-54 6,5 x 10/ V4A	5912828	1361 67 5			966 M6 VA	M6,6,4/ V2A	5300496	3402 30 4		82
733 54 V4A	48-54 6,5 x 10/ V4A	5912828	1361 67 5		35	966 M8 V4A	M88,4/ V4A	5909477	3402 31 4		82
733 54 VA	48-54 6,5 x 14/ V2A	5117131	1362 09 7		35	966 M8 V5A	M88,4/ V5A	5909484	3402 31 6		83
733 54 VA	48-54 6,5 x 14/ V2A	5117131	1362 09 7		88	966 M8 VA	M88,4/ V2A	5300557	3402 31 2		82
733 61 V4A	53-61 6,5 x 10/ V4A	5912835	1361 67 9		35	967 M10 G	M10 11/ St / G	5300434	3402 22 3		125
733 61 VA	53-61 6,5 x 14/ V2A	5117193	1362 10 0		35	967 M6 G	M66,5/ St / G	5300311	3402 20 7		109
733 61 VA	53-61 6,5 x 14/ V2A	5117193	1362 10 0		88	967 M6 G	M66,5/ St / G	5300311	3402 20 7		112
733 63 V4A	63-63 6,5 x 10/ V4A	5912842	1361 68 3			967 M8 G	M88,5/ St / G	5300373	3402 21 5		109
733 63 V4A	63-63 6,5 x 10/ V4A	5912842	1361 68 3		35	967 M8 G	M88,5/ St / G	5300373	3402 21 5		112
733 63 VA	63-63 8 x 18/ V2A	5117254	1362 12 7		35						
733 63 VA	63-63 8 x 18/ V2A	5117254	1362 12 7		88						
822 10 V4A	10/ V4A	5911753	1013 86 5		87	1268 L 1M VA	35 x 18/ V2A	5627074	1104 49 8	/100 m	34
822 12 V4A	12 M12/ V4A	5911760	1013 86 9		87	1268 L 2M VA	35 x 18/ V2A	5627081	1104 50 1		34
822 14 V4A	14/ V4A	5911807	1013 87 3		87						
822 16 V4A	15,2 M16/ V4A	5911814	1013 87 7		87					/pc.	
822 18 V4A	18,6 PG11/ V4A	5911821	1013 88 1		87	1802 10 VA	40/ V2A	5002284	5015 86 6		143
822 20 V4A	20 M20/ V4A	5911838	1013 88 5		87	1802 5 VA	40/ V2A	5002277	5015 85 4		143
822 22.5 V4A	22,5 PG16/ V4A	5911845	1013 88 9		87	1802 AH 10	/ V2A	5033677	5015 88 4		143
822 25 V4A	25 M25/ V4A	5911852	1013 89 3		87	1802 AH 5	/ V2A	5033615	5015 88 0		143
822 28.3 V4A	28,3 PG21/ V4A	5911869	1013 89 7		87	1802 KL	/ V2A	5033738	5015 89 0		143
822 32 V4A	32 M32/ V4A	5911876	1013 90 3		87						
822 37 V4A	37 PG29/ V4A	5911883	1013 90 7		87	1809 A	Black/ V2A	5959427	5015 11 1		142
822 40 V4A	40 M40/ V4A	5911890	1013 91 1		87						
822 47 V4A	47 PG36/ V4A	5911906	1013 91 7		87					/100 pc.	
822 50 V4A	50 M50/ V4A	5911913	1013 92 1		87	2031 M 15 V4A	1550/ V4A	5809456	2207 13 2		89
822 6 V4A	6/ V4A	5911746	1013 86 1		87	2031 M 15 VA	1550/ V2A	5809395	2207 08 0		89
822 63 V4A	63 M63/ V4A	5911920	1013 92 5		87	2031 M 30 V4A	3025/ V4A	5809463	2207 14 0		89
						2031 M 30 VA	3025/ V2A	5809401	2207 08 8		89
833 35	60/ St / FT	5384434	5033 03 9		142	2031 M 70 V4A	7010/ V4A	5809470	2207 16 4		89
						2031 M 70 VA	7010/ V2A	5809449	2207 11 2		89
927 1	/ V2A	5388579	5057 51 5		143						
927 2	/ V2A	5388630	5057 52 3		143	2056 12 VA	8-12 23/ V2A	5063612	1159 51 8		59
927 4	/ V2A	5388692	5057 55 8			2056 16 VA	12-16 23/ V2A	5063674	1159 52 6		59
						2056 22 VA	16-22 23/ V2A	5063735	1159 53 4		59
						2056 28 VA	22-28 23/ V2A	5063797	1159 54 2		59
933 M10x20 V4A	M10 x 2020/ V4A	5940548	3156 03 1		81	2056 34 VA	28-34 23/ V2A	5063858	1159 55 0		59
933 M10x20 V5A	M10 x 2020/ V5A	5940814	3156 06 1		81	2056 40 VA	34-40 23/ V2A	5063919	1159 56 9		59
933 M10x30 V4A	M10 x 3030/ V4A	5940555	3156 03 2		81	2056 46 VA	40-46 23/ V2A	5063971	1159 57 7		59
933 M10x30 V5A	M10 x 3030/ V5A	5940821	3156 06 2		81	2056 52 VA	46-52 23/ V2A	5064039	1159 58 5		59
933 M10x40 V4A	M10 x 4040/ V4A	5940562	3156 03 3		81	2056 58 VA	52-58 23/ V2A	5064091	1159 59 3		59
933 M10x40 V5A	M10 x 4040/ V5A	5940838	3156 06 3		81	2056 64 VA	58-64 23/ V2A	5064152	1159 60 7		59
933 M12x30 V4A	M12 x 3030/ V4A	5940623	3156 03 6		81	2056 70 VA	64-70 25/ V2A	5064213	1159 61 5		59
933 M12x30 V5A	M12 x 3030/ V5A	5940869	3156 06 6		81	2056 76 VA	70-76 25/ V2A	5064275	1159 62 3		59
933 M12x40 V4A	M12 x 4040/ V4A	5891994	3156 02 9		81	2056 M 12 VA	8-12 23/ V2A	5668190	1159 71 2		34
933 M12x40 V5A	M12 x 4040/ V5A	5940876	3156 06 7		81	2056 M 12 VA	8-12 23/ V2A	5668190	1159 71 2		59
933 M12x50 V4A	M12 x 5050/ V4A	5940661	3156 03 7		81	2056 M 16 VA	12-16 23/ V2A	5668206	1159 71 6		34
933 M12x50 V5A	M12 x 5050/ V5A	5940883	3156 06 8		81	2056 M 16 VA	12-16 23/ V2A	5668206	1159 71 6		59
933 M6x16 V4A	M6 x 1616/ V4A	5940371	3156 01 6		81	2056 M 22 VA	16-22 23/ V2A	5668213	1159 72 2		34
933 M6x16 V5A	M6 x 1616/ V5A	5940678	3156 04 6		81	2056 M 22 VA	16-22 23/ V2A	5668213	1159 72 2		59
933 M6x20 V4A	M6 x 2020/ V4A	5940388	3156 01 8		81	2056 M 28 VA	22-28 23/ V2A	5668220	1159 72 8		34
933 M6x20 V5A	M6 x 2020/ V5A	5940685	3156 04 8		81	2056 M 28 VA	22-28 23/ V2A	5668220	1159 72 8		59
933 M6x25 V4A	M6 x 2525/ V4A	5940395	3156 01 9		81	2056 M 34 VA	28-34 23/ V2A	5668268	1159 73 4		34
933 M6x25 V5A	M6 x 2025/ V5A	5940692	3156 04 9		81	2056 M 34 VA	28-34 23/ V2A	5668268	1159 73 4		59
933 M8x20 V4A	M8 x 2020/ V4A	5940432	3156 02 4		81	2056 M 40 VA	34-40 23/ V2A	5668275	1159 74 0		34
933 M8x20 V5A	M8 x 2020/ V5A	5940739	3156 05 4		81	2056 M 40 VA	34-40 23/ V2A	5668275	1159 74 0		59
933 M8x25 V4A	M8 x 2525/ V4A	5940449	3156 02 5		81	2056 M 46 VA	40-46 23/ V2A	5668282	1159 74 6		34
933 M8x25 V5A	M8 x 2525/ V5A	5940746	3156 05 5		81	2056 M 46 VA	40-46 23/ V2A	5668282	1159 74 6		59
933 M8x30 V4A	M8 x 3030/ V4A	5940487	3156 02 6		81	2056 M 52 VA	46-52 23/ V2A	5668299	1159 75 2		34
933 M8x30 V5A	M8 x 3030/ V5A	5940784	3156 05 6		81	2056 M 52 VA	46-52 23/ V2A	5668299	1159 75 2		59
						2056 M 58 VA	52-58 23/ V2A	5668305	1159 75 8		34
939	150/ St / G	5386056	5043 10 7		52	2056 M 58 VA	52-58 23/ V2A	5668305	1159 75 8		59
						2056 M 64 VA	58-64 23/ V2A	5668312	1159 76 4		34
						2056 M 64 VA	58-64 23/ V2A	5668312	1159 76 4		59
						2056 M 70 VA	64-70 25/ V2A	5668329	1159 77 0		34
964 M10 G30 V2A	M10 10,5/ V2A	5944393	3403 15 5		83	2056 M 70 VA	64-70 25/ V2A	5668329	1159 77 0		59
964 M10 G30 V4A	M10 10,5/ V4A	5944454	3403 16 3		83	2056 M 76 VA	70-76 25/ V2A	5668336	1159 77 6		34
964 M10 G40 V2A	M10 10,5/ V2A	5946298	3403 17 5		83	2056 M 76 VA	70-76 25/ V2A	5668336	1159 77 6		59
964 M10 G40 V4A	M10 10,5/ V4A	5946304	3403 17 7		83	2056 M2 12 VA	8-12/ V2A	5668343	1161 91 2		59
964 M8 G20 V2A	M88,4/ V2A	5944348	3403 12 5		83	2056 M2 16 VA	12-16/ V2A	5668381	1161 91 6		59

Type listing

Structure of the GTIN: Country code **40** Manufacturer code **1219** Individual GTIN **5647589**

Type	Dimensions/colour/div.	GTIN	Art. no.	Price	Page	Type	Dimensions/colour/div.	GTIN	Art. no.	Price	Page	
2056 M2 22 VA	16-22 / V2A	5668398	1161 92 2	/100 pc.	59	5052 DIN 20X2.5	20 x 2,5/ St / FT	5680468	5019 34 0	/100 m	142	
2056 M2 28 VA	22-28 / V2A	5668404	1161 92 8		59	5052 DIN 25X3	25 x 3/ St / FT	5694007	5019 34 2		142	
2056 M2 34 VA	28-34 / V2A	5668442	1161 93 4		59	5052 DIN 30X3	30 x 3/ St / FT	5694014	5019 34 4		142	
2056 M2 40 VA	34-40 / V2A	5668459	1161 94 0		59	5052 DIN 30X3.5	30 x 3,5/ St / FT	5680482	5019 34 7		142	
2056 M2 46 VA	40-46 / V2A	5668466	1161 94 6		59	5052 DIN 30X3.5	30 x 3,5/ St / FT	5680475	5019 34 5		142	
2056 M2 52 VA	46-52 / V2A	5668503	1161 95 2		59	5052 DIN 30X4	30 x 4/ St / FT	5680499	5019 35 0		142	
2056 M2 58 VA	52-58 / V2A	5668510	1161 95 8		59	5052 DIN 40X4	40 x 4/ St / FT	5680505	5019 35 5		142	
2056 M2 64 VA	58-64 / V2A	5668527	1161 96 4		59	5052 DIN 40X5	40 x 5/ St / FT	5680512	5019 36 0		142	
2056U 12 VA	8-12 20/ V2A	5074595	1178 50 4		60	5052 V2A 30X3.5	30 x 3,5/ V2A	5800415	5018 50 1		142	
2056U 16 VA	12-16 20/ V2A	5074656	1178 51 2		60	5052 V4A 30X3.5	30 x 3,5/ V4A	5800477	5018 70 6		142	
2056U 22 VA	16-22 20/ V2A	5074717	1178 52 0		60	5052 V4A 30X3.5	30 x 3,5/ V4A	5022015	5018 73 0		142	
2056U 28 VA	22-28 20/ V2A	5074779	1178 53 9		60							
2056U 34 VA	28-34 20/ V2A	5074830	1178 54 7		60							
2056U 40 VA	34-40 20/ V2A	5074892	1178 55 5		60	46277 T160 Q GTP	1/ St / GTP	5897958	1115 27 0		/100 pc.	104
2056U 46 VA	40-46 20/ V2A	5074953	1178 56 3		60	46277 T250 L GTP	1/ St / GTP	5897996	1115 27 8		104	
2056U 52 VA	46-52 20/ V2A	5075011	1178 57 1		60	46277 T250 Q GTP	1/ St / GTP	5897965	1115 27 4		104	
2056U 58 VA	52-58 23/ V2A	5075073	1178 59 8		60	46277 T350 Q GTP	1/ St / GTP	5898009	1115 28 2		104	
2056U 64 VA	58-64 23/ V2A	5075134	1178 60 1		60							
2056U 70 VA	64-70 23/ V2A	5075196	1178 62 8		60							
2056U 76 VA	70-76 25/ V2A	5075257	1178 63 6		60							
2056U M 12 V4A	8-12 / V4A	5912255	1158 20 7	34	AHB 100 VA4529	100/6 / V5A	5910855	6363 90 6	/pc.	61		
2056U M 12 V4A	8-12 / V4A	5912255	1158 20 7	60	AHB 100 VA4571	100/6 / V4A	5912910	6363 90 5	61			
2056U M 16 V4A	12-16 / V4A	5912262	1158 21 1	34	AHB 150 VA4529	150/8 / V5A	5910862	6363 91 0	61			
2056U M 16 V4A	12-16 / V4A	5912262	1158 21 1	60	AHB 150 VA4571	150/8 / V4A	5912927	6363 90 9	61			
2056U M 22 V4A	16-22 / V4A	5912279	1158 21 5	34	AHB 200 VA4529	200/8 / V5A	5910916	6363 91 4	61			
2056U M 22 V4A	16-22 / V4A	5912279	1158 21 5	60	AHB 200 VA4571	200/8 / V4A	5912934	6363 91 3	61			
2056U M 28 V4A	22-28 / V4A	5912286	1158 21 9	34	AHB 300 VA4529	300/8 / V5A	5910923	6363 94 1	61			
2056U M 28 V4A	22-28 / V4A	5912286	1158 21 9	60	AHB 300 VA4571	300/8 / V4A	5912941	6363 94 0	61			
2056U M 34 V4A	28-34 / V4A	5912293	1158 22 3	34	AHB 400 VA4529	400/8 / V5A	5910954	6363 94 9	61			
2056U M 34 V4A	28-34 / V4A	5912293	1158 22 3	60	AHB 400 VA4571	400/8 / V4A	5912958	6363 94 8	61			
2056U M 40 V4A	34-40 / V4A	5912309	1158 22 7	34								
2056U M 40 V4A	34-40 / V4A	5912309	1158 22 7	60	AHB-T 200	280380 / V5A	5079729	6363 88 8	28			
2056U M 46 V4A	40-46 / V4A	5912316	1158 23 1	34	AHB-T 200	280380 / V5A	5079729	6363 88 8	32			
2056U M 46 V4A	40-46 / V4A	5912316	1158 23 1	60	AHB-T 200	280380 / V5A	5079729	6363 88 8	61			
2056U M 52 V4A	46-52 / V4A	5912323	1158 23 5	34	AHB-T 300	380480 / V5A	5079736	6363 89 2	28			
2056U M 52 V4A	46-52 / V4A	5912323	1158 23 5	60	AHB-T 300	380480 / V5A	5079736	6363 89 2	32			
2056U M 58 V4A	52-58 / V4A	5912330	1158 23 9	34	AHB-T 300	380480 / V5A	5079736	6363 89 2	61			
2056U M 58 V4A	52-58 / V4A	5912330	1158 23 9	60	AHB-T 400	480580 / V5A	5079743	6363 89 6	28			
2056U M 64 V4A	58-64 / V4A	5912347	1158 24 3	34	AHB-T 400	480580 / V5A	5079743	6363 89 6	32			
2056U M 64 V4A	58-64 / V4A	5912347	1158 24 3	60	AHB-T 400	480580 / V5A	5079743	6363 89 6	61			
2056U M 70 V4A	64-70 / V4A	5912354	1158 24 7	34	AHB-T1712 VA4529	120220 / V5A	5924425	6363 99 5	28			
2056U M 70 V4A	64-70 / V4A	5912354	1158 24 7	60	AHB-T1712 VA4529	120220 / V5A	5924425	6363 99 5	32			
2056U M 76 V4A	70-76 / V4A	5912361	1158 25 1	34	AHB-T1712 VA4529	120220 / V5A	5924425	6363 99 5	61			
2056U M 76 V4A	70-76 / V4A	5912361	1158 25 1	60	AHB-T1712 VA4547	120220 / V5A	5924456	6363 99 7	28			
					AHB-T1712 VA4547	120220 / V5A	5924456	6363 99 7	32			
					AHB-T1712 VA4571	120220 / V5A	5924456	6363 99 7	61			
2060 2M VA	20 x 8 / V2A	5627098	1105 12 5	/100 m	71	AHB-T1712 VA4571	120220 / V4A	5924487	6363 99 9	28		
2060 L 2M VA	20 x 8 / V2A	5627104	1106 62 8	71	AHB-T1712 VA4571	120220 / V4A	5924487	6363 99 9	32			
					AHB-T1712 VA4571	120220 / V4A	5924487	6363 99 9	61			
2063 2M VA	35 x 18 / V2A	5627111	1110 00 5	71	AHB-T1722 VA4529	220320 / V5A	5924432	6364 00 5	28			
2063 L 2M VA	35 x 18 / V2A	5627128	1112 70 9	71	AHB-T1722 VA4529	220320 / V5A	5924432	6364 00 5	32			
					AHB-T1722 VA4529	220320 / V5A	5924432	6364 00 5	61			
2068 L 2M VA	35 x 18 / V2A	5047650	1119 70 2	34	AHB-T1722 VA4547	220320 / V5A	5924463	6364 00 7	28			
2068 L 6M VA	35 x 18 / V2A	5047711	1119 72 9	34	AHB-T1722 VA4547	220320 / V5A	5924463	6364 00 7	32			
					AHB-T1722 VA4547	220320 / V5A	5924463	6364 00 7	61			
					AHB-T1722 VA4571	220320 / V4A	5924517	6364 00 9	28			
2069 T100 GTP	1/ St / GTP	5440994	1115 38 2	/100 pc.	104	AHB-T1722 VA4571	220320 / V4A	5924517	6364 00 9	32		
2069 T160 GTP	1/ St / GTP	5441007	1115 38 4	104	AHB-T1722 VA4571	220320 / V4A	5924517	6364 00 9	61			
2069 T250 GTP	1/ St / GTP	5441038	1115 38 6	104	AHB-T1732 VA4529	320420 / V5A	5924449	6364 01 5	28			
2069 T60 GTP	1/ St / GTP	5440987	1115 38 0	104	AHB-T1732 VA4529	320420 / V5A	5924449	6364 01 5	32			
					AHB-T1732 VA4529	320420 / V5A	5924449	6364 01 5	61			
2078 M10 1M G	M10 10/ St / G	5253396	3141 20 9	125	AHB-T1732 VA4547	320420 / V5A	5924470	6364 01 7	28			
2078 M10 1M G	M10 10/ St / G	5253396	3141 20 9	135	AHB-T1732 VA4547	320420 / V5A	5924470	6364 01 7	32			
2078 M10 1M V2A	M10 10/ V2A	5023579	3141 31 2	49	AHB-T1732 VA4547	320420 / V5A	5924470	6364 01 7	61			
2078 M12 1M V2A	M12 12/ V2A	5594437	3141 31 4	49	AHB-T1732 VA4571	320420 / V4A	5924524	6364 01 9	28			
2078 M6 1M G	M6 6/ St / G	5253211	3141 04 7	109	AHB-T1732 VA4571	320420 / V4A	5924524	6364 01 9	32			
2078 M6 1M G	M6 6/ St / G	5253211	3141 04 7	112	AHB-T1732 VA4571	320420 / V4A	5924524	6364 01 9	61			
2078 M8 1M G	M8 8/ St / G	5253334	3141 12 8	109								
2078 M8 1M G	M8 8/ St / G	5253334	3141 12 8	112								
2078 M8 1M V2A	M8 8/ V2A	5023456	3141 31 0	49	ASX-E		5850199	7202 31 2		111		
					ASX-K		5850182	7202 31 0		111		
5015 M6 OS VA	M6/ V2A	5053231	1141 10 4	76								
5017 M10 OS VA	M10/ V4A	5086017	1143 12 7	76	AW 15 11 VA4301	11050 / V2A	6207558	6421 00 8		66		
5017 M6 OS VA	M6/ V4A	5119920	1143 12 3	76	AW 15 11 VA4571	11050 / V4A	6817634	6392 00 8		66		
5017 M8 OS VA	M8/ V4A	5085980	1143 12 5	76								
					AW 15 16 FT	16055/ St / FT	6207138	6420 66 4		134		
5024 M10x30 V4A	M10 30/ V4A	5908081	1154 50 7	77	AW 15 21 FT	21060/ St / FT	6207190	6420 68 0		134		
5024 M10x40 V4A	M10 40/ V4A	5908104	1154 52 3	77								
5024 M12x30 V4A	M12 30/ V4A	5908203	1154 70 1	77	AW 15 21 VA4301	21060 / V2A	6207619	6421 02 4		66		
5024 M12x35 V4A	M12 35/ V4A	5908210	1154 71 5	77	AW 15 21 VA4571	21060 / V4A	6817696	6392 01 6		66		
5024 M12x40 V4A	M12 40/ V4A	5908227	1154 72 8	77								
5024 M12x50 V4A	M12 50/ V4A	5908265	1154 73 6	77	AW 15 31 FT	31065/ St / FT	6207251	6420 71 0		134		
5024 M6x30 V4A	M6 30/ V4A	5908043	1154 40 9	77								
					AW 15 31 VA4301	31065 / V2A	6207671	6421 03 2		66		
					AW 15 31 VA4571	31065 / V4A	6817757	6392 02 4		66		

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AW 15 41 FT	41070/ st / FT	6207312	6420 74 5	/pc.	134	AZDR 100 VA4301	100-100 / V2A	6064694	6065 31 7	/pc.	46
						AZDR 50 VA4301	50-50 / V2A	6064632	6065 30 9		46
AW 15 41 VA4301	41070/ V2A	5061953	6421 03 6		66					/m	
AW 15 41 VA4571	41070/ V4A	6817818	6392 03 2		66						
AW 15 51 VA4301	51075/ V2A	5061960	6421 04 0		66	AZK 050 VA4301	50 1,5/ V2A	6069071	6075 15 0		45
AW 15 61 VA4301	61080/ V2A	5061977	6421 04 4		66	AZK 050 VA4571	50 1,5/ V4A	5866213	6075 15 2		45
AW 15 61 VA4571	61080/ V4A	6817931	6392 05 9		66	AZK 100 VA4301	100 1,5/ V2A	6069255	6075 30 4		45
						AZK 100 VA4571	100 1,5/ V4A	5866220	6075 30 6		45
AW 30 11 VA4301	11060/ V2A	6208937	6442 80 3		66	AZK 150 VA4301	150 1,5/ V2A	5811145	6075 33 0		45
AW 30 11 VA4529	11060/ V5A	5911630	6443 63 0		66	AZK 150 VA4571	150 1,5/ V4A	5866251	6075 33 2		45
AW 30 11 VA4571	11060/ V4A	5021049	6443 61 5		66	AZK 200 VA4301	200 1,5/ V2A	5811206	6075 35 5		45
AW 30 21 VA4301	21070/ V2A	6209057	6442 83 8		66	AZK 200 VA4571	200 1,5/ V4A	5866268	6075 35 7		45
AW 30 21 VA4529	21070/ V5A	5911647	6443 63 2		66	AZK 300 VA4301	300 1,5/ V2A	5811268	6075 38 0		45
AW 30 21 VA4571	21070/ V4A	6349753	6443 31 1		66	AZK 300 VA4571	300 1,5/ V4A	5866275	6075 38 2		45
AW 30 31 VA4301	31080/ V2A	6209118	6442 85 4		66					/100 pc.	
AW 30 31 VA4529	31080/ V5A	5911678	6443 63 4		66	B 33020	228/ CuZn	6049080	6404 00 6		52
AW 30 31 VA4571	31080/ V4A	6955879	6443 62 1		66	B 33021	2610/ CuZn	6049202	6404 01 4		52
AW 30 41 VA4301	41080/ V2A	6209170	6442 87 0		66						
AW 30 41 VA4529	41080/ V5A	5911685	6443 63 6		66						
AW 30 41 VA4571	41080/ V4A	6554478	6443 34 6		66	BE TS GR	10/ PC	5840602	2007 83 3		104
AW 30 51 VA4301	51090/ V2A	6209231	6442 89 7		66	BE TS KR	10/ PC	5840640	2007 83 5		104
AW 30 51 VA4529	51090/ V5A	5911692	6443 63 8		66						
AW 30 51 VA4571	51090/ V4A	5021094	6443 62 5		66						
AW 30 61 VA4301	610100/ V2A	6209293	6442 91 9		66					/pc.	
AW 30 61 VA4529	610100/ V5A	5911708	6443 64 0		66	BEB 100 VA4301	100/ V2A	6232031	7084 01 3		30
AW 30 61 VA4571	610100/ V4A	5021100	6443 62 7		66	BEB 100 VA4571	100/ V4A	5866336	7084 01 1		30
						BEB 200 VA4301	200/ V2A	6232093	7084 04 8		30
						BEB 200 VA4571	200/ V4A	5866343	7084 14 3		41
						BEB 200 VA4571	200/ V4A	5866343	7084 14 3		41
						BEB 300 VA4301	300/ V2A	6232154	7084 06 4		30
						BEB 300 VA4571	300/ V2A	6232154	7084 06 4		41
						BEB 300 VA4571	300/ V4A	5866350	7084 14 5		30
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						BEB 400 VA4301	400/ V2A	6232215	7084 08 0		41
						BEB 400 VA4571	400/ V4A	5866367	7084 14 7		41
						BEB 500 VA4301	500/ V2A	6232277	7084 10 2		41
						BEB 500 VA4571	500/ V4A	5866374	7084 14 9		41
						BEB 600 VA4301	600/ V2A	6232338	7084 12 9		41
						BEB 600 VA4571	600/ V4A	5866381	7084 15 1		41
AWG 15 11 VA4571	11050/ V4A	5706304	6420 64 2		66					/m	
AWG 15 11 VA4301	11050/ V2A	5058373	6420 62 5		66	BSK 090506	12095	6024834	7215 15 0		126
AWG 15 21 VA4571	21060/ V4A	5706311	6420 64 4		66	BSK 090511	17095	6024957	7215 15 4		126
AWG 15 21 VA4301	21060/ V2A	5058380	6420 62 8		66	BSK 090521	27095	6025077	7215 15 8		126
AWG 15 31 VA4301	31065/ V2A	5058427	6420 63 1		66	BSK 091016	220150	6025190	7215 16 2		126
AWG 15 31 VA4571	31065/ V4A	5395362	6420 64 6		66	BSK 091026	320150	6025312	7215 16 6		126
AWG 15 41 VA4571	41070/ V4A	5706052	6420 64 8		66	BSK 120506	180130	6645794	7215 21 0		128
AWG 15 41 VA4301	41070/ V2A	5058434	6420 63 4		66	BSK 120511	230130	6645855	7215 21 6		128
AWG 15 51 VA4571	51075/ V4A	5706328	6420 65 0		66	BSK 120521	330130	6887477	7215 22 2		128
AWG 15 51 VA4301	51075/ V2A	5058502	6420 63 7		66	BSK 121016	280185	6887538	7215 22 8		128
AWG 15 61 VA4571	61080/ V4A	5706359	6420 65 2		66	BSK 121026	380185	6887590	7215 23 4		128
AWG 15 61 VA4301	61080/ V2A	5058540	6420 64 0		66						
AWV 21 VA4529	210130/ V5A	5911319	6419 65 0		67	BSK-A0908	8040	6779055	7215 45 2	/pc.	127
AWV 21 VA4571	210130/ V4A	5913061	6419 64 0		67	BSK-A0908	8040	6779055	7215 45 2		132
AWV 31 VA4529	310130/ V5A	5911326	6419 65 2		67	BSK-A0910	10060	6779116	7215 45 8		127
AWV 31 VA4571	310130/ V4A	5913078	6419 64 2		67	BSK-A0910	10060	6779116	7215 45 8		132
AWV 41 VA4529	410130/ V5A	5911333	6419 65 4		67					/100 pc.	
AWV 41 VA4571	410130/ V4A	5913085	6419 64 4		67	BSK-B0511	46 18/ St / FS	6896356	7215 35 6		129
AWV 51 VA4529	510130/ V5A	5911340	6419 65 6		67	BSK-B0521	46 18/ St / FS	6896417	7215 36 2		129
AWV 51 VA4571	510130/ V4A	5913092	6419 64 6		67	BSK-B1016	10169/ St / FS	6896479	7215 36 8		129
AWV 61 VA4529	610130/ V5A	5911395	6419 65 9		67	BSK-B1026	10169/ St / FS	6896530	7215 37 4		129
AWV 61 VA4571	610130/ V4A	5913108	6419 64 8		67						
AWVL 11 VA4529	17060/ V5A	5911203	6419 52 4		67	BSK-D0930	5 x 30 15	6025558	7215 42 3	/pc.	127
AWVL 11 VA4571	17060/ V4A	5913016	6419 51 9		67	BSK-D1260	5 x 60 15	6645978	7215 43 2		128
AWVL 16 VA4529	22060/ V5A	5911210	6419 52 5		67	BSK-E090506	12095	5430360	7215 25 0		126
AWVL 16 VA4571	22060/ V4A	5913023	6419 52 0		67	BSK-E090511	17095	5430384	7215 25 2		126
AWVL 21 VA4529	27060/ V5A	5911227	6419 52 6		67	BSK-E090521	27095	5430391	7215 25 4		126
AWVL 21 VA4571	27060/ V4A	5913030	6419 52 1		67	BSK-E091016	220150	5430407	7215 25 6		126
AWVL 31 VA4529	37060/ V5A	5911272	6419 52 7		67	BSK-E091026	320150	5430414	7215 25 8		126
AWVL 31 VA4571	37060/ V4A	5913047	6419 52 2		67	BSK-E120506	180130	5430421	7215 27 0		128
AWVL 41 VA4529	47060/ V5A	5911289	6419 52 8		67	BSK-E120511	230130	5430438	7215 27 2		128
AWVL 41 VA4571	47060/ V4A	5913054	6419 52 3		67	BSK-E120521	330130	5430445	7215 27 4		128
						BSK-E121016	280185	5430476	7215 27 6		128
						BSK-E121026	380185	5430483	7215 27 8		128
AZDMD 100 VA4301	10310/ V2A	6069613	6080 29 4	/m	46						
AZDMD 150 VA4301	15310/ V2A	5811329	6080 87 0		46						
AZDMD 200 VA4301	20310/ V2A	5811374	6080 89 5		46						
AZDMD 300 VA4301	30310/ V2A	5811435	6080 92 0		46	BSKH 090506	120110	5077800	7215 17 3	/m	131
AZDMD 50 VA4301	5310/ V2A	6069491	6080 19 7		46	BSKH 090511	170110	5077817	7215 17 7		131
						BSKH 090521	270110	5077824	7215 18 1		131

Type listing

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BSKH 091016	220165	5077855	7215 18 5	/m	131	BSKP-S5016	/ St / GTP	5918905	3498 09 6	/100 pc.	129
BSKH 091026	320165	5077862	7215 18 9		131	BSKP-S5020	/ St / GTP	5918912	3498 09 8		129
BSKHE090506	120110	5430490	7215 59 0	/pc.	131						
BSKHE090511	170110	5430506	7215 59 2		131	BSK-S0955	4.0 x 55/ St / G	6887651	7215 40 0		127
BSKHE090521	270110	5430537	7215 59 4		131	BSK-S1280	4.5 x 80/ St / G	6887774	7215 41 2		128
BSKHE091016	220165	5430544	7215 59 6		132	BSK-W0511	4637,5/ St / FS	6896110	7215 31 2		129
BSKHE091026	320165	5430551	7215 59 8		132	BSK-W0521	4662,5/ St / FS	6896172	7215 31 8		129
BSKH-FB090506	120110	5084242	7215 60 2		131	BSK-W1016	10150/ St / FS	6896233	7215 32 4		129
BSKH-FB090511	170110	5084273	7215 60 6		131	BSK-W1026	10175/ St / FS	6896295	7215 33 0		129
BSKH-FB090521	270110	5084280	7215 61 0		131						
BSKH-FB091016	220165	5084297	7215 61 4		132						
BSKH-FB091026	320165	5084303	7215 61 8		132						
BSKH-FT090506	120110	5084334	7215 63 1		131	BW 60 40 VA4301	/ V2A	6014651	6019 58 7	/pc.	59
BSKH-FT090511	170110	5084341	7215 63 5		131						
BSKH-FT090521	270110	5084358	7215 63 9		131						
BSKH-FT091016	220165	5084365	7215 64 3		132						
BSKH-FT091026	320165	5084396	7215 64 7		132	CPS 4L 2M V4A	40 x 22,5/ V4A	5905585	1121 96 3	/100 m	34
BSKH-G	/ St / FS	5077923	7215 39 5		135	CPS 4L 6M V4A	40 x 22,5/ V4A	5907022	1121 90 3		34
BSKH-K0506		5077930	7215 57 0		131						
BSKH-K0511		5077947	7215 57 4		131	CPS 5 L 1.5M V4A	50 x 30/ V4A	5906964	1121 36 5	/pc.	71
BSKH-K0521		5077978	7215 57 8		131	CPS 5 L 1.5M V5A	50 x 30/ V5A	5907350	1123 34 8		72
BSKH-K1016		5077985	7215 58 2		132	CPS 5 L 200 V4A	50 x 30/ V4A	5906971	1121 39 3		71
BSKH-K1026		5077992	7215 58 6		132	CPS 5 L 200 V5A	50 x 30/ V5A	5907275	1123 33 0		72
BSKH-S6030	/ St / GTP	5850069	3498 10 0	/100 pc.	135	CPS 5 L 2M V4A	50 x 30/ V4A	5906995	1121 46 5		71
						CPS 5 L 2M V5A	50 x 30/ V5A	5907367	1123 35 0		72
						CPS 5 L 2M VA	50 x 30/ V2A	5049272	1121 48 0		71
BSKH-V050	5855/ St / FS	5077879	7215 38 1	/pc.	133	CPS 5 L 300 V4A	50 x 30/ V4A	5906902	1121 24 5		71
BSKH-V052	9055/ St / FS	5077886	7215 38 5		133	CPS 5 L 300 V5A	50 x 30/ V5A	5907282	1123 33 2		72
BSKH-V101	90112/ St / FS	5077916	7215 38 9		133						
BSK-K0506		6025923	7215 53 3		126	CPS 5 L 3M V4A	50 x 30/ V4A	5907008	1121 46 9	/100 m	71
BSK-K0511		6026043	7215 53 7		126	CPS 5 L 3M V5A	50 x 30/ V5A	5907374	1123 35 2		72
BSK-K0521		6026166	7215 54 1		126	CPS 5 L 400 V4A	50 x 30/ V4A	5906919	1121 28 0	/pc.	71
BSK-K1016		6026289	7215 54 5		126	CPS 5 L 400 V5A	50 x 30/ V5A	5907299	1123 33 4		72
BSK-K1026		6026401	7215 54 9		126	CPS 5 L 500 V4A	50 x 30/ V4A	5906988	1121 40 7		71
BSK-M		6888214	7215 50 0		130	CPS 5 L 500 V5A	50 x 30/ V5A	5907305	1123 33 6		72
BSK-M		6888214	7215 50 0		133	CPS 5 L 600 V4A	50 x 30/ V4A	5906926	1121 29 6		71
						CPS 5 L 600 V5A	50 x 30/ V5A	5907312	1123 33 8		72
BSKM 0711	70110/ St / FS	5917229	7216 30 0	/m	118	CPS 5 L 6M V4A	50 x 30/ V4A	5907015	1121 47 3	/100 m	71
BSKM 1025	100250/ St / FS	5917236	7216 40 0		121	CPS 5 L 6M VA	50 x 30/ V2A	5049333	1121 49 9		71
BSKM-AD 0711	/ St / FS	5917250	7216 31 5	/pc.	118	CPS 5 L 700 V4A	50 x 30/ V4A	5906940	1121 33 4		71
BSKM-AD 1025	/ St / FS	5917458	7216 41 5		121	CPS 5 L 700 V5A	50 x 30/ V5A	5907329	1123 34 0		72
BSKM-AE 0711	/ St / FS	5917274	7216 32 0		118	CPS 5 L 800 V4A	50 x 30/ V4A	5906933	1121 31 0		71
BSKM-AE 1025	/ St / FS	5917465	7216 42 0		121	CPS 5 L 800 V5A	50 x 30/ V5A	5907336	1123 34 2		72
BSKM-BD 0711	/ St / FS	5917397	7216 37 2		120	CPS 5 L 900 V4A	50 x 30/ V4A	5906957	1121 33 8		71
BSKM-BD 1025	/ St / FS	5917656	7216 47 2		123	CPS 5 L 900 V5A	50 x 30/ V5A	5907343	1123 34 4		72
BSKM-BW 0711	/ St / FS	5917380	7216 37 0		120						
BSKM-BW 1025	/ St / FS	5917649	7216 47 0		123	CPS 5 SK OR.SP	Pastel orange.300/ PE	5785323	1124 56 3	/100 pc.	72
BSKM-DS 1025	/ St / FS	5917663	7216 47 4		123						
BSKM-EF 0711	/ St / FS	5917335	7216 35 5		119						
BSKM-EF 1025	/ St / FS	5917625	7216 45 5		122						
BSKM-ES 0711	/ St / FS	5917328	7216 35 0		119	DBV 100 S VA4301	1000,75/ V2A	5688600	7130 90 5	/pc.	44
BSKM-ES 1025	/ St / FS	5917588	7216 45 0		122	DBV 100 S VA4571	1000,75/ V4A	5886464	7130 92 0		44
BSKM-FW 0711	/ St / FS	5917281	7216 33 0		119	DBV 200 S VA4301	2000,75/ V2A	5886303	7130 90 7		44
BSKM-FW 1025	/ St / FS	5917540	7216 43 0		122	DBV 200 S VA4571	2000,75/ V4A	5886495	7130 92 2		44
BSKM-GA 0711	/ St / FS	5917267	7216 32 5		119	DBV 300 S VA4301	3000,75/ V2A	5886327	7130 90 9		44
BSKM-GA 1025	/ St / FS	5917496	7216 42 5		122	DBV 300 S VA4571	3000,75/ V4A	5886518	7130 92 4		44
BSKM-GF 0711	/ St / FS	5917298	7216 33 5		119	DBV 400 S VA4301	4000,75/ V2A	5886365	7130 91 1		44
BSKM-GF 1025	/ St / FS	5917557	7216 43 5		122	DBV 400 S VA4571	4000,75/ V4A	5886525	7130 92 6		44
BSKM-GI 0711	/ St / FS	5917311	7216 34 5		119	DBV 500 S VA4301	5000,75/ V2A	5886389	7130 91 3		44
BSKM-GI 1025	/ St / FS	5917571	7216 44 5		122	DBV 500 S VA4571	5000,75/ V4A	5886556	7130 92 8		44
BSKM-GW 0711	/ St / FS	5917434	7216 38 5		120	DBV 600 S VA4301	6000,75/ V2A	5886419	7130 91 5		44
BSKM-GW 1025	/ St / FS	5917687	7216 48 5		123	DBV 600 S VA4571	6000,75/ V4A	5886563	7130 93 0		44
BSKM-HE 0711	/ St / FS	5917304	7216 34 0		119						
BSKM-HE 1025	/ St / FS	5917564	7216 44 0		122	DBV60100F VA4301	1000,75/ V2A	5688617	7130 95 2		44
						DBV60100F VA4571	1000,75/ V4A	5886310	7130 97 2		44
						DBV60200F VA4301	2000,75/ V2A	5886259	7130 95 4		44
BSKM-S4010	/ St / G	5917694	3498 09 4	/100 pc.	118	DBV60200F VA4571	2000,75/ V4A	5886358	7130 97 4		44
BSKM-S4010	/ St / G	5917694	3498 09 4		121	DBV60300F VA4301	3000,75/ V2A	5886266	7130 95 6		44
						DBV60300F VA4571	3000,75/ V4A	5886372	7130 97 6		44
						DBV60400F VA4301	4000,75/ V2A	5886273	7130 95 8		44
						DBV60400F VA4571	4000,75/ V4A	5886426	7130 97 8		44
BSKM-VD 0711	/ St / FS	5917243	7216 31 0	/pc.	118	DBV60500F VA4301	5000,75/ V2A	5886280	7130 96 0		44
BSKM-VD 1025	/ St / FS	5917441	7216 41 0		121	DBV60500F VA4571	5000,75/ V4A	5886433	7130 98 0		44
BSKM-VE 0711	/ St / FS	5925613	7216 31 2		118	DBV60600F VA4301	6000,75/ V2A	5886297	7130 96 2		44
BSKM-VE 1025	/ St / FS	5925620	7216 41 2		121	DBV60600F VA4571	6000,75/ V4A	5886440	7130 98 2		44
BSKM-VK 0711	/ St / FS	5917342	7216 36 0		120						
BSKM-VK 1025	/ St / FS	5917632	7216 46 0		123						
BSKM-WA 0711	/ St / FS	5917403	7216 38 0		120	DFAAM 100 V2A	1001,25/ V2A	5930723	7138 72 0		30
BSKM-WA 1025	/ St / FS	5917670	7216 48 0		123	DFAAM 100 V2A	1001,25/ V2A	5930723	7138 72 0		43
						DFAAM 100 V4A	1001,25/ V4A	5930815	7138 74 0		30
						DFAAM 100 V4A	1001,25/ V4A	5930815	7138 74 0		43

Type	Dimensions/colour/div.	GTIN	Art. no.	Price	Page	Type	Dimensions/colour/div.	GTIN	Art. no.	Price	Page
DFAAM 150 V2A	150 1,25/ V2A	5930754	7138 72 2	/pc.	43	DFTM 600 V4A	600 1,25/ V4A	5931249	7138 89 2	/pc.	43
DFAAM 150 V4A	150 1,25/ V4A	5930822	7138 74 2		43						
DFAAM 200 V2A	200 1,25/ V2A	5930761	7138 72 4		30						
DFAAM 200 V4A	200 1,25/ V4A	5930778	7138 72 6		43					/100 pc.	
DFAAM 200 V2A	200 1,25/ V2A	5930839	7138 74 4		30	DIN 128 A M10V4A	M10 10,5/ V4A	5909750	3405 11 1		83
DFAAM 200 V4A	200 1,25/ V4A	5930839	7138 74 4		43	DIN 128 A M10V5A	M10 10,5/ V5A	5909767	3405 11 3		83
DFAAM 300 V2A	300 1,25/ V2A	5930778	7138 72 6		30	DIN 128 A M12V4A	M12 12,5/ V4A	5909774	3405 12 7		83
DFAAM 300 V4A	300 1,25/ V4A	5930778	7138 72 6		43	DIN 128 A M12V5A	M12 12,5/ V5A	5909781	3405 12 9		83
DFAAM 300 V2A	300 1,25/ V2A	5930846	7138 74 6		30	DIN 128 A M6 V4A	M6 6,3/ V4A	5909651	3405 06 2		83
DFAAM 300 V4A	300 1,25/ V4A	5930846	7138 74 6		43	DIN 128 A M6 V5A	M6 6,3/ V5A	5909668	3405 06 4		83
DFAAM 400 V2A	400 1,25/ V2A	5930785	7138 72 8		43	DIN 128 A M8 V4A	M8 8,3/ V4A	5909712	3405 08 9		83
DFAAM 400 V4A	400 1,25/ V4A	5930853	7138 74 8		43	DIN 128 A M8 V5A	M8 8,3/ V5A	5909729	3405 09 1		83
DFAAM 500 V2A	500 1,25/ V2A	5930792	7138 73 0		43	DIN 6798 M10 V4A	10,5 18-18 / V4A	5618096	3404 38 2		83
DFAAM 500 V4A	500 1,25/ V4A	5930860	7138 75 0		43	DIN 6798 M10 V5A	10,5 18-18 / V5A	5909538	3403 38 4		84
DFAAM 600 V2A	600 1,25/ V2A	5930808	7138 73 2		43	DIN 6798 M12 V4A	1320,5-20,5 / V4A	5909637	3404 38 6		83
DFAAM 600 V4A	600 1,25/ V4A	5930877	7138 75 2		43	DIN 6798 M12 V5A	1320,5-20,5 / V5A	5909644	3404 38 8		84
						DIN 6798 M6 V4A	6,4 11-11 / V4A	5913283	3404 37 3		83
DFBM 45 100 V2A	100 1,25/ V2A	5928942	7138 43 0		30	DIN 6798 M6 V5A	6,4 11-11 / V5A	5909545	3404 37 6		84
DFBM 45 100 V2A	100 1,25/ V2A	5928942	7138 43 0		42	DIN 6798 M6 VA	6,4 11/ V2A	5301936	3404 33 1		83
DFBM 45 100 V4A	100 1,25/ V4A	5929017	7138 45 0		30	DIN 6798 M8 V4A	8,4 15-15 / V4A	5909590	3404 37 8		83
DFBM 45 100 V4A	100 1,25/ V4A	5929017	7138 45 0		42	DIN 6798 M8 V5A	8,4 15-15 / V5A	5909606	3404 38 0		84
DFBM 45 150 V2A	150 1,25/ V2A	5928959	7138 43 2		42	DIN 6798 M8 VA	8,4 15/ V2A	5301998	3404 35 8		83
DFBM 45 150 V4A	150 1,25/ V4A	5929024	7138 45 2		42	DIN 933 M10x45VA	45 10/ V2A	5849490	3156 04 0		81
DFBM 45 200 V2A	200 1,25/ V2A	5928966	7138 43 4		30	DIN 933 M12x45VA	45 10/ V2A	5849513	3156 04 2		81
DFBM 45 200 V4A	200 1,25/ V4A	5929031	7138 45 4		42	DIN 934 M10 G	M10 17/ ST / G	5298212	3400 10 7		125
DFBM 45 200 V4A	200 1,25/ V4A	5929031	7138 45 4		30	DIN 934 M10 G	M10 17/ ST / G	5298212	3400 10 7		135
DFBM 45 300 V2A	300 1,25/ V2A	5928973	7138 43 6		42	DIN 934 M10 V4A	M10 17/ V4A	5618072	3400 17 7		81
DFBM 45 300 V4A	300 1,25/ V4A	5929048	7138 45 6		30	DIN 934 M10 V5A	M10 17/ V5A	5909392	3400 18 7		82
DFBM 45 300 V4A	300 1,25/ V4A	5929048	7138 45 6		42	DIN 934 M10 VA	M10 17/ V2A	5297796	3397 10 6		81
DFBM 45 300 V4A	300 1,25/ V4A	5929048	7138 45 6		30	DIN 934 M12 V4A	M12 19/ V4A	5894810	3397 14 5		81
DFBM 45 400 V2A	400 1,25/ V2A	5928980	7138 43 8		42	DIN 934 M12 V5A	M12 19/ V5A	5909408	3400 18 9		82
DFBM 45 400 V4A	400 1,25/ V4A	5929055	7138 45 8		42	DIN 934 M12 VA	M12 19/ V2A	5297857	3397 11 4		81
DFBM 45 500 V2A	500 1,25/ V2A	5928997	7138 44 0		42	DIN 934 M6 G	M6 10/ ST / G	5298090	3400 06 9		109
DFBM 45 500 V4A	500 1,25/ V4A	5929062	7138 46 0		42	DIN 934 M6 G	M6 10/ ST / G	5298090	3400 06 9		112
DFBM 45 600 V2A	600 1,25/ V2A	5929000	7138 44 2		42	DIN 934 M6 V4A	M6 10/ V4A	5909293	3400 17 3		81
DFBM 45 600 V4A	600 1,25/ V4A	5929079	7138 46 2		42	DIN 934 M6 V5A	M6 10/ V5A	5909354	3400 18 3		82
DFBM 90 100 V2A	100 1,25/ V2A	5929260	7138 57 0		42	DIN 934 M6 VA	M6 10/ V2A	5297673	3397 06 8		81
DFBM 90 100 V4A	100 1,25/ V4A	5929338	7138 59 0		30	DIN 934 M8 G	M8 13/ ST / G	5298151	3400 08 5		109
DFBM 90 100 V4A	100 1,25/ V4A	5929338	7138 59 0		42	DIN 934 M8 G	M8 13/ ST / G	5298151	3400 08 5		112
DFBM 90 150 V2A	150 1,25/ V2A	5929277	7138 57 2		42	DIN 934 M8 V4A	M8 13/ V4A	5909309	3400 17 5		81
DFBM 90 150 V4A	150 1,25/ V4A	5929345	7138 59 2		42	DIN 934 M8 V5A	M8 13/ V5A	5909361	3400 18 5		82
DFBM 90 200 V2A	200 1,25/ V2A	5929284	7138 57 4		30	DIN 934 M8 VA	M8 13/ V2A	5297734	3397 08 4		81
DFBM 90 200 V4A	200 1,25/ V4A	5929352	7138 59 4		42					/m	
DFBM 90 200 V4A	200 1,25/ V4A	5929352	7138 59 4		30	DKS 610 VA4301	1000,8/ V2A	6070459	6085 60 1		36
DFBM 90 300 V2A	300 1,25/ V2A	5929291	7138 57 6		42	DKS 610 VA4571	1000,8/ V4A	6181933	6085 66 8		36
DFBM 90 300 V2A	300 1,25/ V2A	5929291	7138 57 6		30	DKS 620 VA4301	2000,8/ V2A	6070510	6085 62 8		36
DFBM 90 300 V4A	300 1,25/ V4A	5929369	7138 59 6		42	DKS 620 VA4571	2000,8/ V4A	6343218	6085 67 2		36
DFBM 90 300 V4A	300 1,25/ V4A	5929369	7138 59 6		30	DKS 630 VA4301	3000,8/ V2A	6070572	6085 63 6		36
DFBM 90 400 V2A	400 1,25/ V2A	5929307	7138 57 8		42	DKS 630 VA4571	300 1/ V4A	6955510	6085 67 3		36
DFBM 90 400 V4A	400 1,25/ V4A	5929376	7138 59 8		42	DKS 640 VA4301	400 1/ V2A	6070633	6085 64 4		36
DFBM 90 500 V2A	500 1,25/ V2A	5929314	7138 58 0		42	DKS 640 VA4571	400 1/ V4A	5020998	6085 67 5		36
DFBM 90 500 V4A	500 1,25/ V4A	5929383	7138 60 0		42	DKS 650 VA4301	500 1/ V2A	6070695	6085 65 2		36
DFBM 90 600 V2A	600 1,25/ V2A	5929321	7138 58 2		42	DKS 650 VA4571	500 1/ V4A	5021001	6085 67 7		36
DFBM 90 600 V4A	600 1,25/ V4A	5929390	7138 60 2		42	DKS 660 VA4301	600 1/ V2A	6070756	6085 66 0		36
					42	DKS 660 VA4571	600 1/ V4A	5021032	6085 67 9		36
DFKM 100 V2A	100 1,25/ V2A	5931416	7139 02 0		43					/100 pc.	
DFKM 100 V4A	100 1,25/ V4A	5931485	7139 04 0		43	DKU 120 VA4310	/ V2A	6617050	6065 61 0		41
DFKM 150 V2A	150 1,25/ V2A	5931423	7139 02 2		43	DKU 120 VA4310	/ V2A	6617050	6065 61 0		50
DFKM 150 V4A	150 1,25/ V4A	5931492	7139 04 2		43	DKU 60 VA4310	/ V2A	6441372	6065 60 0		30
DFKM 200 V2A	200 1,25/ V2A	5931430	7139 02 4		43	DKU 60 VA4310	/ V2A	6441372	6065 60 0		33
DFKM 200 V4A	200 1,25/ V4A	5931508	7139 04 4		43	DKU 60 VA4310	/ V2A	6441372	6065 60 0		41
DFKM 300 V2A	300 1,25/ V2A	5931447	7139 02 6		43	DKU 60 VA4310	/ V2A	6441372	6065 60 0		50
DFKM 300 V4A	300 1,25/ V4A	5931515	7139 04 6		43					/m	
DFKM 400 V2A	400 1,25/ V2A	5931454	7139 02 8		43	DRL 100 VA4301	100 1/ V2A	6058877	6052 87 8		29
DFKM 400 V4A	400 1,25/ V4A	5931522	7139 04 8		43	DRL 100 VA4301	100 1/ V2A	6058877	6052 87 8		42
DFKM 500 V2A	500 1,25/ V2A	5931461	7139 03 0		43	DRL 100 VA4571	100/ V4A	5675679	6052 98 0		29
DFKM 500 V4A	500 1,25/ V4A	5931539	7139 05 0		43	DRL 100 VA4571	100/ V4A	5675679	6052 98 0		42
DFKM 600 V2A	600 1,25/ V2A	5931478	7139 03 2		43	DRL 200 VA4301	200 1/ V2A	6058938	6052 89 4		29
DFKM 600 V4A	600 1,25/ V4A	5931546	7139 05 2		43	DRL 200 VA4301	200 1/ V2A	6058938	6052 89 4		42
DFTM 100 V2A	100 1,25/ V2A	5931072	7138 86 0		43	DRL 200 VA4571	200/ V4A	5866169	6052 98 1		29
DFTM 100 V4A	100 1,25/ V4A	5931164	7138 88 0		43	DRL 200 VA4571	200/ V4A	5866169	6052 98 1		42
DFTM 150 V2A	150 1,25/ V2A	5931089	7138 86 2		43	DRL 300 VA4301	300 1/ V2A	6058990	6052 90 8		29
DFTM 150 V4A	150 1,25/ V4A	5931171	7138 88 2		43	DRL 300 VA4301	300 1/ V2A	6058990	6052 90 8		42
DFTM 200 V2A	200 1,25/ V2A	5931119	7138 86 4		43	DRL 300 VA4571	300/ V4A	6955817	6052 98 3		29
DFTM 200 V4A	200 1,25/ V4A	5931188	7138 88 4		43	DRL 300 VA4571	300/ V4A	6955817	6052 98 3		42
DFTM 300 V2A	300 1,25/ V2A	5931126	7138 86 6		43	DRL 400 VA4301	400 1/ V2A	6059058	6052 93 2		42
DFTM 300 V4A	300 1,25/ V4A	5931195	7138 88 6		43	DRL 400 VA4571	400/ V4A	5870883	6052 98 4		42
DFTM 400 V2A	400 1,25/ V2A	5931133	7138 86 8		43	DRL 500 VA4301	500 1,25/ V2A	6059119	6052 95 9		42
DFTM 400 V4A	400 1,25/ V4A	5931201	7138 88 8		43	DRL 500 VA4571	500/ V4A	5870890	6052 98 5		42
DFTM 500 V2A	500 1,25/ V2A	5931140	7138 87 0		43	DRL 600 VA4301	600 1,25/ V2A	6059171	6052 97 5		42
DFTM 500 V4A	500 1,25/ V4A	5931232	7138 89 0		43	DRL 600 VA4571	600/ V4A	5866190	6052 98 6		

Type listing

Structure of the GTIN: Country code **40** Manufacturer code **1219** Individual GTIN **5647589**

Type	Dimensions/colour/div.	GTIN	Art. no.	Price	Page	Type	Dimensions/colour/div.	GTIN	Art. no.	Price	Page
DRLM 316 VA4301	/ V2A	6167173	6222 35 8	/pc.	42	FAZ II 10100 V5A	M10 185/ V5A	5909897	3498 60 3	/100 pc.	69
						FAZ II 12 10CV5A	M12 110/ V5A	5802785	3498 65 9		69
						FAZ II 12/10 VA	M12 110/ V4A	5692652	3498 85 9		69
DRLU 050 VA4301	501 / V2A	6031818	6052 82 1	/m	50	FAZ II 8 10CV5A	M8 75/ V5A	5802723	3498 51 2		69
DRLU 100 VA4301	1001 / V2A	6031931	6052 82 4		29	FAZ II 8 30CV5A	M8 95/ V5A	5802686	3498 49 0		
DRLU 100 VA4301	1001 / V2A	6031931	6052 82 4		41	FAZ II 8 30CV5A	M8 95/ V5A	5802686	3498 49 0		69
DRLU 100 VA4301	1001 / V2A	6031931	6052 82 4		50	FAZ II 810VA4401	M8 75/ V4A	5706076	3498 50 9		69
DRLU 100 VA4571	1001 / V4A	5021124	6052 99 1		29	FAZ II 830VA4401	M8 95/ V4A	5706069	3498 48 7		
DRLU 100 VA4571	1001 / V4A	5021124	6052 99 1		41	FAZ II 830VA4401	M8 95/ V4A	5706069	3498 48 7		69
DRLU 100 VA4571	1001 / V4A	5021124	6052 99 1		50						
DRLU 150 VA4301	1501 / V2A	6031993	6052 82 8		41						
DRLU 150 VA4301	1501 / V2A	6031993	6052 82 8		50					/pc.	
DRLU 150 VA4571	150 / V4A	5691389	6052 99 2		41	FBA-WI	5000 x 150	5428275	7202 51 0		113
DRLU 200 VA4301	2001 / V2A	6032051	6052 83 1		29						
DRLU 200 VA4301	2001 / V2A	6032051	6052 83 1		41	FBS-EA		5817567	7203 81 5		113
DRLU 200 VA4301	2001 / V2A	6032051	6052 83 1		50	FBS-K		5817543	7203 80 9		113
DRLU 200 VA4571	2001 / V4A	5021155	6052 99 3		29					/VPE	
DRLU 200 VA4571	2001 / V4A	5021155	6052 99 3		50	FBS-M		5817505	7203 80 3		113
DRLU 200 VA4571	2001 / V4A	5021155	6052 99 3		41					/pc.	
DRLU 300 VA4301	3001 / V2A	6032174	6052 83 4		33	FBS-PA		5817550	7203 81 2		113
DRLU 300 VA4301	3001 / V2A	6032174	6052 83 4		29	FBS-PH		5817536	7203 80 6		113
DRLU 300 VA4301	3001 / V2A	6032174	6052 83 4		41	FBS-S		5817499	7203 80 0		113
DRLU 300 VA4301	3001 / V2A	6032174	6052 83 4		50						
DRLU 300 VA4571	3001 / V4A	5021162	6052 99 4		33						
DRLU 300 VA4571	3001 / V4A	5021162	6052 99 4		29					/100 pc.	
DRLU 300 VA4571	3001 / V4A	5021162	6052 99 4		50	F-FIX-16		5548713	5403 20 0		140
DRLU 300 VA4571	3001 / V4A	5021162	6052 99 4		41						
DRLU 400 VA4301	4001 / V2A	6032235	6052 83 7		41						
DRLU 400 VA4301	4001 / V2A	6032235	6052 83 7		50	FNA II 6x30 M6/5	M6 6/ V5A	5784715	3498 42 6		69
DRLU 400 VA4571	4001 / V4A	5021216	6052 99 5		50	FNA II 6x30/5	6/ V5A	5784722	3498 46 9		69
DRLU 400 VA4571	4001 / V4A	5021216	6052 99 5		41						
DRLU 500 VA4301	5001,25/ V2A	6032297	6052 84 1		41						
DRLU 500 VA4301	5001,25/ V2A	6032297	6052 84 1		50	FRS 10X20 VA4301	M10 x 2020/ V2A	6200894	6406 86 6		68
DRLU 500 VA4571	5001,25/ V4A	5021223	6052 99 6		50	FRS 10X20 VA4301	M10 x 2020/ V2A	6200894	6406 86 6		84
DRLU 500 VA4571	5001,25/ V4A	5021223	6052 99 6		41	FRS 10X20 VA4401	M10 x 2020/ V4A	6822072	6406 87 0		68
DRLU 600 VA4301	6001,25/ V2A	6032358	6052 84 4		41	FRS 10X20 VA4401	M10 x 2020/ V4A	6822072	6406 87 0		84
DRLU 600 VA4301	6001,25/ V2A	6032358	6052 84 4		50	FRS 10X20SVA4401	M10 x 2020/ V4A	6437894	6406 87 2		68
DRLU 600 VA4301	6001,25/ V2A	6032358	6052 84 4		50	FRS 10X20SVA4401	M10 x 2020/ V4A	6437894	6406 87 2		84
DRLU 600 VA4571	6001,25/ V4A	5021247	6052 99 8		41	FRS 10X25 VA4301	M10 x 2525/ V2A	6200474	6406 71 8		63
DRLU 600 VA4571	6001,25/ V4A	5021247	6052 99 8		50	FRS 10X25 VA4301	M10 x 2525/ V2A	6200474	6406 71 8		65
						FRS 10X25 VA4301	M10 x 2525/ V2A	6200474	6406 71 8		68
						FRS 10X25 VA4301	M10 x 2525/ V2A	6200474	6406 71 8		84
DS-F M/W		5022732	5093 27 5	/pc.	149	FRS 10x25 VA4401	M10 x 2525/ V4A	5925262	6407 52 4		63
DS-F W/W		5022619	5093 27 2		149	FRS 10x25 VA4401	M10 x 2525/ V4A	5925262	6407 52 4		65
						FRS 10x25 VA4401	M10 x 2525/ V4A	5925262	6407 52 4		68
						FRS 10x25 VA4401	M10 x 2525/ V4A	5925262	6407 52 4		84
DSK 25 FT	/ St / FT	6229277	6416 44 6		134	FRS 10X30 VA4301	M10 x 3030/ V2A	6200535	6406 72 6		68
DSK 25 VA4301	/ V2A	5706045	6416 44 8		63	FRS 10X30 VA4301	M10 x 3030/ V2A	6200535	6406 72 6		84
DSK 25 VA4529	/ V5A	5911098	6416 45 4		63	FRS 12X25 VA4301	M12 x 2525/ V2A	6200597	6406 75 0		68
DSK 25 VA4571	/ V4A	5618485	6416 45 0		63	FRS 12X25 VA4301	M12 x 2525/ V2A	6200597	6406 75 0		84
DSK 45 VA4301	25/ V2A	6202751	6416 48 9		65	FRS 12X25 VA4401	M12 x 2525/ V4A	6064328	6406 78 5		84
DSK 45 VA4529	/ V5A	5911104	6416 46 6			FRS 12X25 VA4401	M12 x 2525/ V4A	6064328	6406 78 5		68
DSK 45 VA4571	25/ V4A	6818235	6416 46 2		65	FRS 12X30 VA4301	M12 x 3030/ V2A	6200658	6406 76 9		68
DSK 47 VA4301	25/ V2A	5018346	6416 50 7		65	FRS 12X30 VA4301	M12 x 3030/ V2A	6200658	6406 76 9		84
DSK 47 VA4571	25/ V4A	5018407	6416 51 1		65	FRS 6X12 VA4301	M6 x 1212/ V2A	6200238	6406 52 1		68
						FRS 6X12 VA4301	M6 x 1212/ V2A	6200238	6406 52 1		84
						FRS 6X12 VA4401	M6 x 1212/ V4A	6291311	6406 56 4		68
DS-SMA W/W		5867050	5093 27 7		149	FRS 6X12 VA4401	M6 x 1212/ V4A	6291311	6406 56 4		84
						FRS 6X16 VA4301	M6 x 1615/ V2A	6200290	6406 55 6		68
						FRS 6X16 VA4301	M6 x 1615/ V2A	6200290	6406 55 6		84
DSX-E		5850144	7202 30 2		108	FRS 6X16 VA4401	M6 x 1616/ V4A	6817573	6406 58 0		68
DSX-K		5850137	7202 30 0		108	FRS 6X16 VA4401	M6 x 1616/ V4A	6817573	6406 58 0		84
						FRS 6X20 VA4301	M6 x 2020/ V2A	6200351	6406 60 2		68
						FRS 6X20 VA4301	M6 x 2020/ V2A	6200351	6406 60 2		84
						FRS 6X20 VA4401	M6 x 2020/ V4A	6603077	6406 61 0		68
ELB-L20 VA4301	2003000/ V2A	5037354	6103 61 4	/m	53	FRS 6X20 VA4401	M6 x 2020/ V4A	6603077	6406 61 0		84
ELB-L20 VA4301	2003000/ V2A	5037354	6103 61 4		56	FRS 8X16 VA4301	M8 x 1616/ V2A	6200412	6406 69 6		68
ELB-L30 VA4301	3003000/ V2A	5037361	6103 61 8		53	FRS 8X16 VA4301	M8 x 1616/ V2A	6200412	6406 69 6		84
ELB-L30 VA4301	3003000/ V2A	5037361	6103 61 8		56	FRS 8X20 VA4301	M8 x 2020/ V2A	6200719	6406 80 7		68
ELB-L40 VA4301	4003000/ V2A	5037378	6103 62 2		53	FRS 8X20 VA4301	M8 x 2020/ V2A	6200719	6406 80 7		84
ELB-L40 VA4301	4003000/ V2A	5037378	6103 62 2		56	FRS 8X25 VA4301	M8 x 2525/ V2A	6200771	6406 81 5		68
ELB-L50 VA4301	5003000/ V2A	5037385	6103 62 6		53	FRS 8X25 VA4301	M8 x 2525/ V2A	6200771	6406 81 5		84
ELB-L50 VA4301	5003000/ V2A	5037385	6103 62 6		56	FRS 8X35 VA4301	M8 x 3535/ V2A	6200832	6406 82 3		68
ELB-L60 VA4301	6003000/ V2A	5037415	6103 63 0		53	FRS 8X35 VA4301	M8 x 3535/ V2A	6200832	6406 82 3		84
ELB-L60 VA4301	6003000/ V2A	5037415	6103 63 0		56						
						FRSB 6X12 VA4301	M6 x 12/ V2A	6077595	6406 13 8		35
						FRSB 6X12 VA4401	M6 x 12/ V4A	6078370	6406 14 2		35
						FRSB 6X16 VA4301	M6 x 16/ V2A	6077717	6406 18 9		35
						FRSB 6X16 VA4401	M6 x 16/ V4A	6078431	6406 19 3		35
FAZ II 10 10CV5A	M1095/ V5A	5802730	3498 55 4	/100 pc.	69						
FAZ II 10 10CV5A	M1095/ V5A	5802730	3498 55 4		69						
FAZ II 10 30CV5A	M10115/ V5A	5802747	3498 58 6		69						
FAZ II 10 50 V5A	M10135/ V5A	5909958	3498 83 7		69	FZEA II 10X40 VA	M810/ V4A	5025177	3492 14 5		69
FAZ II 10/10GS V	M 1095/ V4A	5692713	3498 82 4		69	FZEA II 12X40 VA	M1012/ V4A	5025184	3492 15 0		69
FAZ II 10/10GS V	M 1095/ V4A	5692713	3498 82 4		69	FZEA II 14X40V4A	M1214/ V4A	5909835	3492 09 7		69
FAZ II 10/50 V4A	M10135/ V4A	5688808	3498 83 5		69	FZEA II 14X40V5A	M1214/ V5A	5909842	3492 09 9		69
FAZ II 10100 V4A	M10185/ V4A	5909880	3498 60 1		69						

Type	Dimensions/colour/div.	GTIN	Art. no.	Price	Page	Type	Dimensions/colour/div.	GTIN	Art. no.	Price	Page
FZEA II10x40CV5A	M8 10/ V5A	5802662	3492 16 7	/100 pc.	69	GMS 3 VW 90 V4A	40/ V4A	5805243	1124 74 1	/100 pc.	80
FZEA II12x40CV5A	M10 12/ V5A	5802679	3492 17 2		69						
FZED 10X40 G	/ ST / G	5454212	3492 62 1	/pc.	70	GMS 370 VA4404	370/ V4A	6952212	6015 42 0	/pc.	50
FZED 12X40 G	/ ST / G	5454274	3492 66 4		70						
FZED 14X40 G	/ ST / G	5454335	3492 69 9		70						
FZUB 10X40	1010/ ST	5454397	3492 33 8	/100 pc.	70	GMS 4 KD 90 V2A	10/ V2A	5805021	1124 70 5	/100 pc.	80
FZUB 12X40	1210/ ST	5454458	3492 36 2		70	GMS 4 KD 90 V4A	10/ V4A	5805267	1124 74 5		80
FZUB 14X40	1410/ ST	5454519	3492 39 7		70	GMS 4 VP T V2A	10/ V2A	5804956	1124 69 5		79
					70	GMS 4 VP T V4A	10/ V4A	5805212	1124 73 5		79
					70	GMS 4 VP V2A	40/ V2A	5804925	1124 68 9		78
					70	GMS 4 VP V4A	40/ V4A	5805182	1124 72 9		78
					70	GMS 4 VW 45 V2A	40/ V2A	5805069	1124 70 9		79
G22 M10 V4A	M108/ V4A	5942009	1146 40 6	/100 pc.	76	GMS 4 VW 45 V4A	40/ V4A	5805281	1124 74 9	79	
G22 M12 V4A	M129,5/ V4A	5942030	1146 40 8		76	GMS 4 VW 90 V2A	30/ V2A	5805014	1124 70 3	80	
G22 M6 V4A	M66/ V4A	5941989	1146 40 1		76	GMS 4 VW 90 V4A	30/ V4A	5805250	1124 74 3	80	
G22 M8 V4A	M86/ V4A	5941996	1146 40 3		76						
GEV 36 VA4301	/ V2A	6013333	6016 73 1	/pc.	49	GMS 470 VA4404	470/ V4A	6952274	6015 42 1	/pc.	50
GEV 36 VA4401 SP	/ V4A	6120253	6016 76 4		49						
G-GRM 125 75V2A	75 125/ V2A	5686491	6005 55 6	/m	51	GMS 5 VP V2A	10/ V2A	5804932	1124 69 1	/100 pc.	78
G-GRM 125 75V4A	75 125/ V4A	5771647	6005 57 1		51	GMS 5 VP V4A	10/ V4A	5805199	1124 73 1		78
G-GRM 150 100V2A	100 155/ V2A	5686507	6005 55 9		51	GMS 5 VP X V2A	10/ V2A	5804963	1124 69 7		79
G-GRM 150 100V4A	100 155/ V4A	5771654	6005 57 4	/100 pc.	51	GMS 5 VP X V4A	10/ V4A	5805229	1124 73 7	79	
G-GRM 50 50V2A	5555/ V2A	5686477	6005 55 0		51	GMS 570 VA4404	570/ V4A	6952335	6015 42 2	/pc.	50
G-GRM 50 50V4A	5555/ V4A	5771593	6005 56 5		51						
G-GRM 75 50V2A	5373/ V2A	5686484	6005 55 3		51	GR KS 3.9 OR	Pastel orange/ PE	5872887	6003 75 0	/100 pc.	52
G-GRM 75 50V4A	5373/ V4A	5771609	6005 56 8		51	GR KS 4.8 OR	Pastel orange/ PE	5872894	6003 75 4		33
					51	GR KS 4.8 OR	Pastel orange/ PE	5872894	6003 75 4		52
					51	GR KS 6.0 OR	Pastel orange/ PE	5872900	6003 75 8		52
GKB 34 VA	/ V2A	5694069	6016 67 6		/pc.	49					/m
GKS 34 VA4301	/ V2A	6013456	6016 83 9	/100 pc.	32	GRM 35 100VA4301	100,3,9/ V2A	5467700	6000 05 5		47
GKS 34 VA4301	/ V2A	6013456	6016 83 9		48	GRM 35 100VA4401	100,3,9/ V4A	5360759	6000 08 7	47	
GKS 34 VA4401 SP	/ V4A	6120437	6016 85 9		32	GRM 35 150VA4301	150,3,9/ V2A	5467731	6000 05 6	47	
GKS 34 VA4401 SP	/ V4A	6120437	6016 85 9		48	GRM 35 150VA4401	150,3,9/ V4A	5360766	6000 08 9	47	
					48	GRM 35 200VA4301	200,3,9/ V2A	5470724	6000 05 7	47	
GKT 38 VA4301	/ V2A	6013579	6017 04 5	/100 pc.	49	GRM 35 200VA4401	200,3,9/ V4A	5360773	6000 09 0		47
GKT 38 VA4401 SP	/ V4A	6120499	6017 09 2		49	GRM 35 300VA4301	300,4,8/ V2A	5470731	6000 05 9	47	
						GRM 35 300VA4401	300,4,8/ V4A	5360780	6000 09 1	47	
						GRM 35 50VA4301	50,3,9/ V2A	5650591	6000 05 4	47	
						GRM 55 100VA4301	100,3,9/ V2A	6101290	6001 07 2	47	
						GRM 55 100VA4401	100,3,9/ V4A	5166016	6001 08 8	47	
						GRM 55 150VA4301	150,3,9/ V2A	6101351	6001 07 4	47	
						GRM 55 150VA4401	150,3,9/ V4A	5166023	6001 09 0	47	
						GRM 55 200VA4301	200,3,9/ V2A	6101412	6001 07 6	47	
						GRM 55 200VA4401	200,3,9/ V4A	5166061	6001 09 1	47	
						GRM 55 300VA4301	300,4,8/ V2A	6101771	6001 07 8	32	
						GRM 55 300VA4401	300,4,8/ V4A	6101771	6001 07 8	47	
						GRM 55 300VA4401	300,4,8/ V4A	5166078	6001 09 3	32	
						GRM 55 300VA4401	300,4,8/ V4A	5166078	6001 09 3	47	
					GRM 55 400VA4301	400,4,8/ V2A	6102198	6001 08 0	47		
					GRM 55 400VA4401	400,4,8/ V4A	5166085	6001 09 5	47		
					GRM 55 500VA4301	500,4,8/ V2A	6102259	6001 08 2	47		
					GRM 55 500VA4401	500,4,8/ V4A	5166122	6001 09 7	47		
					GRM 55 50VA4301	50,3,9/ V2A	5430933	6001 07 0	47		
					GRM 55 50VA4401	50,3,9/ V4A	5431046	6001 08 7	47		
					GRM 55 600VA4301	600,4,8/ V2A	6102310	6001 08 5	47		
					GRM 55 600VA4401	600,4,8/ V4A	5166139	6001 09 9	47		
GMS 1 VP V2A	150/ V2A	5804895	1124 68 3	/pc.	79	GRM105 100VA4301	100,3,9/ V2A	5149620	6002 45 1		47
GMS 1 VP V4A	150/ V4A	5805137	1124 72 3		79	GRM105 100VA4401	100,3,9/ V4A	5874904	6002 47 5	47	
GMS 170 VA4404	170/ V4A	6952090	6015 41 8	/100 pc.	50	GRM105 150VA4301	150,3,9/ V2A	5422624	6002 45 5		47
					78	GRM105 150VA4401	150,3,9/ V4A	5874911	6002 47 6	47	
GMS 2 VP V2A	40/ V2A	5804901	1124 68 5		78	GRM105 200VA4301	200,4,8/ V2A	5149637	6002 45 7	47	
GMS 2 VP V4A	40/ V4A	5805144	1124 72 5		80	GRM105 200VA4401	200,4,8/ V4A	5874928	6002 47 7	47	
GMS 2 VW 90 V2A	60/ V2A	5804994	1124 69 9		80	GRM105 300VA4301	300,4,8/ V2A	5149644	6002 46 0	47	
GMS 2 VW 90 V4A	60/ V4A	5805236	1124 73 9		80	GRM105 300VA4401	300,4,8/ V4A	5874959	6002 47 9	47	
						GRM105 400VA4301	400,4,8/ V2A	5149675	6002 46 3	47	
						GRM105 400VA4401	400,4,8/ V4A	5874966	6002 48 1	47	
GMS 270 VA4404	270/ V4A	6952151	6015 41 9	/100 pc.	50	GRM105 450VA4401	450,4,8/ V4A	5874973	6002 48 2		47
						GRM105 500VA4301	500,4,8/ V2A	5149682	6002 46 6	47	
						GRM105 500VA4401	500,4,8/ V4A	5874980	6002 48 3	47	
						GRM105 600VA4301	600,4,8/ V2A	5771586	6002 46 9	47	
						GRM105 600VA4401	600,4,8/ V4A	5875017	6002 48 5	47	
GMS 3 O 4141 V2A	10/ V2A	5805083	1124 71 3	/100 pc.	80	GRV 245 VA4404	245/ V4A	6054312	6016 68 8	/pc.	48
GMS 3 O 4141 V4A	10/ V4A	5805304	1124 75 3		80						
GMS 3 VP L V2A	40/ V2A	5804949	1124 69 3		79	GRV 245 VA4404	245/ V4A	6054312	6016 68 8		
GMS 3 VP L V4A	40/ V4A	5805205	1124 73 3		79						
GMS 3 VP V2A	80/ V2A	5804918	1124 68 7		78						
GMS 3 VP V4A	80/ V4A	5805175	1124 72 7		78						
GMS 3 VW 45 V2A	40/ V2A	5805052	1124 70 7		79						
GMS 3 VW 45 V4A	40/ V4A	5805274	1124 74 7		79						
GMS 3 VW 90 V2A	40/ V2A	5805007	1124 70 1		80	GSV 34 VA4301	/ V2A	6013210	6016 64 2		33
					80	GSV 34 VA4301	/ V2A	6013210	6016 64 2		48
					80	GSV 34 VA4401	/ V4A	6120079	6016 64 8		33

Type listing

Structure of the GTIN: Country code **40** Manufacturer code **1219** Individual GTIN **5647589**

Type	Dimensions/colour/div.	GTIN	Art. no.	Price	Page	Type	Dimensions/colour/div.	GTIN	Art. no.	Price	Page
GSV 34 VA4401	/ V4A	6120079	6016 64 8	/pc.	48	KSR-925 PE	Light grey/ PE	5811084	6066 68 8	/pc.	46
GVMS 4 ASV V2A	60/ V2A	5804888	1124 68 1	/100 pc.	79	KS-S DE		5448259	7205 42 5		110
GVMS 4 ASV V4A	60/ V4A	5805120	1124 71 5		79	KS-S DE		5448259	7205 42 5		112
HKF22 M10x30 V4A	M1030/ V4A	5941934	1148 99 6		77	KS-S EN		5725695	7205 42 9		114
HKF22 M10x50 V4A	M1050/ V4A	5941941	1148 99 8		77	KS-S EN		5725695	7205 42 9		110
HKF22 M12x30 V4A	M1230/ V4A	5941972	1149 00 2		77	KS-S EN		5725695	7205 42 9		112
HKF22 M8x30 V4A	M830/ V4A	5941910	1148 99 0		77	KS-S ES		5703808	7205 42 7		114
HKF22 M8x50 V4A	M850/ V4A	5941927	1148 99 2		77	KS-S ES		5703808	7205 42 7		110
K12 1818 VA4301	/ V2A	6013036	6016 42 1	/pc.	49	KTSMV 610 VA4301	60 100/ V2A	5889571	6068 95 8		29
KAB GR VA 1.4301	/ V2A	5807155	6220 14 5		33	KTSMV 610 VA4301	60 100/ V2A	5889571	6068 95 8		37
KAB GR VA 1.4301	/ V2A	5807155	6220 14 5		50	KTSMV 610 VA4571	60 100/ V4A	5889649	6068 98 0		29
						KTSMV 610 VA4571	60 100/ V4A	5889649	6068 98 0		37
						KTSMV 615 VA4301	60 150/ V2A	5889588	6068 96 0		37
						KTSMV 615 VA4571	60 150/ V4A	5889656	6068 98 2		37
KL-T 02-06	Light grey/ PA	5942832	2016 18 5	/100 pc.	104	KTSMV 620 VA4301	60 200/ V2A	5889595	6068 96 2		29
KL-T 06-16	Light grey/ PA	5896951	2016 19 0		104	KTSMV 620 VA4301	60 200/ V2A	5889595	6068 96 2		37
						KTSMV 620 VA4571	60 200/ V4A	5889663	6068 98 4		29
						KTSMV 620 VA4571	60 200/ V4A	5889663	6068 98 4		37
KM M10 VA4401	10/ V4A	5910985	6408 93 0		82	KTSMV 630 VA4301	60 300/ V2A	5889601	6068 96 4		29
KM M10 VA4529	/ V5A	5911036	6408 93 2		82	KTSMV 630 VA4301	60 300/ V2A	5889601	6068 96 4		37
KM M12 VA4401	12/ V4A	5911043	6408 94 0		82	KTSMV 630 VA4571	60 300/ V4A	5889670	6068 98 6		29
KM M12 VA4529	/ V5A	5911074	6408 94 2		82	KTSMV 630 VA4571	60 300/ V4A	5889670	6068 98 6		37
KM M6 VA4301	66/ V2A	6078554	6408 96 6		82	KTSMV 640 VA4301	60 400/ V2A	5889618	6068 96 6		37
KM M6 VA4401	66/ V4A	6078615	6408 97 0		82	KTSMV 640 VA4301	60 400/ V4A	5889687	6068 98 8		37
KM M6 VA4529	/ V5A	5911081	6408 97 2		82	KTSMV 650 VA4301	60 500/ V2A	5889625	6068 96 8		37
KM M8 VA4401	8/ V4A	5910961	6408 92 0		82	KTSMV 650 VA4571	60 500/ V4A	5889717	6068 99 0		37
KM M8 VA4529	/ V5A	5910978	6408 92 2		82	KTSMV 660 VA4301	60 600/ V2A	5889632	6068 97 0		37
						KTSMV 660 VA4571	60 600/ V4A	5889724	6068 99 2		37
KOAX B-E2 MF-F		5684855	5082 42 0	/pc.	148	KU 3 V VA4301	/ V2A	5706038	6348 88 4		63
						KU 3 V VA4571	/ V4A	5395393	6348 88 5		63
KS GR LBL	Light blue/ PA	5903468	6017 71 4		52	KU 5 V VA4301	/ V2A	5018360	6348 92 5		65
KS GR LGR	Light grey/ PA	5848264	6017 71 0		52	KU 5 V VA4571	/ V4A	5018452	6348 92 7		65
KS GR OR	Pastel orange/ PA	5848288	6017 71 2		52						
KS GR SGN	Signal green/ PA	5903475	6017 71 5		52	KVM		5577768	2363 01 0		105
KS GR VA4310	/ V2A	5694625	6062 28 2	/100 pc.	48					/VPE	105
KS GR VKG	Traffic grey B/ PA	5848271	6017 71 1	/pc.	52	KVM-M		5686354	2363 01 5	/pc.	105
KS GR ZGB	Zinc yellow/ PA	5848295	6017 71 3		52	KVM-P		5687771	2363 01 9		105
KS KL VA4310	/ V2A	5694656	6062 28 4	/100 pc.	54					/m	58
KS KL VA4310	/ V2A	5694656	6062 28 4		57	LG 620 VS VA4301	200 1,5/ V2A	5064411	6208 70 0		58
KS KR VA4310	/ V2A	5694618	6062 28 0		37	LG 620 VS VA4571	200 1,5/ V4A	6159314	6101 20 0		58
						LG 630 VS VA4301	300 1,5/ V2A	5064428	6208 70 3		58
						LG 630 VS VA4571	300 1,5/ V4A	6514038	6101 20 8		58
						LG 640 VS VA4301	400 1,5/ V2A	5064435	6208 70 6		58
						LG 640 VS VA4571	400 1,5/ V4A	5022114	6101 21 6		58
KS-E DE	/ PVC	5847830	7205 42 3	/pc.	31	LG 650 VS VA4301	500 1,5/ V2A	5064442	6208 70 9		58
KS-E DE	/ PVC	5847830	7205 42 3		33	LG 650 VS VA4571	500 1,5/ V4A	5022121	6101 22 3		58
KS-E DE	/ PVC	5847830	7205 42 3		101	LG 660 VS VA4301	600 1,5/ V2A	5064473	6208 71 2		58
KS-E DE	/ PVC	5847830	7205 42 3		130	LG 660 VS VA4571	600 1,5/ V4A	6524952	6101 23 2		58
KS-E EN	/ PVC	5811688	7205 43 2		31						
KS-E EN	/ PVC	5811688	7205 43 2		33						
KS-E EN	/ PVC	5811688	7205 43 2		101	LGVG 60 VA4301	60/ V2A	5065647	6208 94 7	/pc.	58
KS-E EN	/ PVC	5811688	7205 43 2		130	LGVG 60 VA4571	60/ V4A	5046370	6208 93 2		58
KS-E EN	/ PVC	5811688	7205 43 2		136						
KS-E HU	/ PVC	5883753	7205 43 4		31	LKS 60 4 VA4301	/ V2A	6015252	6221 13 0		55
KS-E HU	/ PVC	5883753	7205 43 4		33	LKS 60 4 VA4301	/ V2A	6015252	6221 13 0		57
KSH-P1	500 150	5847854	7202 28 3		110	LKS60 4 VA4571	/ V4A	6524839	6221 15 7		55
KSH-P1	500 150	5847854	7202 28 3		112	LKS60 4 VA4571	/ V4A	6524839	6221 15 7		57
KSH-P1	500 150	5847854	7202 28 3		114						
KSH-P2	500 250	5847861	7202 90 4		110						
KSH-P2	500 250	5847861	7202 90 4		112	LSA-B-MAG		5525318	5084 02 0		148
KSH-P2	500 250	5847861	7202 90 4		114						
KSH-P3	1000 250	5847878	7202 91 2		110						
KSH-P3	1000 250	5847878	7202 91 2		112	LVG 60 VA4301	60/ V2A	5065579	6208 84 6		58
KSH-P3	1000 250	5847878	7202 91 2		114	LVG 60 VA4571	60/ V4A	6666799	6208 83 5		58
						LWVG 60 VA4301	60/ V2A	5065616	6208 89 8		58
KSR-910 PE	Light grey 20 x 58/ PE	6065172	6066 71 2		44	LWVG 60 VA4571	60/ V4A	5022084	6208 89 1		58
KSR-910 PE	Light grey 20 x 58/ PE	6065172	6066 71 2		46						
KSR-915 PE	Light grey 28 x 58/ PE	6065110	6066 70 4		46						
KSR-920 PE	Light grey/ PE	5811114	6066 69 6		46	MCD 50-B 3		5077077	5096 87 7		144

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MCD 50-B 3+1		5077091	5096 87 9	/pc.	144	MS 41 L 400 V4A	41x41 / V4A	5907145	1123 03 5	/100 pc.	73
						MS 41 L 400 V5A	41x41 / V5A	5907619	1123 40 6		75
MDP-4 D-24-T		5406884	5098 43 1		148	MS 41 L 500 V4A	41x41 / V4A	5907152	1123 03 7		73
						MS 41 L 500 V5A	41x41 / V5A	5913269	1123 40 7		75
						MS 41 L 600 V4A	41x41 / V4A	5907169	1123 03 9		73
MIW-S		5918929	7202 30 6		109	MS 41 L 600 V5A	41x41 / V5A	5907626	1123 41 0		75
MIW-S		5918929	7202 30 6		112					/100 m	
						MS 41 L 6M 2 V2A	41x41 / V2A	5698227	1122 98 2		73
						MS 41 L 6M 2 V4A	41x41 / V4A	5698289	1122 99 2		74
MMS6X50	6 x 50 / St / Gc	5963929	3498 10 7	/100 pc.	109	MS 41 L 6M V4A	41x41 / V4A	5907220	1123 05 1		74
										/100 pc.	
MMS7.5X80	7.5 x 80 / St / G	5519973	3498 27 1		129	MS 41 L 700 V4A	41x41 / V4A	5907176	1123 04 1		73
						MS 41 L 700 V5A	41x41 / V5A	5907664	1123 41 2		75
						MS 41 L 800 V4A	41x41 / V4A	5907183	1123 04 3		73
MMS-MS7,5x50	7.5 x 50 / St / G	5693178	3498 26 0		109	MS 41 L 800 V5A	41x41 / V5A	5907671	1123 41 4		75
MMS-MS7,5x50	7.5 x 50 / St / G	5693178	3498 26 0		125	MS 41 L 900 V4A	41x41 / V4A	5907190	1123 04 5		73
						MS 41 L 900 V5A	41x41 / V5A	5913276	1123 41 5		75
										/100 m	
						MS 41 LS 1M V4A	2,5 / V4A	5907237	1123 07 7		74
MP UNI VA4301	115170 / V2A	5166320	7085 13 3	/pc.	44	MS 41 LS 6M V4A	2,5 / V4A	5907244	1123 07 9		74
MP UNI VA4301	115170 / V2A	5166320	7085 13 3		52	MS 41 LS1M 2 V2A	2 / V2A	5698333	1123 01 4		74
						MS 41 LS1M 2 V4A	/ V4A	5698395	1123 02 1		74
MPG 65 VA4404	81 65 / V4A	6933372	6006 48 8		52	MS 41 LS3M 2 V2A	2 / V2A	5698340	1123 01 6		74
MPG 90 VA4404	11195 / V4A	6933433	6006 48 9		52	MS 41 LS3M 2 V4A	/ V4A	5698401	1123 02 3		74
						MS 41 LS6M 2 V2A	2 / V2A	5698388	1123 01 8		74
						MS 41 LS6M 2 V4A	/ V4A	5698432	1123 02 5		74
										/100 pc.	
MS 21 D L3M 2V2A	41x21 / V2A	5938002	1122 95 2	/100 m	72	MS 41 SK OR SP Pastel orange 300 / PE		5686200	1122 90 0		75
MS 21 D L6M 2V2A	41x21 / V2A	5938019	1122 95 4		72						
										/pc.	
MS 21 L 200 FT	41x21 / St / FT	5697626	1122 93 3	/100 pc.	124						
MS 21 L 200 V4A	41x21 / V4A	5907039	1122 46 8		72	MSX-E1		5850083	7206 05 8		108
MS 21 L 200 V5A	41x21 / V5A	5907398	1123 36 0		73	MSX-S1		5850076	7206 10 4		108
										/100 m	
MS 21 L 2M V4A	41x21 / V4A	5907114	1122 47 6	/100 m	73						
MS 21 L 2M V5A	41x21 / V5A	5907473	1123 37 8		73	ND-CAT6A/EA		5614364	5081 80 0		149
										/100 pc.	
MS 21 L 300 V4A	41x21 / V4A	5907046	1122 46 9	/100 pc.	72						
MS 21 L 300 V5A	41x21 / V5A	5907404	1123 36 2		73	NIK-G	25 x 30 x 240 30	6264131	7206 20 8		110
										/100 m	
MS 21 L 3M V2A	41x21 / V2A	5697558	1122 92 8	/100 m	72						
MS 21 L 3M V4A	41x21 / V4A	5697602	1122 93 1		73					/100 pc.	
MS 21 L 3M V5A	41x21 / V5A	5907480	1123 38 0		73	OTK H110	Pure white / PC/ABS	5817901	6176 12 8		96
						OTK H150	Pure white / PC/ABS	5817918	6176 13 1		96
MS 21 L 400 FT	41x21 / St / FT	5697671	1122 93 5	/100 pc.	124	OTK H60	Pure white / PC/ABS	5817864	6176 12 2		96
MS 21 L 400 V4A	41x21 / V4A	5907053	1122 47 0		72	OTK H90	Pure white / PC/ABS	5817895	6176 12 5		96
MS 21 L 400 V5A	41x21 / V5A	5907411	1123 36 4		73					/pc.	
MS 21 L 500 V4A	41x21 / V4A	5907060	1122 47 1		72						
MS 21 L 500 V5A	41x21 / V5A	5907428	1123 36 6		73						
MS 21 L 600 V4A	41x21 / V4A	5907077	1122 47 2		72	PSX-P	1000600	5850120	7202 29 5		111
MS 21 L 600 V5A	41x21 / V5A	5907435	1123 36 8		73						
										/100 m	
MS 21 L 6M V2A	41x21 / V2A	5697565	1122 92 9	/100 m	72	RAAM 610 VA4301	100 / V2A	5878797	6041 27 0		29
MS 21 L 6M V4A	41x21 / V4A	5697619	1122 93 2		73	RAAM 610 VA4301	100 / V2A	5878797	6041 27 0		39
						RAAM 610 VA4571	100 / V4A	5878865	6041 29 0		29
MS 21 L 700 V4A	41x21 / V4A	5907084	1122 47 3	/100 pc.	72	RAAM 610 VA4571	100 / V4A	5878865	6041 29 0		39
MS 21 L 700 V5A	41x21 / V5A	5907442	1123 37 0		73	RAAM 615 VA4301	150 / V2A	5878803	6041 27 1		39
MS 21 L 800 V4A	41x21 / V4A	5907091	1122 47 4		72	RAAM 615 VA4571	150 / V4A	5878872	6041 29 2		39
MS 21 L 800 V5A	41x21 / V5A	5907459	1123 37 2		73	RAAM 620 VA4301	200 / V2A	5878810	6041 27 5		29
MS 21 L 900 V4A	41x21 / V4A	5907107	1122 47 5		72	RAAM 620 VA4301	200 / V2A	5878810	6041 27 5		39
MS 21 L 900 V5A	41x21 / V5A	5907466	1123 37 4		73	RAAM 620 VA4571	200 / V4A	5878889	6041 29 4		29
MS 21 SK OR SP Pastel orange 300 / PE		5686217	1122 90 2		73	RAAM 620 VA4571	200 / V4A	5878889	6041 29 4		39
MS 21 SK OR SP Pastel orange 300 / PE		5686217	1122 90 2		125	RAAM 630 VA4301	300 / V2A	5878827	6041 27 7		29
						RAAM 630 VA4301	300 / V2A	5878827	6041 27 7		39
						RAAM 630 VA4571	300 / V4A	5878926	6041 29 6		29
MS 41 D L3M 2V2A	41x82 / V2A	5938026	1122 68 2	/100 m	74	RAAM 630 VA4571	300 / V4A	5878926	6041 29 6		39
MS 41 D L6M 2V2A	41x82 / V2A	5938033	1122 68 4		74	RAAM 640 VA4301	400 / V2A	5878834	6041 27 9		39
						RAAM 640 VA4571	400 / V4A	5878933	6041 29 8		39
MS 41 EDK OR Pastel orange 50 / PE		5894117	1122 90 6	/100 pc.	75	RAAM 650 VA4301	500 / V2A	5878841	6041 28 2		39
						RAAM 650 VA4571	500 / V4A	5878940	6041 30 0		39
MS 41 L 1M 2 V2A	41x41 / V2A	5698203	1122 97 8	/100 m	73	RAAM 660 VA4301	600 / V2A	5878858	6041 28 4		39
MS 41 L 1M 2 V4A	41x41 / V4A	5698265	1122 98 8		74	RAAM 660 VA4571	600 / V4A	5878988	6041 30 3		39
MS 41 L 1M 2 V5A	41x41 / V5A	5907503	1123 39 4		74						
MS 41 L 1M V4A	41x41 / V4A	5907206	1123 04 7		74	RBM 45 610VA4301	100 / V2A	5881674	6041 08 0		28
MS 41 L 1M V5A	41x41 / V5A	5907688	1123 41 8		75	RBM 45 610VA4301	100 / V2A	5881674	6041 08 0		38
						RBM 45 610VA4571	100 / V4A	5881742	6041 10 0		28
						RBM 45 610VA4571	100 / V4A	5881742	6041 10 0		38
MS 41 L 200 V4A	41x41 / V4A	5907121	1123 03 1	/100 pc.	73	RBM 45 615VA4301	150 / V2A	5881681	6041 08 2		38
MS 41 L 200 V5A	41x41 / V5A	5907565	1123 40 2		75	RBM 45 615VA4571	150 / V4A	5881759	6041 10 2		38
MS 41 L 300 V4A	41x41 / V4A	5907138	1123 03 3		73	RBM 45 620VA4301	200 / V2A	5881698	6041 08 4		28
MS 41 L 300 V5A	41x41 / V5A	5907602	1123 40 4		75	RBM 45 620VA4301	200 / V2A	5881698	6041 08 4		38
						RBM 45 620VA4571	200 / V4A	5881766	6041 10 4		28
MS 41 L 3M 2 V2A	41x41 / V2A	5698210	1122 98 0	/100 m	73	RBM 45 620VA4571	200 / V4A	5881766	6041 10 4		38
MS 41 L 3M 2 V4A	41x41 / V4A	5698272	1122 99 0		74	RBM 45 630VA4301	300 / V2A	5881704	6041 08 6		28
MS 41 L 3M 2 V5A	41x41 / V5A	5907541	1123 39 6		74	RBM 45 630VA4301	300 / V2A	5881704	6041 08 6		38
MS 41 L 3M V4A	41x41 / V4A	5907213	1123 04 9		74	RBM 45 630VA4301	300 / V2A	5881704	6041 08 6		38
MS 41 L 3M V5A	41x41 / V5A	5907695	1123 42 0		75	RBM 45 630VA4571	300 / V4A	5881773	6041 10 6		28

Type listing

Structure of the GTIN: Country code **40** Manufacturer code **1219** Individual GTIN **5647589**

Type	Dimensions/colour/div.	GTIN	Art. no.	Price	Page	Type	Dimensions/colour/div.	GTIN	Art. no.	Price	Page
RBM 45 630VA4571	300/ V4A	5881773	6041 10 6	/pc.	38	RKM 620 VA4571	200/ V4A	5927716	7027 06 5	/pc.	40
RBM 45 640VA4301	400/ V2A	5881711	6041 08 8		38	RKM 630 VA4301	300/ V2A	5927655	7027 04 7		40
RBM 45 640VA4571	400/ V4A	5881780	6041 10 8		38	RKM 630 VA4571	300/ V4A	5927723	7027 06 7		40
RBM 45 650VA4301	500/ V2A	5881728	6041 09 0		38	RKM 640 VA4301	400/ V2A	5927662	7027 04 9		40
RBM 45 650VA4571	500/ V4A	5881797	6041 11 0		38	RKM 640 VA4571	400/ V4A	5927730	7027 06 9		40
RBM 45 660VA4301	600/ V2A	5881735	6041 09 2		38	RKM 650 VA4301	500/ V2A	5927679	7027 05 1		40
RBM 45 660VA4571	600/ V4A	5881803	6041 11 2		38	RKM 650 VA4571	500/ V4A	5927747	7027 07 1		40
RBM 90 610VA4301	100/ V2A	5881957	6041 18 0		29	RKM 660 VA4301	600/ V2A	5927686	7027 05 3		40
RBM 90 610VA4301	100/ V2A	5881957	6041 18 0		39	RKM 660 VA4571	600/ V4A	5927754	7027 07 3		40
RBM 90 610VA4571	100/ V4A	5878407	6041 20 0		29						
RBM 90 610VA4571	100/ V4A	5878407	6041 20 0		39					/m	
RBM 90 615VA4301	150/ V2A	5878285	6041 18 2		39	RKSM 610 VA4301	1000,75/ V2A	5706083	6047 61 3		28
RBM 90 615VA4571	150/ V4A	5878445	6041 20 2		39	RKSM 610 VA4301	1000,75/ V2A	5706083	6047 61 3		36
RBM 90 620VA4301	200/ V2A	5878322	6041 18 4		29	RKSM 610 VA4571	1000,75/ V4A	5706113	6047 61 4		28
RBM 90 620VA4301	200/ V2A	5878322	6041 18 4		39	RKSM 610 VA4571	1000,75/ V4A	5706113	6047 61 4		36
RBM 90 620VA4571	200/ V4A	5878452	6041 20 4		29	RKSM 615 VA4301	1500,75/ V2A	5706120	6047 63 2		36
RBM 90 620VA4571	200/ V4A	5878452	6041 20 4		39	RKSM 615 VA4571	1500,75/ V4A	5706137	6047 63 3		36
RBM 90 630VA4301	300/ V2A	5878339	6041 18 6		29	RKSM 620 VA4301	2000,75/ V2A	5706144	6047 64 0		28
RBM 90 630VA4301	300/ V2A	5878339	6041 18 6		39	RKSM 620 VA4301	2000,75/ V2A	5706144	6047 64 0		36
RBM 90 630VA4571	300/ V4A	5878469	6041 20 6		29	RKSM 620 VA4571	2000,75/ V4A	5706175	6047 64 1		28
RBM 90 630VA4571	300/ V4A	5878469	6041 20 6		39	RKSM 620 VA4571	2000,75/ V4A	5706175	6047 64 1		36
RBM 90 640VA4301	400/ V2A	5878346	6041 18 8		39	RKSM 630 VA4301	3000,75/ V2A	5706182	6047 65 6		28
RBM 90 640VA4571	400/ V4A	5878506	6041 20 8		39	RKSM 630 VA4301	3000,75/ V2A	5706182	6047 65 6		36
RBM 90 650VA4301	500/ V2A	5878384	6041 19 0		39	RKSM 630 VA4571	3000,75/ V4A	5706199	6047 65 7		28
RBM 90 650VA4571	500/ V4A	5878513	6041 21 0		39	RKSM 630 VA4571	3000,75/ V4A	5706199	6047 65 7		36
RBM 90 660VA4301	600/ V2A	5878391	6041 19 2		39	RKSM 640 VA4301	4000,9/ V2A	5706205	6047 69 1		36
RBM 90 660VA4571	600/ V4A	5878520	6041 21 2		39	RKSM 640 VA4571	4000,9/ V4A	5706236	6047 69 2		36
RBV 610 F VA4301	100/ V2A	5688563	7007 15 5		40	RKSM 650 VA4301	5000,9/ V2A	5706243	6047 72 1		36
RBV 610 F VA4571	100/ V4A	5886457	7006 75 0		40	RKSM 650 VA4571	5000,9/ V4A	5706250	6047 72 2		36
RBV 610 S VA4301	100/ V2A	5688556	7007 10 5		40	RKSM 660 VA4301	6000,9/ V2A	5706267	6047 73 7		36
RBV 610 S VA4571	100/ V4A	5886570	7006 72 0		40	RKSM 660 VA4571	6000,9/ V4A	5706298	6047 73 8		36
RBV 620 F VA4301	200/ V2A	5886112	7007 15 7		40					/pc.	124
RBV 620 F VA4571	200/ V4A	5886471	7006 75 4		40	RKV3V		5149088	6288 70 0		
RBV 620 S VA4301	200/ V2A	5886181	7007 10 9		40						
RBV 620 S VA4571	200/ V4A	5886587	7006 72 4		40						
RBV 630 F VA4301	300/ V2A	5886129	7007 15 9		40	RLVK 60 VA4301	60/ V2A	6066018	6067 65 4		37
RBV 630 F VA4571	300/ V4A	5886488	7006 75 8		40	RLVK 60 VA4571	60/ V4A	6955459	6067 67 5		37
RBV 630 S VA4301	300/ V2A	5886198	7007 11 3		40						
RBV 630 S VA4571	300/ V4A	5886594	7006 72 8		40						
RBV 640 F VA4301	400/ V2A	5886136	7007 16 1		40	RTM 610 VA4301	100/ V2A	5879282	6041 36 0		39
RBV 640 F VA4571	400/ V4A	5886501	7006 76 2		40	RTM 610 VA4571	100/ V4A	5879411	6041 38 0		39
RBV 640 S VA4301	400/ V2A	5886204	7007 11 7		40	RTM 615 VA4301	150/ V2A	5879299	6041 36 3		39
RBV 640 S VA4571	400/ V4A	5886600	7006 73 2		40	RTM 615 VA4571	150/ V4A	5879428	6041 38 2		39
RBV 650 F VA4301	500/ V2A	5886143	7007 16 3		40	RTM 615 VA4571	150/ V4A	5879428	6041 38 2		39
RBV 650 F VA4571	500/ V4A	5886532	7006 76 6		40	RTM 620 VA4301	200/ V2A	5879305	6041 36 5		39
RBV 650 S VA4301	500/ V2A	5886235	7007 11 9		40	RTM 620 VA4571	200/ V4A	5879466	6041 38 4		39
RBV 650 S VA4571	500/ V4A	5886617	7006 73 6		40	RTM 630 VA4301	300/ V2A	5879343	6041 36 7		39
RBV 660 F VA4301	600/ V2A	5886174	7007 16 5		40	RTM 630 VA4571	300/ V4A	5879473	6041 38 6		39
RBV 660 F VA4571	600/ V4A	5886549	7006 77 0		40	RTM 640 VA4301	400/ V2A	5879350	6041 36 9		39
RBV 660 S VA4301	600/ V2A	5886242	7007 12 1		40	RTM 640 VA4571	400/ V4A	5879480	6041 38 8		39
RBV 660 S VA4571	600/ V4A	5886624	7006 74 0		40	RTM 650 VA4301	500/ V2A	5879367	6041 37 1		39
					40	RTM 650 VA4571	500/ V4A	5879527	6041 39 0		39
					40	RTM 660 VA4301	600/ V2A	5879404	6041 37 3		39
					40	RTM 660 VA4571	600/ V4A	5879534	6041 39 2		39
RD 10	/ St / FT	5381617	5021 10 3	/100 m	140	RWEB 610 VA4301	100/ V2A	6242054	7109 81 4		38
RD 10-ALU	/ Al	5381976	5021 30 8		140	RWEB 620 VA4301	200/ V2A	6242115	7109 83 0		38
RD 10-V2A	/ V2A	5680567	5021 23 9		140	RWEB 630 VA4301	300/ V2A	6242177	7109 85 7		38
RD 10-V4A	/ V4A	5680581	5021 64 7		140	RWEB 640 VA4301	400/ V2A	6242238	7109 87 3		38
RD 8-ALU	/ Al	5381914	5021 28 6		140	RWEB 650 VA4301	500/ V2A	6242290	7109 90 3		38
RD 8-ALU-T	/ Al	5901273	5021 29 4		140	RWEB 660 VA4301	600/ V2A	6242351	7109 93 8		38
RD 8-FT	/ St / FT	5381556	5021 08 1		140						
RD 8-V2A	/ V2A	5680529	5021 23 5		140	RWVL 60 VA4301	60/ V2A	6066070	6067 66 2		38
RD 8-V4A	/ V4A	5680574	5021 64 4		140	RWVL 60 VA4571	60/ V4A	6343157	6067 66 4		38
REV 60 VA4301	60/ V2A	6066490	6068 02 2	/pc.	38	S16 W V2A	M16 3000/ V2A	5923640	2046 72 0	/100 m	85
REV 60 VA4571	60/ V4A	5021483	6068 05 4		38	S16 W V4A	M16 3000/ V4A	5923886	2046 75 0		85
RGBV 610 VA4301	100/ V2A	6258499	7138 11 3		40	S20 W V2A	M20 3000/ V2A	5923657	2046 72 1		85
RGBV 620 VA4301	200/ V2A	6258550	7138 12 1		40	S20 W V4A	M20 3000/ V4A	5923923	2046 75 1		85
RGBV 630 VA4301	300/ V2A	6258611	7138 14 8		40	S25 W V2A	M25 3000/ V2A	5923664	2046 72 2		85
RGBV 640 VA4301	400/ V2A	6258673	7138 15 6		40	S25 W V4A	M25 3000/ V4A	5923947	2046 75 2		85
RGBV 650 VA4301	500/ V2A	6258734	7138 16 4		40						
RGBV 660 VA4301	600/ V2A	6258796	7138 17 2		40	S32 W V2A	M32 3000/ V2A	5923671	2046 72 3		85
RGV 60 VA4301	60/ V2A	6230839	7082 25 8		38	S32 W V4A	M32 3000/ V4A	5923978	2046 75 3		85
RGV 60 VA4571	60/ V4A	6080113	7082 26 5		38	S40 W V2A	M40 3000/ V2A	5923688	2046 72 4		85
RKM 610 VA4301	100/ V2A	5927594	7027 04 1		40	S40 W V4A	M40 3000/ V4A	5923985	2046 75 4		85
RKM 610 VA4571	100/ V4A	5927693	7027 06 1		40	S50 W V2A	M50 3000/ V2A	5923695	2046 72 5		85
RKM 615 VA4301	150/ V2A	5927600	7027 04 3		40	S50 W V4A	M50 3000/ V4A	5923992	2046 75 5		85
RKM 615 VA4571	150/ V4A	5927709	7027 06 3		40						
RKM 620 VA4301	200/ V2A	5927648	7027 04 5		40						

Type	Dimensions/colour/div.	GTIN	Art. no.	Price	Page	Type	Dimensions/colour/div.	GTIN	Art. no.	Price	Page
S63 W V2A	M63 3000/ V2A	5923701	2046 72 6	/100 m	85	SSLB 200 VA4571	185/ V4A	5021582	7070 39 2	/pc.	41
S63 W V4A	M63 3000/ V4A	5924036	2046 75 6			SSLB 300 VA4301	285/ V2A	6095841	7070 36 5		
SB16 W V2A	M16 153/ V2A	5923718	2046 73 0	/100 pc.	85	SSLB 300 VA4571	285/ V4A	5021605	7070 39 4	/pc.	41
SB16 W V4A	M16 153/ V4A	5924050	2046 76 0			SSLB 400 VA4301	385/ V2A	6095902	7070 36 9		
SB20 W V2A	M20 183/ V2A	5923725	2046 73 1	/100 pc.	85	SSLB 400 VA4571	385/ V4A	5021766	7070 39 6	/pc.	41
SB20 W V4A	M20 183/ V4A	5924104	2046 76 1			SSLB 500 VA4301	485/ V2A	6095964	7070 37 3		
SB25 W V2A	M25 208/ V2A	5923732	2046 73 2	/100 pc.	85	SSLB 500 VA4571	485/ V4A	5021711	7070 39 8	/pc.	41
SB25 W V4A	M25 208/ V4A	5924111	2046 76 2			SSLB 600 VA4301	585/ V2A	6096022	7070 38 1		
SB32 W V2A	M32 258/ V2A	5923749	2046 73 3	/100 pc.	85	SSLB 600 VA4571	585/ V4A	5021827	7070 40 0	/pc.	41
SB32 W V4A	M32 258/ V4A	5924173	2046 76 3			SV16 W V2A	M1645/ V2A	5923787	2046 74 0		
SB40 W V2A	M40 276/ V2A	5923756	2046 73 4	/100 pc.	85	SV16 W V4A	M1645/ V4A	5924210	2046 77 0	/pc.	85
SB40 W V4A	M40 276/ V4A	5924180	2046 76 4			SV20 W V2A	M2050/ V2A	5923794	2046 74 1		
SB50 W V2A	M50 317/ V2A	5923763	2046 73 5	/100 pc.	85	SV20 W V4A	M2050/ V4A	5924258	2046 77 1	/pc.	85
SB50 W V4A	M50 317/ V4A	5924197	2046 76 5			SV25 W V2A	M2560/ V2A	5923800	2046 74 2		
SB63 W V2A	M63 376/ V2A	5923770	2046 73 6	/100 pc.	85	SV25 W V4A	M2560/ V4A	5924272	2046 77 2	/pc.	85
SB63 W V4A	M63 376/ V4A	5924203	2046 76 6			SV32 W V2A	M3270/ V2A	5923824	2046 74 3		
SC-TELE 4-C-G		5834793	5081 68 8	/pc.	148	SV32 W V4A	M3270/ V4A	5924296	2046 77 3	/pc.	85
SH M10 VA4401	M10/ V4A	6952038	6015 34 0			SV40 W V2A	M4080/ V2A	5923855	2046 74 4		
SHT	50/ PE	5847915	7202 52 1	/pair	114	SV40 W V4A	M4080/ V4A	5924302	2046 77 4	/pc.	85
SKH 60 OR	Pastel orange/ PE	5668008	6222 53 7			SV50 W V2A	M50 100/ V2A	5923862	2046 74 5		
SKHW 110 OR	Pastel orange/ PE	5668022	6310 39 8	/100 pc.	53	SV50 W V4A	M50 100/ V4A	5924333	2046 77 5	/pc.	85
SKS 10X30 VA	M10 x 3030/ V4A	5618423	3160 75 2			SV63 W V2A	M63 110/ V2A	5923879	2046 74 6		
SKS 10X60 VA4301	M10 x 6060/ V2A	5626398	6408 51 7	/100 pc.	68	SV63 W V4A	M63 110/ V4A	5924340	2046 77 6	/pc.	85
SKS 10X80 F	M10 x 8080/ st / F	6437474	6418 25 0			SVE 41 V2A	47x39,4/ V2A	5939238	1123 12 6		
SKS 10X80 VA4401	M10 x 8080/ V4A	6822133	6418 24 8	/pair	58	SVE 41 V4A	/ V4A	5939245	1123 12 8	/pc.	78
SKS 10X80 VA4401	M10 x 8080/ V4A	6822133	6418 24 8			T 100 E 4-5	Pastel orange 17/ PP	5930143	7205 51 0		
SKS 10X80 VA4401	M10 x 8080/ V4A	6822133	6418 24 8	/100 pc.	68	T 100 F	/ PP	5286547	2007 34 7	/100 pc.	102
SKS 10X80 VA4401	M10 x 8080/ V4A	6822133	6418 24 8			T 100 KL	/ PP	5441212	2007 43 6		
SKS 10X80 VA4529	M10 x 9090/ V5A	5911159	6418 24 7	/100 pc.	134	T 100 OE	/ PP	5246855	2007 25 5	/pc.	103
SKS 10X80 VA4529	M10 x 9090/ V5A	5911159	6418 24 7			T 100 RO-LGR	/ PP	5303282	2007 64 4		
SKS 10x90 VA4301	M10 x 9090/ V2A	5911166	6418 25 5	/100 pc.	63	T 160 E 10-5	Pastel orange 5/ PP	5930167	7205 52 4	/pc.	100
SKS 10x90 VA4301	M10 x 9090/ V2A	5911166	6418 25 5			T 160 E 16-5	Pastel orange 5/ PP	5930174	7205 52 8		
SKS 10x90 VA4301	M10 x 9090/ V2A	5911166	6418 25 5	/100 pc.	63	T 160 E 4-8D	Pastel orange 5/ PP	5930150	7205 52 0	/pc.	100
SKS 10x90 VA4301	M10 x 9090/ V2A	5911166	6418 25 5			T 160 F	/ PP/GF	5286554	2007 35 5		
SKS 10x90 VA4401	M10 x 9090/ V4A	5759041	6418 25 6	/100 pc.	63	T 160 KL	/ PP/GF	5682189	2007 44 0	/pc.	102
SKS 10x90 VA4401	M10 x 9090/ V4A	5759041	6418 25 6			T 160 OE	/ PP/GF	5246862	2007 27 1		
SKS 10x90 VA4401	M10 x 9090/ V4A	5759041	6418 25 6	/100 pc.	68	T 160 RO-LGR	/ PP/GF	5303299	2007 64 9	/pc.	102
SKS 10x90 VA4529	M10 x 9090/ V5A	5911197	6418 25 7			T 250 OE	/ PP/GF	5246879	2007 28 7		
SKS 10x90 VA4529	M10 x 9090/ V5A	5911197	6418 25 7	/m	36	T 60 F	/ PP	5286509	2007 33 9	/pc.	102
SKS 10x90 VA4529	M10 x 9090/ V5A	5911197	6418 25 7			TCX-032	26	5856559	7202 20 0		
SKS 10x90 VA4529	M10 x 9090/ V5A	5911197	6418 25 7	/m	36	TCX-032	26	5856559	7202 20 0	/pc.	108
SKS 10x90 VA4529	M10 x 9090/ V5A	5911197	6418 25 7			TCX-040	26	5856566	7202 20 1		
SKS 610 VA4301	100 1,5/ V2A	6120550	6056 73 5	/m	36	TCX-040	26	5856566	7202 20 1	/pc.	108
SKS 610 VA4571	100 1,5/ V4A	6050048	6056 75 0			TCX-050	26	5856597	7202 20 3		
SKS 620 VA4301	200 1,5/ V2A	6120611	6056 73 7	/m	36	TCX-050	26	5856597	7202 20 3	/pc.	108
SKS 620 VA4571	200 1,5/ V4A	6044887	6056 75 5			TCX-063	26	5856603	7202 20 4		
SKS 630 VA4301	300 1,5/ V2A	6120673	6056 73 9	/m	36	TCX-063	26	5856603	7202 20 4	/pc.	108
SKS 630 VA4571	300 1,5/ V4A	6050161	6056 75 7			TCX-075	26	5856610	7202 20 5		
SKS 640 VA4301	400 1,5/ V2A	6120734	6056 74 2	/m	36	TCX-075	26	5856610	7202 20 5	/pc.	108
SKS 640 VA4571	400 1,5/ V4A	6050284	6056 75 9			TCX-090	26,6	5856627	7202 20 6		
SKS 650 VA4301	500 1,5/ V2A	6120796	6056 74 4	/m	36	TCX-090	26,6	5856627	7202 20 6	/pc.	108
SKS 650 VA4571	500 1,5/ V4A	6050406	6056 76 1			TCX-110	26,6	5856665	7202 20 7		
SKS 660 VA4301	600 1,5/ V2A	6120857	6056 74 6	/m	36	TCX-110	26,6	5856665	7202 20 7	/pc.	108
SKS 660 VA4571	600 1,5/ V4A	6050529	6056 76 3			TCX-125	40	5856672	7202 20 8		
SSLB 100 VA4301	85/ V2A	6095728	7070 35 3	/pc.	41	TCX-125	40	5856672	7202 20 8	/pc.	108
SSLB 100 VA4571	85/ V4A	5021520	7070 39 0			TCX-140	40	5856689	7202 20 9		
SSLB 200 VA4301	185/ V2A	6095780	7070 36 1	/pc.	41	TCX-140	40	5856689	7202 20 9	/pc.	109
						TCX-140	40	5856689	7202 20 9		

Type listing

Structure of the GTIN: Country code **40** Manufacturer code **1219** Individual GTIN **5647589**

Type	Dimensions/colour/div.	GTIN	Art. no.	Price	Page	Type	Dimensions/colour/div.	GTIN	Art. no.	Price	Page
TCX-160	40	5856719	7202 21 0	/pc.	109	US 3 K 80 FT	8002/ St / FT	6225019	6342 36 4	/pc.	134
TCX-160	40	5856719	7202 21 0		111						
				/m		US 3 K 80 VA4529	8002/ V5A	5910800	6342 43 5		62
						US 3 K 80VA4301	8002/ V2A	5705413	6342 41 3		62
						US 3 K 80VA4571	8002/ V4A	5705673	6342 39 3		62
TSG 110 VA4301	1103000/ V2A	5778431	6062 25 5		54						
TSG 110 VA4301	1103000/ V2A	5778431	6062 25 5		57	US 3 K 90 FT	9002/ St / FT	6225071	6342 36 6		134
TSG 30 VA4301	303000/ V2A	5694502	6062 05 2		47						
TSG 30 VA4571	303000/ V4A	5694533	6062 05 4		47	US 3 K 90 VA4529	9002/ V5A	5910831	6342 43 7		62
TSG 45 FS	453000/ St / FS	5694489	6062 03 3		135	US 3 K 90VA4301	9002/ V2A	5705420	6342 41 5		62
TSG 45 VA4301	453000/ V2A	5694441	6062 02 5		37	US 3 K 90VA4571	9002/ V4A	5705680	6342 39 5		62
TSG 45 VA4301	453000/ V2A	5694441	6062 02 5		48	US 3 K100 VA4529	10002/ V5A	5910848	6342 43 9		62
TSG 45 VA4571	453000/ V4A	5694472	6062 02 8		37	US 3 K110 VA4529	11002/ V5A	5912897	6342 44 1		62
TSG 45 VA4571	453000/ V4A	5694472	6062 02 8		48						
TSG 60 VA4301	603000/ V2A	5694557	6062 08 4		36	US 3 K110 VA4571	11002/ V4A	5912873	6342 39 6		62
TSG 60 VA4571	603000/ V4A	5694564	6062 08 6		36						
TSG 85 FS	853000/ St / FS	5694571	6062 11 4		135	US 3 K120 VA4529	12002/ V5A	5912903	6342 44 3		62
TSG 85 VA4301	853000/ V2A	5694601	6062 17 3		48						
TSG 85 VA4301	853000/ V2A	5694601	6062 17 3		54	US 3 K120 VA4571	2/ V4A	5912880	6342 39 8		62
TSG 85 VA4301	853000/ V2A	5694601	6062 17 3		57						
				/pc.		US 3 KS OR	Pastel orange/ PE	5668039	6338 45 8		62
						US 3 KS OR	Pastel orange/ PE	5668039	6338 45 8		134
TSGV VA4310	/ V2A	5694724	6067 97 0		37						
TSGV VA4310	/ V2A	5694724	6067 97 0		48						
TSGV VA4310	/ V2A	5694724	6067 97 0		54	US 5 100 VA4301	10002,5/ V2A	6082094	6341 13 3		64
TSGV VA4310	/ V2A	5694724	6067 97 0		57	US 5 110 VA4301	11002,5/ V2A	6082155	6341 13 7		64
						US 5 120 VA4301	12002,5/ V2A	6082216	6341 14 1		64
US 3 100 VA4301	10002/ V2A	5705727	6342 46 0		62	US 5 20 VA4301	2002,5/ V2A	6081554	6341 10 1		64
US 3 100 VA4571	10002/ V4A	5705833	6342 49 1		62	US 5 30 VA4301	3002,5/ V2A	6081615	6341 10 5		64
US 3 150 VA4301	15002/ V2A	5705765	6342 46 3		62	US 5 30 VA4571	3002,5/ V4A	5020981	6341 05 3		64
US 3 150 VA4571	15002/ V4A	5705840	6342 49 4		62	US 5 300 VA4301	30002,5/ V2A	6082278	6341 15 2		64
US 3 20 FS	2002/ St / FS	6221776	6342 30 2		134	US 5 300 VA4571	30002,5/ V4A	5022305	6341 07 3		64
US 3 200 VA4301	20002/ V2A	5705772	6342 46 6		62	US 5 40 VA4301	4002,5/ V2A	6081677	6341 10 9		64
US 3 200 VA4571	20002/ V4A	5705871	6342 49 7		62	US 5 40 VA4571	4002,5/ V4A	6181995	6341 05 5		64
US 3 30 FS	3002/ St / FS	6222018	6342 30 4		134	US 5 50 VA4301	5002,5/ V2A	6081738	6341 11 3		64
US 3 30 VA4301	3002/ V2A	5705703	6342 45 5		62	US 5 50 VA4571	5002,5/ V4A	6182053	6341 05 7		64
US 3 30 VA4571	3002/ V4A	5705789	6342 48 5		62	US 5 60 VA4571	6002,5/ V4A	6183319	6341 05 9		64
US 3 40 FS	4002/ St / FS	6222070	6342 30 6		134	US 5 70 VA4301	7002,5/ V2A	6081851	6341 12 1		64
US 3 50 VA4301	5002/ V2A	5705710	6342 45 7		62	US 5 80 VA4301	8002,5/ V2A	6081912	6341 12 5		64
US 3 50 VA4571	5002/ V4A	5705826	6342 48 8		62	US 5 80 VA4571	8002,5/ V4A	6237135	6341 06 3		64
US 3 600 VA4301	60002/ V2A	5706373	6342 46 8		62	US 5 90 VA4301	9002,5/ V2A	6081974	6341 12 9		64
US 3 600 VA4571	60002/ V4A	5618478	6342 50 5		62	US 5 90 VA4571	9002,5/ V4A	6183371	6341 06 5		64
						US 5 K 100VA4301	10002,5/ V2A	6350711	6341 39 0		64
US 3 K 100 FT	10002/ St / FT	6225132	6342 36 8		134	US 5 K 100VA4571	10002,5/ V4A	6459919	6341 24 1		64
						US 5 K 110VA4301	11002,5/ V2A	6350773	6341 39 4		64
US 3 K 100VA4301	10002/ V2A	5705437	6342 41 7		62	US 5 K 110VA4571	11002,5/ V4A	6816552	6341 24 5		64
US 3 K 100VA4571	10002/ V4A	5705697	6342 39 7		62	US 5 K 120VA4301	12002,5/ V2A	6350834	6341 39 8		64
						US 5 K 120VA4571	12002,5/ V4A	6816613	6341 24 9		64
US 3 K 110 FT	11002/ St / FT	6225378	6342 37 0		134	US 5 K 20 VA4301	2002,5/ V2A	6477135	6341 35 8		64
US 3 K 120 FT	12002/ St / FT	6225439	6342 37 2		134	US 5 K 20 VA4529	2002,5/ V5A	5910473	6341 31 0		64
US 3 K 20 FT	2002/ St / FT	6224470	6342 35 1		134	US 5 K 20 VA4571	2002,5/ V4A	6815531	6341 20 9		64
						US 5 K 30 VA4301	3002,5/ V2A	6644230	6341 36 2		64
US 3 K 20 VA4529	2002/ V5A	5910688	6342 42 2		62	US 5 K 30 VA4529	3002,5/ V5A	5910480	6341 31 2		64
US 3 K 20VA4301	2002/ V2A	5705352	6342 40 1		62	US 5 K 30 VA4571	3002,5/ V4A	6815593	6341 21 3		64
US 3 K 20VA4571	2002/ V4A	5705635	6342 37 5		62	US 5 K 40 VA4301	4002,5/ V2A	6350292	6341 36 6		64
						US 5 K 40 VA4529	4002,5/ V5A	5910497	6341 31 4		64
US 3 K 30 FT	3002/ St / FT	6224531	6342 35 3		134	US 5 K 40 VA4571	4002,5/ V4A	6815654	6341 21 7		64
						US 5 K 50 VA4301	5002,5/ V2A	6350414	6341 37 0		64
US 3 K 30 VA4529	3002/ V5A	5910718	6342 42 4		62	US 5 K 50 VA4529	5002,5/ V5A	5910503	6341 31 6		64
US 3 K 30VA4301	3002/ V2A	5705369	6342 40 3		62	US 5 K 50 VA4571	5002,5/ V4A	6815715	6341 22 1		64
US 3 K 30VA4571	3002/ V4A	5395355	6342 53 0		62	US 5 K 60 VA4301	6002,5/ V2A	6350476	6341 37 4		64
						US 5 K 60 VA4529	6002,5/ V5A	5910558	6341 31 8		64
US 3 K 40 FT	4002/ St / FT	6224593	6342 35 5		134	US 5 K 60 VA4571	6002,5/ V4A	6815890	6341 22 5		64
						US 5 K 70 VA4301	7002,5/ V2A	6350537	6341 37 8		64
US 3 K 40 VA4529	4002/ V5A	5910725	6342 42 6		62	US 5 K 70 VA4529	7002,5/ V5A	5910565	6341 32 0		64
US 3 K 40VA4301	4002/ V2A	5705376	6342 40 5		62	US 5 K 70 VA4571	7002,5/ V4A	6816194	6341 22 8		64
US 3 K 40VA4571	4002/ V4A	5705642	6342 37 9		62	US 5 K 80 VA4301	8002,5/ V2A	6350599	6341 38 2		64
						US 5 K 80 VA4529	8002,5/ V5A	5910596	6341 32 3		64
US 3 K 50 FT	5002/ St / FT	6224654	6342 35 7		134	US 5 K 80 VA4571	8002,5/ V4A	6816316	6341 23 3		64
						US 5 K 90 VA4301	9002,5/ V2A	6624492	6341 38 6		64
US 3 K 50 VA4529	5002/ V5A	5910732	6342 42 8		62	US 5 K 90 VA4529	9002,5/ V5A	5910602	6341 32 5		64
US 3 K 50VA4301	5002/ V2A	5705383	6342 40 7		62	US 5 K 90 VA4571	9002,5/ V4A	6816439	6341 23 7		64
US 3 K 50VA4571	5002/ V4A	5705659	6342 38 1		62	US 5 K100 VA4529	10002,5/ V5A	5910619	6341 32 7		64
						US 5 K110 VA4529	11002,5/ V5A	5910626	6341 32 9		64
US 3 K 60 FT	6002/ St / FT	6224715	6342 35 9		134	US 5 K120 VA4529	12002,5/ V5A	5910671	6341 33 1		64
US 3 K 60 VA4529	6002/ V5A	5910749	6342 43 1		62	US 5 KS OR	Pastel orange/ PE	5668046	6338 46 2		65
US 3 K 60VA4301	6002/ V2A	5705390	6342 40 9		62						
US 3 K 60VA4571	6002/ V4A	5618461	6342 38 9		62						
						V10 COMPACT 255		5076551	5093 38 0		147
US 3 K 70 FT	7002/ St / FT	6224777	6342 36 2		134						
						V20-C 1+NPE+FS		5382911	5094 76 0		147
US 3 K 70 VA4529	7002/ V5A	5910794	6342 43 3		62	V20-C 1+NPE-280		5382973	5094 65 0		146
US 3 K 70VA4301	7002/ V2A	5705406	6342 41 1		62	V20-C 3+NPE+FS		5240242	5094 76 5		146
US 3 K 70VA4571	7002/ V4A	5705666	6342 39 1		62	V20-C 3+NPE-280		5240099	5094 65 6		146

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V50-B+C 1+NPE		5688426	5093 65 3	/pc.	145	WDKH-A60150RW	Pure white 100/ PC/ABS	5814108	6175 64 2	/pc.	95
V50-B+C 1+NPE+FS		5688433	5093 66 1		145	WDKH-E20020CW	Cream 19/ PC/ABS	5814238	6175 74 4		90
V50-B+C 3+NPE		5425120	5093 65 4		144	WDKH-E20020LGR	Light grey 19/ PC/ABS	5814597	6175 92 8		90
V50-B+C 3+NPE+FS		5425137	5093 66 2		145	WDKH-E20020RW	Pure white 19/ PC/ABS	5813910	6175 55 0		90
						WDKH-E30045CW	Cream 45/ PC/ABS	5814245	6175 74 8		91
						WDKH-E30045LGR	Light grey 45/ PC/ABS	5814603	6175 93 2		91
VF AZK 50 VA4301	/ V2A	5863861	6066 62 9		45	WDKH-E30045RW	Pure white 45/ PC/ABS	5813927	6175 55 4		91
VF AZK VA4301	/ V2A	6065059	6066 56 9		45	WDKH-E40060CW	Cream 40/ PC/ABS	5814252	6175 75 2		92
VF AZK VA4571	/ V4A	5866206	6066 57 1		45	WDKH-E40060LGR	Light grey 40/ PC/ABS	5814610	6175 93 6		92
						WDKH-E40060RW	Pure white 40/ PC/ABS	5813934	6175 55 8		92
						WDKH-E60090CW	Cream 90/ PC/ABS	5814269	6175 75 6		93
VF230-AC/DC	255	5578161	5097 65 0		147	WDKH-E60090LGR	Light grey 90/ PC/ABS	5814627	6175 94 0		93
VF230-AC-FS	255	5578215	5097 85 8		147	WDKH-E60090RW	Pure white 90/ PC/ABS	5813941	6175 56 2		93
						WDKH-E60110CW	Cream 110/ PC/ABS	5814290	6175 76 0		94
						WDKH-E60110LGR	Light grey 110/ PC/ABS	5814863	6175 94 4		94
						WDKH-E60110RW	Pure white 110/ PC/ABS	5813958	6175 56 6		94
V-TEC VM12 MS	M12 x 1,5/ CuZn / N	5808992	2086 01 8	/100 pc.	124	WDKH-E60150CW	Cream 150/ PC/ABS	5814306	6175 76 4		95
V-TEC VM16 MS	M16 x 1,5/ CuZn / N	5809234	2086 02 4		124	WDKH-E60150LGR	Light grey 150/ PC/ABS	5814870	6175 94 8		95
V-TEC VM20 MS	M20 x 1,5/ CuZn / N	5809418	2086 03 0		124	WDKH-E60150RW	Pure white 150/ PC/ABS	5813965	6175 57 0		95
						WDKH-F20020CW	Cream 38/ PC/ABS	5922902	6175 85 2		90
V-TEC VM20 MS	M20 x 1,5 Pastel orange/ PA	5875291	7205 59 4		101	WDKH-F20020LGR	Light grey 38/ PC/ABS	5922919	6176 03 6		90
						WDKH-F20020RW	Pure white 38/ PC/ABS	5922896	6175 65 8		90
V-TEC VM25 MS	M25 x 1,5/ CuZn / N	5809593	2086 03 6		124	WDKH-F30045CW	Cream 85/ PC/ABS	5814498	6175 85 6		91
						WDKH-F30045LGR	Light grey 60/ PC/ABS	5815037	6176 04 0		91
V-TEC VM25 MS	M25 x 1,5 Pastel orange/ PA	5875307	7205 59 7		101	WDKH-F30045RW	Pure white 60/ PC/ABS	5814115	6175 66 2		91
						WDKH-F40060CW	Cream 85/ PC/ABS	5814504	6175 86 0		92
V-TEC VM32 MS	M32 x 1,5/ CuZn / N	5809777	2086 04 2		124	WDKH-F40060LGR	Light grey 85/ PC/ABS	5815044	6176 04 6		92
						WDKH-F40060RW	Pure white 85/ PC/ABS	5814122	6175 66 6		92
V-TEC VM32 MS	M32 x 1,5 Pastel orange/ PA	5810827	7205 60 0		101	WDKH-F60090CW	Cream 129/ PC/ABS	5814511	6175 86 4		93
						WDKH-F60090LGR	Light grey 129/ PC/ABS	5815075	6176 04 8		93
V-TEC VM40 MS	M40 x 1,5/ CuZn / N	5809890	2086 04 8		124	WDKH-F60090RW	Pure white 129/ PC/ABS	5814139	6175 67 8		93
						WDKH-F60110CW	Cream 149/ PC/ABS	5814528	6175 86 8		94
V-TEC VM40 MS	M40 x 1,5 Pastel orange/ PA	5810834	7205 60 3		101	WDKH-F60110LGR	Light grey 149/ PC/ABS	5815082	6176 05 2		94
						WDKH-F60110RW	Pure white 149/ PC/ABS	5814146	6175 67 4		94
V-TEC VM50 MS	M50 x 1,5/ CuZn / N	5810070	2086 05 4		124	WDKH-F60150CW	Cream 190/ PC/ABS	5814535	6175 87 2		95
						WDKH-F60150LGR	Light grey 190/ PC/ABS	5815099	6176 05 6		95
						WDKH-F60150RW	Pure white 190/ PC/ABS	5814153	6175 67 8		95
VUS 3 VA4301	/ V2A	5706007	6018 51 7	/pc.	63	WDKH-H20020CW	Cream 38,5/ PC/ABS	5922797	6175 78 0		90
VUS 3 VA4571	/ V4A	5618454	6018 52 0		63	WDKH-H20020LGR	Light grey 38,5/ PC/ABS	5922803	6175 96 4		90
						WDKH-H20020RW	Pure white 38,5/ PC/ABS	5922780	6175 58 1		90
WB 30 75 VA4301	/ V2A	6014774	6019 66 8		58	WDKH-I30045CW	Cream 60/ PC/ABS	5814313	6175 78 4		91
						WDKH-I30045LGR	Light grey 60/ PC/ABS	5814887	6175 96 8		91
						WDKH-I30045RW	Pure white 60/ PC/ABS	5814016	6175 59 0		91
						WDKH-I40060CW	Cream 85/ PC/ABS	5814320	6175 78 8		92
						WDKH-I40060LGR	Light grey 85/ PC/ABS	5814894	6175 97 2		92
WBDHE 41 V2A	134,35x110/ V2A	5939290	1123 19 5	/100 pc.	78	WDKH-I40060RW	Pure white 85/ PC/ABS	5814023	6175 59 4		92
WBDHE 41 V4A	134,35x110/ V4A	5939306	1123 19 7		78	WDKH-I60090CW	Cream 130/ PC/ABS	5814368	6175 79 2		93
						WDKH-I60090LGR	Light grey 130/ PC/ABS	5814900	6175 97 8		93
						WDKH-I60090RW	Pure white 130/ PC/ABS	5814030	6175 59 6		93
						WDKH-I60110CW	Cream 130/ PC/ABS	5814375	6175 79 6		94
						WDKH-I60110LGR	Light grey 130/ PC/ABS	5814917	6175 98 0		94
						WDKH-I60110RW	Pure white 130/ PC/ABS	5814047	6175 60 2		94
						WDKH-I60150CW	Cream 130/ PC/ABS	5814382	6175 80 0		95
						WDKH-I60150LGR	Light grey 130/ PC/ABS	5814924	6175 98 4		95
						WDKH-I60150RW	Pure white 130/ PC/ABS	5814054	6175 60 6		95
						WDKH-T20020CW	Cream 57/ PC/ABS	5922964	6175 88 8		90
						WDKH-T20020LGR	Light grey 57/ PC/ABS	5922971	6176 07 2		90
						WDKH-T20020RW	Pure white 57/ PC/ABS	5922926	6175 69 4		90
						WDKH-T30045CW	Cream 130/ PC/ABS	5814542	6175 89 2		91
						WDKH-T30045LGR	Light grey 130/ PC/ABS	5815105	6176 07 6		91
						WDKH-T30045RW	Pure white 130/ PC/ABS	5814160	6175 69 8		91
						WDKH-T40060CW	Cream 170/ PC/ABS	5814559	6175 89 6		92
						WDKH-T40060LGR	Light grey 170/ PC/ABS	5815112	6176 08 0		92
						WDKH-T40060RW	Pure white 170/ PC/ABS	5814177	6175 70 2		92
						WDKH-T60090CW	Cream 230/ PC/ABS	5814566	6175 90 0		93
						WDKH-T60090LGR	Light grey 230/ PC/ABS	5815129	6176 08 4		93
						WDKH-T60090RW	Pure white 230/ PC/ABS	5814184	6175 70 6		93
						WDKH-T60110CW	Cream 272/ PC/ABS	5814573	6175 90 4		94
						WDKH-T60110LGR	Light grey 272/ PC/ABS	5815136	6176 08 8		94
						WDKH-T60110RW	Pure white 272/ PC/ABS	5814191	6175 71 0		94
						WDKH-T60150CW	Cream 291/ PC/ABS	5814580	6175 90 8		95
						WDKH-T60150LGR	Light grey 291/ PC/ABS	5815143	6176 09 2		95
						WDKH-T60150RW	Pure white 291/ PC/ABS	5814207	6175 71 4		95
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						WDKH-TW60GR	Light grey 2000/ PC/ABS	5812524	6175 50 4		96
						WDRL 1116 20 V2A	200 1,5/ V2A	5751267	6227 36 0		55
						WDRL 1116 20 V2A	200 1,5/ V2A	5751267	6227 36 0		56
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						WDRL 1116 30 V2A	300 1,5/ V2A	5751304	6227 36 2		56
						WDRL 1116 30 V2A	300 1,5/ V2A	5751304	6227 36 2		57
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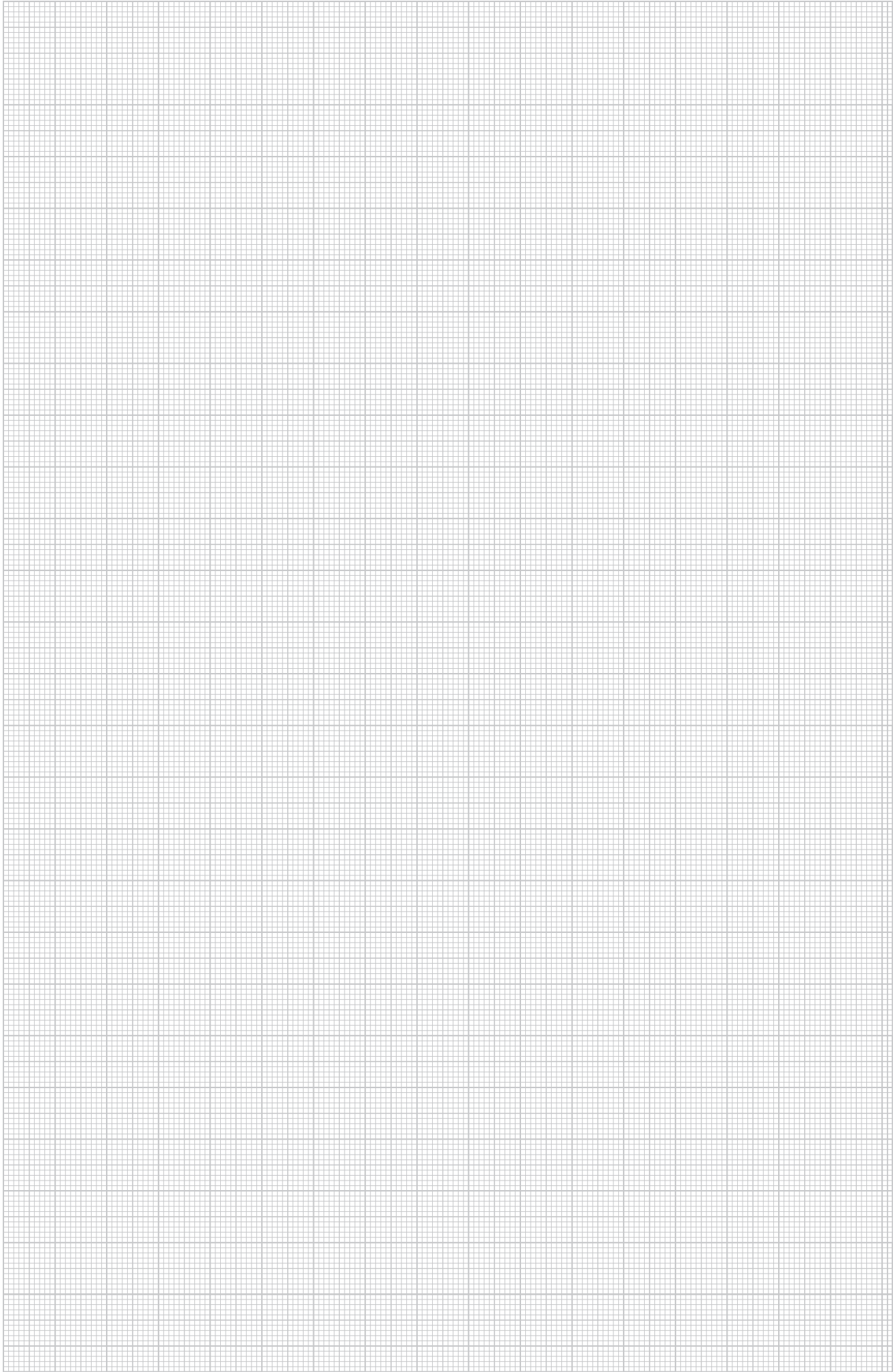
Type listing

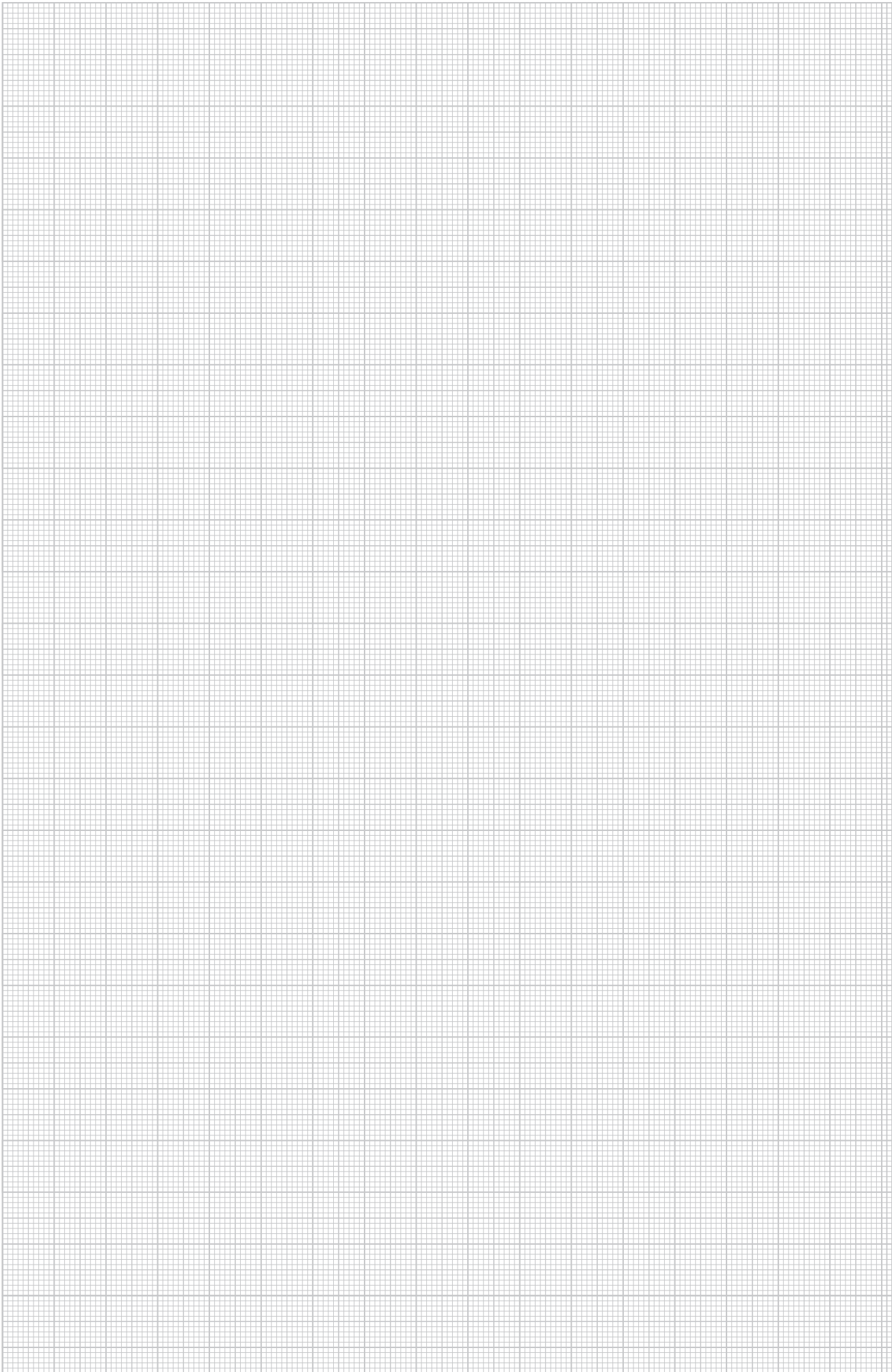
Structure of the GTIN: Country code **40**

Manufacturer code **1219**

Individual GTIN **5647589**

Type	Dimensions/colour/div.	GTIN	Art. no.	Price	Page					
				/m						
WDRL 1116 40 V2A	400 1,5/ V2A	5751311	6227 36 4		56					
WDRL 1116 40 V2A	400 1,5/ V2A	5751311	6227 36 4		57					
WDRL 1116 50 V2A	500 1,5/ V2A	5751328	6227 36 6		55					
WDRL 1116 50 V2A	500 1,5/ V2A	5751328	6227 36 6		56					
WDRL 1116 50 V2A	500 1,5/ V2A	5751328	6227 36 6		57					
WDRL 1116 60 V2A	600 1,5/ V2A	5751359	6227 36 8		55					
WDRL 1116 60 V2A	600 1,5/ V2A	5751359	6227 36 8		56					
WDRL 1116 60 V2A	600 1,5/ V2A	5751359	6227 36 8		57					
				/pc.						
WEAS 110 VA4301	110/ V2A	5242536	6098 48 3		54					
WH GRM35 VA4401	3550/ V4A	5863021	6016 44 5		49					
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WKLG 1120 VA4301	2002/ V2A	5037262	6311 20 2		53					
WKLG 1120 VA4571	2002/ V4A	5403128	6311 22 5		53					
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WKLG 1160 VA4571	6002/ V4A	5403142	6311 23 3		53					
WKLG 1620 VA4571	2002/ V4A	5909965	6227 17 0		56					
WKLG 1630 VA4571	3002/ V4A	5909996	6227 17 2		56					
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WKLG 1650 VA4571	5002/ V4A	5910015	6227 17 6		56					
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				/pc.						
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WLB 90 112VA4571	200/ V4A	5910251	6312 55 0		54					
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WLB 90 116VA4301	600/ V2A	6121335	6312 54 7		54					
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WLT 1650 VA4571	500/ V4A	5910237	6229 82 6		56					
WLT 1660 VA4571	600/ V4A	5910244	6229 82 8		56					





1)* OBO LTB

Terms and conditions of sale and delivery of OBO BETTERMANN GmbH & Co. KG, OBO BETTERMANN Projekt und Systemtechnik GmbH and OBO Befestigungselemente GmbH, Menden.

1. All our supplies and services shall be governed exclusively by the following terms and conditions, including our additional terms and conditions for cable tray business transactions. Any terms and conditions of business and purchasing of the customer shall be valid only if we have acknowledged them in writing. Our quotations are without engagement; they are mere invitations to submit contract offers. Any and all transactions and agreements, including those entered into by our employees and agents shall only be binding upon our written confirmation or invoicing. The foregoing provision shall also apply to any modifications of the agreed formal requirements.

2. The documents and data pertaining to the quotation, such as illustrations, brochures, drawings, dimensions, loading capacity values and weight details are approximate only, unless they are expressly stipulated to be binding. Samples are non-binding samples for inspection. Any purchase according to sample will be subject to customary deviations and deviations resulting from normal production processes. The properties of the sample shall be no guaranteed quality of the purchase object unless expressly stated otherwise in the confirmation of order. Samples must be returned to us at the latest within four weeks in perfect condition. If they are not returned within this period in proper condition, we shall be entitled to charge the purchase price for the sample in accordance with our current price list. All information on our products, in particular the illustrations, drawings, weight, dimension and performance data included in our quotations and printed matter shall be regarded as approximate average values and shall not represent any quality guarantee.

With regard to products made according to customer drawings, samples and other instructions of the customer, we will not provide any warranty nor assume any liability for the due and proper functioning of the product or for any other defects if and to the extent they are based upon the customer's specifications. The customer shall indemnify us from any third party claims, including claims for product liability as may be asserted against us for damages resulting from the products unless we have caused such damages by intent or gross negligence. The customer shall warrant that the manufacture and supply of products made in accordance with his instructions will not infringe any proprietary rights of third parties. Should any proprietary rights be asserted against us, we shall be entitled, without any legal review of the third party claims, to withdraw from the contract after hearing the customer, unless the third party withdraws the claims asserted against us under its proprietary rights within eight days by written declaration. The customer shall compensate us for any damage sustained as a result of the assertion of proprietary rights. In case of withdrawal, the work we have carried out so far shall be remunerated. Further rights under the statutory provisions shall not be affected thereby.

Any moulds, tools and design data produced by us for the execution of the order shall be our exclusive property. Unless expressly agreed otherwise, the customer shall not have any claims thereto, even if he has contributed to the costs of producing any such moulds, tools and design data.

3. The packing, shipping route and means of transportation shall be left to our discretion in the absence of any other agreements. They shall be charged at their cost price. We will take back undamaged cases, when being returned carriage paid, at 2/3 of the amount invoiced. The one-way or pool pallets used for transport shall be either exchanged upon taking delivery or returned. The smallest packing units stocked and listed may not be broken up for rationalisation reasons. In case of orders for different quantities, the nearest packing unit will be supplied. We reserve the right to deviate from the agreed delivery quantity, in particular in the case of custom-made products, to a customary extent or in conformity with national or international standards. In case of a demand for adhering to a precise quantity, an express reference is necessary and subject to confirmation.

Master and call orders shall oblige the customer to accept the total quantity on which the master/call order is based. Where no particular call orders are specified in the contract, the total quantity of the master call order must be called within twelve months. If the customer fails to adhere to call deadlines, we shall be entitled to deliver and charge the total quantity in full after four weeks from written notice with reference to the consequences of any failure to call. Our rights arising from any default of the customer shall not be affected thereby.

4. Unless otherwise agreed, our prices are quoted ex works and do not include packing and insurance. The value added tax at the rate applicable on the date of dispatch will be added to our prices. The purchaser shall ensure the correctness of his VAT identification number, which he must notify to us immediately without being asked. He shall undertake to inform both us and the competent domestic tax authority without delay of any change in his name, address and VAT identification number.

Delivery shall be franco domicile within Germany, i.e. carriage and packing prepaid, if the net order value is in excess of € 1,200. For small orders below € 100 (net excluding value added tax), we shall invoice a lower quantity surcharge of € 10 (net) per order. Upon transfer of our supplies and services to a carrier or forwarding agent, at the latest upon their leaving our warehouse or supply plant, the risk shall pass to the recipient, even in case of deliveries free place of destination.

5. Delivery periods and delivery deadlines shall be approximate only unless we have expressly stated in writing that they are binding. Delivery periods shall commence upon receipt of our confirmation of order, but not before clarification of all execution details, ex place of delivery. The customer shall only be entitled to withdraw from the contract after having granted a reasonable extension of time. We reserve the right to make partial deliveries. Claims for damages and reimbursement of expenses - for any reason whatsoever - shall be subject to the provisions set out in article 10.

In the event of any circumstances that are beyond our control within the scope of normal operating risks and obstruct or make impracticable any delivery, we shall be entitled to suspend delivery by the duration of such obstruction plus a reasonable start-up period or to withdraw from the contract for the part not yet fulfilled. The purchaser can demand a statement from us as to whether we wish to deliver within a reasonable period or withdraw. If we fail to make such a statement, the purchaser may withdraw. Our notice to the purchaser shall be deemed to be sufficient evidence that we have been prevented from delivering.

Delivery time is extended in case of such events as labour disputes, strikes and lockouts, orders from the authorities, difficulties with the procurement of materials, spoiled work or post-processing, shutdowns and staff shortage as well as shortage of means of transport, and general occurrence of unforeseen events beyond our scope of influence, by the length of duration of these events.

6. Payments shall be made upon receipt of invoice less a 3% cash discount for payment within 10 days or net after 30 days from date of invoice. Erection work and all paid labour work must be paid within 10 days without deduction of any cash discount. In case of non-cash payments, the date of the credit note will be deemed to be the date of receipt of payment. Payments received shall always be credited first against costs, then against interest and then against the earliest liability. Cheques and bills of exchange shall only be accepted as means of payment.

Any payment by bill of exchange shall be subject to a prior separate and written agreement, whereby all bill costs shall be borne by the customer and no discount can be granted. The customer shall have no right to refuse performance and no right of retention - for any legal reason whatsoever - unless we have acknowledged his claim beforehand in writing or his claim has the force of law.

The customer shall only be entitled to set off claims which have the force of law, are undisputed or acknowledged by us in writing.

7. We shall retain title to the goods supplied by us until all our claims arising from our business transactions with the customer have been satisfied - current account clause - and all bills of exchange or cheques submitted for payment by the customer have been honoured.

Any treatment or processing of goods subject to our retention of title (reserved goods) shall be carried out for us as the manufacturer in accordance with § 950 BGB (German Civil Code) without any obligation on our part. If our reserved goods are to be regarded as the main item or the main item is owned by the customer, full title to the new item shall pass to us when it is created. In other cases, we shall acquire a co-ownership interest in the new item in the proportion of the sales value of our reserved goods to the other goods used for the new item at the time of processing, intermingling, joining or mixing. The customer shall take custody of our ownership or co-ownership interest free of charge; it shall be treated as reserved goods.

Before transfer of title, our goods shall be neither pledged nor assigned as collateral without our prior consent. In addition, any third party rights or pledges shall be notified to us immediately and we shall be given all details and provided all documents necessary for intervention; otherwise the customer must bear our loss. In the latter case, our total claims against the customer shall also be immediately payable.

The customer shall be entitled to sell or to use our reserved goods in the ordinary course of business subject to the condition that the relevant claims are transferred in accordance with article 8 below. This right shall lapse upon the customer's failure to promptly meet his payment obligations towards us or in the event of any cheque or bill protests or his suspension of payments. In such cases, we shall be entitled to take back the goods provisionally at the customer's expense and to sell them at our duly exercised discretion after a corresponding reminder has been sent

to the customer. We will then pass the due amount to the customer's credit.

8. If our goods are sold before payment of our claim, the customer shall be obliged to retain our title against his purchaser until the goods have been paid for in full by the purchaser. The claim arising against the purchaser from such resale as well as any other ancillary rights or security interests of the customer resulting from the sale and any claims for compensation in case of damage to or destruction of our reserved property, including the relevant insurance sum shall hereby be assigned to us. We hereby accept this assignment. Where our co-ownership interest is sold, the relevant claims shall be assigned in the amount corresponding to the value of our interest.

The customer shall, at our request, inform us of his purchasers, notify them of the assignment made and provide us with any and all documents required to assert our rights.

As long as the customer meets his contractual obligations without delay, he shall be authorised to collect the claims assigned. He shall keep the amounts collected on our behalf separately and remit them to us immediately as soon and as far as our claims become due. The authorisation shall lapse in case of any cheque or bill protest of the customer or his definite suspension of payments. The customer shall bear the costs incurred for any action taken against third parties and shall advance them upon request.

If the security provided to us by the retention of title and the anticipatory assignment should exceed the claims to be secured by more than 20%, we shall, at the customer's request, release paid supplies of our choice. Upon payment of all our claims by the customer, assigned claims shall pass to the customer.

9. Any complaints for obvious defects regarding the quantity or quality of our supplies and services that are identifiable upon careful inspection shall without delay, but at the latest within the period of limitation of eight days from arrival of the goods at the address of the customer or the person appointed by him, be notified in writing to us, not to our representatives. Slight deviations in dimensions and designs within the scope of defined technical tolerances shall not give rise to any right of complaint. Any rejected goods may only be returned to us with our prior written authorisation.

In case of justified complaints within the prescribed period, we shall, at our option, take remedial action by way of subsequent performance, by rectifying the defect, supplying non-defective goods or providing a credit note for the lower value calculated.

We shall be entitled to refuse subsequent performance in accordance with the statutory provisions. If we refuse subsequent performance, if any subsequent performance remains unsuccessful or if the customer cannot be reasonably expected to accept any subsequent performance, the latter shall be entitled to withdraw from the contract in compliance with the provisions of the following sentences. The customer shall only be entitled to withdraw from the contract - where a withdrawal is not excluded by law - upon the unsuccessful expiry of a reasonable period for subsequent performance set by him, unless this period was not required under the statutory provisions (§§ 281 para. 2, 323 para. 2, 440, 441 para. 1 BGB (German Civil Code)).

In case of his withdrawal, the customer shall be liable for any deterioration, destruction or loss of use resulting from any negligence or intent on his part. Any claims for damages or reimbursement of expenses of the customer shall be subject to the provisions set out in article 10.

In the case of any fraudulent concealment of a defect or in the case of any provision of a quality guarantee for the goods sold at the time of the passing of risk within the meaning of § 444 BGB (German Civil Code) (seller's declaration that the object sold has a specific property at the time of the passing of risk and that the seller, regardless of any fault on his part, intends to be answerable for any and all consequences resulting from its absence), the customer's rights shall be exclusively governed by the statutory provisions.

We shall - in addition to the statutory grounds for refusal - also be entitled to refuse subsequent performance if and as long as the customer fails to send us, at our request, the rejected goods or a sample thereof; the customer shall have no right of withdrawal for any such refusal. We may further refuse any subsequent performance if the goods concerned have been altered or modified without our consent unless the customer can prove that the defect was not caused by such alteration or modification.

The limitation period for any claims arising from defects shall be one year; in the case of goods which have been used in accordance with their intended purpose for a building and have caused its defectiveness, the limitation period shall be two years. The provisions of §§ 478, 479 BGB (German Civil Code) on recourse in the chain of suppliers shall not be affected thereby.

10. In the case of a pre-contractual, contractual or non-contractual breach of duty, including unsatisfactory delivery, tortious conduct and producer's liability, we shall only be liable for compensatory damages and reimbursement of expenses - subject to further contractual or statutory liability requirements - in the case of intent, gross negligence or slightly negligent breach of a material contractual duty (contractual duty the infringement of which jeopardises the fulfilment of the object of the contract). However - except in the case of intent - our liability shall be limited to the typical contractual damage that was foreseeable at the time the contract was entered into.

The purchaser shall not be permitted to make a claim for expenses incurred in vain. Except for any breach of material duties, our liability for slight negligence shall be excluded, but in any case be limited to the amount of the purchase price.

Any claim asserted by the customer or a third party for payment of a contractual penalty shall be excluded.

With regard to damages caused by delay, we shall only be liable for slight negligence up to the amount of 5% of the purchase price agreed with us.

The exclusions and limitations of liability set forth above shall not apply in the event that a guarantee is given with respect to the quality of the object sold within the meaning of § 444 BGB (German Civil Code) if a defect is fraudulently concealed or in the event of injury to life, physical injury or injury to health, or strict liability under the German Product Liability Act.

Any and all claims for damages against us, for any legal reason whatsoever, shall become statute-barred at the latest after one year from delivery of the goods to the customer, in the case of tortious liability from the time of knowledge, or grossly negligent ignorance, of the circumstances giving rise to the claim and the person liable to pay damages. This provision shall not apply in the case of liability for intent and in the event that a guarantee is given for the quality of the object sold, in the case of fraudulent concealment of a defect or in the event of injury to life, physical injury or injury to health, or strict liability under the German Product Liability Act. Any shorter limitation periods shall take precedence.

11. We shall be entitled to process and store any customer data obtained with regard to or in connection with the business relationship in accordance with the German Federal Data Protection Act, irrespective of whether such data is provided by the purchaser himself or by any third parties.

12. Place of performance for delivery and payment is Menden/Sauerland. The court of competent jurisdiction for any and all disputes, including disputes with regard to bills of exchange and cheques, is the Local Court (Amtsgericht) of Menden or, at our option, the District Court (Landgericht) of Arnsberg, irrespective of the value of the object in dispute. We shall, however, also be entitled to take legal proceedings against the customer at the place of his registered office.

German law shall be exclusively applicable. The application of international purchase laws is hereby excluded.

Should, for any reason whatsoever, individual provisions of our terms and conditions of sale and delivery be invalid, the validity and binding nature of the other provisions shall not be affected thereby. The customer agrees, that the invalid provision shall be replaced by a valid provision that comes as close as possible to the economic meaning of the invalid provision.

13. The prices of products made of brass and copper are subject to certain fluctuations that are based on the relevant DEL listings. The prices of our brass articles are based on a DEL listing of € 150 for Ms 58, those of our copper products on a DEL value for electrolyte copper of € 200.

In case of any increase or reduction in these prices by more than € 15, a five per cent surcharge or deduction shall be made for each 15 points. The calculation of any such surcharges or deductions shall be based on the DEL listing of the date of our receipt of the order.

Valid from January 2010





QR Code

With the QR Code you have direct access to our products on the Internet.

You can find further information on the QR Code at www.obo-bettermann.com.

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