

Solutions for wind power systems



THINK CONNECTED.

OBO solutions for the electrical infrastructure of wind power systems

A whole branch of industry can profit from the driving force of a very old form of energy. Wind power systems have long been established as a technology for the future regarding the use of renewable energies. Modern, high-performance wind power systems make extremely high demands of the quality and reliability of the components used. Particularly important is the electrical infrastructure, which is of key significance for the functional safety of the entire system.

Think connected.

OBO stands for networked thinking – all over the world our systems provide a reliable backbone for building and system technology for industry, commerce and infrastructure systems.

Contents

Comprehensive solutions – from the gondola to the foundation

OBO can provide complete solutions for the entire electrical equipment of wind power systems – from clamp clips to cable support systems, from surge protection to lightning protection systems. In addition, you benefit from the experience of a systems provider who is used to working on large-scale projects around the world.

Our selection for your project

This solutions brochure contains a selection of possible products for wind power projects. You can find over 30,000 additional products for all areas of electrical installations in our seven main catalogues or on the Internet.

Systems for the gondola

- Connection and fastening systems
 - Transient and lightning protection systems
 - Cable support systems
 - Cable routing systems
-

Systems for the tower

- Fastening systems
 - Cable support systems
 - Fire protection systems
-

Systems for the tower base

- Cable support systems
 - Surge protection systems
 - Cable routing systems
 - Equipotential bonding systems
-

Systems for the foundation

- Earthing systems
-

Directories

We provide special solutions as a standard

With regard to the accompanying planning for wind power 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 type class, location, control technology and safety into the planning and construction processes from the very start.

We have an excellently equipped testing centre available, as well as a modern, flexible production facility. Here, not only standard products are tested, but also special solutions for large-scale projects with exceptional requirements.



Our motto: Always do it better

We like short routes. Therefore, OBO provides everything from a single source – from personal, on-site consultation, through planning and production up to quality assurance and logistics. Only in this way is it possible for us to guarantee you perfect products with a clear conscience.

With an extremely high storage density in specialist wholesalers, OBO products are always available quickly and anywhere in the world. And OBO Customer Service is available to offer help and advice for special requirements.

We want to be the best. Therefore, we always take a critical look at our services and products – without any compromises.

-
- **Development and construction**
 - **Test centre BET**
 - **Production**
 - **Logistics**
 - **Wholesaler**
 - **On-site employees**





We are there where you need us

Are you planning a wind power system in the Andes? Or an offshore power station in the North Sea? You can count on OBO. All over the world, our employees are ready to help you in the electrical equipping of your project.

The highly developed OBO logistic process ensures that our products reach the place in which they are needed quickly and reliably. We can guarantee this through our tightly knit service network in more than 50 countries. We really know our stuff.



12 | LWE Lösungstechnik AG, Straßburger Straße 10, 72376 Rastatt, Germany | 23/10/2012 (LLExpert_01533) / 08/11/2012

Systems for the gondola

Measuring and test systems

Magnetic card PCS and holder for the simple measurement of lightning currents in the rotor blade



Junction box systems

For safe IP protection of electrical cabling



Cable and pipe fastening systems

For vibration-proof routing of lighting and auxiliary current circuits



Pipe systems

Made of metal and plastic – suitable for all applications



Interception and arrestor systems

To protect the weather station against direct lightning strikes



Surge protection energy technology

To protect the central power supply against surges and partial lightning currents with installed vibration protection (Shock Guard)



Surge protection Data and information technology

To protect the electronic control components in the control cabinet



Mounting systems

For supportive fastening of cable trays and mesh cable tray systems – even in the case of high cable loads



Mesh cable tray systems

For flexible routing of the power and data cables in the gondola area



Systems for the tower

Rail systems

To accept all kinds of clamp clips – from single to triple clips



Clamp clip systems

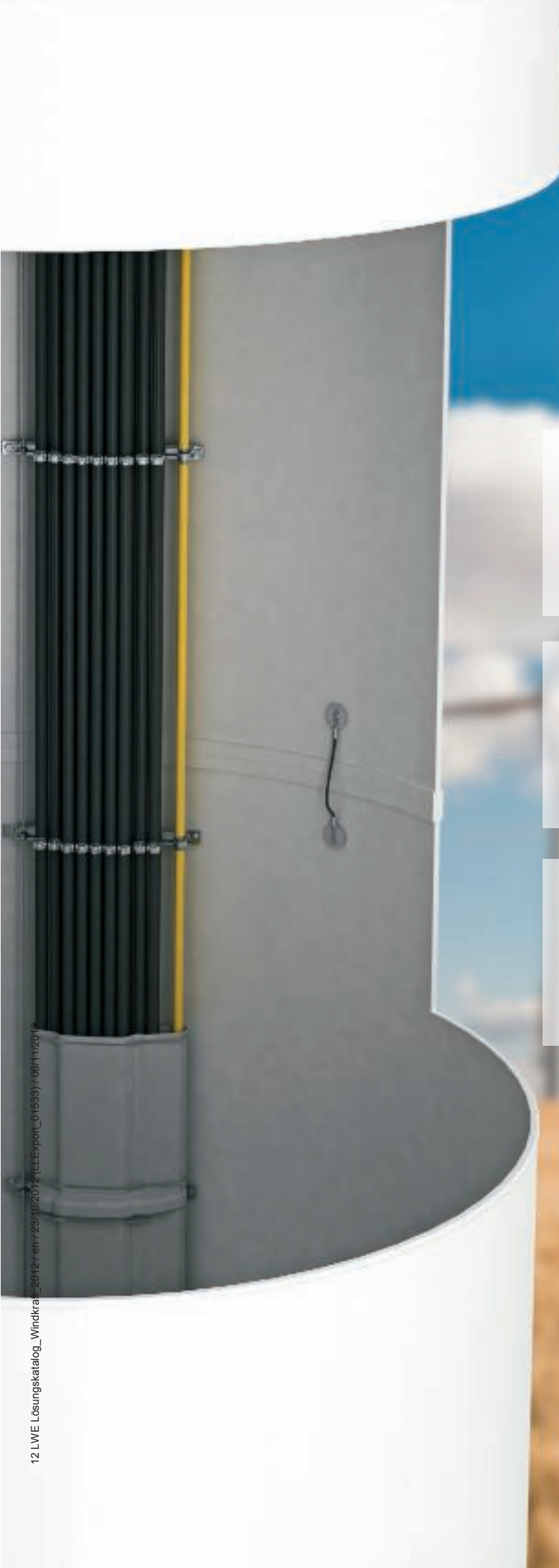
For vibration-proof routing of the power and data cables



Vertical cable ladder systems

With matching wall brackets to accept cable weights





Equipotential bonding systems

Shield connection terminal to optimise the shield action of individual data cables



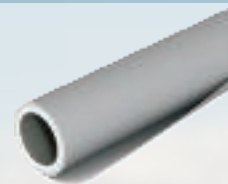
Equipotential bonding systems

To connect tower segments in a way which reduces lightning current and potential



Fire protection systems

To prevent the expansion of fire via the power and data cables in the gondola



Systems for the tower base

Surge protection energy technology

Lightning arrestor, type 1, for network-side connection with the equipotential bonding system



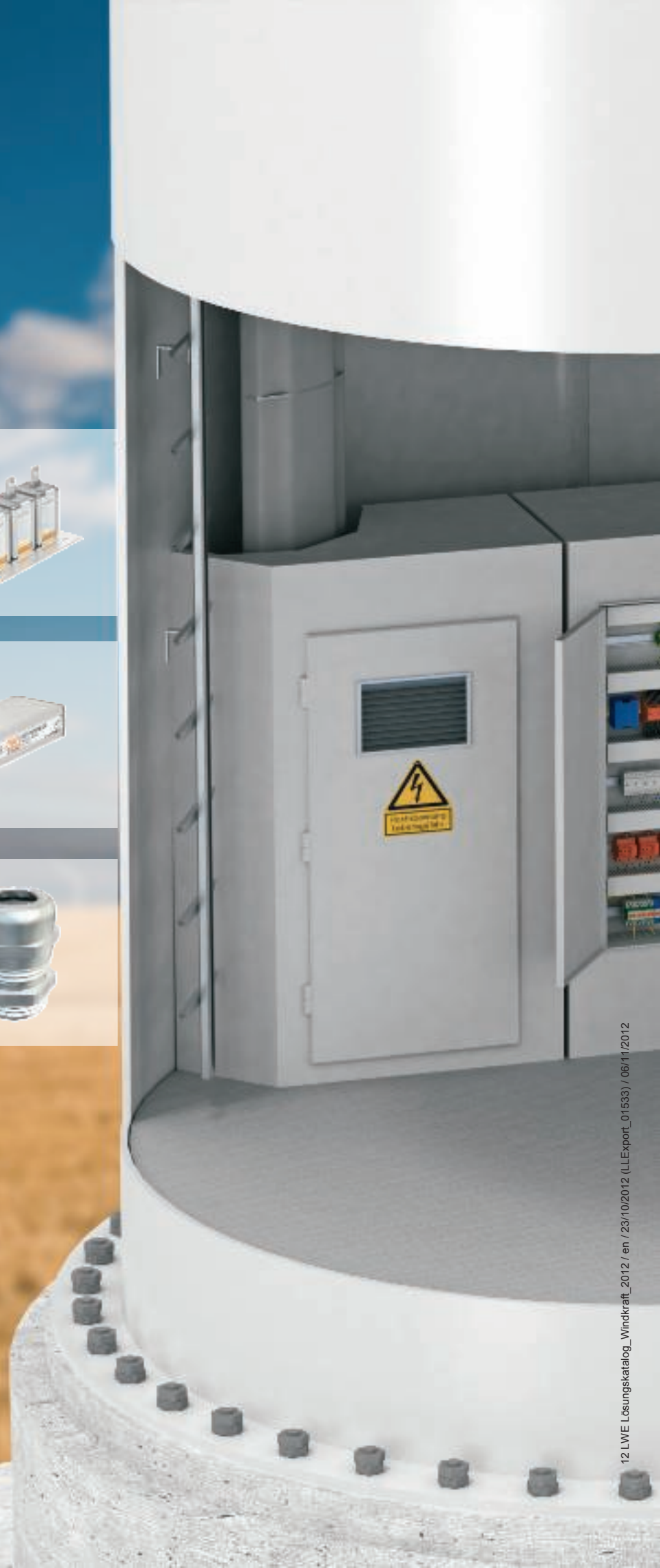
Surge protection Data and information technology

To protect telecommunication cables for the entire tower remote control



Cable fastening systems

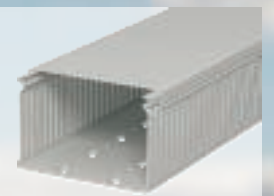
Made of metal and plastic for high tightness and EMC requirements





Wiring duct

For tidy routing of cables in the control cabinet



Equipotential bonding systems

For correct equipotential bonding to DIN VDE 0100 and lightning protection equipotential bonding to DIN EN 62305 (IEC 62305)



Earthing systems

To connect the reinforcement with the equipotential bonding



Systems for the foundation

Earthing systems

Diagonal clamp for the connection of reinforcing bars and flat conductors



Earthing systems

Diagonal clamp with welded bolt to connect additional earthing cables



Earthing systems

Bitumen corrosion protection bandage to protect the earth entry at the transition point into the concrete



Earthing systems

Flat conductors made of galvanised steel or stainless steel



Earthing systems

VA cross-connector to safely connect the flat conductor to crossing points





Systems for the gondola

	Cable tray systems	Side height 35 mm Side height 60 mm	18 18
	Mesh cable tray systems	Mesh cable tray, GR-Magic®	22
	Mounting systems	Wall and support brackets U suspended support Chuck jaw	24 25 26
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	Interception and arrestor systems	Tapered pipe interception rod Screwless cable brackets Attaching and expansion strip	47 47 47
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Cable tray systems

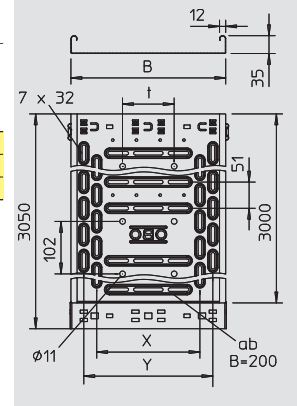


Cable tray RKS-Magic®

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 310 FS	100	0.75	3,050	33	—	50	—	106.700	6047 41 7
RKSM 320 FS	200	0.75	3,050	68	100	150	—	152.300	6047 43 3
RKSM 330 FS	300	0.75	3,050	103	200	250	100	213.300	6047 46 0

St Steel **FS** Strip-galvanised

RKSM 35 = Efficient magic cable tray system with 35 mm side height.
Magnetic shield insulation without cover 20 dB, with cover 50 dB.

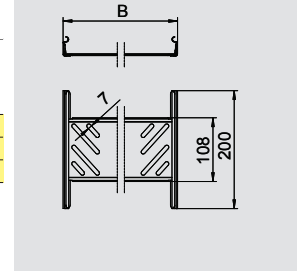


Magic straight connector set

Type	Side height mm	Width mm	Pack. pcs	Weight kg/100 pcs.	Item No.
KTSMV 310 FS	35	100	1	22.700	6068 90 0
KTSMV 320 FS	35	200	1	29.400	6068 90 2
KTSMV 330 FS	35	300	1	36.100	6068 90 4

St Steel **FS** Strip-galvanised

Cable tray connector with quick fastening for straight, screwless connection of cable trays and fittings with a side height of 35 mm.

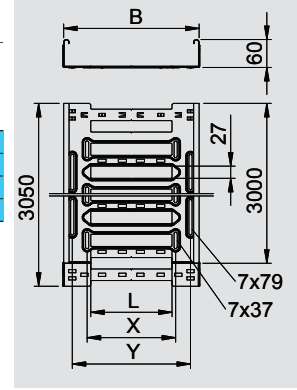


Cable tray MKS-Magic®

Type	Width mm	Plate thickness mm	Length mm	Useful cross- section cm ²	Dimen- sion x mm	Dimen- sion y mm	Dimen- sion L mm	Weight kg/100 m	Item No.
MKSM 610 FT	100	1	3,050	58	—	62	30	183.000	6059 01 8
MKSM 615 FT	150	1	3,050	88	46	112	30	222.670	6059 02 0
MKSM 620 FT	200	1	3,050	118	96	162	80	243.340	6059 02 2
MKSM 630 FT	300	1	3,050	178	196	262	180	284.670	6059 02 5

St Steel **FT** Hot-dip galvanised

MKSM 60 = medium-duty Magic cable tray system with a side height of 60 mm.

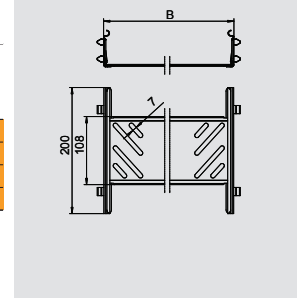


Magic straight connector set

Type	Side height mm	Width mm	Pack. pcs	Weight kg/100 pcs.	Item No.
KTSMV 610 DD	60	100	1	30.500	6068 93 6
KTSMV 615 DD	60	150	1	34.900	6068 93 8
KTSMV 620 DD	60	200	1	37.200	6068 94 0
KTSMV 630 DD	60	300	1	44.000	6068 94 2

St Steel **DD** Zinc-aluminium coated, double-dip

Cable tray connector with quick fastening for straight, screwless connection of cable trays and fittings with a side height of 60 mm.

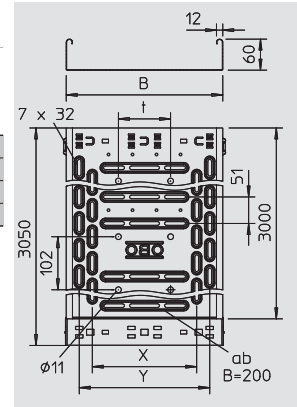


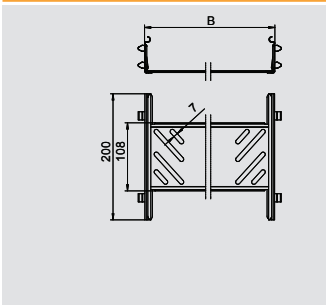
RKSM cable tray

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 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

V2A Stainless steel, grade 304 **Stained**

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





Magic straight connector set



Type	Side height mm	Width mm	Pack.	Weight	Item No.
			pcs	kg/100 pcs.	
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

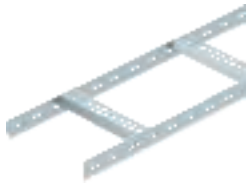
V2A Stainless steel, grade 304

/pc.

Cable tray connector with quick fastening for straight, screwless connection of cable trays and fittings with a side height of 60 mm.



Cable ladder systems

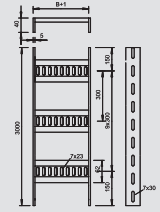


Cable ladder, standard

Type	Width mm	Length mm	Weight kg/100 m	Item No.
SL 62 110 FT	110	3,000	307.300	7097 40 9
SL 62 210 FT	210	3,000	342.700	7097 42 5
SL 62 310 FT	310	3,000	378.000	7097 43 3
SL 62 410 FT	410	3,000	413.000	7097 44 1
SL 62 510 FT	510	3,000	448.700	7097 46 8
SL 62 610 FT	610	3,000	483.700	7097 47 6

St Steel **FT** Hot-dip galvanised /m

Shipping cable ladder with perforated side rail of side height 40 mm with welded, perforated trapezoidal rungs which open in a downwards direction.

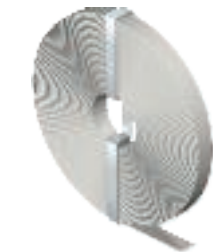
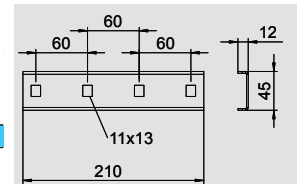


Connector

Type	Width mm	Pack. pcs	Weight kg/100 pcs.	Item No.
SLV 62 FT	62	10	20.900	7103 54 8

St Steel **FT** Hot-dip galvanised /pc.

Straight connector as external connector to connect cable ladders and fittings with a side height of 25 mm.

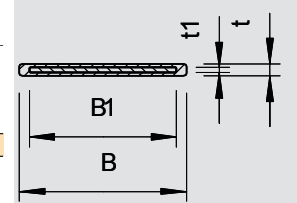


Tightening strap

Type	Dimension mm	Minimum breaking load kN	Colour	Shipping box m	Pack. m	Weight kg/100 m	Item No.
574 G STGR	17 x 1.0	1.35	Stone grey	250	25	5.880	6490 01 8

St Steel **G** Electrogalvanised price/100 m

Plastic-covered galvanised tightening strap for fastening on cable trays and ladders.

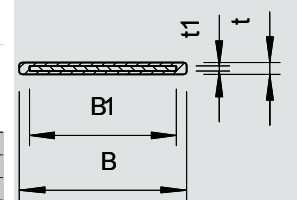


Tightening strap

Type	Dimension mm	Minimum breaking load kN	Colour	Shipping box m	Pack. m	Weight kg/100 m	Item No.
574 03 SW	17 x 1.0	2.25	Black	250	25	6.950	6490 02 6
574 03 BA	17 x 1.0	2.25	Blue anthracite	250	25	6.950	6490 03 4
574 05 GNBG	16.5 x 1.2	3.5	Green-beige	250	25	6.950	6490 05 0

V2A Stainless steel, grade 301 price/100 m

Plastic-covered tightening strap made of rustproof steel for fastening on cable trays and ladders.

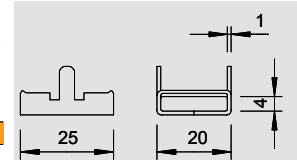


Tightening strap lock

Type	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
192	1,200	100	0.900	6490 90 5

St Steel **DD** Zinc-aluminium coated, double-dip /1000 pc.

Tightening strap lock for mounting under the ceiling.

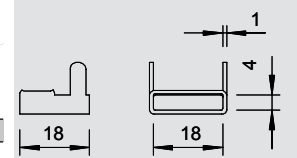


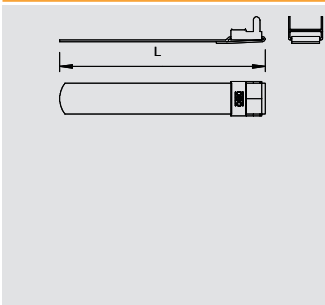
Tightening strap lock

Type	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
197 VA4301	1,800	100	0.560	6490 96 4

V2A Stainless steel, grade 304 /1000 pc.

Tightening strap lock for single-sided locking of tightening strap in problematic areas.





Tightening strap in fixed lengths

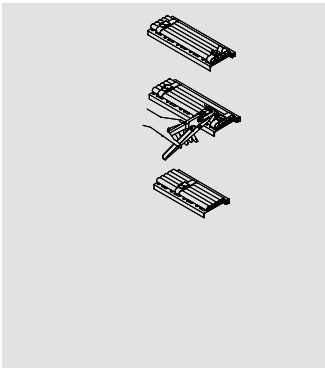
Type	Dimension mm	Length mm	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
574 03 30 BA	17 x 1.0	300	Blue anthracite	500	25	2.410	6490 10 7
574 03 45 BA	17 x 1.0	450	Blue anthracite	250	25	3.260	6490 12 3
574 05 55 GNBG	16.5 x 1.2	550	Green-beige	250	25	4.660	6490 15 8
574 05 65 GNBG	16.5 x 1.2	650	Green-beige	250	25	5.370	6490 17 4



V2A Stainless steel, grade 301

/1000 pc.

Tightening strap, 574/03/VA and 574/05/VA, completely pre-terminated with tightening strap lock.



Spring chuck

Type	Pack. pcs	Weight kg/100 pcs.	Item No.
575	1	29.700	6498 01 9

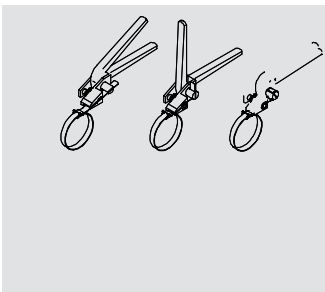
St Steel

/pc.

For tightening strap 574/...

Mounting of the tightening strap:

1. Cut the strap to the right length, push it through the lock and turn it over.
2. Loop the strap around the cable, push the loose end through the lock.
3. Tighten the end of the strap with the pliers.
4. Turn the end of the taut strap with the pliers. Remove the pliers.
5. Completely turnover the turned end of the strap with the hammer, secure the end of the strap by hitting the two standing lobes of the lock.



Spring chuck

Type	Pack. pcs	Weight kg/100 pcs.	Item No.
576	1	132.000	6498 02 7

St Steel

/pc.

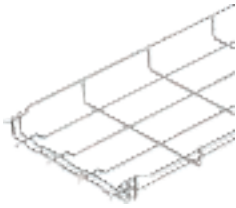
For tightening strap 574/...



Mesh cable tray systems



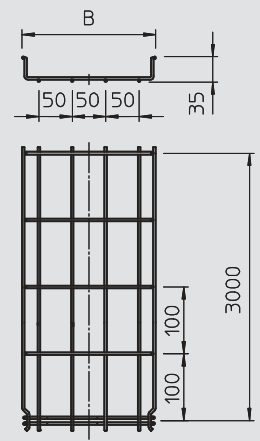
Mesh cable tray GR-Magic®



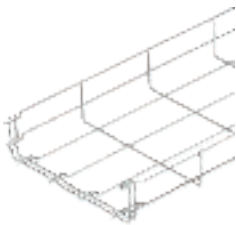
Type	Width	Wire Ø	Length	Useful cross-section	Weight	Item No.
	mm	mm	mm	cm ²	kg/100 m	
GRM 35 100 FT	100	3.9	3,000	35	50.400	6000 07 1
GRM 35 150 FT	150	3.9	3,000	52,5	64.500	6000 07 2
GRM 35 200 FT	200	3.9	3,000	70	78.600	6000 07 3
GRM 35 300 FT	300	4.8	3,000	105	162.700	6000 07 5

St Steel **FT** Hot-dip galvanised /m

Mesh cable tray with shaped connector of side height 35 mm.
Magnetic shield insulation without cover 15 dB, with cover 25 dB.



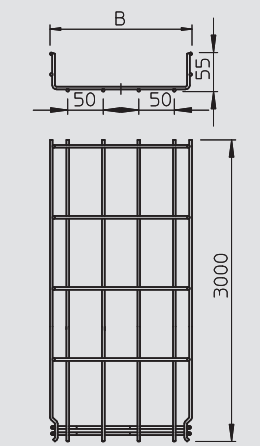
Mesh cable tray GR-Magic®



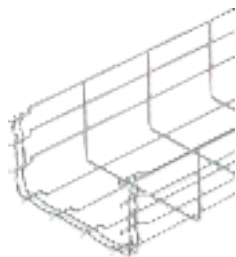
Type	Width	Wire Ø	Length	Useful cross-section	Weight	Item No.
	mm	mm	mm	cm ²	kg/100 m	
GRM 55 50 FT	50	3.9	3,000	16	70.000	6001 41 5
GRM 55 100 FT	100	3.9	3,000	40	71.330	6001 41 6
GRM 55 150 FT	150	3.9	3,000	63	90.000	6001 41 8
GRM 55 200 FT	200	3.9	3,000	87	103.500	6001 42 0
GRM 55 200 4.8 FT	200	4.8	3,000	87	154.300	6001 42 1
GRM 55 300 FT	300	4.8	3,000	129	198.800	6001 42 4
GRM 55 400 FT	400	4.8	3,000	175	244.300	6001 42 8
GRM 55 500 FT	500	4.8	3,000	220	287.700	6001 43 2
GRM 55 600 FT	600	4.8	3,000	265	331.600	6001 43 6

St Steel **FT** Hot-dip galvanised /m

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



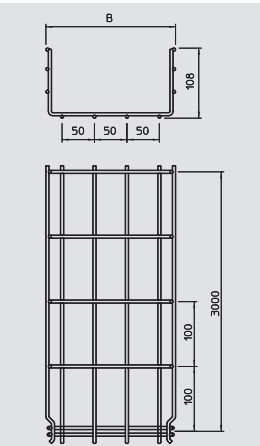
Mesh cable tray GR-Magic®



Type	Width	Wire Ø	Length	Useful cross-section	Weight	Item No.
	mm	mm	mm	cm ²	kg/100 m	
GRM 105 100 G	100	3.9	3,000	82	100.000	6002 40 2
GRM 105 150 G	150	3.9	3,000	130	110.600	6002 40 4
GRM 105 200 G	200	4.8	3,000	175	194.400	6002 40 6
GRM 105 300 G	300	4.8	3,000	268	236.700	6002 40 8
GRM 105 400 G	400	4.8	3,000	363	278.000	6002 41 0
GRM 105 500 G	500	4.8	3,000	459	319.000	6002 41 5
GRM 105 600 G	600	4.8	3,000	554	363.300	6002 41 7
GRM 105 100 FT	100	3.9	3,000	82	103.700	6002 43 1
GRM 105 150 FT	150	3.9	3,000	130	116.000	6002 43 3
GRM 105 200 FT	200	4.8	3,000	175	200.700	6002 43 5
GRM 105 300 FT	300	4.8	3,000	268	244.000	6002 43 7
GRM 105 400 FT	400	4.8	3,000	363	287.700	6002 43 9
GRM 105 500 FT	500	4.8	3,000	459	333.000	6002 44 3
GRM 105 600 FT	600	4.8	3,000	554	375.000	6002 44 5

St Steel **G** Electrogalvanised **FT** Hot-dip galvanised /m

Mesh cable tray with shaped connector of side height 105 mm.
Magnetic shield insulation without cover 15 dB, with cover 25 dB.

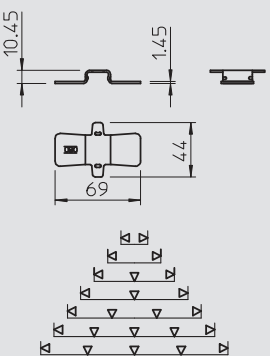


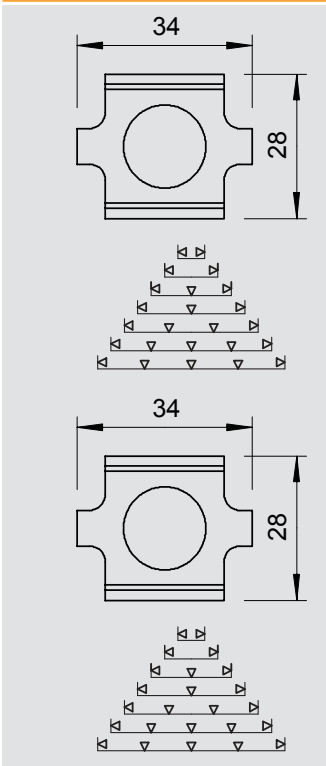
Quick connector

Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
GRS 3.9 DD	50	2.500	6016 54 5
GRS 4.4 DD	50	2.500	6016 55 3
GRS 4.8 DD	50	2.500	6016 56 1

St Steel **DD** Zinc-aluminium coated, double-dip /pc.

Quick connector for screwless straight connection of mesh cable trays without special tools.





Joint connector

Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
GSV 34 G	25	3.000	6016 59 6

St Steel **G** Electrogalvanised /pc.
Screwed version of joint connector for cable trays.



Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
GSV 34 FT	25	3.000	6016 63 4

St Steel **FT** Hot-dip galvanised /pc.
Screwed version of joint connector for mesh cable trays.



Mounting systems

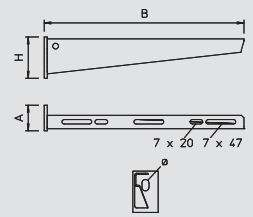


Wall and support bracket AW 15



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 11 FT	110	50	40	11	1.5	30	14.500	6420 65 6
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
AW 15 51 FT	510	75	40	11	1.5	20	72.000	6420 78 8
AW 15 56 FT	560	80	40	11	1.5	20	77.000	6420 79 6
AW 15 61 FT	610	80	40	11	1.5	20	85.000	6420 82 6

St Steel **FT** Hot-dip galvanised /pc.
Light-duty wall and support bracket with welded head plate.

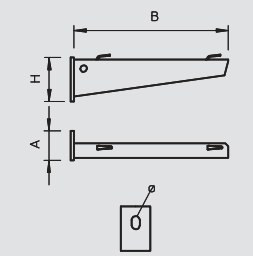


Wall and support bracket AWG 15



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.
AW G 15 11 FT	110	50	40	11	1.5	30	14.000	6420 60 6
AW G 15 16 FT	160	55	40	11	1.5	30	20.000	6420 60 7
AW G 15 21 FT	210	60	40	11	1.5	30	26.000	6420 60 8
AW G 15 31 FT	310	65	40	11	1.5	30	35.000	6420 61 0
AW G 15 41 FT	410	70	40	11	1.5	30	56.000	6420 61 2
AW G 15 51 FT	510	75	40	11	1.5	20	69.000	6420 61 4
AW G 15 61 FT	610	80	40	11	1.5	20	84.000	6420 61 6

St Steel **FT** Hot-dip galvanised /pc.
Light-duty wall and support bracket with welded head plate for screwless mesh cable tray fas-
tening.

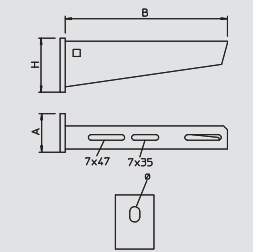


Wall and support bracket AW 30



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 11 FT	110	60	50	11	3	30	22.000	6419 70 4
AW 30 16 FT	160	65	50	11	3	30	34.000	6419 71 2
AW 30 21 FT	210	70	50	13	3	25	42.000	6419 72 0
AW 30 31 FT	310	80	50	13	3	25	63.000	6419 74 7
AW 30 41 FT	410	80	50	13	3	20	89.000	6419 76 3
AW 30 51 FT	510	90	50	13	3	10	132.500	6419 79 8
AW 30 56 FT	560	100	50	13	3	10	185.000	6419 84 4
AW 30 61 FT	610	100	50	13	3	10	158.000	6419 82 8
AW 30 71 FT	710	100	50	13	3	1	214.000	6419 83 6

St Steel **FT** Hot-dip galvanised /pc.
Medium-duty wall and support bracket with welded head plate.

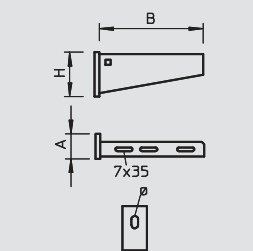


Wall and support bracket AW 55



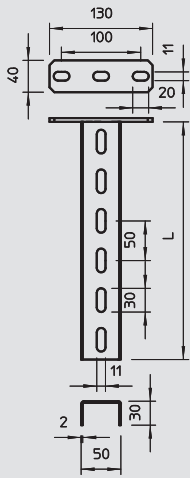
Type	Width mm	Dimen- sion H mm	Dimen- sion A mm	Hole- Ø mm	F in kN kN	Pack. pcs	Weight kg/100 pcs.	Item No.
AW 55 21 FT	210	90	50	13.5	5.5	1	77.000	6418 55 4
AW 55 31 FT	310	110	50	13.5	5.5	1	123.000	6418 57 0
AW 55 41 FT	410	130	50	13.5	5.5	1	167.000	6418 59 7
AW 55 51 FT	510	145	60	13.5	5.5	1	249.000	6418 61 9
AW 55 56 FT	560	165	60	13.5	5.5	1	282.000	6418 62 7
AW 55 61 FT	610	165	60	13.5	5.5	1	305.000	6418 63 5
AW 55 71 FT	710	195	60	13.5	5.5	1	418.000	6418 65 1
AW 55 81 FT	810	195	60	13.5	5.5	1	477.000	6418 68 6
AW 55 91 FT	910	215	60	13.5	5.5	1	558.000	6418 70 8
AW 55 101 FT	1,010	230	60	13.5	5.5	1	640.000	6418 72 4

St Steel **FT** Hot-dip galvanised /pc.
Heavy-duty wall and support bracket with welded head plate.





US 3 suspended support

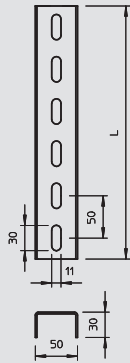


Type	Length mm	Material thickness mm	Tensile load kN	Pack. pcs	Weight kg/100 pcs.	Item No.
US 3 K 20 FT	200	2	5	4	50.500	6342 35 1
US 3 K 30 FT	300	2	5	4	64.400	6342 35 3
US 3 K 40 FT	400	2	5	4	78.300	6342 35 5
US 3 K 50 FT	500	2	5	4	92.300	6342 35 7
US 3 K 60 FT	600	2	5	4	106.200	6342 35 9
US 3 K 70 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

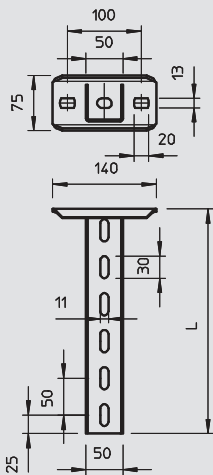


Type	Length mm	Material thickness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
US 3 20 FS	200	2	4	27.000	6342 30 2
US 3 30 FS	300	2	4	40.000	6342 30 4
US 3 40 FS	400	2	4	53.000	6342 30 6
US 3 50 FS	500	2	4	67.000	6342 30 8
US 3 60 FS	600	2	4	80.000	6342 31 0
US 3 70 FS	700	2	4	93.000	6342 31 2
US 3 80 FS	800	2	4	107.000	6342 31 4
US 3 90 FS	900	2	4	120.000	6342 31 6
US 3 100 FS	1,000	2	4	133.000	6342 31 8
US 3 150 FS	1,500	2	1	200.000	6342 32 8
US 3 200 FS	2,000	2	1	266.000	6342 33 8
US 3 600 FS	6,000	2	1	798.000	6342 34 5
US 3 600 FT	6,000	2	4	834.000	6342 45 0

St Steel **FS** Strip-galvanised **FT** Hot-dip galvanised /pc.
U support in fixed lengths. Dimensions 30 x 50 mm.



US 5 suspended support



Type	Length mm	Material thickness mm	Tensile load kN	Pack. pcs	Weight kg/100 pcs.	Item No.
US 5 K 20 FT	200	2.5	10	2	85.000	6341 52 7
US 5 K 30 FT	300	2.5	10	2	110.000	6341 53 5
US 5 K 40 FT	400	2.5	10	2	136.000	6341 54 3
US 5 K 50 FT	500	2.5	10	2	161.000	6341 55 1
US 5 K 60 FT	600	2.5	10	2	185.000	6341 57 8
US 5 K 70 FT	700	2.5	10	2	210.000	6341 58 6
US 5 K 80 FT	800	2.5	10	2	236.000	6341 59 4
US 5 K 90 FT	900	2.5	10	2	261.000	6341 60 8
US 5 K 100 FT	1,000	2.5	10	2	286.000	6341 61 6
US 5 K 110 FT	1,100	2.5	10	2	311.000	6341 62 4
US 5 K 120 FT	1,200	2.5	10	2	337.000	6341 63 2

St Steel **FT** Hot-dip galvanised /pc.
U support of dimensions 50 x 50 mm with welded head plate.



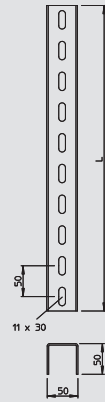
Mounting systems



US 5 support

Type	Length		Material thickness	Pack.	Weight	Item No.
	mm	mm				
US 5 20 FT	200	2.5		4 pcs	53.000 kg/100 pcs.	6340 88 1
US 5 30 FT	300	2.5		4	79.000	6340 90 3
US 5 40 FT	400	2.5		4	106.000	6340 91 1
US 5 50 FT	500	2.5		4	133.000	6340 93 8
US 5 60 FT	600	2.5		4	160.000	6340 94 6
US 5 70 FT	700	2.5		4	175.000	6340 95 0
US 5 80 FT	800	2.5		4	200.000	6340 95 4
US 5 90 FT	900	2.5		4	227.000	6340 95 8
US 5 100 FT	1,000	2.5		4	265.000	6340 96 2
US 5 150 FT	1,500	2.5		1	395.000	6340 96 6
US 5 200 FT	2,000	2.5		1	506.000	6340 97 0
US 5 300 FT	3,000	2.5		1	795.000	6340 98 9
US 5 600 FT	6,000	2.5		1	1,578.000	6340 99 7

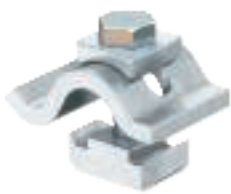
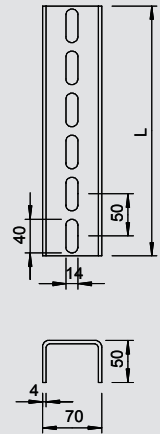
St Steel **FT** Hot-dip galvanised /pc.
 U support in fixed lengths. Dimensions 50 x 50 mm.



US 7 support

Type	Length		Material thickness	Pack.	Weight	Item No.
	mm	mm				
US 7 20 FT	200	4		4 pcs	81.000 kg/100 pcs.	6340 01 6
US 7 30 FT	300	4		4	121.000	6340 03 2
US 7 40 FT	400	4		4	161.000	6340 05 9
US 7 50 FT	500	4		4	202.000	6340 07 5
US 7 60 FT	600	4		4	242.000	6340 09 1
US 7 70 FT	700	4		4	283.000	6340 11 3
US 7 80 FT	800	4		4	323.000	6340 14 8
US 7 90 FT	900	4		2	363.000	6340 16 4
US 7 100 FT	1,000	4		2	404.000	6340 18 0
US 7 110 FT	1,100	4		1	444.000	6340 19 9
US 7 120 FT	1,200	4		1	484.000	6340 20 2
US 7 130 FT	1,300	4		1	525.000	6340 21 0
US 7 140 FT	1,400	4		1	565.000	6340 22 9
US 7 150 FT	1,500	4		2	606.000	6340 23 7
US 7 160 FT	1,600	4		1	646.000	6340 24 5
US 7 170 FT	1,700	4		1	686.000	6340 25 3
US 7 180 FT	1,800	4		1	727.000	6340 26 1
US 7 190 FT	1,900	4		1	767.000	6340 28 8
US 7 200 FT	2,000	4		2	807.000	6340 29 6
US 7 300 FT	3,000	4		1	1,211.000	6340 37 7
US 7 400 FT	4,000	4		1	1,615.000	6340 39 3
US 7 600 FT	6,000	4		1	2,422.000	6340 31 8

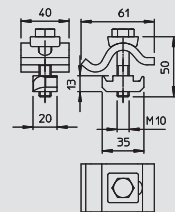
St Steel **FT** Hot-dip galvanised /pc.
 U support in fixed lengths. Dimensions 70 x 50 mm.



Chuck jaw, light-duty

Type	Height	F in kN	Pack.	Weight	Item No.
TKH-L-25 FT	25	10	10 pair	46.000 kg/100 pairs	6355 81 2

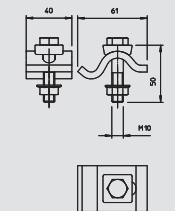
St Steel **FT** Hot-dip galvanised /pair
 Light-duty tensioning claw with slide nut for fixing mounting rails to steel girder flanges.



Chuck jaw, light-duty

Type	Height	F in kN	Pack.	Weight	Item No.
TKS-L-25 FT	25	10	10 pair	39.000 kg/100 pairs	6355 80 8

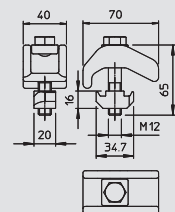
St Steel **FT** Hot-dip galvanised /pair
 Chuck jaw with hexagonal nut for direct fastening of structures to steel girders.

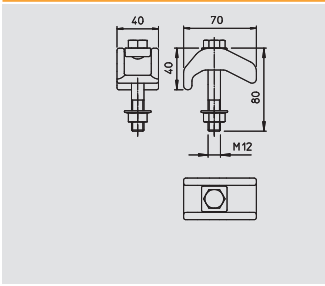


Chuck jaw, heavy-duty

Type	Height	F in kN	Pack.	Weight	Item No.
TKH-S-30 FT	30	21	10 pair	81.000 kg/100 pairs	6355 80 4

St Steel **FT** Hot-dip galvanised /pair
 Heavy-duty chuck jaw with slide nut for fastening profile rails to steel girders.

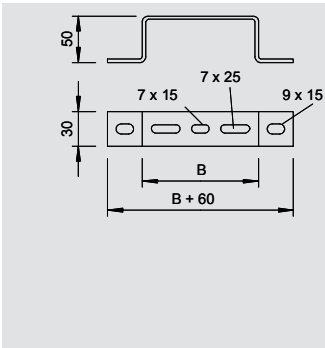




Chuck jaw, heavy-duty

Type	Height mm	F in kN kN	Pack. pair	Weight kg/100 pairs	Item No.
TKS-S-30 FT	30	21	10	82.000	6355 80 0

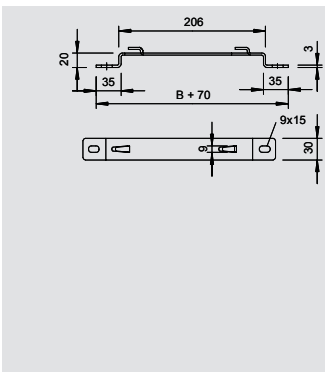
St Steel **FT** Hot-dip galvanised /pair
Heavy-duty chuck jaw with hexagonal nut for direct fastening of structures to steel girders.



Spacer clamp

Type	Dimension B mm	Pack. pcs	Weight kg/100 pcs.	Item No.
DBL 50 100 FT	100	20	16.000	6015 56 5
DBL 50 150 FT	150	20	19.500	6015 57 3
DBL 50 200 FT	200	20	23.000	6015 58 1
DBL 50 300 FT	300	20	38.250	6015 60 3
DBL 50 400 FT	400	20	47.700	6015 61 1
DBL 50 500 FT	500	25	62.600	6015 61 4
DBL 50 600 FT	600	20	73.100	6015 61 7

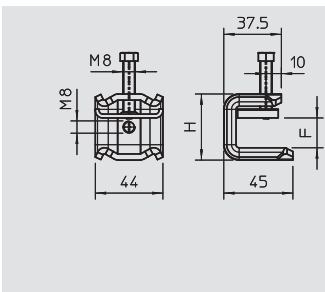
St Steel **FT** Hot-dip galvanised /pc.
Stand-off bracket for cable trays and mesh cable trays.



Spacer clamp

Type	Dimension B mm	Pack. pcs	Weight kg/100 pcs.	Item No.
DBLG 20 050 FT	50	20	10.700	6015 64 8
DBLG 20 100 FT	100	20	14.300	6015 65 6
DBLG 20 150 FT	150	20	18.100	6015 66 0
DBLG 20 200 FT	200	20	21.700	6015 66 4
DBLG 20 300 FT	300	20	38.800	6015 67 2
DBLG 20 400 FT	400	20	48.600	6015 69 1
DBLG 20 500 FT	500	25	59.200	6015 69 5
DBLG 20 600 FT	600	25	69.100	6015 69 9

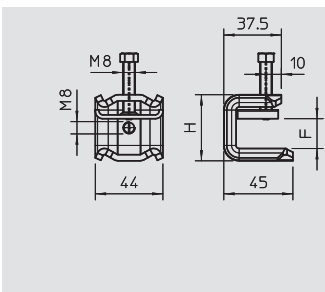
St Steel **FT** Hot-dip galvanised /pc.
Stand-off bracket for stand-off of mesh cable trays on the floor or on the wall.



Support clamp

Type	Dimension H mm	Dimension B mm	Dimension L mm	For threaded rod	Flange thickness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
SPP 6-21 FT	43	44	45	M8	6-21	50	17.700	1486 25 0

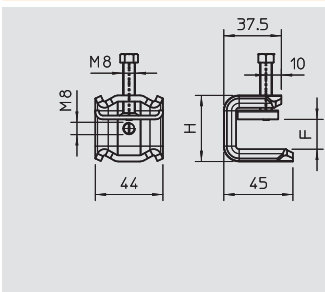
St Steel **FT** Hot-dip galvanised /1000 pc.
This type of support clamp is pushed onto the support and fixed to the girder or flat iron using a pressure trough and bolt (M8). The hexagonal bolt has a WAF of 10 mm and is tightened using the appropriate tool. If necessary, the double nipple, type 3100 M8, or an M8 threaded rod can be used on the clip element.



Support clamp

Type	Dimension H mm	Dimension B mm	Dimension L mm	For threaded rod	Flange thickness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
SPP 6-21 V4A	43	44	45	M8	6-21	50	18.200	1486 25 8

V4A Stainless steel, grade 316 L /1000 pc.
This type of support clamp is pushed onto the support and fixed to the girder or flat iron using a pressure trough and bolt (M8). The hexagonal bolt has a WAF of 10 mm and is tightened using the appropriate tool. If necessary, the double nipple, type 3100 M8, or an M8 threaded rod can be used on the clip element.



Support clamp

Type	Dimension H mm	Dimension B mm	Dimension L mm	For threaded rod	Flange thickness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
SPP 20-40 FT	63	44	45	M8	20-40	50	20.500	1486 27 0

St Steel **FT** Hot-dip galvanised /1000 pc.
This type of support clamp is pushed onto the support and fixed to the girder or flat iron using a pressure trough and bolt (M8). The hexagonal bolt has a WAF of 10 mm and is tightened using the appropriate tool. If necessary, the double nipple, type 3100 M8, or an M8 threaded rod can be used on the clip element.



Mounting systems

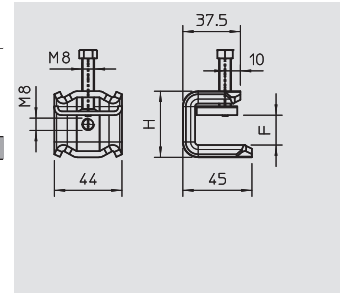


Support clamp

Type	Dimension H mm	Dimension B mm	Dimension L mm	For threaded rod	Flange thickness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
SPP 20-40 V4A	63	44	45	M8	20-40	50	21.200	1486 27 8

V4A Stainless steel, grade 316 L /1000 pc.

This type of support clamp is pushed onto the support and fixed to the girder or flat iron using a pressure trough and bolt (M8). The hexagonal bolt has a WAF of 10 mm and is tightened using the appropriate tool. If necessary, the double nipple, type 3100 M8, or an M8 threaded rod can be used on the clip element.



Support clamp, multifunctional

Type	Breaking load kN	Dimension B mm	Dimension H mm	Flange thickness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
TK MULTI 8	1.2	30	30	2-8	100	0.100	1485 14 0
TK MULTI 16	1.2	32	38	8-16	100	0.120	1485 14 4
TK MULTI 24	1.2	42	48	16-24	50	0.170	1485 14 8

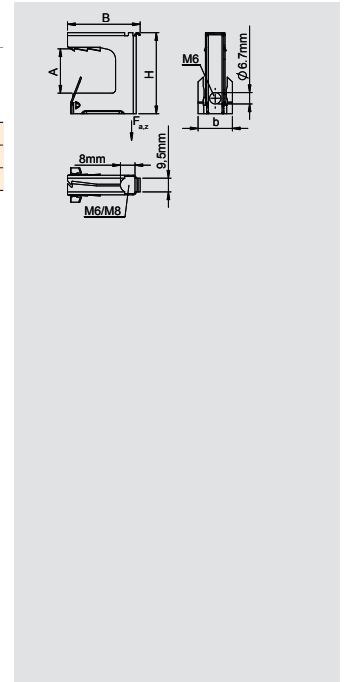
St Steel **ZDM** Galvanised, MAGNI 565 /1000 pc.

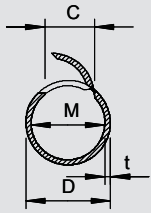
Different fastening options are possible, meaning one clip for any application.

- Multifunctional sprung steel clamp for steel girders
- Unifies the application of multiple products, e.g. S-hooks, wire cable, threaded rod (M6 or M8), cable tie
- For static loads, usable once, immovable
- No welding, no drilling, knocking in or attachment by hand
- Efficient and quick
- For fastening of cables, protection pipes, cable sections, etc.
- High load capacity (tested by CSTB - FR)
- Also suitable for outdoor use
- Material: hardened steel, Magni-coated surface (600-hour corrosion resistance)
- Incl. ICP threaded plate for wood screws of 4.0 to 4.5 mm

Properties:

- Opening for cable tie/strap of up to 9 mm width, M6-M8 threaded rod, wire cable etc.
- 6.7 mm hole diameter for M6 threaded rod, S-hook, acoustic ceiling hook etc.
- ICP clip for fastening with wood screws, diameter 4.0 - 4.5 mm





Quick pipe



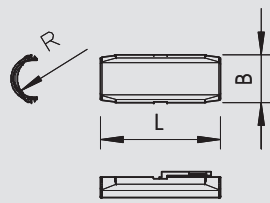
Type	Size	Colour	Length	Pack.	Weight	Item No.
			mm	m	kg/100 m	
2953 M16 LGR	M16	Light grey	2,000	50	7.000	2153 90 4
2953 M20 LGR	M20	Light grey	2,000	40	11.500	2153 91 2
2953 M25 LGR	M25	Light grey	2,000	30	16.000	2153 92 0
2953 M32 LGR	M32	Light grey	2,000	20	21.500	2153 93 9

PVC Polyvinylchloride

price/100 m

Smallest shipped quantity is shipping box.

The Quick pipe combines the advantages of a cable duct and an installation pipe into an intelligent system. It allows tidy and safe surface-mounted installation of all kinds of cables – even in a pipe. Quick pipe is available in four metric sizes: M16, M20, M25 and M32. The stock length is 2 m. The system is VDE-tested and achieves a protection rating of IP44. The fittings are a component part of the system.



Connection sleeve

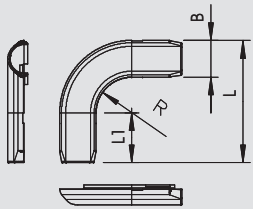


Type	Size	Colour	Shipping box	Pack.	Weight	Item No.
			pcs	pcs	kg/100 pcs.	
2953 M M16 LGR	M16	Light grey	150	10	0.910	2153 82 9
2953 M M20 LGR	M20	Light grey	100	10	1.020	2153 83 1
2953 M M25 LGR	M25	Light grey	120	10	1.130	2153 83 3
2953 M M32 LGR	M32	Light grey	100	10	1.250	2153 83 5

PVC Polyvinylchloride

/pc.

Connection sleeves are tested to VDE 0604 (system consists of: Quick pipe + fittings + 2955 F/...).



90° bends

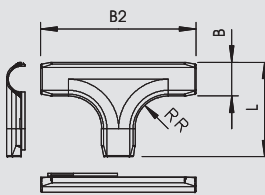


Type	Size	Colour	Shipping box	Pack.	Weight	Item No.
			pcs	pcs	kg/100 pcs.	
2953 B M16 LGR	M16	Light grey	60	5	1.810	2153 86 4
2953 B M20 LGR	M20	Light grey	50	5	1.900	2153 86 6
2953 B M25 LGR	M25	Light grey	50	5	2.020	2153 86 8
2953 B M32 LGR	M32	Light grey	60	5	2.140	2153 87 0

PVC Polyvinylchloride

/pc.

90° bends are tested to VDE 0604 (system consists of: Quick pipe + fittings + 2955 F/...).



T piece

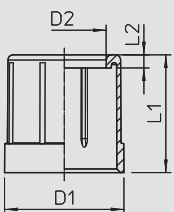


Type	Size	Colour	Shipping box	Pack.	Weight	Item No.
			pcs	pcs	kg/100 pcs.	
2953 T M16 LGR	M16	Light grey	60	5	2.210	2153 87 2
2953 T M20 LGR	M20	Light grey	50	5	2.320	2153 87 4
2953 T M25 LGR	M25	Light grey	50	5	2.440	2153 87 6
2953 T M32 LGR	M32	Light grey	50	5	2.560	2153 87 8

PVC Polyvinylchloride

/pc.

T pieces are tested to VDE 0604 (system consists of: Quick pipe + fittings + 2955 F/...).



Stapa pipe end bush



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

/1000 pc.

Cable protection sleeve for attachment on electrical installation pipes.



Pipe systems



5 | 5 | 5 | 7 | 1

Stainless steel pipe, V2A

Type	Dimension M	Dimension L	Dimension t	Pack.	Weight	Item No.
	mm	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 Brushed price/100 m

Electrical installation pipe without threaded ends to EN 61386-1 for mechanical protection of cables. With burr-free inner wall.

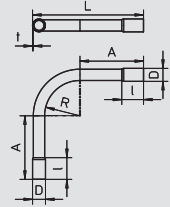


Stainless steel pipe bend, V2A

Type	Dimension M	Dimension L	Dimension t	Dimension R	Pack.	Weight	Item No.
	mm	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 /1000 pc.

Accessory part: 90° bend with moulded sleeves, for electrical installation pipes according to EN 61386-1. With burr-free inner wall.

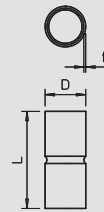


Stainless steel pipe connection sleeve, V2A

Type	Dimension M	Dimension L	Dimension D	Dimension t	Pack.	Weight	Item No.
	mm	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 /1000 pc.

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



5 | 5 | 5 | 7 | 1

Stainless steel pipe, V4A

Type	Dimension M	Dimension L	Dimension t	Pack.	Weight	Item No.
	mm	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 Brushed price/100 m

Electrical installation pipe without threaded ends to EN 61386-1 for mechanical protection of cables. With burr-free inner wall.

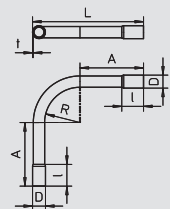


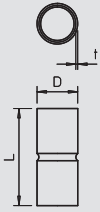
Stainless steel pipe bend, V4A

Type	Dimension M	Dimension L	Dimension t	Dimension R	Pack.	Weight	Item No.
	mm	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 /1000 pc.

Accessory part: 90° bend with moulded sleeves, for electrical installation pipes according to EN 61386-1. With burr-free inner wall.



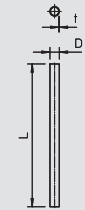


Stainless steel pipe connection sleeve, V4A

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 /1000 pc.

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



Aluminium pipe, without thread

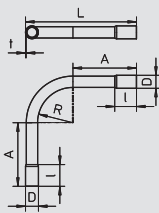
Type	Dimension M	Dimension L	Dimension t	Pack.	Weight	Item No.
	mm	mm	mm	m	kg/100 m	
S16 W ALU	M16	3,000	1.2	30	15.000	2046 00 2
S20 W ALU	M20	3,000	1.2	30	19.000	2046 00 3
S25 W ALU	M25	3,000	1.3	30	26.000	2046 00 4
S32 W ALU	M32	3,000	1.3	30	34.000	2046 00 5
S40 W ALU	M40	3,000	1.4	15	45.700	2046 00 6
S50 W ALU	M50	3,000	1.4	15	57.700	2046 00 7
S63 W ALU	M63	3,000	1.7	15	83.400	2046 00 8

Al Aluminium price/100 m

Electrical installation pipe without threaded ends to EN 61386-1 for mechanical protection of cables. With burr-free inner wall.



4 | 4 | 5 | 6 | 1

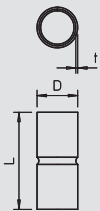


Aluminium pipe bend, without thread

Type	Dimension M	Dimension L	Dimension t	Dimension R	Pack.	Weight	Item No.
	mm	mm	mm	mm	pcs	kg/100 pcs.	
SB16 W ALU	M16	151	1.2	56	15	4.000	2046 01 2
SB20 W ALU	M20	171	1.2	70	25	6.000	2046 01 3
SB25 W ALU	M25	209	1.3	90	25	9.000	2046 01 4
SB32 W ALU	M32	253	1.3	115	20	12.000	2046 01 5
SB40 W ALU	M40	302	1.4	145	15	20.000	2046 01 6
SB50 W ALU	M50	360	1.4	180	5	31.000	2046 01 7
SB63 W ALU	M63	425	1.7	225	3	45.000	2046 01 8

Al Aluminium /1000 pc.

Accessory part: 90° bend with moulded sleeves, for electrical installation pipes according to EN 61386-1. With burr-free inner wall.

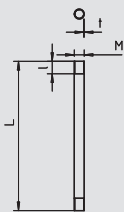


Aluminium pipe connection sleeve, without thread

Type	Dimension M	Dimension L	Dimension D	Dimension t	Pack.	Weight	Item No.
	mm	mm	mm	mm	pcs	kg/100 pcs.	
SV16 W ALU	16	40	16.2	1.2	50	1.000	2046 02 2
SV20 W ALU	20	50	20.2	1.2	50	1.000	2046 02 3
SV25 W ALU	25	60	25.2	1.2	50	2.000	2046 02 4
SV32 W ALU	32	70	32.2	1.2	50	2.000	2046 02 5
SV40 W ALU	40	70	40.2	1.4	20	3.000	2046 02 6
SV50 W ALU	50	90	50.2	1.4	20	5.000	2046 02 7
SV63 W ALU	63	110	63.2	1.5	20	9.000	2046 02 8

Al Aluminium /1000 pc.

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



Aluminium pipe, with thread

Type	Dimension M	Dimension L	Dimension t	Pack.	Weight	Item No.
	mm	mm	mm	m	kg/100 m	
SM16 W ALU	M16	3,000	1.6	30	20.000	2046 03 2
SM20 W ALU	M20	3,000	1.9	30	30.000	2046 03 3
SM25 W ALU	M25	3,000	1.9	30	36.700	2046 03 4
SM32 W ALU	M32	3,000	1.9	30	50.000	2046 03 5
SM40 W ALU	M40	3,000	1.9	15	60.000	2046 03 6
SM50 W ALU	M50	3,000	2.1	15	86.700	2046 03 7
SM63 W ALU	M63	3,000	2.1	15	110.000	2046 03 8

Al Aluminium price/100 m

Electrical installation pipe to EN 61386-1 with threaded ends to DIN EN 60423 for mechanical protection of cables. With burr-free inner wall. One connection sleeve is already screwed onto each pipe.



5 | 5 | 5 | 6 | 1

Pipe systems

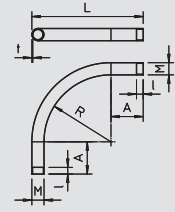


Aluminium pipe bend, with thread

Type	Dimension M	Dimension L mm	Dimension t mm	Dimension R mm	Pack. pcs	Weight kg/100 pcs.	Item No.
SBM16 W ALU	M16	150	1.6	56	15	4.000	2046 04 2
SBM20 W ALU	M20	170	1.9	70	25	7.000	2046 04 3
SBM25 W ALU	M25	208	1.9	90	25	10.000	2046 04 4
SBM32 W ALU	M32	252	1.9	115	20	15.000	2046 04 5
SBM40 W ALU	M40	300	1.9	145	15	23.000	2046 04 6
SBM50 W ALU	M50	358	2.1	180	5	37.000	2046 04 7
SBM63 W ALU	M63	423	2.1	225	3	59.000	2046 04 8

Al Aluminium /1000 pc.

Accessory part: 90° bend for electrical installation pipes according to EN 61386-1 with threaded ends to DIN EN 60423. With burr-free inner wall.
One connection sleeve is already screwed onto each pipe bend.

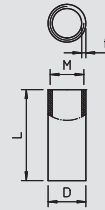


Aluminium pipe connection sleeve, with thread

Type	Dimension M	Dimension L mm	Dimension D mm	Dimension t mm	Pack. pcs	Weight kg/100 pcs.	Item No.
SVM16 W ALU	M16	35	18.5	2.25	50	1.000	2046 05 2
SVM20 W ALU	M20	35	22.5	2.25	50	1.000	2046 05 3
SVM25 W ALU	M25	45	28	2.5	50	2.000	2046 05 4
SVM32 W ALU	M32	45	35	2.5	50	3.000	2046 05 5
SVM40 W ALU	M40	45	43.5	2.75	20	4.000	2046 05 6
SVM50 W ALU	M50	55	53.5	2.75	20	6.000	2046 05 7
SVM63 W ALU	M63	55	66.5	2.8	20	7.000	2046 05 8

Al Aluminium /1000 pc.

Accessory part: Pipe connection sleeve with thread to DIN EN 60423 to connect electrical installation pipes and 90° bends. With burr-free inner wall.



Quick clip, aluminium

Type	Nominal size	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
2029 M16 ALU	M16	1,200	100	0.560	2149 85 0
2029 M20 ALU	M20	1,200	100	0.654	2149 85 4
2029 M25 ALU	M25	100	100	0.930	2149 85 8
2029 M32 ALU	M32	600	50	1.100	2149 86 2
2029 M40 ALU	M40	50	50	1.730	2149 86 6
2029 M50 ALU	M50	300	25	2.090	2149 87 0
2029 M63 ALU	M63	20	20	2.920	2149 87 4

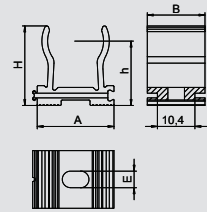
Al Aluminium /1000 pc.

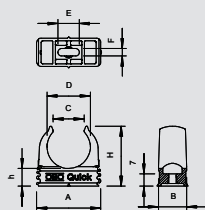
OBO Quick clip, type 2029/... for all metric ALU pipe systems, as well as light-duty and heavy-duty metric insulation pipes. Suitable for mounting the OBO pipe system, material: aluminium. Pipe centring aids allow optimum attachment of the pipe and automatically turn the clip into the correct position.

Universal fastening option; can be arranged. Can be mounted on the profile rail, slot width 11 mm (type 2060 and 2061). Slot for side alignment during mounting with wood screw or knock-in anchor.

Recommended fastening spacing 40–50 cm.

Not suitable for ceiling mounting! For ceiling mounting, use our closed clips, type 733... .





Quick clip



Type	Nominal size	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
2955 M16	M16	Light grey	1,200	100	0.252	2149 00 4
2955 M20	M20	Light grey	1,200	100	0.325	2149 01 0
2955 M25	M25	Light grey	1,200	100	0.433	2149 01 6
2955 M32	M32	Light grey	600	50	0.630	2149 02 2
2955 M40	M40	Light grey	600	50	0.835	2149 02 8
2955 M50	M50	Light grey	300	25	1.454	2149 03 4
2955 M63	M63	Light grey	240	20	2.203	2149 04 0
2955 M16 SW	M16	Jet black	1,200	100	0.252	2149 55 9
2955 M20 SW	M20	Jet black	1,200	100	0.325	2149 56 3
2955 M25 SW	M25	Jet black	1,200	100	0.433	2149 56 7
2955 M32 SW	M32	Jet black	600	50	0.630	2149 57 1
2955 M40 SW	M40	Jet black	600	50	0.835	2149 57 5
2955 M50 SW	M50	Jet black	300	25	1.454	2149 57 9
2955 M63 SW	M63	Jet black	240	20	2.203	2149 58 3



PP Polypropylene

/1000 pc.

OBO Quick clip, type 2955/...: for all metric steel armoured pipes, as well as light-duty and heavy-duty metric insulation pipes. Suitable for mounting the OBO Quick pipe.

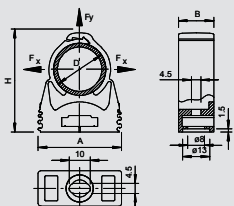
Pipe centring aids allow optimum attachment of the pipe and automatically turn the clip into the correct position.

Universal fastening option; can be arranged with the OBO Multi-quick and starQuick clip.

Slot for side alignment during mounting with wood screw or knock-in anchor.

Size M16-M32 can be screwed onto an M6 thread.

Recommended fastening spacing 50-60 cm, for max. extraction values F at a room temperature of 20 °C, see the table.



starQuick clip



Type	Size	Clamping range D mm	Breaking load kN	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
SQ-10 LGR	10	9.5-12	0.5	Light grey	1,200	100	0.560	2146 05 3
SQ-12 LGR	12-14	11.5-15	0.55	Light grey	1,200	100	0.540	2146 06 1
SQ-15 LGR	15-16	14-16.5	0.6	Light grey	1,200	100	0.580	2146 09 6
SQ-17 LGR	17-19	16-20	0.7	Light grey	800	100	0.640	2146 11 8
SQ-20 LGR	20-23	19.5-23.5	0.8	Light grey	600	50	0.670	2146 13 4
SQ-25 LGR	25-28	24-28	0.85	Light grey	600	50	0.970	2146 20 7
SQ-28 LGR	28-32	27.5-32	0.9	Light grey	400	50	1.070	2146 21 5
SQ-32 LGR	32-35	31.2-35.8	1	Light grey	400	50	1.230	2146 25 8
SQ-36 LGR	35-40	35-40.1	1.1	Light grey	300	25	1.510	2146 29 0
SQ-40 LGR	40-44	39.3-44.5	1.2	Light grey	200	25	1.710	2146 32 0
SQ-47 LGR	45-50	44-50	1.2	Light grey	200	25	1.980	2146 36 3
SQ-51 LGR	50-54	48-55	1.4	Light grey	180	15	2.250	2146 44 4
SQ-59 LGR	59-65	58.5-65	1.5	Light grey	180	15	3.300	2146 48 7



PA Polyamide

/1000 pc.

Can be arranged next to each other to size SQ-28.

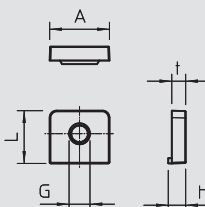
Break load: with bolt DIN 96; diameter 4.5 mm, minimum break load at 20°.

starQuick clip Type SQ... a comprehensive programme of quality clips ideal for the use in outside areas such as parking garages, under bridges and on the exterior of steel structures. Climate conditions have no chance: the starQuick clips are made from UV weather-resistant polyamide.

The starQuick clips are available in 13 different sizes with a clamping range of 10-65 mm, allowing a problem-free installation on different pipe systems. starQuick is suitable for plastic and metal pipes, as well as electrical and sanitary installations. The clips can be installed on the wall and ceiling. Mounting is amazingly fast and uncomplicated, without the use of tools. Mounting of multiple pipes is also really easy:

- By arranging the single clips.
- By using the double bracket, allowing a firm hold and spacing by heavy loads.
- A rail system allows for an open spacing and numbering of the clips.

starQuick is reliable and can support heavy loads. A patented safety system guarantees that the pipes stay where they are. The pipe is secure in the all around closed clip.



starQuick nut



Type	Thread	Dimension L mm	Dimension h mm	Dimension t mm	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
SQ M6	M6	15	5	4	Light grey	12,000	100	0.070	2146 50 9

PC Polycarbonate

/1000 pc.

The starQuick nut was developed especially for the starQuick clip. Simply push into the intended opening of the starQuick. The starQuick nut is captive in the clip. Suitable for M6/M8 threads.



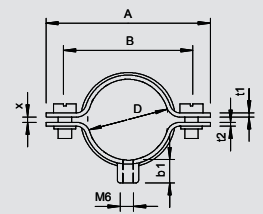
Cable and pipe fastening systems, metal



Cable and pipe spacer clip

Type	Hole size mm	Material thickness mm	Size	Bolt	Shipping box pcs	Clamping range D mm	Pack. pcs	Weight kg/100 pcs.	Item No.
732 6 GTP	M6	1	-	M5 x 10	1,200	5-6	100	1.160	1360 05 1
732 8 GTP	M6	1	-	M5 x 10	1,200	7-8	100	1.310	1360 08 6
732 10 GTP	M6	1	-	M5 x 12	1,000	9-10	100	1.360	1360 10 8
732 12 GTP	M6	1	M12	M5 x 12	1,000	10.5-12	100	1.460	1360 12 4
732 14 GTP	M6	1	PG7	M5 x 12	1,000	12.5-14	100	1.480	1360 14 0
732 15 GTP	M6	1	PG9	M5 x 12	1,000	13.5-15	100	1.530	1360 15 9
732 16 GTP	M6	1	M16	M5 x 12	1,000	14.5-16	100	1.590	1360 16 7
732 18 GTP	M6	1	PG11	M5 x 12	1,000	16.5-18	100	1.620	1360 18 3
732 20 GTP	M6	1	M20	M5 x 12	600	18.5-20	50	1.730	1360 20 5
732 22 GTP	M6	1	PG13.5	M5 x 12	500	20-22	50	1.780	1360 22 1
732 24 GTP	M6	1	PG16	M5 x 12	500	22-24	50	1.840	1360 24 8
732 26 GTP	M6	1	M25	M5 x 12	500	24-26	50	1.920	1360 26 4
732 28 GTP	M6	1.5	PG21	M5 x 12	500	26-28	50	2.840	1360 28 0
732 30 GTP	M6	1.5	PG21	M5 x 12	400	28-30	50	3.040	1360 30 2
732 33 GTP	M6	1.5	M32	M5 x 12	250	31-33	25	3.120	1360 33 7
732 35 GTP	M6	1.5	-	M5 x 12	250	33-35	25	3.280	1360 35 3
732 38 GTP	M6	1.5	PG29	M5 x 12	250	36-38	25	3.490	1360 38 8
732 40 GTP	M6	1.5	M40	M5 x 12	250	38-40	25	3.600	1360 39 6
732 42 GTP	M6	1.5	M40	M5 x 12	250	40-42	25	3.840	1360 42 6
732 45 GTP	M6	1.5	-	M5 x 12	250	43-45	25	3.990	1360 45 0
732 48 GTP	M6	1.5	PG36	M5 x 12	250	46-48	25	4.040	1360 48 5
732 50 GTP	M6	1.5	M50	M5 x 14	200	48-50	25	4.160	1360 50 7
732 60 GTP	M6	1.5	PG48	M5 x 14	200	58-60	25	4.960	1360 60 4
732 63 GTP	M6	1.5	M63	M5 x 14	200	61-63	25	5.000	1360 63 9

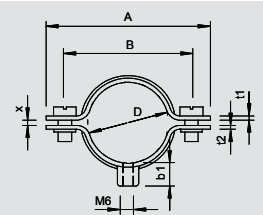
St Steel **GTP** Electrogalvanised, transparently passivated /1000 pc.
With M6 thread.



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.
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 /1000 pc.
With M6 thread.



Cable and pipe spacer clip

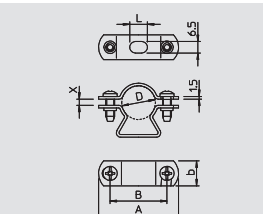
Type	Hole size mm	Material thickness mm	Size	Bolt	Shipping box pcs	Clamping range D mm	Pack. pcs	Weight kg/100 pcs.	Item No.
733 13 FT	6.5 x 10	1.5	M 12	M5 x 12	600	11-13	50	2.310	1361 09 1
733 16 FT	6.5 x 10	1.5	M 16	M5 x 14	500	14-16	50	2.430	1361 09 4
733 19 FT	6.5 x 10	1.5	Pg 11	M5 x 14	500	17-19	50	2.500	1361 09 7
733 21 FT	6.5 x 10	1.5	M 20	M5 x 14	500	19-21	50	2.730	1361 10 0
733 23 FT	6.5 x 10	1.5	Pg 16	M5 x 14	500	21-23	50	2.870	1361 10 3
733 29 FT	6.5 x 10	1.5	M 25	M5 x 18	450	24-29	50	3.480	1361 10 6
733 38 FT	6.5 x 10	1.5	M 32	M5 x 18	250	30-38	25	4.040	1361 10 9
733 48 FT	6.5 x 10	1.5	M 40	M5 x 18	300	39-48	25	4.810	1361 11 2
733 54 FT	6.5 x 10	1.5	M 50	M5 x 18	300	48-54	25	5.400	1361 11 7
733 61 FT	6.5 x 10	1.5	Pg48	M5 x 18	240	53-61	20	6.100	1361 11 5
733 63 FT	6.5 x 10	2	M 63	M5 x 18	160	63	20	7.250	1361 11 8

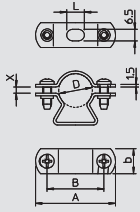
St Steel **FT** Hot-dip galvanised /1000 pc.

Bolt material: steel.

* Size M16 not suitable for nail device.

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





Cable and pipe spacer clip

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



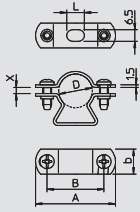
V2A Stainless steel, grade 304

/1000 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



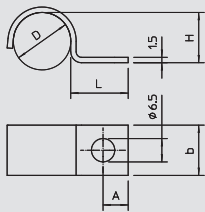
V4A Stainless steel, grade 316 Ti

/1000 pc.

Steel bolt material.

*Size M16 are not suitable for nail device.

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



Fastening clip, medium-duty 518 mm

Type	For Ø mm	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
1015 5 G	5	3,000	100	0.325	1009 02 8
1015 6 G	6	2,400	100	0.385	1009 03 6
1015 7 G	7	2,000	100	0.418	1009 04 4
1015 8 G	8	2,000	100	0.428	1009 05 2
1015 9 G	9	2,000	100	0.468	1009 06 0
1015 10 G	10	2,000	100	0.560	1009 07 9
1015 11 G	11	1,800	100	0.632	1009 08 7
1015 12 G	12	1,000	100	0.672	1009 10 9
1015 13 G	13	1,800	100	0.683	1009 11 7
1015 14 G	14	1,200	100	0.710	1009 16 8
1015 15 G	15	1,200	100	0.744	1009 18 4
1015 16 G	16	1,200	100	0.753	1009 19 2
1015 17 G	17	1,200	100	0.764	1009 20 6
1015 18 G	18	1,200	100	0.835	1009 21 4



St Steel

G Electrogalvanised

/1000 pc.

Single-lobe fastening clip for cables and pipes.

Beading from size 20.

Cable and pipe fastening systems, metal

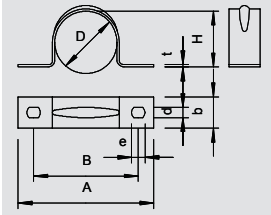


Fastening clip, medium-duty

Type	For Ø	Hole size	Material thickness	Shipping box	Pack.	Weight	Item No.
	mm	mm	mm	pcs	pcs	kg/100 pcs.	
605 7 G	7	4,5 x 6	1	4,800	100	0.183	1018 07 8
605 8 G	8	4,5 x 6	1	5,000	100	0.203	1018 08 6
605 9 G	9	4,5 x 6	1	5,000	100	0.246	1018 09 4
605 10 G	10	4,5 x 6	1	1,800	100	0.432	1018 10 8
605 11 G	11	4,5 x 6	1	1,800	100	0.462	1018 11 6
605 12 G	12	4,5 x 6	1	2,000	100	0.485	1018 12 4
605 13 G	13	4,5 x 6	1	2,400	100	0.532	1018 13 2
605 14 G	14	4,5 x 6	1	2,400	100	0.560	1018 14 0
605 15 G	15	4,5 x 6	1	2,000	100	0.584	1018 15 9
605 16 G	16	4,5 x 6	1	1,200	100	0.585	1018 16 7
605 17 G	17	4,5 x 6	1	1,500	100	0.604	1018 17 5
605 18 G	18	4,5 x 6	1	1,200	100	0.640	1018 18 3
605 19 G	19	4,5 x 6	1	1,200	100	0.671	1018 19 1
605 20 G	20	4,5 x 6	1	1,000	100	0.664	1018 20 5
605 21 G	21	4,5 x 6	1	1,000	100	0.678	1018 21 3
605 23 G	23	4,5 x 6	1	1,000	100	0.826	1018 22 1
605 25 G	25	4,5 x 6	1	1,200	100	0.960	1018 25 6
605 26 G	26	4,5 x 6	1	1,000	100	0.975	1018 26 4
605 28 G	28	4,5 x 6	1	1,200	100	1.067	1018 28 0
605 30 G	30	4,5 x 6	1	1,200	100	1.150	1018 30 2
605 32 G	32	4,5 x 6	1	1,200	100	1.260	1018 33 7
605 35 G	35	5,5 x 7	1	1,200	100	1.921	1018 35 3
605 37 G	37	5,5 x 7	1	1,200	100	2.007	1018 36 1
605 40 G	40	5,5 x 7	1.5	600	50	1.900	1018 39 6
605 43 G	43	5,5 x 7	1.5	600	50	2.324	1018 43 4
605 47 G	47	5,5 x 7	1.5	600	50	2.366	1018 47 7
605 50 G	50	5,5 x 7	1.5	300	25	2.770	1018 50 7
605 55 G	55	5,5 x 7	1.5	300	25	3.840	1018 55 8
605 60 G	60	5,5 x 7	1.5	300	25	3.800	1018 60 4
605 63 G	63	5,5 x 7	1.5	300	25	3.670	1018 63 9

St Steel **G** Electrogalvanised /1000 pc.

Two lobe fastening clips for cables and pipes.
* Sizes 7 to 12 not suitable for bolt-firing tool.

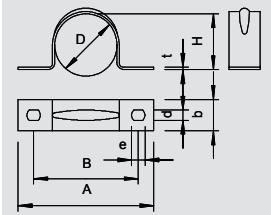


Fastening clip, medium-duty V4A

Type	For Ø	Hole size	Material thickness	Shipping box	Pack.	Weight	Item No.
	mm	mm	mm	pcs	pcs	kg/100 pcs.	
605 12 V4A	12	4,5 x 6	1	2,000	100	0.485	1018 65 3
605 16 V4A	16	4,5 x 6	1	1,200	100	0.585	1018 66 1
605 20 V4A	20	4,5 x 6	1	1,000	100	0.664	1018 66 9
605 25 V4A	25	4,5 x 6	1	1,200	100	0.992	1018 67 9
605 32 V4A	32	4,5 x 6	1	1,200	100	1.260	1018 69 3
605 40 V4A	40	5,5 x 7	1.5	600	50	1.900	1018 70 5
605 50 V4A	50	5,5 x 7	1.5	300	25	2.770	1018 71 7
605 63 V4A	63	5,5 x 7	1.5	300	25	3.670	1018 72 9

V4A Stainless steel, grade 316 Ti /1000 pc.

Two lobe fastening clips for cables and pipes.

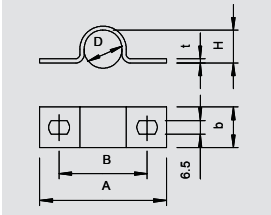


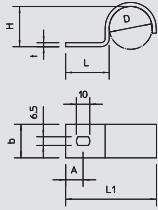
Fastening clip, heavy-duty

Type	For Ø	Hole size	Material thickness	Shipping box	Pack.	Weight	Item No.
	mm	mm	mm	pcs	pcs	kg/100 pcs.	
823 16 FT	16	6,5 x 10	2	500	50	2.260	1015 09 5
823 18.3 FT	18.6	6,5 x 10	2	500	50	2.446	1015 11 7
823 20 FT	20	6,5 x 10	2	500	50	2.662	1015 13 3
823 22.5 FT	22.5	6,5 x 10	2	400	50	2.988	1015 16 8
823 25 FT	25	6,5 x 10	3	250	25	6.770	1015 49 4
823 28.3 FT	28.3	6,5 x 10	3	250	25	5.208	1015 21 4
823 32 FT	32	6,5 x 10	3	100	100	7.469	1015 49 6
823 37 FT	37	6,5 x 10	3	100	100	8.700	1015 30 3
823 40 FT	40	6,5 x 10	3	100	100	8.460	1015 49 8
823 47 FT	47	6,5 x 10	3	100	100	10.120	1015 36 2
823 54 FT	54	6,5 x 10	3	100	100	10.760	1015 42 7
823 59.3 FT	59.3	6,5 x 10	3	100	100	11.800	1015 48 6
823 50 FT	50	6,5 x 10	3	100	100	9.808	1015 50 0
823 63 FT	63	6,5 x 10	3	100	100	11.553	1015 50 8

St Steel **FT** Hot-dip galvanised /1000 pc.

Two lobe fastening clips for cables and pipes.





Fastening clip, heavy-duty V4A

Type	For Ø mm	Size	Shipping box pcs	Pack.	Weight	Item No.
				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

/1000 pc.

Single-lobe fastening clip for cables and pipes.



Junction box systems



Junction box T 60 with plug-in seal

Type	Version	Entries	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
T 60	Standard	7 x M25	Light grey	60	5	12.300	2007 06 1
T 60 RW	—	7 x M25	Pure white	60	5	12.300	2007 52 5
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

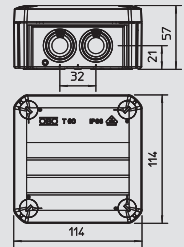
/1000 pc.

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 100 with plug-in seal

Type	Version	Entries	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
T 100	Standard	10 x M25	Light grey	40	1	16.270	2007 07 7
T 100 RW	—	10 x M25	Pure white	40	1	16.270	2007 53 3
T 100 F	960 °C flame-resistant	10 x M25	Light grey	40	1	16.270	2007 34 7
T 100 RO-LGR	With red lid	10 x M25	Red-grey	40	1	16.270	2007 64 4
T 100 KL	With terminal strip	10 x M25	Light grey	40	1	40.000	2007 43 6

PP Polypropylene

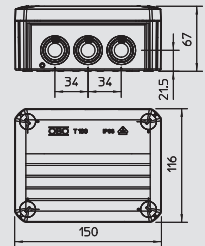
/1000 pc.

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 60, closed

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

PP Polypropylene

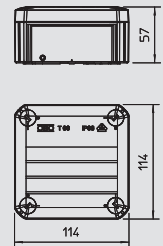
/1000 pc.

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.



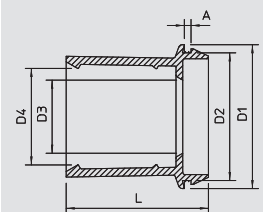
Plug-in seal for pipes, T series

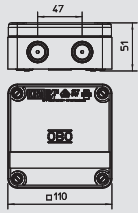
Type	Size	For Ø	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
		mm		pcs	pcs	kg/100 pcs.	
EDR 25 16-20 LGR	M25	—	Light grey	50	50	0.520	2011 50 6
EDR 25 20-25 LGR	M25	—	Light grey	50	50	0.680	2011 51 4
EDR 32 20-25 LGR	M32	—	Light grey	50	50	1.020	2011 52 2
EDR 32 25-32 LGR	M32	—	Light grey	50	50	1.170	2011 53 0
EDR 40 25-32 LGR	M40	—	Light grey	25	25	1.950	2011 53 8
EDR 40 32-40 LGR	M40	—	Light grey	25	25	2.200	2011 54 6

PVC Polyvinylchloride

/1000 pc.

Plug-in seal for junction boxes





Junction box B 9/T with perforation membrane

Type	Accessories	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
B 9 T M 5	1 terminal strip	Light grey	40	5	17.500	2001 84 5
B 9 T M	—	Light grey	40	5	13.100	2001 85 3

PP Polypropylene /1000 pc.

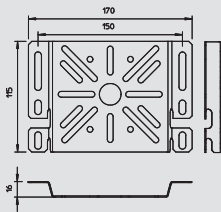
The wet-room junction box comprises two halogen-free plastic components, 8 threaded entries (M20 x 1.5), 1 additional entry in base with perforation membrane (for cable diameter up to 15 mm).

Where cable glands are used (giving additional strain relief) there is no need to remove the membrane (this saves time). Protection IP 67 with cable gland and for the perforation membrane.

Rated voltage 400 V; nominal cross-section 4 - 6 mm².

The lid is sealed with 4 pre-fitted rapid fastenings (180°). The fastening holes are additionally moulded with a soft plastic component for bolt ø 5 mm (spacing 75 mm).

2 fastening bolt caps and 1 fastening bolt.
Clear internal dimensions: 98 x 98 x 40 mm

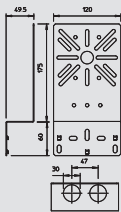


Mounting plate, T series

Type	Height mm	Width mm	Pack. pcs	Weight kg/100 pcs.	Item No.
MP UNI FS	115	170	40	13.300	7084 77 3

St Steel **FS** Strip-galvanised /pc.

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

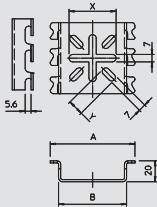


Mounting plate, T series

Type	Height mm	Width mm	Pack. pcs	Weight kg/100 pcs.	Item No.
MP WI KL. FS	210	120	20	20.200	7084 76 5
MP WI KL. DD	210	120	20	20.200	7085 11 1

St Steel **FS** Strip-galvanised **DD** Zinc-aluminium coated, double-dip /pc.

Angled mounting plate, for fastening on the side rail of the cable tray.

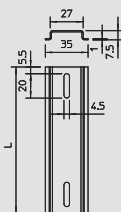


Mounting plate, T series

Type	Dimension A mm	Dimension B mm	Dimension x mm	Dimension y mm	Pack. pcs	Weight kg/100 pcs.	Item No.
MPG 65 FT	81	65	45	15	30	9.200	6006 48 6

St Steel **FT** Hot-dip galvanised /pc.

Mounting for screwless fastening on mesh cable trays.



Hat profile rail

Type	Version	Material thickness mm	Length mm	Pack. pcs	Weight kg/100 pcs.	Item No.
2069 T350 GTP	For T 350 lengthwise	1	245	10	8.450	1115 38 8
2069 T160 GTP	For T 160 lengthwise + T 250, T350 crosswise	1	157	10	5.520	1115 38 4

St Steel **GTP** Electrogalvanised, transparently passivated /1000 pc.

Hat profile rail 35 x 7.5 mm to DIN EN 60715 (formerly DIN EN 50022).



Junction box systems



Junction box with pre-marking

Type	Version	Entries	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
T 40 M20	Closed	7 x Ø20	Light grey	80	5	6.100	2007 90 0
T 40 M20 KL	With terminal strip	7 x Ø20	Light grey	80	5	8.200	2007 90 4

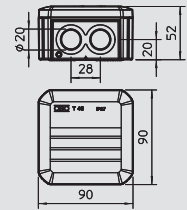
PP Polypropylene /1000 pc.

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 Ø20 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: 77 x 77 x 46 mm

Cover with labelling panel and lead-sealed.



Junction box with pre-marking

Type	Version	Entries	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
T 60 M20	Closed	7 x Ø20	Light grey	60	5	12.100	2007 91 0
T 60 M20 KL	With terminal strip	7 x Ø20	Light grey	60	5	16.500	2007 91 4

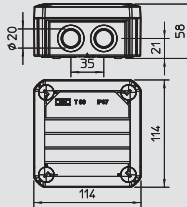
PP Polypropylene /1000 pc.

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 Ø20 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.



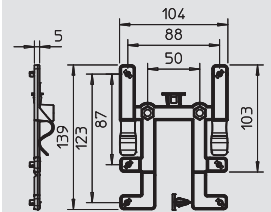
Fastening element for cable tray

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

PC Polycarbonate /1000 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.



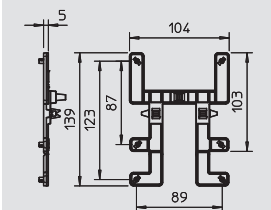
Fastening element for mesh cable tray

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

PC Polycarbonate /1000 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.

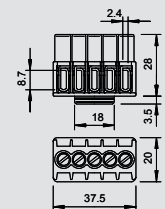


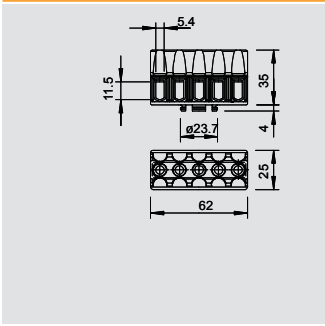
Terminal strip, junction box, T series

Type	Colour	No. of screwless terminals	Nominal cross section mm²	Nominal voltage V	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
KL-T 01-04	Light grey	5	1-4	400	100	10	2.100	2016 18 0

PA Polyamide /1000 pc.

Steel terminal block and bolts, galvanised and transparently passivated, nominal 1 - 4 mm², nominal voltage 400 V, 5-pole, with terminal sockets, Max. connectable cross-sections per terminal max. 4 x 2.5 mm², 5 x 1.5 mm² or 6 x 1 mm² .



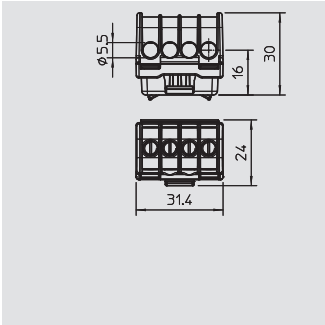


Terminal strip, junction box, T series



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 02-06	Light grey	5	1.5-6	400	120	10	4.380	2016 18 5

PA Polyamide /1000 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.

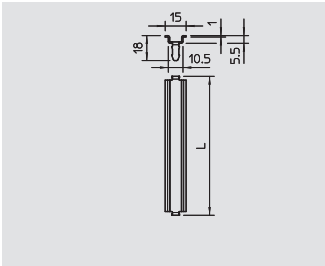


Terminal strip, junction box, T series



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	1.970	2016 19 0

PA Polyamide /1000 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	Bundle m	Weight kg/100 pcs.	Item No.
46277 T160 Q GTP	For T 160 lengthwise + T 100 crosswise	1	99	—	9.641	1115 27 0

St Steel **GTP** Electrogalvanised, transparently passivated /1000 pc.
Hat profile rail 15 x 5 mm to DIN EN 60715 (formerly DIN EN 50045).



Cable gland systems, plastic



Cable gland, metric

Type	Thread	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
V-TEC VM12 LGR	M12 x 1,5	Light grey	500	50	0.318	2022 86 2
V-TEC VM16 LGR	M16 x 1,5	Light grey	500	50	0.638	2022 86 4
V-TEC VM20 LGR	M20 x 1,5	Light grey	600	50	0.856	2022 86 6
V-TEC VM25 LGR	M25 x 1,5	Light grey	300	25	1.360	2022 86 8
V-TEC VM32 LGR	M32 x 1,5	Light grey	240	20	2.230	2022 87 0
V-TEC VM40 LGR	M40 x 1,5	Light grey	120	10	3.467	2022 87 2
V-TEC VM50 LGR	M50 x 1,5	Light grey	60	5	5.466	2022 87 4
V-TEC VM63 LGR	M63 x 1,5	Light grey	60	5	8.306	2022 87 6
V-TEC VM12 SW	M12 x 1,5	Black	500	50	0.318	2022 88 3
V-TEC VM16 SW	M16 x 1,5	Black	500	50	0.638	2022 88 5
V-TEC VM20 SW	M20 x 1,5	Black	600	50	0.856	2022 88 7
V-TEC VM25 SW	M25 x 1,5	Black	300	25	1.360	2022 88 9
V-TEC VM32 SW	M32 x 1,5	Black	240	20	2.230	2022 89 1
V-TEC VM40 SW	M40 x 1,5	Black	120	10	3.467	2022 89 3
V-TEC VM50 SW	M50 x 1,5	Black	60	5	5.466	2022 89 5
V-TEC VM63 SW	M63 x 1,5	Black	60	5	8.306	2022 89 7

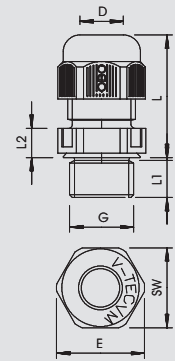
PA Polyamide /1000 pc.

The quickest and most convenient way of providing strain relief and tightness with cable glands on junction boxes and housings is with the tried-and-trusted V-TEC VM cable glands from OBO. With the integrated sealing lip and the special OBO lamella technology protection class IP 68 is achieved. Strain relief and tightness have been tested to DIN EN 50262.

The connecting threads of the cable glands are metric and are therefore suitable for universal use. Once screwed in place, the fitting is there forever, as the optimum thread adjustment with the right pitch ensures permanent resistance to shaking.

Applications: from private housing with junction boxes up to industrial applications in the distributor cabinet.

Temperature range: -20 °C to +65 °C.

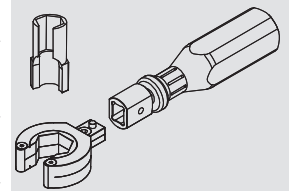


Ratchet set

Type	Accessories	Pack. pcs	Weight kg/100 pcs.	Item No.
V-TEC RA SET	1 ground ratchet 1 grip for ground ratchet 4 socket spanner attachments	1	71.600	3010 27 5

/pc.

Set consisting of a ground ratchet, type V-TEC RA, a grip for ground ratchet, type V-TEC GR, and four socket spanner attachments in sizes WAF 15, WAF 20, WAF 24 and WAF 29.

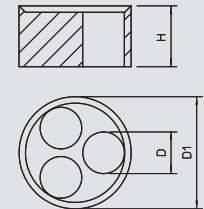


Multiple sealing insert, metric

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 /1000 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.

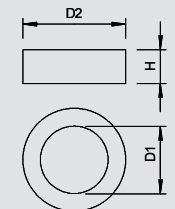


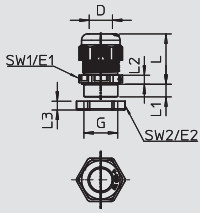
Reducing seal insert, metric

Type	Size	Sealing range D	Dimension D1	Dimension D2	Dimension H	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
107CR VM 12	M12	2-5	5	8.9	7.2	1,300	50	0.050	2029 56 0
107CR VM 16	M16	2.5-7	7	12.7	8.1	1,300	50	0.115	2029 56 3
107CR VM 20	M20	4-9	9	16	9.3	1,200	50	0.205	2029 56 6
107CR VM 25	M25	6-13	13	20.7	10.5	1,200	50	0.340	2029 56 9
107CR VM 32	M32	11-16	16	25.7	12.3	350	25	0.625	2029 57 2
107CR VM 40	M40	12-23	23	33.7	15	300	25	1.140	2029 57 5
107CR VM 50	M50	18-29	29	41.7	18.5	250	25	2.080	2029 57 8
107CR VM 63	M63	29-40	40	54.8	20.2	150	25	3.560	2029 58 1

NBR-SBR Rubber mixture /1000 pc.

Reduces the sealing area D of the cable gland V-TEC VM and V-TEC VM L.





Cable gland, metric thread, set with locknut



Type	Thread	Colour	Shipping box pcs	Pack.	Weight	Item No.
				pcs	kg/100 pcs.	
V-TEC VM12+ LGR	M12 x 1,5	Light grey	600	50	0.337	2022 76 2
V-TEC VM16+ LGR	M16 x 1,5	Light grey	500	50	0.795	2022 76 4
V-TEC VM20+ LGR	M20 x 1,5	Light grey	600	50	1.106	2022 76 6
V-TEC VM25+ LGR	M25 x 1,5	Light grey	300	25	1.710	2022 76 8
V-TEC VM32+ LGR	M32 x 1,5	Light grey	240	20	2.840	2022 77 0
V-TEC VM40+ LGR	M40 x 1,5	Light grey	120	10	5.150	2022 77 2
V-TEC VM50+ LGR	M50 x 1,5	Light grey	60	5	6.356	2022 77 4
V-TEC VM63+ LGR	M63 x 1,5	Light grey	60	5	10.136	2022 77 6



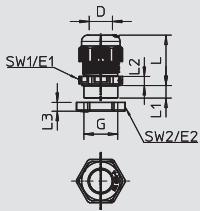
PA Polyamide /1000 pc.

The quickest and most convenient way of providing strain relief and tightness with cable glands on junction boxes and housings is with the tried-and-trusted V-TEC VM cable glands from OBO. With the integrated sealing lip and the special OBO lamella technology protection class IP 68 is achieved. Strain relief and tightness have been tested to DIN EN 50262.

The connecting threads of the cable glands are metric and are therefore suitable for universal use. Once screwed in place, the fitting is there forever, as the optimum thread adjustment with the right pitch ensures permanent resistance to shaking.

Applications: from private housing with junction boxes up to industrial applications in the distributor cabinet.

Temperature range: -20 °C to +65 °C.



Cable gland, PG thread, set with locknut



Type	Thread	Colour	Shipping box pcs	Pack.	Weight	Item No.
				pcs	kg/100 pcs.	
V-TEC PG7+ LGR	Pg 7	Light grey	600	50	0.503	2024 65 5
V-TEC PG9+ LGR	Pg 9	Light grey	500	50	0.799	2024 65 7
V-TEC PG11+ LGR	Pg 11	Light grey	500	50	1.074	2024 65 9
V-TEC PG13,5+LGR	Pg 13,5	Light grey	400	50	1.276	2024 66 1
V-TEC PG16+ LGR	Pg 16	Light grey	250	25	1.705	2024 66 3
V-TEC PG21+ LGR	Pg 21	Light grey	300	25	2.756	2024 66 5
V-TEC PG29+ LGR	Pg 29	Light grey	240	20	5.120	2024 66 7
V-TEC PG36+ LGR	Pg 36	Light grey	120	10	7.713	2024 66 9
V-TEC PG42+ LGR	Pg 42	Light grey	60	5	9.406	2024 67 1
V-TEC PG48+ LGR	Pg 48	Light grey	60	5	11.290	2024 67 3

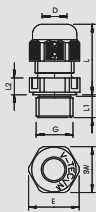


PA Polyamide /1000 pc.

The quickest and most convenient way of providing strain relief and tightness with cable glands on junction boxes and housings is with the tried-and-trusted V-TEC VM cable glands from OBO. With the integrated sealing lip and the special OBO lamella technology, protection class IP 68 is achieved. Strain relief and tightness have been tested to DIN EN 50262. The connecting threads of the cable glands are metric or Pg and are therefore suitable for universal use. Once screwed in place the fitting is there for ever, as the optimum thread adjustment with the right pitch ensures permanent resistance to shaking.

Applications: from private housing with junction boxes up to industrial applications in the distributor cabinet.

Table column D1: sealing range to VDE 0619, in which no strain relief is required.



Cable gland, metric thread, with reducing seal insert



Type	Thread	Colour	Shipping box pcs	Pack.	Weight	Item No.
				pcs	kg/100 pcs.	
V-TEC VM12RD LGR	M12 x 1,5	Light grey	500	50	0.318	2023 00 8
V-TEC VM16RD LGR	M16 x 1,5	Light grey	500	50	0.638	2023 01 0
V-TEC VM20RD LGR	M20 x 1,5	Light grey	600	50	0.861	2023 01 2
V-TEC VM25RD LGR	M25 x 1,5	Light grey	300	25	1.344	2023 01 4
V-TEC VM32RD LGR	M32 x 1,5	Light grey	240	20	2.230	2023 01 6
V-TEC VM40RD LGR	M40 x 1,5	Light grey	120	10	3.467	2023 01 8
V-TEC VM50RD LGR	M50 x 1,5	Light grey	60	5	5.466	2023 02 0
V-TEC VM63RD LGR	M63 x 1,5	Light grey	60	5	8.306	2023 02 2



PA Polyamide /1000 pc.

The quickest and most convenient way of providing strain relief and tightness with cable glands on junction boxes and housings is with the tried-and-trusted V-TEC VM cable glands from OBO. With the integrated sealing lip and the special OBO lamella technology protection class IP 68 is achieved. Strain relief and tightness have been tested to DIN EN 50262.

The connecting threads of the cable glands are metric and are therefore suitable for universal use. Once screwed in place, the fitting is there forever, as the optimum thread adjustment with the right pitch ensures permanent resistance to shaking.

Applications: from private housing with junction boxes up to industrial applications in the distributor cabinet.

Temperature range: -20 °C to +65 °C.

Cable gland systems, plastic



Cable gland, metric thread with multi-way seal insert

Type	Thread	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
V-TEC VM20 2x4	M20 x 1,5	Light grey	600	50	0.860	2022 11 0
V-TEC VM20 4x5	M20 x 1,5	Light grey	600	50	0.860	2022 11 2
V-TEC VM20 2x6	M20 x 1,5	Light grey	600	50	0.860	2022 11 4
V-TEC VM25 5x4	M25 x 1,5	Light grey	300	25	1.360	2022 12 0
V-TEC VM25 3x6	M25 x 1,5	Light grey	300	25	1.360	2022 12 2
V-TEC VM25 2x6	M25 x 1,5	Light grey	300	25	1.360	2022 12 4
V-TEC VM25 3x7	M25 x 1,5	Light grey	300	25	1.360	2022 12 6
V-TEC VM25 2x8	M25 x 1,5	Light grey	300	25	1.360	2022 12 8
V-TEC VM32 2x8	M32 x 1,5	Light grey	240	20	2.240	2022 13 6
V-TEC VM32 4x8	M32 x 1,5	Light grey	240	20	2.240	2022 13 8

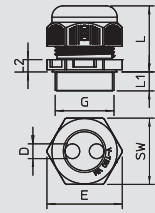
PA Polyamide /1000 pc.

The quickest and most convenient way of providing strain relief and tightness with cable glands on junction boxes and housings is with the tried-and-trusted V-TEC VM cable glands from OBO. With the integrated sealing lip and the special OBO lamella technology protection class IP 68 is achieved. Strain relief and tightness have been tested to DIN EN 50262.

The connecting threads of the cable glands are metric and are therefore suitable for universal use. Once screwed in place, the fitting is there forever, as the optimum thread adjustment with the right pitch ensures permanent resistance to shaking.

Applications: from private housing with junction boxes up to industrial applications in the distributor cabinet.

Temperature range: -20 °C to +65 °C.



Cable gland, metric thread, UV-resistant

Type	Thread	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
V-TEC VM12UV LGR	M12 x 1,5	Light grey	500	50	0.319	2022 90 0
V-TEC VM16UV LGR	M16 x 1,5	Light grey	500	50	0.590	2022 90 1
V-TEC VM20UV LGR	M20 x 1,5	Light grey	600	50	0.590	2022 90 2
V-TEC VM25UV LGR	M25 x 1,5	Light grey	300	25	1.360	2022 90 3
V-TEC VM32UV LGR	M32 x 1,5	Light grey	240	20	2.235	2022 90 4
V-TEC VM40UV LGR	M40 x 1,5	Light grey	120	10	3.496	2022 90 5
V-TEC VM50UV LGR	M50 x 1,5	Light grey	60	5	5.480	2022 90 6
V-TEC VM63UV LGR	M63 x 1,5	Light grey	60	5	8.328	2022 90 7

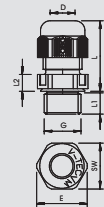
PA Polyamide /1000 pc.

The quickest and most convenient way of providing strain relief and tightness with cable glands on junction boxes and housings is with the tried-and-trusted V-TEC VM cable glands from OBO. With the integrated sealing lip and the special OBO lamella technology protection class IP 68 is achieved. Strain relief and tightness have been tested to DIN EN 50262.

The connecting threads of the cable glands are metric and are therefore suitable for universal use. Once screwed in place, the fitting is there forever, as the optimum thread adjustment with the right pitch ensures permanent resistance to shaking.

Applications: from private housing with junction boxes up to industrial applications in the distributor cabinet.

Temperature range: -20 °C to +65 °C.

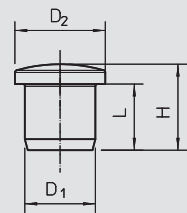


Screw plug, metric

Type	Size	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
107VS VM 5 PA	M12 / Pg9	Light grey	600	50	0.041	2029 51 1
107VS VM 9 PA	M16 / Pg13,5	Light grey	750	50	0.090	2029 51 4
107VS VM 12 PA	M20 / Pg16	Light grey	500	50	0.130	2029 51 7
107VS VM 16 PA	M25 / Pg21	Light grey	500	50	0.190	2029 52 0
107VS VM 20 PA	M32 / Pg29	Light grey	300	25	0.250	2029 52 3

PA Polyamide /1000 pc.

Screw plug for dust-proof and waterproof closure of installed but (as yet) unfilled V-TEC... Cable glands.

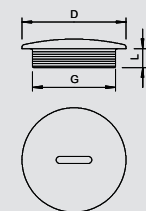


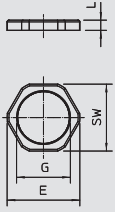
Screw plug, metric

Type	Colour	Shipping box pcs	Thread	Dimension D mm	Dimension L mm	Pack. pcs	Weight kg/100 pcs.	Item No.
108 M12 PS	Light grey	3,000	M12 x 1,5	15	6	100	0.146	2033 00 3
108 M16 PS	Light grey	1,800	M16 x 1,5	20	6	100	0.161	2033 00 7
108 M20 PS	Light grey	1,200	M20 x 1,5	24	6	100	0.209	2033 01 1
108 M25 PS	Light grey	1,000	M25 x 1,5	30	8	100	0.355	2033 01 6
108 M32 PS	Light grey	500	M32 x 1,5	37	8	50	0.352	2033 02 1
108 M40 PS	Light grey	300	M40 x 1,5	46	8	25	1.280	2033 02 6
108 M50 PS	Light grey	300	M50 x 1,5	56	10	25	1.400	2033 03 2
108 M63 PS	Light grey	300	M63 x 1,5	70	12	25	1.850	2033 03 8

PS Polystyrene /1000 pc.

Screw plug in accordance with DIN 46320, with metric thread to IEC 423.





Locknut, metric



Type	Thread	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
116 M12 LGR PA	M12x1,5	Light grey	2,000	100	0.100	2048 90 6
116 M16 LGR PA	M16x1,5	Light grey	1,000	100	0.160	2048 91 4
116 M20 LGR PA	M20x1,5	Light grey	1,200	100	0.250	2048 92 2
116 M25 LGR PA	M25x1,5	Light grey	1,000	100	0.350	2048 93 0
116 M32 LGR PA	M32x1,5	Light grey	500	50	0.610	2048 94 9
116 M40 LGR PA	M40x1,5	Light grey	250	25	1.683	2048 95 7
116 M50 LGR PA	M50x1,5	Light grey	250	25	0.890	2048 96 5
116 M63 LGR PA	M63x1,5	Light grey	200	25	1.830	2048 97 3
116 M12 SW PA	M12x1,5	Black	2,000	100	0.100	2049 06 6
116 M16 SW PA	M16x1,5	Black	1,000	100	0.160	2049 07 4
116 M20 SW PA	M20x1,5	Black	1,200	100	0.250	2049 08 2
116 M25 SW PA	M25x1,5	Black	1,000	100	0.350	2049 09 0
116 M32 SW PA	M32x1,5	Black	500	50	0.610	2049 10 4
116 M40 SW PA	M40x1,5	Black	250	25	1.683	2049 11 2
116 M50 SW PA	M50x1,5	Black	250	25	1.756	2049 12 0
116 M63 SW PA	M63x1,5	Black	200	25	1.830	2049 13 9

PA Polyamide

/1000 pc.

Locknut DIN 46319, with metric thread IEC 423.



Cable gland systems, metal



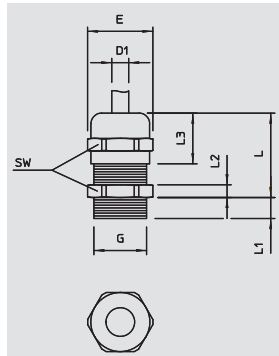
Cable gland, metric

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
V-TEC VM63 MS	M63 x 1,5	Nickel-plated	40	5	30.300	2086 06 0

CuZn Brass N Nickel-plated /1000 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.



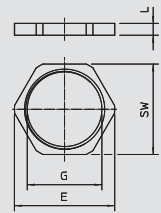
Locknut, metric

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
169 MS M63	M63 x 1,5	250	25	5.720	2091 68 2

CuZn Brass N Nickel-plated /1000 pc.

Locknuts DIN 46319 with metric thread IEC 423.

* Price according to DEL notation.



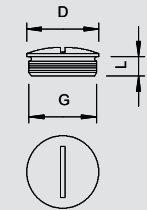
Screw plug, metric

Type	Surface finish	Shipping box pcs	Thread	Dimension D mm	Dimension L mm	Pack. pcs	Weight kg/100 pcs.	Item No.
168 MS M12	Nickel-plated	3,000	M12 x 1,5	16	5	100	0.390	2090 51 1
168 MS M16	Nickel-plated	2,000	M16 x 1,5	20	6	100	0.640	2090 53 8
168 MS M20	Nickel-plated	1,000	M20 x 1,5	22	6.5	100	0.930	2090 54 6
168 MS M25	Nickel-plated	500	M25 x 1,5	28	7	50	1.850	2090 55 4
168 MS M32	Nickel-plated	200	M32 x 1,5	35	8	50	2.810	2090 56 2
168 MS M40	Nickel-plated	100	M40 x 1,5	45	8	50	5.290	2090 57 0
168 MS M50	Nickel-plated	100	M50 x 1,5	55	9	25	6.310	2090 58 9
168 MS M63	Nickel-plated	50	M63 x 1,5	68	10	25	12.570	2090 59 7

CuZn Brass N Nickel-plated /1000 pc.

Screw plug in accordance with DIN 46320, with metric thread to DIN EN 60423 or ISO 68.

* Prices according to DEL notation.

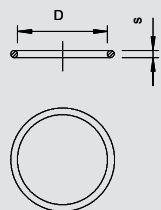


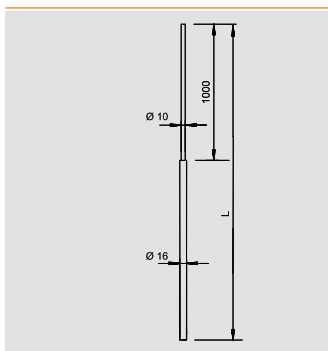
O sealing ring for connection thread

Type	Shipping box pcs	Size mm	Dimension D mm	Dimension S mm	Pack. pcs	Weight kg/100 pcs.	Item No.
171 M12	12,000	M12	10	1.5	100	0.007	2088 70 3
171 M16	12,000	M16	13	1.5	100	0.008	2088 71 1
171 M20	12,000	M20	18	1.5	100	0.011	2088 73 8
171 M25	10,000	M25	22	1.5	100	0.012	2088 74 6
171 M32	12,000	M32	29	2	100	0.035	2088 75 4
171 M40	500	M40	36	2	50	0.045	2088 76 2
171 M50	500	M50	46	2	50	0.052	2088 77 0
171 M63	250	M63	59	2	25	0.056	2088 78 9

NBR Nitrile rubber /1000 pc.

O sealing rings, suitable as connection thread sealing rings for all plastic and brass cable glands with metric connection thread to DIN EN 60423 or ISO 68. The rings can be captively pre-mounted.



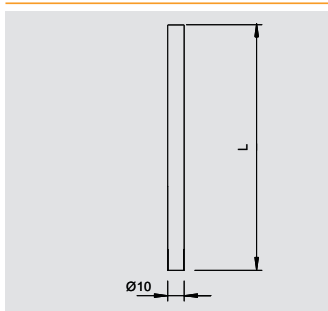


Tapered pipe interception rod

Type	Length mm	Nominal size Ø mm	Pack. pcs	Weight kg/100 pcs.	Item No.
101 VL1500	1.500	10/16	10	38.000	5401 98 0

Al Aluminium /1000 pc.

- Suitable for high wind loads
- Final metre tapered from Ø 16 mm to Ø 10 mm
- Suitable for FangFix stand system

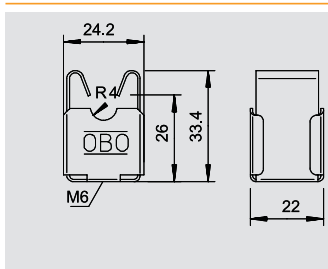
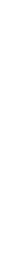


Interception rod for FangFix-Junior

Type	Length mm	Nominal size Ø mm	Pack. pcs	Weight kg/100 pcs.	Item No.
101 J1000	1.000	10	10	21.800	5401 97 0

Al Aluminium /1000 pc.

- Ø 10 mm, Al
- Without thread
- Suitable for use in FangFix Junior

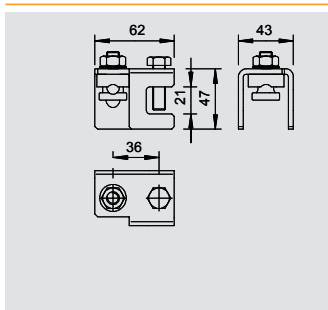


Screwless cable brackets

Type	Fit mm	Installation height mm	Pack. pcs	Weight kg/100 pcs.	Item No.
177 20 VA M6	Rd 8	20	50	2.500	5207 33 9

V2A Stainless steel, grade 304 /1000 pc.

- With female thread M6 or through hole Ø 5 mm
- From stainless steel (V2A)
- VA-VK: copper-plated



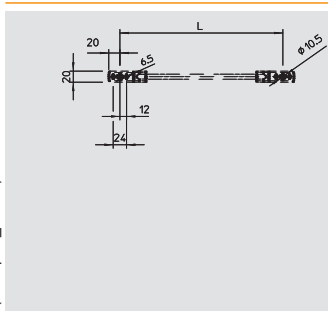
Construction clamp to 20 mm



Clamping area mm	Pack. pcs	Weight kg/100 pcs.	Item No.
4-20	25	30.600	5304 52 0

St Steel **FT** Hot-dip galvanised /1000 pc.

- Round conductors can be installed vertical or transverse to structure
- For affixing to structures with a flange thickness of up to 20 mm
- Affixing to structures with a hexagonal bolt M10
- Conforms to the requirements according to DIN VDE 0185-305 (IEC 62305)

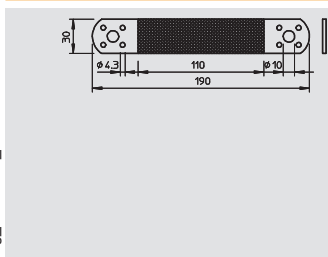


Bridging cable

Type	Dimension L mm	Pack. pcs	Weight kg/100 pcs.	Item No.
853 300	300	100	7.260	5331 01 3

Cu Copper **Al** Aluminium /1000 pc.

- From flexible copper cable 16 mm²
- Coating: black, chlorinated india rubber mixture
- With 1 mounting hole Ø 10.5 mm per attachment side
- With 2 mounting holes Ø 7.3 mm per attachment side
- For applications outside or inside suitable



Attaching and expansion strip

Type	Pack. pcs	Weight kg/100 pcs.	Item No.
856	10	8.125	5331 50 1

Cu Copper /1000 pc.

- Copper strip 35 mm², tin-plated
- Highly-flexible with rigid ends
- Each end with mounting hole Ø 10 mm and 4 mounting holes Ø 4.3 mm



Surge protection energy technology



Lightning current and surge arrester, 3-pole + NPE

Type	Highest continuous 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

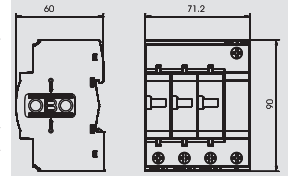
/pc.

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, 3-pole + NPE with remote signalling

Type	Highest continuous 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

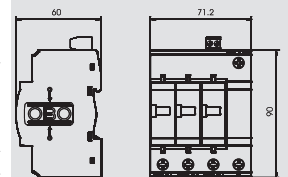
/pc.

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, 3-pole

Type	Highest continuous voltage V	Version	Pack. pcs	Weight kg/100 pcs.	Item No.
V50-B+C 3-280	280	3-pole	1	42.300	5093 62 7

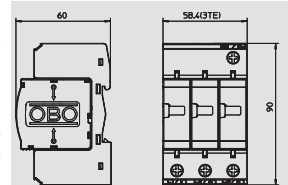
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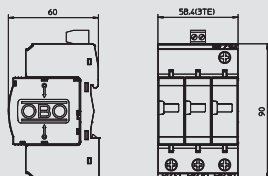
V 50-B+C/...: Combination arrester set, lightning and surge arrester type 1+2 to DIN EN 61643-11 (B+C to VDE 0675 Part 6).

- For lightning protection equipotential bonding to VDE 0185-305 (IEC 62305)
- Lightning current arresting capacity 12.5 kA (10/350) per pole
- Universally suitable for TN-C 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, 3-pole with remote signalling



Type	Highest continuous voltage V	Version	Pack. pcs	Weight kg/100 pcs.	Item No.
V50-B+C 3+FS280	280	3-pole with FS	1	43.000	5093 64 3

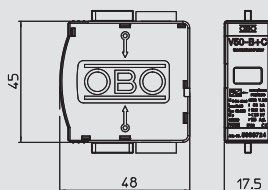
/pc.

V 50-B+C/...: 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
- Universally suitable for TN-C 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
- FS variant with remote signalling contact (potential-free NO contact)

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



Cover of CombiController V50



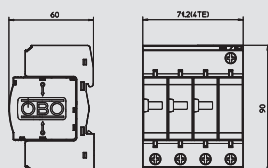
Type	Highest continuous voltage V	U max DC V	Version	Pack. pcs	Weight kg/100 pcs.	Item No.
V50-B+C 0-280	280	350	1-pole upper part	1	8.000	5093 72 4

/pc.

V 50-B+C/0...: CombiController, upper part – type 1+2 CombiArrester

- Plug-in upper part; upper part can be separated from base without tools and current cut-off in bottom part
- Including thermal and dynamic separating device and visual fault display
- High current conductivity and long service life

Cover



Surge arrester, 3-pole + NPE



Type	Highest continuous 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 protection energy technology



Surge arrester, 3-pole + NPE with remote signalling

Type	Highest continuous 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

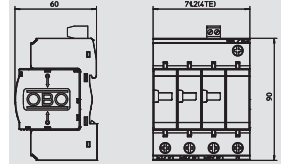
/pc.

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

Type	Highest continuous voltage V	Version	Pack. pcs	Weight kg/100 pcs.	Item No.
V20-C 1-280	280	1-pole	1	12.000	5094 61 8
V20-C 2-280	280	2-pole	1	22.700	5094 62 1
V20-C 3-280	280	3-pole	1	33.500	5094 62 4

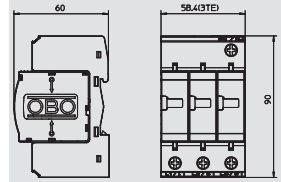
/pc.

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 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

* Complete = cover and base



Surge arrester, remote signalling

Type	Highest continuous voltage V	Version	Pack. pcs	Weight kg/100 pcs.	Item No.
V20-C 1+FS-280	280	1-pole	1	12.400	5094 72 7
V20-C 2+FS-280	280	2-pole	1	22.500	5094 63 2
V20-C 3+FS-280	280	3-pole	1	33.700	5094 73 1

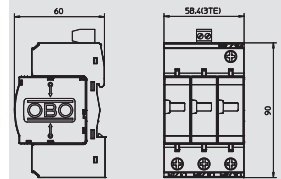
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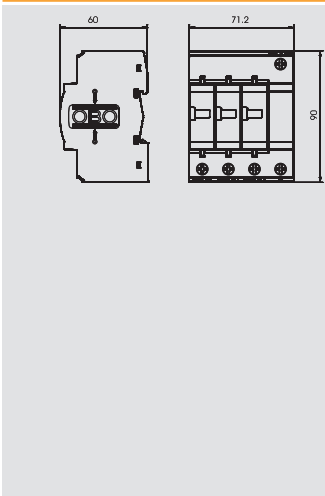
V 20-C/...: Surge protection device type 2 (Class C) to VDE 0675 part 6-11 (DIN EN 61643-11).

- 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 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, 3-pole with NPE



Type	Highest continuous voltage V	Version	Pack. pcs	Weight kg/100 pcs.	Item No.
V20-C3+NPE400	440	3 + NPE	1	47.000	5094 90 0

/pc.



Plug-in surge arrester type 2 for 400 /690 V networks

- Complete unit consisting of upper and lower part, pre-mounted and ready for connection
- VDE-tested
- Suitable for TN, TT and IT network systems
- NPE spark gap designed for max. 440 V AC (IEC 60364-5-53)
- Arresting capacity of the spark gap MB25 up to 25 kA (10/350)
- Plug-in upper part; upper part can be separated from lower part without tools
- Including thermal and dynamic separating device
- With visual display of defects
- Labelled connections
- Vibration-proof through Shock Guard
- Particularly suitable for use in wind power plants

Application example: Industrial and wind power plants



Surge arrester, 3-pole with NPE and remote signalling



Type	Highest continuous voltage V	Version	Pack. pcs	Weight kg/100 pcs.	Item No.
V20-C3+NPE400+FS	440	3 + NPE	1	47.400	5094 90 2

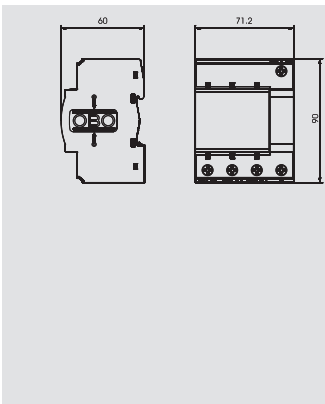
/pc.



Plug-in surge arrester type 2 for 400/690V networks

- Complete unit consisting of upper and lower part, pre-mounted and ready for connection
- VDE-tested
- Suitable for TN, TT and IT network systems
- NPE spark gap designed for max 440 V AC (IEC 60364-5-53)
- Arresting capacity of the spark gap MB25 up to 25 kA (10/350)
- Plug-in upper part; upper part can be separated from lower part without tools
- Including thermal and dynamic separating device
- With visual display of defects
- With remote signalling
- Labelled connections
- Vibration-proof through Shock Guard
- Particularly suitable for use in wind power plants

Application example: Industrial and wind power plants



MultiBase base MB25



Type	Highest continuous voltage V	Version	Pack. pcs	Weight kg/100 pcs.	Item No.
MB25-3+NPE	440	3 + NPE	1	27.000	5096 67 2

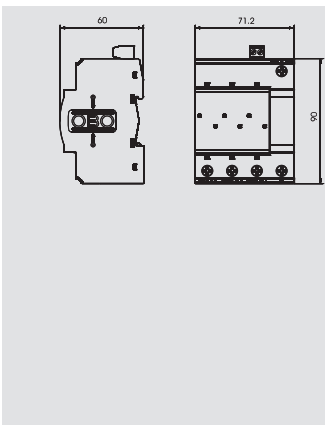
/pc.



Lower part for 400/690 V networks

- VDE-tested
- Suitable for TN, TT and IT network systems
- NPE spark gap designed for max 440 V AC (IEC 60364/5/53)
- Arresting capacity of the spark gap MB25 up to 25 kA (10/350)
- Labelled connections
- Vibration-proof through Shock Guard
- Particularly suitable for use in wind power plants

Application example: Industrial and wind power plants



MultiBase base MB25 with remote signalling



Type	Highest continuous voltage V	Version	Pack. pcs	Weight kg/100 pcs.	Item No.
MB25-3+NPE+FS	440	3 + NPE	1	29.000	5096 67 3

/pc.



Lower part for 400/690 V networks

- VDE-tested
- Suitable for TN, TT and IT network systems
- NPE spark gap designed for max 440 V AC (IEC 60364-5-53)
- Arresting capacity of the spark gap MB25 up to 25 kA (10/350)
- With remote signalling
- Labelled connections
- Vibration-proof through Shock Guard
- Particularly suitable for use in wind power plants

Application example: Industrial and wind power plants

Surge protection energy technology



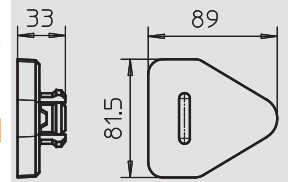
Shock Guard for MultiBase base

Type	Colour	Version	Pack.	Weight	Item No.
			pcs	kg/100 pcs.	
MB-SG	Blue	Locking system for covers	100	0.060	5096 69 5

PA Polyamide /pc.

Shock Guard: Locking for connector technology on MultiBase bases

- Locking system for the plug-in modules/covers
- Vibration and shock-tested
- Use in housing hole of the connection terminals
- Upper parts can be removed without tools



Cover of surge arrester

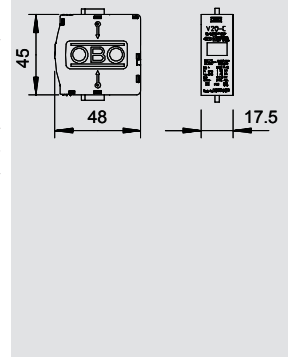
Type	Version	Highest continuous voltage V	U max DC V	Pack.	Weight	Item No.
				pcs	kg/100 pcs.	
V20-C 0-280	1-pole	280	350	1	8.500	5099 60 9
V20-C 0-440	1-pole	440	585	1	6.452	5099 70 6

/pc.

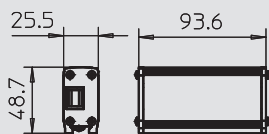
V 20-C/...: SurgeController, upper part – type 2 surge arrester

- VDE-tested
- Plug-in upper part; upper part can be separated from base without tools
- Including thermal and dynamic separating device and visual fault display
- High current conductivity and long service life

* Complete = cover and base



Surge protection device for data and information technology



Surge protection for 10 GBit high-speed networks



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.

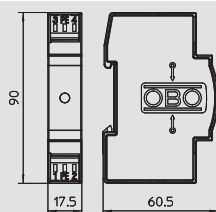


Data cable protection devices for high-speed networks

- 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

- High-quality RJ-45 sockets
- Support for Power over Ethernet + to 1 A
- Tested transmission quality in networks up to 10 GBit (Class EA) and CAT6A
- Rapid installation through connectable design



MCR protection for 2-pin for power supply



Type	Version	U max AC V	U max DC V	Pack. pcs	Weight kg/100 pcs.	Item No.
VF12-AC DC	12 V version	13.5	18	1	9.000	5097 45 3
VF24-AC/DC	24 V version	34	46	1	8.000	5097 60 7
VF230-AC/DC	230 V version	255	350	1	8.000	5097 65 0

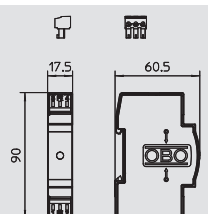
/pc.



Surge protection, fine power protection, type 3, to EN 61643-11 (D to VDE 0675 Part 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 connection

Application: Universal use on 35 mm hat profile rails in standard distributor housings.



MCR protection for 2-pin for power supply with remote signalling, 24 V AC/DC



Type	U max AC V	U max DC V	Pack. pcs	Weight kg/100 pcs.	Item No.
VF24-AC/DC-FS	34	46	1	6.620	5097 82 0

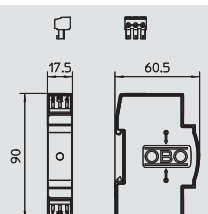
/pc.



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 terminals
- 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.



MCR protection for 2-pin for power supply with remote signalling, 230 V AC



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 terminals
- 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 device for data and information technology



Basic protection for two-core systems with HF applications 120 V

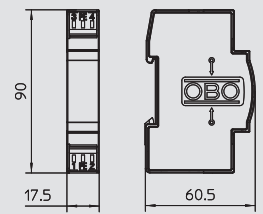
Type	Max. continuous operating voltage Vc/AC V	Maximum continuous voltage Vc/DC V	Number of poles	Connection system	Pack. pcs	Weight kg/100 pcs.	Item No.
TKS-B	120	170	2	Terminal	1	4.400	5097 97 6

/pc.

Basic protection for measuring, control and regulation technology and telecommunication systems.

- Basic protection for lightning protection equipotential bonding
- High impulse arresting capacity 6 kA (10/350)
- With easy-to-mount, screwless connection terminals
- In a space-saving 17.5 mm grid

Application: Universal use on 35 mm hat profile rails in standard distributor housings.



Surge arrester for HF applications

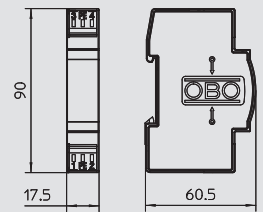
Type	Max. continuous operating voltage Vc/AC V	Maximum continuous voltage Vc/DC V	Number of poles	Connection system	Pack. pcs	Weight kg/100 pcs.	Item No.
FRD 24 HF	19	28	2	Terminal	1	4.400	5098 57 5

/pc.

Surge protection for use in measuring, control and regulation technology.

- Basic, medium and fine protection
- Two-stage protection circuit with high lightning protection capability
- High transfer frequency of 100 MHz
- Fits all bus systems (e.g. Profibus)
- With easy-to-mount, screwless connection terminals
- In a space-saving 17.5 mm grid

Application: Universal use on 35 mm hat profile rails in standard distributor housings.



Series protection device, 2-pole, 24 V version

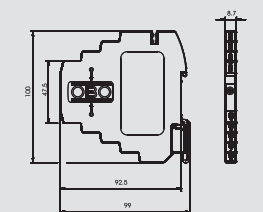
Type	Nominal voltage V	Max. continuous operating voltage Vc/AC V	Maximum continuous voltage Vc/DC V	Pack. pcs	Weight kg/100 pcs.	Item No.
MDP-2 D-24-T	24	20	28	1	6.000	5098 42 2

/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.



Series protection device, 4-pole, 24 V version

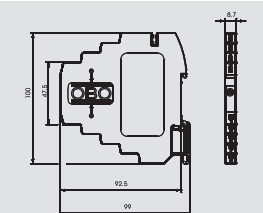
Type	Nominal voltage V	Max. continuous operating voltage Vc/AC V	Maximum continuous voltage Vc/DC V	Pack. pcs	Weight kg/100 pcs.	Item No.
MDP-4 D-24-T	24	20	28	1	5.800	5098 43 1

/pc.

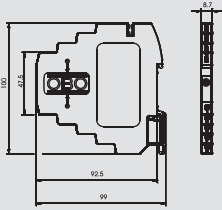
MDP.../D...T: Lightning barrier with test function

- 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 device for data and information technology



Lightning barrier for high nominal currents



Type	Nominal voltage V	Max. continuous operating voltage Vc/AC V	Maximum continuous voltage Vc/DC V	Pack. pcs	Weight kg/100 pcs.	Item No.
MDP-4 D-24-T-10	24	20	28	1	7.200	5098 43 3

/pc.



Testable data cable protection devices for multi-wire systems

- Rated current: A
- Narrow installation width of just 8 mm
- Low protection level at high current load
- Screwless terminals
- Bandwidth-optimised for secure transmission
- Quick mounting on hat rail or wall mounting
- Testable when installed

Application example: Measurement technology, control cabinet construction, etc.



Testing unit for lightning barriers

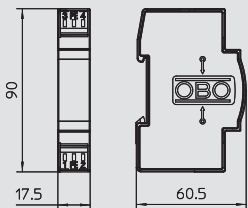


Type	Pack. pcs	Weight kg/100 pcs.	Item No.
LFC	1	164.500	5096 78 6

/pc.



OBO Life Control allows function control of the MDP lightning barriers. The lightning barriers can be checked while installed. Life Control will not have any influences on the measuring signal. Life Control possesses an integrated OLED with visual and acoustic defect signalling. A separate LED inside the testing pin is also integrated. Life Control is delivered in a case, complete with a CD and instructions.



Medium and fine protection for two-core systems 5 V



Type	Max. continuous operating voltage Vc/AC V	Maximum continuous voltage Vc/DC V	Number of poles	Connection system	Pack. pcs	Weight kg/100 pcs.	Item No.
FRD 5	5	8	2	Terminal	1	5.100	5098 49 2

/pc.



Surge protection for use in measurement and control technology

- Medium and fine protection
- Standard design for double core systems
- Two-stage protection circuit
- With installation-friendly, screwless connection terminals
- In space-saving 17.5 mm grid
- With ohmic decoupling in the longitudinal branch

Application: Universal use on any 35 mm hat profile rail in every commercially available distributor housing.



Measuring and testing systems



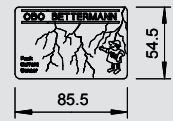
Magnetic card PCS

Type	Pack.	Weight	Item No.
	PU	kg/100 PUs	
PCS	1	8.000	5091 43 8

/VPE

Magnetic card for recording pulsed/lightning currents.

- Contents = 10 pieces



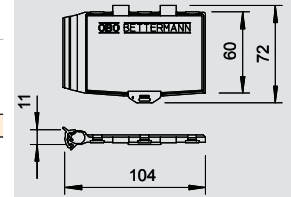
Magnetic card holder PCS-H

Type	Pack.	Weight	Item No.
	PU	kg/100 PUs	
PCS-H	1	31.000	5091 52 7

/VPE

Magnetic card holder for mounting PCS cards.

- Sealable holder
- For installing on round conductor Rd 8-10
- Simple holder installation by means of clamp
- 1 PU = 10 pieces



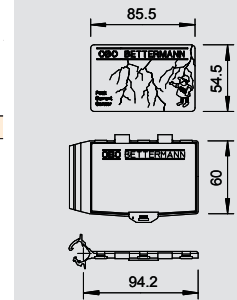
Magnetic card and holder MK-B

Type	Pack.	Weight	Item No.
	PU	kg/100 PUs	
MK-B	1	31.000	5091 32 2

/VPE

PCS magnetic card to record pulse/lightning currents including holder

- Holder can be leaded
- For mounting on round conductor Rd 8-10
- Simple holder mounting through clamping
- 1 PU = 10 units



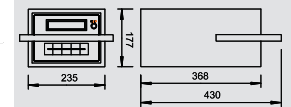
Card reader PCS-CS...:

Type	Country version	Nominal voltage	Measuring range	Measuring tolerances	Pack.	Weight	Item No.
		V			pcs	kg/100 pcs.	
PCS-CS-D	EN	230	3- 120 kA < 2 kA (< 2%)		1	750.000	5091 68 3
PCS-CS-GB	GB	230	3- 120 kA < 2 kA (< 2%)		1	750.000	5091 69 1

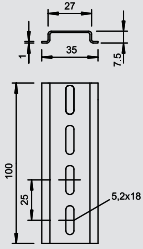
/pc.

Magnetic card reader for reading and analysing PCS cards.

- Inc. rechargeable battery for 4 h continuous, no-mains operation
- Large, clear display



Wiring trunking systems, System Dahl



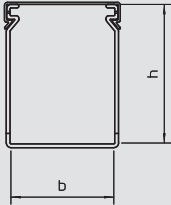
Hat profile rail

Type	Version	Material thickness	Length	Bundle	Weight	Item No.
		mm	mm	m	kg/100 m	
2069 2M GTPL	Perforated	1	2,000	50	33.000	1115 66 9

St Steel **GTP** Electrogalvanised, transparently passivated price/100 m
 Hat profile rail 35 x 7.5 mm to DIN EN 60715 (formerly DIN EN 50022).



Systems for the gondola

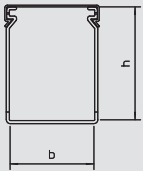


LK4 wiring trunking, Dahl brand



Type	Colour	Length	Dimension b x h	Pack.	Weight	Item No.
		mm	mm	m	kg/100 m	
LK4 15015	Stone grey	2,000	15x15	72	12.000	6178 00 1
LK4 30015	Stone grey	2,000	15x30	40	18.000	6178 00 3
LK4 30025	Stone grey	2,000	25x30	48	28.000	6178 00 5
LK4 40025	Stone grey	2,000	25x40	48	36.500	6178 01 0
LK4 40040	Stone grey	2,000	40x40	36	44.000	6178 01 2
LK4 40060	Stone grey	2,000	60x40	24	57.000	6178 01 4
LK4 40080	Stone grey	2,000	80x40	24	71.000	6178 01 6
LK4 40100	Stone grey	2,000	100x40	24	85.500	6178 01 8
LK4 60015	Stone grey	2,000	15x60	48	32.500	6178 02 6
LK4 60025	Stone grey	2,000	25x60	32	46.000	6178 02 8
LK4 60040	Stone grey	2,000	40x60	24	53.500	6178 03 1
LK4 60060	Stone grey	2,000	60x60	32	64.500	6178 03 3
LK4 60080	Stone grey	2,000	80x60	24	82.500	6178 03 5
LK4 60100	Stone grey	2,000	100x60	16	100.000	6178 03 7
LK4 60120	Stone grey	2,000	120x60	8	117.000	6178 03 9
LK4 80025	Stone grey	2,000	25x80	32	61.000	6178 05 0
LK4 80040	Stone grey	2,000	40x80	24	64.500	6178 05 2
LK4 80060	Stone grey	2,000	60x80	24	76.000	6178 05 4
LK4 80080	Stone grey	2,000	80x80	16	95.500	6178 05 6
LK4 80100	Stone grey	2,000	100x80	16	111.500	6178 05 9
LK4 80120	Stone grey	2,000	120x80	8	128.500	6178 06 1

PVC Polyvinylchloride /m
 Wiring trunking including cover and base perforation.



LK4/N wiring trunking, Dahl brand



Type	Colour	Length	Dimension b x h	Pack.	Weight	Item No.
		mm	mm	m	kg/100 m	
LK4 N 60015	Stone grey	2,000	15x60	48	41.000	6178 20 1
LK4 N 60025	Stone grey	2,000	25x60	32	48.500	6178 20 3
LK4 N 60040	Stone grey	2,000	40x60	24	56.000	6178 20 5
LK4 N 60060	Stone grey	2,000	60x60	32	68.000	6178 20 7
LK4 N 60080	Stone grey	2,000	80x60	24	87.000	6178 20 9
LK4 N 60100	Stone grey	2,000	100x60	16	105.500	6178 21 1
LK4 N 60120	Stone grey	2,000	120x60	8	120.500	6178 21 3
LK4 N 80025	Stone grey	2,000	25x80	32	65.000	6178 22 5
LK4 N 80040	Stone grey	2,000	40x80	24	73.500	6178 22 7
LK4 N 80060	Stone grey	2,000	60x80	24	82.000	6178 22 9
LK4 N 80080	Stone grey	2,000	80x80	16	101.000	6178 23 1
LK4 N 80100	Stone grey	2,000	100x80	16	116.500	6178 23 3
LK4 N 80120	Stone grey	2,000	120x80	8	133.500	6178 23 6

PVC Polyvinylchloride /m
 Wiring trunking including cover and base perforation, tapering in the side slots stops the cables from falling out.



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Wiring trunking systems, System Dahl



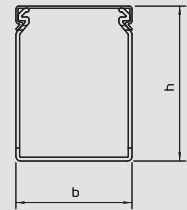
LKV DIN wiring trunking, Dahl brand

Type	Colour	Length mm	Dimension b x h mm	Pack. m	Weight kg/100 m	Item No.
LKV 37025	Stone grey	2,000	25x37,5	32	31.500	6178 30 5
LKV 37037	Stone grey	2,000	37,5x37,5	60	40.500	6178 30 7
LKV 50025	Stone grey	2,000	25x50	60	35.500	6178 31 0
LKV 50037	Stone grey	2,000	37,5x50	48	44.500	6178 31 2
LKV 50050	Stone grey	2,000	50x50	36	50.000	6178 31 4
LKV 50075	Stone grey	2,000	75x50	24	66.000	6178 31 6
LKV 75025	Stone grey	2,000	25x75	40	48.500	6178 32 0
LKV 75037	Stone grey	2,000	37,5x75	32	58.500	6178 32 2
LKV 75050	Stone grey	2,000	50x75	24	67.500	6178 32 4
LKV 75075	Stone grey	2,000	75x75	16	80.000	6178 32 6
LKV 75100	Stone grey	2,000	100x75	16	105.500	6178 32 8
LKV 75125	Stone grey	2,000	125x75	8	128.500	6178 33 0
LKV 10037	Stone grey	2,000	37,5x100	32	67.000	6178 33 4
LKV 10050	Stone grey	2,000	50x100	24	77.000	6178 33 6
LKV 10075	Stone grey	2,000	75x100	16	96.000	6178 33 8
LKV 100100	Stone grey	2,000	100x100	8	116.500	6178 34 1

PVC Polyvinylchloride

/m

Wiring trunking including cover and base perforation to DIN EN 50085-2-3.



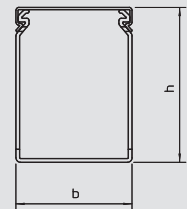
LKV/N DIN wiring trunking, Dahl brand

Type	Colour	Length mm	Dimension b x h mm	Pack. m	Weight kg/100 m	Item No.
LKV N 75037	Stone grey	2,000	37,5x75	32	60.500	6178 42 2
LKV N 75050	Stone grey	2,000	50x75	24	72.500	6178 42 4
LKV N 75075	Stone grey	2,000	75x75	16	84.500	6178 42 6
LKV N 75100	Stone grey	2,000	100x75	16	112.000	6178 42 8
LKV N 75125	Stone grey	2,000	125x75	8	138.500	6178 43 0
LKV N 10037	Stone grey	2,000	37,5x100	32	73.000	6178 43 5
LKV N 10050	Stone grey	2,000	50x100	24	83.000	6178 43 7
LKV N 10075	Stone grey	2,000	75x100	16	102.000	6178 43 9
LKV N 100100	Stone grey	2,000	100x100	8	122.500	6178 44 1

PVC Polyvinylchloride

/m

Wiring trunking to DIN EN 50085-2-3 including cover and base perforation, tapering in the side slots stops the cables from falling out.



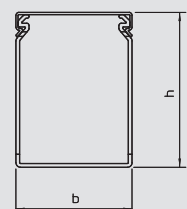
LKV/H DIN wiring trunking, Dahl brand, halogen-free

Type	Colour	Length mm	Dimension b x h mm	Pack. m	Weight kg/100 m	Item No.

PPO Polyphenylene oxide

/m

DIN VK slotted cable wiring system with cover for horizontal and vertical cable routing in distributor cabinets.



Wire retainer

Type	Colour	Dimension a mm	Dimension b mm	Pack. pcs	Weight kg/100 pcs.	Item No.

PS Polystyrene

/1000 pc.

Wire retainer for wiring trunking, type LK4 and LK4/N. The wire retainer prevents already inserted cables from falling out. These predetermined breaking points allow the length to be reduced for various trunking widths to 38, 28 and 23 mm.

Type	Colour	Dimension a mm	Dimension b mm	Pack. pcs	Weight kg/100 pcs.	Item No.

PS Polystyrene

/1000 pc.

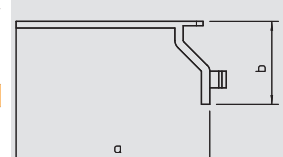
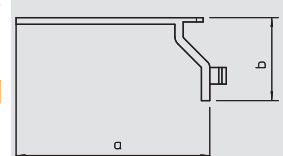
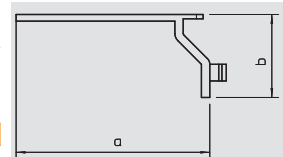
Wire retainer for wiring trunking, type LKV and LKV/N. The wire retainer prevents already inserted cables from falling out. These predetermined breaking points allow the length to be reduced for various trunking widths to 38, 28 and 23 mm.

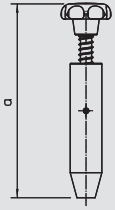
Type	Colour	Dimension a mm	Dimension b mm	Pack. pcs	Weight kg/100 pcs.	Item No.

PS Polystyrene

/1000 pc.

Wire retainer for halogen-free wiring trunking, type LKV/H. The wire retainer prevents already inserted cables from falling out. These predetermined breaking points allow the length to be reduced for various trunking widths to 38, 28 and 23 mm.





Plastic rivet tool

Type	Colour	Pack.	Weight	Item No.
		pcs	kg/100 pcs.	
KNW1	Black	1	9.300	6178 52 7
KNW2	Black	1	9.400	6178 52 9

POM Polyacetal (polyoxymethylene, polyformaldehyde) /pc.
Riveting tool for installing body-bound rivets 4.5 mm.



Body-bound rivet

Type	Colour	Dimension a	Pack.	Weight	Item No.
		mm	pcs	kg/100 pcs.	
KSN1	Light grey	4.5	100	0.024	6178 52 0
KSN2	Light grey	6	100	0.056	6178 52 2

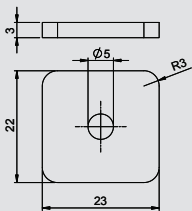
PP Polypropylene /1000 pc.
The VK slotted cable trunking system is fixed to the mounting plate using the spreading rivet and the riveting tool.



Release pliers

Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
AKZ	1	30.857	6178 53 5

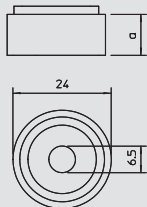
St Steel /pc.



Washer

Type	Colour	Dimension h	Diameter	Pack.	Weight	Item No.
		mm	mm	pcs	kg/100 pcs.	
ULS	Grey	3	5	100	0.170	6178 54 8

PVC Polyvinylchloride /1000 pc.
Washer as compensation for different heights.



Spacer

Type	Colour	Dimension a	Diameter	Pack.	Weight	Item No.
		mm	mm	pcs	kg/100 pcs.	
AH1	Grey	12	24	100	0.354	6178 54 0
AH2	Grey	20	24	100	0.576	6178 54 2

PVC Polyvinylchloride /1000 pc.
Stackable spacer for height compensation between the different component heights.



Clamp clip systems



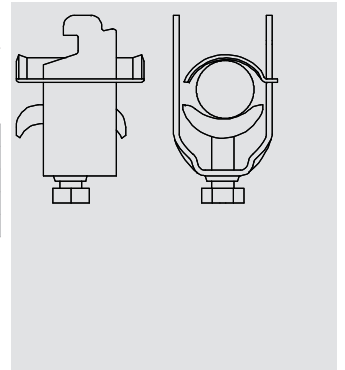
Clamp clip, screen connection

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.	
2056N SAS 8 VA	4-8	20	12	28	M6	1.5	30	32.5	100	2.900	1167 00 6
2056N SAS 12 VA	8-12	20	16	34	M6	1.5	34	34	100	3.700	1167 01 4
2056N SAS 16 VA	12-16	20	20	34	M6	1.5	38	34	100	4.200	1167 02 2
2056N SAS 22 VA	16-22	20	27	34	M6	1.5	44	34	100	4.850	1167 03 0
2056N SAS 28 VA	22-28	20	33	34	M6	2	51	34	100	6.600	1167 04 9

V2A Stainless steel, grade 304

/1000 pc.

For electrical connection of the braided shield of stripped cables. Delivery complete with counter-trough; pressure trough and VA counter-trough. A cable screen for protection against electromagnetic influences, can also contribute towards equipotential bonding as both ends are connected to the reference potential.



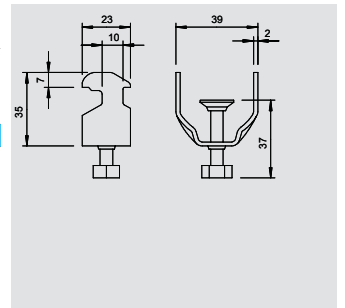
Clamp clip, fastening earthing strips

Type	For rail with slot width	Pack.	Weight	Item No.
	mm	pcs	kg/100 pcs.	
2056 BE FT	16-17	100	4.700	1174 05 3

St Steel FT Hot-dip galvanised

/1000 pc.

To fasten earthing strips with widths of up to 30 mm to profile rails, suitable for all C profile rails with 16-17 mm slot width.



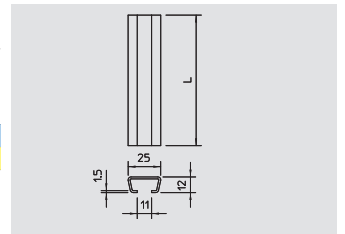
Profile rail, slot 11 mm

Type	Version	Dimension b x h	Material thickness	Length	Bundle	Weight	Item No.
		mm	mm	mm	m	kg/100 m	
2066 2M F	Unperforated	25 x 12	1.5	2,000	20	65.000	1117 02 5
2066 2M FS	Unperforated	25 x 12	1.5	2,000	20	58.300	1117 03 3

St Steel FS Strip-galvanised F Hot-dip galvanised

price/100 m

Profile rail, unperforated, slot width 11 mm.



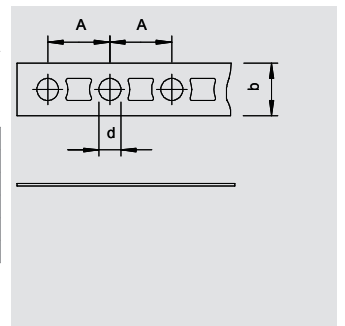
Perforated steel strap, V4A

Type	Dimension	Per roll	Weight	Item No.
	mm	m	kg/100 pcs.	
5055 II12 V4A	12 x 1	8	73.000	1470 12 9
5055 II17 V4A	17 x 1	8	106.000	1470 18 0
5055 III26 V4A	26 x 1.2	8	204.500	1470 27 0
5055 LI12 V4A	12 x 0.75	8	59.000	1471 12 6
5055 LII17 V4A	17 x 0.75	8	84.200	1471 17 7
5055 LIII26 V4A	26 x 1	8	172.300	1471 26 6

V4A Stainless steel, grade 316 Ti

/pc.

Perforated steel strap, in practical uncoiling box.



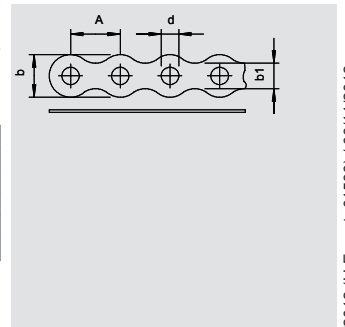
Perforated steel strap, ridged, V4A

Type	Dimension	Per roll	Weight	Item No.
	mm	m	kg/100 pcs.	
5062 II12 V4A	12 x 1	8	69.000	1475 13 2
5062 II17 V4A	17 x 1	8	98.500	1475 18 3
5062 III26 V4A	26 x 1.2	8	183.000	1475 27 2
5062 LI12 V4A	12 x 0.75	8	57.000	1475 62 8
5062 LII17 V4A	17 x 0.75	8	73.000	1475 67 9
5062 LIII26 V4A	26 x 1	8	153.000	1475 76 8

V4A Stainless steel, grade 316 Ti

/pc.

Perforated strap with wavy edges, in practical uncoiling box.



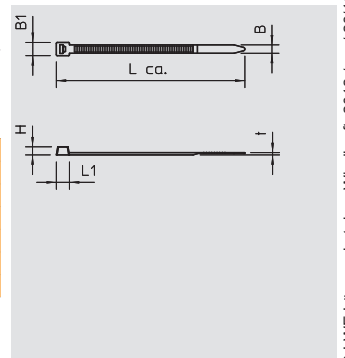
Cable tie, UV and weather-resistant

Type	Dimension	Max. bundle Ø	Minimum breaking load	Colour	Shipping box	Pack.	Weight	Item No.
	mm	mm	kN		pcs	pcs	kg/100 pcs.	
555 2.5x100 SWUV	2.5 x 100	18	0.08	Black	1,000	100	0.035	2332 76 0
555 3.6x150 SWUV	3.6 x 140	35	0.18	Black	1,000	100	0.071	2332 76 4
555 3.6x200 SWUV	3.6 x 200	50	0.18	Black	1,000	100	0.109	2332 76 8
555 4.8x200 SWUV	4.8 x 200	47	0.22	Black	1,000	100	0.151	2332 77 2
555 4.8x310 SWUV	4.8 x 300	76	0.22	Black	1,000	100	0.236	2332 77 6
555 4.8x370 SWUV	4.8 x 370	102	0.22	Black	1,000	100	0.606	2332 78 0
555 7.6x380 SWUV	7.6 x 380	102	0.55	Black	1,000	100	0.606	2332 78 4

PA Polyamide

/1000 pc.








For quick fixing.





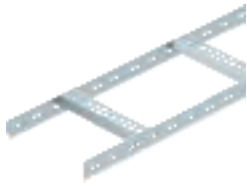


Systems for the tower

	Cable ladder systems	Cable ladder, standard Connector	64 64
	Vertical ladder systems	Light-duty vertical ladder Medium-duty vertical ladder Rung, standard	65 65 65
	Rail systems	Profile rails Profile rail Hammer-head bolt	67 68 71
	Clamp clip systems	Clamp clip Counter-trough	73 75
	Cable and pipe fastening systems, special	Tightening strap Spring chuck	77 77
	Fire protection systems	Fire protection cover, waterproof Ribbon clip Spring chuck	79 79 79
	Equipotential bonding systems	Connection and expansion strip	80



Cable ladder systems

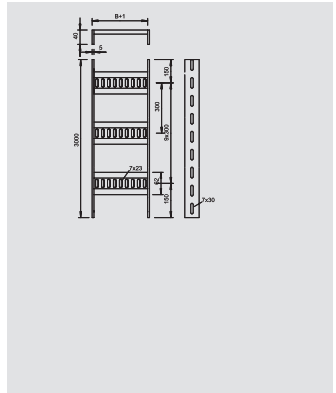


Cable ladder, standard

Type	Width	Length	Weight	Item No.
	mm	mm	kg/100 m	
SL 62 110 FT	110	3,000	307.300	7097 40 9
SL 62 160 FT	160	3,000	314.300	7097 41 7
SL 62 210 FT	210	3,000	342.700	7097 42 5
SL 62 260 FT	260	3,000	345.900	7097 42 9
SL 62 310 FT	310	3,000	378.000	7097 43 3
SL 62 410 FT	410	3,000	413.000	7097 44 1
SL 62 510 FT	510	3,000	448.700	7097 46 8
SL 62 610 FT	610	3,000	483.700	7097 47 6

St Steel
 FT Hot-dip galvanised
 /m

Shipping cable ladder with perforated side rail of side height 40 mm with welded, perforated trapezoidal rungs which open in a downwards direction.



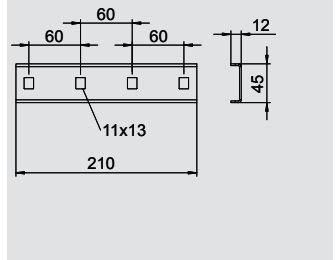
Connector



Type	Width	Pack.	Weight	Item No.
	mm	pcs	kg/100 pcs.	
SLV 62 FT	62	10	20.900	7103 54 8

St Steel
 FT Hot-dip galvanised
 /pc.

Straight connector as external connector to connect cable ladders and fittings with a side height of 25 mm.



Vertical cable ladder systems

Light-duty vertical ladder, 3,000 mm



Type	Width mm	Rail thickness mm	Length mm	Weight	Item No.
				kg/100 m	
LG 620 VS 3000FS	200	1.5	3,000	281.700	6208 53 8
LG 630 VS 3000FS	300	1.5	3,000	306.000	6208 54 1
LG 640 VS 3000FS	400	1.5	3,000	330.000	6208 54 4
LG 650 VS 3000FS	500	1.5	3,000	354.300	6208 54 7
LG 660 VS 3000FS	600	1.5	3,000	378.300	6208 55 0
LG 620 VS 3000FT	200	1.5	3,000	298.300	6208 56 2
LG 630 VS 3000FT	300	1.5	3,000	324.300	6208 56 6
LG 640 VS 3000FT	400	1.5	3,000	350.000	6208 57 0
LG 650 VS 3000FT	500	1.5	3,000	376.000	6208 57 4
LG 660 VS 3000FT	600	1.5	3,000	401.700	6208 57 8

St Steel FS Strip-galvanised FT Hot-dip galvanised /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.



Medium-duty vertical ladder, 6,000 mm

Type	Width mm	Length mm	Weight	Item No.
			kg/100 m	
SLL 620 CPS 4 FS	200	6,000	273.000	6010 62 0
SLL 630 CPS 4 FS	300	6,000	299.500	6010 62 2
SLL 640 CPS 4 FS	400	6,000	325.800	6010 62 4
SLL 650 CPS 4 FS	500	6,000	352.300	6010 62 6
SLL 660 CPS 4 FS	600	6,000	378.800	6010 62 8
SLL 620 CPS 4 FT	200	6,000	286.300	6010 63 0
SLL 630 CPS 4 FT	300	6,000	314.000	6010 63 2
SLL 640 CPS 4 FT	400	6,000	341.700	6010 63 4
SLL 650 CPS 4 FT	500	6,000	369.200	6010 63 6
SLL 660 CPS 4 FT	600	6,000	396.800	6010 63 8

St Steel FS Strip-galvanised FT Hot-dip galvanised /m

Vertical ladder with perforated side rail of side height 60 mm with riveted C profile rungs, open in an upwards direction.



Rung, standard

Type	Length mm	Pack.	Weight	Item No.
		m	kg/100 m	
SLSP 62 300 FT	3,000	1	104.800	7102 77 1

St Steel FT Hot-dip galvanised /m

Light-duty rung with 7 x 32 mm perforation. For welding in cable ladders, type SL 62, and for static constructions.



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

End 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 FS	60	20	20.000	6208 84 0
LVG 60 FT	60	20	22.000	6208 84 3

St Steel FS Strip-galvanised FT Hot-dip galvanised /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 FS	60	20	24.000	6208 89 5
LWVG 60 VA4301	60	20	24.000	6208 89 8

St Steel V2A Stainless steel, grade 304 FS Strip-galvanised Bright /pc.

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



Vertical cable ladder systems

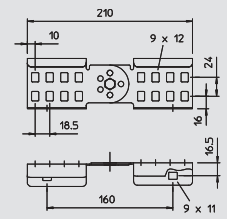


Articulated connector

Type	Side height mm	Pack. pcs	Weight kg/100 pcs.	Item No.
LGVG 60 FS	60	10	27.000	6208 94 1
LGVG 60 FT	60	10	29.000	6208 94 4

St Steel **FS** Strip-galvanised **FT** Hot-dip galvanised /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.

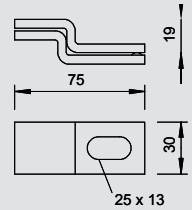


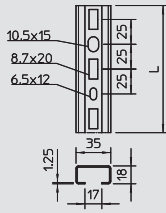
Wall strap

Type	Pack. pcs	Weight kg/100 pcs.	Item No.
WB 30 75 FT	10	20.000	6019 61 7

St Steel **FT** Hot-dip galvanised /pc.

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

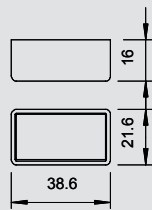




Profile rail, slot 17 mm

Type	Version	Dimension b x h mm	Material thickness mm	Length mm	Pack. pcs	Weight kg/100 pcs.	Item No.
1268 L 150 FS	Perforated	35 x 18	1.25	150	25	10.600	1104 24 1
1268 L 200 FS	Perforated	35 x 18	1.25	200	25	14.200	1104 26 8
1268 L 300 FS	Perforated	35 x 18	1.25	300	25	21.300	1104 28 4
1268 L 400 FS	Perforated	35 x 18	1.25	400	10	28.400	1104 29 2
1268 L 500 FS	Perforated	35 x 18	1.25	500	10	35.500	1104 30 6
1268 L 600 FS	Perforated	35 x 18	1.25	600	10	42.600	1104 31 0
1268 L 700 FS	Perforated	35 x 18	1.25	700	10	49.700	1104 31 5
1268 L 800 FS	Perforated	35 x 18	1.25	800	10	56.800	1104 32 0
1268 L 900 FS	Perforated	35 x 18	1.25	900	10	63.900	1104 32 5
1268 L 1M FS	Perforated	35 x 18	1.25	1,000	10	71.000	1104 49 7
1268 L 2M FS	Perforated	35 x 18	1.25	2,000	20	71.000	1104 50 0

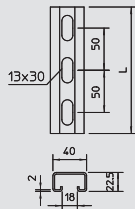
St Steel **FS** Strip-galvanised /1000 pc. price/100 m
Light-duty profile rail, perforated, slot width 17 mm.



Protective cap, 1268

Type	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
1268 SK OR	Pastel orange	800	50	0.420	1124 50 2

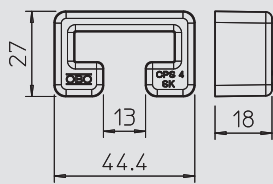
PE Polyethylene /1000 pc.
End cap for profile rail types 1268; 1268 S; 2063 and 2068.



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 VA	Perforated	40 x 22,5	2	2,000	10	152.500	1121 96 0
CPS 4L 6M VA	Perforated	40 x 22,5	2	6,000	1	152.500	1121 90 1
CPS 4L 2M FT	Perforated	40 x 22,5	2	2,000	10	160.000	1121 97 9
CPS 4L 6M FT	Perforated	40 x 22,5	2	6,000	1	160.000	1121 89 8

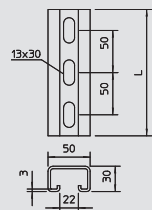
St Steel **V2A** Stainless steel, grade 304 **FT** Hot-dip galvanised price/100 m
Heavy-duty profile rail, perforated, slot width 18 mm.



Protective cap, CPS 4

Type	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
CPS 4 SK OR SP	Pastel orange	300	25	0.675	1124 55 5

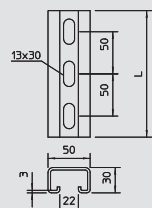
PE Polyethylene /1000 pc.
End cap for profile rail, types CPS 4 and MS 22.



Profile rail, slot 22 mm

Type	Version	Dimension b x h mm	Material thickness mm	Length mm	Pack. m	Weight kg/100 m	Item No.
CPS 5 L 1M FT	Perforated	50 x 30	3	1,000	1	282.500	1121 44 8
CPS 5 L 2M FT	Perforated	50 x 30	3	2,000	2	282.500	1121 46 4
CPS 5 L 3M FT	Perforated	50 x 30	3	3,000	1	282.500	1121 46 6
CPS 5 L 6M FT	Perforated	50 x 30	3	6,000	6	282.500	1121 47 2
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

St Steel **V2A** Stainless steel, grade 304 **FT** Hot-dip galvanised price/100 m
Heavy-duty 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

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



Rail systems



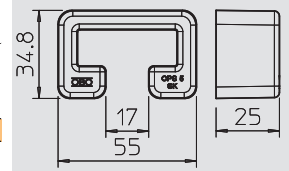
Protective cap, CPS 5

Type	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
CPS 5 SK OR SP	Pastel orange	300	25	1.260	1122 56 3

PE Polyethylene

/1000 pc.

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



Mounting rail, MS 41, double version

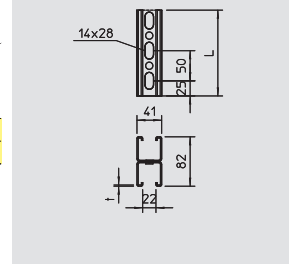
Type	Version	Inter-face	Dimension b x h mm	Material thickness mm	Length mm	Pack. m	Weight kg/100 m	Item No.
MS 41D L 3M 2 FS	Perforated	FS	41x82	2	2,000	1	402.200	1122 67 6
MS 41D L 6M 2 FS	Perforated	FS	41x82	2	6,000	1	402.200	1122 67 8

St Steel

FS Strip-galvanised

price/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 (clinched).



Mounting rail, MS 41, double version

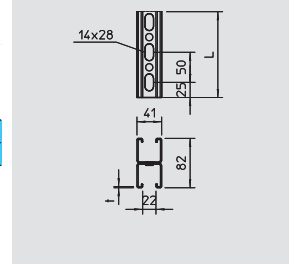
Type	Version	Dimension b x h mm	Material thickness mm	Length mm	Pack. m	Weight kg/100 m	Item No.
MS 41D L 3M 2 FT	Perforated	41x82	2	2,000	1	402.200	1122 67 1
MS 41D L 6M 2 FT	Perforated	41x82	2	6,000	1	402.200	1122 67 3

St Steel

FT Hot-dip galvanised

price/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 (clinched).



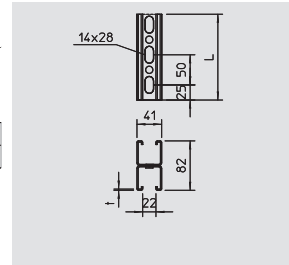
Mounting rail, MS 41, double version, V2A

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	402.200	1122 68 2
MS 41 D L6M 2V2A	Perforated	41x82	2	6,000	1	402.200	1122 68 4

V2A Stainless steel, grade 304

price/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

Type	Version	Dimension b x h mm	Material thickness mm	Length mm	Inter-face	Pack. pcs	Weight kg/100 pcs.	Item No.
MS 41 L 200 FT	Perforated	41x41	2.5	200	—	6	52.400	1122 50 9
MS 41 L 300 FT	Perforated	41x41	2.5	300	FT	6	78.500	1122 51 7
MS 41 L 400 FT	Perforated	41x41	2.5	400	FT	6	104.700	1122 52 5
MS 41 L 500 FT	Perforated	41x41	2.5	500	FT	6	130.800	1122 53 3
MS 41 L 600 FT	Perforated	41x41	2.5	600	FT	6	156.900	1122 54 1
MS 41 L 700 FT	Perforated	41x41	2.5	700	FT	6	183.000	1122 56 8
MS 41 L 800 FT	Perforated	41x41	2.5	800	FT	6	209.200	1122 57 6
MS 41 L 900 FT	Perforated	41x41	2.5	900	FT	6	235.300	1122 58 4

St Steel

FT Hot-dip galvanised

/1000 pc.

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

Type	Version	Dimension b x h mm	Material thickness mm	Length mm	Pack. m	Weight kg/100 m	Item No.
MS 41 L 1M FT	Perforated	41x41	2.5	1,000	6	261.400	1122 60 6
MS 41 L 3M FT	Perforated	41x41	2.5	3,000	1	261.400	1122 62 2
MS 41 L 6M FT	Perforated	41x41	2.5	6,000	6	261.400	1122 65 7

St Steel

FT Hot-dip galvanised

price/100 m

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

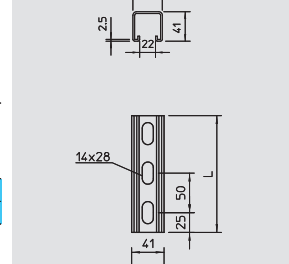
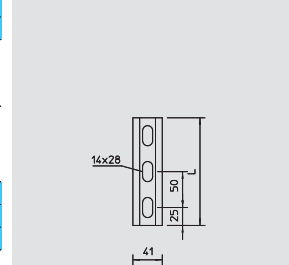
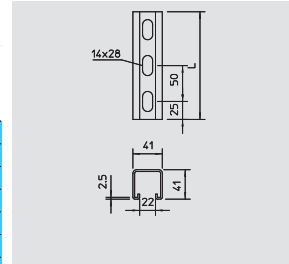
Type	Version	Inter-face	Dimension b x h mm	Material thickness mm	Length mm	Pack. pcs	Weight kg/100 pcs.	Item No.
MS 41 LS 300 FT	Perforated	FT	41x41	2.5	300	6	71.500	1122 50 0
MS 41 LS 400 FT	Perforated	FT	41x41	2.5	400	6	95.300	1122 50 1

St Steel

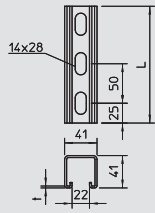
FT Hot-dip galvanised

/1000 pc.

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



Mounting rail, MS 41

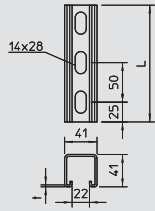


Type	Version	Inter-face	Dimension b x h mm	Material thickness mm	Length mm	Pack. m	Weight kg/100 m	Item No.
MS 41 LS 3M FT	Perforated	FT	41x41	2.5	3,000	3	238.300	1122 48 3
MS 41 LS 6M FT	Perforated	FT	41x41	2.5	6,000	6	238.300	1122 48 7

St Steel **FT** Hot-dip galvanised price/100 m
Heavy-duty profile/mounting rail with continuous, three-sided perforation, slot width 22 mm.



Mounting rail, MS 41 V4A

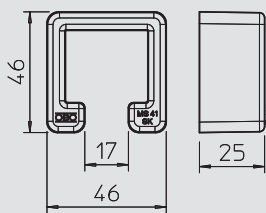


Type	Version	Material thickness mm	Length mm	Pack. m	Weight kg/100 m	Item No.
MS 41 LS 1M V4A	Perforated	2.5	1,000	6	225.500	1123 07 7
MS 41 LS 6M V4A	Perforated	2.5	6,000	1	225.500	1123 07 9

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



Protective cap MS 41

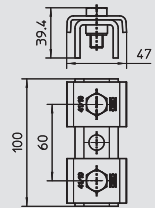


Type	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
MS 41 SK OR SP	Pastel orange	300	25	1.320	1122 90 0

PE Polyethylene /1000 pc.
Protective caps for profile rail, types MS 41.



Rail connector SV with 3 holes



Type	Version	Dimension b x h mm	Material thickness mm	Length mm	Pack. pcs	Weight kg/100 pcs.	Item No.
SVE 41 G	Perforated	47x39.4	4	100	10	42.000	1123 12 4
SVE 41 FT	Perforated	47x39.4	4	100	10	42.000	1123 12 1

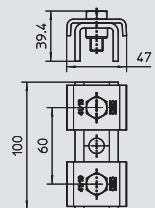
St Steel **G** Electrogalvanised **FT** Hot-dip galvanised /1000 pc.

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.



Rail connector SV with 3 holes, V2A



Type	Version	Dimension b x h mm	Material thickness mm	Length mm	Pack. pcs	Weight kg/100 pcs.	Item No.
SVE 41 V2A	Perforated	47x39.4	4	100	10	42.000	1123 12 6

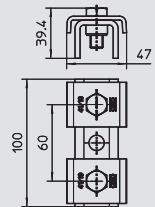
V2A Stainless steel, grade 304 /1000 pc.

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.



Rail connector SV with 3 holes, V4A



Type	Version	Dimension b x h mm	Material thickness mm	Length mm	Pack. pcs	Weight kg/100 pcs.	Item No.
SVE 41 V4A	Perforated	47x39.4	4	100	10	42.000	1123 12 8

V4A Stainless steel, grade 316 Ti /1000 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.



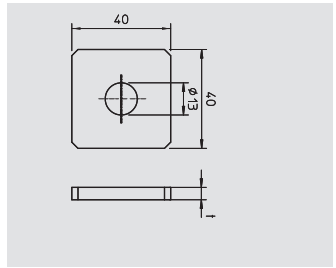
Rail systems

Connection plate with 1 hole V2A



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

V2A Stainless steel, grade 304 /1000 pc.
 Connection plate with lengthwise slot, for example for mounting threaded rods to profile rails 41 x 41 mm and 41 x 21 mm.

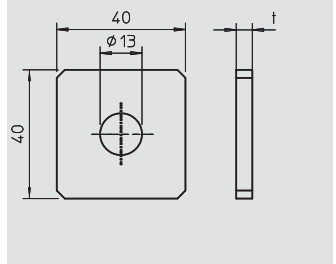


Connection plate with 1 hole V4A



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

V4A Stainless steel, grade 316 Ti /1000 pc.
 Connection plate with lengthwise slot, for example for mounting threaded rods to profile rails 41 x 41 mm and 41 x 21 mm.

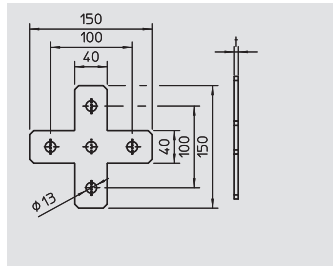


Connection plate, X-shaped, V2A



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

V2A Stainless steel, grade 304 /1000 pc.
 Connection plate with five holes for cross connection of profile rails 41 x 41 mm and 41 x 21 mm.

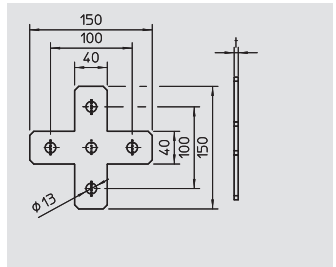


Connection plate, X-shaped, V4A



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

V4A Stainless steel, grade 316 Ti /1000 pc.
 Connection plate with five holes for cross connection of profile rails 41 x 41 mm and 41 x 21 mm.

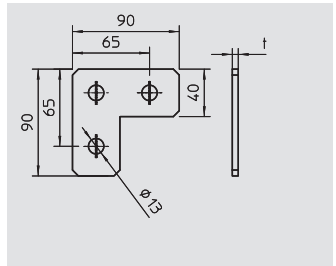


Connection plate, L-shaped V2A



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

V2A Stainless steel, grade 304 /1000 pc.
 Connection plate with three holes for angled connection of profile rails 41 x 41 mm and 41 x 21 mm.

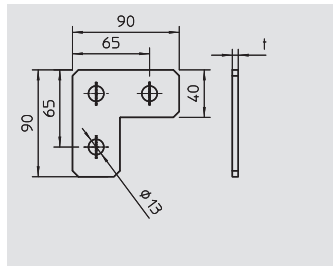


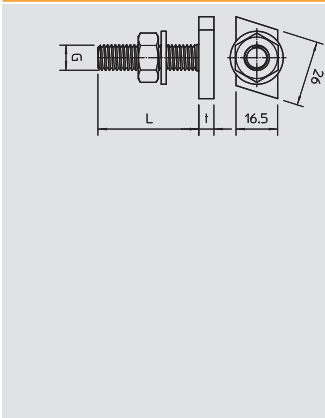
Connection plate, L-shaped V4A



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

V4A Stainless steel, grade 316 Ti /1000 pc.
 Connection plate with three holes for angled connection of profile rails 41 x 41 mm and 41 x 21 mm.



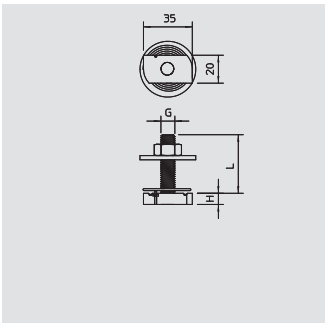


Hammer-head bolt, 16–17 mm slot width

Type	Thread	Dimension L mm	Dimension D mm	Dimension t mm	Washer Ø mm	Grade	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
5022 M6X25 F	M6	25	6	5	12	–	500	50	1.960	1151 01 0
5022 M6X30 F	M6	30	6	5	12	–	500	50	1.992	1151 02 9
5022 M8X25 F	M8	25	8	5	16	–	300	50	2.120	1151 21 5
5022 M8X30 F	M8	30	8	5	16	–	300	50	2.990	1151 22 3
5022 M8X40 F	M8	40	8	5	16	–	200	50	3.600	1151 25 8
5022 M10x25 F	M10	25	10	6	20	–	300	50	4.360	1151 40 1
5022 M10x30 F	M10	30	10	6	20	–	200	50	4.580	1151 42 8
5022 M10x40 F	M10	40	10	6	20	–	200	50	5.070	1151 44 4
5022 M12x30 G	M12	30	12	6	24	–	250	25	6.130	1151 62 2
5022 M12x40 G	M12	40	12	6	24	–	150	25	6.900	1151 64 9

St Steel F Hot-dip galvanised G Electrogalvanised /1000 pc.

Hammer-head bolt with washer and nut for profile rails with slot width 16–17 mm.

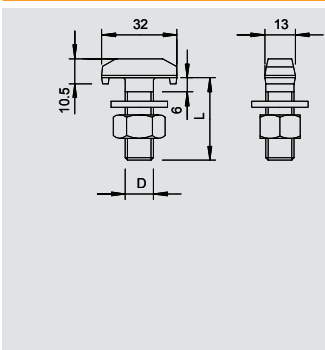


Hammer-head bolt, for MS 41

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 G	M8	30	6	40	–	100	25	9.100	1148 95 0
HKF22 M8x50 G	M8	50	6	40	–	100	25	9.600	1148 95 5
HKF22 M10x30 G	M10	30	8	40	–	100	25	10.300	1148 96 1
HKF22 M10x50 G	M10	50	8	40	–	100	25	11.500	1148 96 6
HKF22 M12x30 G	M12	30	9.5	40	–	100	25	11.800	1148 97 2

St Steel G Electrogalvanised /1000 pc.

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

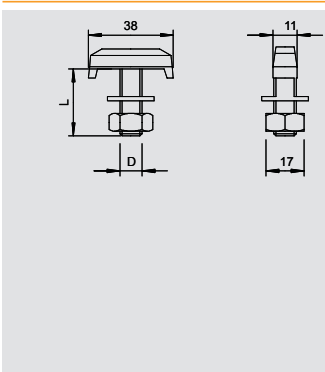


Hook-head bolt, 18 mm slot width

Type	Thread	Dimension L mm	Dimension D mm	Washer Ø mm	Grade	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
5023 M10x30 G	M10	30	10	20	–	300	50	4.130	1153 41 2
5023 M10x35 G	M10	35	10	20	–	200	50	4.690	1153 42 0
5023 M10x40 G	M10	40	10	20	–	250	25	4.970	1153 43 9
5023 M12x30 G	M12	30	12	24	–	150	25	6.450	1153 61 7
5023 M12x35 G	M12	35	12	24	–	150	25	6.800	1153 62 5
5023 M12x40 G	M12	40	12	24	–	150	25	7.200	1153 63 3
5023 M12x50 G	M12	50	12	24	–	150	25	7.840	1153 64 1

St Steel G Electrogalvanised /1000 pc.

Hook-head bolt with washer and nut for profile rails with slot width 18 mm.

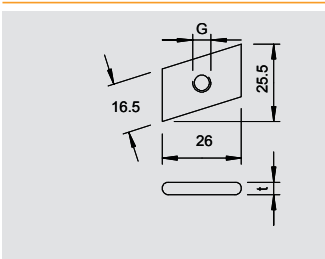


Hook-head bolt, 22 mm slot width

Type	Thread	Dimension L mm	Dimension D mm	Washer Ø mm	Grade	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
5024 M10x30 G	M10	30	10	20	–	200	50	5.540	1154 41 9
5024 M10x35 G	M10	35	10	20	–	200	50	5.710	1154 42 7
5024 M10x40 G	M10	40	10	20	–	250	25	5.980	1154 43 5
5024 M12x30 G	M12	30	12	24	–	150	25	7.610	1154 60 5
5024 M12x35 G	M12	35	12	24	–	150	25	7.944	1154 61 3
5024 M12x40 G	M12	40	12	24	–	150	25	8.160	1154 62 1
5024 M12x50 G	M12	50	12	24	–	150	25	8.836	1154 64 8

St Steel G Electrogalvanised /1000 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.

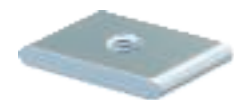


Slide nut, 16–17 mm slot width

Type	Thread	Dimension G mm	Dimension t mm	Version	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
5019 M6 OS G	M6	6	4	No bolt	1,200	100	1.150	1144 10 3
5019 M8 OS G	M8	8	5	No bolt	600	100	1.450	1144 11 1
5019 M10 OS G	M10	10	6	No bolt	600	100	1.650	1144 13 8

St Steel G Electrogalvanised /1000 pc.

Slide nut for profile rails with a slot width of 16–17 mm.



Rail systems

Slide nut, 18 mm slot width

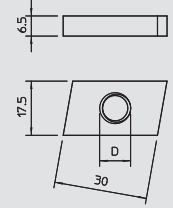


Type	Thread	Dimension D	Recommended load capacity	Shipping box	Pack.	Weight	Item No.
		mm	kN	pcs	pcs	kg/100 pcs.	
GMH18 M6 VA	M6	6	1.94	500	50	2.400	1146 55 6
GMH18 M8 VA	M8	8	3.57	500	50	2.300	1146 55 8
GMH18 M10 VA	M10	10	5.7	500	50	2.300	1146 56 0
GMH18 M12 VA	M12	12	8.32	500	50	2.000	1146 56 2

V4A Stainless steel, grade 316

/1000 pc.

Slide nut for profile rails with a slot width of 18 mm.



Slide nut, 22 mm slot width



Type	Thread	Dimension D	Recommended load capacity	Shipping box	Pack.	Weight	Item No.
		mm	kN	pcs	pcs	kg/100 pcs.	
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

/1000 pc.

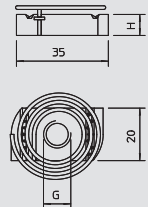
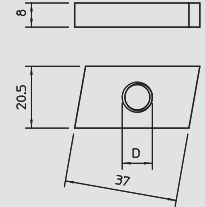
Slide nut for profile rails with a slot width of 22 mm. Cannot be used for the mounting rail MS21 and MS41.

Type	Thread	Dimension H	Shipping box	Pack.	Weight	Item No.
		mm	pcs	pcs	kg/100 pcs.	
GMF22 M6 G	M6	6	300	50	4.300	1146 45 1
GMF22 M8 G	M8	6	300	50	4.200	1146 45 5
GMF22 M10 G	M10	8	200	50	4.100	1146 45 9
GMF22 M12 G	M12	9.5	200	50	3.900	1146 46 3

St Steel **G** Electrogalvanised

/1000 pc.

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



Profile rail, slot 11 mm

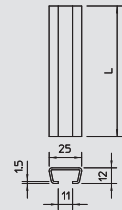


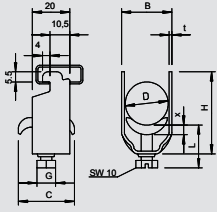
Type	Version	Dimension b x h	Material thickness	Length	Bundle	Weight	Item No.
		mm	mm	mm	m	kg/100 m	
2066 2M F	Unperforated	25 x 12	1.5	2,000	20	65.000	1117 02 5
2066 2M FS	Unperforated	25 x 12	1.5	2,000	20	58.300	1117 03 3

St Steel **FS** Strip-galvanised **F** Hot-dip galvanised

price/100 m

Profile rail, unperforated, slot width 11 mm.





Clamp clip, single, metal pressure trough

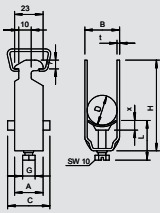
Type	Clamping range D mm	Pack. pcs	Weight kg/100 pcs.	Item No.
2056N M 12 FT	8-12	100	2.450	1155 40 7
2056N M 16 FT	12-16	100	2.800	1155 41 5
2056N M 22 FT	16-22	100	3.150	1155 42 3
2056N M 28 FT	22-28	100	4.900	1155 43 1
2056N M 34 FT	28-34	100	6.400	1155 45 8
2056N M 40 FT	34-40	100	7.000	1155 46 6
2056N M 46 FT	40-46	100	8.500	1155 47 4
2056N M 52 FT	46-52	100	9.150	1155 48 2
2056N M 58 FT	52-58	100	12.100	1155 49 0



St Steel **FT** Hot-dip galvanised /1000 pc.

Suitable for all C profile rails with slot width 11–12 mm; at least 6.5 mm clear internal height and at least 18.5 mm clear internal width; metal troughs have strongly rounded edges on all sides, so that there is no risk of cable damage.

Version with welding and/or locknuts for use under difficult circumstances and for shake protection on request.



Clamp clip, single, plastic pressure trough

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 12 FT	8-12	23	16	34	M6	1.5	40	34	100	3.540	1160 12 5
2056 16 FT	12-16	23	20	34	M6	1.5	44	34	100	3.820	1160 16 8
2056 22 FT	16-22	23	27	34	M6	1.5	50	34	100	4.508	1160 22 2
2056 28 FT	22-28	23	33	34	M6	2	58	34	100	6.240	1160 28 1
2056 34 FT	28-34	23	39	34	M8	2	58	34	100	7.680	1160 34 6
2056 40 FT	34-40	23	45	45	M8	2	72	37.5	100	8.260	1160 40 0
2056 46 FT	40-46	23	51	40	M8	2	79	44.5	100	10.900	1160 45 1
2056 52 FT	46-52	23	57	40	M8	2	79	44.5	100	11.900	1160 52 4
2056 58 FT	52-58	23	64	40	M8	2.5	93	45.5	100	14.300	1160 58 3
2056 64 FT	58-64	23	70	40	M8	2.5	99	45.5	100	15.600	1160 64 8
2056 70 FT	64-70	25	76	40	M8	2.5	106	45.5	50	18.200	1160 70 2
2056 76 FT	70-76	25	82	40	M8	2.5	114	45.5	25	20.600	1160 76 1
2056 82 FT	76-82	25	88	40	M8	2.5	121	45.5	25	22.000	1160 82 6
2056 90 FT	82-90	25	97	40	M8	3	130	57.5	25	26.200	1160 90 7
2056 100 FT	90-100	25	107	40	M8	3	140	57.5	25	27.800	1160 99 0

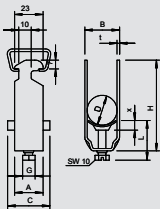


St Steel **FT** Hot-dip galvanised /1000 pc.

Suitable for all C profile rails with slot width 16–17 mm.

Hot-dip galvanised steel clamp and bolt, polypropylene pressure sleeve, halogen-free, colour light grey RAL 7035.

Version with welding and/or locknuts for use under difficult circumstances and for vibration on request.



Clamp clip, single, plastic pressure trough

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 12 VA	8-12	23	16	34	M6	1.5	40	34	100	3.300	1159 51 8
2056 16 VA	12-16	23	20	34	M6	1.5	44	34	100	3.600	1159 52 6
2056 22 VA	16-22	23	27	34	M6	1.5	50	34	100	4.200	1159 53 4
2056 28 VA	22-28	23	33	34	M6	2	58	34	100	6.500	1159 54 2
2056 34 VA	28-34	23	39	34	M8	2	66	37.5	100	7.400	1159 55 0
2056 40 VA	34-40	23	45	34	M8	2	72	37.5	100	8.000	1159 56 9
2056 46 VA	40-46	23	51	34	M8	2	79	44.5	100	10.900	1159 57 7
2056 52 VA	46-52	23	57	40	M8	2	86	45.5	100	11.400	1159 58 5
2056 58 VA	52-58	23	64	40	M8	2.5	93	45.5	100	14.500	1159 59 3
2056 64 VA	58-64	23	70	40	M8	2.5	99	45.5	100	15.600	1159 60 7
2056 70 VA	64-70	25	76	40	M8	2.5	106	45.5	50	18.200	1159 61 5
2056 76 VA	70-76	25	82	40	M8	2.5	114	45.5	25	20.800	1159 62 3



V2A Stainless steel, grade 304 /1000 pc.

Suitable for all C profile rails with slot width 16–17 mm.

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

Clamp clip systems



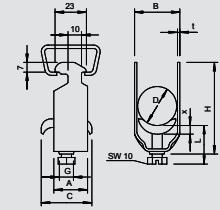
Clamp clip, single, metal pressure trough

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

/1000 pc.

Suitable for all C profile rails with slot width 16–17 mm. Clamp, bolt and pressure sleeve all made of stainless steel.



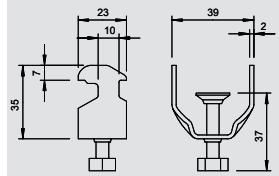
Clamp clip, fastening earthing strips

Type	For rail with slot width mm	Pack. pcs	Weight kg/100 pcs.	Item No.
2056 BE FT	16-17	100	4.700	1174 05 3

St Steel FT Hot-dip galvanised

/1000 pc.

To fasten earthing strips with widths of up to 30 mm to profile rails, suitable for all C profile rails with 16–17 mm slot width.



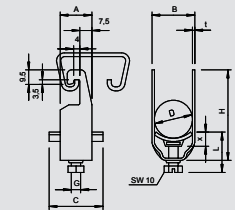
Clamp clip, single, plastic pressure trough

Type	Clamping range D mm	Pack. pcs	Weight kg/100 pcs.	Item No.
2056U 12 FT	8-12	100	3.150	1175 12 2
2056U 16 FT	12-16	100	3.600	1175 16 5
2056U 22 FT	16-22	100	4.200	1175 21 1
2056U 28 FT	22-28	100	5.800	1175 28 9
2056U 34 FT	28-34	100	7.500	1175 34 3
2056U 40 FT	34-40	100	8.100	1175 40 8
2056U 46 FT	40-46	100	10.000	1175 46 7
2056U 52 FT	46-52	100	11.200	1175 52 1
2056U 58 FT	52-58	100	13.400	1175 58 0
2056U 64 FT	58-64	100	14.300	1175 64 5
2056U 70 FT	64-70	50	15.250	1175 69 6
2056U 76 FT	70-76	25	20.600	1175 76 9
2056U 82 FT	76-82	25	22.000	1175 82 3
2056U 90 FT	82-90	25	26.200	1175 90 4
2056U 100 FT	90-100	25	30.000	1175 99 8

St Steel FT Hot-dip galvanised

/1000 pc.

Suitable for all C profile rails with slot width 18 and 22 mm. Also suitable for flat, angle and U steel of 4 - 12 mm material thickness. BBS clamp and bolt made of hot-dip galvanised steel. Polypropylene pressure sleeve, halogen-free, colour light grey RAL 7035.



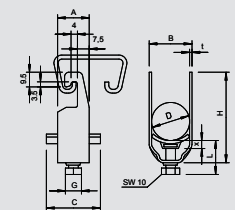
Clamp clip, single, plastic pressure trough

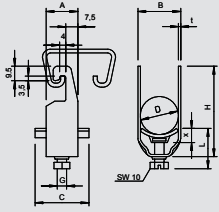
Type	Clamping range D mm	Dimension A mm	Dimension B mm	Dimension C mm	Dimension G mm	Dimension t mm	Dimension H mm	Dimension L mm	Pack. pcs	Weight kg/100 pcs.	Item No.
2056U 12 VA	8-12	20	16	34	M6	1.5	42	34	100	3.000	1178 50 4
2056U 16 VA	12-16	20	20	34	M6	1.5	46	34	100	3.200	1178 51 2
2056U 22 VA	16-22	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

/1000 pc.

Suitable for all C profile rails with slot width 18 and 22 mm. Also suitable for flat, angle and U steel of 4 - 12 mm material thickness. Stainless steel clip and bolt. Polypropylene pressure sleeve, halogen-free, colour light grey RAL 7035.





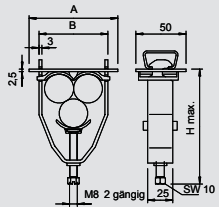
Clamp clip, single, metal pressure trough V4A

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 /1000 pc.

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

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

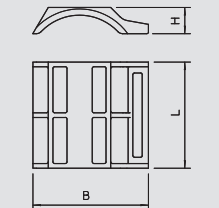


Clamp clip, hammer head base, 3x single-wire connection

Type	Cable Ø	Pack.	Weight	Item No.
	mm	pcs	kg/100 pcs.	
2056 E 31 FT	28-31	25	19.500	1174 60 6
2056 E 37 FT	34-37	25	24.600	1174 61 4
2056 E 44 FT	40-44	25	28.300	1174 63 0

St Steel FT Hot-dip galvanised /1000 pc.

Clip element, bolt and lock plate made of hot-dip galvanised steel, pressure and counter-trough made of polypropylene, halogen-free, light grey RAL 7035. Delivered complete with lock plate and counter-troughs.

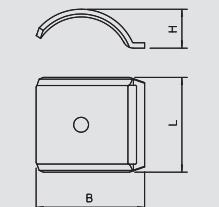


Counter-trough, plastic, universal

Type	Clamping range D	Dimension L	Dimension B	Dimension H	Colour	Shipping box	Pack.	Weight	Item No.
	mm	mm	mm	mm		pcs	pcs	kg/100 pcs.	
2058FW 12 LGR	8-12	34	16.5	5	Light grey	2,700	100	0.099	1197 12 6
2058FW 16 LGR	12-16	34	20	5	Light grey	1,200	100	0.130	1197 16 9
2058FW 22 LGR	16-22	34	25.5	5.8	Light grey	1,000	100	1.700	1197 22 3
2058FW 28 LGR	22-28	34	31.5	7.2	Light grey	1,000	100	0.216	1197 28 2
2058FW 34 LGR	28-34	34	37	8.4	Light grey	1,200	100	0.280	1197 34 7
2058FW 40 LGR	34-40	34	42.5	9.7	Light grey	1,200	100	0.318	1197 40 1
2058FW 46 LGR	40-46	40	48	11	Light grey	1,200	100	0.415	1197 46 0
2058FW 52 LGR	46-52	40	51.5	9.8	Light grey	1,600	100	0.425	1197 52 5
2058FW 58 LGR	52-58	40	57	10.6	Light grey	1,600	100	0.460	1197 58 4
2058FW 64 LGR	58-64	40	61.2	10.4	Light grey	600	50	0.525	1197 64 9
2058FW 70 LGR	64-70	40	67.2	10.4	Light grey	400	50	0.565	1197 70 3
2058FW 76 LGR	70-76	40	71.4	11	Light grey	500	25	0.924	1197 76 2
2058FW 82 LGR	76-82	40	75.6	11	Light grey	500	25	0.998	1197 82 7
2058FW 90 LGR	82-90	40	82.6	12	Light grey	500	25	1.070	1197 90 8
2058FW 100 LGR	90-100	40	89.5	12	Light grey	500	25	1.150	1197 99 1
2058FW 34 ENER	28-34	34	37	8.4	Light grey	1,200	100	0.360	1199 05 9
2058FW 46 ENER	40-46	40	48	11	Light grey	1,200	100	0.405	1199 06 1

PP Polypropylene /1000 pc.

Irrespective of the rail, universally applicable by pushing onto a limb of the BBS clamp clip.



Counter-trough, metal, universal

Type	Clamping range D	Dimension L	Dimension B	Dimension H	Shipping box	Pack.	Weight	Item No.
	mm	mm	mm	mm	pcs	pcs	kg/100 pcs.	
2058FW M 8 V2A	4-8	35	13	2.25	1,500	100	0.130	1197 09 6
2058FW M 12 V2A	8-12	35	17.5	6.5	1,200	100	0.160	1197 13 4
2058FW M 16 V2A	12-16	35	21.5	7.7	1,000	100	0.180	1197 17 7
2058FW M 22 V2A	16-22	35	28	8.8	1,200	100	0.200	1197 23 1
2058FW M 28 V2A	22-28	35	34	10.4	1,000	100	0.233	1197 29 0

V2A Stainless steel, grade 304 /1000 pc.

Irrespective of the rail, universally applicable by pushing onto a limb of the BBS clamp clip.



Clamp clip systems



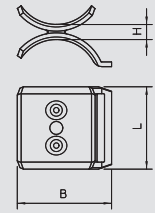
Double trough, V2A

Type	Clamping range D	Dimension L	Dimension B	Dimension H	Shipping box	Pack.	Weight	Item No.
	mm	mm	mm	mm	pcs	pcs	kg/100 pcs.	
2058 M2 22 V2A	16-22	35	28	5.4	500	50	2.300	1196 59 7
2058 M2 28 V2A	22-28	35	34	5.4	600	50	3.100	1196 59 9
2058 M2 34 V2A	28-34	35	40	6.4	300	50	3.760	1196 60 1
2058 M2 40 V2A	34-40	35	46	6.4	100	50	5.600	1196 60 3

V2A Stainless steel, grade 304

/1000 pc.

Clamp clips allows both cables and pipes to be fastened to profile rails. The clamp clips are hooked into the appropriate slot widths of the profile rails and the component to be fastened is pressed onto the profile rail with the pressure trough of the clamp clip and held in place.



Hexagonal nut DIN 934 V4A

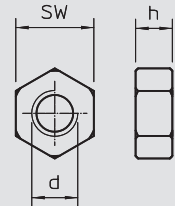


Type	Thread	SW	Dimension h	Dimension d	Shipping box	Pack.	Weight	Item No.
		mm	mm	mm	pcs	pcs	kg/100 pcs.	
DIN 934 M6 V4A	M6	10	5.2	6	3,600	100	0.250	3400 17 3
DIN 934 M8 V4A	M8	13	6.8	8	2,400	100	0.520	3400 17 5
DIN 934 M10 V4A	M10	17	8.4	10	1,000	100	1.084	3400 17 7
DIN 934 M12 V4A	M12	19	10.8	12	600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

V4A Stainless steel, grade 316 Ti

/1000 pc.

Hexagonal nut to DIN 934 with metric thread.



Hexagonal nut with underhead tothing DIN 6923

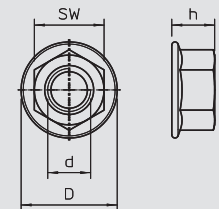


Type	Dimension d	SW	Pack.	Weight	Item No.
	mm	mm	pcs	kg/100 pcs.	
DIN 6923 M8 VA	8	13	100	0.800	3156 12 0
DIN 6923 M10 VA	10	17	50	1.320	3156 12 2
DIN 6923 M12 VA	12	19	50	2.100	3156 12 6

V2A Stainless steel, grade 304

/1000 pc.

Combination nut with pressed washer.



Serrated washer DIN 6798 V4A

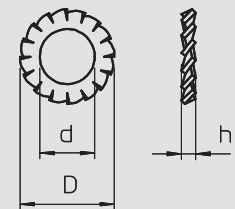


Type	Dimension d	Dimension D	Dimension h	Pack.	Weight	Item No.
	mm	mm	mm	pcs	kg/100 pcs.	
DIN 6798 M6 V4A	6.4	11	2.1	100	0.036	3404 37 3
DIN 6798 M8 V4A	8.4	15	2.4	100	0.080	3404 37 8
DIN 6798 M10 V4A	10.5	18	2.7	100	0.125	3404 38 2
DIN 6798 M12 V4A	13	20.5	3	100	0.170	3404 38 6

V4A Stainless steel, grade 316 Ti

/1000 pc.

Serrated washer to DIN 6798, shape A.



Lock washer V4A

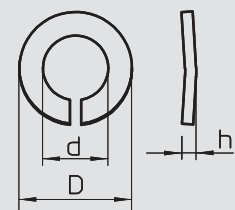


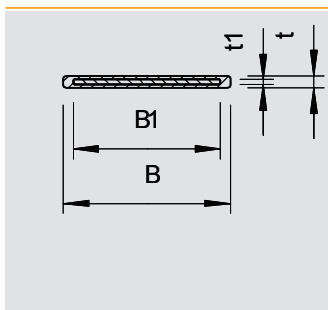
Type	Thread	Dimension d	Dimension D	Dimension h	Pack.	Weight	Item No.
		mm	mm	mm	pcs	kg/100 pcs.	
DIN 128 A M6 V4A	M6	6.3	11.8	2.1	100	0.070	3405 06 2
DIN 128 A M8 V4A	M8	8.3	14.8	2.6	100	0.130	3405 08 9
DIN 128 A M10V4A	M10	10.5	18.1	3	100	0.210	3405 11 1
DIN 128 A M12V4A	M12	12.5	21.1	3.5	100	0.320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

V4A Stainless steel, grade 316 Ti

/1000 pc.

Lock washer according to DIN 128, shape A.



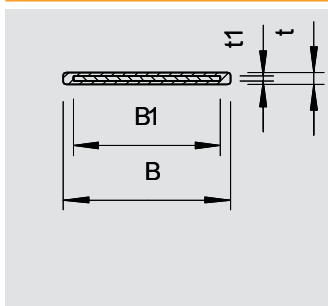


Tightening strap

Type	Dimension	Minimum breaking load	Colour	Shipping box	Pack.	Weight	Item No.
	mm	kN		m	m	kg/100 m	
574 G STGR	17 x 1.0	1.35	Stone grey	250	25	5.880	6490 01 8

St Steel **G** Electrogalvanised price/100 m

Plastic-covered galvanised tightening strap for fastening on cable trays and ladders.

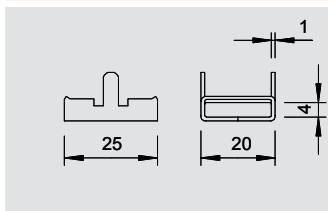


Tightening strap

Type	Dimension	Minimum breaking load	Colour	Shipping box	Pack.	Weight	Item No.
	mm	kN		m	m	kg/100 m	
574 03 SW	17 x 1.0	2.25	Black	250	25	6.950	6490 02 6
574 03 BA	17 x 1.0	2.25	Blue anthracite	250	25	6.950	6490 03 4
574 05 GNBG	16.5 x 1.2	3.5	Green-beige	250	25	6.950	6490 05 0

V2A Stainless steel, grade 301 price/100 m

Plastic-covered tightening strap made of rustproof steel for fastening on cable trays and ladders.

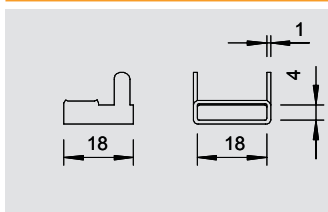


Tightening strap lock

Type	Shipping box	Pack.	Weight	Item No.
	pcs	pcs	kg/100 pcs.	
192	1,200	100	0.900	6490 90 5

St Steel **DD** Zinc-aluminium coated, double-dip /1000 pc.

Tightening strap lock for mounting under the ceiling.

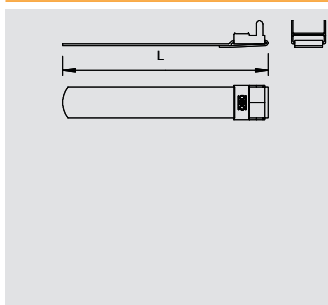


Tightening strap lock

Type	Shipping box	Pack.	Weight	Item No.
	pcs	pcs	kg/100 pcs.	
197 VA4301	1,800	100	0.560	6490 96 4

V2A Stainless steel, grade 304 /1000 pc.

Tightening strap lock for single-sided locking of tightening strap in problematic areas.

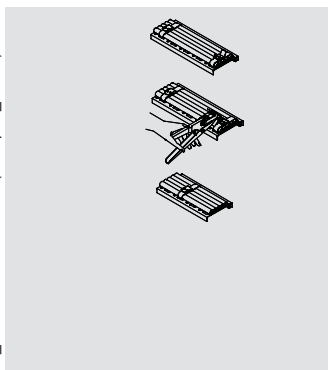


Tightening strap in fixed lengths

Type	Dimension	Length	Colour	Shipping box	Pack.	Weight	Item No.
	mm	mm		pcs	pcs	kg/100 pcs.	
574 03 30 BA	17 x 1.0	300	Blue anthracite	500	25	2.410	6490 10 7
574 03 45 BA	17 x 1.0	450	Blue anthracite	250	25	3.260	6490 12 3
574 05 55 GNBG	16.5 x 1.2	550	Green-beige	250	25	4.660	6490 15 8
574 05 65 GNBG	16.5 x 1.2	650	Green-beige	250	25	5.370	6490 17 4

V2A Stainless steel, grade 301 /1000 pc.

Tightening strap, 574/03/VA and 574/05/VA, completely pre-terminated with tightening strap lock.



Spring chuck

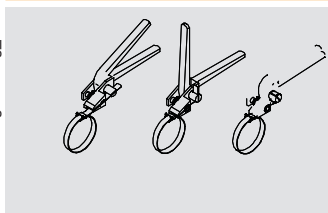
Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
575	1	29.700	6498 01 9

St Steel /pc.

For tightening strap 574/...

Mounting of the tightening strap:

1. Cut the strap to the right length, push it through the lock and turn it over.
2. Loop the strap around the cable, push the loose end through the lock.
3. Tighten the end of the strap with the pliers.
4. Turn the end of the taut strap with the pliers. Remove the pliers.
5. Completely turnover the turned end of the strap with the hammer, secure the end of the strap by hitting the two standing lobes of the lock.



Spring chuck

Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
576	1	132.000	6498 02 7

St Steel /pc.

For tightening strap 574/...

Cable and pipe fastening systems, special



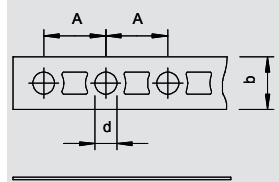
Perforated steel strap, V4A

Type	Dimension mm	Per roll m	Weight kg/100 pcs.	Item No.
5055 I12 V4A	12 x 1	8	73.000	1470 12 9
5055 II17 V4A	17 x 1	8	106.000	1470 18 0
5055 III26 V4A	26 x 1.2	8	204.500	1470 27 0
5055 LI12 V4A	12 x 0.75	8	59.000	1471 12 6
5055 LII17 V4A	17 x 0.75	8	84.200	1471 17 7
5055 LIII26 V4A	26 x 1	8	172.300	1471 26 6

V4A Stainless steel, grade 316 Ti

/pc.

Perforated steel strap, in practical uncoiling box.



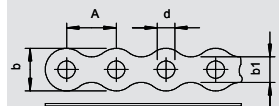
Perforated steel strap, ridged, V4A

Type	Dimension mm	Per roll m	Weight kg/100 pcs.	Item No.
5062 I12 V4A	12 x 1	8	69.000	1475 13 2
5062 II17 V4A	17 x 1	8	98.500	1475 18 3
5062 III26 V4A	26 x 1.2	8	183.000	1475 27 2
5062 LI12 V4A	12 x 0.75	8	57.000	1475 62 8
5062 LII17 V4A	17 x 0.75	8	73.000	1475 67 9
5062 LIII26 V4A	26 x 1	8	153.000	1475 76 8

V4A Stainless steel, grade 316 Ti

/pc.

Perforated strap with wavy edges, in practical uncoiling box.



Fire protection cover, waterproof



Type	Dimension	Pack.	Weight	Item No.
		pcs	kg/100 pcs.	
FSB-WB	1100x20000	1	2,200.000	7203 16 0

/pc.

Waterproof fire protection jacketing made of flexible mesh with fire protection coating to prevent fire spreading via cables and cable support systems. External side grey, internal side red. One roll contains 22 m².



Ribbon clip

Type	Dimension B	Dimension L	Pack.	Weight	Item No.
	mm	mm	pcs	kg/100 pcs.	
MBS 015	7	150	100	0.230	7203 10 0
MBS 030	7	300	100	0.399	7203 10 2
MBS 045	7	450	50	0.602	7203 10 4
MBS 061	7	610	50	0.806	7203 10 6
MBS 075	12	750	25	2.300	7203 10 8
MBS 100	12	1,000	25	3.000	7203 11 0
MBS 120	12	1,200	25	3.600	7203 11 2
MBS 150	12	1,500	25	4.400	7203 11 4

V2A Stainless steel, grade 304

/1000 pc.

Metal ribbon clip in ladder form with single lock, 7 mm wide in various fixed lengths. For high-temperature and weatherproof fixing.



Spring chuck

Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
MBS-Z	1	55.500	7203 12 0

St Steel

/pc.

High-quality spring chuck with cutting tool for metal strip clips, type MBS.



Tightening strap

Type	Dimension B	Dimension L	Pack.	Weight	Item No.
	mm	mm	pcs	kg/100 pcs.	
FSB-SB	15	50,000	1	110.000	7203 13 0

St Steel

/pc.

Roll of lightweight, galvanised tightening strap, for universal fastening.



Tightening strap lock

Type	Dimension B	Dimension H	Dimension t	Pack.	Weight	Item No.
	mm	mm	mm	pcs	kg/100 pcs.	
FSB-SV	24	26	0.9	50	0.340	7203 13 2

St Steel

/1000 pc.

Tightening strap lock with buckle, for simple fixing of the tightening straps FSB-SB.



Equipotential bonding systems

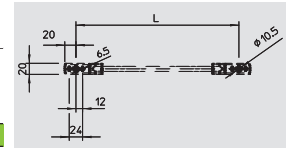


Bridging cable

Type	Dimension L mm	Pack. pcs	Weight kg/100 pcs.	Item No.
853 300	300	100	7.260	5331 01 3

Cu Copper **Al** Aluminium /1000 pc.

- From flexible copper cable 16 mm²
- Coating: black, chlorinated india rubber mixture
- With 1 mounting hole Ø 10.5 mm per attachment side
- With 2 mounting holes Ø 7.3 mm per attachment side
- For applications outside or inside suitable

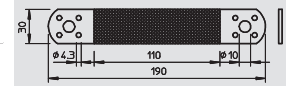


Attaching and expansion strip

Type	Pack. pcs	Weight kg/100 pcs.	Item No.
856	10	8.125	5331 50 1

Cu Copper /1000 pc.

- Copper strip 35 mm², tin-plated
- Highly-flexible with rigid ends
- Each end with mounting hole Ø 10 mm and 4 mounting holes Ø 4.3 mm

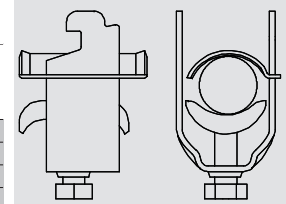


Cable clip, screen connection

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.
2056N SAS 8 VA	4-8	20	12	28	M6	1.5	30	32.5	100	2.900	1167 00 6
2056N SAS 12 VA	8-12	20	16	34	M6	1.5	34	34	100	3.700	1167 01 4
2056N SAS 16 VA	12-16	20	20	34	M6	1.5	38	34	100	4.200	1167 02 2
2056N SAS 22 VA	16-22	20	27	34	M6	1.5	44	34	100	4.850	1167 03 0
2056N SAS 28 VA	22-28	20	33	34	M6	2	51	34	100	6.600	1167 04 9

V2A Stainless steel, grade 304 /1000 pc.

For electrical connection of the braided shield of stripped cables.
Delivery complete with counter-trough; pressure trough and VA counter-trough.
A cable screen for protection against electromagnetic influences, can also contribute towards equipotential bonding as both ends are connected to the reference potential.







Systems for the tower base

	Cable tray systems	Side height 35 mm Side height 60 mm	84 84
	Mesh cable tray systems	Mesh cable tray, GR-Magic®	86
	Mounting systems	Wall and support brackets U support Chuck jaw	88 89 89
	Pipe systems	Quick pipe Stainless steel pipe Aluminium pipe	94 95 96
	Cable and pipe fastening systems, plastic	Quick clip starQuick clip starQuick nut	98 98 98
	Cable and pipe fastening systems, metal	Cable and pipe spacer clip Fastening clip	99 100
	Junction box systems	T series B9/T junction box	103 104
	Cable gland systems	Cable gland, metric thread Screw plug, metric thread Locknut, metric thread	107 109 110
	Support clamp systems	Support clamp Screw-in support clamp	112 113
	Cable and pipe fastening systems, special	Tightening strap Spring chuck	114 115
	Equipotential bonding systems	Equipotential bonding rail	116
	Surge protection energy technology	Combination arrestor Lightning current and surge arrestor Surge arrestor	118 119 121
	Surge protection device for data and information technology	High-speed networks 10 GBit MCR protector Medium and fine protection for two-core systems	124 124 126
	Wiring trunking systems, System Dahl	Hat profile rail LK4 wiring trunking LKV DIN wiring trunking	127 127 128
	Clamp clip systems	Clamp clip, screen connection Clamp clip, fastening earthing strips Profile rail, slot 11 mm	130 130 131

Cable tray systems

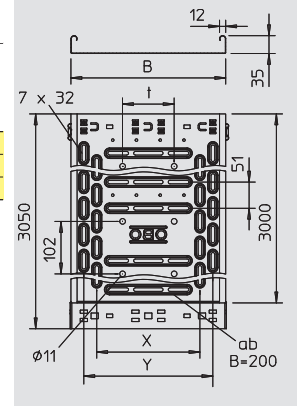


Cable tray RKS-Magic®

Type	Width	Plate thickness	Length	Useful cross-section	Dimension x	Dimension y	Dimension t	Weight	Item No.
	mm	mm	mm	cm ²	mm	mm	mm	kg/100 m	
RKSM 310 FS	100	0.75	3,050	33	—	50	—	106.700	6047 41 7
RKSM 320 FS	200	0.75	3,050	68	100	150	—	152.300	6047 43 3
RKSM 330 FS	300	0.75	3,050	103	200	250	100	213.300	6047 46 0

St Steel **FS** Strip-galvanised

RKSM 35 = Efficient magic cable tray system with 35 mm side height.
Magnetic shield insulation without cover 20 dB, with cover 50 dB.

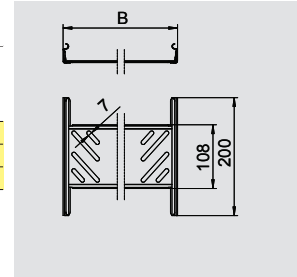


Magic straight connector set

Type	Side height	Width	Pack.	Weight	Item No.
	mm	mm	pcs	kg/100 pcs.	
KTSMV 310 FS	35	100	1	22.700	6068 90 0
KTSMV 320 FS	35	200	1	29.400	6068 90 2
KTSMV 330 FS	35	300	1	36.100	6068 90 4

St Steel **FS** Strip-galvanised

Cable tray connector with quick fastening for straight, screwless connection of cable trays and fittings with a side height of 35 mm.

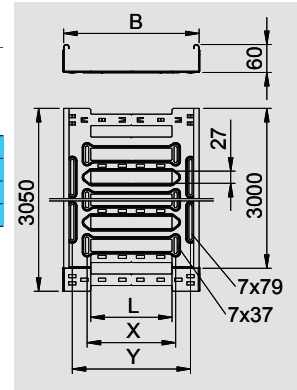


Cable tray MKS-Magic®

Type	Width	Plate thickness	Length	Useful cross-section	Dimension x	Dimension y	Dimension L	Weight	Item No.
	mm	mm	mm	cm ²	mm	mm	mm	kg/100 m	
MKSM 610 FT	100	1	3,050	58	—	62	30	183.000	6059 01 8
MKSM 615 FT	150	1	3,050	88	46	112	30	222.670	6059 02 0
MKSM 620 FT	200	1	3,050	118	96	162	80	243.340	6059 02 2
MKSM 630 FT	300	1	3,050	178	196	262	180	284.670	6059 02 5

St Steel **FT** Hot-dip galvanised

MKSM 60 = medium-duty Magic cable tray system with a side height of 60 mm.

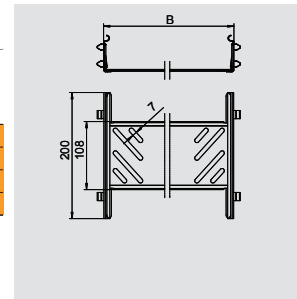


Magic straight connector set

Type	Side height	Width	Pack.	Weight	Item No.
	mm	mm	pcs	kg/100 pcs.	
KTSMV 610 DD	60	100	1	30.500	6068 93 6
KTSMV 615 DD	60	150	1	34.900	6068 93 8
KTSMV 620 DD	60	200	1	37.200	6068 94 0
KTSMV 630 DD	60	300	1	44.000	6068 94 2

St Steel **DD** Zinc-aluminium coated, double-dip

Cable tray connector with quick fastening for straight, screwless connection of cable trays and fittings with a side height of 60 mm.

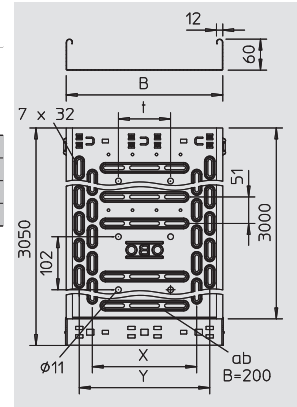


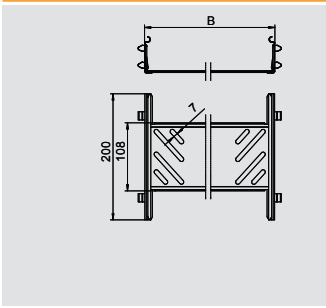
RKSM cable tray

Type	Width	Plate thickness	Length	Useful cross-section	Dimension x	Dimension y	Dimension t	Weight	Item No.
	mm	mm	mm	cm ²	mm	mm	mm	kg/100 m	
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

V2A Stainless steel, grade 304 **Stained**

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





Magic straight connector set



Type	Side height mm	Width mm	Pack.	Weight	Item No.
			pcs	kg/100 pcs.	
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



V2A Stainless steel, grade 304

/pc.

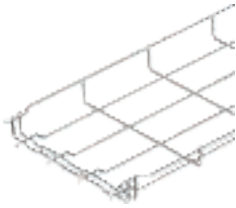
Cable tray connector with quick fastening for straight, screwless connection of cable trays and fittings with a side height of 60 mm.



Mesh cable tray systems



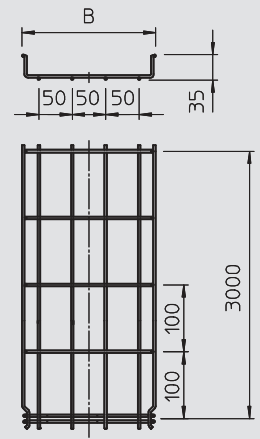
Mesh cable tray GR-Magic®



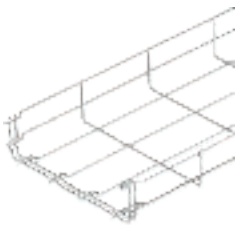
Type	Width	Wire Ø	Length	Useful cross-section	Weight	Item No.
	mm	mm	mm	cm ²	kg/100 m	
GRM 35 100 FT	100	3.9	3,000	35	50.400	6000 07 1
GRM 35 150 FT	150	3.9	3,000	52,5	64.500	6000 07 2
GRM 35 200 FT	200	3.9	3,000	70	78.600	6000 07 3
GRM 35 300 FT	300	4.8	3,000	105	162.700	6000 07 5

St Steel **FT** Hot-dip galvanised /m

Mesh cable tray with shaped connector of side height 35 mm.
Magnetic shield insulation without cover 15 dB, with cover 25 dB.



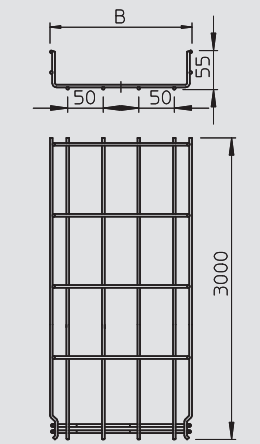
Mesh cable tray GR-Magic®



Type	Width	Wire Ø	Length	Useful cross-section	Weight	Item No.
	mm	mm	mm	cm ²	kg/100 m	
GRM 55 50 FT	50	3.9	3,000	16	70.000	6001 41 5
GRM 55 100 FT	100	3.9	3,000	40	71.330	6001 41 6
GRM 55 150 FT	150	3.9	3,000	63	90.000	6001 41 8
GRM 55 200 FT	200	3.9	3,000	87	103.500	6001 42 0
GRM 55 200 4.8FT	200	4.8	3,000	87	154.300	6001 42 1
GRM 55 300 FT	300	4.8	3,000	129	198.800	6001 42 4
GRM 55 400 FT	400	4.8	3,000	175	244.300	6001 42 8
GRM 55 500 FT	500	4.8	3,000	220	287.700	6001 43 2
GRM 55 600 FT	600	4.8	3,000	265	331.600	6001 43 6

St Steel **FT** Hot-dip galvanised /m

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



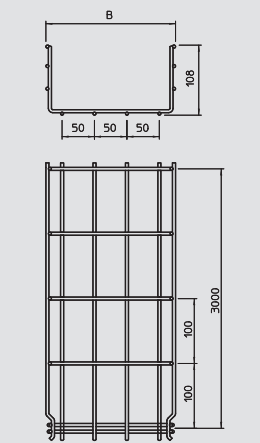
Mesh cable tray GR-Magic®



Type	Width	Wire Ø	Length	Useful cross-section	Weight	Item No.
	mm	mm	mm	cm ²	kg/100 m	
GRM 105 100 G	100	3.9	3,000	82	100.000	6002 40 2
GRM 105 150 G	150	3.9	3,000	130	110.600	6002 40 4
GRM 105 200 G	200	4.8	3,000	175	194.400	6002 40 6
GRM 105 300 G	300	4.8	3,000	268	236.700	6002 40 8
GRM 105 400 G	400	4.8	3,000	363	278.000	6002 41 0
GRM 105 500 G	500	4.8	3,000	459	319.000	6002 41 5
GRM 105 600 G	600	4.8	3,000	554	363.300	6002 41 7
GRM 105 100 FT	100	3.9	3,000	82	103.700	6002 43 1
GRM 105 150 FT	150	3.9	3,000	130	116.000	6002 43 3
GRM 105 200 FT	200	4.8	3,000	175	200.700	6002 43 5
GRM 105 300 FT	300	4.8	3,000	268	244.000	6002 43 7
GRM 105 400 FT	400	4.8	3,000	363	287.700	6002 43 9
GRM 105 500 FT	500	4.8	3,000	459	333.000	6002 44 3
GRM 105 600 FT	600	4.8	3,000	554	375.000	6002 44 5

St Steel **G** Electrogalvanised **FT** Hot-dip galvanised /m

Mesh cable tray with shaped connector of side height 105 mm.
Magnetic shield insulation without cover 15 dB, with cover 25 dB.

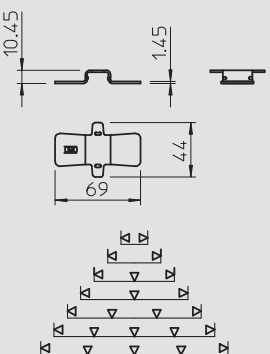


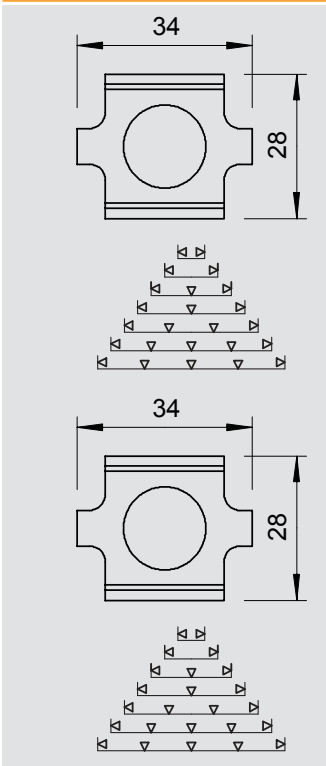
Quick connector

Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
GRS 3.9 DD	50	2.500	6016 54 5
GRS 4.4 DD	50	2.500	6016 55 3
GRS 4.8 DD	50	2.500	6016 56 1

St Steel **DD** Zinc-aluminium coated, double-dip /pc.

Quick connector for screwless straight connection of mesh cable trays without special tools.





Joint connector

Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
GSV 34 G	25	3.000	6016 59 6

St Steel **G** Electrogalvanised /pc.
Screwed version of joint connector for cable trays.



Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
GSV 34 FT	25	3.000	6016 63 4

St Steel **FT** Hot-dip galvanised /pc.
Screwed version of joint connector for mesh cable trays.



Mounting systems

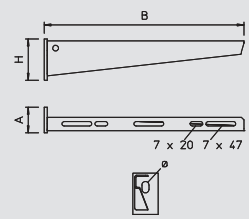


Wall and support bracket AW 15



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 11 FT	110	50	40	11	1.5	30	14.500	6420 65 6
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
AW 15 51 FT	510	75	40	11	1.5	20	72.000	6420 78 8
AW 15 56 FT	560	80	40	11	1.5	20	77.000	6420 79 6
AW 15 61 FT	610	80	40	11	1.5	20	85.000	6420 82 6

St Steel **FT** Hot-dip galvanised /pc.
Light-duty wall and support bracket with welded head plate.

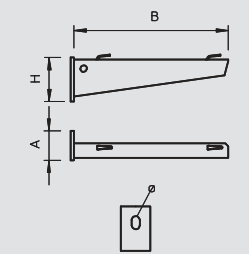


Wall and support bracket AWG 15



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.
AW G 15 11 FT	110	50	40	11	1.5	30	14.000	6420 60 6
AW G 15 16 FT	160	55	40	11	1.5	30	20.000	6420 60 7
AW G 15 21 FT	210	60	40	11	1.5	30	26.000	6420 60 8
AW G 15 31 FT	310	65	40	11	1.5	30	35.000	6420 61 0
AW G 15 41 FT	410	70	40	11	1.5	30	56.000	6420 61 2
AW G 15 51 FT	510	75	40	11	1.5	20	69.000	6420 61 4
AW G 15 61 FT	610	80	40	11	1.5	20	84.000	6420 61 6

St Steel **FT** Hot-dip galvanised /pc.
Light-duty wall and support bracket with welded head plate for screwless mesh cable tray fas-
tening.

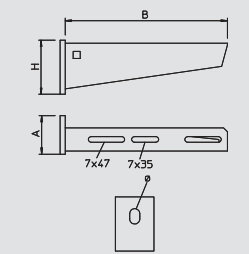


Wall and support bracket AW 30



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 11 FT	110	60	50	11	3	30	22.000	6419 70 4
AW 30 16 FT	160	65	50	11	3	30	34.000	6419 71 2
AW 30 21 FT	210	70	50	13	3	25	42.000	6419 72 0
AW 30 31 FT	310	80	50	13	3	25	63.000	6419 74 7
AW 30 41 FT	410	80	50	13	3	20	89.000	6419 76 3
AW 30 51 FT	510	90	50	13	3	10	132.500	6419 79 8
AW 30 56 FT	560	100	50	13	3	10	185.000	6419 84 4
AW 30 61 FT	610	100	50	13	3	10	158.000	6419 82 8
AW 30 71 FT	710	100	50	13	3	1	214.000	6419 83 6

St Steel **FT** Hot-dip galvanised /pc.
Medium-duty wall and support bracket with welded head plate.

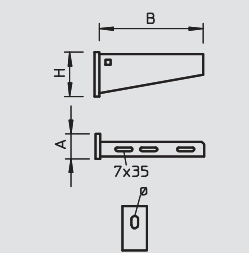


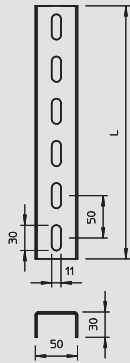
Wall and support bracket AW 55



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 55 21 FT	210	90	50	13.5	5.5	1	77.000	6418 55 4
AW 55 31 FT	310	110	50	13.5	5.5	1	123.000	6418 57 0
AW 55 41 FT	410	130	50	13.5	5.5	1	167.000	6418 59 7
AW 55 51 FT	510	145	60	13.5	5.5	1	249.000	6418 61 9
AW 55 56 FT	560	165	60	13.5	5.5	1	282.000	6418 62 7
AW 55 61 FT	610	165	60	13.5	5.5	1	305.000	6418 63 5
AW 55 71 FT	710	195	60	13.5	5.5	1	418.000	6418 65 1
AW 55 81 FT	810	195	60	13.5	5.5	1	477.000	6418 68 6
AW 55 91 FT	910	215	60	13.5	5.5	1	558.000	6418 70 8
AW 55 101 FT	1,010	230	60	13.5	5.5	1	640.000	6418 72 4

St Steel **FT** Hot-dip galvanised /pc.
Heavy-duty wall and support bracket with welded head plate.





US 3 support

Type	Length mm	Material thickness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
US 3 30 FS	300	2	4	40.000	6342 30 4
US 3 40 FS	400	2	4	53.000	6342 30 6
US 3 50 FS	500	2	4	67.000	6342 30 8
US 3 60 FS	600	2	4	80.000	6342 31 0
US 3 70 FS	700	2	4	93.000	6342 31 2
US 3 80 FS	800	2	4	107.000	6342 31 4
US 3 90 FS	900	2	4	120.000	6342 31 6
US 3 100 FS	1,000	2	4	133.000	6342 31 8
US 3 150 FS	1,500	2	1	200.000	6342 32 8
US 3 200 FS	2,000	2	1	266.000	6342 33 8
US 3 600 FS	6,000	2	1	798.000	6342 34 5
US 3 600 FT	6,000	2	4	834.000	6342 45 0

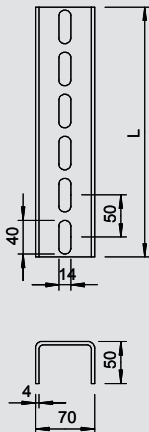
St Steel FS Strip-galvanised FT Hot-dip galvanised /pc.
U support in fixed lengths. Dimensions 30 x 50 mm.



US 5 support

Type	Length mm	Material thickness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
US 5 30 FT	300	2.5	4	79.000	6340 90 3
US 5 40 FT	400	2.5	4	106.000	6340 91 1
US 5 50 FT	500	2.5	4	133.000	6340 93 8
US 5 60 FT	600	2.5	4	160.000	6340 94 6
US 5 70 FT	700	2.5	4	175.000	6340 95 0
US 5 80 FT	800	2.5	4	200.000	6340 95 4
US 5 90 FT	900	2.5	4	227.000	6340 95 8
US 5 100 FT	1,000	2.5	4	265.000	6340 96 2
US 5 150 FT	1,500	2.5	1	395.000	6340 96 6
US 5 200 FT	2,000	2.5	1	506.000	6340 97 0
US 5 300 FT	3,000	2.5	1	795.000	6340 98 9
US 5 600 FT	6,000	2.5	1	1,578.000	6340 99 7

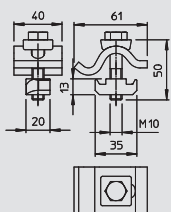
St Steel FT Hot-dip galvanised /pc.
U support in fixed lengths. Dimensions 50 x 50 mm.



US 7 support

Type	Length mm	Material thickness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
US 7 30 FT	300	4	4	121.000	6340 03 2
US 7 40 FT	400	4	4	161.000	6340 05 9
US 7 50 FT	500	4	4	202.000	6340 07 5
US 7 60 FT	600	4	4	242.000	6340 09 1
US 7 70 FT	700	4	4	283.000	6340 11 3
US 7 80 FT	800	4	4	323.000	6340 14 8
US 7 90 FT	900	4	2	363.000	6340 16 4
US 7 100 FT	1,000	4	2	404.000	6340 18 0
US 7 110 FT	1,100	4	1	444.000	6340 19 9
US 7 120 FT	1,200	4	1	484.000	6340 20 2
US 7 130 FT	1,300	4	1	525.000	6340 21 0
US 7 140 FT	1,400	4	1	565.000	6340 22 9
US 7 150 FT	1,500	4	2	606.000	6340 23 7
US 7 160 FT	1,600	4	1	646.000	6340 24 5
US 7 170 FT	1,700	4	1	686.000	6340 25 3
US 7 180 FT	1,800	4	1	727.000	6340 26 1
US 7 190 FT	1,900	4	1	767.000	6340 28 8
US 7 200 FT	2,000	4	2	807.000	6340 29 6
US 7 300 FT	3,000	4	1	1,211.000	6340 37 7
US 7 400 FT	4,000	4	1	1,615.000	6340 39 3
US 7 600 FT	6,000	4	1	2,422.000	6340 31 8

St Steel FT Hot-dip galvanised /pc.
U support in fixed lengths. Dimensions 70 x 50 mm.



Chuck jaw, light-duty

Type	Height mm	F in kN kN	Pack. pair	Weight kg/100 pairs	Item No.

St Steel FT Hot-dip galvanised /pair
Light-duty tensioning claw with slide nut for fixing mounting rails to steel girder flanges.



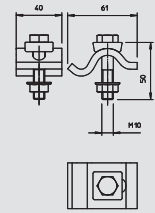
Mounting systems



Chuck jaw, light-duty

Type	Height mm	F in kN kN	Pack. pair	Weight kg/100 pairs	Item No.
TKS-L-25 FT	25	10	10	39.000	6355 80 8

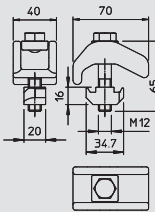
St Steel **FT** Hot-dip galvanised /pair
Chuck jaw with hexagonal nut for direct fastening of structures to steel girders.



Chuck jaw, heavy-duty

Type	Height mm	F in kN kN	Pack. pair	Weight kg/100 pairs	Item No.
TKH-S-30 FT	30	21	10	81.000	6355 80 4

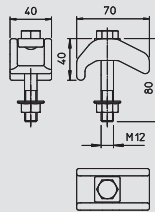
St Steel **FT** Hot-dip galvanised /pair
Heavy-duty chuck jaw with slide nut for fastening profile rails to steel girders.



Chuck jaw, heavy-duty

Type	Height mm	F in kN kN	Pack. pair	Weight kg/100 pairs	Item No.
TKS-S-30 FT	30	21	10	82.000	6355 80 0

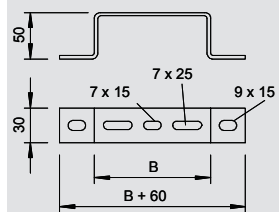
St Steel **FT** Hot-dip galvanised /pair
Heavy-duty chuck jaw with hexagonal nut for direct fastening of structures to steel girders.



Spacer clamp

Type	Dimension B mm	Pack. pcs	Weight kg/100 pcs.	Item No.
DBL 50 100 FT	100	20	16.000	6015 56 5
DBL 50 150 FT	150	20	19.500	6015 57 3
DBL 50 200 FT	200	20	23.000	6015 58 1
DBL 50 300 FT	300	20	38.250	6015 60 3
DBL 50 400 FT	400	20	47.700	6015 61 1
DBL 50 500 FT	500	25	62.600	6015 61 4
DBL 50 600 FT	600	20	73.100	6015 61 7

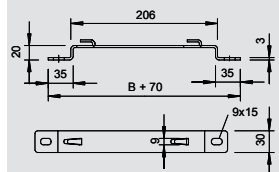
St Steel **FT** Hot-dip galvanised /pc.
Stand-off bracket for cable trays and mesh cable trays.



Spacer clamp

Type	Dimension B mm	Pack. pcs	Weight kg/100 pcs.	Item No.
DBLG 20 050 FT	50	20	10.700	6015 64 8
DBLG 20 100 FT	100	20	14.300	6015 65 6
DBLG 20 150 FT	150	20	18.100	6015 66 0
DBLG 20 200 FT	200	20	21.700	6015 66 4
DBLG 20 300 FT	300	20	38.800	6015 67 2
DBLG 20 400 FT	400	20	48.600	6015 69 1
DBLG 20 500 FT	500	25	59.200	6015 69 5
DBLG 20 600 FT	600	25	69.100	6015 69 9

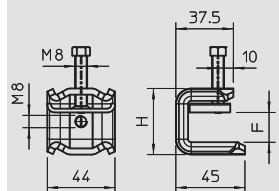
St Steel **FT** Hot-dip galvanised /pc.
Stand-off bracket for stand-off of mesh cable trays on the floor or on the wall.



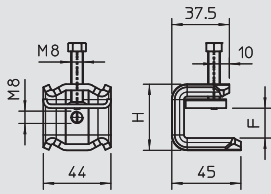
Support clamp

Type	Dimension H mm	Dimension B mm	Dimension L mm	For threaded rod	Flange thickness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
SPP 6-21 FT	43	44	45	M8	6-21	50	17.700	1486 25 0

St Steel **FT** Hot-dip galvanised /1000 pc.
This type of support clamp is pushed onto the support and fixed to the girder or flat iron using a pressure trough and bolt (M8). The hexagonal bolt has a WAF of 10 mm and is tightened using the appropriate tool. If necessary, the double nipple, type 3100 M8, or an M8 threaded rod can be used on the clip element.



Support clamp



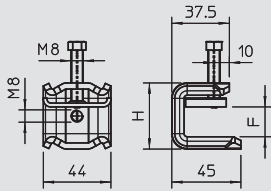
Type	Dimension H mm	Dimension B mm	Dimension L mm	For threaded rod mm	Flange thickness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
SPP 6-21 V4A	43	44	45	M8	6-21	50	18.200	1486 25 8

V4A Stainless steel, grade 316 L /1000 pc.

This type of support clamp is pushed onto the support and fixed to the girder or flat iron using a pressure trough and bolt (M8). The hexagonal bolt has a WAF of 10 mm and is tightened using the appropriate tool. If necessary, the double nipple, type 3100 M8, or an M8 threaded rod can be used on the clip element.



Support clamp



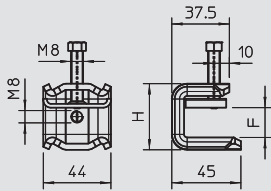
Type	Dimension H mm	Dimension B mm	Dimension L mm	For threaded rod mm	Flange thickness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
SPP 20-40 FT	63	44	45	M8	20-40	50	20.500	1486 27 0

St Steel **FT** Hot-dip galvanised /1000 pc.

This type of support clamp is pushed onto the support and fixed to the girder or flat iron using a pressure trough and bolt (M8). The hexagonal bolt has a WAF of 10 mm and is tightened using the appropriate tool. If necessary, the double nipple, type 3100 M8, or an M8 threaded rod can be used on the clip element.



Support clamp



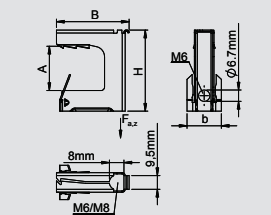
Type	Dimension H mm	Dimension B mm	Dimension L mm	For threaded rod mm	Flange thickness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
SPP 20-40 V4A	63	44	45	M8	20-40	50	21.200	1486 27 8

V4A Stainless steel, grade 316 L /1000 pc.

This type of support clamp is pushed onto the support and fixed to the girder or flat iron using a pressure trough and bolt (M8). The hexagonal bolt has a WAF of 10 mm and is tightened using the appropriate tool. If necessary, the double nipple, type 3100 M8, or an M8 threaded rod can be used on the clip element.



Support clamp, multifunctional



Type	Breaking load kN	Dimension B mm	Dimension H mm	Flange thickness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
TK MULTI 8	1.2	30	30	2-8	100	0.100	1485 14 0
TK MULTI 16	1.2	32	38	8-16	100	0.120	1485 14 4
TK MULTI 24	1.2	42	48	16-24	50	0.170	1485 14 8

St Steel **ZDM** Galvanised, MAGNI 565 /1000 pc.

Different fastening options are possible, meaning one clip for any application.

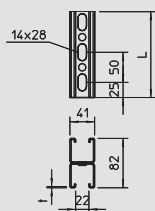
- Multifunctional sprung steel clamp for steel girders
- Unifies the application of multiple products, e.g. S-hooks, wire cable, threaded rod (M6 or M8), cable tie
- For static loads, usable once, immovable
- No welding, no drilling, knocking in or attachment by hand
- Efficient and quick
- For fastening of cables, protection pipes, cable sections, etc.
- High load capacity (tested by CSTB - FR)
- Also suitable for outdoor use
- Material: hardened steel, Magni-coated surface (600-hour corrosion resistance)
- Incl. ICP threaded plate for wood screws of 4.0 to 4.5 mm

Properties:

- Opening for cable tie/strap of up to 9 mm width, M6-M8 threaded rod, wire cable etc.
- 6.7 mm hole diameter for M6 threaded rod, S-hook, acoustic ceiling hook etc.
- ICP clip for fastening with wood screws, diameter 4.0 - 4.5 mm



Mounting rail, MS 41, double version



Type	Version	Interface	Dimension b x h mm	Material thickness mm	Length mm	Pack. m	Weight kg/100 m	Item No.
MS 41D L 3M 2 FS	Perforated	FS	41x82	2	2,000	1	402.200	1122 67 6
MS 41D L 6M 2 FS	Perforated	FS	41x82	2	6,000	1	402.200	1122 67 8

St Steel **FS** Strip-galvanised price/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 (clinched).



Mounting systems

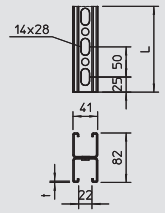
Mounting rail, MS 41, double version



Type	Version	Dimension b x h mm	Material thickness mm	Length mm	Pack. m	Weight kg/100 m	Item No.
MS 41D L 3M 2 FT	Perforated	41x82	2	2,000	1	402.200	1122 67 1
MS 41D L 6M 2 FT	Perforated	41x82	2	6,000	1	402.200	1122 67 3

St Steel **FT** Hot-dip galvanised price/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 (clinched).



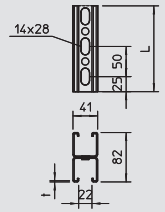
Mounting rail, MS 41, double version, V2A



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	402.200	1122 68 2
MS 41 D L6M 2V2A	Perforated	41x82	2	6,000	1	402.200	1122 68 4

V2A Stainless steel, grade 304 price/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).



Rail connector SV with 3 holes



Type	Version	Dimension b x h mm	Material thickness mm	Length mm	Pack. pcs	Weight kg/100 pcs.	Item No.
SVE 41 G	Perforated	47x39,4	4	100	10	42.000	1123 12 4
SVE 41 FT	Perforated	47x39,4	4	100	10	42.000	1123 12 1

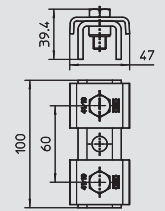
St Steel **G** Electrogalvanised **FT** Hot-dip galvanised /1000 pc.

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.



Rail connector SV with 3 holes, V2A



Type	Version	Dimension b x h mm	Material thickness mm	Length mm	Pack. pcs	Weight kg/100 pcs.	Item No.
SVE 41 V2A	Perforated	47x39,4	4	100	10	42.000	1123 12 6

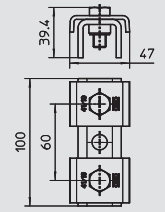
V2A Stainless steel, grade 304 /1000 pc.

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.



Rail connector SV with 3 holes, V4A



Type	Version	Dimension b x h mm	Material thickness mm	Length mm	Pack. pcs	Weight kg/100 pcs.	Item No.
SVE 41 V4A	Perforated	47x39,4	4	100	10	42.000	1123 12 8

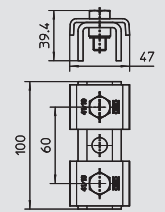
V4A Stainless steel, grade 316 Ti /1000 pc.

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.



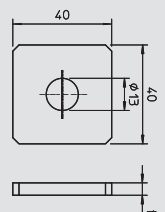
Connection plate with 1 hole V2A

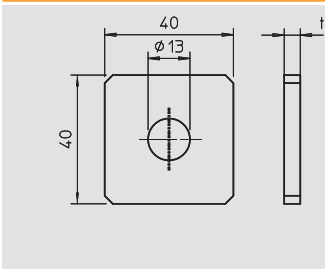


Type	Version	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
GMS 1 VP V2A	With continuous perforation	13 mm	150	4.450	1124 68 3

V2A Stainless steel, grade 304 /1000 pc.

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

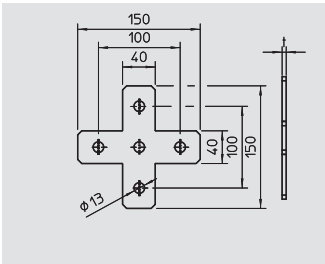




Connection plate with 1 hole V4A

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

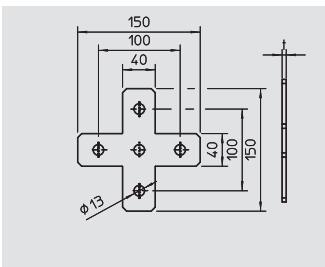
V4A Stainless steel, grade 316 Ti /1000 pc.
 Connection plate with lengthwise slot, for example for mounting threaded rods to profile rails 41 x 41 mm and 41 x 21 mm.



Connection plate, X-shaped, V2A

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

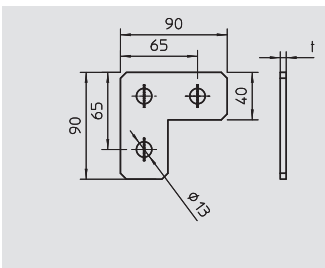
V2A Stainless steel, grade 304 /1000 pc.
 Connection plate with five holes for cross connection of profile rails 41 x 41 mm and 41 x 21 mm.



Connection plate, X-shaped, V4A

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

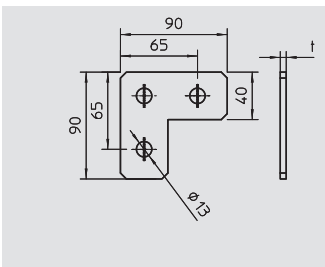
V4A Stainless steel, grade 316 Ti /1000 pc.
 Connection plate with five holes for cross connection of profile rails 41 x 41 mm and 41 x 21 mm.



Connection plate, L-shaped V2A

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

V2A Stainless steel, grade 304 /1000 pc.
 Connection plate with three holes for angled connection of profile rails 41 x 41 mm and 41 x 21 mm.



Connection plate, L-shaped V4A

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

V4A Stainless steel, grade 316 Ti /1000 pc.
 Connection plate with three holes for angled connection of profile rails 41 x 41 mm and 41 x 21 mm.



Pipe systems



Quick pipe

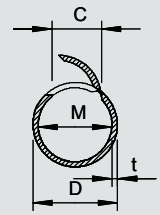
Type	Size	Colour	Length mm	Pack. m	Weight kg/100 m	Item No.
2953 M16 LGR	M16	Light grey	2,000	50	7.000	2153 90 4
2953 M20 LGR	M20	Light grey	2,000	40	11.500	2153 91 2
2953 M25 LGR	M25	Light grey	2,000	30	16.000	2153 92 0
2953 M32 LGR	M32	Light grey	2,000	20	21.500	2153 93 9

PVC Polyvinylchloride

price/100 m

Smallest shipped quantity is shipping box.

The Quick pipe combines the advantages of a cable duct and an installation pipe into an intelligent system. It allows tidy and safe surface-mounted installation of all kinds of cables – even in a pipe. Quick pipe is available in four metric sizes: M16, M20, M25 and M32. The stock length is 2 m. The system is VDE-tested and achieves a protection rating of IP44. The fittings are a component part of the system.



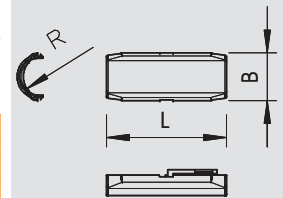
Connection sleeve

Type	Size	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
2953 M M16 LGR	M16	Light grey	150	10	0.910	2153 82 9
2953 M M20 LGR	M20	Light grey	100	10	1.020	2153 83 1
2953 M M25 LGR	M25	Light grey	120	10	1.130	2153 83 3
2953 M M32 LGR	M32	Light grey	100	10	1.250	2153 83 5

PVC Polyvinylchloride

/pc.

Connection sleeves are tested to VDE 0604 (system consists of: Quick pipe + fittings + 2955 F/...).



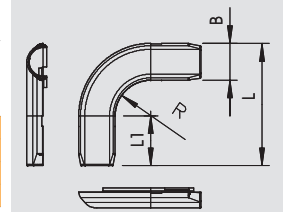
90° bends

Type	Size	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
2953 B M16 LGR	M16	Light grey	60	5	1.810	2153 86 4
2953 B M20 LGR	M20	Light grey	50	5	1.900	2153 86 6
2953 B M25 LGR	M25	Light grey	50	5	2.020	2153 86 8
2953 B M32 LGR	M32	Light grey	60	5	2.140	2153 87 0

PVC Polyvinylchloride

/pc.

90° bends are tested to VDE 0604 (system consists of: Quick pipe + fittings + 2955 F/...).



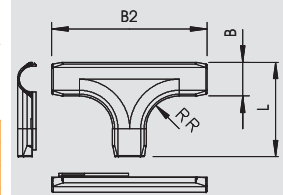
T piece

Type	Size	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
2953 T M16 LGR	M16	Light grey	60	5	2.210	2153 87 2
2953 T M20 LGR	M20	Light grey	50	5	2.320	2153 87 4
2953 T M25 LGR	M25	Light grey	50	5	2.440	2153 87 6
2953 T M32 LGR	M32	Light grey	50	5	2.560	2153 87 8

PVC Polyvinylchloride

/pc.

T pieces are tested to VDE 0604 (system consists of: Quick pipe + fittings + 2955 F/...).



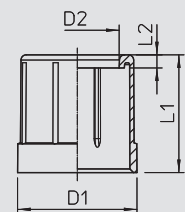
Stapa pipe end bush

Type	Size	Colour	Dimen- sion D1 mm	Dimen- sion D2 mm	Dimen- sion L1 mm	Dimen- sion L2 mm	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
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

/1000 pc.

Cable protection sleeve for attachment on electrical installation pipes.



Stainless steel pipe, V2A



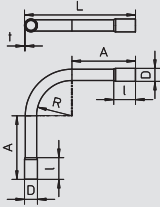
Type	Dimension M	Dimension L	Dimension t	Pack.	Weight	Item No.
		mm	mm	m	kg/100 m	
S16 W V2A	M16	3,000	1	30	36.700	2046 72 0
S20 W V2A	M20	3,000	1	30	46.700	2046 72 1
S25 W V2A	M25	3,000	1	30	60.000	2046 72 2
S32 W V2A	M32	3,000	1.2	21	93.400	2046 72 3
S40 W V2A	M40	3,000	1.2	15	116.700	2046 72 4
S50 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 Brushed price/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

Stainless steel pipe bend, V2A

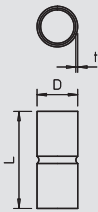


Type	Dimension M	Dimension L	Dimension t	Dimension R	Pack.	Weight	Item No.
		mm	mm	mm	pcs	kg/100 pcs.	
SB16 W V2A	M16	153	1	46	15	10.000	2046 73 0
SB20 W V2A	M20	183	1	67	25	10.000	2046 73 1
SB25 W V2A	M25	208	1	82	25	20.000	2046 73 2
SB32 W V2A	M32	258	1.2	120	20	30.000	2046 73 3
SB40 W V2A	M40	276	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 /1000 pc.
 Accessory part: 90° bend with moulded sleeves, for electrical installation pipes according to EN 61386-1. With burr-free inner wall.



Stainless steel pipe connection sleeve, V2A

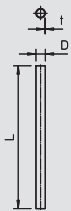


Type	Dimension M	Dimension L	Dimension D	Dimension t	Pack.	Weight	Item No.
		mm	mm	mm	pcs	kg/100 pcs.	
SV16 W V2A	M16	45	18.2	1.6	25	2.000	2046 74 0
SV20 W V2A	M20	50	22.2	1.6	50	2.000	2046 74 1
SV25 W V2A	M25	60	27.2	1.6	50	4.000	2046 74 2
SV32 W V2A	M32	70	34.6	1.8	50	10.000	2046 74 3
SV40 W V2A	M40	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 /1000 pc.
 Accessory part: plug-in sleeve for the connections between electrical installation pipes. With burr-free inner wall.



Stainless steel pipe, V4A



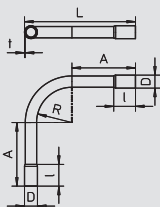
Type	Dimension M	Dimension L	Dimension t	Pack.	Weight	Item No.
		mm	mm	m	kg/100 m	
S16 W V4A	M16	3,000	1	15	36.700	2046 75 0
S20 W V4A	M20	3,000	1	15	46.700	2046 75 1
S25 W V4A	M25	3,000	1	15	60.000	2046 75 2
S32 W V4A	M32	3,000	1.2	15	93.400	2046 75 3
S40 W V4A	M40	3,000	1.2	9	116.700	2046 75 4
S50 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 Brushed price/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

Stainless steel pipe bend, V4A



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 /1000 pc.
 Accessory part: 90° bend with moulded sleeves, for electrical installation pipes according to EN 61386-1. With burr-free inner wall.



Systems for the tower base

Pipe systems

Stainless steel pipe connection sleeve, V4A

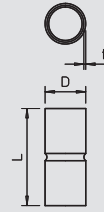


Type	Dimension M	Dimension L	Dimension D	Dimension t	Pack.	Weight	Item No.
	mm	mm	mm	mm	pcs	kg/100 pcs.	
SV16 W V4A	M16	45	18.2	1.6	10	2.000	2046 77 0
SV20 W V4A	M20	50	22.2	1.6	15	2.000	2046 77 1
SV25 W V4A	M25	60	27.2	1.6	15	4.000	2046 77 2
SV32 W V4A	M32	70	34.6	1.8	15	10.000	2046 77 3
SV40 W V4A	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

/1000 pc.

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



Aluminium pipe, without thread



Type	Dimension M	Dimension L	Dimension t	Pack.	Weight	Item No.
	mm	mm	mm	m	kg/100 m	
S16 W ALU	M16	3,000	1.2	30	15.000	2046 00 2
S20 W ALU	M20	3,000	1.2	30	19.000	2046 00 3
S25 W ALU	M25	3,000	1.3	30	26.000	2046 00 4
S32 W ALU	M32	3,000	1.3	30	34.000	2046 00 5
S40 W ALU	M40	3,000	1.4	15	45.700	2046 00 6
S50 W ALU	M50	3,000	1.4	15	57.700	2046 00 7
S63 W ALU	M63	3,000	1.7	15	83.400	2046 00 8

Al Aluminium

price/100 m

Electrical installation pipe without threaded ends to EN 61386-1 for mechanical protection of cables. With burr-free inner wall.



4 | 4 | 5 | 6 | 1

Aluminium pipe bend, without thread

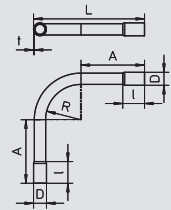


Type	Dimension M	Dimension L	Dimension t	Dimension R	Pack.	Weight	Item No.
	mm	mm	mm	mm	pcs	kg/100 pcs.	
SB16 W ALU	M16	151	1.2	56	15	4.000	2046 01 2
SB20 W ALU	M20	171	1.2	70	25	6.000	2046 01 3
SB25 W ALU	M25	209	1.3	90	25	9.000	2046 01 4
SB32 W ALU	M32	253	1.3	115	20	12.000	2046 01 5
SB40 W ALU	M40	302	1.4	145	15	20.000	2046 01 6
SB50 W ALU	M50	360	1.4	180	5	31.000	2046 01 7
SB63 W ALU	M63	425	1.7	225	3	45.000	2046 01 8

Al Aluminium

/1000 pc.

Accessory part: 90° bend with moulded sleeves, for electrical installation pipes according to EN 61386-1. With burr-free inner wall.



Aluminium pipe connection sleeve, without thread

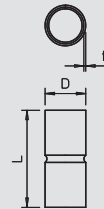


Type	Dimension M	Dimension L	Dimension D	Dimension t	Pack.	Weight	Item No.
	mm	mm	mm	mm	pcs	kg/100 pcs.	
SV16 W ALU	16	40	16.2	1.2	50	1.000	2046 02 2
SV20 W ALU	20	50	20.2	1.2	50	1.000	2046 02 3
SV25 W ALU	25	60	25.2	1.2	50	2.000	2046 02 4
SV32 W ALU	32	70	32.2	1.2	50	2.000	2046 02 5
SV40 W ALU	40	70	40.2	1.4	20	3.000	2046 02 6
SV50 W ALU	50	90	50.2	1.4	20	5.000	2046 02 7
SV63 W ALU	63	110	63.2	1.5	20	9.000	2046 02 8

Al Aluminium

/1000 pc.

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



Aluminium pipe, with thread

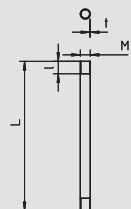


Type	Dimension M	Dimension L	Dimension t	Pack.	Weight	Item No.
	mm	mm	mm	m	kg/100 m	
SM16 W ALU	M16	3,000	1.6	30	20.000	2046 03 2
SM20 W ALU	M20	3,000	1.9	30	30.000	2046 03 3
SM25 W ALU	M25	3,000	1.9	30	36.700	2046 03 4
SM32 W ALU	M32	3,000	1.9	30	50.000	2046 03 5
SM40 W ALU	M40	3,000	1.9	15	60.000	2046 03 6
SM50 W ALU	M50	3,000	2.1	15	86.700	2046 03 7
SM63 W ALU	M63	3,000	2.1	15	110.000	2046 03 8

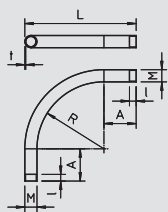
Al Aluminium

price/100 m

Electrical installation pipe to EN 61386-1 with threaded ends to DIN EN 60423 for mechanical protection of cables. With burr-free inner wall. One connection sleeve is already screwed onto each pipe.



5 | 5 | 5 | 6 | 1



Aluminium pipe bend, with thread

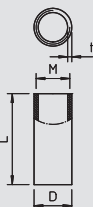
Type	Dimension M	Dimension L	Dimension t	Dimension R	Pack.	Weight	Item No.
		mm	mm	mm	pcs	kg/100 pcs.	
SBM16 W ALU	M16	150	1.6	56	15	4.000	2046 04 2
SBM20 W ALU	M20	170	1.9	70	25	7.000	2046 04 3
SBM25 W ALU	M25	208	1.9	90	25	10.000	2046 04 4
SBM32 W ALU	M32	252	1.9	115	20	15.000	2046 04 5
SBM40 W ALU	M40	300	1.9	145	15	23.000	2046 04 6
SBM50 W ALU	M50	358	2.1	180	5	37.000	2046 04 7
SBM63 W ALU	M63	423	2.1	225	3	59.000	2046 04 8



Al Aluminium /1000 pc.

Accessory part: 90° bend for electrical installation pipes according to EN 61386-1 with threaded ends to DIN EN 60423. With burr-free inner wall.

One connection sleeve is already screwed onto each pipe bend.



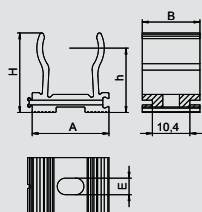
Aluminium pipe connection sleeve, with thread

Type	Dimension M	Dimension L	Dimension D	Dimension t	Pack.	Weight	Item No.
		mm	mm	mm	pcs	kg/100 pcs.	
SVM16 W ALU	M16	35	18.5	2.25	50	1.000	2046 05 2
SVM20 W ALU	M20	35	22.5	2.25	50	1.000	2046 05 3
SVM25 W ALU	M25	45	28	2.5	50	2.000	2046 05 4
SVM32 W ALU	M32	45	35	2.5	50	3.000	2046 05 5
SVM40 W ALU	M40	45	43.5	2.75	20	4.000	2046 05 6
SVM50 W ALU	M50	55	53.5	2.75	20	6.000	2046 05 7
SVM63 W ALU	M63	55	66.5	2.8	20	7.000	2046 05 8



Al Aluminium /1000 pc.

Accessory part: Pipe connection sleeve with thread to DIN EN 60423 to connect electrical installation pipes and 90° bends. With burr-free inner wall.



Quick clip, aluminium

Type	Nominal size	Shipping box	Pack.	Weight	Item No.
		pcs	pcs	kg/100 pcs.	
2029 M16 ALU	M16	1,200	100	0.560	2149 85 0
2029 M20 ALU	M20	1,200	100	0.654	2149 85 4
2029 M25 ALU	M25	100	100	0.930	2149 85 8
2029 M32 ALU	M32	600	50	1.100	2149 86 2
2029 M40 ALU	M40	50	50	1.730	2149 86 6
2029 M50 ALU	M50	300	25	2.090	2149 87 0
2029 M63 ALU	M63	20	20	2.920	2149 87 4



Al Aluminium /1000 pc.

OBO Quick clip, type 2029/... for all metric ALU pipe systems, as well as light-duty and heavy-duty metric insulation pipes. Suitable for mounting the OBO pipe system, material: aluminium. Pipe centring aids allow optimum attachment of the pipe and automatically turn the clip into the correct position.

Universal fastening option; can be arranged. Can be mounted on the profile rail, slot width 11 mm (type 2060 and 2061). Slot for side alignment during mounting with wood screw or knock-in anchor.

Recommended fastening spacing 40–50 cm.

Not suitable for ceiling mounting! For ceiling mounting, use our closed clips, type 733... .



Cable and pipe fastening systems, plastic



Quick clip

Type	Nominal size	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
2955 M16	M16	Light grey	1,200	100	0.252	2149 00 4
2955 M20	M20	Light grey	1,200	100	0.325	2149 01 0
2955 M25	M25	Light grey	1,200	100	0.433	2149 01 6
2955 M32	M32	Light grey	600	50	0.630	2149 02 2
2955 M40	M40	Light grey	600	50	0.835	2149 02 8
2955 M50	M50	Light grey	300	25	1.454	2149 03 4
2955 M63	M63	Light grey	240	20	2.203	2149 04 0
2955 M16 SW	M16	Jet black	1,200	100	0.252	2149 55 9
2955 M20 SW	M20	Jet black	1,200	100	0.325	2149 56 3
2955 M25 SW	M25	Jet black	1,200	100	0.433	2149 56 7
2955 M32 SW	M32	Jet black	600	50	0.630	2149 57 1
2955 M40 SW	M40	Jet black	600	50	0.835	2149 57 5
2955 M50 SW	M50	Jet black	300	25	1.454	2149 57 9
2955 M63 SW	M63	Jet black	240	20	2.203	2149 58 3

PP Polypropylene /1000 pc.

OBO Quick clip, type 2955/... for all metric steel armoured pipes, as well as light-duty and heavy-duty metric insulation pipes. Suitable for mounting the OBO Quick pipe.

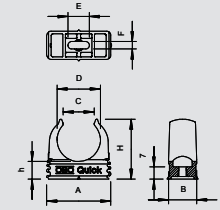
Pipe centring aids allow optimum attachment of the pipe and automatically turn the clip into the correct position.

Universal fastening option; can be arranged with the OBO Multi-quick and starQuick clip.

Slot for side alignment during mounting with wood screw or knock-in anchor.

Size M16-M32 can be screwed onto an M6 thread.

Recommended fastening spacing 50-60 cm, for max. extraction values F at a room temperature of 20 °C, see the table.



starQuick clip

Type	Size	Clamping range D mm	Breaking load kN	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
SQ-10 LGR	10	9.5-12	0.5	Light grey	1,200	100	0.560	2146 05 3
SQ-12 LGR	12-14	11.5-15	0.55	Light grey	1,200	100	0.540	2146 06 1
SQ-15 LGR	15-16	14-16.5	0.6	Light grey	1,200	100	0.580	2146 09 6
SQ-17 LGR	17-19	16-20	0.7	Light grey	800	100	0.640	2146 11 8
SQ-20 LGR	20-23	19.5-23.5	0.8	Light grey	600	50	0.670	2146 13 4
SQ-25 LGR	25-28	24-28	0.85	Light grey	600	50	0.970	2146 20 7
SQ-28 LGR	28-32	27.5-32	0.9	Light grey	400	50	1.070	2146 21 5
SQ-32 LGR	32-35	31.2-35.8	1	Light grey	400	50	1.230	2146 25 8
SQ-36 LGR	35-40	35-40.1	1.1	Light grey	300	25	1.510	2146 29 0
SQ-40 LGR	40-44	39.3-44.5	1.2	Light grey	200	25	1.710	2146 32 0
SQ-47 LGR	45-50	44-50	1.2	Light grey	200	25	1.980	2146 36 3
SQ-51 LGR	50-54	48-55	1.4	Light grey	180	15	2.250	2146 44 4
SQ-59 LGR	59-65	58.5-65	1.5	Light grey	180	15	3.300	2146 48 7

PA Polyamide /1000 pc.

Can be arranged next to each other to size SQ-28.

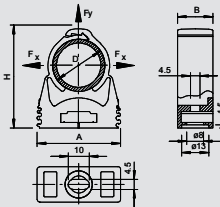
Break load: with bolt DIN 96; diameter 4.5 mm, minimum break load at 20°.

starQuick clip Type SQ... a comprehensive programme of quality clips ideal for the use in outside areas such as parking garages, under bridges and on the exterior of steel structures. Climate conditions have no chance: the starQuick clips are made from UV weather-resistant polyamide.

The starQuick clips are available in 13 different sizes with a clamping range of 10–65 mm, allowing a problem-free installation on different pipe systems. starQuick is suitable for plastic and metal pipes, as well as electrical and sanitary installations. The clips can be installed on the wall and ceiling. Mounting is amazingly fast and uncomplicated, without the use of tools. Mounting of multiple pipes is also really easy:

- By arranging the single clips.
- By using the double bracket, allowing a firm hold and spacing by heavy loads.
- A rail system allows for an open spacing and numbering of the clips.

starQuick is reliable and can support heavy loads. A patented safety system guarantees that the pipes stay where they are. The pipe is secure in the all around closed clip.

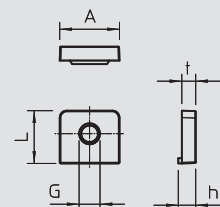


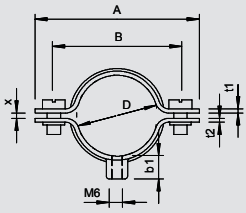
starQuick nut

Type	Thread	Dimension L mm	Dimension h mm	Dimension t mm	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
SQ M6	M6	15	5	4	Light grey	12,000	100	0.070	2146 50 9

PC Polycarbonate /1000 pc.

The starQuick nut was developed especially for the starQuick clip. Simply push into the intended opening of the starQuick. The starQuick nut is captive in the clip. Suitable for M6/M8 threads.



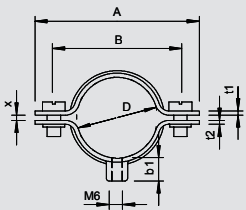


Cable and pipe spacer clip

Type	Hole size mm	Material thickness mm	Size	Bolt	Shipping box pcs	Clamping range D mm	Pack. pcs	Weight kg/100 pcs.	Item No.
732 6 GTP	M6	1	-	M5 x 10	1,200	5-6	100	1.160	1360 05 1
732 8 GTP	M6	1	-	M5 x 10	1,200	7-8	100	1.310	1360 08 6
732 10 GTP	M6	1	-	M5 x 12	1,000	9-10	100	1.360	1360 10 8
732 12 GTP	M6	1	M12	M5 x 12	1,000	10.5-12	100	1.460	1360 12 4
732 14 GTP	M6	1	PG7	M5 x 12	1,000	12.5-14	100	1.480	1360 14 0
732 15 GTP	M6	1	PG9	M5 x 12	1,000	13.5-15	100	1.530	1360 15 9
732 16 GTP	M6	1	M16	M5 x 12	1,000	14.5-16	100	1.590	1360 16 7
732 18 GTP	M6	1	PG11	M5 x 12	1,000	16.5-18	100	1.620	1360 18 3
732 20 GTP	M6	1	M20	M5 x 12	600	18.5-20	50	1.730	1360 20 5
732 22 GTP	M6	1	PG13.5	M5 x 12	500	20-22	50	1.780	1360 22 1
732 24 GTP	M6	1	PG16	M5 x 12	500	22-24	50	1.840	1360 24 8
732 26 GTP	M6	1	M25	M5 x 12	500	24-26	50	1.920	1360 26 4
732 28 GTP	M6	1.5	PG21	M5 x 12	500	26-28	50	2.840	1360 28 0
732 30 GTP	M6	1.5	PG21	M5 x 12	400	28-30	50	3.040	1360 30 2
732 33 GTP	M6	1.5	M32	M5 x 12	250	31-33	25	3.120	1360 33 7
732 35 GTP	M6	1.5	-	M5 x 12	250	33-35	25	3.280	1360 35 3
732 38 GTP	M6	1.5	PG29	M5 x 12	250	36-38	25	3.490	1360 38 8
732 40 GTP	M6	1.5	M40	M5 x 12	250	38-40	25	3.600	1360 39 6
732 42 GTP	M6	1.5	M40	M5 x 12	250	40-42	25	3.840	1360 42 6
732 45 GTP	M6	1.5	-	M5 x 12	250	43-45	25	3.990	1360 45 0
732 48 GTP	M6	1.5	PG36	M5 x 12	250	46-48	25	4.040	1360 48 5
732 50 GTP	M6	1.5	M50	M5 x 14	200	48-50	25	4.160	1360 50 7
732 60 GTP	M6	1.5	PG48	M5 x 14	200	58-60	25	4.960	1360 60 4
732 63 GTP	M6	1.5	M63	M5 x 14	200	61-63	25	5.000	1360 63 9



St Steel **GTP** Electrogalvanised, transparently passivated /1000 pc.
With M6 thread.

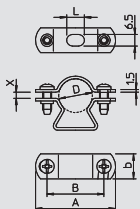


Cable and pipe spacer clip, V4A

Type	Clamping range D mm	Hole size mm	Material thickness mm	Size	Bolt	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
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 /1000 pc.
With M6 thread.



Cable and pipe spacer clip

Type	Hole size mm	Material thickness mm	Size	Bolt	Shipping box pcs	Clamping range D mm	Pack. pcs	Weight kg/100 pcs.	Item No.
733 13 FT	6.5 x 10	1.5	M 12	M5 x 12	600	11-13	50	2.310	1361 09 1
733 16 FT	6.5 x 10	1.5	M 16	M5 x 14	500	14-16	50	2.430	1361 09 4
733 19 FT	6.5 x 10	1.5	Pg 11	M5 x 14	500	17-19	50	2.500	1361 09 7
733 21 FT	6.5 x 10	1.5	M 20	M5 x 14	500	19-21	50	2.730	1361 10 0
733 23 FT	6.5 x 10	1.5	Pg 16	M5 x 14	500	21-23	50	2.870	1361 10 3
733 29 FT	6.5 x 10	1.5	M 25	M5 x 18	450	24-29	50	3.480	1361 10 6
733 38 FT	6.5 x 10	1.5	M 32	M5 x 18	250	30-38	25	4.040	1361 10 9
733 48 FT	6.5 x 10	1.5	M 40	M5 x 18	300	39-48	25	4.810	1361 11 2
733 54 FT	6.5 x 10	1.5	M 50	M5 x 18	300	48-54	25	5.400	1361 11 7
733 61 FT	6.5 x 10	1.5	Pg48	M5 x 18	240	53-61	20	6.100	1361 11 5
733 63 FT	6.5 x 10	2	M 63	M5 x 18	160	63	20	7.250	1361 11 8



St Steel **FT** Hot-dip galvanised /1000 pc.
Bolt material: steel.
* Size M16 not suitable for nail device.
* Sizes M16 to PG16 not suitable for bolt-firing tool and nail device.

Cable and pipe fastening systems, metal



Cable and pipe spacer clip

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

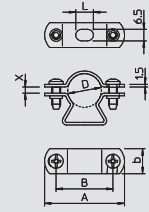
V2A Stainless steel, grade 304

/1000 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

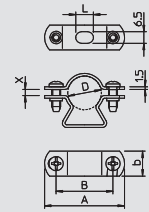
V4A Stainless steel, grade 316 Ti

/1000 pc.

Steel bolt material.

*Size M16 are not suitable for nail device.

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



Fastening clip, medium-duty 518 mm

Type	For Ø mm	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
1015 5 G	5	3,000	100	0.325	1009 02 8
1015 6 G	6	2,400	100	0.385	1009 03 6
1015 7 G	7	2,000	100	0.418	1009 04 4
1015 8 G	8	2,000	100	0.428	1009 05 2
1015 9 G	9	2,000	100	0.468	1009 06 0
1015 10 G	10	2,000	100	0.560	1009 07 9
1015 11 G	11	1,800	100	0.632	1009 08 7
1015 12 G	12	1,000	100	0.672	1009 10 9
1015 13 G	13	1,800	100	0.683	1009 11 7
1015 14 G	14	1,200	100	0.710	1009 16 8
1015 15 G	15	1,200	100	0.744	1009 18 4
1015 16 G	16	1,200	100	0.753	1009 19 2
1015 17 G	17	1,200	100	0.764	1009 20 6
1015 18 G	18	1,200	100	0.835	1009 21 4

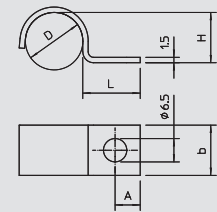
St Steel

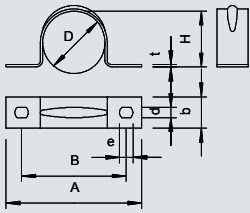
G Electrogalvanised

/1000 pc.

Single-lobe fastening clip for cables and pipes.

Beading from size 20.





Fastening clip, medium-duty

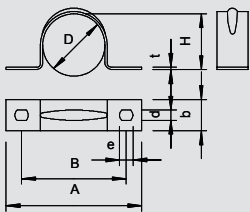
Type	For Ø	Hole size	Material thickness	Shipping box	Pack.	Weight	Item No.
	mm	mm	mm	pcs	pcs	kg/100 pcs.	
605 7 G	7	4,5 x 6	1	4,800	100	0.183	1018 07 8
605 8 G	8	4,5 x 6	1	5,000	100	0.203	1018 08 6
605 9 G	9	4,5 x 6	1	5,000	100	0.246	1018 09 4
605 10 G	10	4,5 x 6	1	1,800	100	0.432	1018 10 8
605 11 G	11	4,5 x 6	1	1,800	100	0.462	1018 11 6
605 12 G	12	4,5 x 6	1	2,000	100	0.485	1018 12 4
605 13 G	13	4,5 x 6	1	2,400	100	0.532	1018 13 2
605 14 G	14	4,5 x 6	1	2,400	100	0.560	1018 14 0
605 15 G	15	4,5 x 6	1	2,000	100	0.584	1018 15 9
605 16 G	16	4,5 x 6	1	1,200	100	0.585	1018 16 7
605 17 G	17	4,5 x 6	1	1,500	100	0.604	1018 17 5
605 18 G	18	4,5 x 6	1	1,200	100	0.640	1018 18 3
605 19 G	19	4,5 x 6	1	1,200	100	0.671	1018 19 1
605 20 G	20	4,5 x 6	1	1,000	100	0.664	1018 20 5
605 21 G	21	4,5 x 6	1	1,000	100	0.678	1018 21 3
605 23 G	23	4,5 x 6	1	1,000	100	0.826	1018 22 1
605 25 G	25	4,5 x 6	1	1,200	100	0.960	1018 25 6
605 26 G	26	4,5 x 6	1	1,000	100	0.975	1018 26 4
605 28 G	28	4,5 x 6	1	1,200	100	1.067	1018 28 0
605 30 G	30	4,5 x 6	1	1,200	100	1.150	1018 30 2
605 32 G	32	4,5 x 6	1	1,200	100	1.260	1018 33 7
605 35 G	35	5,5 x 7	1	1,200	100	1.921	1018 35 3
605 37 G	37	5,5 x 7	1	1,200	100	2.007	1018 36 1
605 40 G	40	5,5 x 7	1.5	600	50	1.900	1018 39 6
605 43 G	43	5,5 x 7	1.5	600	50	2.324	1018 43 4
605 47 G	47	5,5 x 7	1.5	600	50	2.366	1018 47 7
605 50 G	50	5,5 x 7	1.5	300	25	2.770	1018 50 7
605 55 G	55	5,5 x 7	1.5	300	25	3.840	1018 55 8
605 60 G	60	5,5 x 7	1.5	300	25	3.800	1018 60 4
605 63 G	63	5,5 x 7	1.5	300	25	3.670	1018 63 9

St Steel

G Electrogalvanised

/1000 pc.

Two lobe fastening clips for cables and pipes.
* Sizes 7 to 12 not suitable for bolt-firing tool.



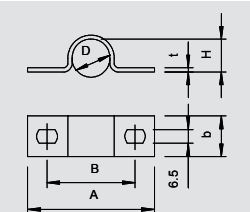
Fastening clip, medium-duty V4A

Type	For Ø	Hole size	Material thickness	Shipping box	Pack.	Weight	Item No.
	mm	mm	mm	pcs	pcs	kg/100 pcs.	
605 12 V4A	12	4,5 x 6	1	2,000	100	0.485	1018 65 3
605 16 V4A	16	4,5 x 6	1	1,200	100	0.585	1018 66 1
605 20 V4A	20	4,5 x 6	1	1,000	100	0.664	1018 66 9
605 25 V4A	25	4,5 x 6	1	1,200	100	0.992	1018 67 9
605 32 V4A	32	4,5 x 6	1	1,200	100	1.260	1018 69 3
605 40 V4A	40	5,5 x 7	1.5	600	50	1.900	1018 70 5
605 50 V4A	50	5,5 x 7	1.5	300	25	2.770	1018 71 7
605 63 V4A	63	5,5 x 7	1.5	300	25	3.670	1018 72 9

V4A Stainless steel, grade 316 Ti

/1000 pc.

Two lobe fastening clips for cables and pipes.



Fastening clip, heavy-duty

Type	For Ø	Hole size	Material thickness	Shipping box	Pack.	Weight	Item No.
	mm	mm	mm	pcs	pcs	kg/100 pcs.	
823 16 FT	16	6,5 x 10	2	500	50	2.260	1015 09 5
823 18.3 FT	18.6	6,5 x 10	2	500	50	2.446	1015 11 7
823 20 FT	20	6,5 x 10	2	500	50	2.662	1015 13 3
823 22.5 FT	22.5	6,5 x 10	2	400	50	2.988	1015 16 8
823 25 FT	25	6,5 x 10	3	250	25	6.770	1015 49 4
823 28.3 FT	28.3	6,5 x 10	3	250	25	5.208	1015 21 4
823 32 FT	32	6,5 x 10	3	100	100	7.469	1015 49 6
823 37 FT	37	6,5 x 10	3	100	100	8.700	1015 30 3
823 40 FT	40	6,5 x 10	3	100	100	8.460	1015 49 8
823 47 FT	47	6,5 x 10	3	100	100	10.120	1015 36 2
823 54 FT	54	6,5 x 10	3	100	100	10.760	1015 42 7
823 59.3 FT	59.3	6,5 x 10	3	100	100	11.800	1015 48 6
823 50 FT	50	6,5 x 10	3	100	100	9.808	1015 50 0
823 63 FT	63	6,5 x 10	3	100	100	11.553	1015 50 8

St Steel

FT Hot-dip galvanised

/1000 pc.

Two lobe fastening clips for cables and pipes.



Cable and pipe fastening systems, metal



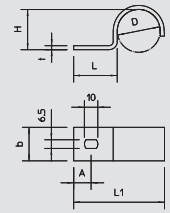
Fastening clip, heavy-duty V4A

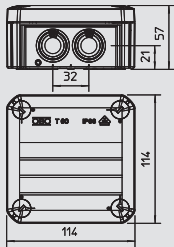
Type	For Ø	Size	Shipping box	Pack.	Weight	Item No.
	mm		pcs	pcs	kg/100 pcs.	
822 6 V4A	6	—	1,000	100	0.885	1013 86 1
822 10 V4A	10	—	1,200	100	1.075	1013 86 5
822 12 V4A	12	M12	400	100	1.450	1013 86 9
822 14 V4A	14	—	400	100	1.600	1013 87 3
822 16 V4A	15.2	M16	400	100	1.733	1013 87 7
822 18 V4A	18.6	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

/1000 pc.

Single-lobe fastening clip for cables and pipes.





Junction box T 60 with plug-in seal



Type	Version	Entries	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
T 60	Standard	7 x M25	Light grey	60	5	12.300	2007 06 1
T 60 RW	—	7 x M25	Pure white	60	5	12.300	2007 52 5
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

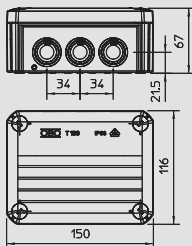
/1000 pc.

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.

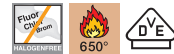
The junction boxes can be mounted on mounting plates in the openings on the floor using steel screws 3.5 x 9.5.

Clear internal dimensions: 100 x 100 x 48 mm

Cover with labelling panel and lead-sealed.



Junction box T 100 with plug-in seal



Type	Version	Entries	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
T 100	Standard	10 x M25	Light grey	40	1	16.270	2007 07 7
T 100 RW	—	10 x M25	Pure white	40	1	16.270	2007 53 3
T 100 F	960 °C flame-resistant	10 x M25	Light grey	40	1	16.270	2007 34 7
T 100 RO-LGR	With red lid	10 x M25	Red-grey	40	1	16.270	2007 64 4
T 100 KL	With terminal strip	10 x M25	Light grey	40	1	40.000	2007 43 6

PP Polypropylene

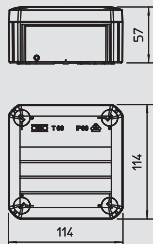
/1000 pc.

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.

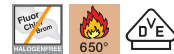
The junction boxes can be mounted on mounting plates in the openings on the floor using steel screws 3.5 x 9.5.

Clear internal dimensions: 136 x 102 x 57 mm

Cover with labelling panel and lead-sealed.



Junction box T 60, closed



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

PP Polypropylene

/1000 pc.

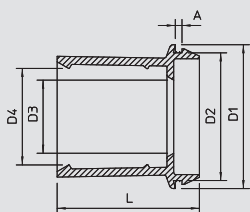
The junction boxes are made of a thermoplastic polypropylene polymer with closed side walls.

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.



Plug-in seal for pipes, T series

Type	Size	For Ø mm	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
EDR 25 16-20 LGR	M25	—	Light grey	50	50	0.520	2011 50 6
EDR 25 20-25 LGR	M25	—	Light grey	50	50	0.680	2011 51 4
EDR 32 20-25 LGR	M32	—	Light grey	50	50	1.020	2011 52 2
EDR 32 25-32 LGR	M32	—	Light grey	50	50	1.170	2011 53 0
EDR 40 25-32 LGR	M40	—	Light grey	25	25	1.950	2011 53 8
EDR 40 32-40 LGR	M40	—	Light grey	25	25	2.200	2011 54 6

PVC Polyvinylchloride

/1000 pc.

Plug-in seal for junction boxes



Junction box systems



Junction box B 9/T with perforation membrane

Type	Accessories	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
B 9 T M 5	1 terminal strip	Light grey	40	5	17.500	2001 84 5
B 9 T M	–	Light grey	40	5	13.100	2001 85 3

PP Polypropylene /1000 pc.

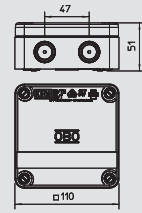
The wet-room junction box comprises two halogen-free plastic components, 8 threaded entries (M20 x 1.5), 1 additional entry in base with perforation membrane (for cable diameter up to 15 mm).

Where cable glands are used (giving additional strain relief) there is no need to remove the membrane (this saves time). Protection IP 67 with cable gland and for the perforation membrane.

Rated voltage 400 V; nominal cross-section 4 - 6 mm².

The lid is sealed with 4 pre-fitted rapid fastenings (180°). The fastening holes are additionally moulded with a soft plastic component for bolt ø 5 mm (spacing 75 mm).

2 fastening bolt caps and 1 fastening bolt.
Clear internal dimensions: 98 x 98 x 40 mm



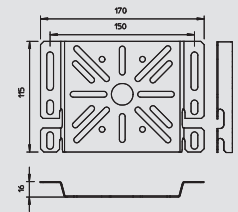
Mounting plate, T series



Type	Height mm	Width mm	Pack. pcs	Weight kg/100 pcs.	Item No.
MP UNI FS	115	170	40	13.300	7084 77 3

St Steel **FS** Strip-galvanised /pc.

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



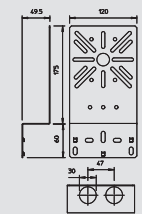
Mounting plate, T series



Type	Height mm	Width mm	Pack. pcs	Weight kg/100 pcs.	Item No.
MP WI KL. FS	210	120	20	20.200	7084 76 5
MP WI KL. DD	210	120	20	20.200	7085 11 1

St Steel **FS** Strip-galvanised **DD** Zinc-aluminium coated, double-dip /pc.

Angled mounting plate, for fastening on the side rail of the cable tray.



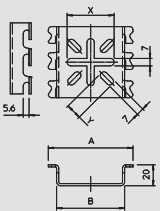
Mounting plate, T series



Type	Dimension A mm	Dimension B mm	Dimension x mm	Dimension y mm	Pack. pcs	Weight kg/100 pcs.	Item No.
MPG 65 FT	81	65	45	15	30	9.200	6006 48 6

St Steel **FT** Hot-dip galvanised /pc.

Mounting for screwless fastening on mesh cable trays.



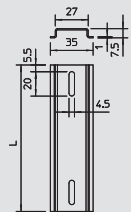
Hat profile rail

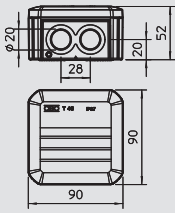


Type	Version	Material thickness mm	Length mm	Pack. pcs	Weight kg/100 pcs.	Item No.
2069 T350 GTP	For T 350 lengthwise	1	245	10	8.450	1115 38 8
2069 T160 GTP	For T 160 lengthwise + T 250, T350 crosswise	1	157	10	5.520	1115 38 4

St Steel **GTP** Electrogalvanised, transparently passivated /1000 pc.

Hat profile rail 35 x 7.5 mm to DIN EN 60715 (formerly DIN EN 50022).





Junction box with pre-marking



Type	Version	Entries	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
T 40 M20	Closed	7 x Ø20	Light grey	80	5	6.100	2007 90 0
T 40 M20 KL	With terminal strip	7 x Ø20	Light grey	80	5	8.200	2007 90 4

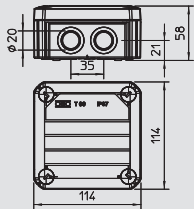
PP Polypropylene /1000 pc.

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 Ø20 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.

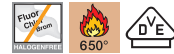
The junction boxes can be mounted on mounting plates in the openings on the floor using steel screws 3.5 x 9.5.

Clear internal dimensions: 77 x 77 x 46 mm

Cover with labelling panel and lead-sealed.



Junction box with pre-marking



Type	Version	Entries	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
T 60 M20	Closed	7 x Ø20	Light grey	60	5	12.100	2007 91 0
T 60 M20 KL	With terminal strip	7 x Ø20	Light grey	60	5	16.500	2007 91 4

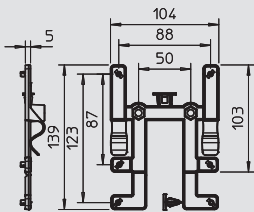
PP Polypropylene /1000 pc.

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 Ø20 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.



Fastening element for cable tray

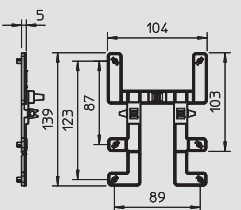


Type	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
BE TS KR	10	10	2.800	2007 83 5

PC Polycarbonate /1000 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

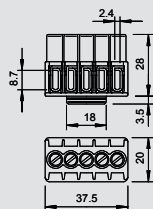


Type	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
BE TS GR	10	10	2.300	2007 83 3

PC Polycarbonate /1000 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 01-04	Light grey	5	1.4	400	100	10	2.100	2016 18 0

PA Polyamide /1000 pc.

Steel terminal block and bolts, galvanised and transparently passivated, nominal 1 - 4 mm², nominal voltage 400 V, 5-pole, with terminal sockets, Max. connectable cross-sections per terminal max. 4 x 2.5 mm², 5 x 1.5 mm² or 6 x 1 mm².



Junction box systems

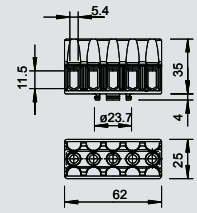


Terminal strip, junction box, T series

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 /1000 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.

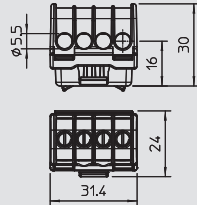


Terminal strip, junction box, T series

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	1.970	2016 19 0

PA Polyamide /1000 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.

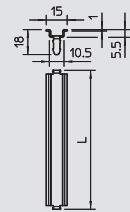


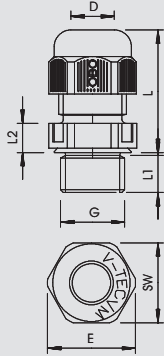
Hat profile rail, junction box T series

Type	Version	Material thickness mm	Length mm	Bundle m	Weight kg/100 pcs.	Item No.
46277 T160 Q GTP	For T 160 lengthwise + T 100 crosswise	1	99	-	9.641	1115 27 0

St Steel GTP Electrogalvanised, transparently passivated /1000 pc.

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





Cable gland, metric



Type	Thread	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
V-TEC VM12 LGR	M12 x 1,5	Light grey	500	50	0.318	2022 86 2
V-TEC VM16 LGR	M16 x 1,5	Light grey	500	50	0.638	2022 86 4
V-TEC VM20 LGR	M20 x 1,5	Light grey	600	50	0.856	2022 86 6
V-TEC VM25 LGR	M25 x 1,5	Light grey	300	25	1.360	2022 86 8
V-TEC VM32 LGR	M32 x 1,5	Light grey	240	20	2.230	2022 87 0
V-TEC VM40 LGR	M40 x 1,5	Light grey	120	10	3.467	2022 87 2
V-TEC VM50 LGR	M50 x 1,5	Light grey	60	5	5.466	2022 87 4
V-TEC VM63 LGR	M63 x 1,5	Light grey	60	5	8.306	2022 87 6
V-TEC VM12 SW	M12 x 1,5	Black	500	50	0.318	2022 88 3
V-TEC VM16 SW	M16 x 1,5	Black	500	50	0.638	2022 88 5
V-TEC VM20 SW	M20 x 1,5	Black	600	50	0.856	2022 88 7
V-TEC VM25 SW	M25 x 1,5	Black	300	25	1.360	2022 88 9
V-TEC VM32 SW	M32 x 1,5	Black	240	20	2.230	2022 89 1
V-TEC VM40 SW	M40 x 1,5	Black	120	10	3.467	2022 89 3
V-TEC VM50 SW	M50 x 1,5	Black	60	5	5.466	2022 89 5
V-TEC VM63 SW	M63 x 1,5	Black	60	5	8.306	2022 89 7

PA Polyamide /1000 pc.

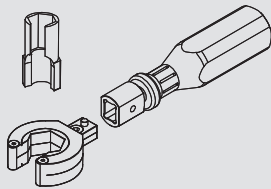
The quickest and most convenient way of providing strain relief and tightness with cable glands on junction boxes and housings is with the tried-and-trusted V-TEC VM cable glands from OBO. With the integrated sealing lip and the special OBO lamella technology protection class IP 68 is achieved. Strain relief and tightness have been tested to DIN EN 50262.

The connecting threads of the cable glands are metric and are therefore suitable for universal use. Once screwed in place, the fitting is there forever, as the optimum thread adjustment with the right pitch ensures permanent resistance to shaking.

Applications: from private housing with junction boxes up to industrial applications in the distributor cabinet.

Temperature range: -20 °C to +65 °C.

Ratchet set



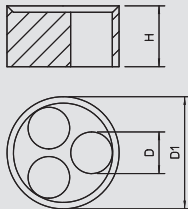
Type	Accessories	Pack. pcs	Weight kg/100 pcs.	Item No.
V-TEC RA SET	1 ground ratchet 1 grip for ground ratchet 4 socket spanner attachments	1	71.600	3010 27 5



/pc.

Set consisting of a ground ratchet, type V-TEC RA, a grip for ground ratchet, type V-TEC GR, and four socket spanner attachments in sizes WAF 15, WAF 20, WAF 24 and WAF 29.

Multiple sealing insert, metric



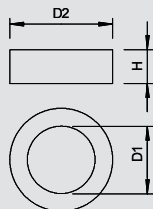
Type	Size	Dimension D mm	Dimension H mm	Dimension D1 mm	Number of drill holes	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
107 C VM 20 2x4	M20	4	8.1	15.1	2	750	50	0.130	2029 67 2
107 C VM 20 4x5	M20	5	8.1	15.1	4	750	50	0.080	2029 67 5
107 C VM 20 2x6	M20	6	8.1	15.1	2	750	50	0.100	2029 67 7
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 /1000 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.



Reducing seal insert, metric



Type	Size	Sealing range D mm	Dimension D1 mm	Dimension D2 mm	Dimension H mm	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
107CR VM 12	M12	2-5	5	8.9	7.2	1,300	50	0.050	2029 56 0
107CR VM 16	M16	2.5-7	7	12.7	8.1	1,300	50	0.115	2029 56 3
107CR VM 20	M20	4-9	9	16	9.3	1,200	50	0.205	2029 56 6
107CR VM 25	M25	6-13	13	20.7	10.5	1,200	50	0.340	2029 56 9
107CR VM 32	M32	11-16	16	25.7	12.3	350	25	0.625	2029 57 2
107CR VM 40	M40	12-23	23	33.7	15	300	25	1.140	2029 57 5
107CR VM 50	M50	18-29	29	41.7	18.5	250	25	2.080	2029 57 8
107CR VM 63	M63	29-40	40	54.8	20.2	150	25	3.560	2029 58 1

NBR-SBR Rubber mixture /1000 pc.

Reduces the sealing area D of the cable gland V-TEC VM and V-TEC VM L.



Cable gland systems, plastic



Cable gland, metric thread, set with locknut

Type	Thread	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
V-TEC VM12+ LGR	M12 x 1,5	Light grey	600	50	0.337	2022 76 2
V-TEC VM16+ LGR	M16 x 1,5	Light grey	500	50	0.795	2022 76 4
V-TEC VM20+ LGR	M20 x 1,5	Light grey	600	50	1.106	2022 76 6
V-TEC VM25+ LGR	M25 x 1,5	Light grey	300	25	1.710	2022 76 8
V-TEC VM32+ LGR	M32 x 1,5	Light grey	240	20	2.840	2022 77 0
V-TEC VM40+ LGR	M40 x 1,5	Light grey	120	10	5.150	2022 77 2
V-TEC VM50+ LGR	M50 x 1,5	Light grey	60	5	6.356	2022 77 4
V-TEC VM63+ LGR	M63 x 1,5	Light grey	60	5	10.136	2022 77 6

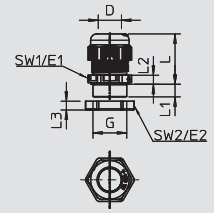
PA Polyamide /1000 pc.

The quickest and most convenient way of providing strain relief and tightness with cable glands on junction boxes and housings is with the tried-and-trusted V-TEC VM cable glands from OBO. With the integrated sealing lip and the special OBO lamella technology protection class IP 68 is achieved. Strain relief and tightness have been tested to DIN EN 50262.

The connecting threads of the cable glands are metric and are therefore suitable for universal use. Once screwed in place, the fitting is there forever, as the optimum thread adjustment with the right pitch ensures permanent resistance to shaking.

Applications: from private housing with junction boxes up to industrial applications in the distributor cabinet.

Temperature range: -20 °C to +65 °C.



Cable gland, PG thread, set with locknut

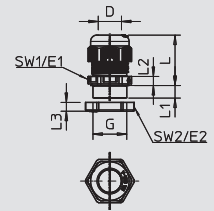
Type	Thread	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
V-TEC PG7+ LGR	Pg 7	Light grey	600	50	0.503	2024 65 5
V-TEC PG9+ LGR	Pg 9	Light grey	500	50	0.799	2024 65 7
V-TEC PG11+ LGR	Pg 11	Light grey	500	50	1.074	2024 65 9
V-TEC PG13,5+LGR	Pg 13,5	Light grey	400	50	1.276	2024 66 1
V-TEC PG16+ LGR	Pg 16	Light grey	250	25	1.705	2024 66 3
V-TEC PG21+ LGR	Pg 21	Light grey	300	25	2.756	2024 66 5
V-TEC PG29+ LGR	Pg 29	Light grey	240	20	5.120	2024 66 7
V-TEC PG36+ LGR	Pg 36	Light grey	120	10	7.713	2024 66 9
V-TEC PG42+ LGR	Pg 42	Light grey	60	5	9.406	2024 67 1
V-TEC PG48+ LGR	Pg 48	Light grey	60	5	11.290	2024 67 3

PA Polyamide /1000 pc.

The quickest and most convenient way of providing strain relief and tightness with cable glands on junction boxes and housings is with the tried-and-trusted V-TEC VM cable glands from OBO. With the integrated sealing lip and the special OBO lamella technology, protection class IP 68 is achieved. Strain relief and tightness have been tested to DIN EN 50262. The connecting threads of the cable glands are metric or Pg and are therefore suitable for universal use. Once screwed in place the fitting is there for ever, as the optimum thread adjustment with the right pitch ensures permanent resistance to shaking.

Applications: from private housing with junction boxes up to industrial applications in the distributor cabinet.

Table column D1: sealing range to VDE 0619, in which no strain relief is required.



Cable gland, metric thread, with reducing seal insert

Type	Thread	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
V-TEC VM12RD LGR	M12 x 1,5	Light grey	500	50	0.318	2023 00 8
V-TEC VM16RD LGR	M16 x 1,5	Light grey	500	50	0.638	2023 01 0
V-TEC VM20RD LGR	M20 x 1,5	Light grey	600	50	0.861	2023 01 2
V-TEC VM25RD LGR	M25 x 1,5	Light grey	300	25	1.344	2023 01 4
V-TEC VM32RD LGR	M32 x 1,5	Light grey	240	20	2.230	2023 01 6
V-TEC VM40RD LGR	M40 x 1,5	Light grey	120	10	3.467	2023 01 8
V-TEC VM50RD LGR	M50 x 1,5	Light grey	60	5	5.466	2023 02 0
V-TEC VM63RD LGR	M63 x 1,5	Light grey	60	5	8.306	2023 02 2

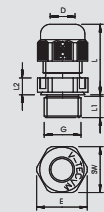
PA Polyamide /1000 pc.

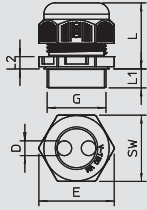
The quickest and most convenient way of providing strain relief and tightness with cable glands on junction boxes and housings is with the tried-and-trusted V-TEC VM cable glands from OBO. With the integrated sealing lip and the special OBO lamella technology protection class IP 68 is achieved. Strain relief and tightness have been tested to DIN EN 50262.

The connecting threads of the cable glands are metric and are therefore suitable for universal use. Once screwed in place, the fitting is there forever, as the optimum thread adjustment with the right pitch ensures permanent resistance to shaking.

Applications: from private housing with junction boxes up to industrial applications in the distributor cabinet.

Temperature range: -20 °C to +65 °C.





Cable gland, metric thread with multi-way seal insert

Type	Thread	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs	Item No.
V-TEC VM20 2x4	M20 x 1,5	Light grey	600	50	0.860	2022 11 0
V-TEC VM20 4x5	M20 x 1,5	Light grey	600	50	0.860	2022 11 2
V-TEC VM20 2x6	M20 x 1,5	Light grey	600	50	0.860	2022 11 4
V-TEC VM25 5x4	M25 x 1,5	Light grey	300	25	1.360	2022 12 0
V-TEC VM25 3x6	M25 x 1,5	Light grey	300	25	1.360	2022 12 2
V-TEC VM25 2x6	M25 x 1,5	Light grey	300	25	1.360	2022 12 4
V-TEC VM25 3x7	M25 x 1,5	Light grey	300	25	1.360	2022 12 6
V-TEC VM25 2x8	M25 x 1,5	Light grey	300	25	1.360	2022 12 8
V-TEC VM32 2x8	M32 x 1,5	Light grey	240	20	2.240	2022 13 6
V-TEC VM32 4x8	M32 x 1,5	Light grey	240	20	2.240	2022 13 8



PA Polyamide

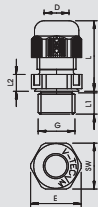
/1000 pc.

The quickest and most convenient way of providing strain relief and tightness with cable glands on junction boxes and housings is with the tried-and-trusted V-TEC VM cable glands from OBO. With the integrated sealing lip and the special OBO lamella technology protection class IP 68 is achieved. Strain relief and tightness have been tested to DIN EN 50262.

The connecting threads of the cable glands are metric and are therefore suitable for universal use. Once screwed in place, the fitting is there forever, as the optimum thread adjustment with the right pitch ensures permanent resistance to shaking.

Applications: from private housing with junction boxes up to industrial applications in the distributor cabinet.

Temperature range: -20 °C to +65 °C.



Cable gland, metric thread, UV-resistant

Type	Thread	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs	Item No.
V-TEC VM12UV LGR	M12 x 1,5	Light grey	500	50	0.319	2022 90 0
V-TEC VM16UV LGR	M16 x 1,5	Light grey	500	50	0.590	2022 90 1
V-TEC VM20UV LGR	M20 x 1,5	Light grey	600	50	0.590	2022 90 2
V-TEC VM25UV LGR	M25 x 1,5	Light grey	300	25	1.360	2022 90 3
V-TEC VM32UV LGR	M32 x 1,5	Light grey	240	20	2.235	2022 90 4
V-TEC VM40UV LGR	M40 x 1,5	Light grey	120	10	3.496	2022 90 5
V-TEC VM50UV LGR	M50 x 1,5	Light grey	60	5	5.480	2022 90 6
V-TEC VM63UV LGR	M63 x 1,5	Light grey	60	5	8.328	2022 90 7



PA Polyamide

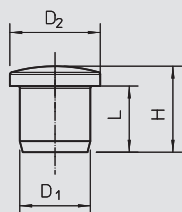
/1000 pc.

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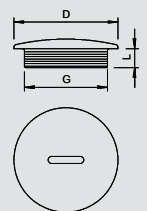
Screw plug, metric

Type	Size	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs	Item No.
107VS VM 5 PA	M12 / Pg9	Light grey	600	50	0.041	2029 51 1
107VS VM 9 PA	M16 / Pg13,5	Light grey	750	50	0.090	2029 51 4
107VS VM 12 PA	M20 / Pg16	Light grey	500	50	0.130	2029 51 7
107VS VM 16 PA	M25 / Pg21	Light grey	500	50	0.190	2029 52 0
107VS VM 20 PA	M32 / Pg29	Light grey	300	25	0.250	2029 52 3

PA Polyamide

/1000 pc.

Screw plug for dust-proof and waterproof closure of installed but (as yet) unfilled V-TEC... Cable glands.



Screw plug, metric

Type	Colour	Shipping box pcs	Thread	Dimension D mm	Dimension L mm	Pack. pcs	Weight kg/100 pcs	Item No.
108 M12 PS	Light grey	3,000	M12 x 1,5	15	6	100	0.146	2033 00 3
108 M16 PS	Light grey	1,800	M16 x 1,5	20	6	100	0.161	2033 00 7
108 M20 PS	Light grey	1,200	M20 x 1,5	24	6	100	0.209	2033 01 1
108 M25 PS	Light grey	1,000	M25 x 1,5	30	8	100	0.355	2033 01 6
108 M32 PS	Light grey	500	M32 x 1,5	37	8	50	0.352	2033 02 1
108 M40 PS	Light grey	300	M40 x 1,5	46	8	25	1.280	2033 02 6
108 M50 PS	Light grey	300	M50 x 1,5	56	10	25	1.400	2033 03 2
108 M63 PS	Light grey	300	M63 x 1,5	70	12	25	1.850	2033 03 8

PS Polystyrene

/1000 pc.

Screw plug in accordance with DIN 46320, with metric thread to IEC 423.



Cable gland systems, plastic



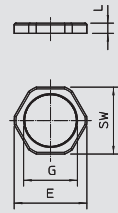
Locknut, metric

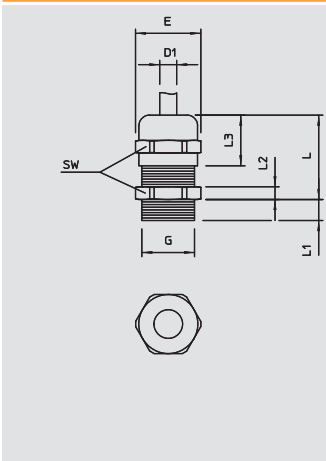
Type	Thread	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
116 M12 LGR PA	M12x1,5	Light grey	2,000	100	0.100	2048 90 6
116 M16 LGR PA	M16x1,5	Light grey	1,000	100	0.160	2048 91 4
116 M20 LGR PA	M20x1,5	Light grey	1,200	100	0.250	2048 92 2
116 M25 LGR PA	M25x1,5	Light grey	1,000	100	0.350	2048 93 0
116 M32 LGR PA	M32x1,5	Light grey	500	50	0.610	2048 94 9
116 M40 LGR PA	M40x1,5	Light grey	250	25	1.683	2048 95 7
116 M50 LGR PA	M50x1,5	Light grey	250	25	0.890	2048 96 5
116 M63 LGR PA	M63x1,5	Light grey	200	25	1.830	2048 97 3
116 M12 SW PA	M12x1,5	Black	2,000	100	0.100	2049 06 6
116 M16 SW PA	M16x1,5	Black	1,000	100	0.160	2049 07 4
116 M20 SW PA	M20x1,5	Black	1,200	100	0.250	2049 08 2
116 M25 SW PA	M25x1,5	Black	1,000	100	0.350	2049 09 0
116 M32 SW PA	M32x1,5	Black	500	50	0.610	2049 10 4
116 M40 SW PA	M40x1,5	Black	250	25	1.683	2049 11 2
116 M50 SW PA	M50x1,5	Black	250	25	1.756	2049 12 0
116 M63 SW PA	M63x1,5	Black	200	25	1.830	2049 13 9

PA Polyamide

/1000 pc.

Locknut DIN 46319, with metric thread IEC 423.





Cable gland, metric thread

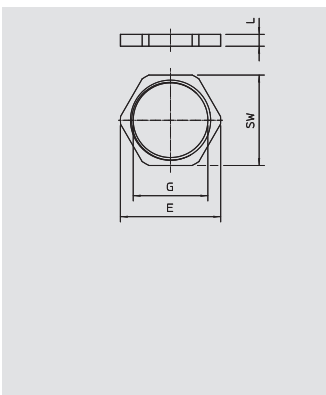


Type	Thread	Surface finish	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
V-TEC VM12 MS	M12 x 1,5	Nickel-plated	500	50	1.200	2086 01 8
V-TEC VM16 MS	M16 x 1,5	Nickel-plated	600	50	1.640	2086 02 4
V-TEC VM20 MS	M20 x 1,5	Nickel-plated	250	25	3.140	2086 03 0
V-TEC VM25 MS	M25 x 1,5	Nickel-plated	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
V-TEC VM63 MS	M63 x 1,5	Nickel-plated	40	5	30.300	2086 06 0

CuZn Brass N Nickel-plated /1000 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.



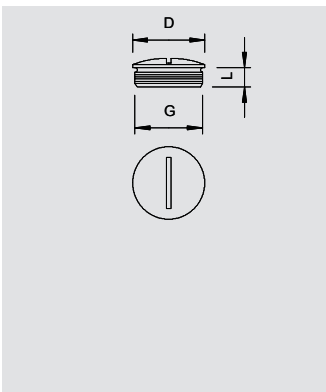
Locknut, metric thread

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
169 MS M63	M63 x 1,5	250	25	5.720	2091 68 2

CuZn Brass N Nickel-plated /1000 pc.

Locknuts DIN 46319 with metric thread IEC 423.

* Price according to DEL notation.



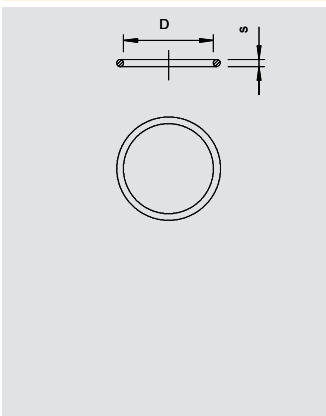
Screw plug

Type	Surface finish	Shipping box pcs	Thread	Dimension D mm	Dimension L mm	Pack. pcs	Weight kg/100 pcs.	Item No.
168 MS M12	Nickel-plated	3,000	M12 x 1,5	16	5	100	0.390	2090 51 1
168 MS M16	Nickel-plated	2,000	M16 x 1,5	20	6	100	0.640	2090 53 8
168 MS M20	Nickel-plated	1,000	M20 x 1,5	22	6.5	100	0.930	2090 54 6
168 MS M25	Nickel-plated	500	M25 x 1,5	28	7	50	1.850	2090 55 4
168 MS M32	Nickel-plated	200	M32 x 1,5	35	8	50	2.810	2090 56 2
168 MS M40	Nickel-plated	100	M40 x 1,5	45	8	50	5.290	2090 57 0
168 MS M50	Nickel-plated	100	M50 x 1,5	55	9	25	6.310	2090 58 9
168 MS M63	Nickel-plated	50	M63 x 1,5	68	10	25	12.570	2090 59 7

CuZn Brass N Nickel-plated /1000 pc.

Screw plug in accordance with DIN 46320, with metric thread to DIN EN 60423 or ISO 68.

* Prices according to DEL notation.



O sealing ring for connection thread

Type	Shipping box pcs	Size mm	Dimension D mm	Dimension S mm	Pack. pcs	Weight kg/100 pcs.	Item No.
171 M12	12,000	M12	10	1.5	100	0.007	2088 70 3
171 M16	12,000	M16	13	1.5	100	0.008	2088 71 1
171 M20	12,000	M20	18	1.5	100	0.011	2088 73 8
171 M25	10,000	M25	22	1.5	100	0.012	2088 74 6
171 M32	12,000	M32	29	2	100	0.035	2088 75 4
171 M40	500	M40	36	2	50	0.045	2088 76 2
171 M50	500	M50	46	2	50	0.052	2088 77 0
171 M63	250	M63	59	2	25	0.056	2088 78 9

NBR Nitrile rubber /1000 pc.

O sealing rings, suitable as connection thread sealing rings for all plastic and brass cable glands with metric connection thread to DIN EN 60423 or ISO 68. The rings can be captively pre-mounted.



Support clamp systems

Support clamp



Type	Dimension B mm	Dimension H mm	Breaking load kN	Flange thickness mm	Dimension E mm	Pack. pcs	Weight kg/100 pcs.	Item No.
TK 6-0	33.3	30	0.9	2-6	6.5	100	1.350	1481 01 0
TK 13-0	33.3	37	0.9	5-13	7	100	1.550	1481 02 9
TK 19-0	33.3	43	0.9	14-19	7	100	2.490	1481 04 5

St Steel **ZD** Galvanised, Deltatone 500 /1000 pc.
With drill hole to accept S hooks or bolt with nut.



Type	Flange thickness mm	Dimension B mm	Dimension H mm	Thread	Breaking load kN	Pack. pcs	Weight kg/100 pcs.	Item No.
TK-G 4	2-4	28	28	M6 x 9	0.45	100	0.900	1481 10 2
TK-G 9	5-9	38	32	M6 x 9	0.45	100	1.600	1481 10 8
TK-G 16	10-16	38	42	M6 x 9	0.45	100	1.830	1481 11 4
TK-G 20	17-20	38	49	M6 x 9	0.45	100	2.000	1481 12 0

St Steel **ZD** Galvanised, Deltatone 500 /1000 pc.
With M6 x 9 mm threaded rod for fastening clips or other components.



Type	Dimension A mm	Breaking load kN	Flange thickness mm	Cable strip length mm	Max. D Ø	Pack. pcs	Weight kg/100 pcs.	Item No.
TKK 6-240	7.6	0.8	2-6	240	70	100	2.200	1481 40 1
TKK 6-365	7.6	0.8	2-6	365	110	100	1.300	1481 42 8
TKK 13-240	7.6	0.8	5-13	240	70	100	2.500	1481 45 2
TKK 13-365	7.6	0.8	5-13	365	110	100	2.000	1481 46 0
TKK 19-240	7.6	0.8	14-19	240	70	100	2.300	1481 53 3
TKK 19-365	7.6	0.8	14-19	365	110	100	2.400	1481 54 1

St Steel **ZD** Galvanised, Deltatone 500 /1000 pc.
With cable ties to fix cable bundles.



Type	Clamping range D mm	Breaking load kN	Flange thickness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
TKC 6-20	17-20	0.11	2-6	100	2.220	1482 40 8
TKC 6-25	23-25	0.11	2-6	100	2.720	1482 41 6
TKC 13-20	17-20	0.11	5-13	100	1.500	1482 46 7
TKC 13-25	23-25	0.11	5-13	100	1.770	1482 47 5
TKC 13-32	25-32	0.11	5-13	100	1.900	1482 48 3
TKC 19-20	17-20	0.11	14-19	50	1.770	1482 60 2
TKC 19-25	23-25	0.11	14-19	50	1.810	1482 61 0
TKC 19-32	25-32	0.11	14-19	50	2.130	1482 62 9

St Steel **ZD** Galvanised, Deltatone 500 /1000 pc.
With rotating clip to accept pipes.



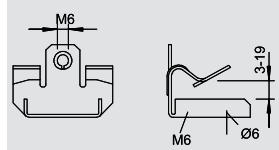
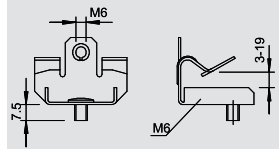
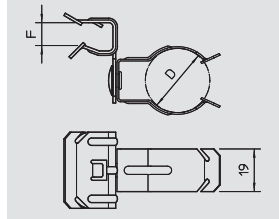
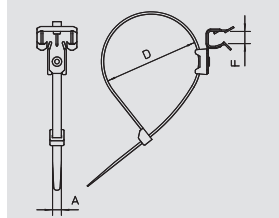
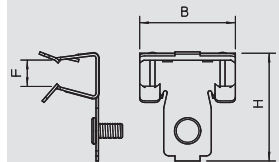
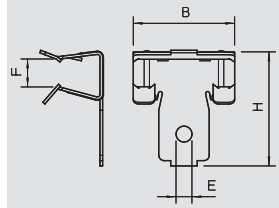
Type	Breaking load kN	Flange thickness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
TKG 7-6	0.45	3-6.5	100	2.400	1483 44 7
TKG 13-6	0.45	7-13	100	2.400	1483 45 5
TKG 19-6	0.45	14-19	100	3.100	1483 46 3

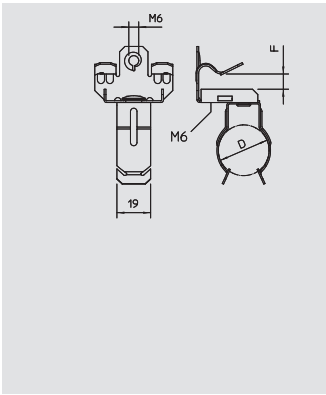
St Steel **ZD** Galvanised, Deltatone 500 /1000 pc.
With threaded bolt M6 x 7.5 mm.



Type	Breaking load kN	Flange thickness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
TKI 7-6	0.45	3-6.5	100	2.350	1483 57 9
TKI 13-6	0.45	7-13	100	2.350	1483 58 7
TKI 19-6	0.45	14-19	100	3.050	1483 59 5

St Steel **ZD** Galvanised, Deltatone 500 /1000 pc.
With female thread M6.





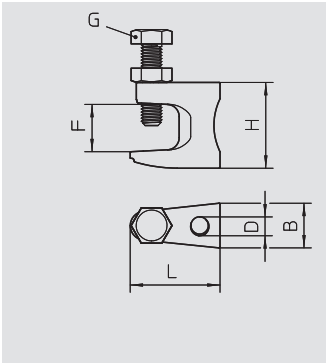
Support clamp

Type	Breaking load kN	Flange thickness mm	Clamping range D mm	Pack. pcs	Weight kg/100 pcs.	Item No.
TKCU 7-20	0.11	3-6.5	17-20	50	3.760	1484 00 1
TKCU 7-25	0.11	3-6.5	23-25	50	3.900	1484 02 8
TKCU 7-32	0.11	3-6.5	25-32	50	4.350	1484 03 6
TKCU 13-20	0.11	7-13	17-20	50	4.220	1484 07 9
TKCU 13-25	0.11	7-13	23-25	50	4.350	1484 08 7
TKCU 13-32	0.11	7-13	25-32	50	4.800	1484 09 5
TKCU 19-20	0.11	14-19	17-20	50	4.450	1484 13 3
TKCU 19-25	0.11	14-19	23-25	50	4.550	1484 14 1
TKCU 19-32	0.11	14-19	25-32	50	5.350	1484 16 8

St Steel **ZD** Galvanised, Deltatone 500

/1000 pc.

With rotating clip to accept pipes.



Screw-in support clamp

Type	Dimension H mm	Dimension B mm	Dimension L mm	Dimension G	For threaded rod	Breaking load kN	Flange thickness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
FL1-G M8 TG	35	19	38	M8	M8	1.2	0-18	50	8.500	1488 07 4
FL2-G M10 TG	42	21	44	M10	M10	2.5	0-20	50	14.000	1488 08 2
FL3-G M12 TG	54	23.5	58	M10	M12	3.5	0-26	25	18.000	1488 09 0

TG Cast iron

/1000 pc.

With thread.



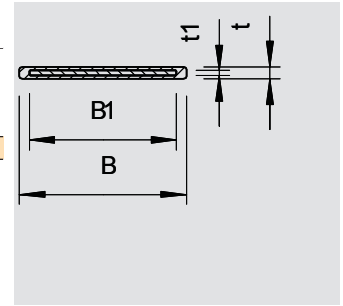
Cable and pipe fastening systems, special

Tightening strap



Type	Dimension	Minimum breaking load	Colour	Shipping box	Pack.	Weight	Item No.
	mm	kN		m	m	kg/100 m	
574 G STGR	17 x 1.0	1.35	Stone grey	250	25	5.880	6490 01 8

St Steel **G** Electrogalvanised price/100 m
Plastic-covered galvanised tightening strap for fastening on cable trays and ladders.

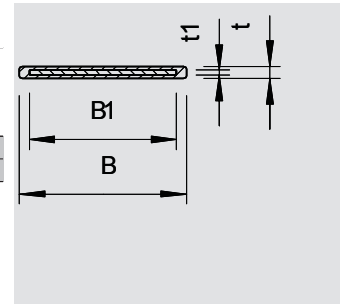


Tightening strap



Type	Dimension	Minimum breaking load	Colour	Shipping box	Pack.	Weight	Item No.
	mm	kN		m	m	kg/100 m	
574 03 BA	17 x 1.0	2.25	Blue anthracite	250	25	6.950	6490 03 4
574 05 GNBG	16.5 x 1.2	3.5	Green-beige	250	25	6.950	6490 05 0

V2A Stainless steel, grade 301 price/100 m
Plastic-covered tightening strap made of rustproof steel for fastening on cable trays and ladders.

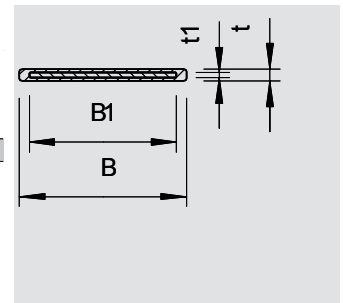


Tightening strap



Type	Dimension	Minimum breaking load	Colour	Shipping box	Pack.	Weight	Item No.
	mm	kN		m	m	kg/100 m	
574 03 SW	17 x 1.0	2.25	Black	250	25	6.950	6490 02 6

V2A Stainless steel, grade 301 price/100 m
Plastic-covered tightening strap made of rustproof steel for fastening on cable trays and ladders.

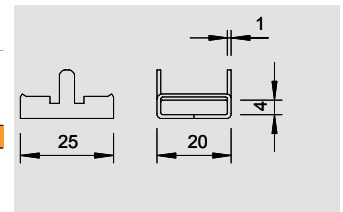


Tightening strap lock



Type	Shipping box	Pack.	Weight	Item No.
	pcs	pcs	kg/100 pcs.	
192	1,200	100	0.900	6490 90 5

St Steel **DD** Zinc-aluminium coated, double-dip /1000 pc.
Tightening strap lock for mounting under the ceiling.

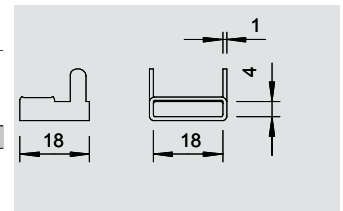


Tightening strap lock



Type	Shipping box	Pack.	Weight	Item No.
	pcs	pcs	kg/100 pcs.	
197 VA4301	1,800	100	0.560	6490 96 4

V2A Stainless steel, grade 304 /1000 pc.
Tightening strap lock for single-sided locking of tightening strap in problematic areas.

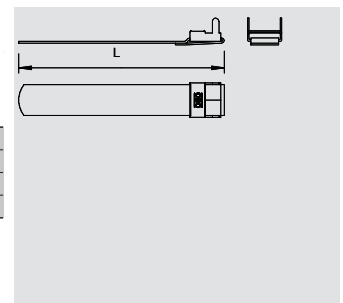


Tightening strap in fixed lengths

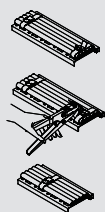


Type	Dimension	Length	Colour	Shipping box	Pack.	Weight	Item No.
	mm	mm		pcs	pcs	kg/100 pcs.	
574 03 30 BA	17 x 1.0	300	Blue anthracite	500	25	2.410	6490 10 7
574 03 45 BA	17 x 1.0	450	Blue anthracite	250	25	3.260	6490 12 3
574 05 55 GNBG	16.5 x 1.2	550	Green-beige	250	25	4.660	6490 15 8
574 05 65 GNBG	16.5 x 1.2	650	Green-beige	250	25	5.370	6490 17 4

V2A Stainless steel, grade 301 /1000 pc.
Tightening strap, 574/03/VA and 574/05/VA, completely pre-terminated with tightening strap lock.



Cable and pipe fastening systems, special



Spring chuck

Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
575	1	29.700	6498 01 9

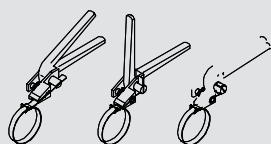
St Steel

/pc.

For tightening strap 574/...

Mounting of the tightening strap:

1. Cut the strap to the right length, push it through the lock and turn it over.
2. Loop the strap around the cable, push the loose end through the lock.
3. Tighten the end of the strap with the pliers.
4. Turn the end of the taut strap with the pliers. Remove the pliers.
5. Completely turnover the turned end of the strap with the hammer, secure the end of the strap by hitting the two standing lobes of the lock.



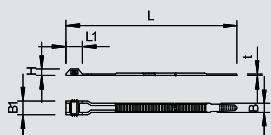
Spring chuck

Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
576	1	132.000	6498 02 7

St Steel

/pc.

For tightening strap 574/...



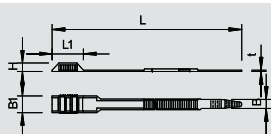
Ribbon clip

Type	Dimension	Max. bundle Ø	Minimum breaking load kN	Colour	Shipping box	Pack.	Weight	Item No.
	mm	mm			pcs	pcs	kg/100 pcs.	
550 6X180 SW	6 x 180	45	0.25	Black	1,500	100	0.180	2330 05 9
550 6X290 SW	6 x 290	78	0.25	Black	1,200	100	0.300	2330 07 5
550 6X360 SW	6 x 360	100	0.25	Black	2,200	100	0.380	2330 09 1
550 9X180 SW	9 x 180	40	0.35	Black	1,000	100	0.270	2330 22 9

PA Polyamide

/1000 pc.

Design E, single lock, UV and weather-resistant.



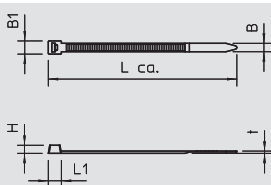
Ribbon clip

Type	Dimension	Max. bundle Ø	Minimum breaking load kN	Colour	Shipping box	Pack.	Weight	Item No.
	mm	mm			pcs	pcs	kg/100 pcs.	
550 9X265 SW	9 x 260	65	0.51	Black	2,200	100	0.420	2330 24 5
550 9X360 SW	9 x 360	93	0.51	Black	2,200	100	0.560	2330 29 6
550 9X510 SW	9 x 510	140	0.55	Black	100	100	0.930	2330 32 6
550 9X760 SW	9 x 760	220	0.55	Black	100	100	1.350	2330 34 2

PA Polyamide

/1000 pc.

Design D, double lock, UV and weather-resistant.



Cable tie, UV and weather-resistant

Type	Dimension	Max. bundle Ø	Minimum breaking load kN	Colour	Shipping box	Pack.	Weight	Item No.
	mm	mm			pcs	pcs	kg/100 pcs.	
555 2.5x100 SWUV	2.5 x 100	18	0.08	Black	1,000	100	0.035	2332 76 0
555 3.6x150 SWUV	3.6 x 140	35	0.18	Black	1,000	100	0.071	2332 76 4
555 3.6x200 SWUV	3.6 x 200	50	0.18	Black	1,000	100	0.109	2332 76 8
555 4.8x200 SWUV	4.8 x 200	47	0.22	Black	1,000	100	0.151	2332 77 2
555 4.8x310 SWUV	4.8 x 300	76	0.22	Black	1,000	100	0.236	2332 77 6
555 4.8x370 SWUV	4.8 x 370	102	0.22	Black	1,000	100	0.606	2332 78 0
555 7.6x380 SWUV	7.6 x 380	102	0.55	Black	1,000	100	0.606	2332 78 4

PA Polyamide

/1000 pc.

For quick fixing.



Systems for the tower base

Equipotential bonding systems



Equipotential bonding rail for indoors, VDE-tested

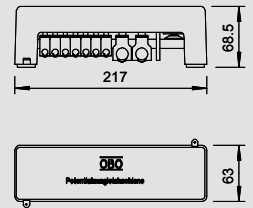
Type	Colour	Pack.	Weight	Item No.
		pcs	kg/100 pcs.	
1801 VDE	Grey	1	55.000	5015 65 0

CuZn Brass /pc.
 Equipotential bonding rail for equipotential bonding according to DIN VDE 0100-410 / -540 and lightning protection equipotential bonding according to DIN VDE 0185-305

- According to VDE 0618, part 1
- With clamping rail 10 x 10 mm, nickel-plated brass
- With close-contact series terminals made of electrogalvanised steel
- Cover hood and rail stand made of grey polystyrene
- Lightning current carrying capacity 100 kA (10/350)
- Tension clamp with screw lock against self-loosening (e.g. required in industry and in explosion-protected areas)

Connection options:

- 7 single or multi-wire cables 2.5-25 mm² or fine-wire cables to 16 mm² (max. Ø 7 mm)
- 2 single or multi-wire cables 25-95 mm² or fine-wire cables to 70 mm² (max. Ø 13.5 mm)
- 1 flat conductor 30 x 3.5 mm

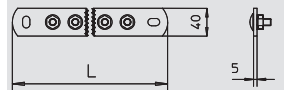


Equipotential bonding rail BigBar for industrial application

Type	Number of connections	Width mm	Length mm	Height mm	Pack.	Weight	Item No.
					pcs	kg/100 pcs.	
1802 5 CU	5	40	246	5	1	80.000	5015 83 0
1802 10 CU	10	40	408.5	5	1	180.000	5015 84 2
1802 5 VA	5	40	246	6	1	90.000	5015 85 4
1802 10 VA	10	40	408.5	6	1	190.000	5015 86 6

V2A Stainless steel, grade 304 **Cu** Copper /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)

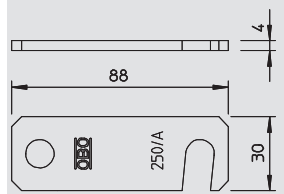


Crossbar for equipotential bonding rail

Type	Connection option	Pack.	Weight	Item No.
		pcs	kg/100 pcs.	
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

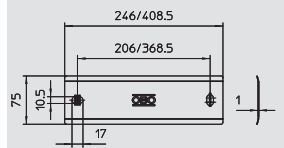


Cover for BigBar equipotential bonding rail

Type	Number of connections	Pack.	Weight	Item No.
		pcs	kg/100 pcs.	
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

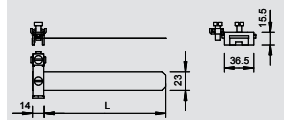


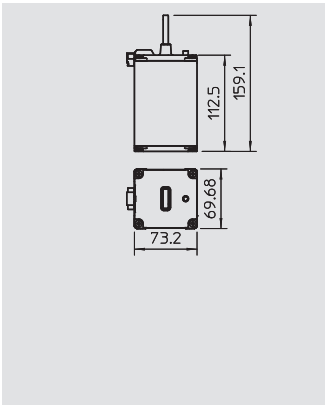
Strip earthing clip

Type	for pipe Ø	For pipe Ø	Pack.	Weight	Item No.
	inch	mm	pcs	kg/100 pcs.	
927 2	3/8-4	17.2-114	10	8.550	5057 52 3

V2A Stainless steel, grade 304 /1000 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)





Lightning current arrester, 1-pole



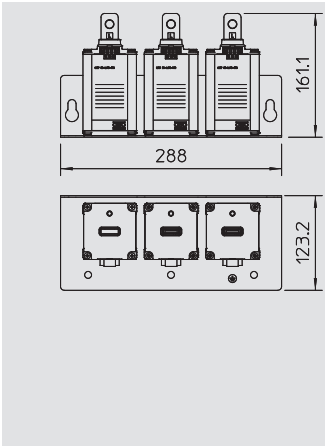
Type	Highest continuous voltage V	Version	Pack. pcs	Weight kg/100 pcs.	Item No.
MCF 35-1+FS-440	440	1-pole	1		5096 97 4

AIG Cast aluminium /pc.

Surge arrester type 1

- For lightning protection equipotential bonding regarding DIN EN 62305 (IEC 62305)
- Lightning current arresting capacity 35 kA (10/350) per pole
- Line following current quenching 50 kA I_{peak}, arrester backup fuse up to 400 A gL/gG
- Encapsulated, non-extinguishing spark gap arrester for use in distributor housings
- Disconnecter with visual indicator
- Remote signalling with potential free changeover contact

Application: 400/690 V Network System



Lightning current arrester, 3-pole



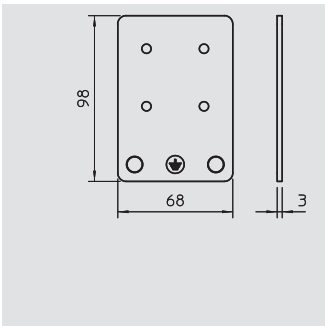
Type	Highest continuous voltage V	Version	Pack. pcs	Weight kg/100 pcs.	Item No.
MCF 35-P3+FS-440	440	3-pole	1		5096 97 6

AIG Cast aluminium /pc.

Surge arrester type 1

- Fully assembled 3-pole connection unit
- For lightning protection equipotential bonding regarding DIN EN 62305 (IEC 62305)
- Lightning current arresting capacity 35 kA (10/350) per pole
- Line following current quenching 50 kA I_{peak}, arrester backup fuse up to 400 A gL/gG
- Encapsulated, non-extinguishing spark gap arrester for use in distributor housings
- Disconnecter with visual indicator
- Remote signalling with potential free changeover contact
- For finished installation on busbars and walls

Application: 400/690 V Network System



Mounting plate, 1-pole

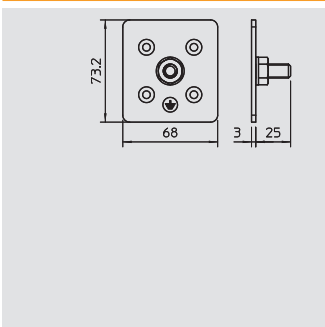


Type	Version	Pack. pcs	Weight kg/100 pcs.	Item No.
MCF-MS-P1	1-pole	1		5096 99 2

V2A Stainless steel, grade 304 /pc.

Mounting plate 1-pole

- Mounting plate for installation of the arrester MCF 35-1+FS-440
- Prefabricated hole pattern for mounting the arrester on busbars
- Required screws for installation of the arrester enclosed



Mounting plate, 1-pole M10

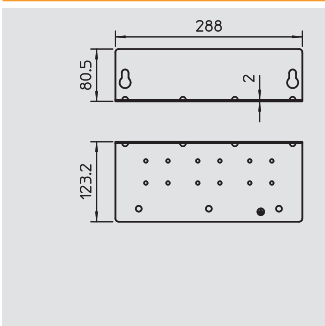


Type	Version	Pack. pcs	Weight kg/100 pcs.	Item No.
MCF-MS-M10	1-pole	1		5096 99 0

V2A Stainless steel, grade 304 /pc.

Mounting plate with threaded connector M10

- Mounting plate with threaded M10 connector to install the arrester MCF 35-1+FS-440
- M10 bolts for direct installation of the arrester on busbars
- Required screws for installation of the arrester enclosed



Mounting plate, 3-pole



Type	Version	Pack. pcs	Weight kg/100 pcs.	Item No.
MCF-MS-P3	3-pole	1		5096 99 4

V2A Stainless steel, grade 304 /pc.

Mounting plate 3-pole

- Mounting plate 3-pole for installation of the arrester MCF 35-1+FS-440
- Prefabricated hole pattern for mounting the arrester on busbars
- Suitable for wall mounting
- Required screws for installation of the arrester enclosed



Surge protection energy technology



Combination arrester, 3-pole + NPE

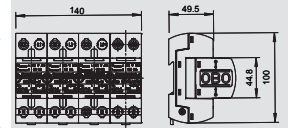
Type	Highest continuous voltage V	Version	Pack. pcs	Weight kg/100 pcs.	Item No.
MCD 50-B 3+1	255	3 + NPE	1	168.000	5096 87 9

/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, 3-pole

Type	Highest continuous voltage V	Version	Pack. pcs	Weight kg/100 pcs.	Item No.
MCD 50-B 3	255	3-pole	1	117.000	5096 87 7

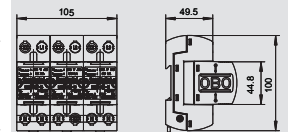
/pc.

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.



Combination arrester, 1-pole

Type	Highest continuous voltage V	Version	Pack. pcs	Weight kg/100 pcs.	Item No.
MCD 50-B	255	1-pole	1	34.400	5096 84 9

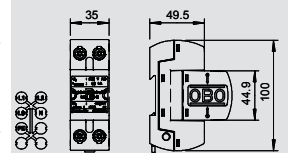
/pc.

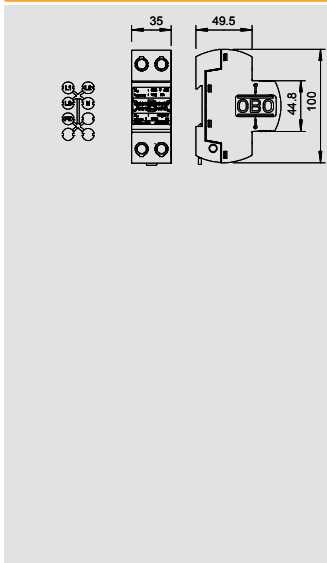
Combination arrester, 1-pole, for use in TN-S and TT networks:

MCD 50-B: Type 1 (Class B) coordinated lightning current arrestors to DIN EN 61643-11. For interface 0 to 2 (LPZ) in accordance with lightning protection zone concept to IEC 61312-1 and/or 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 in a separate housing. Installation of requirement class B+C arrestors in a distributor without decoupling inductances and/or line lengths, e.g. direct on mobile radio system.





Combination arrester, 1-pole NPE



Type	Highest continuous voltage V	Version	Pack. pcs	Weight kg/100 pcs.	Item No.
MCD 125-B NPE	255	NPE	1	46.500	5096 86 5

/pc.

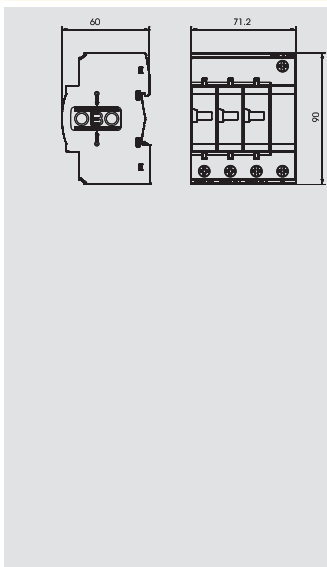


arrester for use in TN-S and TT systems.

MCD 125-B/NPE: as coordinated N-PE discharge gap, Type 1 (Class B) IEC 61643. For interface 0 to 1 (LPZ) according to lightning protection zone concept to IEC 61312-1 and/or DIN VDE 0185-305 for use as discharge gap between N and PE.

- Protection capability 125 kA 10/350 μ s
- Conforms to VDN Directive, 2nd Edition 2004
- Including plug caps for identifying the connections
- Protection level < 1.3 kV
- Enclosed, non-extinguishing discharge gap: can be used in normal commercial distributor housings

Application example: compact overvoltage protection concepts in a separate housing. Installation of arrestors of requirement Class B+C in a distributor without decoupling inductivity and/or line lengths, e.g. direct on mobile radio system.



Lightning current and surge arrester, 3-pole + NPE



Type	Highest continuous 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.

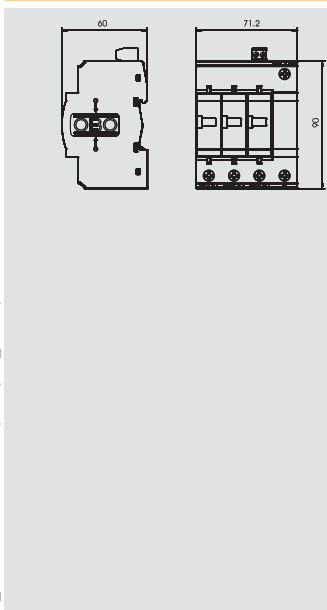


Combination arrester set, lightning and surge arrester type 1+2 to DIN EN 61643-11 (B+C to VDE 0675 part 6).

- 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, 3-pole + NPE with remote signalling



Type	Highest continuous 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

Surge protection energy technology



Lightning current and surge arrester, 3-pole

Type	Highest continuous voltage V	Version	Pack. pcs	Weight kg/100 pcs.	Item No.
V50-B+C 3-280	280	3-pole	1	42.300	5093 62 7

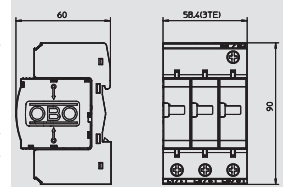
/pc.

V 50-B+C/...: 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
- Universally suitable for TN-C 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, 3-pole with remote signalling

Type	Highest continuous voltage V	Version	Pack. pcs	Weight kg/100 pcs.	Item No.
V50-B+C 3+FS280	280	3-pole with FS	1	43.000	5093 64 3

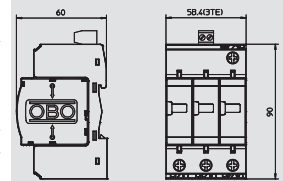
/pc.

V 50-B+C/...: 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
- Universally suitable for TN-C 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
- FS variant with remote signalling contact (potential-free NO contact)

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



Cover of CombiController V50

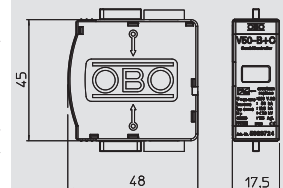
Type	Highest continuous voltage V	U max DC V	Version	Pack. pcs	Weight kg/100 pcs.	Item No.
V50-B+C 0-280	280	350	1-pole upper part	1	8.000	5093 72 4

/pc.

V 50-B+C/0...: CombiController, upper part – type 1+2 CombiArrester

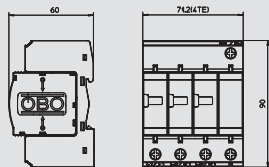
- Plug-in upper part; upper part can be separated from base without tools and current cut-off in bottom part
- Including thermal and dynamic separating device and visual fault display
- High current conductivity and long service life

Cover



Systems for the tower base

12 LWE Lösungskatalog_Windkraft_2012 / en / 23/10/2012 (LLExpport_01533) / 06/11/2012



Surge arrester, 3-pole + NPE



Type	Highest continuous 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



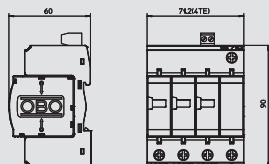
/pc.

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, 3-pole + NPE with remote signalling



Type	Highest continuous 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

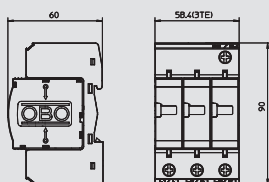
/pc.

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



Type	Highest continuous voltage V	Version	Pack. pcs	Weight kg/100 pcs.	Item No.
V20-C 1-280	280	1-pole	1	12.000	5094 61 8
V20-C 2-280	280	2-pole	1	22.700	5094 62 1
V20-C 3-280	280	3-pole	1	33.500	5094 62 4

/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 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

* Complete = cover and base



Surge protection energy technology



Surge arrester, remote signalling

Type	Highest continuous voltage V	Version	Pack. pcs	Weight kg/100 pcs.	Item No.
V20-C 1+FS-280	280	1-pole	1	12.400	5094 72 7
V20-C 2+FS-280	280	2-pole	1	22.500	5094 63 2
V20-C 3+FS-280	280	3-pole	1	33.700	5094 73 1

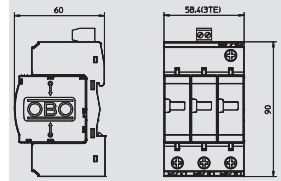
/pc.

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 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, 3-pole with NPE

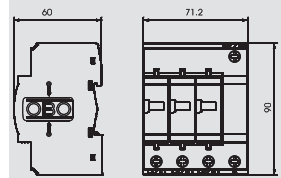
Type	Highest continuous voltage V	Version	Pack. pcs	Weight kg/100 pcs.	Item No.
V20-C 3+NPE400	440	3 + NPE	1	47.000	5094 90 0

/pc.

Plug-in surge arrester type 2 for 400 /690 V networks

- Complete unit consisting of upper and lower part, pre-mounted and ready for connection
- VDE-tested
- Suitable for TN, TT and IT network systems
- NPE spark gap designed for max. 440 V AC (IEC 60364-5-53)
- Arresting capacity of the spark gap MB25 up to 25 kA (10/350)
- Plug-in upper part; upper part can be separated from lower part without tools
- Including thermal and dynamic separating device
- With visual display of defects
- Labelled connections
- Vibration-proof through Shock Guard
- Particularly suitable for use in wind power plants

Application example: Industrial and wind power plants



Surge arrester, 3-pole with NPE and remote signalling

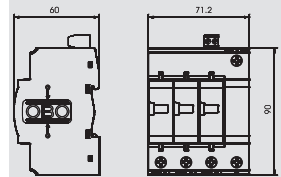
Type	Highest continuous voltage V	Version	Pack. pcs	Weight kg/100 pcs.	Item No.
V20-C3+NPE400+FS	440	3 + NPE	1	47.400	5094 90 2

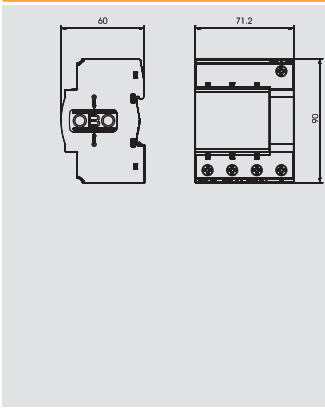
/pc.

Plug-in surge arrester type 2 for 400/690V networks

- Complete unit consisting of upper and lower part, pre-mounted and ready for connection
- VDE-tested
- Suitable for TN, TT and IT network systems
- NPE spark gap designed for max 440 V AC (IEC 60364-5-53)
- Arresting capacity of the spark gap MB25 up to 25 kA (10/350)
- Plug-in upper part; upper part can be separated from lower part without tools
- Including thermal and dynamic separating device
- With visual display of defects
- With remote signalling
- Labelled connections
- Vibration-proof through Shock Guard
- Particularly suitable for use in wind power plants

Application example: Industrial and wind power plants





MultiBase base MB25



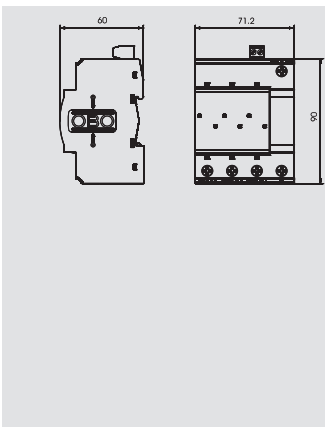
Type	Highest continuous voltage V	Version	Pack. pcs	Weight kg/100 pcs.	Item No.
MB25-3+NPE	440	3 + NPE	1	27.000	5096 67 2

/pc.



Lower part for 400/690 V networks

- VDE-tested
 - Suitable for TN, TT and IT network systems
 - NPE spark gap designed for max 440 V AC (IEC 60364/5/53)
 - Arresting capacity of the spark gap MB25 up to 25 kA (10/350)
 - Labelled connections
 - Vibration-proof through Shock Guard
 - Particularly suitable for use in wind power plants
- Application example: Industrial and wind power plants



Multibase base MB25 with remote signalling



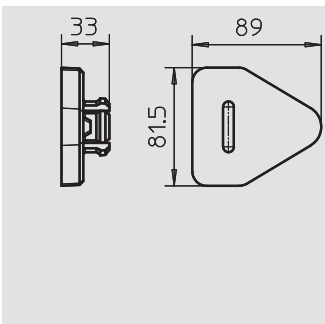
Type	Highest continuous voltage V	Version	Pack. pcs	Weight kg/100 pcs.	Item No.
MB25-3+NPE+FS	440	3 + NPE	1	29.000	5096 67 3

/pc.



Lower part for 400/690 V networks

- VDE-tested
 - Suitable for TN, TT and IT network systems
 - NPE spark gap designed for max 440 V AC (IEC 60364-5-53)
 - Arresting capacity of the spark gap MB25 up to 25 kA (10/350)
 - With remote signalling
 - Labelled connections
 - Vibration-proof through Shock Guard
 - Particularly suitable for use in wind power plants
- Application example: Industrial and wind power plants



Shock Guard for MultiBase base

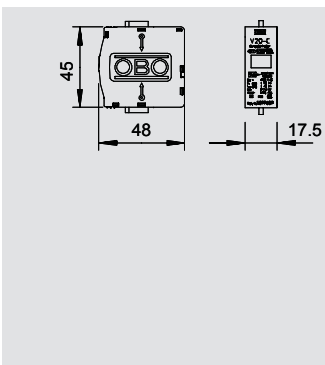
Type	Colour	Version	Pack. pcs	Weight kg/100 pcs.	Item No.
MB-SG	Blue	Locking system for covers	100	0.060	5096 69 5

PA Polyamide

Shock Guard: Locking for connector technology on MultiBase bases

- Locking system for the plug-in modules/covers
- Vibration and shock-tested
- Use in housing hole of the connection terminals
- Upper parts can be removed without tools

/pc.



Cover of surge arrester



Type	Version	Highest continuous voltage V	U max DC V	Pack. pcs	Weight kg/100 pcs.	Item No.
V20-C 0-280	1-pole	280	350	1	8.500	5099 60 9
V20-C 0-440	1-pole	440	585	1	6.452	5099 70 6

/pc.

V 20-C/...: SurgeController, upper part – type 2 surge arrester

- VDE-tested
- Plug-in upper part; upper part can be separated from base without tools
- Including thermal and dynamic separating device and visual fault display
- High current conductivity and long service life

* Complete = cover and base



Surge protection device for data and information technology



Surge protection for 10 Gbit high-speed networks

Type	Version	Connection system	Pack.	Weight	Item No.
			pcs	kg/100 pcs.	
ND-CAT6A/EA	8-pole	RJ45	1	16.600	5081 80 0

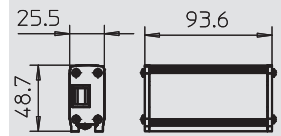
/pc.

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

- High-quality RJ-45 sockets
- Support for Power over Ethernet + to 1 A
- Tested transmission quality in networks up to 10 Gbit (Class EA) and CAT6A
- Rapid installation through connectable design



MCR protection for 2-pin for power supply

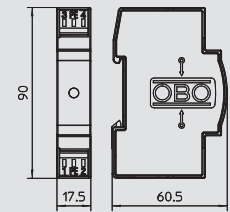
Type	Version	U max AC V	U max DC V	Pack.	Weight	Item No.
				pcs	kg/100 pcs.	
VF12-AC DC	12 V version	13.5	18	1	9.000	5097 45 3
VF24-AC/DC	24 V version	34	46	1	8.000	5097 60 7
VF230-AC/DC	230 V version	255	350	1	8.000	5097 65 0

/pc.

Surge protection, fine power protection, type 3, to EN 61643-11 (D to VDE 0675 Part 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 connection

Application: Universal use on 35 mm hat profile rails in standard distributor housings.



MCR protection for 2-pin for power supply with remote signalling, 24 V AC/DC

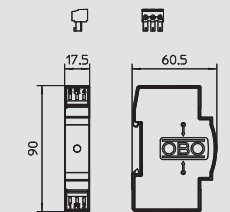
Type	U max AC V	U max DC V	Pack.	Weight	Item No.
			pcs	kg/100 pcs.	
VF24-AC/DC-FS	34	46	1	6.620	5097 82 0

/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 terminals
- 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.



MCR protection for 2-pin for power supply with remote signalling, 230 V AC

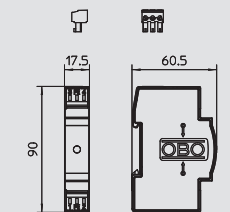
Type	U max AC V	U max DC V	Pack.	Weight	Item No.
			pcs	kg/100 pcs.	
VF230-AC-FS	255	—	1	6.910	5097 85 8

/pc.

Surge protection device, fine protection type 3 for distributor installation

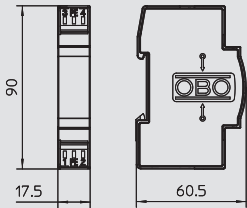
- Suitable for DC and AC voltage systems
- With visual function display
- With installation-friendly, screwless connection terminals
- In a space-saving 17.5 mm grid
- Y connection

Application: Universal use on 35 mm U-rail in every normal commercially available distribution housing.



Surge protection device for data and information technology

Basic protection for two-core systems with HF applications 120 V



Type	Max. continuous operating voltage Vc/AC V	Maximum continuous voltage Vc/DC V	Number of poles	Connection system	Pack. pcs	Weight kg/100 pcs.	Item No.
TKS-B	120	170	2	Terminal	1	4.400	5097 97 6

/pc.

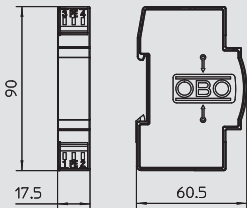
Basic protection for measuring, control and regulation technology and telecommunication systems.

- Basic protection for lightning protection equipotential bonding
- High impulse arresting capacity 6 kA (10/350)
- With easy-to-mount, screwless connection terminals
- In a space-saving 17.5 mm grid

Application: Universal use on 35 mm hat profile rails in standard distributor housings.



Surge arrester for HF applications



Type	Max. continuous operating voltage Vc/AC V	Maximum continuous voltage Vc/DC V	Number of poles	Connection system	Pack. pcs	Weight kg/100 pcs.	Item No.
FRD 24 HF	19	28	2	Terminal	1	4.400	5098 57 5

/pc.

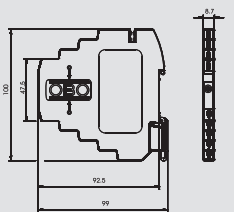
Surge protection for use in measuring, control and regulation technology.

- Basic, medium and fine protection
- Two-stage protection circuit with high lightning protection capability
- High transfer frequency of 100 MHz
- Fits all bus systems (e.g. Profibus)
- With easy-to-mount, screwless connection terminals
- In a space-saving 17.5 mm grid

Application: Universal use on 35 mm hat profile rails in standard distributor housings.



Series protection device, 2-pole, 24 V version



Type	Nominal voltage V	Max. continuous operating voltage Vc/AC V	Maximum continuous voltage Vc/DC V	Pack. pcs	Weight kg/100 pcs.	Item No.
MDP-2 D-24-T	24	20	28	1	6.000	5098 42 2

/pc.

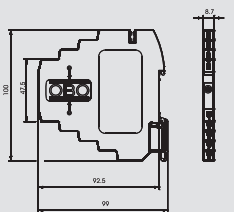
MDP.../D...T: Lightning barrier with test function

- 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.



Series protection device, 4-pole, 24 V version



Type	Nominal voltage V	Max. continuous operating voltage Vc/AC V	Maximum continuous voltage Vc/DC V	Pack. pcs	Weight kg/100 pcs.	Item No.
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 device for data and information technology



Lightning barrier for high nominal currents

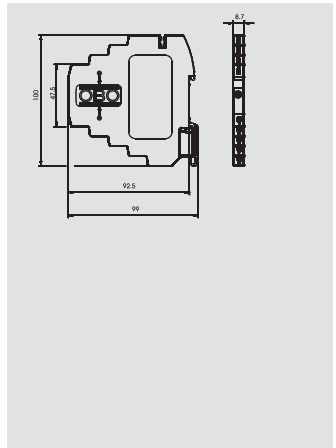
Type	Nominal voltage V	Max. continuous operating voltage Vc/AC V	Maximum continuous voltage Vc/DC V	Pack. pcs	Weight kg/100 pcs.	Item No.
MDP-4 D-24-T-10	24	20	28	1	7.200	5098 43 3

/pc.

Testable data cable protection devices for multi-wire systems

- Rated current: A
- Narrow installation width of just 8 mm
- Low protection level at high current load
- Screwless terminals
- Bandwidth-optimised for secure transmission
- Quick mounting on hat rail or wall mounting
- Testable when installed

Application example: Measurement technology, control cabinet construction, etc.

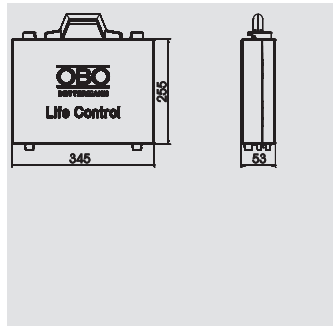


Testing unit for lightning barriers

Type	Pack. pcs	Weight kg/100 pcs.	Item No.
LFC	1	164.500	5096 78 6

/pc.

OBO Life Control allows function control of the MDP lightning barriers. The lightning barriers can be checked while installed. Life Control will not have any influences on the measuring signal. Life Control possesses an integrated OLED with visual and acoustic defect signalling. A separate LED inside the testing pin is also integrated. Life Control is delivered in a case, complete with a CD and instructions.



Medium and fine protection for two-core systems 5 V

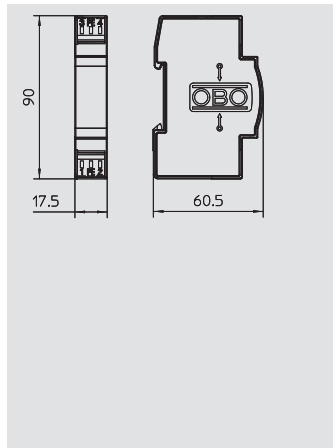
Type	Max. continuous operating voltage Vc/AC V	Maximum continuous voltage Vc/DC V	Number of poles	Connection system	Pack. pcs	Weight kg/100 pcs.	Item No.
FRD 5	5	8	2	Terminal	1	5.100	5098 49 2

/pc.

Surge protection for use in measurement and control technology

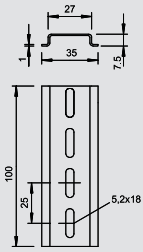
- Medium and fine protection
- Standard design for double core systems
- Two-stage protection circuit
- With installation-friendly, screwless connection terminals
- In space-saving 17.5 mm grid
- With ohmic decoupling in the longitudinal branch

Application: Universal use on any 35 mm hat profile rail in every commercially available distributor housing.



Systems for the tower base

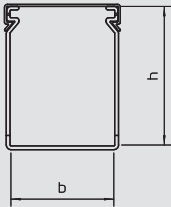
Wiring trunking systems, System Dahl



Hat profile rail

Type	Version	Material thickness	Length	Bundle	Weight	Item No.
		mm	mm	m	kg/100 m	
2069 2M GTPL	Perforated	1	2,000	50	33.000	1115 66 9

St Steel **GTP** Electrogalvanised, transparently passivated price/100 m
 Hat profile rail 35 x 7.5 mm to DIN EN 60715 (formerly DIN EN 50022).

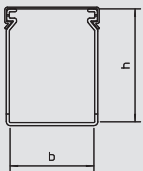


LK4 wiring trunking, Dahl brand



Type	Colour	Length	Dimension b x h	Pack.	Weight	Item No.
		mm	mm	m	kg/100 m	
LK4 15015	Stone grey	2,000	15x15	72	12.000	6178 00 1
LK4 30015	Stone grey	2,000	15x30	40	18.000	6178 00 3
LK4 30025	Stone grey	2,000	25x30	48	28.000	6178 00 5
LK4 40025	Stone grey	2,000	25x40	48	36.500	6178 01 0
LK4 40040	Stone grey	2,000	40x40	36	44.000	6178 01 2
LK4 40060	Stone grey	2,000	60x40	24	57.000	6178 01 4
LK4 40080	Stone grey	2,000	80x40	24	71.000	6178 01 6
LK4 40100	Stone grey	2,000	100x40	24	85.500	6178 01 8
LK4 60015	Stone grey	2,000	15x60	48	32.500	6178 02 6
LK4 60025	Stone grey	2,000	25x60	32	46.000	6178 02 8
LK4 60040	Stone grey	2,000	40x60	24	53.500	6178 03 1
LK4 60060	Stone grey	2,000	60x60	32	64.500	6178 03 3
LK4 60080	Stone grey	2,000	80x60	24	82.500	6178 03 5
LK4 60100	Stone grey	2,000	100x60	16	100.000	6178 03 7
LK4 60120	Stone grey	2,000	120x60	8	117.000	6178 03 9
LK4 80025	Stone grey	2,000	25x80	32	61.000	6178 05 0
LK4 80040	Stone grey	2,000	40x80	24	64.500	6178 05 2
LK4 80060	Stone grey	2,000	60x80	24	76.000	6178 05 4
LK4 80080	Stone grey	2,000	80x80	16	95.500	6178 05 6
LK4 80100	Stone grey	2,000	100x80	16	111.500	6178 05 9
LK4 80120	Stone grey	2,000	120x80	8	128.500	6178 06 1

PVC Polyvinylchloride /m
 Wiring trunking including cover and base perforation.



LK4/N wiring trunking, Dahl brand



Type	Colour	Length	Dimension b x h	Pack.	Weight	Item No.
		mm	mm	m	kg/100 m	
LK4 N 60015	Stone grey	2,000	15x60	48	41.000	6178 20 1
LK4 N 60025	Stone grey	2,000	25x60	32	48.500	6178 20 3
LK4 N 60040	Stone grey	2,000	40x60	24	56.000	6178 20 5
LK4 N 60060	Stone grey	2,000	60x60	32	68.000	6178 20 7
LK4 N 60080	Stone grey	2,000	80x60	24	87.000	6178 20 9
LK4 N 60100	Stone grey	2,000	100x60	16	105.500	6178 21 1
LK4 N 60120	Stone grey	2,000	120x60	8	120.500	6178 21 3
LK4 N 80025	Stone grey	2,000	25x80	32	65.000	6178 22 5
LK4 N 80040	Stone grey	2,000	40x80	24	73.500	6178 22 7
LK4 N 80060	Stone grey	2,000	60x80	24	82.000	6178 22 9
LK4 N 80080	Stone grey	2,000	80x80	16	101.000	6178 23 1
LK4 N 80100	Stone grey	2,000	100x80	16	116.500	6178 23 3
LK4 N 80120	Stone grey	2,000	120x80	8	133.500	6178 23 6

PVC Polyvinylchloride /m
 Wiring trunking including cover and base perforation, tapering in the side slots stops the cables from falling out.



Systems for the tower base

Wiring trunking systems, System Dahl



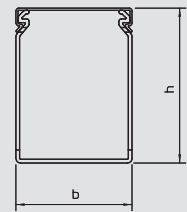
LKV DIN wiring trunking, Dahl brand

Type	Colour	Length mm	Dimension b x h mm	Pack. m	Weight kg/100 m	Item No.
LKV 37025	Stone grey	2,000	25x37,5	32	31.500	6178 30 5
LKV 37037	Stone grey	2,000	37,5x37,5	60	40.500	6178 30 7
LKV 50025	Stone grey	2,000	25x50	60	35.500	6178 31 0
LKV 50037	Stone grey	2,000	37,5x50	48	44.500	6178 31 2
LKV 50050	Stone grey	2,000	50x50	36	50.000	6178 31 4
LKV 50075	Stone grey	2,000	75x50	24	66.000	6178 31 6
LKV 75025	Stone grey	2,000	25x75	40	48.500	6178 32 0
LKV 75037	Stone grey	2,000	37,5x75	32	58.500	6178 32 2
LKV 75050	Stone grey	2,000	50x75	24	67.500	6178 32 4
LKV 75075	Stone grey	2,000	75x75	16	80.000	6178 32 6
LKV 75100	Stone grey	2,000	100x75	16	105.500	6178 32 8
LKV 75125	Stone grey	2,000	125x75	8	128.500	6178 33 0
LKV 10037	Stone grey	2,000	37,5x100	32	67.000	6178 33 4
LKV 10050	Stone grey	2,000	50x100	24	77.000	6178 33 6
LKV 10075	Stone grey	2,000	75x100	16	96.000	6178 33 8
LKV 100100	Stone grey	2,000	100x100	8	116.500	6178 34 1

PVC Polyvinylchloride

/m

Wiring trunking including cover and base perforation to DIN EN 50085-2-3.



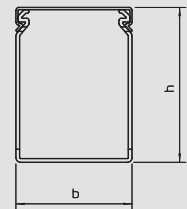
LKV/N DIN wiring trunking, Dahl brand

Type	Colour	Length mm	Dimension b x h mm	Pack. m	Weight kg/100 m	Item No.
LKV N 75037	Stone grey	2,000	37,5x75	32	60.500	6178 42 2
LKV N 75050	Stone grey	2,000	50x75	24	72.500	6178 42 4
LKV N 75075	Stone grey	2,000	75x75	16	84.500	6178 42 6
LKV N 75100	Stone grey	2,000	100x75	16	112.000	6178 42 8
LKV N 75125	Stone grey	2,000	125x75	8	138.500	6178 43 0
LKV N 10037	Stone grey	2,000	37,5x100	32	73.000	6178 43 5
LKV N 10050	Stone grey	2,000	50x100	24	83.000	6178 43 7
LKV N 10075	Stone grey	2,000	75x100	16	102.000	6178 43 9
LKV N 100100	Stone grey	2,000	100x100	8	122.500	6178 44 1

PVC Polyvinylchloride

/m

Wiring trunking to DIN EN 50085-2-3 including cover and base perforation, tapering in the side slots stops the cables from falling out.



Systems for the tower base



Wire retainer

Type	Colour	Dimension a mm	Dimension b mm	Pack. pcs	Weight kg/100 pcs.	Item No.

PS Polystyrene

/1000 pc.

Wire retainer for wiring trunking, type LK4 and LK4/N. The wire retainer prevents already inserted cables from falling out. These predetermined breaking points allow the length to be reduced for various trunking widths to 38, 28 and 23 mm.

Type	Colour	Dimension a mm	Dimension b mm	Pack. pcs	Weight kg/100 pcs.	Item No.

PS Polystyrene

/1000 pc.

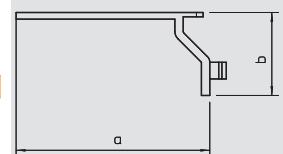
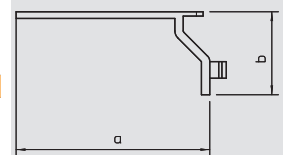
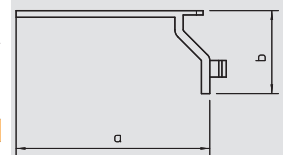
Wire retainer for wiring trunking, type LKV and LKV/N. The wire retainer prevents already inserted cables from falling out. These predetermined breaking points allow the length to be reduced for various trunking widths to 38, 28 and 23 mm.

Type	Colour	Dimension a mm	Dimension b mm	Pack. pcs	Weight kg/100 pcs.	Item No.

PS Polystyrene

/1000 pc.

Wire retainer for halogen-free wiring trunking, type LKV/H. The wire retainer prevents already inserted cables from falling out. These predetermined breaking points allow the length to be reduced for various trunking widths to 38, 28 and 23 mm.



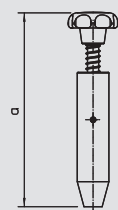
Plastic rivet tool

Type	Colour	Pack. pcs	Weight kg/100 pcs.	Item No.
KNW2	Black	1	9.400	6178 52 9

POM Polyacetal (polyoxymethylene, polyformaldehyde)

/pc.

Riveting tool for installing body-bound rivets 4.5 mm.



12 LWE Lösungskatalog_Windkraft_2012 / en / 23/10/2012 (LLExpport_01533) / 06/11/2012



Body-bound rivet

Type	Colour	Dimension a mm	Pack. pcs	Weight kg/100 pcs.	Item No.
KSN1	Light grey	4.5	100	0.024	6178 52 0
KSN2	Light grey	6	100	0.056	6178 52 2

PP Polypropylene

/1000 pc.

The VK slotted cable trunking system is fixed to the mounting plate using the spreading rivet and the riveting tool.

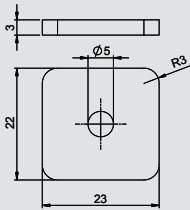


Release pliers

Type	Pack. pcs	Weight kg/100 pcs.	Item No.
AKZ	1	30.857	6178 53 5

St Steel

/pc.



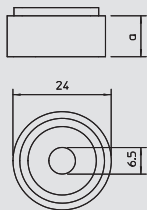
Washer

Type	Colour	Dimension h mm	Diameter mm	Pack. pcs	Weight kg/100 pcs.	Item No.
ULS	Grey	3	5	100	0.170	6178 54 8

PVC Polyvinylchloride

/1000 pc.

Washer as compensation for different heights.



Spacer

Type	Colour	Dimension a mm	Diameter mm	Pack. pcs	Weight kg/100 pcs.	Item No.
AH1	Grey	12	24	100	0.354	6178 54 0
AH2	Grey	20	24	100	0.576	6178 54 2

PVC Polyvinylchloride

/1000 pc.

Stackable spacer for height compensation between the different component heights.



Clamp clip systems

Cable clip, screen connection

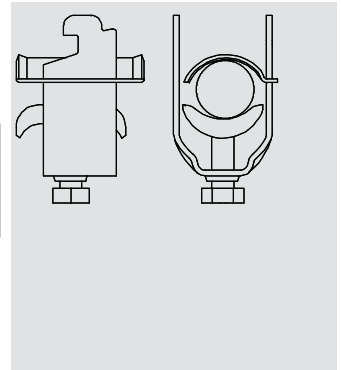


Type	Clamping range D	Dimension A	Dimension B	Dimension C	Dimension G	Dimension t	Dimension H	Dimension L	Pack.	Weight	Item No.
	mm	mm	mm	mm	mm	mm	mm	mm	pcs	kg/100 pcs.	
2056N SAS 8 VA	4-8	20	12	28	M6	1.5	30	32.5	100	2.900	1167 00 6
2056N SAS 12 VA	8-12	20	16	34	M6	1.5	34	34	100	3.700	1167 01 4
2056N SAS 16 VA	12-16	20	20	34	M6	1.5	38	34	100	4.200	1167 02 2
2056N SAS 22 VA	16-22	20	27	34	M6	1.5	44	34	100	4.850	1167 03 0
2056N SAS 28 VA	22-28	20	33	34	M6	2	51	34	100	6.600	1167 04 9

V2A Stainless steel, grade 304

/1000 pc.

For electrical connection of the braided shield of stripped cables. Delivery complete with counter-trough; pressure trough and VA counter-trough. A cable screen for protection against electromagnetic influences, can also contribute towards equipotential bonding as both ends are connected to the reference potential.



Clamp clip, fastening earthing strips

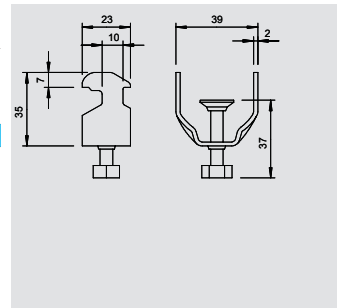


Type	For rail with slot width	Pack.	Weight	Item No.
	mm	pcs	kg/100 pcs.	
2056 BE FT	16-17	100	4.700	1174 05 3

St Steel FT Hot-dip galvanised

/1000 pc.

To fasten earthing strips with widths of up to 30 mm to profile rails, suitable for all C profile rails with 16-17 mm slot width.



Clamp clip, single, metal pressure trough V4A

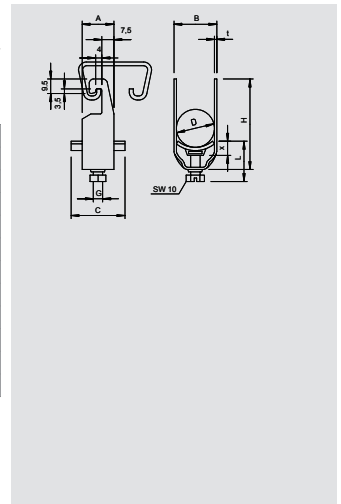


Type	Clamping range D	Dimension A	Dimension B	Dimension C	Dimension G	Dimension t	Dimension H	Dimension L	Pack.	Weight	Item No.
	mm	mm	mm	mm	mm	mm	mm	mm	pcs	kg/100 pcs.	
2056U M 12 V4A	8-12	-	16	34	-	1.5	-	-	100	3.300	1158 20 7
2056U M 16 V4A	12-16	-	20	34	-	1.5	-	-	100	3.520	1158 21 1
2056U M 22 V4A	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

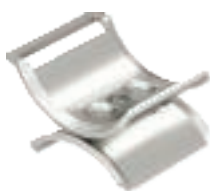
V4A Stainless steel, grade 316 Ti

/1000 pc.

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



Double trough, V2A

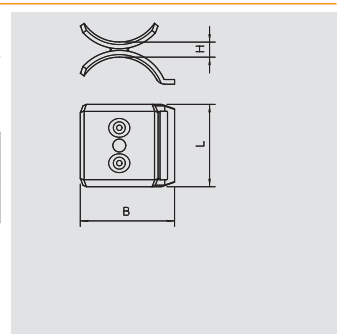


Type	Clamping range D	Dimension L	Dimension B	Dimension H	Shipping box	Pack.	Weight	Item No.
	mm	mm	mm	mm	pcs	pcs	kg/100 pcs.	
2058 M2 22 V2A	16-22	35	28	5.4	500	50	2.300	1196 59 7
2058 M2 28 V2A	22-28	35	34	5.4	600	50	3.100	1196 59 9
2058 M2 34 V2A	28-34	35	40	6.4	300	50	3.760	1196 60 1
2058 M2 40 V2A	34-40	35	46	6.4	100	50	5.600	1196 60 3

V2A Stainless steel, grade 304

/1000 pc.

Clamp clips allows both cables and pipes to be fastened to profile rails. The clamp clips are hooked into the appropriate slot widths of the profile rails and the component to be fastened is pressed onto the profile rail with the pressure trough of the clamp clip and held in place.



Mounting rail, MS 41

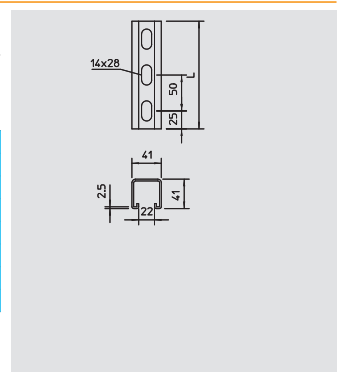


Type	Version	Dimension b x h	Material thickness	Length	Interface	Pack.	Weight	Item No.
		mm	mm	mm		pcs	kg/100 pcs.	
MS 41 L 200 FT	Perforated	41x41	2.5	200	-	6	52.400	1122 50 9
MS 41 L 300 FT	Perforated	41x41	2.5	300	FT	6	78.500	1122 51 7
MS 41 L 400 FT	Perforated	41x41	2.5	400	FT	6	104.700	1122 52 5
MS 41 L 500 FT	Perforated	41x41	2.5	500	FT	6	130.800	1122 53 3
MS 41 L 600 FT	Perforated	41x41	2.5	600	FT	6	156.900	1122 54 1
MS 41 L 700 FT	Perforated	41x41	2.5	700	FT	6	183.000	1122 56 8
MS 41 L 800 FT	Perforated	41x41	2.5	800	FT	6	209.200	1122 57 6
MS 41 L 900 FT	Perforated	41x41	2.5	900	FT	6	235.300	1122 58 4

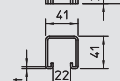
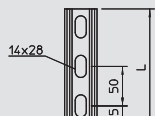
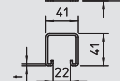
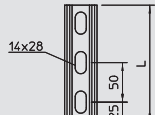
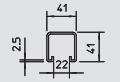
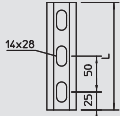
St Steel FT Hot-dip galvanised

/1000 pc.

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



Mounting rail, MS 41



Type	Version	Dimension b x h mm	Material thickness mm	Length mm	Pack. m	Weight kg/100 m	Item No.
MS 41 L 1M FT	Perforated	41x41	2.5	1,000	6	261.400	1122 60 6
MS 41 L 3M FT	Perforated	41x41	2.5	3,000	1	261.400	1122 62 2
MS 41 L 6M FT	Perforated	41x41	2.5	6,000	6	261.400	1122 65 7

St Steel **FT** Hot-dip galvanised price/100 m
Heavy-duty profile/mounting rail with continuous perforation in base, slot width 22 mm.

Type	Version	Inter- face	Dimension b x h mm	Material thickness mm	Length mm	Pack. pcs	Weight kg/100 pcs.	Item No.
MS 41 LS 300 FT	Perforated	FT	41x41	2.5	300	6	71.500	1122 50 0
MS 41 LS 400 FT	Perforated	FT	41x41	2.5	400	6	95.300	1122 50 1

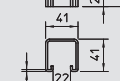
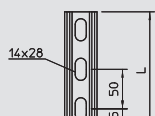
St Steel **FT** Hot-dip galvanised /1000 pc.
Heavy-duty profile/mounting rail with continuous, three-sided perforation, slot width 22 mm.

Type	Version	Inter- face	Dimension b x h mm	Material thickness mm	Length mm	Pack. m	Weight kg/100 m	Item No.
MS 41 LS 3M FT	Perforated	FT	41x41	2.5	3,000	3	238.300	1122 48 3
MS 41 LS 6M FT	Perforated	FT	41x41	2.5	6,000	6	238.300	1122 48 7

St Steel **FT** Hot-dip galvanised price/100 m
Heavy-duty profile/mounting rail with continuous, three-sided perforation, slot width 22 mm.



Mounting rail, MS 41 V4A

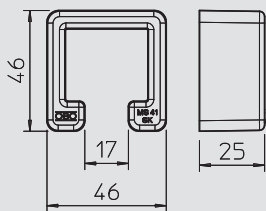


Type	Version	Material thickness mm	Length mm	Pack. m	Weight kg/100 m	Item No.
MS 41 LS 1M V4A	Perforated	2.5	1,000	6	225.500	1123 07 7
MS 41 LS 6M V4A	Perforated	2.5	6,000	1	225.500	1123 07 9

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



Protective cap MS 41

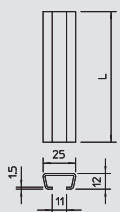


Type	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
MS 41 SK OR SP	Pastel orange	300	25	1.320	1122 90 0

PE Polyethylene /1000 pc.
Protective caps for profile rail, types MS 41.



Profile rail, slot 11 mm

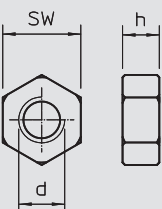


Type	Version	Dimension b x h mm	Material thickness mm	Length mm	Bundle m	Weight kg/100 m	Item No.
2066 2M F	Unperforated	25 x 12	1.5	2,000	20	65.000	1117 02 5
2066 2M FS	Unperforated	25 x 12	1.5	2,000	20	58.300	1117 03 3

St Steel **FS** Strip-galvanised **F** Hot-dip galvanised price/100 m
Profile rail, unperforated, slot width 11 mm.



Hexagonal nut DIN 934 V4A



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 V4A	M6	10	5.2	6	3,600	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 /1000 pc.
Hexagonal nut to DIN 934 with metric thread.



Clamp clip systems



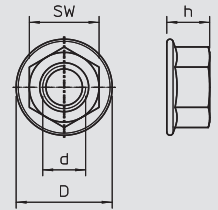
Hexagonal nut with underhead tothing DIN 6923

Type	Dimension d mm	SW mm	Pack. pcs	Weight kg/100 pcs.	Item No.
DIN 6923 M8 VA	8	13	100	0.800	3156 12 0
DIN 6923 M10 VA	10	17	50	1.320	3156 12 2
DIN 6923 M12 VA	12	19	50	2.100	3156 12 6

V2A Stainless steel, grade 304

Combination nut with pressed washer.

/1000 pc.



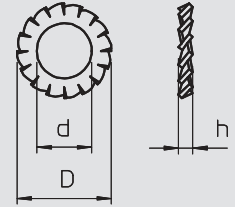
Serrated washer DIN 6798 V4A

Type	Dimension d mm	Dimension D mm	Dimension h mm	Pack. pcs	Weight kg/100 pcs.	Item No.
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

Serrated washer to DIN 6798, shape A.

/1000 pc.



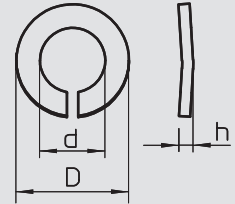
Lock washer V4A

Type	Thread	Dimension d mm	Dimension D mm	Dimension h mm	Pack. pcs	Weight kg/100 pcs.	Item No.
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

Lock washer according to DIN 128, shape A.

/1000 pc.



Fire protection cover, waterproof



Type	Dimension	Pack.	Weight	Item No.
		pcs	kg/100 pcs.	
FSB-WB	1100x20000	1	2.200.000	7203 16 0

/pc.

Waterproof fire protection jacketing made of flexible mesh with fire protection coating to prevent fire spreading via cables and cable support systems. External side grey, internal side red. One roll contains 22 m².



Ribbon clip

Type	Dimension B mm	Dimension L mm	Pack.	Weight	Item No.
			pcs	kg/100 pcs.	
MBS 015	7	150	100	0.230	7203 10 0
MBS 030	7	300	100	0.399	7203 10 2
MBS 045	7	450	50	0.602	7203 10 4
MBS 061	7	610	50	0.806	7203 10 6
MBS 075	12	750	25	2.300	7203 10 8
MBS 100	12	1.000	25	3.000	7203 11 0
MBS 120	12	1.200	25	3.600	7203 11 2
MBS 150	12	1.500	25	4.400	7203 11 4

V2A Stainless steel, grade 304

/1000 pc.

Metal ribbon clip in ladder form with single lock, 7 mm wide in various fixed lengths. For high-temperature and weatherproof fixing.



Spring chuck

Type	Pack.	Weight	Item No.
	pcs	kg/100 pcs.	
MBS-Z	1	55.500	7203 12 0

St Steel

/pc.

High-quality spring chuck with cutting tool for metal strip clips, type MBS.



Tightening strap

Type	Dimension B mm	Dimension L mm	Pack.	Weight	Item No.
			pcs	kg/100 pcs.	
FSB-SB	15	50.000	1	110.000	7203 13 0

St Steel

/pc.

Roll of lightweight, galvanised tightening strap, for universal fastening.



Tightening strap lock

Type	Dimension B mm	Dimension H mm	Dimension t mm	Pack.	Weight	Item No.
				pcs	kg/100 pcs.	
FSB-SV	24	26	0.9	50	0.340	7203 13 2

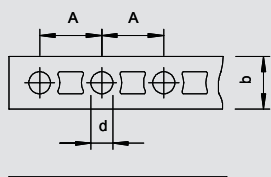
St Steel

/1000 pc.

Tightening strap lock with buckle, for simple fixing of the tightening straps FSB-SB.



Perforated steel strap, V4A



Type	Dimension mm	Per roll m	Weight kg/100 pcs.	Item No.
5055 II12 V4A	12 x 1	8	73.000	1470 12 9
5055 II17 V4A	17 x 1	8	106.000	1470 18 0
5055 III26 V4A	26 x 1.2	8	204.500	1470 27 0
5055 LI12 V4A	12 x 0.75	8	59.000	1471 12 6
5055 LII17 V4A	17 x 0.75	8	84.200	1471 17 7
5055 LIII26 V4A	26 x 1	8	172.300	1471 26 6

V4A Stainless steel, grade 316 Ti

/pc.

Perforated steel strap, in practical uncoiling box.



Fire protection systems



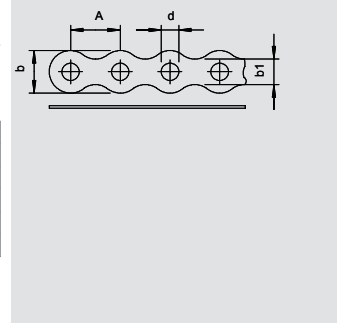
Perforated steel strap, ridged, V4A

Type	Dimension mm	Per roll m	Weight kg/100 pcs.	Item No.
5062 II12 V4A	12 x 1	8	69.000	1475 13 2
5062 II17 V4A	17 x 1	8	98.500	1475 18 3
5062 III26 V4A	26 x 1.2	8	183.000	1475 27 2
5062 LI12 V4A	12 x 0.75	8	57.000	1475 62 8
5062 LII17 V4A	17 x 0.75	8	73.000	1475 67 9
5062 LIII26 V4A	26 x 1	8	153.000	1475 76 8

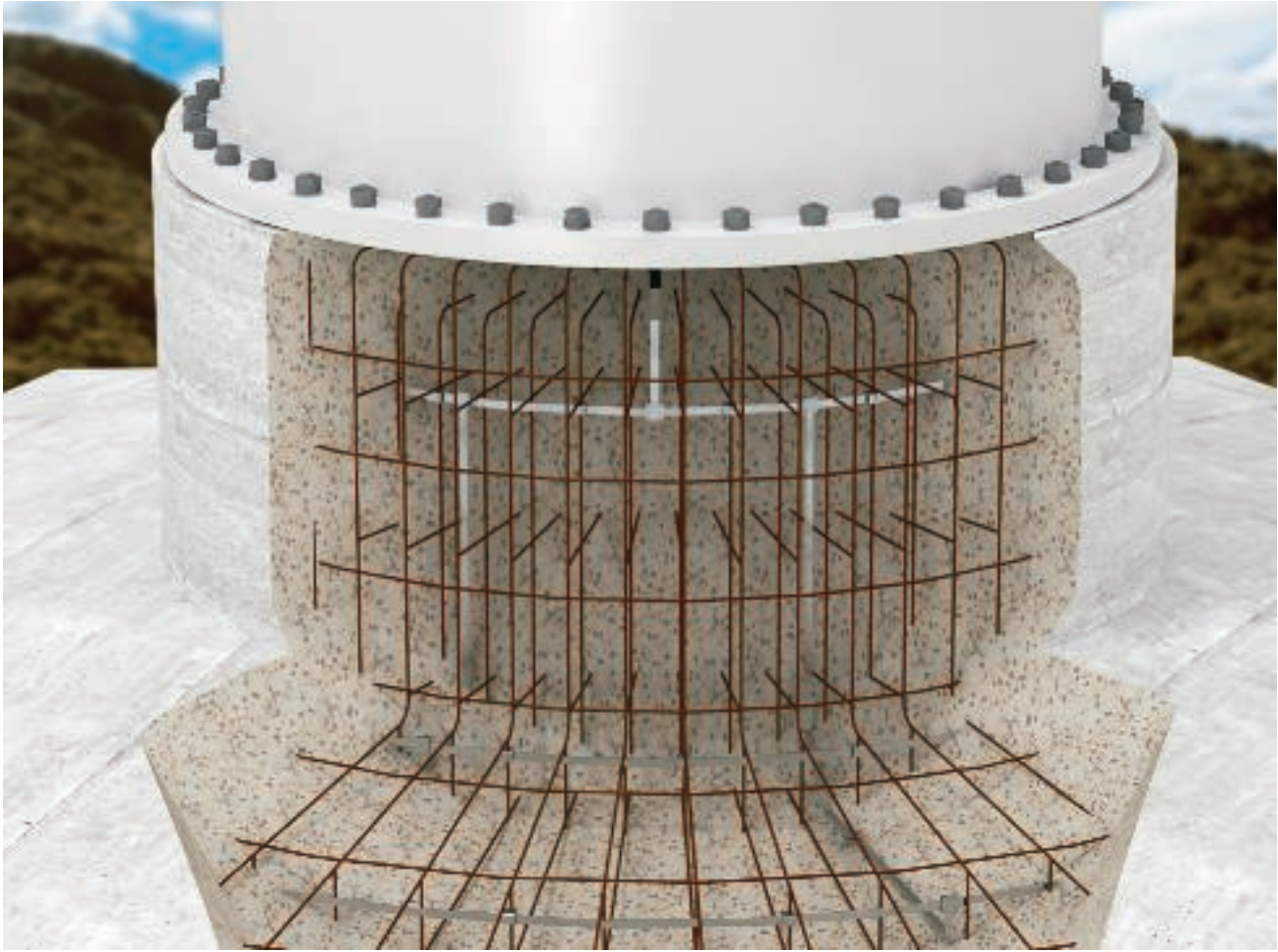
V4A Stainless steel, grade 316 Ti

/pc.






Perforated strap with wavy edges, in practical uncoiling box.







Systems for the foundation

	Earthing systems	Flat conductor	138
		Round cable	138
		Cross-connectors	138
		Earthing fixed point	139
		Plastic corrosion protection strip	140

Earthing systems

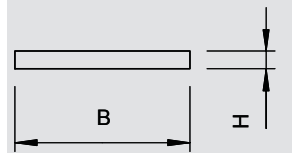
Stainless steel flat conductor



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

V2A Stainless steel, grade 304 V4A Stainless steel, grade 316 Ti price/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 earther 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



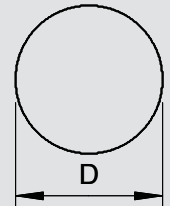
Round conductor, galvanised steel



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 price/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)



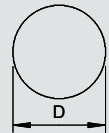
Round conductor, stainless steel



Type	Nominal size Ø mm	Cross- section mm ²	Normal ring ca. m	Normal ring ca. kg	Weight kg/100 m	Item No.
RD 10-V2A	10	78	50	32	63.000	5021 22 7
RD 10-V4A	10	78	50	32	63.000	5021 64 2

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



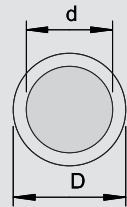
Round conductor with PVC sheathing



Type	Material symbol	Inter- face	Colour	Dimen- sion d mm	Dimen- sion D mm	Cross- section mm ²	Normal ring ca. m	Normal ring ca. kg	Weight kg/100 m	Item No.
RD 10-PVC	St	FT	Black	10	13	78	75	50	67.200	5021 16 2

St Steel FT Hot-dip galvanised price/100 m

- Meets the requirements of VDE 0185-305 (IEC 62305)
- With PVC jacketing (halogen-free)
- Suitable for routing on, in or under plasterwork, mortar or concrete



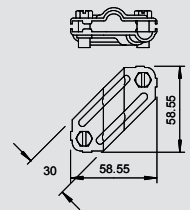
Cross-connectors



Type	Fit mm	Pack. pcs	Weight kg/100 pcs.	Item No.
250	Rd 8-10/FL30	25	10.260	5312 90 6
250 VA	Rd 8-10/FL30	25	10.260	5312 92 2

St Steel V2A Stainless steel, grade 304 FT Hot-dip galvanised /1000 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)



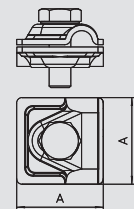
Variable earthing connector

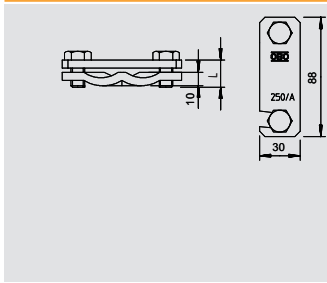


Type	Fit mm	Dimen- sion A mm	Pack. pcs	Weight kg/100 pcs.	Item No.
249 8-10 VA	Rd 8-10	40	50	10.700	5311 55 1

V2A Stainless steel, grade 304 /1000 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)



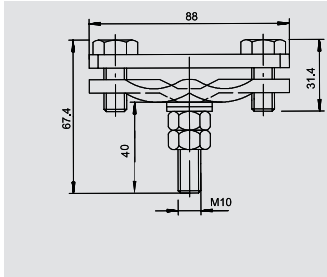


Diagonal clamp

Type	Dimension L mm	Fit mm	Pack. pcs	Weight kg/100 pcs.	Item No.
250 A-VA	40	Rd 6-22/max. FL50	25	28.800	5313 02 3

V2A Stainless steel, grade 304 /1000 pc.

- For reinforced steels Ø 6-22 mm and flat conductor 50 x 4
- Installed with screws M10 x 40
- AS version with screws M10 x 20
- Simple installation with open slot

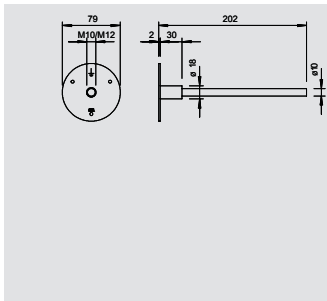


Diagonal clamp with bolt

Type	Material symbol	Inter-face	Fit mm	Pack. pcs	Weight kg/100 pcs.	Item No.
250 A-BO	St	F	Rd 6-22/max. FL50	25	30.000	5313 06 6

St Steel F Hot-dip galvanised /1000 pc.

- For reinforced steels Ø 6-22 mm and flat conductor 50 x 4
- Installed with screws M10 x 25
- Simple installation with open slot
- With flange-welded bolts M10 x 40, inc. 2 washers and 2 nuts

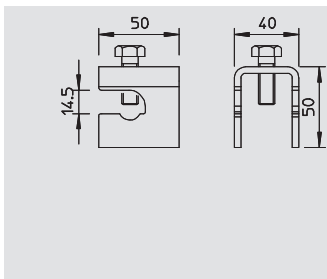


Earthing fixed point

Type	Thread	Pack. pcs	Weight kg/100 pcs.	Item No.
205 B-M10 VA	M10	25	25.500	5420 00 8
205 B-M12 VA	M12	25	25.500	5420 01 6

V4A Stainless steel, grade 316 L /pc.

- Connection to earthing systems, arrestors and reinforcement
- Contact plate: Ø 79 mm, made of rustproof stainless steel (V4A)
- Clamping bolt Ø 10 mm, rustproof (V2A)
- Incl. plastic cover for simple installation

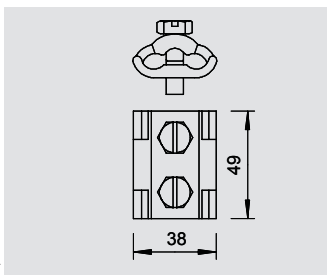


Connection terminal

Type	Fit mm	Pack. pcs	Weight kg/100 pcs.	Item No.
1814 FT	FL30x5 x Rd8-14	25	20.000	5014 46 8
1814 ST	FL30x5 x Rd8-14	25	20.000	5014 47 6

St Steel FT Hot-dip galvanised /pc.

- For reinforced steels with diameters 8-14 mm and FL 30 x 5
- Simple mounting through open slot
- Side suspension possible

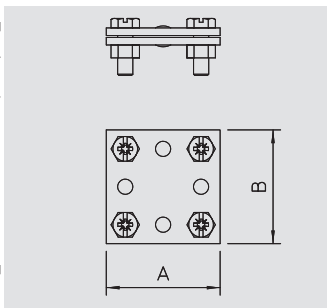


Parallel connector

Type	Fit mm	Pack. pcs	Weight kg/100 pcs.	Item No.
259 8-10	Rd 8-10	50	13.230	5315 50 6

TG Cast iron FT Hot-dip galvanised /1000 pc.

- With 2 hex-head screws M8 x 25, hot-dip galvanised steel



Cross-connectors

Type	Fit mm	Dimension A mm	Dimension B mm	Pack. pcs	Weight kg/100 pcs.	Item No.
256 A-DIN 30 VA	max. FL30	60	60	25	27.800	5314 72 0

V2A Stainless steel, grade 304 /1000 pc.

- Fit: max. FL 30 x FL 30, max. FL 40 x max. FL 40 (F)
- Without separator plate
- Installed with 4 hexagonal bolts M8 x 25 and 4 hexagonal nuts M8
- DIN 48845, Form H



Earthing systems



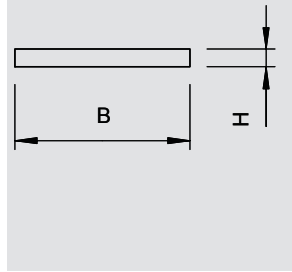
Plastic corrosion protection strip

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



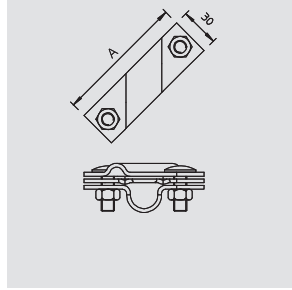
Connection clip for earthing rod, universal

Type	Dimension A mm	For deep earthers Ø mm	Fit mm	Pack. pcs	Weight kg/100 pcs.	Item No.
2760 20 V4A	101	20	Rd 8-10/FL40	20	32.400	5001 63 3
2760 25 V4A	110	25	Rd 8-10/FL40	5	32.400	5001 67 2

V4A Stainless steel, grade 316 L

/pc.

- Suitable for attaching round conductors Rd 8-10 or flat conductors to FL 40
- With separator plate
- Installed with 2 hexagonal bolts M10 x 30 and 2 hexagonal nuts M10



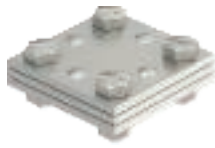
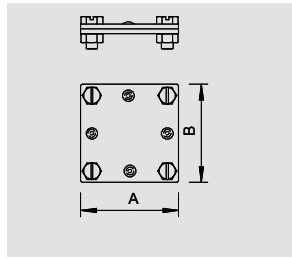
DIN cross-connector for flat conductor

Type	Fit mm	Dimension A mm	Dimension B mm	Pack. pcs	Weight kg/100 pcs.	Item No.
256 A-DIN 30 V4A	max. FL30	60	60	10	26.400	5314 65 9

V4A Stainless steel, grade 316 Ti

/1000 pc.

- Seat: max. FL 30 x FL 30 or max FL 40 x FL 40
- Without intermediate plate
- Mounted with 4 hexagonal bolts M8 x 25 and 4 M8 hexagonal nuts



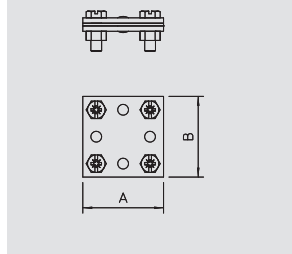
DIN cross-connector for flat conductor, with intermediate plate

Type	Fit mm	Dimension A mm	Dimension B mm	Pack. pcs	Weight kg/100 pcs.	Item No.
256 DIN 30 V4A	max. FL30	60	60	10	29.100	5314 61 6

V4A Stainless steel, grade 316 Ti

/1000 pc.

- Seat: max. FL 30 x FL 30 or max FL 40 x FL 40
- With intermediate plate
- Mounted with 4 hexagonal bolts M8 x 25 and 4 M8 hexagonal nuts



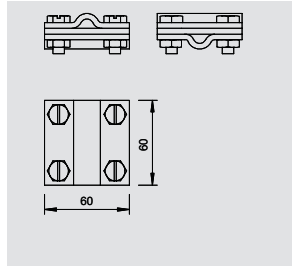
Cross-connector with intermediate plate for round cables, Rd 8-10

Type	Fit mm	Pack. pcs	Weight kg/100 pcs.	Item No.
252 8-10 V4A	Rd 8-10	25	33.530	5312 31 8

V4A Stainless steel, grade 316 Ti

/1000 pc.

- Fit: Rd 8-10 x Rd 8-10
- With separator plate
- Installed with 4 hexagonal bolts M8 x 25 and 4 hexagonal nuts M8



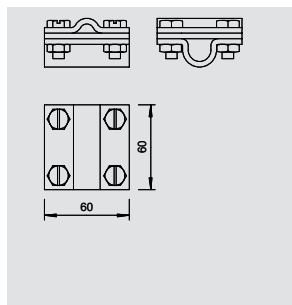
Cross-connector with intermediate plate for round cables, Rd 8-10 x Rd 16

Type	Fit mm	Pack. pcs	Weight kg/100 pcs.	Item No.
252 8-10x16 V4A	Rd 8-10 x 16	25	39.000	5312 34 6

V4A Stainless steel, grade 316 Ti

/1000 pc.

- Fit: Rd 8-10 x Rd 16
- With separator plate
- Installed with 4 hexagonal bolts M8 x 25 and 4 hexagonal nuts M8
- DIN 48845, Form E



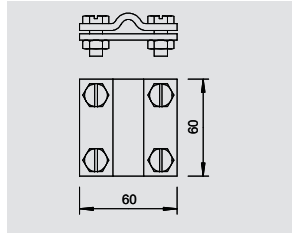
Cross-connector for flat conductors and round cables

Type	Fit mm	Pack. pcs	Weight kg/100 pcs.	Item No.
252 8-10xFL30V4A	8-10 x FL30	25	28.500	5312 65 6

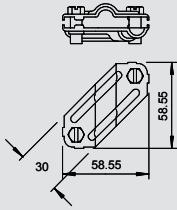
V4A Stainless steel, grade 316 Ti

/1000 pc.

- Fit: Rd 8-10 x FL 30
- Installed with 4 hexagonal bolts M8 x 25 and 4 hexagonal nuts M8



Cross-connector for flat conductors and round cables



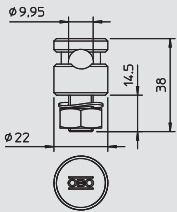
Type	Fit	Pack.	Weight	Item No.
	mm	pcs	kg/100 pcs.	
250 V4A	Rd 8-10/FL30	25	10.260	5312 92 5

V4A Stainless steel, grade 316 Ti /1000 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)



Connector, Rd 8–10 mm with pressure trough



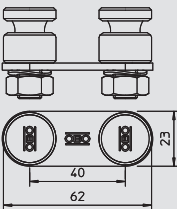
Type	Fit	Pack.	Weight	Item No.
	mm	pcs	kg/100 pcs.	
5001 N-VA	Rd 8-10	100	6.800	5304 17 6

V2A Stainless steel, grade 304 /1000 pc.

- With 1 fix contact clamping screw, nut and serrated washer
- Including pre-mounted pressure sump, steel
- Conforms to the requirements according to DIN VDE 0185-305 (IEC 62305)



Connector, Rd 8–10 mm, double, with pressure trough



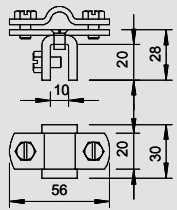
Type	Fit	Pack.	Weight	Item No.
	mm	pcs	kg/100 pcs.	
5002 N-VA	Rd 8-10	50	16.200	5304 27 0

V2A Stainless steel, grade 304 /1000 pc.

- With 2 Fix-Kontakt clamping bolts, nuts and serrated washers
- With pre-mounted pressure trough made of VA
- Corresponds to the requirements of VDE 0185-305 (IEC 62305)



Folding clamp Rd 8-10 up to 10 mm plate thickness



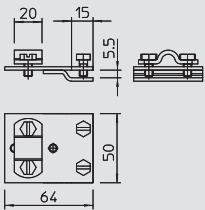
Type	Fit	Clamping area	Pack.	Weight	Item No.
	mm	mm	pcs	kg/100 pcs.	
270 8-10 VA	Rd 8-10	max. 10	50	13.800	5317 20 8

V2A Stainless steel, grade 304 /1000 pc.

- Metal thickness to 10 mm
- For cable routing transverse and in parallel to the plate
- Corresponds to the requirements to DIN V VDE V 0185-3 section 4.5



Folding clamp up to 5 mm plate thickness



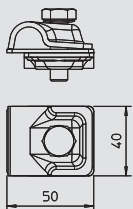
Type	Fit	Clamping area	Pack.	Weight	Item No.
	mm	mm	pcs	kg/100 pcs.	
271 8-10 VA	Rd 8-10	max. 5	50	96.780	5317 48 1

V2A Stainless steel, grade 304 /1000 pc.

- Plate thickness to 5 mm
- For conductor routing transverse and longitudinal to plate
- With 4 hexagonal bolts M6 x 12
- Conforms to the requirements according to DIN VDE 0185-305 (IEC 62305)



Vario quick connector Rd 8-10x16



Type	Fit	Pack.	Weight	Item No.
	mm	pcs	kg/100 pcs.	
249 8-10X16 VA	8-10X16	50	15.500	5311 59 0





V2A Stainless steel, grade 304 /1000 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)





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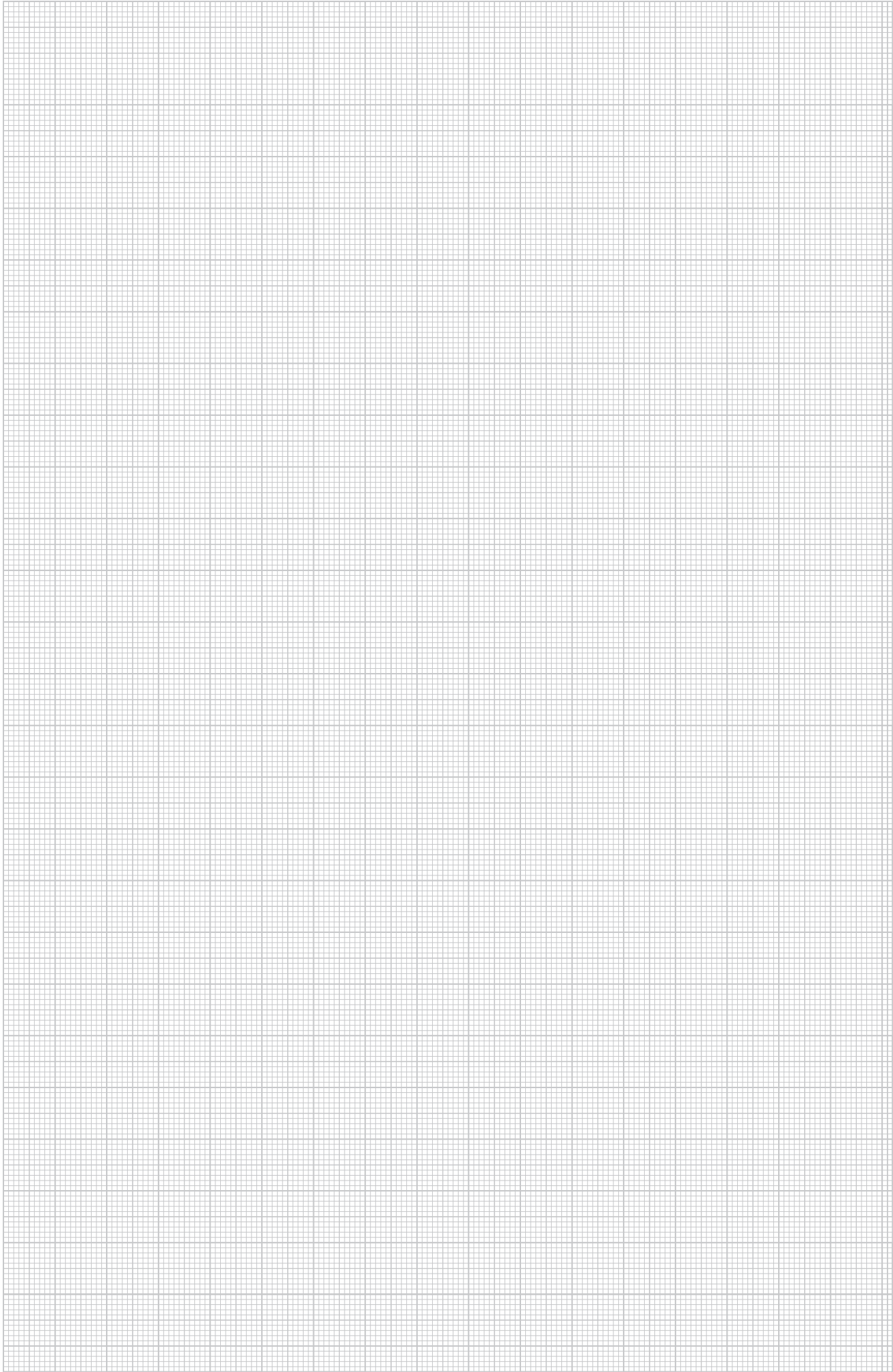
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592376	2046 73 5		30					545565	2330 32 6		115	538286	5094 62 1		50
592377	2046 73 6		30	547173	2090 51 1		46	545571	2330 34 2		115	524002	5094 62 4		50
592378	2046 74 0		30	547179	2090 53 8		46				60	537492	5094 63 2		50
592379	2046 74 1		30	547281	2090 54 6		46	589686	2332 76 0		60	524009	5094 65 6		49
592380	2046 74 2		30	547293	2090 55 4		46	589687	2332 76 4		60	540667	5094 72 7		50
592382	2046 74 3		30	547299	2090 56 2		46	589688	2332 76 8		60	524019	5094 73 1		50
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592386	2046 74 5		30	547401	2090 58 9		46	589690	2332 77 6		60	587125	5094 90 0		51
592387	2046 74 6		30	547407	2090 59 7		46	589691	2332 78 0		60	587126	5094 90 2		51
592388	2046 75 0	/100 m	30	547413	2091 60 7		46	589692	2332 78 4		60				
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592394	2046 75 2		30	593175	2091 62 3		46	523053	2360 05 5		140	587124	5096 67 3		51
592397	2046 75 3		30	593181	2091 63 1		46	523059	2360 10 1		140	561637	5096 69 5		52
592398	2046 75 4		30	593187	2091 65 8		46					542518	5096 78 6		55
592399	2046 75 5		30	547419	2091 66 6		46	503427	3010 27 5		42	554115	5096 84 9		118
592403	2046 75 6		30	547479	2091 67 4		46			/1000 pc.		554139	5096 86 5		119
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592405	2046 76 0	/1000 pc.	30									507709	5096 87 9		118
592410	2046 76 1		30									599011	5096 97 4		117
592411	2046 76 2		30	559535	2146 05 3		33	584964	3156 12 0		76	599501	5096 97 6		117
592417	2046 76 3		30	559541	2146 06 1		33	584971	3156 12 2		76	599502	5096 99 0		117
592418	2046 76 4		30	559547	2146 09 6		33	584972	3156 12 6		76	599503	5096 99 2		117
592419	2046 76 5		30	559553	2146 11 8		33					599504	5096 99 4		117
592420	2046 76 6		30	559565	2146 13 4		33	589481	3397 14 5		76				
592421	2046 77 0		31	559571	2146 20 7		33					557811	5097 45 3		53
592425	2046 77 1		31	559577	2146 21 5		33	590929	3400 17 3		76	557812	5097 60 7		53
592427	2046 77 2		31	559583	2146 25 8		33	590930	3400 17 5		76	557816	5097 65 0		53
592429	2046 77 3		31	520427	2146 29 0		33	561807	3400 17 7		76	557818	5097 82 0		53
592430	2046 77 4		31	559589	2146 32 0		33					557821	5097 85 8		53
592433	2046 77 5		31	520439	2146 36 3		33	591328	3404 37 3		76	557827	5097 97 6		54
592434	2046 77 6		31	559595	2146 44 4		33	590959	3404 37 8		76				
				520451	2146 48 7		33	561809	3404 38 2		76				
				501606	2146 50 9		33	590963	3404 38 6		76	540686	5098 42 2		54
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549069	2047 82 9		29					590965	3405 06 2		76	562513	5098 43 3		55
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503757	2047 89 6		29	558429	2149 02 8		33					594249	5099 70 6		52
546885	2047 93 4		29	558819	2149 03 4		33			/pc.					
546891	2047 94 2		29	558825	2149 04 0		33	586269	5001 63 3		140				
546897	2047 95 0		29	561627	2149 55 9		33	590125	5001 67 2		140			/1000 pc.	47
546915	2047 96 9		29	561633	2149 56 3		33					540477	5207 33 9		
546921	2047 97 7		29	561639	2149 56 7		33	510501	5014 46 8		139				
546927	2047 98 5		29	561645	2149 57 1		33	510507	5014 47 6		139				
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				561705	2149 58 3		33	500225	5015 83 0		116	550305	5304 52 0		47
587415	2048 90 6		45					500226	5015 84 2		116				
587421	2048 91 4		45	593271	2149 85 0		32	500227	5015 85 4		116				
594453	2048 92 2		45	593362	2149 85 4		32	500228	5015 86 6		116	541791	5311 55 1		138
594459	2048 93 0		45	593272	2149 85 8		32	503361	5015 88 0		116	592544	5311 59 0		141
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508899	2048 95 7		45	593274	2149 86 6		32	503373	5015 89 0		116	570086	5312 31 8		140
508905	2048 96 5		45	593275	2149 87 0		32					589310	5312 34 6		140
508911	2048 97 3		45	593276	2149 87 4		32			/100 m	138	589314	5312 65 6		140

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541971	5315 50 6	/1000 pc.	139	539084	6047 41 7	/m	18	601128	6178 34 9	/1000 pc.	58	643771	6340 99 7	/pc.	26
589315	5317 20 8		141	539085	6047 43 3		18	601319	6178 42 0	/m	58	653677	6341 52 7		25
585086	5317 48 1		141	539086	6047 46 0		18	601331	6178 42 2		58	653671	6341 53 5		25
				570608	6047 61 3		18	601343	6178 42 4		58	653665	6341 54 3		25
542337	5331 01 3		47	570612	6047 63 2		18	601355	6178 42 6		58	653659	6341 55 1		25
542343	5331 50 1		47	570614	6047 64 0		18	601367	6178 42 8		58	653653	6341 57 8		25
				570618	6047 65 6		18	601379	6178 43 0		58	653647	6341 58 6		25
503481	5401 97 0		47					601391	6178 43 5		58	653641	6341 59 4		25
510561	5401 98 0		47	583002	6059 01 8		18	601403	6178 43 7		58	653635	6341 60 8		25
				583003	6059 02 0		18	601415	6178 43 9		58	653629	6341 61 6		25
		/pc.		583004	6059 02 2		18	601518	6178 44 1		58	653623	6341 62 4		25
590049	5420 00 8		139	583008	6059 02 5		18			/1000 pc.	59	653617	6341 63 2		25
562929	5420 01 6		139					601427	6178 52 0		59				
								601439	6178 52 2		59				
										/pc.					
		/m		588944	6068 90 0		18	601451	6178 52 7		59	622177	6342 30 2		25
503720	6000 07 1		22	588948	6068 90 2		18	601463	6178 52 9		59	622201	6342 30 4		25
503723	6000 07 2		22	588949	6068 90 4		18	601475	6178 53 5		59	622207	6342 30 6		25
503724	6000 07 3		22							/1000 pc.		622231	6342 30 8		25
503725	6000 07 5		22	589049	6068 93 6		18	601487	6178 54 0		59	622237	6342 31 0		25
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543094	6001 41 5		22	589051	6068 94 0		18	601506	6178 54 8		59	622249	6342 31 4		25
681487	6001 41 6		22	589052	6068 94 2		18			/m		622351	6342 31 6		25
607891	6001 41 8		22	588957	6068 95 8		19	546138	6178 60 8		58	622357	6342 31 8		25
681493	6001 42 0		22	588958	6068 96 0		19			/1000 pc.		622363	6342 32 8		25
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681505	6001 42 4		22	588960	6068 96 4		19					622441	6342 34 5		25
681511	6001 42 8		22							/m		622447	6342 35 1		25
681517	6001 43 2		22									622453	6342 35 3		25
681523	6001 43 6		22									622459	6342 35 5		25
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				600017	6178 00 3		57	506405	6208 54 1		65	622471	6342 35 9		25
602027	6002 40 2		22	600029	6178 00 5		57	506406	6208 54 4		65	622477	6342 36 2		25
602039	6002 40 4		22	600041	6178 01 0		57	506407	6208 54 7		65	622501	6342 36 4		25
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602075	6002 41 0		22	600077	6178 01 6		57	543416	6208 56 6		65	622537	6342 37 0		25
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602111	6002 41 7		22	600113	6178 02 6		57	543421	6208 57 4		65				
602123	6002 43 1		22	600125	6178 02 8		57	543422	6208 57 8		65				
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602159	6002 43 7		22	600161	6178 03 5		57	506556	6208 84 3		65				
602171	6002 43 9		22	600173	6178 03 7		57	506558	6208 89 5		65				
602195	6002 44 3		22	600185	6178 03 9		57	506561	6208 89 8		65	611449	6355 80 0	/pair	27
602207	6002 44 5		22	600221	6178 05 0		57	506562	6208 94 1		66	611461	6355 80 4		26
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		/m		600281	6178 06 1		57					620479	6418 57 0		24
543396	6010 62 0		65					618769	6340 01 6		26	620485	6418 59 7		24
543397	6010 62 2		65					618775	6340 03 2		26	620491	6418 61 9		24
543398	6010 62 4		65	600833	6178 09 2	/1000 pc.	58	618781	6340 05 9		26	620497	6418 62 7		24
543402	6010 62 6		65			/m		618787	6340 07 5		26	620503	6418 63 5		24
543403	6010 62 8		65	600485	6178 20 1		57	618793	6340 09 1		26	620509	6418 65 1		24
543404	6010 63 0		65	600497	6178 20 3		57	618799	6340 11 3		26	620515	6418 68 6		24
543408	6010 63 2		65	600509	6178 20 5		57	618805	6340 14 8		26	620521	6418 70 8		24
543409	6010 63 4		65	600521	6178 20 7		57	618811	6340 16 4		26	620527	6418 72 4		24
543410	6010 63 6		65	600530	6178 20 9		57	618817	6340 18 0		26				
543414	6010 63 8		65	600540	6178 21 1		57	618823	6340 19 9		26				
				600550	6178 21 3		57	618829	6340 20 2		26	620659	6419 70 4		24
		/pc.		600580	6178 22 5		57	618835	6340 21 0		26	620665	6419 71 2		24
678541	6015 56 5		27	600593	6178 22 7		57	618841	6340 22 9		26	620671	6419 72 0		24
678547	6015 57 3		27	600605	6178 22 9		57	618847	6340 23 7		26	620677	6419 74 7		24
678553	6015 58 1		27	600617	6178 23 1		57	618853	6340 24 5		26	620683	6419 76 3		24
678559	6015 60 3		27	600629	6178 23 3		57	618859	6340 25 3		26	620689	6419 79 8		24
678565	6015 61 1		27	600641	6178 23 6		57	618865	6340 26 1		26	620695	6419 82 8		24
523920	6015 61 4		27	600941	6178 30 2		58	618871	6340 28 8		26				
523921	6015 61 7		27	600953	6178 30 5		58	618877	6340 29 6		26	648373	6419 83 6		24
604284	6015 64 8		27	600965	6178 30 7		58	618883	6340 31 8		26				
604296	6015 65 6		27	600973	6178 31 0		58	618889	6340 37 7		26	620701	6419 84 4		24
604308	6015 66 0		27	600983	6178 31 2		58	645823	6340 39 3		26				
604320	6015 6														

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620719	6420 68 0	/pc.	24
620725	6420 71 0		24
620731	6420 74 5		24
620737	6420 78 8		24
620743	6420 79 6		24
620749	6420 82 6		24
620935	6490 01 8	/100 m	20
649807	6490 02 6		20
620941	6490 03 4		20
620947	6490 05 0		20
620953	6490 10 7	/1000 pc.	21
620959	6490 12 3		21
620965	6490 15 8		21
620971	6490 17 4		21
620977	6490 90 5		20
620983	6490 96 4		20
620989	6498 01 9	/pc.	21
620995	6498 02 7		21
614683	7084 76 5		39
614689	7084 77 3		39
516330	7085 11 1		39
698024	7097 40 9	/m	20
698030	7097 41 7		64
698036	7097 42 5		20
696512	7097 42 9		64
698042	7097 43 3		20
698048	7097 44 1		20
650809	7097 46 8		20
650815	7097 47 6		20
642013	7102 77 1		65
598048	7103 54 8	/pc.	20
569334	7203 10 0	/1000 pc.	79
569335	7203 10 2		79
569336	7203 10 4		79
569337	7203 10 6		79
569338	7203 10 8		79
569339	7203 11 0		79
569340	7203 11 2		79
569341	7203 11 4		79
569342	7203 12 0	/pc.	79
569343	7203 13 0		79
569344	7203 13 2	/1000 pc.	79
570643	7203 16 0	/pc.	79



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 J1000	1000/ AI	5034810	5401 97 0	/1000 pc.	47	116 M32 LGR PAM32x1,5	Light grey/ PA	5944652	2048 94 9	/1000 pc.	45
101 VL1500	1500/ AI	5105619	5401 98 0		47	116 M32 LGR PAM32x1,5	Light grey/ PA	5944652	2048 94 9		110
						116 M32 SW PA	M32x1,5Black/ PA	5095651	2049 10 4		45
						116 M32 SW PA	M32x1,5Black/ PA	5095651	2049 10 4		110
107 C VM 20 2x4	M204/ NBR-SBR	5035831	2029 67 2		42	116 M40 LGR PAM40x1,5	Light grey/ PA	5088998	2048 95 7		45
107 C VM 20 2x4	M204/ NBR-SBR	5035831	2029 67 2		107	116 M40 LGR PAM40x1,5	Light grey/ PA	5088998	2048 95 7		110
107 C VM 20 2x6	M206/ NBR-SBR	5035954	2029 67 7		42	116 M40 SW PA	M40x1,5Black/ PA	5095712	2049 11 2		45
107 C VM 20 2x6	M206/ NBR-SBR	5035954	2029 67 7		107	116 M40 SW PA	M40x1,5Black/ PA	5095712	2049 11 2		110
107 C VM 20 4x5	M205/ NBR-SBR	5035893	2029 67 5		42	116 M50 LGR PAM50x1,5	Light grey/ PA	5089056	2048 96 5		45
107 C VM 20 4x5	M205/ NBR-SBR	5035893	2029 67 5		107	116 M50 LGR PAM50x1,5	Light grey/ PA	5089056	2048 96 5		110
107 C VM 25 2x6	M256/ NBR-SBR	5036135	2029 68 5		42	116 M50 SW PA	M50x1,5Black/ PA	5096313	2049 12 0		45
107 C VM 25 2x6	M256/ NBR-SBR	5036135	2029 68 5		107	116 M50 SW PA	M50x1,5Black/ PA	5096313	2049 12 0		110
107 C VM 25 2x8	M258/ NBR-SBR	5036258	2029 69 0		42	116 M63 LGR PAM63x1,5	Light grey/ PA	5089117	2048 97 3		45
107 C VM 25 2x8	M258/ NBR-SBR	5036258	2029 69 0		107	116 M63 LGR PAM63x1,5	Light grey/ PA	5089117	2048 97 3		110
107 C VM 25 3x6	M256/ NBR-SBR	5036074	2029 68 2		42	116 M63 SW PA	M63x1,5Black/ PA	5127758	2049 13 9		45
107 C VM 25 3x6	M256/ NBR-SBR	5036074	2029 68 2		107	116 M63 SW PA	M63x1,5Black/ PA	5127758	2049 13 9		110
107 C VM 25 3x7	M257/ NBR-SBR	5036197	2029 68 8		42						
107 C VM 25 3x7	M257/ NBR-SBR	5036197	2029 68 8		107						
107 C VM 25 5x4	M254/ NBR-SBR	5036012	2029 67 9		42	129 M16	M16 Light grey/ PE	5490753	2047 81 0		29
107 C VM 25 5x4	M254/ NBR-SBR	5036012	2029 67 9		107	129 M16	M16 Light grey/ PE	5490753	2047 81 0		94
107 C VM 32 2x8	M328/ NBR-SBR	5036319	2029 69 3		42	129 M16 SW	M16 Black/ PE	5468851	2047 93 4		29
107 C VM 32 2x8	M328/ NBR-SBR	5036319	2029 69 3		107	129 M16 SW	M16 Black/ PE	5468851	2047 93 4		94
107 C VM 32 4x8	M328/ NBR-SBR	5036371	2029 69 6		42	129 M20	M20 Light grey/ PE	5490692	2047 82 9		29
107 C VM 32 4x8	M328/ NBR-SBR	5036371	2029 69 6		107	129 M20	M20 Light grey/ PE	5490692	2047 82 9		94
						129 M20 SW	M20 Black/ PE	5468912	2047 94 2		29
						129 M20 SW	M20 Black/ PE	5468912	2047 94 2		94
107CR VM 12	M12/ NBR-SBR	5360582	2029 56 0		42	129 M25	M25 Light grey/ PE	5490630	2047 83 7		29
107CR VM 12	M12/ NBR-SBR	5360582	2029 56 0		107	129 M25	M25 Light grey/ PE	5490630	2047 83 7		94
107CR VM 16	M16/ NBR-SBR	5360599	2029 56 3		42	129 M25 SW	M25 Black/ PE	5468974	2047 95 0		29
107CR VM 16	M16/ NBR-SBR	5360599	2029 56 3		107	129 M25 SW	M25 Black/ PE	5468974	2047 95 0		94
107CR VM 20	M20/ NBR-SBR	5360605	2029 56 6		42	129 M32	M32 Light grey/ PE	5487692	2047 85 3		29
107CR VM 20	M20/ NBR-SBR	5360605	2029 56 6		107	129 M32	M32 Light grey/ PE	5487692	2047 85 3		94
107CR VM 25	M25/ NBR-SBR	5360636	2029 56 9		42	129 M32 SW	M32 Black/ PE	5469155	2047 96 9		29
107CR VM 25	M25/ NBR-SBR	5360636	2029 56 9		107	129 M32 SW	M32 Black/ PE	5469155	2047 96 9		94
107CR VM 32	M32/ NBR-SBR	5360643	2029 57 2		42	129 M40	M40 Light grey/ PE	5037699	2047 86 1		29
107CR VM 32	M32/ NBR-SBR	5360643	2029 57 2		107	129 M40	M40 Light grey/ PE	5037699	2047 86 1		94
107CR VM 40	M40/ NBR-SBR	5360650	2029 57 5		42	129 M40 SW	M40 Black/ PE	5469216	2047 97 7		29
107CR VM 40	M40/ NBR-SBR	5360650	2029 57 5		107	129 M40 SW	M40 Black/ PE	5469216	2047 97 7		94
107CR VM 50	M50/ NBR-SBR	5360667	2029 57 8		42	129 M50	M50 Light grey/ PE	5037637	2047 88 8		29
107CR VM 50	M50/ NBR-SBR	5360667	2029 57 8		107	129 M50	M50 Light grey/ PE	5037637	2047 88 8		94
107CR VM 63	M63/ NBR-SBR	5360698	2029 58 1		42	129 M50 SW	M50 Black/ PE	5469278	2047 98 5		29
107CR VM 63	M63/ NBR-SBR	5360698	2029 58 1		107	129 M50 SW	M50 Black/ PE	5469278	2047 98 5		94
						129 M63	M63 Light grey/ PE	5037576	2047 89 6		29
						129 M63	M63 Light grey/ PE	5037576	2047 89 6		94
107VS VM 12	M12/ Pg16	Light grey/ PA	5389972	2029 51 7	44	129 M63 SW	M63 Black/ PE	5469339	2047 99 3		29
107VS VM 12	M12/ Pg16	Light grey/ PA	5389972	2029 51 7	109	129 M63 SW	M63 Black/ PE	5469339	2047 99 3		94
107VS VM 16	M16/ Pg21	Light grey/ PA	5389989	2029 52 0	44						
107VS VM 16	M16/ Pg21	Light grey/ PA	5389989	2029 52 0	109						
107VS VM 20	M20/ Pg29	Light grey/ PA	5389996	2029 52 3	44						
107VS VM 20	M20/ Pg29	Light grey/ PA	5389996	2029 52 3	109						
107VS VM 5 PAM12/ Pg9	Light grey/ PA	5389934	2029 51 1		44	168 MSM12	M12 x 1,516/ CuZn / N	5471738	2090 51 1		46
107VS VM 5 PAM12/ Pg9	Light grey/ PA	5389934	2029 51 1		109	168 MSM12	M12 x 1,516/ CuZn / N	5471738	2090 51 1		111
107VS VM 9 PAM16/ Pg13,5	Light grey/ PA	5389941	2029 51 4		44	168 MS M16	M16 x 1,520/ CuZn / N	5471790	2090 53 8		46
107VS VM 9 PAM16/ Pg13,5	Light grey/ PA	5389941	2029 51 4		109	168 MS M16	M16 x 1,520/ CuZn / N	5471790	2090 53 8		111
						168 MS M20	M20 x 1,522/ CuZn / N	5472810	2090 54 6		46
						168 MS M20	M20 x 1,522/ CuZn / N	5472810	2090 54 6		111
						168 MS M25	M25 x 1,528/ CuZn / N	5472933	2090 55 4		46
						168 MS M25	M25 x 1,528/ CuZn / N	5472933	2090 55 4		111
						168 MS M32	M32 x 1,535/ CuZn / N	5472995	2090 56 2		46
						168 MS M32	M32 x 1,535/ CuZn / N	5472995	2090 56 2		111
						168 MS M40	M40 x 1,545/ CuZn / N	5473411	2090 57 0		46
						168 MS M40	M40 x 1,545/ CuZn / N	5473411	2090 57 0		111
						168 MS M50	M50 x 1,555/ CuZn / N	5474012	2090 58 9		46
						168 MS M50	M50 x 1,555/ CuZn / N	5474012	2090 58 9		111
						168 MS M63	M63 x 1,568/ CuZn / N	5474074	2090 59 7		46
						168 MS M63	M63 x 1,568/ CuZn / N	5474074	2090 59 7		111
						169 MS M12	M12 x 1,52600/ CuZn / N	5474135	2091 60 7		46
						169 MS M12	M12 x 1,52600/ CuZn / N	5474135	2091 60 7		111
						169 MS M16	M16 x 1,54800/ CuZn / N	5931690	2091 61 5		46
						169 MS M16	M16 x 1,54800/ CuZn / N	5931690	2091 61 5		111
						169 MS M20	M20 x 1,53200/ CuZn / N	5931751	2091 62 3		46
						169 MS M20	M20 x 1,53200/ CuZn / N	5931751	2091 62 3		111
						169 MS M25	M25 x 1,51800/ CuZn / N	5931812	2091 63 1		46
						169 MS M25	M25 x 1,51800/ CuZn / N	5931812	2091 63 1		111
						169 MS M32	M32 x 1,51200/ CuZn / N	5931874	2091 65 8		46
						169 MS M32	M32 x 1,51200/ CuZn / N	5931874	2091 65 8		111
						169 MS M40	M40 x 1,5600/ CuZn / N	5474197	2091 66 6		46
						169 MS M40	M40 x 1,5600/ CuZn / N	5474197	2091 66 6		111
						169 MS M50	M50 x 1,5500/ CuZn / N	5474791	2091 67 4		46
						169 MS M50	M50 x 1,5500/ CuZn / N	5474791	2091 67 4		111
						169 MS M63	M63 x 1,5250/ CuZn / N	5474852	2091 68 2		46
						169 MS M63	M63 x 1,5250/ CuZn / N	5474852	2091 68 2		111
						171 M12	M12 10/ NBR	5470953	2088 70 3		46
						171 M12	M12 10/ NBR	5470953	2088 70 3		111
						171 M16	M16 13/ NBR	5471011	2088 71 1		46
						171 M16	M16 13/ NBR	5471011	2088 71 1		111

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Type	Dimensions/Colour/Div.	GTIN	Art. no.	Price	Page	Type	Dimensions/Colour/Div.	GTIN	Art. no.	Price	Page
171 M20	M20 18/ NBR	5471257	2088 73 8	/1000 pc.	46	574 03 30 BA	17 x 1.0300/ V2A	6209538	6490 10 7	/1000 pc.	21
171 M20	M20 18/ NBR	5471257	2088 73 8		111	574 03 30 BA	17 x 1.0300/ V2A	6209538	6490 10 7		77
171 M25	M25 22/ NBR	5471318	2088 74 6		46	574 03 30 BA	17 x 1.0300/ V2A	6209538	6490 10 7		114
171 M25	M25 22/ NBR	5471318	2088 74 6		111	574 03 45 BA	17 x 1.0450/ V2A	6209590	6490 12 3		21
171 M32	M32 29/ NBR	5471370	2088 75 4		46	574 03 45 BA	17 x 1.0450/ V2A	6209590	6490 12 3		77
171 M32	M32 29/ NBR	5471370	2088 75 4		111	574 03 45 BA	17 x 1.0450/ V2A	6209590	6490 12 3		114
171 M40	M40 36/ NBR	5471554	2088 76 2		46					/100 m	
171 M40	M40 36/ NBR	5471554	2088 76 2		111	574 03 BA	17 x 1.02,25/ V2A	6209415	6490 03 4		114
171 M50	M50 46/ NBR	5471615	2088 77 0		46	574 03 BA	17 x 1.02,25/ V2A	6209415	6490 03 4		20
171 M50	M50 46/ NBR	5471615	2088 77 0		111	574 03 BA	17 x 1.02,25/ V2A	6209415	6490 03 4		77
171 M63	M63 59/ NBR	5471677	2088 78 9		46	574 03 SW	17 x 1.02,25/ V2A	6498079	6490 02 6		20
171 M63	M63 59/ NBR	5471677	2088 78 9		111	574 03 SW	17 x 1.02,25/ V2A	6498079	6490 02 6		77
						574 03 SW	17 x 1.02,25/ V2A	6498079	6490 02 6		114
177 20 VA M6	/ V2A	5404774	5207 33 9		47	574 05 55 GNBG	16.5 x 1.2550/ V2A	6209651	6490 15 8	/1000 pc.	21
						574 05 55 GNBG	16.5 x 1.2550/ V2A	6209651	6490 15 8		77
						574 05 55 GNBG	16.5 x 1.2550/ V2A	6209651	6490 15 8		114
192	1200/ St / DD	6209774	6490 90 5		20	574 05 65 GNBG	16.5 x 1.2650/ V2A	6209712	6490 17 4		21
192	1200/ St / DD	6209774	6490 90 5		77	574 05 65 GNBG	16.5 x 1.2650/ V2A	6209712	6490 17 4		77
192	1200/ St / DD	6209774	6490 90 5		114	574 05 65 GNBG	16.5 x 1.2650/ V2A	6209712	6490 17 4		114
197 VA4301	1800/ V2A	6209835	6490 96 4		20	574 05 GNBG	16.5 x 1.23,5/ V2A	6209477	6490 05 0	/100 m	114
197 VA4301	1800/ V2A	6209835	6490 96 4		77	574 05 GNBG	16.5 x 1.23,5/ V2A	6209477	6490 05 0		20
197 VA4301	1800/ V2A	6209835	6490 96 4		114	574 05 GNBG	16.5 x 1.23,5/ V2A	6209477	6490 05 0		77
						574 G STGR	17 x 1.01,35/ St / G	6209354	6490 01 8		20
						574 G STGR	17 x 1.01,35/ St / G	6209354	6490 01 8		77
						574 G STGR	17 x 1.01,35/ St / G	6209354	6490 01 8		114
205 B-M10 VA	M10/ V4A	5900498	5420 00 8	/pc.	139					/pc.	
205 B-M12 VA	M12/ V4A	5629290	5420 01 6		139						
						575	/ St	6209897	6498 01 9		21
						575	/ St	6209897	6498 01 9		77
249 8-10 VA	40/ V2A	5417910	5311 55 1	/1000 pc.	138	575	/ St	6209897	6498 01 9		115
249 8-10X16 VA	/ V2A	5925446	5311 59 0		141						
						576	/ St	6209958	6498 02 7		21
250	/ St / FT	5418696	5312 90 6		138	576	/ St	6209958	6498 02 7		77
						576	/ St	6209958	6498 02 7		115
250 A-B0	/ St / F	5806530	5313 06 6		139						
250 A-VA	40/ V2A	5740476	5313 02 3		139						
250 V4A	/ V4A	5700876	5312 92 5		141						
250 VA	/ V2A	5418757	5312 92 2		138	605 10 G	10 4,5 x 6/ St / G	5016458	1018 10 8	/1000 pc.	36
						605 10 G	10 4,5 x 6/ St / G	5016458	1018 10 8		101
252 8-10 V4A	/ V4A	5700869	5312 31 8		140	605 11 G	11 4,5 x 6/ St / G	5016519	1018 11 6		36
252 8-10x16 V4A	/ V4A	5893103	5312 34 6		140	605 11 G	11 4,5 x 6/ St / G	5016519	1018 11 6		101
252 8-10xFL30V4A	/ V4A	5893141	5312 65 6		140	605 12 G	12 4,5 x 6/ St / G	5016571	1018 12 4		36
						605 12 G	12 4,5 x 6/ St / G	5016571	1018 12 4		101
						605 12 V4A	12 4,5 x 6/ V4A	5912002	1018 65 3		36
256 A-DIN 30 V4A	60/ V4A	5893080	5314 65 9		140	605 12 V4A	12 4,5 x 6/ V4A	5912002	1018 65 3		101
256 A-DIN 30 VA	60/ V2A	5925873	5314 72 0		139	605 13 G	13 4,5 x 6/ St / G	5016632	1018 13 2		36
256 DIN 30 V4A	60/ V4A	5893097	5314 61 6		140	605 13 G	13 4,5 x 6/ St / G	5016632	1018 13 2		101
						605 14 G	14 4,5 x 6/ St / G	5016694	1018 14 0		36
						605 14 G	14 4,5 x 6/ St / G	5016694	1018 14 0		101
259 8-10	/ TG / FT	5419716	5315 50 6		139	605 15 G	15 4,5 x 6/ St / G	5016755	1018 15 9		36
						605 15 G	15 4,5 x 6/ St / G	5016755	1018 15 9		101
270 8-10 VA	/ V2A	5893158	5317 20 8		141	605 16 G	16 4,5 x 6/ St / G	5016816	1018 16 7		36
						605 16 G	16 4,5 x 6/ St / G	5016816	1018 16 7		101
271 8-10 VA	/ V2A	5850861	5317 48 1		141	605 16 V4A	16 4,5 x 6/ V4A	5912064	1018 66 1		36
						605 16 V4A	16 4,5 x 6/ V4A	5912064	1018 66 1		101
						605 17 G	17 4,5 x 6/ St / G	5016878	1018 17 5		36
						605 17 G	17 4,5 x 6/ St / G	5016878	1018 17 5		101
356 100	10010	5230595	2360 10 1	/pc.	140	605 18 G	18 4,5 x 6/ St / G	5016939	1018 18 3		36
356 50	5010	5230533	2360 05 5		140	605 18 G	18 4,5 x 6/ St / G	5016939	1018 18 3		101
						605 19 G	19 4,5 x 6/ St / G	5016991	1018 19 1		36
						605 19 G	19 4,5 x 6/ St / G	5016991	1018 19 1		101
550 6X180 SW	6 x 18045/ PA	5454991	2330 05 9	/1000 pc.	115	605 20 G	20 4,5 x 6/ St / G	5017059	1018 20 5		36
550 6X290 SW	6 x 29078/ PA	5455059	2330 07 5		115	605 20 G	20 4,5 x 6/ St / G	5017059	1018 20 5		101
550 6X360 SW	6 x 360100/ PA	5455110	2330 09 1		115	605 20 V4A	20 4,5 x 6/ V4A	5912101	1018 66 9		36
550 9X180 SW	9 x 18040/ PA	5455417	2330 22 9		115	605 20 V4A	20 4,5 x 6/ V4A	5912101	1018 66 9		101
550 9X265 SW	9 x 26065/ PA	5455479	2330 24 5		115	605 21 G	21 4,5 x 6/ St / G	5017110	1018 21 3		36
550 9X360 SW	9 x 36093/ PA	5455592	2330 29 6		115	605 21 G	21 4,5 x 6/ St / G	5017110	1018 21 3		101
550 9X510 SW	9 x 510140/ PA	5455653	2330 32 6		115	605 23 G	23 4,5 x 6/ St / G	5017172	1018 22 1		36
550 9X760 SW	9 x 760220/ PA	5455714	2330 34 2		115	605 23 G	23 4,5 x 6/ St / G	5017172	1018 22 1		101
						605 25 G	25 4,5 x 6/ St / G	5017233	1018 25 6		36
555 2.5x100 SWUV	2.5 x 10018/ PA	5896869	2332 76 0		60	605 25 G	25 4,5 x 6/ St / G	5017233	1018 25 6		101
555 2.5x100 SWUV	2.5 x 10018/ PA	5896869	2332 76 0		115	605 25 V4A	25 4,5 x 6/ V4A	5912132	1018 67 9		36
555 3.6x150 SWUV	3.6 x 14035/ PA	5896876	2332 76 4		60	605 25 V4A	25 4,5 x 6/ V4A	5912132	1018 67 9		101
555 3.6x150 SWUV	3.6 x 14035/ PA	5896876	2332 76 4		115	605 26 G	26 4,5 x 6/ St / G	5017295	1018 26 4		36
555 3.6x200 SWUV	3.6 x 20050/ PA	5896883	2332 76 8		60	605 26 G	26 4,5 x 6/ St / G	5017295	1018 26 4		101
555 3.6x200 SWUV	3.6 x 20050/ PA	5896883	2332 76 8		115	605 28 G	28 4,5 x 6/ St / G	5017356	1018 28 0		36
555 4.8x200 SWUV	4.8 x 20047/ PA	5896890	2332 77 2		60	605 28 G	28 4,5 x 6/ St / G	5017356	1018 28 0		101
555 4.8x200 SWUV	4.8 x 20047/ PA	5896890	2332 77 2		115	605 30 G	30 4,5 x 6/ St / G	5017417	1018 30 2		36
555 4.8x310 SWUV	4.8 x 30076/ PA	5896906	2332 77 6		60	605 30 G	30 4,5 x 6/ St / G	5017417	1018 30 2		101
555 4.8x310 SWUV	4.8 x 30076/ PA	5896906	2332 77 6		115	605 32 G	32 4,5 x 6/ St / G	5017479	1018 33 7		36
555 4.8x370 SWUV	4.8 x 370102/ PA	5896913	2332 78 0		60	605 32 G	32 4,5 x 6/ St / G	5017479	1018 33 7		101
555 4.8x370 SWUV	4.8 x 370102/ PA	5896913	2332 78 0		115	605 32 V4A	32 4,5 x 6/ V4A	5912170	1018 69 3		36
555 7.6x380 SWUV	7.6 x 380102/ PA	5896920	2332 78 4		60	605 32 V4A	32 4,5 x 6/ V4A	5912170	1018 69 3		101
555 7.6x380 SWUV	7.6 x 380102/ PA	5896920	2332 78 4		115	605 35 G	35 5,5 x 7/ St / G	5017530	1018 35 3		36

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
				/1000 pc.						/1000 pc.	
605 35 G	35 5,5x7/ St / G	5017530	1018 35 3		101	732 38 GTP	36-38 M6/ St / GTP	5115458	1360 38 8		34
605 37 G	37 5,5x7/ St / G	5017592	1018 36 1		36	732 38 GTP	36-38 M6/ St / GTP	5115458	1360 38 8		99
605 37 G	37 5,5x7/ St / G	5017592	1018 36 1		101	732 38 V4A	36-38 M6/ V4A	5912538	1360 67 6		34
605 40 G	40 5,5x7/ St / G	5017653	1018 39 6		36	732 38 V4A	36-38 M6/ V4A	5912538	1360 67 6		99
605 40 G	40 5,5x7/ St / G	5017653	1018 39 6		101	732 40 GTP	38-40 M6/ St / GTP	5115519	1360 39 6		34
605 40 V4A	40 5,5x7/ V4A	5912231	1018 70 5		36	732 40 GTP	38-40 M6/ St / GTP	5115519	1360 39 6		99
605 40 V4A	40 5,5x7/ V4A	5912231	1018 70 5		101	732 40 V4A	38-40 M6/ V4A	5912545	1360 67 8		34
605 43 G	43 5,5x7/ St / G	5017714	1018 43 4		36	732 40 V4A	38-40 M6/ V4A	5912545	1360 67 8		99
605 43 G	43 5,5x7/ St / G	5017714	1018 43 4		101	732 42 GTP	40-42 M6/ St / GTP	5115571	1360 42 6		34
605 47 G	47 5,5x7/ St / G	5017776	1018 47 7		36	732 42 GTP	40-42 M6/ St / GTP	5115571	1360 42 6		99
605 47 G	47 5,5x7/ St / G	5017776	1018 47 7		101	732 42 V4A	40-42 M6/ V4A	5912583	1360 68 0		34
605 50 G	50 5,5x7/ St / G	5568339	1018 50 7		36	732 42 V4A	40-42 M6/ V4A	5912583	1360 68 0		99
605 50 G	50 5,5x7/ St / G	5568339	1018 50 7		101	732 45 GTP	43-45 M6/ St / GTP	5115632	1360 45 0		34
605 50 V4A	50 5,5x7/ V4A	5906476	1018 71 7		36	732 45 GTP	43-45 M6/ St / GTP	5115632	1360 45 0		99
605 50 V4A	50 5,5x7/ V4A	5906476	1018 71 7		101	732 45 V4A	43-45 M6/ V4A	5912590	1360 68 2		34
605 55 G	55 5,5x7/ St / G	5017837	1018 55 8		36	732 45 V4A	43-45 M6/ V4A	5912590	1360 68 2		99
605 55 G	55 5,5x7/ St / G	5017837	1018 55 8		101	732 48 GTP	46-48 M6/ St / GTP	5115694	1360 48 5		34
605 60 G	60 5,5x7/ St / G	5017899	1018 60 4		36	732 48 GTP	46-48 M6/ St / GTP	5115694	1360 48 5		99
605 60 G	60 5,5x7/ St / G	5017899	1018 60 4		101	732 48 V4A	46-48 M6/ V4A	5912606	1360 68 4		34
605 63 G	63 5,5x7/ St / G	5568513	1018 63 9		36	732 48 V4A	46-48 M6/ V4A	5912606	1360 68 4		99
605 63 G	63 5,5x7/ St / G	5568513	1018 63 9		101	732 50 GTP	48-50 M6/ St / GTP	5115755	1360 50 7		34
605 63 V4A	63 5,5x7/ V4A	5906506	1018 72 9		36	732 50 GTP	48-50 M6/ St / GTP	5115755	1360 50 7		99
605 63 V4A	63 5,5x7/ V4A	5906506	1018 72 9		101	732 50 V4A	48-50 M6/ V4A	5912637	1360 68 6		34
605 7 G	7 4,5x6/ St / G	5016274	1018 07 8		36	732 50 V4A	48-50 M6/ V4A	5912637	1360 68 6		99
605 7 G	7 4,5x6/ St / G	5016274	1018 07 8		101	732 6 GTP	5-6 M6/ St / GTP	5114499	1360 05 1		34
605 8 G	8 4,5x6/ St / G	5016335	1018 08 6		36	732 6 GTP	5-6 M6/ St / GTP	5114499	1360 05 1		99
605 8 G	8 4,5x6/ St / G	5016335	1018 08 6		101	732 6 V4A	5-6 M6/ V4A	5912378	1360 64 4		34
605 9 G	9 4,5x6/ St / G	5016397	1018 09 4		36	732 6 V4A	5-6 M6/ V4A	5912378	1360 64 4		99
605 9 G	9 4,5x6/ St / G	5016397	1018 09 4		101	732 60 GTP	58-60 M6/ St / GTP	5115878	1360 60 4		34
						732 60 GTP	58-60 M6/ St / GTP	5115878	1360 60 4		99
732 10 GTP	9-10 M6/ St / GTP	5114611	1360 10 8		34	732 60 V4A	58-60 M6/ V4A	5912644	1360 68 8		34
732 10 GTP	9-10 M6/ St / GTP	5114611	1360 10 8		99	732 60 V4A	58-60 M6/ V4A	5912644	1360 68 8		99
732 10 V4A	9-10 M6/ V4A	5912392	1360 64 8		34	732 63 GTP	61-63 M6/ St / GTP	5569114	1360 63 9		34
732 10 V4A	9-10 M6/ V4A	5912392	1360 64 8		99	732 63 GTP	61-63 M6/ St / GTP	5569114	1360 63 9		99
732 12 GTP	10,5-12 M6/ St / GTP	5114673	1360 12 4		34	732 63 V4A	61-63 M6/ V4A	5912651	1360 69 0		34
732 12 GTP	10,5-12 M6/ St / GTP	5114673	1360 12 4		99	732 63 V4A	61-63 M6/ V4A	5912651	1360 69 0		99
732 12 V4A	10,5-12 M6/ V4A	5912408	1360 65 0		34	732 8 GTP	7-8 M6/ St / GTP	5114550	1360 08 6		34
732 12 V4A	10,5-12 M6/ V4A	5912408	1360 65 0		99	732 8 GTP	7-8 M6/ St / GTP	5114550	1360 08 6		99
732 14 GTP	12,5-14 M6/ St / GTP	5114734	1360 14 0		34	732 8 V4A	7-8 M6/ V4A	5912385	1360 64 6		34
732 14 GTP	12,5-14 M6/ St / GTP	5114734	1360 14 0		99	732 8 V4A	7-8 M6/ V4A	5912385	1360 64 6		99
732 14 V4A	12,5-14 M6/ V4A	5912415	1360 65 2		34						
732 14 V4A	12,5-14 M6/ V4A	5912415	1360 65 2		99	733 13 FT	11-13 6,5x10/ St / FT	5029755	1361 09 1		34
732 15 GTP	13,5-15 M6/ St / GTP	5114796	1360 15 9		34	733 13 FT	11-13 6,5x10/ St / FT	5029755	1361 09 1		99
732 15 GTP	13,5-15 M6/ St / GTP	5114796	1360 15 9		99	733 13 V4A	11-13 6,5x10/ V4A	5912668	1361 64 3		35
732 15 V4A	13,5-15 M6/ V4A	5912422	1360 65 4		34	733 13 V4A	11-13 6,5x10/ V4A	5912668	1361 64 3		100
732 15 V4A	13,5-15 M6/ V4A	5912422	1360 65 4		99	733 16 FT	14-16 6,5x10/ St / FT	5029762	1361 09 4		34
732 16 GTP	14,5-16 M6/ St / GTP	5114857	1360 16 7		34	733 16 FT	14-16 6,5x10/ St / FT	5029762	1361 09 4		99
732 16 GTP	14,5-16 M6/ St / GTP	5114857	1360 16 7		99	733 16 V4A	14-16 6,5x10/ V4A	5912705	1361 64 7		35
732 16 V4A	14,5-16 M6/ V4A	5912439	1360 65 6		34	733 16 V4A	14-16 6,5x10/ V4A	5912705	1361 64 7		100
732 16 V4A	14,5-16 M6/ V4A	5912439	1360 65 6		99	733 16 VA	14-16 6,5x10/ V2A	5116714	1362 01 1		35
732 18 GTP	16,5-18 M6/ St / GTP	5114918	1360 18 3		34	733 16 VA	14-16 6,5x10/ V2A	5116714	1362 01 1		100
732 18 GTP	16,5-18 M6/ St / GTP	5114918	1360 18 3		99	733 19 FT	17-19 6,5x10/ St / FT	5029809	1361 09 7		34
732 18 V4A	16,5-18 M6/ V4A	5912446	1360 65 8		34	733 19 FT	17-19 6,5x10/ St / FT	5029809	1361 09 7		99
732 18 V4A	16,5-18 M6/ V4A	5912446	1360 65 8		99	733 19 V4A	17-19 6,5x10/ V4A	5912712	1361 65 1		35
732 20 GTP	18,5-20 M6/ St / GTP	5114970	1360 20 5		34	733 19 V4A	17-19 6,5x10/ V4A	5912712	1361 65 1		100
732 20 GTP	18,5-20 M6/ St / GTP	5114970	1360 20 5		99	733 19 VA	17-19 6,5x10/ V2A	5116776	1362 03 8		35
732 20 V4A	18,5-20 M6/ V4A	5912453	1360 66 0		34	733 19 VA	17-19 6,5x10/ V2A	5116776	1362 03 8		100
732 20 V4A	18,5-20 M6/ V4A	5912453	1360 66 0		99	733 21 FT	19-21 6,5x10/ St / FT	5029816	1361 10 0		34
732 22 GTP	20-22 M6/ St / GTP	5115038	1360 22 1		34	733 21 FT	19-21 6,5x10/ St / FT	5029816	1361 10 0		99
732 22 GTP	20-22 M6/ St / GTP	5115038	1360 22 1		99	733 21 V4A	19-21 6,5x10/ V4A	5912729	1361 65 5		35
732 22 V4A	20-22 M6/ V4A	5912460	1360 66 2		34	733 21 V4A	19-21 6,5x10/ V4A	5912729	1361 65 5		100
732 22 V4A	20-22 M6/ V4A	5912460	1360 66 2		99	733 21 VA	19-21 6,5x10/ V2A	5116837	1362 04 6		35
732 24 GTP	22-24 M6/ St / GTP	5115090	1360 24 8		34	733 21 VA	19-21 6,5x10/ V2A	5116837	1362 04 6		100
732 24 GTP	22-24 M6/ St / GTP	5115090	1360 24 8		99	733 23 FT	21-23 6,5x10/ St / FT	5029823	1361 10 3		34
732 24 V4A	22-24 M6/ V4A	5912477	1360 66 4		34	733 23 FT	21-23 6,5x10/ St / FT	5029823	1361 10 3		99
732 24 V4A	22-24 M6/ V4A	5912477	1360 66 4		99	733 23 V4A	21-23 6,5x10/ V4A	5912750	1361 65 9		35
732 26 GTP	24-26 M6/ St / GTP	5115151	1360 26 4		34	733 23 V4A	21-23 6,5x10/ V4A	5912750	1361 65 9		100
732 26 GTP	24-26 M6/ St / GTP	5115151	1360 26 4		99	733 23 VA	21-23 6,5x10/ V2A	5116899	1362 05 4		35
732 26 V4A	24-26 M6/ V4A	5912484	1360 66 6		34	733 23 VA	21-23 6,5x10/ V2A	5116899	1362 05 4		100
732 26 V4A	24-26 M6/ V4A	5912484	1360 66 6		99	733 29 FT	24-29 6,5x10/ St / FT	5029861	1361 10 6		34
732 28 GTP	26-28 M6/ St / GTP	5115212	1360 28 0		34	733 29 FT	24-29 6,5x10/ St / FT	5029861	1361 10 6		99
732 28 GTP	26-28 M6/ St / GTP	5115212	1360 28 0		99	733 29 V4A	24-29 6,5x10/ V4A	5912767	1361 66 3		35
732 28 V4A	26-28 M6/ V4A	5912491	1360 66 8		34	733 29 V4A	24-29 6,5x10/ V4A	5912767	1361 66 3		100
732 28 V4A	26-28 M6/ V4A	5912491	1360 66 8		99	733 29 VA	24-29 6,5x10/ V2A	5116950	1362 06 2		35
732 30 GTP	28-30 M6/ St / GTP	5115274	1360 30 2		34	733 29 VA	24-29 6,5x10/ V2A	5116950	1362 06 2		100
732 30 GTP	28-30 M6/ St / GTP	5115274	1360 30 2		99	733 38 FT	30-38 6,5x10/ St / FT	5029878	1361 10 9		34
732 30 V4A	28-30 M6/ V4A	5912507	1360 67 0		34	733 38 FT	30-38 6,5x10/ St / FT	5029878	1361 10 9		99
732 30 V4A	28-30 M6/ V4A	5912507	1360 67 0		99	733 38 V4A	30-38 6,5x10/ V4A	5912774	1361 66 7		35
732 33 GTP	31-33 M6/ St / GTP	51									

Type	Dimensions/Colour/Div.	GTIN	Art. no.	Price	Page	Type	Dimensions/Colour/Div.	GTIN	Art. no.	Price	Page
733 48 VA	39-48 6,5 x 10/ V2A	5117070	1362 08 9	/1000 pc.	100	856	/ Cu	5423430	5331 50 1	/1000 pc.	47
733 54 FT	48-54 6,5 x 10/ st / FT	5615651	1361 11 7		34	856	/ Cu	5423430	5331 50 1		80
733 54 FT	48-54 6,5 x 10/ st / FT	5615651	1361 11 7		99						
733 54 V4A	48-54 6,5 x 10/ V4A	5912828	1361 67 5		35						
733 54 V4A	48-54 6,5 x 10/ V4A	5912828	1361 67 5		100	927 2	/ V2A	5388630	5057 52 3		116
733 54 VA	48-54 6,5 x 14/ V2A	5117131	1362 09 7		35						
733 54 VA	48-54 6,5 x 14/ V2A	5117131	1362 09 7		100	1015 10 G	102000/ st / G	5007753	1009 07 9		35
733 61 FT	53-61 6,5 x 10/ st / FT	5254348	1361 11 5		34	1015 10 G	102000/ st / G	5007753	1009 07 9		100
733 61 FT	53-61 6,5 x 10/ st / FT	5254348	1361 11 5		99	1015 11 G	111800/ st / G	5007814	1009 08 7		35
733 61 V4A	53-61 6,5 x 10/ V4A	5912835	1361 67 9		35	1015 11 G	111800/ st / G	5007814	1009 08 7		100
733 61 V4A	53-61 6,5 x 10/ V4A	5912835	1361 67 9		100	1015 12 G	121000/ st / G	5007876	1009 10 9		35
733 61 VA	53-61 6,5 x 14/ V2A	5117193	1362 10 0		35	1015 12 G	121000/ st / G	5007876	1009 10 9		100
733 61 VA	53-61 6,5 x 14/ V2A	5117193	1362 10 0		100	1015 13 G	131800/ st / G	5007937	1009 11 7		35
733 63 FT	63-63 6,5 x 10/ st / FT	5254386	1361 11 8		34	1015 13 G	131800/ st / G	5007937	1009 11 7		100
733 63 FT	63-63 6,5 x 10/ st / FT	5254386	1361 11 8		99	1015 14 G	141200/ st / G	5007999	1009 16 8		35
733 63 V4A	63-63 6,5 x 10/ V4A	5912842	1361 68 3		35	1015 14 G	141200/ st / G	5007999	1009 16 8		100
733 63 V4A	63-63 6,5 x 10/ V4A	5912842	1361 68 3		100	1015 15 G	151200/ st / G	5008057	1009 18 4		35
733 63 VA	63-63 8 x 18/ V2A	5117254	1362 12 7		35	1015 15 G	151200/ st / G	5008057	1009 18 4		100
733 63 VA	63-63 8 x 18/ V2A	5117254	1362 12 7		100	1015 16 G	161200/ st / G	5008118	1009 19 2		35
						1015 16 G	161200/ st / G	5008118	1009 19 2		100
822 10 V4A	10/ V4A	5911753	1013 86 5		37	1015 17 G	171200/ st / G	5008170	1009 20 6		35
822 10 V4A	10/ V4A	5911753	1013 86 5		102	1015 17 G	171200/ st / G	5008170	1009 20 6		100
822 12 V4A	12 M12/ V4A	5911760	1013 86 9		37	1015 18 G	181200/ st / G	5008231	1009 21 4		35
822 12 V4A	12 M12/ V4A	5911760	1013 86 9		102	1015 18 G	181200/ st / G	5008231	1009 21 4		100
822 14 V4A	14/ V4A	5911807	1013 87 3		37	1015 5 G	53000/ st / G	5007456	1009 02 8		35
822 14 V4A	14/ V4A	5911807	1013 87 3		102	1015 5 G	53000/ st / G	5007456	1009 02 8		100
822 16 V4A	15,2 M16/ V4A	5911814	1013 87 7		37	1015 6 G	62400/ st / G	5007517	1009 03 6		35
822 16 V4A	15,2 M16/ V4A	5911814	1013 87 7		102	1015 6 G	62400/ st / G	5007517	1009 03 6		100
822 18 V4A	18,6 PG11/ V4A	5911821	1013 88 1		37	1015 7 G	72000/ st / G	5007579	1009 04 4		35
822 18 V4A	18,6 PG11/ V4A	5911821	1013 88 1		102	1015 7 G	72000/ st / G	5007579	1009 04 4		100
822 20 V4A	20 M20/ V4A	5911838	1013 88 5		37	1015 8 G	82000/ st / G	5007630	1009 05 2		35
822 20 V4A	20 M20/ V4A	5911838	1013 88 5		102	1015 8 G	82000/ st / G	5007630	1009 05 2		100
822 22.5 V4A	22,5 PG16/ V4A	5911845	1013 88 9		37	1015 9 G	92000/ st / G	5007692	1009 06 0		35
822 22.5 V4A	22,5 PG16/ V4A	5911845	1013 88 9		102	1015 9 G	92000/ st / G	5007692	1009 06 0		100
822 25 V4A	25 M25/ V4A	5911852	1013 89 3		37						
822 25 V4A	25 M25/ V4A	5911852	1013 89 3		102	1268 L 150 FS	35 x 18/ st / FS	5038238	1104 24 1		67
822 28.3 V4A	28,3 PG21/ V4A	5911869	1013 89 7		37					/100 m	
822 28.3 V4A	28,3 PG21/ V4A	5911869	1013 89 7		102	1268 L 1M FS	35 x 18/ st / FS	5694458	1104 49 7		67
822 32 V4A	32 M32/ V4A	5911876	1013 90 3		37					/1000 pc.	
822 32 V4A	32 M32/ V4A	5911876	1013 90 3		102	1268 L 200 FS	35 x 18/ st / FS	5038290	1104 26 8		67
822 37 V4A	37 PG29/ V4A	5911883	1013 90 7		37					/100 m	
822 37 V4A	37 PG29/ V4A	5911883	1013 90 7		102	1268 L 2M FS	35 x 18/ st / FS	5038771	1104 50 0		67
822 40 V4A	40 M40/ V4A	5911890	1013 91 1		37					/1000 pc.	
822 40 V4A	40 M40/ V4A	5911890	1013 91 1		102	1268 L 300 FS	35 x 18/ st / FS	5038351	1104 28 4		67
822 47 V4A	47 PG36/ V4A	5911906	1013 91 7		37	1268 L 400 FS	35 x 18/ st / FS	5836353	1104 29 2		67
822 47 V4A	47 PG36/ V4A	5911906	1013 91 7		102	1268 L 500 FS	35 x 18/ st / FS	5038412	1104 30 6		67
822 50 V4A	50 M50/ V4A	5911913	1013 92 1		37	1268 L 600 FS	35 x 18/ st / FS	5036678	1104 31 0		67
822 50 V4A	50 M50/ V4A	5911913	1013 92 1		102	1268 L 700 FS	35 x 18/ st / FS	5036739	1104 31 5		67
822 6 V4A	6/ V4A	5911746	1013 86 1		37	1268 L 800 FS	35 x 18/ st / FS	5036791	1104 32 0		67
822 6 V4A	6/ V4A	5911746	1013 86 1		102	1268 L 900 FS	35 x 18/ st / FS	5036852	1104 32 5		67
822 63 V4A	63 M63/ V4A	5911920	1013 92 5		37	1268 SK OR	Pastel orange.800/ PE	5668114	1124 50 2		67
822 63 V4A	63 M63/ V4A	5911920	1013 92 5		102						
823 16 FT	16 6,5 x 10/ st / FT	5015130	1015 09 5		36	1801 VDE	Grey/ CuZn	5378556	5015 65 0	/pc.	116
823 16 FT	16 6,5 x 10/ st / FT	5015130	1015 09 5		101						
823 18.3 FT	18,6 6,5 x 10/ st / FT	5015192	1015 11 7		36	1802 10 CU	40/ Cu	5002260	5015 84 2		116
823 18.3 FT	18,6 6,5 x 10/ st / FT	5015192	1015 11 7		101	1802 10 VA	40/ V2A	5002284	5015 86 6		116
823 20 FT	20 6,5 x 10/ st / FT	5015253	1015 13 3		36	1802 5 CU	40/ Cu	5002253	5015 83 0		116
823 20 FT	20 6,5 x 10/ st / FT	5015253	1015 13 3		101	1802 5 VA	40/ V2A	5002277	5015 85 4		116
823 22.5 FT	22,5 6,5 x 10/ st / FT	5015314	1015 16 8		36	1802 AH 10	/ V2A	5033677	5015 88 4		116
823 22.5 FT	22,5 6,5 x 10/ st / FT	5015314	1015 16 8		101	1802 AH 5	/ V2A	5033615	5015 88 0		116
823 25 FT	25 6,5 x 10/ st / FT	5567615	1015 49 4		36	1802 KL	/ V2A	5033738	5015 89 0		116
823 25 FT	25 6,5 x 10/ st / FT	5567615	1015 49 4		101						
823 28.3 FT	28,3 6,5 x 10/ st / FT	5015376	1015 21 4		36	1814 FT	/ St / FT	5105015	5014 46 8		139
823 28.3 FT	28,3 6,5 x 10/ st / FT	5015376	1015 21 4		101	1814 ST	/ St	5105077	5014 47 6		139
823 32 FT	32 6,5 x 10/ st / FT	5567738	1015 49 6		36						
823 32 FT	32 6,5 x 10/ st / FT	5567738	1015 49 6		101					/1000 pc.	
823 37 FT	37 6,5 x 10/ st / FT	5015437	1015 30 3		36	2029 M16 ALU	M16 1200/ Al	5932710	2149 85 0		32
823 37 FT	37 6,5 x 10/ st / FT	5015437	1015 30 3		101	2029 M16 ALU	M16 1200/ Al	5932710	2149 85 0		97
823 40 FT	40 6,5 x 10/ st / FT	5567790	1015 49 8		36	2029 M20 ALU	M20 1200/ Al	5933625	2149 85 4		32
823 40 FT	40 6,5 x 10/ st / FT	5567790	1015 49 8		101	2029 M20 ALU	M20 1200/ Al	5933625	2149 85 4		97
823 47 FT	47 6,5 x 10/ st / FT	5015499	1015 36 2		36	2029 M25 ALU	M25 100/ Al	5932727	2149 85 8		32
823 47 FT	47 6,5 x 10/ st / FT	5015499	1015 36 2		101	2029 M25 ALU	M25 100/ Al	5932727	2149 85 8		97
823 50 FT	50 6,5 x 10/ st / FT	5567851	1015 50 0		36	2029 M32 ALU	M32 600/ Al	5932734	2149 86 2		32
823 50 FT	50 6,5 x 10/ st / FT	5567851	1015 50 0		101	2029 M32 ALU	M32 600/ Al	5932734	2149 86 2		97
823 54 FT	54 6,5 x 10/ st / FT	5015550	1015 42 7		36	2029 M40 ALU	M40 50/ Al	5932741	2149 86 6		32
823 54 FT	54 6,5 x 10/ st / FT	5015550	1015 42 7		101	2029 M40 ALU	M40 50/ Al	5932741	2149 86 6		97
823 59.3 FT	59,3 6,5 x 10/ st / FT	5015611	1015 48 6		36	2029 M50 ALU	M50 300/ Al	5932758	2149 87 0		32
823 59.3 FT	59,3 6,5 x 10/ st / FT	5015611	1015 48 6		101	2029 M50 ALU	M50 300/ Al	5932758	2149 87 0		97
823 63 FT	63 6,5 x 10/ st / FT	5567912	1015 50 8		36	2029 M63 ALU	M63 20/ Al	5932765	2149 87 4		32
823 63 FT	63 6,5 x 10/ st / FT	5567912	1015 50 8		101	2029 M63 ALU	M63 20/ Al	5932765	2149 87 4		97
						2056 100 FT	90-100 25/ st / FT	5065296	1160 99 0		73
853 300	300/ Al	5423379	5331 01 3		47	2056 12 FT	8-12 23/ st / FT	5064459	1160 12 5		73
853 300	300/ Al	5423379	5331 01 3		80	2056 12 VA	8-12 23/ V2A	5063612	1159 51 8		73
						2056 16 FT	12-16 23/ st / FT	5064510	1160 16 8		73

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 16 VA	12-16 23/ V2A	5063674	1159 52 6	/1000 pc.	73	2056U 70 FT	64-70 / ST / FT	5073338	1175 69 6	/1000 pc.	74
2056 22 FT	16-22 23/ ST / FT	5064572	1160 22 2		73	2056U 70 VA	64-70 23/ V2A	5075196	1178 62 8		74
2056 22 VA	16-22 23/ V2A	5063735	1159 53 4		73	2056U 76 FT	70-76 / ST / FT	5073390	1175 76 9		74
2056 28 FT	22-28 23/ ST / FT	5064633	1160 28 1		73	2056U 76 VA	70-76 25/ V2A	5075257	1178 63 6		74
2056 28 VA	22-28 23/ V2A	5063797	1159 54 2		73	2056U 82 FT	76-82 / ST / FT	5073451	1175 82 3		74
2056 34 FT	28-34 23/ ST / FT	5064695	1160 34 6		73	2056U 90 FT	82-90 / ST / FT	5073512	1175 90 4		74
2056 34 VA	28-34 23/ V2A	5063858	1159 55 0		73	2056U M 12 V4A	8-12 / V4A	5912255	1158 20 7		75
2056 40 FT	34-40 23/ ST / FT	5064756	1160 40 0		73	2056U M 12 V4A	8-12 / V4A	5912255	1158 20 7		130
2056 40 VA	34-40 23/ V2A	5063919	1159 56 9		73	2056U M 16 V4A	12-16 / V4A	5912262	1158 21 1		75
2056 46 FT	40-46 23/ ST / FT	5064817	1160 45 1		73	2056U M 16 V4A	12-16 / V4A	5912262	1158 21 1		130
2056 46 VA	40-46 23/ V2A	5063971	1159 57 7		73	2056U M 22 V4A	16-22 / V4A	5912279	1158 21 5		75
2056 52 FT	46-52 23/ ST / FT	5064879	1160 52 4		73	2056U M 22 V4A	16-22 / V4A	5912279	1158 21 5		130
2056 52 VA	46-52 23/ V2A	5064039	1159 58 5		73	2056U M 28 V4A	22-28 / V4A	5912286	1158 21 9		75
2056 58 FT	52-58 23/ ST / FT	5064930	1160 58 3		73	2056U M 28 V4A	22-28 / V4A	5912286	1158 21 9		130
2056 58 VA	52-58 23/ V2A	5064091	1159 59 3		73	2056U M 34 V4A	28-34 / V4A	5912293	1158 22 3		75
2056 64 FT	58-64 23/ ST / FT	5064992	1160 64 8		73	2056U M 34 V4A	28-34 / V4A	5912293	1158 22 3		130
2056 64 VA	58-64 23/ V2A	5064152	1159 60 7		73	2056U M 40 V4A	34-40 / V4A	5912309	1158 22 7		75
2056 70 FT	64-70 25/ ST / FT	5065050	1160 70 2		73	2056U M 40 V4A	34-40 / V4A	5912309	1158 22 7		130
2056 70 VA	64-70 25/ V2A	5064213	1159 61 5		73	2056U M 46 V4A	40-46 / V4A	5912316	1158 23 1		75
2056 76 FT	70-76 25/ ST / FT	5065111	1160 76 1		73	2056U M 46 V4A	40-46 / V4A	5912316	1158 23 1		130
2056 76 VA	70-76 25/ V2A	5064275	1159 62 3		73	2056U M 52 V4A	46-52 / V4A	5912323	1158 23 5		75
2056 82 FT	76-82 25/ ST / FT	5065173	1160 82 6		73	2056U M 52 V4A	46-52 / V4A	5912323	1158 23 5		130
2056 90 FT	82-90 25/ ST / FT	5065234	1160 90 7		73	2056U M 58 V4A	52-58 / V4A	5912330	1158 23 9		75
2056 BE FT	/ ST / FT	5072492	1174 05 3		60	2056U M 58 V4A	52-58 / V4A	5912330	1158 23 9		130
2056 BE FT	/ ST / FT	5072492	1174 05 3		74	2056U M 64 V4A	58-64 / V4A	5912347	1158 24 3		75
2056 BE FT	/ ST / FT	5072492	1174 05 3		130	2056U M 64 V4A	58-64 / V4A	5912347	1158 24 3		130
2056 E 31 FT	28-31 / ST / FT	5500353	1174 60 6		75	2056U M 70 V4A	64-70 / V4A	5912354	1158 24 7		75
2056 E 37 FT	34-37 / ST / FT	5500414	1174 61 4		75	2056U M 70 V4A	64-70 / V4A	5912354	1158 24 7		130
2056 E 44 FT	40-44 / ST / FT	5500476	1174 63 0		75	2056U M 76 V4A	70-76 / V4A	5912361	1158 25 1		75
2056 M 12 VA	8-12 23/ V2A	5668190	1159 71 2		74	2056U M 76 V4A	70-76 / V4A	5912361	1158 25 1		130
2056 M 16 VA	12-16 23/ V2A	5668206	1159 71 6		74						
2056 M 22 VA	16-22 23/ V2A	5668213	1159 72 2		74	2058 M2 22 V2A	16-22 35/ V2A	5847649	1196 59 7		76
2056 M 28 VA	22-28 23/ V2A	5668220	1159 72 8		74	2058 M2 22 V2A	16-22 35/ V2A	5847649	1196 59 7		130
2056 M 34 VA	28-34 23/ V2A	5668268	1159 73 4		74	2058 M2 28 V2A	22-28 35/ V2A	5847656	1196 59 9		76
2056 M 40 VA	34-40 23/ V2A	5668275	1159 74 0		74	2058 M2 28 V2A	22-28 35/ V2A	5847656	1196 59 9		130
2056 M 46 VA	40-46 23/ V2A	5668282	1159 74 6		74	2058 M2 34 V2A	28-34 35/ V2A	5847663	1196 60 1		76
2056 M 52 VA	46-52 23/ V2A	5668299	1159 75 2		74	2058 M2 34 V2A	28-34 35/ V2A	5847663	1196 60 1		130
2056 M 58 VA	52-58 23/ V2A	5668305	1159 75 8		74	2058 M2 40 V2A	34-40 35/ V2A	5847670	1196 60 3		76
2056 M 64 VA	58-64 23/ V2A	5668312	1159 76 4		74	2058 M2 40 V2A	34-40 35/ V2A	5847670	1196 60 3		130
2056 M 70 VA	64-70 25/ V2A	5668329	1159 77 0		74	2058FW 100 LGR	90-100 40/ PP	5083955	1197 99 1		75
2056 M 76 VA	70-76 25/ V2A	5668336	1159 77 6		74	2058FW 12 LGR	8-12 34/ PP	5083115	1197 12 6		75
2056N M 12 FT	8-12 / ST / FT	5060857	1155 40 7		73	2058FW 16 LGR	12-16 34/ PP	5083177	1197 16 9		75
2056N M 16 FT	12-16 / ST / FT	5060918	1155 41 5		73	2058FW 22 LGR	16-22 34/ PP	5083238	1197 22 3		75
2056N M 22 FT	16-22 / ST / FT	5060970	1155 42 3		73	2058FW 28 LGR	22-28 34/ PP	5083290	1197 28 2		75
2056N M 28 FT	22-28 / ST / FT	5061038	1155 43 1		73	2058FW 34 ENER	28-34 34/ PP	5514695	1199 05 9		75
2056N M 34 FT	28-34 / ST / FT	5061090	1155 45 8		73	2058FW 34 LGR	28-34 34/ PP	5083351	1197 34 7		75
2056N M 40 FT	34-40 / ST / FT	5061151	1155 46 6		73	2058FW 40 LGR	34-40 34/ PP	5083412	1197 40 1		75
2056N M 46 FT	40-46 / ST / FT	5061212	1155 47 4		73	2058FW 46 ENER	40-46 40/ PP	5651048	1199 06 1		75
2056N M 52 FT	46-52 / ST / FT	5061274	1155 48 2		73	2058FW 46 LGR	40-46 40/ PP	5083474	1197 46 0		75
2056N M 58 FT	52-58 / ST / FT	5061335	1155 49 0		73	2058FW 52 LGR	46-52 40/ PP	5083535	1197 52 5		75
2056N SAS 12 VA	8-12 20/ V2A	5432432	1167 01 4		60	2058FW 58 LGR	52-58 40/ PP	5083597	1197 58 4		75
2056N SAS 12 VA	8-12 20/ V2A	5432432	1167 01 4		80	2058FW 64 LGR	58-64 40/ PP	5083658	1197 64 9		75
2056N SAS 12 VA	8-12 20/ V2A	5432432	1167 01 4		130	2058FW 70 LGR	64-70 40/ PP	5083719	1197 70 3		75
2056N SAS 16 VA	12-16 20/ V2A	5432494	1167 02 2		60	2058FW 76 LGR	70-76 40/ PP	5083771	1197 76 2		75
2056N SAS 16 VA	12-16 20/ V2A	5432494	1167 02 2		80	2058FW 82 LGR	76-82 40/ PP	5083832	1197 82 7		75
2056N SAS 16 VA	12-16 20/ V2A	5432494	1167 02 2		130	2058FW 90 LGR	82-90 40/ PP	5083894	1197 90 8		75
2056N SAS 22 VA	16-22 20/ V2A	5432555	1167 03 0		60	2058FW M 12 V2A	8-12 35/ V2A	5514091	1197 13 4		75
2056N SAS 22 VA	16-22 20/ V2A	5432555	1167 03 0		80	2058FW M 16 V2A	12-16 35/ V2A	5514152	1197 17 7		75
2056N SAS 22 VA	16-22 20/ V2A	5432555	1167 03 0		130	2058FW M 22 V2A	16-22 35/ V2A	5514213	1197 23 1		75
2056N SAS 28 VA	22-28 20/ V2A	5432616	1167 04 9		60	2058FW M 28 V2A	22-28 35/ V2A	5514275	1197 29 0		75
2056N SAS 28 VA	22-28 20/ V2A	5432616	1167 04 9		80	2058FW M 8 V2A	4-8 35/ V2A	5514039	1197 09 6		75
2056N SAS 28 VA	22-28 20/ V2A	5432616	1167 04 9		130						
2056N SAS 8 VA	4-8 20/ V2A	5432371	1167 00 6		60					/100 m	
2056N SAS 8 VA	4-8 20/ V2A	5432371	1167 00 6		80	2066 2M F	25 x 12/ ST / F	5046516	1117 02 5		60
2056N SAS 8 VA	4-8 20/ V2A	5432371	1167 00 6		130	2066 2M F	25 x 12/ ST / F	5046516	1117 02 5		72
2056U 100 FT	90-100 / ST / FT	5073574	1175 99 8		74	2066 2M F	25 x 12/ ST / F	5046516	1117 02 5		131
2056U 12 FT	8-12 / ST / FT	5072737	1175 12 2		74	2066 2M FS	25 x 12/ ST / FS	5046578	1117 03 3		60
2056U 12 VA	8-12 20/ V2A	5074595	1178 50 4		74	2066 2M FS	25 x 12/ ST / FS	5046578	1117 03 3		72
2056U 16 FT	12-16 / ST / FT	5072799	1175 16 5		74	2066 2M FS	25 x 12/ ST / FS	5046578	1117 03 3		131
2056U 16 VA	12-16 20/ V2A	5074656	1178 51 2		74						
2056U 22 FT	16-22 / ST / FT	5072850	1175 21 1		74	2069 2M GTP	1/ ST / GTP	5045496	1115 66 9		57
2056U 22 VA	16-22 20/ V2A	5074717	1178 52 0		74	2069 2M GTP	1/ ST / GTP	5045496	1115 66 9		127
2056U 28 FT	22-28 / ST / FT	5072911	1175 28 9		74					/1000 pc.	
2056U 28 VA	22-28 20/ V2A	5074779	1178 53 9		74	2069 T160 GTP	1/ ST / GTP	5441007	1115 38 4		39
2056U 34 FT	28-34 / ST / FT	5072973	1175 34 3		74	2069 T160 GTP	1/ ST / GTP	5441007	1115 38 4		104
2056U 34 VA	28-34 20/ V2A	5074830	1178 54 7		74	2069 T350 GTP	1/ ST / GTP	5441045	1115 38 8		39
2056U 40 FT	34-40 / ST / FT	5073031	1175 40 8		74	2069 T350 GTP	1/ ST / GTP	5441045	1115 38 8		104
2056U 40 VA	34-40 20/ V2A	5074892	1178 55 5		74					/pc.	
2056U 46 FT	40-46 / ST / FT	5073093	1175 46 7		74	2760 20 V4A	101/ V4A	5862697	5001 63 3		140
2056U 46 VA	40-46 20/ V2A	5074953	1178 56 3		74	2760 25 V4A	110/ V4A	5901259	5001 67 2		140
2056U 52 FT	46-52 / ST / FT	5073154	1175 52 1		74						

Type	Dimensions/Colour/Div.	GTIN	Art. no.	Price	Page	Type	Dimensions/Colour/Div.	GTIN	Art. no.	Price	Page
2953 B M20 LGR	M20 Light grey / PVC	5469452	2153 86 6	/pc.	94	5023 M10x40 G	M1040 / ST / G	5058458	1153 43 9	/1000 pc.	71
2953 B M25 LGR	M25 Light grey / PVC	5510192	2153 86 8		29	5023 M12x30 G	M1230 / ST / G	5058755	1153 61 7		71
2953 B M25 LGR	M25 Light grey / PVC	5510192	2153 86 8		94	5023 M12x35 G	M1235 / ST / G	5058816	1153 62 5		71
2953 B M32 LGR	M32 Light grey / PVC	5510253	2153 87 0		29	5023 M12x40 G	M1240 / ST / G	5058878	1153 63 3		71
2953 B M32 LGR	M32 Light grey / PVC	5510253	2153 87 0		94	5023 M12x50 G	M1250 / ST / G	5058939	1153 64 1		71
2953 M M16 LGR	M16 Light grey / PVC	5509950	2153 82 9		29						
2953 M M16 LGR	M16 Light grey / PVC	5509950	2153 82 9		94	5024 M10x30 G	M1030 / ST / G	5059714	1154 41 9		71
2953 M M20 LGR	M20 Light grey / PVC	5469391	2153 83 1		29	5024 M10x35 G	M1035 / ST / G	5059776	1154 42 7		71
2953 M M20 LGR	M20 Light grey / PVC	5469391	2153 83 1		94	5024 M10x40 G	M1040 / ST / G	5059837	1154 43 5		71
2953 M M25 LGR	M25 Light grey / PVC	5510017	2153 83 3		29	5024 M12x30 G	M1230 / ST / G	5060017	1154 60 5		71
2953 M M25 LGR	M25 Light grey / PVC	5510017	2153 83 3		94	5024 M12x35 G	M1235 / ST / G	5060079	1154 61 3		71
2953 M M32 LGR	M32 Light grey / PVC	5510079	2153 83 5		29	5024 M12x40 G	M1240 / ST / G	5060130	1154 62 1		71
2953 M M32 LGR	M32 Light grey / PVC	5510079	2153 83 5		94	5024 M12x50 G	M1250 / ST / G	5060192	1154 64 8		71
2953 M16 LGR	M16 Light grey / PVC	5028093	2153 90 4	/100 m	29					/100 m	
2953 M16 LGR	M16 Light grey / PVC	5028093	2153 90 4		94	5052 V2A 30X3.5	30 x 3,5 / V2A	5800415	5018 50 1		138
2953 M20 LGR	M20 Light grey / PVC	5027799	2153 91 2		29	5052 V4A 30X3.5	30 x 3,5 / V4A	5800477	5018 70 6		138
2953 M20 LGR	M20 Light grey / PVC	5027799	2153 91 2		94					/pc.	
2953 M25 LGR	M25 Light grey / PVC	5025214	2153 92 0		29						
2953 M25 LGR	M25 Light grey / PVC	5025214	2153 92 0		94	5055 I12 V4A	12 x 1 / V4A	5900887	1470 12 9		60
2953 M32 LGR	M32 Light grey / PVC	5025153	2153 93 9		29	5055 I12 V4A	12 x 1 / V4A	5900887	1470 12 9		78
2953 M32 LGR	M32 Light grey / PVC	5025153	2153 93 9		94	5055 I12 V4A	12 x 1 / V4A	5900887	1470 12 9		133
						5055 II17 V4A	17 x 1 / V4A	5900894	1470 18 0		60
2953 T M16 LGR	M16 Light grey / PVC	5510314	2153 87 2	/pc.	29	5055 II17 V4A	17 x 1 / V4A	5900894	1470 18 0		78
2953 T M16 LGR	M16 Light grey / PVC	5510314	2153 87 2		94	5055 II17 V4A	17 x 1 / V4A	5900894	1470 18 0		133
2953 T M20 LGR	M20 Light grey / PVC	5469575	2153 87 4		29	5055 III26 V4A	26 x 1.2 / V4A	5900900	1470 27 0		60
2953 T M20 LGR	M20 Light grey / PVC	5469575	2153 87 4		94	5055 III26 V4A	26 x 1.2 / V4A	5900900	1470 27 0		78
2953 T M25 LGR	M25 Light grey / PVC	5510376	2153 87 6		29	5055 III26 V4A	26 x 1.2 / V4A	5900900	1470 27 0		133
2953 T M25 LGR	M25 Light grey / PVC	5510376	2153 87 6		94	5055 LI12 V4A	12 x 0.75 / V4A	5900931	1471 12 6		60
2953 T M32 LGR	M32 Light grey / PVC	5510437	2153 87 8		29	5055 LI12 V4A	12 x 0.75 / V4A	5900931	1471 12 6		78
2953 T M32 LGR	M32 Light grey / PVC	5510437	2153 87 8		94	5055 LI12 V4A	12 x 0.75 / V4A	5900931	1471 12 6		133
						5055 LII17 V4A	17 x 0.75 / V4A	5900948	1471 17 7		60
						5055 LIII17 V4A	17 x 0.75 / V4A	5900948	1471 17 7		78
2955 M16	M16 Light grey / PP	5583219	2149 00 4	/1000 pc.	33	5055 LI17 V4A	17 x 0.75 / V4A	5900948	1471 17 7		133
2955 M16	M16 Light grey / PP	5583219	2149 00 4		98	5055 LIII26 V4A	26 x 1 / V4A	5900955	1471 26 6		60
2955 M16 SW	M16 Jet black / PP	5616276	2149 55 9		33	5055 LIII26 V4A	26 x 1 / V4A	5900955	1471 26 6		78
2955 M16 SW	M16 Jet black / PP	5616276	2149 55 9		98	5055 LIII26 V4A	26 x 1 / V4A	5900955	1471 26 6		133
2955 M20	M20 Light grey / PP	5583936	2149 01 0		33						
2955 M20	M20 Light grey / PP	5583936	2149 01 0		98	5062 I12 V4A	12 x 1 / V4A	5900962	1475 13 2		60
2955 M20 SW	M20 Jet black / PP	5616337	2149 56 3		33	5062 I12 V4A	12 x 1 / V4A	5900962	1475 13 2		78
2955 M20 SW	M20 Jet black / PP	5616337	2149 56 3		98	5062 I12 V4A	12 x 1 / V4A	5900962	1475 13 2		134
2955 M25	M25 Light grey / PP	5583998	2149 01 6		33	5062 II17 V4A	17 x 1 / V4A	5900979	1475 18 3		60
2955 M25	M25 Light grey / PP	5583998	2149 01 6		98	5062 II17 V4A	17 x 1 / V4A	5900979	1475 18 3		78
2955 M25 SW	M25 Jet black / PP	5616399	2149 56 7		33	5062 II17 V4A	17 x 1 / V4A	5900979	1475 18 3		134
2955 M25 SW	M25 Jet black / PP	5616399	2149 56 7		98	5062 III26 V4A	26 x 1.2 / V4A	5900986	1475 27 2		60
2955 M32	M32 Light grey / PP	5584056	2149 02 2		33	5062 III26 V4A	26 x 1.2 / V4A	5900986	1475 27 2		78
2955 M32	M32 Light grey / PP	5584056	2149 02 2		98	5062 III26 V4A	26 x 1.2 / V4A	5900986	1475 27 2		134
2955 M32 SW	M32 Jet black / PP	5616450	2149 57 1		33	5062 LI12 V4A	12 x 0.75 / V4A	5900993	1475 62 8		60
2955 M32 SW	M32 Jet black / PP	5616450	2149 57 1		98	5062 LI12 V4A	12 x 0.75 / V4A	5900993	1475 62 8		78
2955 M40	M40 Light grey / PP	5584292	2149 02 8		33	5062 LI12 V4A	12 x 0.75 / V4A	5900993	1475 62 8		134
2955 M40	M40 Light grey / PP	5584292	2149 02 8		98	5062 LII17 V4A	17 x 0.75 / V4A	5901006	1475 67 9		60
2955 M40 SW	M40 Jet black / PP	5616511	2149 57 5		33	5062 LII17 V4A	17 x 0.75 / V4A	5901006	1475 67 9		78
2955 M40 SW	M40 Jet black / PP	5616511	2149 57 5		98	5062 LII17 V4A	17 x 0.75 / V4A	5901006	1475 67 9		134
2955 M50	M50 Light grey / PP	5588191	2149 03 4		33	5062 LIII26 V4A	26 x 1 / V4A	5901013	1475 76 8		60
2955 M50	M50 Light grey / PP	5588191	2149 03 4		98	5062 LIII26 V4A	26 x 1 / V4A	5901013	1475 76 8		78
2955 M50 SW	M50 Jet black / PP	5616993	2149 57 9		33	5062 LIII26 V4A	26 x 1 / V4A	5901013	1475 76 8		134
2955 M50 SW	M50 Jet black / PP	5616993	2149 57 9		98						
2955 M63	M63 Light grey / PP	5588252	2149 04 0		33					/1000 pc.	
2955 M63	M63 Light grey / PP	5588252	2149 04 0		98	46277 T160 Q GTP	1 / St / GTP	5897958	1115 27 0		41
2955 M63 SW	M63 Jet black / PP	5617051	2149 58 3		33	46277 T160 Q GTP	1 / St / GTP	5897958	1115 27 0		106
2955 M63 SW	M63 Jet black / PP	5617051	2149 58 3		98						
5001 N-VA	/ V2A	5892809	5304 17 6		141	AH1	Grey 12 / PVC	6014873	6178 54 0		59
						AH1	Grey 12 / PVC	6014873	6178 54 0		129
5002 N-VA	/ V2A	5892847	5304 27 0		141	AH2	Grey 20 / PVC	6014996	6178 54 2		59
						AH2	Grey 20 / PVC	6014996	6178 54 2		129
5010 20 FT	/ St / FT	5503057	5304 52 0		47					/pc.	
5019 M10 OS G	M10 10 / ST / G	5053835	1144 13 8		71	AKZ	/ ST	6014750	6178 53 5		59
5019 M6 OS G	M6 6 / ST / G	5053712	1144 10 3		71	AKZ	/ ST	6014750	6178 53 5		129
5019 M8 OS G	M8 8 / ST / G	5053774	1144 11 1		71						
5022 M10x25 F	M1025 / ST / F	5057499	1151 40 1		71	AW 15 11 FT	11050 / St / FT	6207077	6420 65 6		24
5022 M10x30 F	M1030 / ST / F	5057550	1151 42 8		71	AW 15 11 FT	11050 / St / FT	6207077	6420 65 6		88
5022 M10x40 F	M1040 / ST / F	5057673	1151 44 4		71	AW 15 16 FT	16055 / St / FT	6207138	6420 66 4		24
5022 M12x30 G	M1230 / ST / G	5057796	1151 62 2		71	AW 15 16 FT	16055 / St / FT	6207138	6420 66 4		88
5022 M12x40 G	M1240 / ST / G	5057918	1151 64 9		71	AW 15 21 FT	21060 / St / FT	6207190	6420 68 0		24
5022 M6X25 F	M625 / ST / F	5057017	1151 01 0		71	AW 15 21 FT	21060 / St / FT	6207190	6420 68 0		88
5022 M6X30 F	M630 / ST / F	5057079	1151 02 9		71	AW 15 31 FT	31065 / St / FT	6207251	6420 71 0		24
5022 M8X25 F	M825 / ST / F	5057253	1151 21 5		71	AW 15 31 FT	31065 / St / FT	6207251	6420 71 0		88
5022 M8X30 F	M830 / ST / F	5057314	1151 22 3		71	AW 15 41 FT	41070 / St / FT	6207312	6420 74 5		24
5022 M8X40 F	M840 / ST / F	5057437	1151 25 8		71	AW 15 41 FT	41070 / St / FT	6207312	6420 74 5		88
						AW 15 51 FT	51075 / St / FT	6207374	6420 78 8		24
5023 M10x30 G	M1030 / ST / G	5058335	1153 41 2		71	AW 15 51 FT	51075 / St / FT	6207374	6420 78 8		88
5023 M10x35 G	M1035 / ST / G	5058397	1153 42 0		71	AW 15 56 FT	56080 / St / FT	6207435	6420 79 6		24

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
AW 15 56 FT	56080/ st / FT	6207435	6420 79 6	/pc.	88	CPS 5 L 3M FT	50 x 30/ st / FT	5419686	1121 46 6	/100 m	67
AW 15 61 FT	61080/ st / FT	6207497	6420 82 6		24					/pc.	
AW 15 61 FT	61080/ st / FT	6207497	6420 82 6		88	CPS 5 L 400 V4A	50 x 30/ V4A	5906919	1121 28 0		67
						CPS 5 L 500 V4A	50 x 30/ V4A	5906988	1121 40 7		67
						CPS 5 L 600 V4A	50 x 30/ V4A	5906926	1121 29 6		67
AW 30 11 FT	11060/ st / FT	6206599	6419 70 4		24					/100 m	
AW 30 11 FT	11060/ st / FT	6206599	6419 70 4		88						
AW 30 16 FT	16065/ st / FT	6206650	6419 71 2		24	CPS 5 L 6M FT	50 x 30/ st / FT	5462491	1121 47 2		67
AW 30 16 FT	16065/ st / FT	6206650	6419 71 2		88	CPS 5 L 6M VA	50 x 30/ V2A	5049333	1121 49 9		67
AW 30 21 FT	21070/ st / FT	6206711	6419 72 0		24					/pc.	
AW 30 21 FT	21070/ st / FT	6206711	6419 72 0		88	CPS 5 L 700 V4A	50 x 30/ V4A	5906940	1121 33 4		67
AW 30 31 FT	31080/ st / FT	6206773	6419 74 7		24	CPS 5 L 800 V4A	50 x 30/ V4A	5906933	1121 31 0		67
AW 30 31 FT	31080/ st / FT	6206773	6419 74 7		88	CPS 5 L 900 V4A	50 x 30/ V4A	5906957	1121 33 8		67
AW 30 41 FT	41080/ st / FT	6206834	6419 76 3		24					/1000 pc.	
AW 30 41 FT	41080/ st / FT	6206834	6419 76 3		88	CPS 5 SK OR SP	Pastel orange 300/ PE	5785323	1124 56 3		68
AW 30 51 FT	51090/ st / FT	6206896	6419 79 8		24					/pc.	
AW 30 51 FT	51090/ st / FT	6206896	6419 79 8		88						
AW 30 56 FT	560100/ st / FT	6207015	6419 84 4		24						
AW 30 56 FT	560100/ st / FT	6207015	6419 84 4		88	DBL 50 100 FT	100/ st / FT	6785414	6015 56 5		27
AW 30 61 FT	610100/ st / FT	6206957	6419 82 8		24	DBL 50 100 FT	100/ st / FT	6785414	6015 56 5		90
AW 30 61 FT	610100/ st / FT	6206957	6419 82 8		88	DBL 50 150 FT	150/ st / FT	6785476	6015 57 3		27
						DBL 50 150 FT	150/ st / FT	6785476	6015 57 3		90
AW 30 71 FT	710100/ st / FT	6483730	6419 83 6		24	DBL 50 200 FT	200/ st / FT	6785537	6015 58 1		27
AW 30 71 FT	710100/ st / FT	6483730	6419 83 6		88	DBL 50 200 FT	200/ st / FT	6785537	6015 58 1		90
						DBL 50 300 FT	300/ st / FT	6785599	6015 60 3		27
AW 55 101 FT	1010230/ st / FT	6205271	6418 72 4		24	DBL 50 300 FT	300/ st / FT	6785599	6015 60 3		90
AW 55 101 FT	1010230/ st / FT	6205271	6418 72 4		88	DBL 50 400 FT	400/ st / FT	6785650	6015 61 1		27
AW 55 21 FT	21090/ st / FT	6204731	6418 55 4		24	DBL 50 400 FT	400/ st / FT	6785650	6015 61 1		90
AW 55 21 FT	21090/ st / FT	6204731	6418 55 4		88	DBL 50 500 FT	500/ st / FT	5239208	6015 61 4		27
AW 55 31 FT	310110/ st / FT	6204793	6418 57 0		24	DBL 50 500 FT	500/ st / FT	5239208	6015 61 4		90
AW 55 31 FT	310110/ st / FT	6204793	6418 57 0		88	DBL 50 600 FT	600/ st / FT	5239215	6015 61 7		27
AW 55 41 FT	410130/ st / FT	6204854	6418 59 7		24	DBL 50 600 FT	600/ st / FT	5239215	6015 61 7		90
AW 55 41 FT	410130/ st / FT	6204854	6418 59 7		88						
AW 55 51 FT	510145/ st / FT	6204915	6418 61 9		24	DBLG 20 050 FT	50/ st / FT	6042845	6015 64 8		27
AW 55 51 FT	510145/ st / FT	6204915	6418 61 9		88	DBLG 20 050 FT	50/ st / FT	6042845	6015 64 8		90
AW 55 56 FT	560165/ st / FT	6204977	6418 62 7		24	DBLG 20 100 FT	100/ st / FT	6042968	6015 65 6		27
AW 55 56 FT	560165/ st / FT	6204977	6418 62 7		88	DBLG 20 100 FT	100/ st / FT	6042968	6015 65 6		90
AW 55 61 FT	610165/ st / FT	6205035	6418 63 5		24	DBLG 20 150 FT	150/ st / FT	6043088	6015 66 0		27
AW 55 61 FT	610165/ st / FT	6205035	6418 63 5		88	DBLG 20 150 FT	150/ st / FT	6043088	6015 66 0		90
AW 55 71 FT	710195/ st / FT	6205097	6418 65 1		24	DBLG 20 200 FT	200/ st / FT	6043200	6015 66 4		27
AW 55 71 FT	710195/ st / FT	6205097	6418 65 1		88	DBLG 20 200 FT	200/ st / FT	6043200	6015 66 4		90
AW 55 81 FT	810195/ st / FT	6205158	6418 68 6		24	DBLG 20 300 FT	300/ st / FT	6043323	6015 67 2		27
AW 55 81 FT	810195/ st / FT	6205158	6418 68 6		88	DBLG 20 300 FT	300/ st / FT	6043323	6015 67 2		90
AW 55 91 FT	910215/ st / FT	6205219	6418 70 8		24	DBLG 20 400 FT	400/ st / FT	6043446	6015 69 1		27
AW 55 91 FT	910215/ st / FT	6205219	6418 70 8		88	DBLG 20 400 FT	400/ st / FT	6043446	6015 69 1		90
						DBLG 20 500 FT	500/ st / FT	5239260	6015 69 5		27
AW G 15 11 FT	11050/ st / FT	6662470	6420 60 6		24	DBLG 20 500 FT	500/ st / FT	5239260	6015 69 5		90
AW G 15 11 FT	11050/ st / FT	6662470	6420 60 6		88	DBLG 20 600 FT	600/ st / FT	5239284	6015 69 9		27
AW G 15 16 FT	16055/ st / FT	6079155	6420 60 7		24	DBLG 20 600 FT	600/ st / FT	5239284	6015 69 9		90
AW G 15 16 FT	16055/ st / FT	6079155	6420 60 7		88						
AW G 15 21 FT	21060/ st / FT	6662531	6420 60 8		24					/1000 pc.	
AW G 15 21 FT	21060/ st / FT	6662531	6420 60 8		88						
AW G 15 31 FT	31065/ st / FT	6662593	6420 61 0		24	DIN 128 A M10V4A	M10 10,5/ V4A	5909750	3405 11 1		76
AW G 15 31 FT	31065/ st / FT	6662593	6420 61 0		88	DIN 128 A M10V4A	M10 10,5/ V4A	5909750	3405 11 1		132
AW G 15 41 FT	41070/ st / FT	6662654	6420 61 2		24	DIN 128 A M12V4A	M12 12,5/ V4A	5909774	3405 12 7		76
AW G 15 41 FT	41070/ st / FT	6662654	6420 61 2		88	DIN 128 A M12V4A	M12 12,5/ V4A	5909774	3405 12 7		132
AW G 15 51 FT	51075/ st / FT	6662715	6420 61 4		24	DIN 128 A M6 V4A	M66,3/ V4A	5909651	3405 06 2		76
AW G 15 51 FT	51075/ st / FT	6662715	6420 61 4		88	DIN 128 A M6 V4A	M66,3/ V4A	5909651	3405 06 2		132
AW G 15 61 FT	61080/ st / FT	6662777	6420 61 6		24	DIN 128 A M8 V4A	M88,3/ V4A	5909712	3405 08 9		76
AW G 15 61 FT	61080/ st / FT	6662777	6420 61 6		88	DIN 128 A M8 V4A	M88,3/ V4A	5909712	3405 08 9		132
						DIN 6798 M10 V4A	10,5 18-18 / V4A	5618096	3404 38 2		76
						DIN 6798 M10 V4A	10,5 18-18 / V4A	5618096	3404 38 2		132
						DIN 6798 M12 V4A	1320,5-20,5 / V4A	5909637	3404 38 6		76
B 9 T M	Light grey/ PP	5540076	2001 85 3	/1000 pc.	39	DIN 6798 M12 V4A	1320,5-20,5 / V4A	5909637	3404 38 6		132
B 9 T M	Light grey/ PP	5540076	2001 85 3		104	DIN 6798 M6 V4A	6,4 11-11 / V4A	5913283	3404 37 3		76
B 9 T M 5	Light grey/ PP	5541936	2001 84 5		39	DIN 6798 M6 V4A	6,4 11-11 / V4A	5913283	3404 37 3		132
B 9 T M 5	Light grey/ PP	5541936	2001 84 5		104	DIN 6798 M8 V4A	8,4 15-15 / V4A	5909590	3404 37 8		76
						DIN 6798 M8 V4A	8,4 15-15 / V4A	5909590	3404 37 8		132
BE TS GR	10/ PC	5840602	2007 83 3		40	DIN 6923 M10 VA	1017/ V2A	5849711	3156 12 2		76
BE TS GR	10/ PC	5840602	2007 83 3		105	DIN 6923 M10 VA	1017/ V2A	5849711	3156 12 2		132
BE TS KR	10/ PC	5840640	2007 83 5		40	DIN 6923 M12 VA	1219/ V2A	5849728	3156 12 6		76
BE TS KR	10/ PC	5840640	2007 83 5		105	DIN 6923 M12 VA	1219/ V2A	5849728	3156 12 6		132
						DIN 6923 M8 VA	813/ V2A	5849643	3156 12 0		76
CPS 4 SK OR SP	Pastel orange 300/ PE	5785316	1124 55 5		67	DIN 6923 M8 VA	813/ V2A	5849643	3156 12 0		132
						DIN 934 M10 V4A	M10 17/ V4A	5618072	3400 17 7		76
CPS 4L 2M FT	40 x 22,5/ st / FT	5050230	1121 97 9	/100 m	67	DIN 934 M10 V4A	M10 17/ V4A	5618072	3400 17 7		131
CPS 4L 2M VA	40 x 22,5/ V2A	5050179	1121 96 0		67	DIN 934 M12 V4A	M12 19/ V4A	5894810	3397 14 5		76
CPS 4L 6M FT	40 x 22,5/ st / FT	5049937	1121 89 8		67	DIN 934 M12 V4A	M12 19/ V4A	5894810	3397 14 5		131
CPS 4L 6M VA	40 x 22,5/ V2A	5049999	1121 90 1		67	DIN 934 M6 V4A	M6 10/ V4A	5909293	3400 17 3		76
CPS 5 L 1M FT	50 x 30/ st / FT	5886211	1121 44 8		67	DIN 934 M6 V4A	M6 10/ V4A	5909293	3400 17 3		131
						DIN 934 M8 V4A	M8 13/ V4A	5909309	3400 17 5		76
CPS 5 L 200 V4A	50 x 30/ V4A	5906971	1121 39 3	/pc.	67	DIN 934 M8 V4A	M8 13/ V4A	5909309	3400 17 5		131
										/100 m	
CPS 5 L 2M FT	50 x 30/ st / FT	5049210	1121 46 4		67						
CPS 5 L 2M VA	50 x 30/ V2A	5049272	1121 48 0		67	EDR 25 16-20 LGR	M25/ PVC	5246909	2011 50 6		38
						EDR 25 16-20 LGR	M25/ PVC	5246909	2011 50 6		103
CPS 5 L 300 V4A	50 x 30/ V4A	5906902	1121 24 5	/pc.	67	EDR 25 20-25 LGR	M25/ PVC	5246916	2011 51 4		38

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Type	Dimensions/Colour/Div.	GTIN	Art. no.	Price	Page	Type	Dimensions/Colour/Div.	GTIN	Art. no.	Price	Page
EDR 25 20-25 LGR	M25/ PVC	5246916	2011 51 4	/1000 pc.	103	GRM 105 500 FT	5004,8/ Steel / FT	6021956	6002 44 3	/m	22
EDR 32 20-25 LGR	M32/ PVC	5246923	2011 52 2		38	GRM 105 500 FT	5004,8/ Steel / FT	6021956	6002 44 3		86
EDR 32 20-25 LGR	M32/ PVC	5246923	2011 52 2		103	GRM 105 500 G	5004,8/ ST / G	6020997	6002 41 5		22
EDR 32 25-32 LGR	M32/ PVC	5246930	2011 53 0		38	GRM 105 500 G	5004,8/ ST / G	6020997	6002 41 5		86
EDR 32 25-32 LGR	M32/ PVC	5246930	2011 53 0		103	GRM 105 600 FT	6004,8/ Steel / FT	6022076	6002 44 5		22
EDR 40 25-32 LGR	M40/ PVC	5246947	2011 53 8		38	GRM 105 600 FT	6004,8/ Steel / FT	6022076	6002 44 5		86
EDR 40 25-32 LGR	M40/ PVC	5246947	2011 53 8		103	GRM 105 600 G	6004,8/ ST / G	6021116	6002 41 7		22
EDR 40 32-40 LGR	M40/ PVC	5246954	2011 54 6		38	GRM 105 600 G	6004,8/ ST / G	6021116	6002 41 7		86
EDR 40 32-40 LGR	M40/ PVC	5246954	2011 54 6		103	GRM 35 100 FT	1003,9/ Steel / FT	5037200	6000 07 1		22
						GRM 35 100 FT	1003,9/ Steel / FT	5037200	6000 07 1		86
						GRM 35 150 FT	1503,9/ Steel / FT	5037231	6000 07 2		22
FL1-G M8 TG	0-18 35/ TG	5151036	1488 07 4		113	GRM 35 150 FT	1503,9/ Steel / FT	5037231	6000 07 2		86
						GRM 35 200 FT	2003,9/ Steel / FT	5037248	6000 07 3		22
FL2-G M10 TG	0-20 42/ TG	5151098	1488 08 2		113	GRM 35 200 FT	2003,9/ Steel / FT	5037248	6000 07 3		86
						GRM 35 300 FT	3004,8/ Steel / FT	5037255	6000 07 5		22
FL3-G M12 TG	0-26 54/ TG	5151159	1488 09 0		113	GRM 35 300 FT	3004,8/ Steel / FT	5037255	6000 07 5		86
						GRM 55 100 FT	1003,9/ St / FT	6814879	6001 41 6		22
						GRM 55 100 FT	1003,9/ St / FT	6814879	6001 41 6		86
						GRM 55 150 FT	1503,9/ St / FT	6078912	6001 41 8		22
FRD 24 HF		5578352	5098 57 5	/pc.	54	GRM 55 150 FT	1503,9/ St / FT	6078912	6001 41 8		86
FRD 24 HF		5578352	5098 57 5		125	GRM 55 200 4.8FT	2004,8/ St / FT	5045281	6001 42 1		22
FRD 5		5578284	5098 49 2		55	GRM 55 200 4.8FT	2004,8/ St / FT	5045281	6001 42 1		86
FRD 5		5578284	5098 49 2		126	GRM 55 200 FT	2003,9/ St / FT	6814930	6001 42 0		22
						GRM 55 200 FT	2003,9/ St / FT	6814930	6001 42 0		86
						GRM 55 300 FT	3004,8/ St / FT	6815050	6001 42 4		22
FSB-SB	1550000/ St	5693437	7203 13 0		79	GRM 55 300 FT	3004,8/ St / FT	6815050	6001 42 4		86
FSB-SB	1550000/ St	5693437	7203 13 0		133	GRM 55 400 FT	4004,8/ St / FT	6815111	6001 42 8		22
				/1000 pc.		GRM 55 400 FT	4004,8/ St / FT	6815111	6001 42 8		86
FSB-SV	2426/ St	5693444	7203 13 2		79	GRM 55 50 FT	503,9/ St / FT	5430940	6001 41 5		22
FSB-SV	2426/ St	5693444	7203 13 2		133	GRM 55 50 FT	503,9/ St / FT	5430940	6001 41 5		86
				/pc.		GRM 55 500 FT	5004,8/ St / FT	6815173	6001 43 2		22
FSB-WB		5706434	7203 16 0		79	GRM 55 500 FT	5004,8/ St / FT	6815173	6001 43 2		86
FSB-WB		5706434	7203 16 0		133	GRM 55 600 FT	6004,8/ St / FT	6815234	6001 43 6		22
						GRM 55 600 FT	6004,8/ St / FT	6815234	6001 43 6		86
				/1000 pc.						/pc.	
GMF22 M10 G	M108/ St / G	5445661	1146 45 9		72	GRS 3.9 DD	/ ST / DD	6518111	6016 54 5		22
GMF22 M12 G	M129,5/ St / G	5445678	1146 46 3		72	GRS 3.9 DD	/ ST / DD	6518111	6016 54 5		86
GMF22 M6 G	M66/ St / G	5445616	1146 45 1		72	GRS 4.4 DD	/ ST / DD	6518050	6016 55 3		22
GMF22 M8 G	M86/ St / G	5445623	1146 45 5		72	GRS 4.4 DD	/ ST / DD	6518050	6016 55 3		86
						GRS 4.8 DD	/ ST / DD	6517992	6016 56 1		22
GMH18 M10 VA	M1010-10 / V4A	5084907	1146 56 0		72	GRS 4.8 DD	/ ST / DD	6517992	6016 56 1		86
GMH18 M12 VA	M1212-12 / V4A	5084167	1146 56 2		72						
GMH18 M6 VA	M66-6 / V4A	5084129	1146 55 6		72	GSV 34 FT	/ ST / FT	6013159	6016 63 4		23
GMH18 M8 VA	M88-8 / V4A	5084150	1146 55 8		72	GSV 34 FT	/ ST / FT	6013159	6016 63 4		87
						GSV 34 G	/ St / G	6520510	6016 59 6		23
GMH22 M10 VA	M1010-10 / V4A	5084211	1146 65 0		72	GSV 34 G	/ St / G	6520510	6016 59 6		87
GMH22 M12 VA	M1212-12 / V4A	5084228	1146 65 2		72						
GMH22 M6 VA	M66-6 / V4A	5084174	1146 64 6		72						
GMH22 M8 VA	M88-8 / V4A	5084181	1146 64 8		72						
										/1000 pc.	
GMS 1 VP V2A	150/ V2A	5804895	1124 68 3		70	HKF22 M10x30 G	M1030/ St / G	5445739	1148 96 1		71
GMS 1 VP V2A	150/ V2A	5804895	1124 68 3		92	HKF22 M10x50 G	M1050/ St / G	5445746	1148 96 6		71
GMS 1 VP V4A	150/ V4A	5805137	1124 72 3		70	HKF22 M12x30 G	M1230/ St / G	5445784	1148 97 2		71
GMS 1 VP V4A	150/ V4A	5805137	1124 72 3		70	HKF22 M8x30 G	M830/ St / G	5445685	1148 95 0		71
GMS 3 VP L V2A	40/ V2A	5804949	1124 69 3		93	HKF22 M8x50 G	M850/ St / G	5445722	1148 95 5		71
GMS 3 VP L V2A	40/ V2A	5804949	1124 69 3		93	KL-T 01-04	Light grey/ PA	5942825	2016 18 0		40
GMS 3 VP L V4A	40/ V4A	5805205	1124 73 3		70	KL-T 01-04	Light grey/ PA	5942825	2016 18 0		105
GMS 3 VP L V4A	40/ V4A	5805205	1124 73 3		93	KL-T 02-06	Light grey/ PA	5942832	2016 18 5		41
GMS 5 VP X V2A	10/ V2A	5804963	1124 69 7		70	KL-T 02-06	Light grey/ PA	5942832	2016 18 5		106
GMS 5 VP X V2A	10/ V2A	5804963	1124 69 7		93	KL-T 06-16	Light grey/ PA	5896951	2016 19 0		41
GMS 5 VP X V4A	10/ V4A	5805229	1124 73 7		70	KL-T 06-16	Light grey/ PA	5896951	2016 19 0		106
GMS 5 VP X V4A	10/ V4A	5805229	1124 73 7		93						
				/m						/pc.	
GRM 105 100 FT	1003,9/ Steel / FT	6021239	6002 43 1		22	KNW1	Black/ POM	6014514	6178 52 7		59
GRM 105 100 FT	1003,9/ Steel / FT	6021239	6002 43 1		86	KNW1	Black/ POM	6014514	6178 52 7		128
GRM 105 100 G	1003,9/ ST / G	6020270	6002 40 2		22	KNW2	Black/ POM	6014637	6178 52 9		59
GRM 105 100 G	1003,9/ ST / G	6020270	6002 40 2		86	KNW2	Black/ POM	6014637	6178 52 9		128
GRM 105 150 FT	1503,9/ Steel / FT	6021352	6002 43 3		22						
GRM 105 150 FT	1503,9/ Steel / FT	6021352	6002 43 3		86						
GRM 105 150 G	1503,9/ ST / G	6020393	6002 40 4		22	KSN1	Light grey4,5/ PP	6014279	6178 52 0	/1000 pc.	59
GRM 105 150 G	1503,9/ ST / G	6020393	6002 40 4		86	KSN1	Light grey4,5/ PP	6014279	6178 52 0		129
GRM 105 200 FT	2004,8/ Steel / FT	6021475	6002 43 5		22						
GRM 105 200 FT	2004,8/ Steel / FT	6021475	6002 43 5		86	KSN2	Light grey6/ PP	6014392	6178 52 2		59
GRM 105 200 G	2004,8/ ST / G	6020515	6002 40 6		22	KSN2	Light grey6/ PP	6014392	6178 52 2		129
GRM 105 200 G	2004,8/ ST / G	6020515	6002 40 6		86						
GRM 105 300 FT	3004,8/ Steel / FT	6021598	6002 43 7		22						
GRM 105 300 FT	3004,8/ Steel / FT	6021598	6002 43 7		86					/pc.	
GRM 105 300 G	3004,8/ ST / G	6020638	6002 40 8		22	KTSMV 310 FS	35100/ St / FS	5889441	6068 90 0		18
GRM 105 300 G	3004,8/ ST / G	6020638	6002 40 8		86	KTSMV 310 FS	35100/ St / FS	5889441	6068 90 0		84
GRM 105 400 FT	4004,8/ Steel / FT	6021710	6002 43 9		22	KTSMV 320 FS	35200/ St / FS	5889489	6068 90 2		18
GRM 105 400 FT	4004,8/ Steel / FT	6021710	6002 43 9		86	KTSMV 320 FS	35200/ St / FS	5889489	6068 90 2		84
GRM 105 400 G	4004,8/ ST / G	6020751	6002 41 0		22	KTSMV 330 FS	35300/ St / FS	5889496	6068 90 4		18
GRM 105 400 G	4004,8/ ST / G	6020751	6002 41 0		86	KTSMV 330 FS	35300/ St / FS	5889496	6068 90 4		84

Type listing

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Type	Dimensions/Colour/Div.	GTIN	Art. no.	Price	Page	Type	Dimensions/Colour/Div.	GTIN	Art. no.	Price	Page
				/pc.						/m	
KTSMV 610 DD	60 100/ St / DD	5890492	6068 93 6		18	LK4 N 60015	Stone grey2000/ PVC	6004850	6178 20 1		57
KTSMV 610 DD	60 100/ St / DD	5890492	6068 93 6		84	LK4 N 60015	Stone grey2000/ PVC	6004850	6178 20 1		127
KTSMV 610 VA4301	60 100/ v2A	5889571	6068 95 8		19	LK4 N 60025	Stone grey2000/ PVC	6004973	6178 20 3		57
KTSMV 610 VA4301	60 100/ v2A	5889571	6068 95 8		85	LK4 N 60025	Stone grey2000/ PVC	6004973	6178 20 3		127
KTSMV 615 DD	60 150/ St / DD	5890508	6068 93 8		18	LK4 N 60040	Stone grey2000/ PVC	6005093	6178 20 5		57
KTSMV 615 DD	60 150/ St / DD	5890508	6068 93 8		84	LK4 N 60040	Stone grey2000/ PVC	6005093	6178 20 5		127
KTSMV 615 VA4301	60 150/ v2A	5889588	6068 96 0		19	LK4 N 60060	Stone grey2000/ PVC	6005215	6178 20 7		57
KTSMV 615 VA4301	60 150/ v2A	5889588	6068 96 0		85	LK4 N 60060	Stone grey2000/ PVC	6005215	6178 20 7		127
KTSMV 620 DD	60 200/ St / DD	5890515	6068 94 0		18	LK4 N 60080	Stone grey2000/ PVC	6005307	6178 20 9		57
KTSMV 620 DD	60 200/ St / DD	5890515	6068 94 0		84	LK4 N 60080	Stone grey2000/ PVC	6005307	6178 20 9		127
KTSMV 620 VA4301	60 200/ v2A	5889595	6068 96 2		19	LK4 N 60100	Stone grey2000/ PVC	6005406	6178 21 1		57
KTSMV 620 VA4301	60 200/ v2A	5889595	6068 96 2		85	LK4 N 60100	Stone grey2000/ PVC	6005406	6178 21 1		127
KTSMV 630 DD	60 300/ St / DD	5890522	6068 94 2		18	LK4 N 60120	Stone grey2000/ PVC	6005505	6178 21 3		57
KTSMV 630 DD	60 300/ St / DD	5890522	6068 94 2		84	LK4 N 60120	Stone grey2000/ PVC	6005505	6178 21 3		127
KTSMV 630 VA4301	60 300/ v2A	5889601	6068 96 4		19	LK4 N 80025	Stone grey2000/ PVC	6005802	6178 22 5		57
KTSMV 630 VA4301	60 300/ v2A	5889601	6068 96 4		85	LK4 N 80025	Stone grey2000/ PVC	6005802	6178 22 5		127
						LK4 N 80040	Stone grey2000/ PVC	6005932	6178 22 7		57
						LK4 N 80040	Stone grey2000/ PVC	6005932	6178 22 7		127
LFC		5425182	5096 78 6		55	LK4 N 80060	Stone grey2000/ PVC	6006052	6178 22 9		57
LFC		5425182	5096 78 6		126	LK4 N 80060	Stone grey2000/ PVC	6006052	6178 22 9		127
						LK4 N 80080	Stone grey2000/ PVC	6006175	6178 23 1		57
						LK4 N 80080	Stone grey2000/ PVC	6006175	6178 23 1		127
						LK4 N 80100	Stone grey2000/ PVC	6006298	6178 23 3		57
				/m		LK4 N 80100	Stone grey2000/ PVC	6006298	6178 23 3		127
LG 620 VS 3000FS	200 1,5/ Steel / FS	5064022	6208 53 8		65	LK4 N 80120	Stone grey2000/ PVC	6006410	6178 23 6		57
LG 620 VS 3000FT	200 1,5/ St / FT	5434153	6208 56 2		65	LK4 N 80120	Stone grey2000/ PVC	6006410	6178 23 6		127
LG 630 VS 3000FS	300 1,5/ Steel / FS	5064053	6208 54 1		65	LK4 N 80120	Stone grey2000/ PVC	6006410	6178 23 6		127
LG 630 VS 3000FT	300 1,5/ St / FT	5434160	6208 56 6		65						
LG 640 VS 3000FS	400 1,5/ Steel / FS	5064060	6208 54 4		65	LKV 100100	Stone grey2000/ PVC	6011162	6178 34 1		58
LG 640 VS 3000FT	400 1,5/ St / FT	5434207	6208 57 0		65	LKV 100100	Stone grey2000/ PVC	6011162	6178 34 1		128
LG 650 VS 3000FS	500 1,5/ Steel / FS	5064077	6208 54 7		65	LKV 10037	Stone grey2000/ PVC	6010806	6178 33 4		58
LG 650 VS 3000FT	500 1,5/ St / FT	5434214	6208 57 4		65	LKV 10037	Stone grey2000/ PVC	6010806	6178 33 4		128
LG 660 VS 3000FS	600 1,5/ Steel / FS	5064084	6208 55 0		65	LKV 10050	Stone grey2000/ PVC	6010929	6178 33 6		58
LG 660 VS 3000FT	600 1,5/ St / FT	5434221	6208 57 8		65	LKV 10050	Stone grey2000/ PVC	6010929	6178 33 6		128
						LKV 10075	Stone grey2000/ PVC	6011049	6178 33 8		58
				/pc.		LKV 10075	Stone grey2000/ PVC	6011049	6178 33 8		128
LGVG 60 FS	60/ Steel / FS	5065623	6208 94 1		66	LKV 25025	Stone grey2000/ PVC	6009411	6178 30 2		58
LGVG 60 FT	60/ ST / FT	5065630	6208 94 4		66	LKV 25025	Stone grey2000/ PVC	6009411	6178 30 2		128
						LKV 37025	Stone grey2000/ PVC	6009534	6178 30 5		58
						LKV 37025	Stone grey2000/ PVC	6009534	6178 30 5		128
						LKV 37037	Stone grey2000/ PVC	6009657	6178 30 7		58
				/m		LKV 37037	Stone grey2000/ PVC	6009657	6178 30 7		128
LK4 15015	Stone grey2000/ PVC	6000050	6178 00 1		57	LKV 50025	Stone grey2000/ PVC	6009732	6178 31 0		58
LK4 15015	Stone grey2000/ PVC	6000050	6178 00 1		127	LKV 50025	Stone grey2000/ PVC	6009732	6178 31 0		128
LK4 30015	Stone grey2000/ PVC	6000173	6178 00 3		57	LKV 50037	Stone grey2000/ PVC	6009831	6178 31 2		58
LK4 30015	Stone grey2000/ PVC	6000173	6178 00 3		127	LKV 50037	Stone grey2000/ PVC	6009831	6178 31 2		128
LK4 30025	Stone grey2000/ PVC	6000296	6178 00 5		57	LKV 50050	Stone grey2000/ PVC	6009930	6178 31 4		58
LK4 30025	Stone grey2000/ PVC	6000296	6178 00 5		127	LKV 50050	Stone grey2000/ PVC	6009930	6178 31 4		128
LK4 40025	Stone grey2000/ PVC	6000418	6178 01 0		57	LKV 50075	Stone grey2000/ PVC	6010073	6178 31 6		58
LK4 40025	Stone grey2000/ PVC	6000418	6178 01 0		127	LKV 50075	Stone grey2000/ PVC	6010073	6178 31 6		128
LK4 40040	Stone grey2000/ PVC	6000531	6178 01 2		57	LKV 75025	Stone grey2000/ PVC	6010196	6178 32 0		58
LK4 40040	Stone grey2000/ PVC	6000531	6178 01 2		127	LKV 75025	Stone grey2000/ PVC	6010196	6178 32 0		128
LK4 40060	Stone grey2000/ PVC	6000654	6178 01 4		57	LKV 75037	Stone grey2000/ PVC	6010318	6178 32 2		58
LK4 40060	Stone grey2000/ PVC	6000654	6178 01 4		127	LKV 75037	Stone grey2000/ PVC	6010318	6178 32 2		128
LK4 40080	Stone grey2000/ PVC	6000777	6178 01 6		57	LKV 75050	Stone grey2000/ PVC	6010400	6178 32 4		58
LK4 40080	Stone grey2000/ PVC	6000777	6178 01 6		127	LKV 75050	Stone grey2000/ PVC	6010400	6178 32 4		128
LK4 40100	Stone grey2000/ PVC	6000890	6178 01 8		57	LKV 75075	Stone grey2000/ PVC	6010509	6178 32 6		58
LK4 40100	Stone grey2000/ PVC	6000890	6178 01 8		127	LKV 75075	Stone grey2000/ PVC	6010509	6178 32 6		128
LK4 60015	Stone grey2000/ PVC	6001132	6178 02 6		57	LKV 75100	Stone grey2000/ PVC	6010608	6178 32 8		58
LK4 60015	Stone grey2000/ PVC	6001132	6178 02 6		127	LKV 75100	Stone grey2000/ PVC	6010608	6178 32 8		128
LK4 60025	Stone grey2000/ PVC	6001255	6178 02 8		57	LKV 75125	Stone grey2000/ PVC	6010707	6178 33 0		58
LK4 60025	Stone grey2000/ PVC	6001255	6178 02 8		127	LKV 75125	Stone grey2000/ PVC	6010707	6178 33 0		128
LK4 60040	Stone grey2000/ PVC	6001378	6178 03 1		57						
LK4 60040	Stone grey2000/ PVC	6001378	6178 03 1		127						
LK4 60060	Stone grey2000/ PVC	6001491	6178 03 3		57	LKV H	Stone grey56/ PS	6011285	6178 34 9	/1000 pc.	58
LK4 60060	Stone grey2000/ PVC	6001491	6178 03 3		127	LKV H	Stone grey56/ PS	6011285	6178 34 9		128
LK4 60080	Stone grey2000/ PVC	6001613	6178 03 5		57					/m	58
LK4 60080	Stone grey2000/ PVC	6001613	6178 03 5		127	LKV H 40025	Light grey2000/ PPO	5461388	6178 60 8		128
LK4 60100	Stone grey2000/ PVC	6001736	6178 03 7		57					/1000 pc.	58
LK4 60100	Stone grey2000/ PVC	6001736	6178 03 7		127	LKV H H	Light grey56/ PS	6017829	6178 65 0		128
LK4 60120	Stone grey2000/ PVC	6001859	6178 03 9		57	LKV H H	Light grey56/ PS	6017829	6178 65 0		58
LK4 60120	Stone grey2000/ PVC	6001859	6178 03 9		127					/m	58
LK4 80025	Stone grey2000/ PVC	6002214	6178 05 0		57	LKVN 100100	Stone grey2000/ PVC	6015184	6178 44 1		128
LK4 80025	Stone grey2000/ PVC	6002214	6178 05 0		127	LKVN 100100	Stone grey2000/ PVC	6015184	6178 44 1		58
LK4 80040	Stone grey2000/ PVC	6002337	6178 05 2		57	LKVN 10037	Stone grey2000/ PVC	6013913	6178 43 5		128
LK4 80040	Stone grey2000/ PVC	6002337	6178 05 2		127	LKVN 10037	Stone grey2000/ PVC	6013913	6178 43 5		58
LK4 80060	Stone grey2000/ PVC	6002450	6178 05 4		57	LKVN 10050	Stone grey2000/ PVC	6014033	6178 43 7		128
LK4 80060	Stone grey2000/ PVC	6002450	6178 05 4		127	LKVN 10050	Stone grey2000/ PVC	6014033	6178 43 7		58
LK4 80080	Stone grey2000/ PVC	6002573	6178 05 6		57	LKVN 10075	Stone grey2000/ PVC	6014156	6178 43 9		128
LK4 80080	Stone grey2000/ PVC	6002573	6178 05 6		127	LKVN 10075	Stone grey2000/ PVC	6014156	6178 43 9		58
LK4 80100	Stone grey2000/ PVC	6002696	6178 05 9		57	LKVN 75025	Stone grey2000/ PVC	6013197	6178 42 0		128
LK4 80100	Stone grey2000/ PVC	6002696	6178 05 9		127	LKVN 75025	Stone grey2000/ PVC	6013197	6178 42 0		58
LK4 80120	Stone grey2000/ PVC	6002818	6178 06 1		57	LKVN 75037	Stone grey2000/ PVC	6013319	6178 42 2		128
LK4 80120	Stone grey2000/ PVC	6002818	6178 06 1		127	LKVN 75037	Stone grey2000/ PVC	6013319	6178 42 2		58
				/1000 pc.		LKVN 75050	Stone grey2000/ PVC	6013432	6178 42 4		128
LK4 H	Stone grey56/ PS	6008339	6178 09 2		58	LKVN 75050	Stone grey2000/ PVC	6013432	6178 42 4		58
LK4 H	Stone grey56/ PS	6008339	6178 09 2		128	LKVN 75075	Stone grey2000/ PVC	6013555	6178 42 6		128

Type	Dimensions/Colour/Div.	GTIN	Art. no.	Price	Page	Type	Dimensions/Colour/Div.	GTIN	Art. no.	Price	Page
LKV N 75100	Stone grey 2000/ PVC	6013678	6178 42 8	/m	58	MP WI KL. DD	210120/ ST / DD	5163305	7085 11 1	/pc.	104
LKV N 75100	Stone grey 2000/ PVC	6013678	6178 42 8		128	MP WI KL. FS	210120/ ST / FS	6146833	7084 76 5		39
LKV N 75125	Stone grey 2000/ PVC	6013791	6178 43 0		58	MP WI KL. FS	210120/ ST / FS	6146833	7084 76 5		104
LKV N 75125	Stone grey 2000/ PVC	6013791	6178 43 0		128						
						MPG 65 FT	8165/ ST / FT	6933259	6006 48 6		39
						MPG 65 FT	8165/ ST / FT	6933259	6006 48 6		104
LVG 60 FS	60/ Steel / FS	5065555	6208 84 0	/pc.	65						
LVG 60 FT	60/ Steel / FT	5065562	6208 84 3		65						
LWVG 60 FS	60/ Steel / FS	5065586	6208 89 5		65	MS 41 D L3M 2V2A	41x82/ V2A	5938026	1122 68 2	/100 m	68
LWVG 60 VA4301	60/ V2A	5065616	6208 89 8		65	MS 41 D L3M 2V2A	41x82/ V2A	5938026	1122 68 2		92
					65	MS 41 D L6M 2V2A	41x82/ V2A	5938033	1122 68 4		68
						MS 41 D L6M 2V2A	41x82/ V2A	5938033	1122 68 4		92
						MS 41 L 1M FT	41x41/ St / FT	5487272	1122 60 6		68
						MS 41 L 1M FT	41x41/ St / FT	5487272	1122 60 6		131
MB25-3+NPE		5871200	5096 67 2		51						
MB25-3+NPE		5871200	5096 67 2		123					/1000 pc.	
MB25-3+NPE+FS		5871248	5096 67 3		51	MS 41 L 200 FT	41x41/ St / FT	5484516	1122 50 9		68
MB25-3+NPE+FS		5871248	5096 67 3		123	MS 41 L 200 FT	41x41/ St / FT	5484516	1122 50 9		130
						MS 41 L 300 FT	/ St / FT	5485896	1122 51 7		68
						MS 41 L 300 FT	/ St / FT	5485896	1122 51 7		130
MBS 015	7 150/ V2A	5693345	7203 10 0	/1000 pc.	79	MS 41 L 3M FT	41x41/ St / FT	5487876	1122 62 2	/100 m	68
MBS 015	7 150/ V2A	5693345	7203 10 0		133	MS 41 L 3M FT	41x41/ St / FT	5487876	1122 62 2		131
MBS 030	7 300/ V2A	5693352	7203 10 2		79					/1000 pc.	
MBS 030	7 300/ V2A	5693352	7203 10 2		133	MS 41 L 400 FT	/ St / FT	5486251	1122 52 5		68
MBS 045	7 450/ V2A	5693369	7203 10 4		79	MS 41 L 400 FT	/ St / FT	5486251	1122 52 5		130
MBS 045	7 450/ V2A	5693369	7203 10 4		133	MS 41 L 500 FT	/ St / FT	5486794	1122 53 3		68
MBS 061	7 610/ V2A	5693376	7203 10 6		79	MS 41 L 500 FT	/ St / FT	5486794	1122 53 3		130
MBS 061	7 610/ V2A	5693376	7203 10 6		133	MS 41 L 600 FT	/ St / FT	5486916	1122 54 1		68
MBS 075	12 750/ V2A	5693383	7203 10 8		79	MS 41 L 600 FT	/ St / FT	5486916	1122 54 1		130
MBS 075	12 750/ V2A	5693383	7203 10 8		133					/100 m	
MBS 100	12 1000/ V2A	5693390	7203 11 0		79	MS 41 L 6M FT	41x41/ St / FT	5488170	1122 65 7		68
MBS 100	12 1000/ V2A	5693390	7203 11 0		133	MS 41 L 6M FT	41x41/ St / FT	5488170	1122 65 7		131
MBS 120	12 1200/ V2A	5693406	7203 11 2		79					/1000 pc.	
MBS 120	12 1200/ V2A	5693406	7203 11 2		133	MS 41 L 700 FT	/ St / FT	5487036	1122 56 8		68
MBS 150	12 1500/ V2A	5693413	7203 11 4		79	MS 41 L 700 FT	/ St / FT	5487036	1122 56 8		130
MBS 150	12 1500/ V2A	5693413	7203 11 4		133	MS 41 L 800 FT	/ St / FT	5487098	1122 57 6		68
						MS 41 L 800 FT	/ St / FT	5487098	1122 57 6		130
						MS 41 L 900 FT	/ St / FT	5487159	1122 58 4		68
						MS 41 L 900 FT	/ St / FT	5487159	1122 58 4		130
MB-SG	Blue/ PA	5616375	5096 69 5	/pc.	52					/100 m	
MB-SG	Blue/ PA	5616375	5096 69 5		123	MS 41 LS 1M V4A	2,5/ V4A	5907237	1123 07 7		69
						MS 41 LS 1M V4A	2,5/ V4A	5907237	1123 07 7		131
MBS-Z	/ St	5693420	7203 12 0		79	MS 41 LS 300 FT	/ St / FT	5356325	1122 50 0	/1000 pc.	68
MBS-Z	/ St	5693420	7203 12 0		133	MS 41 LS 300 FT	/ St / FT	5356325	1122 50 0		131
						MS 41 LS 3M FT	/ St / FT	5050735	1122 48 3	/100 m	69
MCD 125-B NPE		5541394	5096 86 5		119	MS 41 LS 3M FT	/ St / FT	5050735	1122 48 3	/1000 pc.	131
MCD 50-B		5541158	5096 84 9		118						
MCD 50-B 3		5077077	5096 87 7		118	MS 41 LS 400 FT	/ St / FT	5356332	1122 50 1		68
MCD 50-B 3+1		5077091	5096 87 9		118	MS 41 LS 400 FT	/ St / FT	5356332	1122 50 1		131
MCF 35-1+FS-440	/ AIG	5990116	5096 97 4		117	MS 41 LS 6M FT	/ St / FT	5050742	1122 48 7	/100 m	69
MCF 35-P3+FS-440	/ AIG	5995012	5096 97 6		117	MS 41 LS 6M FT	/ St / FT	5050742	1122 48 7		131
						MS 41 LS 6M V4A	2,5/ V4A	5907244	1123 07 9		69
MCF-MS-M10	/ V2A	5995029	5096 99 0		117	MS 41 LS 6M V4A	2,5/ V4A	5907244	1123 07 9		131
MCF-MS-P1	/ V2A	5995036	5096 99 2		117					/1000 pc.	
MCF-MS-P3	/ V2A	5995043	5096 99 4		117	MS 41 SK OR SP	Pastel orange 300/ PE	5686200	1122 90 0		69
						MS 41 SK OR SP	Pastel orange 300/ PE	5686200	1122 90 0		131
MDP-2 D-24-T		5406860	5098 42 2		54					/100 m	
MDP-2 D-24-T		5406860	5098 42 2		125	MS 41D L 3M 2 FS	/ St / FS	5698036	1122 67 6		68
MDP-4 D-24-T		5406884	5098 43 1		54	MS 41D L 3M 2 FS	/ St / FS	5698036	1122 67 6		91
MDP-4 D-24-T		5406884	5098 43 1		125	MS 41D L 3M 2 FT	41x82/ St / FT	5697985	1122 67 1		68
MDP-4 D-24-T-10		5625131	5098 43 3		55	MS 41D L 3M 2 FT	41x82/ St / FT	5697985	1122 67 1		92
MDP-4 D-24-T-10		5625131	5098 43 3		126	MS 41D L 6M 2 FS	/ St / FS	5698043	1122 67 8		68
						MS 41D L 6M 2 FS	/ St / FS	5698043	1122 67 8		91
						MS 41D L 6M 2 FT	41x82/ St / FT	5698029	1122 67 3		68
						MS 41D L 6M 2 FT	41x82/ St / FT	5698029	1122 67 3		92
MK-B		5461111	5091 32 2	/VPE	56						
MKSM 610 FT	1001/ St / FT	5830023	6059 01 8	/m	18	ND-CAT6A/EA		5614364	5081 80 0	/pc.	53
MKSM 610 FT	1001/ St / FT	5830023	6059 01 8		84	ND-CAT6A/EA		5614364	5081 80 0		124
MKSM 615 FT	1501/ St / FT	5830030	6059 02 0		18					/VPE	
MKSM 615 FT	1501/ St / FT	5830030	6059 02 0		84						
MKSM 620 FT	2001/ St / FT	5830047	6059 02 2		18	PCS		5461296	5091 43 8		56
MKSM 620 FT	2001/ St / FT	5830047	6059 02 2		84						
MKSM 630 FT	3001/ St / FT	5830085	6059 02 5		18					/pc.	
MKSM 630 FT	3001/ St / FT	5830085	6059 02 5		84	PCS-CS-D	EN	5461654	5091 68 3		56
						PCS-CS-GB	GB	5896111	5091 69 1		56
MP UNI FS	115170/ ST / FS	6146895	7084 77 3	/pc.	39	PCS-H		5461470	5091 52 7	/VPE	56
MP UNI FS	115170/ ST / FS	6146895	7084 77 3		104						
MP WI KL. DD	210120/ ST / DD	5163305	7085 11 1		39						

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
RD 10	/ St / FT	5381617	5021 10 3	/100 m	138	SB20 W V2A	M20 183/ V2A	5923725	2046 73 1	/1000 pc.	30
RD 10-PVC	/ St / FT	5381730	5021 16 2		138	SB20 W V2A	M20 183/ V2A	5923725	2046 73 1		95
RD 10-V2A	/ V2A	5801375	5021 22 7		138	SB20 W V4A	M20 183/ V4A	5924104	2046 76 1		30
RD 10-V4A	/ V4A	5902058	5021 64 2		138	SB20 W V4A	M20 183/ V4A	5924104	2046 76 1		95
RD 8-FT	/ St / FT	5381556	5021 08 1		138	SB25 W ALU	M25209/ AI	5925903	2046 01 4		31
						SB25 W ALU	M25209/ AI	5925903	2046 01 4		96
						SB25 W V2A	M25208/ V2A	5923732	2046 73 2		30
						SB25 W V2A	M25208/ V2A	5923732	2046 73 2		95
						SB25 W V4A	M25208/ V4A	5924111	2046 76 2		30
						SB25 W V4A	M25208/ V4A	5924111	2046 76 2		95
RKSM 310 FS	1000,75/ St / FS	5390848	6047 41 7	/m	18	SB32 W ALU	M32253/ AI	5925910	2046 01 5		31
RKSM 310 FS	1000,75/ St / FS	5390848	6047 41 7		84	SB32 W ALU	M32253/ AI	5925910	2046 01 5		96
RKSM 320 FS	2000,75/ St / FS	5390855	6047 43 3		18	SB32 W V2A	M32258/ V2A	5923749	2046 73 3		30
RKSM 320 FS	2000,75/ St / FS	5390855	6047 43 3		84	SB32 W V2A	M32258/ V2A	5923749	2046 73 3		95
RKSM 330 FS	3000,75/ St / FS	5390862	6047 46 0		18	SB32 W V4A	M32258/ V4A	5924173	2046 76 3		30
RKSM 330 FS	3000,75/ St / FS	5390862	6047 46 0		84	SB32 W V4A	M32258/ V4A	5924173	2046 76 3		95
RKSM 610 VA4301	1000,75/ V2A	5706083	6047 61 3		18	SB40 W ALU	M40302/ AI	5925927	2046 01 6		31
RKSM 610 VA4301	1000,75/ V2A	5706083	6047 61 3		84	SB40 W ALU	M40302/ AI	5925927	2046 01 6		96
RKSM 615 VA4301	1500,75/ V2A	5706120	6047 63 2		18	SB40 W V2A	M40276/ V2A	5923756	2046 73 4		30
RKSM 615 VA4301	1500,75/ V2A	5706120	6047 63 2		84	SB40 W V2A	M40276/ V2A	5923756	2046 73 4		95
RKSM 620 VA4301	2000,75/ V2A	5706144	6047 64 0		18	SB40 W V4A	M40276/ V4A	5924180	2046 76 4		30
RKSM 620 VA4301	2000,75/ V2A	5706144	6047 64 0		84	SB40 W V4A	M40276/ V4A	5924180	2046 76 4		95
RKSM 630 VA4301	3000,75/ V2A	5706182	6047 65 6		18	SB50 W ALU	M50360/ AI	5925965	2046 01 7		31
RKSM 630 VA4301	3000,75/ V2A	5706182	6047 65 6		84	SB50 W ALU	M50360/ AI	5925965	2046 01 7		96
S16 W ALU	M163000/ AI	5925743	2046 00 2	/100 m	31	SB50 W V2A	M50317/ V2A	5923763	2046 73 5		30
S16 W ALU	M163000/ AI	5925743	2046 00 2		96	SB50 W V2A	M50317/ V2A	5923763	2046 73 5		95
S16 W V2A	M163000/ V2A	5923640	2046 72 0		30	SB50 W V4A	M50317/ V4A	5924197	2046 76 5		30
S16 W V2A	M163000/ V2A	5923640	2046 72 0		95	SB50 W V4A	M50317/ V4A	5924197	2046 76 5		95
S16 W V4A	M163000/ V4A	5923886	2046 75 0		30	SB63 W ALU	M63425/ AI	5925972	2046 01 8		31
S16 W V4A	M163000/ V4A	5923886	2046 75 0		95	SB63 W ALU	M63425/ AI	5925972	2046 01 8		96
S20 W ALU	M203000/ AI	5925774	2046 00 3		31	SB63 W V2A	M63376/ V2A	5923770	2046 73 6		30
S20 W ALU	M203000/ AI	5925774	2046 00 3		96	SB63 W V2A	M63376/ V2A	5923770	2046 73 6		95
S20 W V2A	M203000/ V2A	5923657	2046 72 1		30	SB63 W V4A	M63376/ V4A	5924203	2046 76 6		30
S20 W V2A	M203000/ V2A	5923657	2046 72 1		95	SB63 W V4A	M63376/ V4A	5924203	2046 76 6		95
S20 W V4A	M203000/ V4A	5923923	2046 75 1		30	SBM16 W ALU	M16150/ AI	5926184	2046 04 2		32
S20 W V4A	M203000/ V4A	5923923	2046 75 1		95	SBM16 W ALU	M16150/ AI	5926184	2046 04 2		97
S25 W ALU	M253000/ AI	5925781	2046 00 4		31	SBM20 W ALU	M20170/ AI	5926191	2046 04 3		32
S25 W ALU	M253000/ AI	5925781	2046 00 4		96	SBM20 W ALU	M20170/ AI	5926191	2046 04 3		97
S25 W V2A	M253000/ V2A	5923664	2046 72 2		30	SBM25 W ALU	M25208/ AI	5926207	2046 04 4		32
S25 W V2A	M253000/ V2A	5923664	2046 72 2		95	SBM25 W ALU	M25208/ AI	5926207	2046 04 4		97
S25 W V4A	M253000/ V4A	5923947	2046 75 2		30	SBM32 W ALU	M32252/ AI	5926214	2046 04 5		32
S25 W V4A	M253000/ V4A	5923947	2046 75 2		95	SBM32 W ALU	M32252/ AI	5926214	2046 04 5		97
S32 W ALU	M323000/ AI	5925804	2046 00 5		31	SBM40 W ALU	M40300/ AI	5926221	2046 04 6		32
S32 W ALU	M323000/ AI	5925804	2046 00 5		96	SBM40 W ALU	M40300/ AI	5926221	2046 04 6		97
S32 W V2A	M323000/ V2A	5923671	2046 72 3		30	SBM50 W ALU	M50358/ AI	5926238	2046 04 7		32
S32 W V2A	M323000/ V2A	5923671	2046 72 3		95	SBM50 W ALU	M50358/ AI	5926238	2046 04 7		97
S32 W V4A	M323000/ V4A	5923978	2046 75 3		30	SBM63 W ALU	M63423/ AI	5926245	2046 04 8		32
S32 W V4A	M323000/ V4A	5923978	2046 75 3		95	SBM63 W ALU	M63423/ AI	5926245	2046 04 8		97
S40 W ALU	M403000/ AI	5925835	2046 00 6		31	SKH 60 OR	Pastel orange/ PE	5668008	6222 53 7	/pair	65
S40 W ALU	M403000/ AI	5925835	2046 00 6		96						
S40 W V2A	M403000/ V2A	5923688	2046 72 4		30	SL 62 110 FT	1103000/ St / FT	6980246	7097 40 9	/m	20
S40 W V2A	M403000/ V2A	5923688	2046 72 4		95	SL 62 110 FT	1103000/ St / FT	6980246	7097 40 9		64
S40 W V4A	M403000/ V4A	5923985	2046 75 4		30	SL 62 160 FT	1603000/ St / FT	6980307	7097 41 7		64
S40 W V4A	M403000/ V4A	5923985	2046 75 4		95	SL 62 210 FT	2103000/ St / FT	6980369	7097 42 5		20
S50 W ALU	M503000/ AI	5925842	2046 00 7		31	SL 62 210 FT	2103000/ St / FT	6980369	7097 42 5		64
S50 W ALU	M503000/ AI	5925842	2046 00 7		96	SL 62 260 FT	2603000/ St / FT	6965120	7097 42 9		64
S50 W V2A	M503000/ V2A	5923695	2046 72 5		30	SL 62 310 FT	3103000/ St / FT	6980420	7097 43 3		20
S50 W V2A	M503000/ V2A	5923695	2046 72 5		95	SL 62 310 FT	3103000/ St / FT	6980420	7097 43 3		64
S50 W V4A	M503000/ V4A	5923992	2046 75 5		30	SL 62 410 FT	4103000/ St / FT	6980482	7097 44 1		20
S50 W V4A	M503000/ V4A	5923992	2046 75 5		95	SL 62 410 FT	4103000/ St / FT	6980482	7097 44 1		64
S63 W ALU	M633000/ AI	5925859	2046 00 8		31	SL 62 510 FT	5103000/ St / FT	6508099	7097 46 8		20
S63 W ALU	M633000/ AI	5925859	2046 00 8		96	SL 62 510 FT	5103000/ St / FT	6508099	7097 46 8		64
S63 W V2A	M633000/ V2A	5923701	2046 72 6		30	SL 62 610 FT	6103000/ St / FT	6508150	7097 47 6		20
S63 W V2A	M633000/ V2A	5923701	2046 72 6		95	SL 62 610 FT	6103000/ St / FT	6508150	7097 47 6		64
S63 W V4A	M633000/ V4A	5924036	2046 75 6		30	SLL 620 CPS 4 FS	2006000/ St / FS	5433965	6010 62 0		65
S63 W V4A	M633000/ V4A	5924036	2046 75 6		95	SLL 620 CPS 4 FT	2006000/ St / FT	5434047	6010 63 0		65
SB16 W ALU	M16151/ AI	5925866	2046 01 2	/1000 pc.	31	SLL 630 CPS 4 FS	3006000/ St / FS	5433972	6010 62 2		65
SB16 W ALU	M16151/ AI	5925866	2046 01 2		96	SLL 630 CPS 4 FT	3006000/ St / FT	5434085	6010 63 2		65
SB16 W V2A	M16153/ V2A	5923718	2046 73 0		30						
SB16 W V2A	M16153/ V2A	5923718	2046 73 0		95						
SB16 W V4A	M16153/ V4A	5924050	2046 76 0		30						
SB16 W V4A	M16153/ V4A	5924050	2046 76 0		95						
SB20 W ALU	M20171/ AI	5925897	2046 01 3		31						
SB20 W ALU	M20171/ AI	5925897	2046 01 3		96						

Type	Dimensions/Colour/Div.	GTIN	Art. no.	Price	Page	Type	Dimensions/Colour/Div.	GTIN	Art. no.	Price	Page
SLL 640 CPS 4 FS	4006000/ st / FS	5433989	6010 62 4	/m	65	SV16 W V2A	M1645/ V2A	5923787	2046 74 0	/1000 pc.	30
SLL 640 CPS 4 FT	4006000/ st / FT	5434092	6010 63 4		65	SV16 W V2A	M1645/ V2A	5923787	2046 74 0		95
SLL 650 CPS 4 FS	5006000/ st / FS	5434023	6010 62 6		65	SV16 W V4A	M1645/ V4A	5924210	2046 77 0		31
SLL 650 CPS 4 FT	5006000/ st / FT	5434108	6010 63 6		65	SV16 W V4A	M1645/ V4A	5924210	2046 77 0		96
SLL 660 CPS 4 FS	6006000/ st / FS	5434030	6010 62 8		65						
SLL 660 CPS 4 FT	6006000/ st / FT	5434146	6010 63 8		65	SV20 W ALU	2050/ AI	5926016	2046 02 3		31
						SV20 W ALU	2050/ AI	5926016	2046 02 3		96
						SV20 W V2A	M2050/ V2A	5923794	2046 74 1		30
SLSP 62 300 FT	3000/ st / FT	6420131	7102 77 1		65	SV20 W V2A	M2050/ V2A	5923794	2046 74 1		95
						SV20 W V4A	M2050/ V4A	5924258	2046 77 1		31
						SV20 W V4A	M2050/ V4A	5924258	2046 77 1		96
SLV 62 FT	62/ st / FT	5980483	7103 54 8	/pc.	20						
SLV 62 FT	62/ st / FT	5980483	7103 54 8		64	SV25 W ALU	2560/ AI	5926023	2046 02 4		31
						SV25 W ALU	2560/ AI	5926023	2046 02 4		96
						SV25 W V2A	M2560/ V2A	5923800	2046 74 2		30
						SV25 W V2A	M2560/ V2A	5923800	2046 74 2		95
SM16 W ALU	M163000/ AI	5926092	2046 03 2	/100 m	31	SV25 W V4A	M2560/ V4A	5924272	2046 77 2		31
SM16 W ALU	M163000/ AI	5926092	2046 03 2		96	SV25 W V4A	M2560/ V4A	5924272	2046 77 2		96
SM20 W ALU	M203000/ AI	5926108	2046 03 3		31	SV32 W ALU	3270/ AI	5926030	2046 02 5		31
SM20 W ALU	M203000/ AI	5926108	2046 03 3		96	SV32 W ALU	3270/ AI	5926030	2046 02 5		96
						SV32 W V2A	M3270/ V2A	5923824	2046 74 3		30
SM25 W ALU	M253000/ AI	5926139	2046 03 4		31	SV32 W V2A	M3270/ V2A	5923824	2046 74 3		95
SM25 W ALU	M253000/ AI	5926139	2046 03 4		96	SV32 W V4A	M3270/ V4A	5924296	2046 77 3		31
						SV32 W V4A	M3270/ V4A	5924296	2046 77 3		96
SM32 W ALU	M323000/ AI	5926146	2046 03 5		31						
SM32 W ALU	M323000/ AI	5926146	2046 03 5		96	SV40 W ALU	4070/ AI	5926047	2046 02 6		31
						SV40 W ALU	4070/ AI	5926047	2046 02 6		96
SM40 W ALU	M403000/ AI	5926153	2046 03 6		31	SV40 W V2A	M4080/ V2A	5923855	2046 74 4		30
SM40 W ALU	M403000/ AI	5926153	2046 03 6		96	SV40 W V2A	M4080/ V2A	5923855	2046 74 4		95
						SV40 W V4A	M4080/ V4A	5924302	2046 77 4		31
SM50 W ALU	M503000/ AI	5926160	2046 03 7		31	SV40 W V4A	M4080/ V4A	5924302	2046 77 4		96
SM50 W ALU	M503000/ AI	5926160	2046 03 7		96						
						SV50 W ALU	5090/ AI	5926078	2046 02 7		31
SM63 W ALU	M633000/ AI	5926177	2046 03 8		31	SV50 W ALU	5090/ AI	5926078	2046 02 7		96
SM63 W ALU	M633000/ AI	5926177	2046 03 8		96	SV50 W V2A	M50100/ V2A	5923862	2046 74 5		30
						SV50 W V2A	M50100/ V2A	5923862	2046 74 5		95
						SV50 W V4A	M50100/ V4A	5924333	2046 77 5		31
						SV50 W V4A	M50100/ V4A	5924333	2046 77 5		96
SPP 20-40 FT	20-40 63/ st / FT	5859529	1486 27 0	/1000 pc.	27						
SPP 20-40 FT	20-40 63/ st / FT	5859529	1486 27 0		91	SV63 W ALU	63110/ AI	5926085	2046 02 8		31
SPP 20-40 V4A	20-40 63/ V4A	5859543	1486 27 8		28	SV63 W ALU	63110/ AI	5926085	2046 02 8		96
SPP 20-40 V4A	20-40 63/ V4A	5859543	1486 27 8		91	SV63 W V2A	M63110/ V2A	5923879	2046 74 6		30
SPP 6-21 FT	6-21 43/ st / FT	5859499	1486 25 0		27	SV63 W V2A	M63110/ V2A	5923879	2046 74 6		95
SPP 6-21 FT	6-21 43/ st / FT	5859499	1486 25 0		90	SV63 W V4A	M63110/ V4A	5924340	2046 77 6		31
SPP 6-21 V4A	6-21 43/ V4A	5859512	1486 25 8		27	SV63 W V4A	M63110/ V4A	5924340	2046 77 6		96
SPP 6-21 V4A	6-21 43/ V4A	5859512	1486 25 8		91						
						SVE 41 FT	47x39,4/ st / FT	5939214	1123 12 1		69
SQ M6	M615/ PC	5016069	2146 50 9		33	SVE 41 FT	47x39,4/ st / FT	5939214	1123 12 1		92
SQ M6	M615/ PC	5016069	2146 50 9		98	SVE 41 G	47x39,4/ st / G	5939221	1123 12 4		69
						SVE 41 G	47x39,4/ st / G	5939221	1123 12 4		92
SQ-10 LGR	109,5-12 / PA	5595359	2146 05 3		33	SVE 41 V2A	47x39,4/ V2A	5939238	1123 12 6		69
SQ-10 LGR	109,5-12 / PA	5595359	2146 05 3		98	SVE 41 V2A	47x39,4/ V2A	5939238	1123 12 6		92
SQ-12 LGR	12-14 11,5-15 / PA	5595410	2146 06 1		33	SVE 41 V4A	47x39,4/ V4A	5939245	1123 12 8		69
SQ-12 LGR	12-14 11,5-15 / PA	5595410	2146 06 1		98	SVE 41 V4A	47x39,4/ V4A	5939245	1123 12 8		92
SQ-15 LGR	15-16 14-16,5 / PA	5595472	2146 09 6		33						
SQ-15 LGR	15-16 14-16,5 / PA	5595472	2146 09 6		98						
SQ-17 LGR	17-19 16-20 / PA	5595533	2146 11 8		33	SVM16 W ALU	M1635/ AI	5926252	2046 05 2		32
SQ-17 LGR	17-19 16-20 / PA	5595533	2146 11 8		98	SVM16 W ALU	M1635/ AI	5926252	2046 05 2		97
SQ-20 LGR	20-23 19,5-23,5 / PA	5595656	2146 13 4		33	SVM20 W ALU	M2035/ AI	5926269	2046 05 3		32
SQ-20 LGR	20-23 19,5-23,5 / PA	5595656	2146 13 4		98	SVM20 W ALU	M2035/ AI	5926269	2046 05 3		97
SQ-25 LGR	25-28 24-28 / PA	5595717	2146 20 7		33	SVM25 W ALU	M2545/ AI	5926276	2046 05 4		32
SQ-25 LGR	25-28 24-28 / PA	5595717	2146 20 7		98	SVM25 W ALU	M2545/ AI	5926276	2046 05 4		97
SQ-28 LGR	28-32 27,5-32 / PA	5595779	2146 21 5		33						
SQ-28 LGR	28-32 27,5-32 / PA	5595779	2146 21 5		98	SVM32 W ALU	M3245/ AI	5926283	2046 05 5		32
						SVM32 W ALU	M3245/ AI	5926283	2046 05 5		97
SQ-32 LGR	32-35 31,2-35,8 / PA	5595830	2146 25 8		33						
SQ-32 LGR	32-35 31,2-35,8 / PA	5595830	2146 25 8		98	SVM40 W ALU	M4045/ AI	5926290	2046 05 6		32
SQ-36 LGR	35-40 35-40,1 / PA	5204275	2146 29 0		33	SVM40 W ALU	M4045/ AI	5926290	2046 05 6		97
SQ-36 LGR	35-40 35-40,1 / PA	5204275	2146 29 0		98						
						SVM50 W ALU	M5055/ AI	5926306	2046 05 7		32
SQ-40 LGR	40-44 39,3-44,5 / PA	5595892	2146 32 0		33	SVM50 W ALU	M5055/ AI	5926306	2046 05 7		97
SQ-40 LGR	40-44 39,3-44,5 / PA	5595892	2146 32 0		98						
SQ-47 LGR	45-50 44-50 / PA	5204398	2146 36 3		33	SVM63 W ALU	M6355/ AI	5926313	2046 05 8		32
SQ-47 LGR	45-50 44-50 / PA	5204398	2146 36 3		98	SVM63 W ALU	M6355/ AI	5926313	2046 05 8		97
SQ-51 LGR	50-54 48-55 / PA	5595953	2146 44 4		33						
SQ-51 LGR	50-54 48-55 / PA	5595953	2146 44 4		98	T 100	/ PP	5246794	2007 07 7		38
SQ-59 LGR	59-65 58,5-65 / PA	5204510	2146 48 7		33	T 100	/ PP	5246794	2007 07 7		103
SQ-59 LGR	59-65 58,5-65 / PA	5204510	2146 48 7		98	T 100 F	/ PP	5286547	2007 34 7		38
						T 100 F	/ PP	5286547	2007 34 7		103
						T 100 KL	/ PP	5441212	2007 43 6		38
SV16 W ALU	1640/ AI	5925989	2046 02 2		31	T 100 KL	/ PP	5441212	2007 43 6		103
SV16 W ALU	1640/ AI	5925989	2046 02 2		96	T 100 RO-LGR	/ PP	5303282	2007 64 4		38

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
T 100 RO-LGR	/ PP	5303282	2007 64 4	/1000 pc.	103	TKK13-240	5-13 240/ St / ZD	5141075	1481 45 2	/1000 pc.	112
T 100 RW	/ PP	5286677	2007 53 3		38	TKK13-365	5-13 365/ St / ZD	5141136	1481 46 0		112
T 100 RW	/ PP	5286677	2007 53 3		103	TKK19-240	14-19 240/ St / ZD	5141310	1481 53 3		112
						TKK19-365	14-19 365/ St / ZD	5141372	1481 54 1		112
T 40 M20	/ PP	5885375	2007 90 0		40						
T 40 M20	/ PP	5885375	2007 90 0		105						
T 40 M20 KL	/ PP	5885382	2007 90 4		40					/pc.	
T 40 M20 KL	/ PP	5885382	2007 90 4		105	TKS-B		5578277	5097 97 6		54
						TKS-B		5578277	5097 97 6		125
T 60	/ PP	5246787	2007 06 1		38					/pair	
T 60	/ PP	5246787	2007 06 1		103						
T 60 F	/ PP	5286509	2007 33 9		38	TKS-L-25 FT	25/ ST / FT	6579075	6355 80 8		26
T 60 F	/ PP	5286509	2007 33 9		103	TKS-L-25 FT	25/ ST / FT	6579075	6355 80 8		90
T 60 KL	/ PP	5441182	2007 43 4		38	TKS-S-30 FT	30/ ST / FT	6114498	6355 80 0		27
T 60 KL	/ PP	5441182	2007 43 4		103	TKS-S-30 FT	30/ ST / FT	6114498	6355 80 0		90
T 60 M20	/ PP	5885399	2007 91 0		40						
T 60 M20	/ PP	5885399	2007 91 0		105						
T 60 M20 KL	/ PP	5885405	2007 91 4		40					/1000 pc.	
T 60 M20 KL	/ PP	5885405	2007 91 4		105	ULS	Grey3/ PVC	6015061	6178 54 8		59
T 60 OE	/ PP	5246848	2007 23 9		38	ULS	Grey3/ PVC	6015061	6178 54 8		129
T 60 OE	/ PP	5246848	2007 23 9		103						
T 60 RO-LGR	/ PP	5303275	2007 63 8		38					/pc.	
T 60 RO-LGR	/ PP	5303275	2007 63 8		103						
T 60 RW	/ PP	5286660	2007 52 5		38	US 3 100 FS	10002/ St / FS	6223572	6342 31 8		25
T 60 RW	/ PP	5286660	2007 52 5		103	US 3 100 FS	10002/ St / FS	6223572	6342 31 8		89
						US 3 150 FS	15002/ St / FS	6223633	6342 32 8		25
						US 3 150 FS	15002/ St / FS	6223633	6342 32 8		89
TK 13-0	5-13 33,3/ St / ZD	5140535	1481 02 9		112	US 3 20 FS	2002/ St / FS	6221776	6342 30 2		25
TK 19-0	14-19 33,3/ St / ZD	5140658	1481 04 5		112	US 3 20 FS	2002/ St / FS	6221776	6342 30 2		89
						US 3 200 FS	20002/ St / FS	6224296	6342 33 8		25
TK 6-0	2-6 33,3/ St / ZD	5140474	1481 01 0		112	US 3 200 FS	20002/ St / FS	6224296	6342 33 8		89
						US 3 30 FS	3002/ St / FS	6222018	6342 30 4		25
TK MULTI 16	8-16 1,2/ St / ZDM	5928133	1485 14 4		28	US 3 30 FS	3002/ St / FS	6222018	6342 30 4		89
TK MULTI 16	8-16 1,2/ St / ZDM	5928133	1485 14 4		91	US 3 40 FS	4002/ St / FS	6222070	6342 30 6		25
TK MULTI 24	16-24 1,2/ St / ZDM	5928140	1485 14 8		28	US 3 40 FS	4002/ St / FS	6222070	6342 30 6		89
TK MULTI 24	16-24 1,2/ St / ZDM	5928140	1485 14 8		91	US 3 50 FS	5002/ St / FS	6222315	6342 30 8		25
TK MULTI 8	2-8 1,2/ St / ZDM	5928126	1485 14 0		28	US 3 50 FS	5002/ St / FS	6222315	6342 30 8		89
TK MULTI 8	2-8 1,2/ St / ZDM	5928126	1485 14 0		91	US 3 60 FS	6002/ St / FS	6222377	6342 31 0		25
						US 3 60 FS	6002/ St / FS	6222377	6342 31 0		89
TKC 13-20	5-13 17-20 / St / ZD	5142812	1482 46 7		112	US 3 600 FS	60002/ St / FS	6224418	6342 34 5		25
TKC 13-25	5-13 23-25 / St / ZD	5142874	1482 47 5		112	US 3 600 FS	60002/ St / FS	6224418	6342 34 5		89
TKC 13-32	5-13 25-32 / St / ZD	5142935	1482 48 3		112	US 3 600 FT	60002/ St / FT	6225491	6342 45 0		25
TKC 19-20	14-19 17-20 / St / ZD	5143178	1482 60 2		112	US 3 600 FT	60002/ St / FT	6225491	6342 45 0		89
TKC 19-25	14-19 23-25 / St / ZD	5143239	1482 61 0		112	US 3 70 FS	7002/ St / FS	6222438	6342 31 2		25
TKC 19-32	14-19 25-32 / St / ZD	5143291	1482 62 9		112	US 3 70 FS	7002/ St / FS	6222438	6342 31 2		89
TKC 6-20	2-6 17-20 / St / ZD	5142638	1482 40 8		112	US 3 80 FS	8002/ St / FS	6222490	6342 31 4		25
TKC 6-25	2-6 23-25 / St / ZD	5142690	1482 41 6		112	US 3 80 FS	8002/ St / FS	6222490	6342 31 4		89
						US 3 90 FS	9002/ St / FS	6223510	6342 31 6		25
TKCU 13-20	7-13 17-20 / St / ZD	5144854	1484 07 9		113	US 3 90 FS	9002/ St / FS	6223510	6342 31 6		89
TKCU 13-25	7-13 23-25 / St / ZD	5144915	1484 08 7		113						
TKCU 13-32	7-13 25-32 / St / ZD	5144977	1484 09 5		113	US 3 K 100 FT	10002/ St / FT	6225132	6342 36 8		25
TKCU 19-20	14-19 17-20 / St / ZD	5145035	1484 13 3		113	US 3 K 110 FT	11002/ St / FT	6225378	6342 37 0		25
TKCU 19-25	14-19 23-25 / St / ZD	5145097	1484 14 1		113	US 3 K 120 FT	12002/ St / FT	6225439	6342 37 2		25
TKCU 19-32	14-19 25-32 / St / ZD	5145158	1484 16 8		113	US 3 K 20 FT	2002/ St / FT	6224470	6342 35 1		25
TKCU 7-20	3-6,5 17-20 / St / ZD	5144670	1484 00 1		113	US 3 K 30 FT	3002/ St / FT	6224531	6342 35 3		25
TKCU 7-25	3-6,5 23-25 / St / ZD	5144731	1484 02 8		113	US 3 K 40 FT	4002/ St / FT	6224593	6342 35 5		25
TKCU 7-32	3-6,5 25-32 / St / ZD	5144793	1484 03 6		113	US 3 K 50 FT	5002/ St / FT	6224654	6342 35 7		25
						US 3 K 60 FT	6002/ St / FT	6224715	6342 35 9		25
TKG 13-6	7-13 0,45/ St / ZD	5144373	1483 45 5		112	US 3 K 70 FT	7002/ St / FT	6224777	6342 36 2		25
TK-G 16	10-16 38/ St / ZD	5407041	1481 11 4		112	US 3 K 80 FT	8002/ St / FT	6225019	6342 36 4		25
						US 3 K 90 FT	9002/ St / FT	6225071	6342 36 6		25
TKG 19-6	14-19 0,45/ St / ZD	5144434	1483 46 3		112						
TK-G 20	17-20 38/ St / ZD	5407072	1481 12 0		112	US 5 100 FT	10002,5/ St / FT	6284177	6340 96 2		26
TK-G 4	2-4 28/ St / ZD	5407027	1481 10 2		112	US 5 100 FT	10002,5/ St / FT	6284177	6340 96 2		89
						US 5 150 FT	15002,5/ St / FT	6437597	6340 96 6		26
						US 5 150 FT	15002,5/ St / FT	6437597	6340 96 6		89
TKG 7-6	3-6,5 0,45/ St / ZD	5144311	1483 44 7		112	US 5 20 FT	2002,5/ St / FT	6959006	6340 88 1		26
						US 5 20 FT	2002,5/ St / FT	6959006	6340 88 1		89
TK-G 9	5-9 38/ St / ZD	5407034	1481 10 8		112	US 5 200 FT	20002,5/ St / FT	6437658	6340 97 0		26
						US 5 200 FT	20002,5/ St / FT	6437658	6340 97 0		89
						US 5 30 FT	3002,5/ St / FT	6959068	6340 90 3		26
						US 5 30 FT	3002,5/ St / FT	6959068	6340 90 3		89
TKHL-25 FT	25/ ST / FT	6579259	6355 81 2	/pair	26	US 5 300 FT	30002,5/ St / FT	6446957	6340 98 9		26
TKHL-25 FT	25/ ST / FT	6579259	6355 81 2		89	US 5 300 FT	30002,5/ St / FT	6446957	6340 98 9		89
TKH-S-30 FT	30/ ST / FT	6114610	6355 80 4		26	US 5 40 FT	4002,5/ St / FT	6959129	6340 91 1		26
TKH-S-30 FT	30/ ST / FT	6114610	6355 80 4		90	US 5 40 FT	4002,5/ St / FT	6959129	6340 91 1		89
						US 5 50 FT	5002,5/ St / FT	6959181	6340 93 8		26
						US 5 50 FT	5002,5/ St / FT	6959181	6340 93 8		89
						US 5 60 FT	6002,5/ St / FT	6601752	6340 94 6		26
TKI 13-6	7-13 0,45/ St / ZD	5144557	1483 58 7	/1000 pc.	112	US 5 60 FT	6002,5/ St / FT	6601752	6340 94 6		89
TKI 19-6	14-19 0,45/ St / ZD	5144618	1483 59 5		112	US 5 600 FT	60002,5/ St / FT	6437719	6340 99 7		26
TKI 7-6	3-6,5 0,45/ St / ZD	5144496	1483 57 9		112	US 5 600 FT	60002,5/ St / FT	6437719	6340 99 7		89
						US 5 70 FT	7002,5/ St / FT	6043927	6340 95 0		26
TKK 6-240	2-6 240/ St / ZD	5140955	1481 40 1		112	US 5 70 FT	7002,5/ St / FT	6043927	6340 95 0		89
TKK 6-365	2-6 365/ St / ZD	5141013	1481 42 8		112	US 5 80 FT	8002,5/ St / FT	6044047	6340 95 4		26

Type listing

Type	Dimensions/Colour/Div.	GTIN	Art. no.	Price	Page	Type	Dimensions/Colour/Div.	GTIN	Art. no.	Price	Page
US 5 80 FT	8002,5/ st / FT	6044047	6340 95 4	/pc.	89	V20-C3+NPE400+FS		5871262	5094 90 2	/pc.	122
US 5 90 FT	9002,5/ st / FT	6044160	6340 95 8		26						
US 5 90 FT	9002,5/ st / FT	6044160	6340 95 8		89	V50-B+C 0-280	350	5361954	5093 72 4		49
						V50-B+C 0-280	350	5361954	5093 72 4		120
US 5 K 100 FT	10002,5/ st / FT	6536290	6341 61 6		25	V50-B+C 3+FS280		5361916	5093 64 3		49
US 5 K 110 FT	11002,5/ st / FT	6536238	6341 62 4		25	V50-B+C 3+FS280		5361916	5093 64 3		120
US 5 K 120 FT	12002,5/ st / FT	6536177	6341 63 2		25	V50-B+C 3+NPE		5425120	5093 65 4		48
US 5 K 20 FT	2002,5/ st / FT	6536771	6341 52 7		25	V50-B+C 3+NPE		5425120	5093 65 4		119
US 5 K 30 FT	3002,5/ st / FT	6536719	6341 53 5		25	V50-B+C 3+NPE+FS		5425137	5093 66 2		48
US 5 K 40 FT	4002,5/ st / FT	6536658	6341 54 3		25	V50-B+C 3+NPE+FS		5425137	5093 66 2		119
US 5 K 50 FT	5002,5/ st / FT	6536597	6341 55 1		25	V50-B+C 3-280		5361893	5093 62 7		48
US 5 K 60 FT	6002,5/ st / FT	6536535	6341 57 8		25	V50-B+C 3-280		5361893	5093 62 7		120
US 5 K 70 FT	7002,5/ st / FT	6536474	6341 58 6		25						
US 5 K 80 FT	8002,5/ st / FT	6536412	6341 59 4		25	VF12-AC DC	13,5	5578116	5097 45 3		53
US 5 K 90 FT	9002,5/ st / FT	6536351	6341 60 8		25	VF12-AC DC	13,5	5578116	5097 45 3		124
						VF230-AC/DC	255	5578161	5097 65 0		53
US 7 100 FT	10004/ st / FT	6188178	6340 18 0		26	VF230-AC/DC	255	5578161	5097 65 0		124
US 7 100 FT	10004/ st / FT	6188178	6340 18 0		89	VF230-AC-FS	255	5578215	5097 85 8		53
US 7 110 FT	11004/ st / FT	6188239	6340 19 9		26	VF230-AC-FS	255	5578215	5097 85 8		124
US 7 110 FT	11004/ st / FT	6188239	6340 19 9		89						
US 7 120 FT	12004/ st / FT	6188291	6340 20 2		26	VF24-AC/DC	34	5578123	5097 60 7		53
US 7 120 FT	12004/ st / FT	6188291	6340 20 2		89	VF24-AC/DC	34	5578123	5097 60 7		124
US 7 130 FT	13004/ st / FT	6188352	6340 21 0		26	VF24-AC/DC-FS	34,46	5578185	5097 82 0		53
US 7 130 FT	13004/ st / FT	6188352	6340 21 0		89	VF24-AC/DC-FS	34,46	5578185	5097 82 0		124
US 7 140 FT	14004/ st / FT	6188413	6340 22 9		26						
US 7 140 FT	14004/ st / FT	6188413	6340 22 9		89						
US 7 150 FT	15004/ st / FT	6188475	6340 23 7		26					/1000 pc.	
US 7 150 FT	15004/ st / FT	6188475	6340 23 7		89	V-TEC PG11+ LGR Pg 11 Light grey/ PA		5861058	2024 65 9		43
US 7 160 FT	16004/ st / FT	6188536	6340 24 5		26	V-TEC PG11+ LGR Pg 11 Light grey/ PA		5861058	2024 65 9		108
US 7 160 FT	16004/ st / FT	6188536	6340 24 5		89	V-TEC PG13,5+LGRPg 13,5Light grey/ PA		5861065	2024 66 1		43
US 7 170 FT	17004/ st / FT	6188598	6340 25 3		26	V-TEC PG13,5+LGRPg 13,5Light grey/ PA		5861065	2024 66 1		108
US 7 170 FT	17004/ st / FT	6188598	6340 25 3		89	V-TEC PG16+ LGR Pg 16 Light grey/ PA		5861072	2024 66 3		43
US 7 180 FT	18004/ st / FT	6188659	6340 26 1		26	V-TEC PG16+ LGR Pg 16 Light grey/ PA		5861072	2024 66 3		108
US 7 180 FT	18004/ st / FT	6188659	6340 26 1		89	V-TEC PG21+ LGR Pg 21 Light grey/ PA		5861089	2024 66 5		43
US 7 190 FT	19004/ st / FT	6188710	6340 28 8		26	V-TEC PG21+ LGR Pg 21 Light grey/ PA		5861089	2024 66 5		108
US 7 190 FT	19004/ st / FT	6188710	6340 28 8		89	V-TEC PG29+ LGR Pg 29Light grey/ PA		5861096	2024 66 7		43
US 7 20 FT	2004/ st / FT	6187690	6340 01 6		26	V-TEC PG29+ LGR Pg 29Light grey/ PA		5861096	2024 66 7		108
US 7 20 FT	2004/ st / FT	6187690	6340 01 6		89	V-TEC PG36+ LGR Pg 36Light grey/ PA		5861102	2024 66 9		43
US 7 200 FT	20004/ st / FT	6188772	6340 29 6		26	V-TEC PG36+ LGR Pg 36Light grey/ PA		5861102	2024 66 9		108
US 7 200 FT	20004/ st / FT	6188772	6340 29 6		89	V-TEC PG42+ LGR Pg 42Light grey/ PA		5861119	2024 67 1		43
US 7 30 FT	3004/ st / FT	6187751	6340 03 2		26	V-TEC PG42+ LGR Pg 42Light grey/ PA		5861119	2024 67 1		108
US 7 30 FT	3004/ st / FT	6187751	6340 03 2		89	V-TEC PG48+ LGR Pg 48Light grey/ PA		5861126	2024 67 3		43
US 7 300 FT	30004/ st / FT	6188895	6340 37 7		26	V-TEC PG48+ LGR Pg 48Light grey/ PA		5861126	2024 67 3		108
US 7 300 FT	30004/ st / FT	6188895	6340 37 7		89	V-TEC PG7+ LGR Pg 7 Light grey/ PA		5861003	2024 65 5		43
US 7 40 FT	4004/ st / FT	6187812	6340 05 9		26	V-TEC PG7+ LGR Pg 7 Light grey/ PA		5861003	2024 65 5		108
US 7 40 FT	4004/ st / FT	6187812	6340 05 9		89	V-TEC PG9+ LGR Pg 9 Light grey/ PA		5861041	2024 65 7		43
US 7 400 FT	40004/ st / FT	6458233	6340 39 3		26	V-TEC PG9+ LGR Pg 9 Light grey/ PA		5861041	2024 65 7		108
US 7 400 FT	40004/ st / FT	6458233	6340 39 3		89					/pc.	
US 7 50 FT	5004/ st / FT	6187874	6340 07 5		26						
US 7 50 FT	5004/ st / FT	6187874	6340 07 5		89	V-TEC RA SET		5034278	3010 27 5		42
US 7 60 FT	6004/ st / FT	6187935	6340 09 1		26	V-TEC RA SET		5034278	3010 27 5		107
US 7 60 FT	6004/ st / FT	6187935	6340 09 1		89					/1000 pc.	
US 7 600 FT	60004/ st / FT	6188833	6340 31 8		26						
US 7 600 FT	60004/ st / FT	6188833	6340 31 8		89	V-TEC VM12 LGRM12 x 1,5Light grey/ PA		5533177	2022 86 2		42
US 7 70 FT	7004/ st / FT	6187997	6340 11 3		26	V-TEC VM12 LGRM12 x 1,5Light grey/ PA		5533177	2022 86 2		107
US 7 70 FT	7004/ st / FT	6187997	6340 11 3		89						
US 7 80 FT	8004/ st / FT	6188055	6340 14 8		26	V-TEC VM12 MS M12 x 1,5/ CuZn / N		5808992	2086 01 8		46
US 7 80 FT	8004/ st / FT	6188055	6340 14 8		89	V-TEC VM12 MS M12 x 1,5/ CuZn / N		5808992	2086 01 8		111
US 7 90 FT	9004/ st / FT	6188116	6340 16 4		26						
US 7 90 FT	9004/ st / FT	6188116	6340 16 4		89	V-TEC VM12 SW M12 x 1,5Black/ PA		5534013	2022 88 3		42
						V-TEC VM12 SW M12 x 1,5Black/ PA		5534013	2022 88 3		107
V20-C 0-280	350	5396918	5099 60 9		52	V-TEC VM12+ LGRM12 x 1,5Light grey/ PA		5860921	2022 76 2		43
V20-C 0-280	350	5396918	5099 60 9		123	V-TEC VM12RD LGRM12 x 1,5Light grey/ PA		5870968	2023 00 8		43
V20-C 0-440	585	5942498	5099 70 6		52	V-TEC VM12RD LGRM12 x 1,5Light grey/ PA		5870968	2023 00 8		108
V20-C 0-440	585	5942498	5099 70 6		123	V-TEC VM12UV LGRM12 x 1,5Light grey/ PA		5896692	2022 90 0		44
V20-C 1+FS-280		5406679	5094 72 7		50	V-TEC VM12UV LGRM12 x 1,5Light grey/ PA		5896692	2022 90 0		109
V20-C 1+FS-280		5406679	5094 72 7		122	V-TEC VM16 LGRM16 x 1,5Light grey/ PA		5533238	2022 86 4		42
V20-C 1-280		5406594	5094 61 8		50	V-TEC VM16 LGRM16 x 1,5Light grey/ PA		5533238	2022 86 4		107
V20-C 1-280		5406594	5094 61 8		121						
V20-C 2+FS-280		5374923	5094 63 2		50	V-TEC VM16 MS M16 x 1,5/ CuZn / N		5809234	2086 02 4		46
V20-C 2+FS-280		5374923	5094 63 2		122	V-TEC VM16 MS M16 x 1,5/ CuZn / N		5809234	2086 02 4		111
V20-C 2-280		5382867	5094 62 1		50						
V20-C 2-280		5382867	5094 62 1		121	V-TEC VM16 SW M16 x 1,5Black/ PA		5535638	2022 88 5		42
V20-C 3+FS-280		5240198	5094 73 1		50	V-TEC VM16 SW M16 x 1,5Black/ PA		5535638	2022 88 5		107
V20-C 3+FS-280		5240198	5094 73 1		122	V-TEC VM16+ LGRM16 x 1,5Light grey/ PA		5860938	2022 76 4		43
V20-C 3+NPE+FS		5240242	5094 76 5		50	V-TEC VM16+ LGRM16 x 1,5Light grey/ PA		5860938	2022 76 4		108
V20-C 3+NPE+FS		5240242	5094 76 5		121	V-TEC VM16RD LGRM16 x 1,5Light grey/ PA		5871002	2023 01 0		43
V20-C 3+NPE-280		5240099	5094 65 6		49	V-TEC VM16RD LGRM16 x 1,5Light grey/ PA		5871002	2023 01 0		108
V20-C 3+NPE-280		5240099	5094 65 6		121	V-TEC VM16UV LGRM16 x 1,5Light grey/ PA		5896708	2022 90 1		44
V20-C 3+NPE400		5871255	5094 90 0		51	V-TEC VM16UV LGRM16 x 1,5Light grey/ PA		5896708	2022 90 1		109
V20-C 3+NPE400		5871255	5094 90 0		122	V-TEC VM20 2x4M20 x 1,5Light grey/ PA		5896517	2022 11 0		44
V20-C 3-280		5240020	5094 62 4		50	V-TEC VM20 2x4M20 x 1,5Light grey/ PA		5896517	2022 11 0		109
V20-C 3-280		5240020	5094 62 4		121	V-TEC VM20 2x6M20 x 1,5Light grey/ PA		5896562	2022 11 4		44
V20-C3+NPE400+FS		5871262	5094 90 2		51	V-TEC VM20 2x6M20 x 1,5Light grey/ PA		5896562	2022 11 4		109

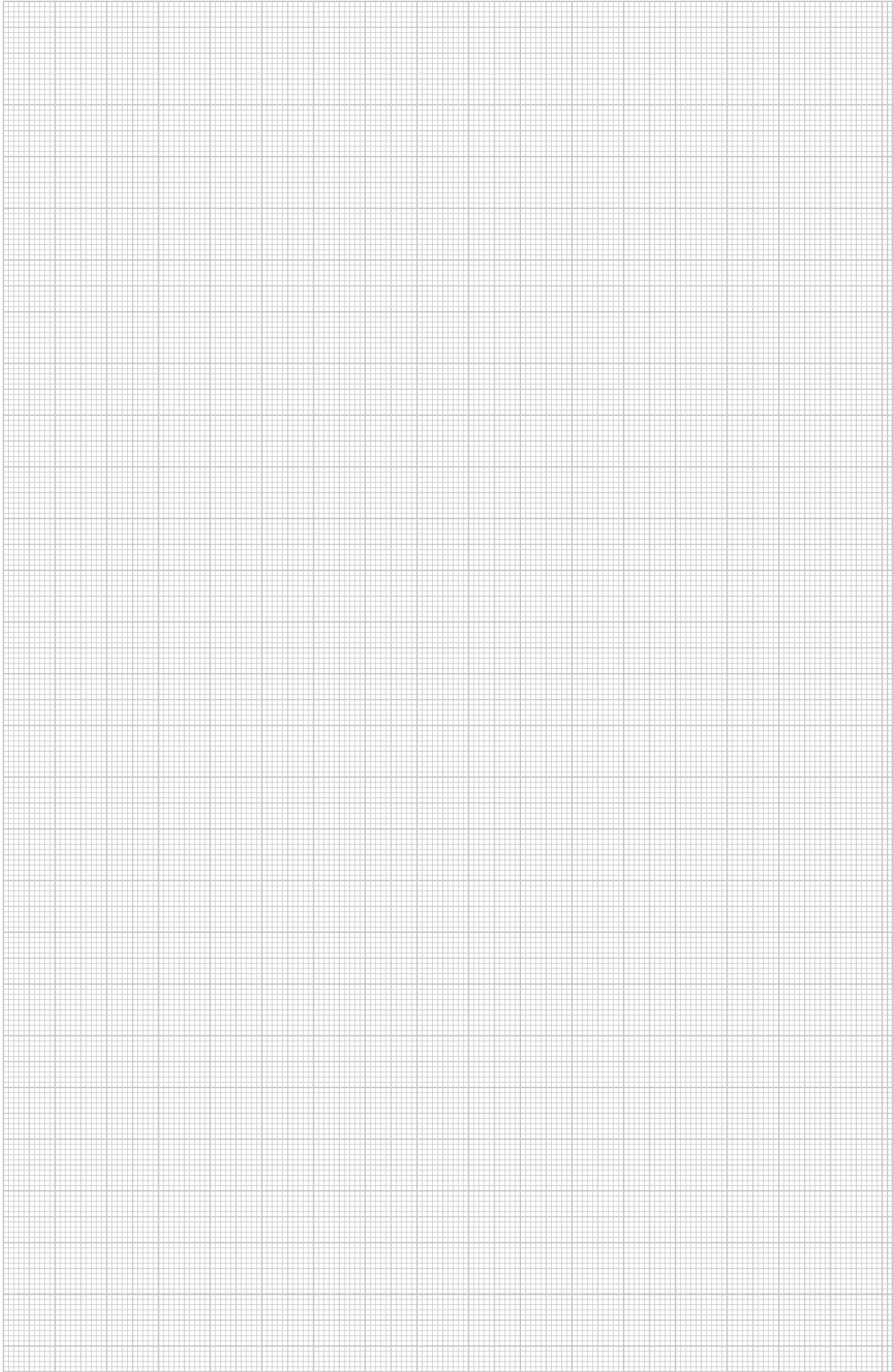
Type listing

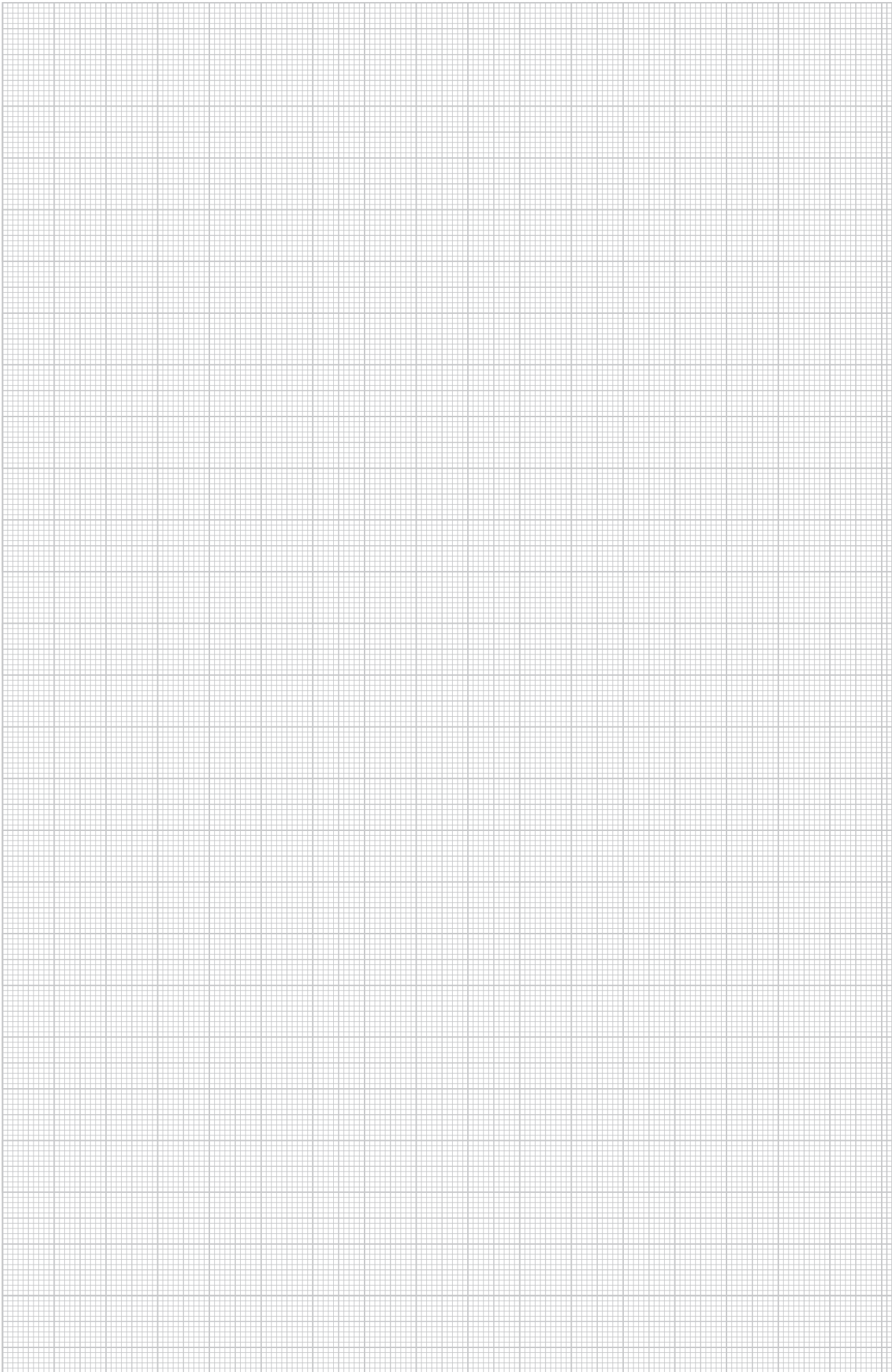
Structure of the GTIN: Country code **40**

Manufacturer code **1219**

Individual GTIN **5647589**

Type	Dimensions/Colour/Div.	GTIN	Art. no.	Price	Page	Type	Dimensions/Colour/Div.	GTIN	Art. no.	Price	Page
V-TEC VM20 4x5M20 x 1,5	Light grey/ PA	5896524	2022 11 2	/1000 pc.	44	V-TEC VM63 LGRM63 x 1,5	Light grey/ PA	5533955	2022 87 6	/1000 pc.	42
V-TEC VM20 4x5M20 x 1,5	Light grey/ PA	5896524	2022 11 2		109	V-TEC VM63 LGRM63 x 1,5	Light grey/ PA	5533955	2022 87 6		107
V-TEC VM20 LGRM20 x 1,5	Light grey/ PA	5533658	2022 86 6		42						
V-TEC VM20 LGRM20 x 1,5	Light grey/ PA	5533658	2022 86 6		107	V-TEC VM63 MS	M63 x 1,5/ CuZn / N	5810131	2086 06 0		46
						V-TEC VM63 MS	M63 x 1,5/ CuZn / N	5810131	2086 06 0		111
V-TEC VM20 MS	M20 x 1,5/ CuZn / N	5809418	2086 03 0		46						
V-TEC VM20 MS	M20 x 1,5/ CuZn / N	5809418	2086 03 0		111	V-TEC VM63 SW	M63 x 1,5Black/ PA	5538516	2022 89 7		42
						V-TEC VM63 SW	M63 x 1,5Black/ PA	5538516	2022 89 7		107
V-TEC VM20 SW	M20 x 1,5Black/ PA	5535690	2022 88 7		42	V-TEC VM63+ LGRM63 x 1,5	Light grey/ PA	5860990	2022 77 6		43
V-TEC VM20 SW	M20 x 1,5Black/ PA	5535690	2022 88 7		107	V-TEC VM63+ LGRM63 x 1,5	Light grey/ PA	5860990	2022 77 6		108
V-TEC VM20+ LGR20 x 1,5	Light grey/ PA	5860945	2022 76 6		43						
V-TEC VM20+ LGR20 x 1,5	Light grey/ PA	5860945	2022 76 6		108						
V-TEC VM20RD	LGR20 x 1,5Light grey/ PA	5871019	2023 01 2		43						
V-TEC VM20RD	LGR20 x 1,5Light grey/ PA	5871019	2023 01 2		108						
V-TEC VM20UV	LGR20 x 1,5Light grey/ PA	5896739	2022 90 2		44						
V-TEC VM20UV	LGR20 x 1,5Light grey/ PA	5896739	2022 90 2		109						
V-TEC VM25 2x6M25 x 1,5	Light grey/ PA	5896616	2022 12 4		44						
V-TEC VM25 2x6M25 x 1,5	Light grey/ PA	5896616	2022 12 4		109						
V-TEC VM25 2x8M25 x 1,5	Light grey/ PA	5896630	2022 12 8		44						
V-TEC VM25 2x8M25 x 1,5	Light grey/ PA	5896630	2022 12 8		109						
V-TEC VM25 3x6M25 x 1,5	Light grey/ PA	5896586	2022 12 2		44						
V-TEC VM25 3x6M25 x 1,5	Light grey/ PA	5896586	2022 12 2		109						
V-TEC VM25 3x7M25 x 1,5	Light grey/ PA	5896623	2022 12 6		44						
V-TEC VM25 3x7M25 x 1,5	Light grey/ PA	5896623	2022 12 6		109						
V-TEC VM25 5x4M25 x 1,5	Light grey/ PA	5896579	2022 12 0		44						
V-TEC VM25 5x4M25 x 1,5	Light grey/ PA	5896579	2022 12 0		109						
V-TEC VM25 LGRM25 x 1,5	Light grey/ PA	5533719	2022 86 8		42						
V-TEC VM25 LGRM25 x 1,5	Light grey/ PA	5533719	2022 86 8		107						
V-TEC VM25 MS	M25 x 1,5/ CuZn / N	5809593	2086 03 6		46						
V-TEC VM25 MS	M25 x 1,5/ CuZn / N	5809593	2086 03 6		111						
V-TEC VM25 SW	M25 x 1,5Black/ PA	5535751	2022 88 9		42						
V-TEC VM25 SW	M25 x 1,5Black/ PA	5535751	2022 88 9		107						
V-TEC VM25+ LGR25 x 1,5	Light grey/ PA	5860952	2022 76 8		43						
V-TEC VM25+ LGR25 x 1,5	Light grey/ PA	5860952	2022 76 8		108						
V-TEC VM25RD	LGR25 x 1,5Light grey/ PA	5871026	2023 01 4		43						
V-TEC VM25RD	LGR25 x 1,5Light grey/ PA	5871026	2023 01 4		108						
V-TEC VM25UV	LGR25 x 1,5Light grey/ PA	5896746	2022 90 3		44						
V-TEC VM25UV	LGR25 x 1,5Light grey/ PA	5896746	2022 90 3		109						
V-TEC VM32 2x8M32 x 1,5	Light grey/ PA	5896647	2022 13 6		44						
V-TEC VM32 2x8M32 x 1,5	Light grey/ PA	5896647	2022 13 6		109						
V-TEC VM32 4x8M32 x 1,5	Light grey/ PA	5896685	2022 13 8		44						
V-TEC VM32 4x8M32 x 1,5	Light grey/ PA	5896685	2022 13 8		109						
V-TEC VM32 LGRM32 x 1,5	Light grey/ PA	5533771	2022 87 0		42						
V-TEC VM32 LGRM32 x 1,5	Light grey/ PA	5533771	2022 87 0		107						
V-TEC VM32 MS	M32 x 1,5/ CuZn / N	5809777	2086 04 2		46						
V-TEC VM32 MS	M32 x 1,5/ CuZn / N	5809777	2086 04 2		111						
V-TEC VM32 SW	M32 x 1,5Black/ PA	5538219	2022 89 1		42						
V-TEC VM32 SW	M32 x 1,5Black/ PA	5538219	2022 89 1		107						
V-TEC VM32+ LGR32 x 1,5	Light grey/ PA	5860969	2022 77 0		43						
V-TEC VM32+ LGR32 x 1,5	Light grey/ PA	5860969	2022 77 0		108						
V-TEC VM32RD	LGR32 x 1,5Light grey/ PA	5871064	2023 01 6		43						
V-TEC VM32RD	LGR32 x 1,5Light grey/ PA	5871064	2023 01 6		108						
V-TEC VM32UV	LGR32 x 1,5Light grey/ PA	5896753	2022 90 4		44						
V-TEC VM32UV	LGR32 x 1,5Light grey/ PA	5896753	2022 90 4		109						
V-TEC VM40 LGRM40 x 1,5	Light grey/ PA	5533832	2022 87 2		42						
V-TEC VM40 LGRM40 x 1,5	Light grey/ PA	5533832	2022 87 2		107						
V-TEC VM40 MS	M40 x 1,5/ CuZn / N	5809890	2086 04 8		46						
V-TEC VM40 MS	M40 x 1,5/ CuZn / N	5809890	2086 04 8		111						
V-TEC VM40 SW	M40 x 1,5Black/ PA	5538332	2022 89 3		42						
V-TEC VM40 SW	M40 x 1,5Black/ PA	5538332	2022 89 3		107						
V-TEC VM40+ LGR40 x 1,5	Light grey/ PA	5860976	2022 77 2		43						
V-TEC VM40+ LGR40 x 1,5	Light grey/ PA	5860976	2022 77 2		108						
V-TEC VM40RD	LGR40 x 1,5Light grey/ PA	5871071	2023 01 8		43						
V-TEC VM40RD	LGR40 x 1,5Light grey/ PA	5871071	2023 01 8		108						
V-TEC VM40UV	LGR40 x 1,5Light grey/ PA	5896760	2022 90 5		44						
V-TEC VM40UV	LGR40 x 1,5Light grey/ PA	5896760	2022 90 5		109						
V-TEC VM50 LGRM50 x 1,5	Light grey/ PA	5533894	2022 87 4		42						
V-TEC VM50 LGRM50 x 1,5	Light grey/ PA	5533894	2022 87 4		107						
V-TEC VM50 MS	M50 x 1,5/ CuZn / N	5810070	2086 05 4		46						
V-TEC VM50 MS	M50 x 1,5/ CuZn / N	5810070	2086 05 4		111						
V-TEC VM50 SW	M50 x 1,5Black/ PA	5538455	2022 89 5		42						
V-TEC VM50 SW	M50 x 1,5Black/ PA	5538455	2022 89 5		107						
V-TEC VM50+ LGR50 x 1,5	Light grey/ PA	5860983	2022 77 4		43						
V-TEC VM50+ LGR50 x 1,5	Light grey/ PA	5860983	2022 77 4		108						
V-TEC VM50RD	LGR50 x 1,5Light grey/ PA	5871088	2023 02 0		43						
V-TEC VM50RD	LGR50 x 1,5Light grey/ PA	5871088	2023 02 0		108						
V-TEC VM50UV	LGR50 x 1,5Light grey/ PA	5896777	2022 90 6		44						
V-TEC VM50UV	LGR50 x 1,5Light grey/ PA	5896777	2022 90 6		109						





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.

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www.obo-bettermann.com



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