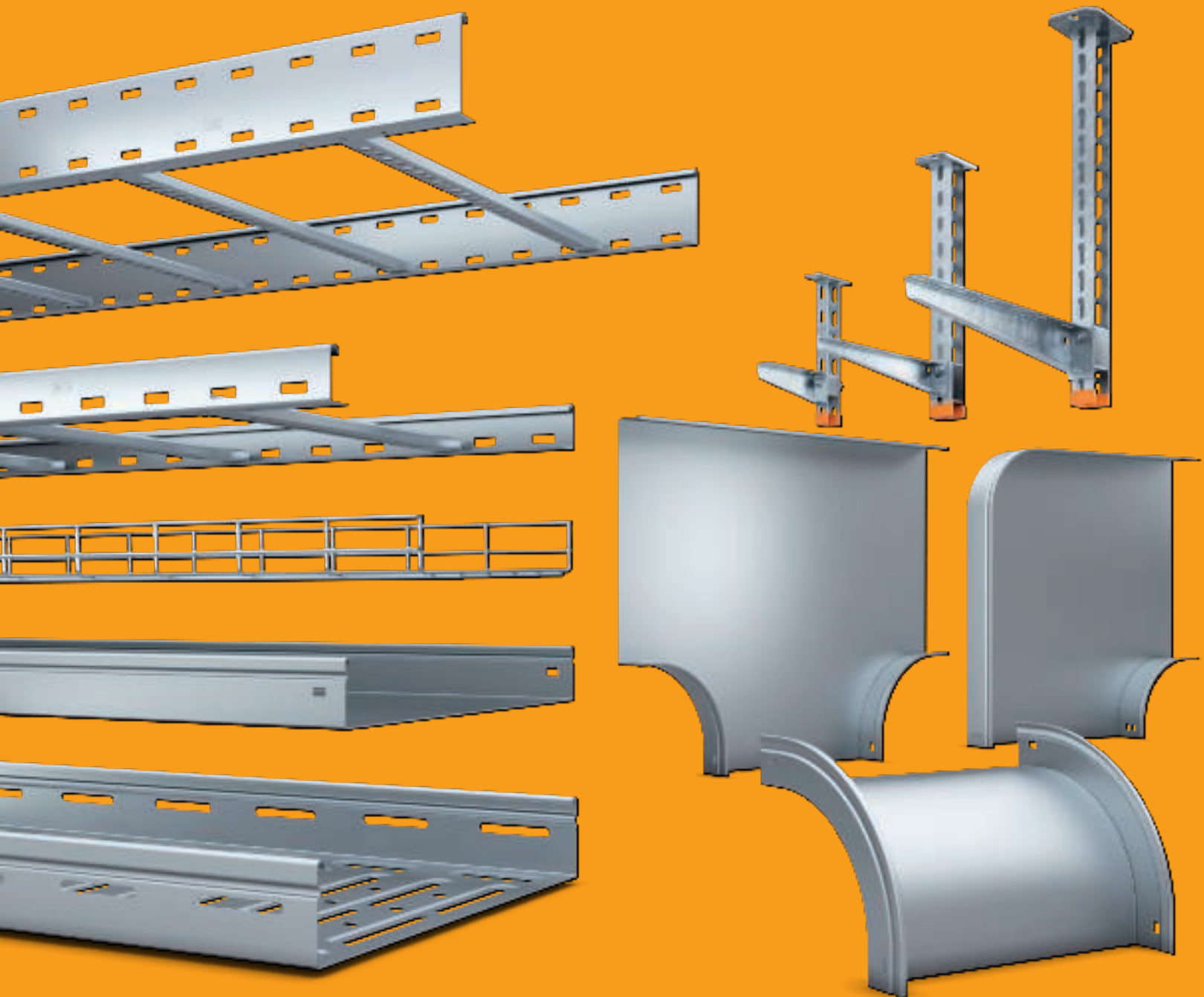









Cable support systems



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OBO KTS seminars: First-hand knowledge

With a comprehensive range of training courses and seminars on cable support systems, OBO is able to provide users with first-hand support. Alongside the basic theoretical principles, the programme also deals with practical implementation in everyday applications. Special calculation and application examples round off the comprehensive programme of knowledge transfer.

Invitations to tender, product information and datasheets

We can make life easier for you, with our comprehensive selection of materials designed for practical applications, which provide you with effective support with the planning and calculation of a project. These include:

- Invitations to tender
- Product information
- Information sheets
- Datasheets

These documents are continually updated and can be downloaded at no charge at any time from the Internet download area at www.oboindia.com.



Standards, regulations and tests



Standardised work offers protection

OBO offers cable support systems made by professionals for professionals: The technical properties are guaranteed by IEC 61537. It describes all the relevant parameters – from the area of application, through test conditions, up to corrosion resistance and temperature classification. As a competent manufacturer of cable support systems, OBO subjects itself to these requirements on a daily basis. The tests described below guarantee the use of systems which fulfil the requirements of the systems.

Suitable protective clothing is required for safe handling during transport and processing.

CE-conformant

All products in this catalogue are CE-compliant in accordance with the appropriate EC directives. This also applies to standard parts such as bolts, washers and nuts that are components of various product systems. The appropriate EC declaration of conformity certifies agreement with the named directives or standards, but does not guarantee properties. The safety instructions in the supplied product information and the general safety regulations must be complied with during installation and use.

Inclusion of the protective measures



Load tests for cable support systems

All the OBO articles and systems are subjected to practical load testing. The basic principles for the tests of OBO cable support systems are included in IEC 61537. After the load test, the maximum load capacity can be determined for each component, depending on the support distances and specific article parameters, such as component dimensions. This is all shown in a chart, included with each component.

You can find additional information on the load tests for cable trays, brackets and suspended supports in this catalogue. The values given do not take resistance against environmental forces such as snow, wind and other outside influences into account.

Definition of electromagnetic compatibility (EMC)



In recent years, the use of electronic circuits has increased continually. Whether in industrial systems, medicine, households, in telecommunications systems or electrical building installations – everywhere, we see powerful electric equipment and systems, which switch ever greater currents, achieve greater radio ranges and transport ever more energy in smaller spaces.

However, the use of state-of-the-art technology means that the com-

plexity of applications also increases. The consequence of this is that ever more opposing influences (electromagnetic interference) can occur from system parts and cables, causing damage and economic losses.

Here, we talk of electromagnetic compatibility.

Electromagnetic compatibility (EMC) is the ability of an electrical unit to function satisfactorily in its electromagnetic environment, without inappropriately influencing this environment, to which other units also belong (VDE 0870-1). In

terms of standardisation, electromagnetic compatibility is dealt with by the EMC directive 2004/108/EC. This means that electrical resources emit electromagnetic interferences (emission), which are picked up by other devices or units (immision) which act as receivers (interference sink). This means that the function of an interference sink can be severely reduced, meaning, in the worst case, total failure and economic losses. The interferences can spread along cables or in the form of electromagnetic waves.

Path of faults

Fault source (transmitting emissions)	Coupling of interference variables (spreading of interference)	Fault sink (receiving emissions)
For example - Mobile telephones - Switching components - Ignition systems - Frequency converters - Lighting strike - Welding devices	- Galvanic - Inductive - Capacitive - Electromagnetic	- Process computer - Radio receiver systems - Controllers - Converters - Measuring units

Guarantee of EMC



Guarantee of EMC

A systematic planning process is necessary to guarantee EMC. The interference sources must be identified and quantified. The coupling describes the spread of the interference from the interference source up to the influenced device, the interference sink. The task of EMC planning is to ensure the compatibility at the source, coupling path and sink using suitable measures. During their daily work, planners and installation engineers are confronted with this subject on an increasingly regular basis. This means that EMC is a basic factor to be taken into consideration during the planning of installations and cabling systems. Due to the high complexity of electromagnetic compatibility, the problems of EMC must be analysed and solved using simplifying hypotheses and models as well as experiments and measurements.

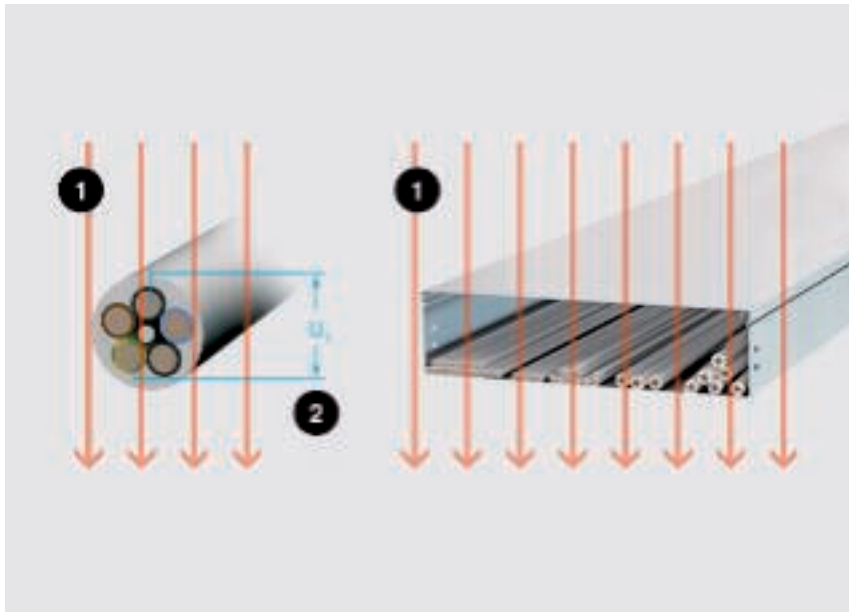
Cable support systems and their contribution to EMC

Cable support systems can make an important contribution to the improvement of EMC. They are passive and can thus make a safe, long-lasting contribution to EMC through the fact that cables are run within cable support systems or are shielded by them. Routing cables inside cable support systems greatly reduces the galvanic decoupling and coupling due to electrical and magnetic fields in the cables. Thus cable support systems can make a contribution to the reduction of coupling from the source to the sink. The shielding action of cable support systems can be quantified by the coupling resistance and the shield attenuation. This gives the planner important engineering parameters for cable support systems for the EMC engineering.

Lightning discharge

From the analysis of the effectiveness of EMC in buildings (EN 62305-4), we know that lightning discharge is one of the greatest sources of interference to be expected. This causes a direct current feed into the entire equipotential bonding system in the building and/or to magnetic decoupling of interference currents in electrical cables. With regard to these couplings, cable support systems can offer an effective contribution to the reduction of interference voltages.

Magnetic shield insulation of cable support systems



The magnetic field (H) of strength 3 kA/m in a defined experimental setup: without cable support system on the left, with cable support system on the right. 1 = Field H , 2 = $V_{1\text{LzuPE}}$

The magnetic shield insulation of cable support systems is the ratio in decibels (dB) of an induced voltage into an unprotected cable to the induced voltage into the same cable, when this is in a cable support system.

Experimental structure to determine the magnetic shield insulation of cable support systems:

An unshielded cable (NYM-J 5 x 6 mm²) is subjected to an 8/20 magnetic field with a strength of 3 kA/m. Here, the induced voltage V_1 is measured in the unshielded cable. The same cable is then positioned in the centre of a cable support system (once with a cover, once without) and subjected to the same magnetic field of 3 kA/m. Here, the induced voltage V_2 is measured in the unshielded cable. The magnetic shield insulation is calculated from the measured values according to the formula:

$$\alpha_s = 20 \log (V_1/V_2) \text{ dB}$$



Experiment result:

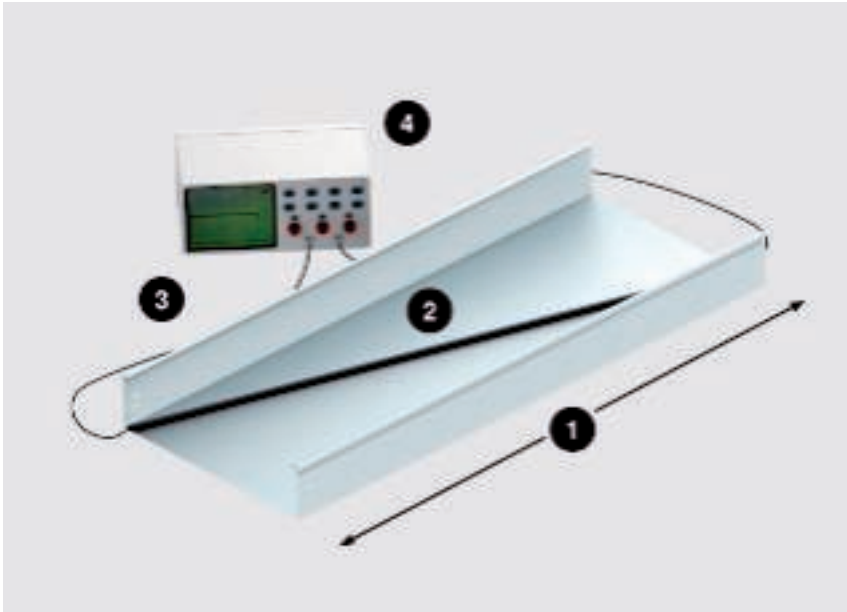
The magnetic shield effect α_s of a cable support system could be clearly proved by the experiments and the simulation with an FEM program.

The best result of around 50 dB was achieved with cable support systems (cable trays) with covers.

Note:

The shield insulation against electrical fields is almost perfect, like a Faraday cage.

Transfer impedance of cable support systems



Experimental structure for transfer impedance: 1 = Length l , 2 = U , 3 = I , 4 = Pulse source 8/20



$$Z_T' = \frac{U_{\text{Stör}}}{I_{\text{Stör}} \cdot L}$$

$V_{\text{Interference}}$: Interference voltage measured in cable

$I_{\text{Interference}}$: Interference current, fed into the shield from outside (KTS)

L : Length of the cable support system

Transfer impedance (coupling resistance) of cable support systems

The transfer impedance of a cable support system is the ratio of the measured voltage $V_{\text{Interference}}$ measured in the lengthwise direction within the cable support system, to the coupled current $I_{\text{Interference}}$. The transfer impedance is determined in the same way as with the measurement of the electrical conductivity properties in Chapter 11.1. (DIN EN 61537).

If there is a lightning strike in a building, partial currents will flow through the entire equipotential bonding system.

Installed cables are best run within a cable support system. Installed

cable support systems are always included in the equipotential bonding system. In so doing, the partial current flows via the cable support system. A very small component can therefore still flow along the cables laid within the cable support system. This component is determined by the transfer impedance of the cable support system.

The following applies for the transfer impedance: $Z_T = V_{\text{Interference}} / (I_{\text{Interference}} \times L)$ [mΩ/m]

The values given are based on measurements, in which a pulse current of the wave shape 8/20 was passed through a defined length of a cable support system.

Experiment result:

The effect of the cable support system against galvanic coupling was clearly proved by the experiments.

The best result was achieved with cable support systems (cable trays) with covers.

Contact corrosion



Contact corrosion between two different metals poses a considerable risk to the load capacity and lifespan of the components used.

Height of the potential difference

The level of contact corrosion is primarily determined by the level of the potential difference between the contact partners. Contact corrosion occurs at potential differences of 100 mV or greater and the anodic (electrically negative) partner is at risk of corrosion. Therefore, strongly non-precious metals should never be brought into contact with precious metals.

Additional contact corrosion criteria:

- Level of electrical resistance between the contact partners. The higher the resistance, the lower the contact corrosion. Positive on Al and Ti.
- Occurrence of an electrolyte. An electrolyte, such as perspiration or condensate attacks the protective layers, increasing conductivity. Dirt increases this effect through released ions.
- Length of the impact of the electrolyte. The longer the electrolyte is at work, the greater the corrosion will be.
- The surface ratios of the contact partners influence the current density. The best thing to have is a small surface ratio of the "precious" to the "less precious" contact partner.

Potential difference

Normal potential		Practical voltage series, water pH 6		Practical voltage series, artificial sea water pH 7.5	
Metal	mV	Metal	mV	Metal	mV
Copper	+340	Titanium	136	Nickel	1
Lead	-126	Brass MS 63	100	Brass MS 63	32
Tin	-140	Copper	94	Copper	-35
Nickel	-230	Nickel	73	RF steel 1.4301	-90
Iron	-440	RF steel	-129	Titanium	-156
Zinc	-763	Aluminium	-214	Lead	-304
Titanium	-1630	Hard chromium	-294	Hard chromium	-336
Aluminium	-1660	Tin 98	-320	Steel	-380
Magnesium	-2370	Lead 99.9	-328	Aluminium	-712
Steel	-395				
Zinc	-852				

Contact corrosion



Land climate

Material component (large)		Material construction element (small)						
OBO designation	Basic material Coating	FT	VA	AL	CU	MS	Za- mak	
Steel, galvanised (FT, FS, DD, G)	DD11/Zn, S234(St37)/Zn, ST4-2/Zn, St500-2/Zn, StW22/Zn, DX51D/Zn	0	0	0	2	1	0	
Stainless steel V2A, V4A, V5A	1.4301, 1.4310, 1.4401, 1.4404, 1.4571, 1.4529	0	0	1	1	1	0	
Aluminium Al	AlMg3, AlMgSi0.5	0	0	0	2	1	0	
Copper Cu	E-Cu S7, F24, Se-Cu(2.0070), SF-Cu F24, St50-2	1	1	1	0	1	2	
Brass Ms1	CuZn39Pb3, CuZn40Pb2	0	1	1	1	0	2	
Brass MS2	CuZn37	0	2	1	1	0	2	
Die-cast zinc Zamak ZnAlCu1	Z410(GD-ZnAl4Cu1)	1	1	0	3	1	0	

Legend

0 No risk for contact corrosion

1 Low risk

2 Risk in case of small area ration (area of non-precious metal / area of precious metal)

3 High risk

Contact corrosion



Industrial atmosphere

Material component (large)		Material construction element (small)						
OBO designation	Basic material Coating	FT	VA	AL	CU	MS	Za- mak	
Steel, galvanised (FT, FS, DD, G)	DD11/Zn, S234(St37)/Zn, ST4-2/Zn, St500-2/Zn, StW22/Zn, DX51D/Zn	0	0	1	3	2	0	
Stainless steel V2A, V4A, V5A	1.4301, 1.4310, 1.4401, 1.4404, 1.4571, 1.4529	0	0	1	1	1	0	
Aluminium Al	AlMg3, AlMgSi0.5	1	1	0	2	2	0	
Copper Cu	E-Cu S7, F24, Se-Cu(2.0070), SF-Cu F24, St50-2	2	2	3	0	1	2	
Brass Ms1	CuZn39Pb3, CuZn40Pb2	1	1	2	1	0	1	
Brass MS2	CuZn37	1	1	3	1	0	1	
Die-cast zinc Zamak ZnAlCu1	Z410(GD-ZnAl4Cu1)	0	0	0	3	2	0	

Legend

0 No risk for contact corrosion

1 Low risk

2 Risk in case of small area ration (area of non-precious metal / area of precious metal)

3 High risk

Contact corrosion



Sea climate

Material component (large)		Material construction element (small)						
OBO designation	Basic material Coating	FT	VA	AL	CU	MS	Za- mak	
Steel, galvanised (FT, FS, DD, G)	DD11/Zn, S234(St37)/Zn, ST4-2/Zn, St500-2/Zn, StW22/Zn, DX51D/Zn	0	1	3	3	2	1	
Stainless steel V2A, V4A, V5A	1.4301, 1.4310, 1.4401, 1.4404, 1.4571, 1.4529	1	0	3	1	1	0	
Aluminium Al	AlMg3, AlMgSi0.5	3	1	0	2	2	0	
Copper Cu	E-Cu S7, F24, Se-Cu(2.0070), SF-Cu F24, St50-2	2	2	3	0	1	2	
Brass Ms1	CuZn39Pb3, CuZn40Pb2	1	1	3	1	0	1	
Brass MS2	CuZn37	1	1	3	1	0	1	
Die-cast zinc Zamak ZnAlCu1	Z410(GD-ZnAl4Cu1)	0	0	0	3	2	2	

Legend

0 No risk for contact corrosion

1 Low risk

2 Risk in case of small area ration (area of non-precious metal / area of precious metal)

3 High risk

Surface testing and corrosion categories



Salt spray test

All the system components must show sufficient resistance against corrosion in agreement with the KTS standard, DIN EN 61537. The minimum zinc layer thicknesses are determined through a measurement. The grouping into the appropriate class is located in the lower table on the next page. The top table on the next page presents the area of use and the zinc reduction to be expected according to DIN EN ISO 12944.

Surface testing and corrosion categories

Classification of corrosion resistance according to EN 61537

Class	Reference material and surface treatment
0*	None
1	Electroplated to a minimum thickness of 5 µm
2	Electroplated to a minimum thickness of 12 µm
3	Pre-galvanised to grade 275 to EN 10327 and EN 10326
4	Pre-galvanised to grade 350 to EN 10327 and EN 10326
5	Post-galvanised to a zinc mean coating thickness of (minimum) 45 µm according to ISO 1461
6	Post-galvanised to a zinc mean coating thickness (minimum) of 55 µm according to ISO 1461
7	Post-galvanised to a zinc mean coating thickness (minimum) of 70 µm according to ISO 1461
8	Post-galvanised to a zinc mean coating thickness (minimum) of 85 µm according to ISO 1461 (usually high silicon steel)
9A	Stainless steel manufactured to ASTM: A 240/A 240M – 95a designation S30400 or EN 10088 grade 1-4301 without a post-treatment *
9B	Stainless steel manufactured to ASTM: A 240/A 240M – 95a designation S31603 or EN 10088 grade 1-4404 without a post-treatment *
9C	Stainless steel manufactured to ASTM: A 240/A 240M – 95a designation S30400 or EN 10088 grade 1-4301 with a post-treatment **
9D	Stainless steel manufactured to ASTM: A 240/A 240M – 95a designation S31603 or EN 10088 grade 1-4404 with a post-treatment **

* For materials which do not have a declared corrosion resistance classification

** The end treatment process is used to improve the protection against crack corrosion and the contamination of other steels

Corrosion categories to DIN EN ISO 12944

Corrosion category	Typical environment, inside	Typical environment, outside	Corrosion load	Average zinc loss
C 1	Heated buildings with neutral atmospheres, e.g. offices, shops, schools, hotels	-	Insignificant	<0.1 µm/a
C 2	Unheated buildings in which condensation can occur, e.g. warehouse, sports' halls	Atmosphere with low level of impurities. Often rural areas	Low	0.1 to 0.7 µm/a
C 3	Production facilities with a high level of humidity and some air impurities, e.g. plants for food production, laundries, breweries, dairies	City and industrial atmosphere, considerable impurities through sulphur dioxide, coastal areas with low salt load	Medium	0.7 to 2.1 µm/a
C 4	Chemical plants, swimming pools, boat sheds over seawater	Industrial areas and coastal areas with low salt load	Strong	2.1 to 4.2 µm/a
C 5-I	Buildings or areas with almost constant condensation and with high levels of impurities	Industrial areas with high levels of humidity and aggressive atmosphere	Very strong (industry)	4.2 to 8.4 µm/a
C 5-M	Buildings or areas with almost continuous condensation and with high levels of impurities	Coastal or offshore areas with salt load.	Very strong (sea)	> 4.2 to 8.4 µm/a

Surfaces for indoor use



Whether indoors or outdoors, in aggressive atmospheres or under special hygienic conditions: OBO can offer the perfect surface and materials for your cable support system, no matter what the requirements may be. OBO cable support systems are machined from high-quality sheet steel or steel wire and are available with various surfaces. Different hardening and coating methods ensure tailor-made corrosion protection, specially tailored to the appropriate application. In addition, OBO cable support systems are available in stainless steel and with coloured coatings.

Indoor use

For applications in indoor areas, OBO can offer cable support systems with galvanisation or strip galvanisation. They are particularly suited to dry atmospheres without any impact from aggressive pollutants.

Electro-galvanisation

- Electrolytic galvanisation in accordance with IEC 12329
 - Average coating thickness approx. 2.5–10 μm
 - According to RoHS guideline
- Components: Mesh cable trays and small parts such as bolts, washers and nuts

Strip galvanisation

- Hot-dip galvanised according to the strip-galvanising method in accordance with IEC 10346 (formerly IEC 10327)
 - Average coating thickness approx. 20 μm
 - Joints in the metal are protected by cathodic corrosion protection up to a thickness of 2.0 mm
- Components: Metal products such as cable trays, fittings and barrier strips.

Surfaces for outdoor use



Outdoor use

OBO can offer versions with hot-dip galvanisation and double-dip galvanisation for outdoor and wet-room use.

Hot-dip galvanisation

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

Components: Sheet steel products such as cable trays and welded components such as supports and brackets

Double-dip galvanisation

- Hot dipping with zinc-aluminium coating in accordance with DIN EN 10346
- Average coating thickness approx. 23 μm
- Joints in the metal are protected by cathodic corrosion protection up to a thickness of 2.0 mm

Components: Metal products such as covers, barrier strips and punched parts

Surfaces for use in tunnels, food or chemical industries



Applications: Tunnel construction, food or chemical industries

There are also OBO stainless steel systems for special hygiene and quality requirements for special visual criteria for open wiring.

Stainless steel

- OBO Code: V2A
- European material number: 1.4301
- American material designation: 304
- Welded components are additionally passivated
- Unwelded components are rinsed and degreased

Components: V2A selection programme with the title "V2A stainless steel systems"

Stainless steel

- OBO Code: V4A
- European material number: 1.4571
- American material designation: 316 / 316 T
- Welded components are additionally passivated
- Unwelded components are rinsed and degreased

Components: V4A selection programme with the title "V4A stainless steel systems"

Surfaces for special visual requirements or special environmental loads



Applications with specific optical requirements or special environmental conditions

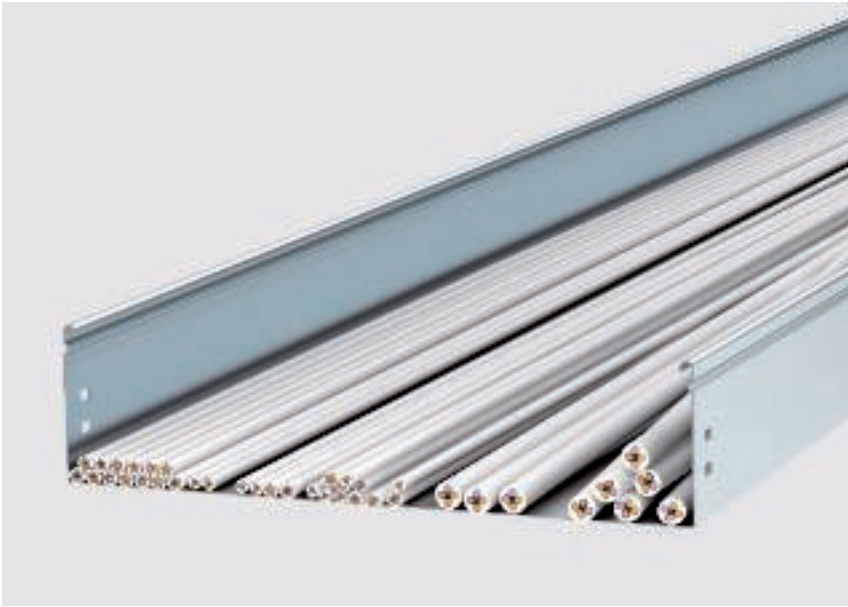
Colour-coated cable support systems are becoming ever more popular. The coating may be required for optical reasons or for reasons of corrosion protection:

Colour coatings for reasons of corrosion protection

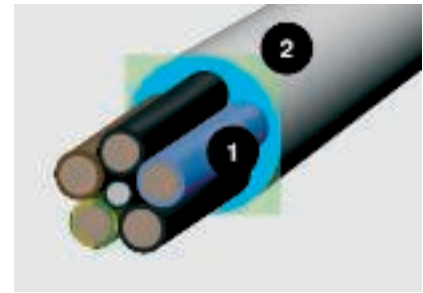
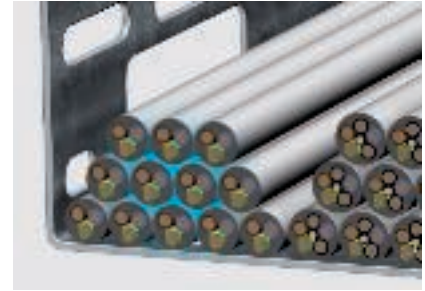
- Cable support system in FT (hot-dip galvanised version)
- All RAL colours available
- Coating of the visible surfaces and/or the complete system
- Suitable for the colour of the structure when routed openly
- Separation of different voltages/-functions (e.g. blue 230/400 V power supply; red weak current such as telephone line and IT)



How can I work out the volume of cables?



The usable cross-section of the cable simulates the cavity in real laying.



Cable diameter (1) and space required (2)

An important criteria for the selection of the correct cable support system is the cable volume, for which there must be sufficient space in the cable tray. As the cables are never packed tightly together or are absolutely parallel, it is not enough to base the volume calculation solely on the cable diameter. A realistic calculation is provided by the formula $(2r)^2$. To save you work, we have listed the diameter and usable cross-section of the most important cable types below.

Important: These values are average values, which may vary from manufacturer to manufacturer. Please refer to the manufacturer's specifications for the exact values.

Calculation with the formula $(2r)^2$

The diameter says little about the actual space required by a cable. Calculate: $(2r)^2$. This value reflects the realistic space requirements, including the compartments.



How can I work out the volume of cables?

Cable size in Sq mm		1 core copper conductor, unarmoured		2 core copper conductor, unarmoured		3 core copper conductor, unarmoured		3 core copper conductor, armoured		3.5 core copper conductor, unarmoured I		3.5 core copper conductor, armoured		3.5 core Aluminum conductor, unarmoured		3.5 core Aluminum conductor, armoured	
Diameter mm	Usable cross section cm ²	Diameter mm	Usable cross section cm ²	Diameter mm	Usable cross section cm ²	Diameter mm	Usable cross section cm ²	Diameter mm	Usable cross section cm ²	Diameter mm	Usable cross section cm ²	Diameter mm	Usable cross section cm ²	Diameter mm	Usable cross section cm ²	Diameter mm	Usable cross section cm ²
1.5			10.4	1.1	11.0	1.2	14.0	2.0									
2.5			11.9	1.4	12.0	1.4	15.0	2.3									
4.0	8.0	0.6	13.4	1.8	13.5	1.8	16.5	2.7									
6.0	9.0	0.8	14.4	2.1	14.4	2.1	17.5	3.1									
10.0	10.0	1.0	15.9	2.5	15.6	2.4	19.5	3.8									
16.0	11.0	1.2	17.8	3.2	16.8	2.8	21.0	4.4									
25.0	12.0	1.4	18.7	3.5	20.2	4.1	24.0	5.8	22.7	5.2	26.5	7.0	22.7	5.2	26.5		
35.0	13.0	1.7	20.2	4.1	21.7	4.7	25.0	6.3	24.0	5.8	27.5	7.6	24.0	5.8	27.5		
50.0	15.0	2.3	22.7	5.2	24.8	6.2	29.0	8.4	27.0	7.3	31.0	9.6	27.0	7.3	31.0		
70.0	17.0	2.9	25.3	6.4	28.5	8.1	33.0	10.9	31.0	9.6	36.0	13.0	31.0	9.6	36.0		
95.0			29.0	8.4	31.6	10.0	37.5	14.1	35.0	12.3	40.0	16.0	35.0	12.3	40.0		
96.0	19.0	3.6															
120.0	21.0	4.4	31.0	9.6	34.7	12.0	40.5	16.4	40.0	16.0	43.0	18.5	40.0	16.0	43.0		
150.0	23.0	5.3	34.5	11.9	38.9	15.1	44.0	19.4	42.3	17.9	45.0	20.3	42.3	17.9	48.0		
185.0	25.0	6.3	37.5	14.1	44.5	19.8	49.0	24.0	46.8	21.9	50.0	25.0	46.8	21.9	53.5		
240.0	28.0	7.8	42.5	18.1	49.0	24.0	55.5	30.8	54.5	29.7	57.0	32.5	54.5	29.7	60.0		
300.0	30.0	9.0	46.5	21.6	53.5	28.6	60.0	36.0	59.0	34.8	61.5	37.8	59.0	34.8	66.0		
400.0	35.0	12.3	52.5	27.6	62.0	38.4	69.5	48.3	67.0	44.9	70.0	49.0	67.0	44.9	75.0		
500.0	39.0	15.2															
630.0	44.0	19.4															

Coaxial cable

type	Diameter mm	Usable cross section cm ²
RG 6 F	7.2	0.5184
RG 11 F	10.2	1.0404

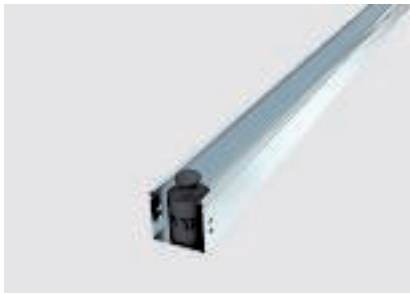
IT cable type

Type	Diameter mm	Usable cross section cm ²
Cat. 5	8	0.64
Cat. 6	8	0.64

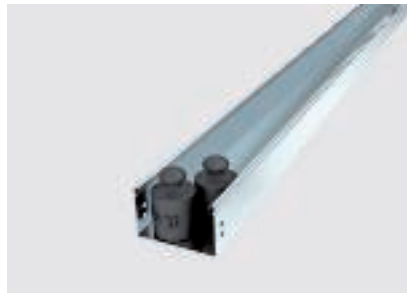
How can I work out the volume of cables?

	4 core copper conductor, unarmoured		4 core copper conductor , armoured		4 core Aluminum, unarmoured		4 core Aluminum conductor, armoured		3 core , HT cable 11 KV Aluminum conductor armoured		3 core , HT cable 33 KV Aluminum armoured		2 core copper conductor, armoured for Fire and smoke detector	
Usable cross section cm ²	Diameter mm	Usable cross section cm ²	Diameter mm	Usable cross section cm ²	Diameter mm	Usable cross section cm ²	Diameter mm	Usable cross section cm ²	Diameter mm	Usable cross section cm ²	Diameter mm	Usable cross section cm ²	Diameter mm	Usable cross section cm ²
	11.7	1.4	14.5	2.1	11.7	1.4	14.5	2.1					13.5	1.8
	13.2	1.7	16.0	2.6	13.2	1.7	16.0	2.6					15.0	2.3
	15.0	2.3	17.5	3.1	15.0	2.3	17.5	3.1					16.5	2.7
	16.0	2.6	19.0	3.6	16.0	2.6	19.0	3.6					17.5	3.1
	19.0	3.6	23.0	5.3	19.0	3.6	23.0	5.3					19.0	3.6
	21.5	4.6	25.0	6.3	21.5	4.6	25.0	6.3					22.5	5.1
7.0	23.0	5.3	27.0	7.3	23.0	5.3	27.0	7.3	52.0	27.0	69.0	47.6	23.0	5.3
7.6	25.0	6.3	30.0	9.0	25.0	6.3	30.0	9.0	54.0	29.2	72.0	51.8	24.0	5.8
9.6	29.5	8.7	34.5	11.9	29.5	8.7	34.5	11.9	58.0	33.6	75.0	56.3	27.0	7.3
13.0	34.0	11.6	38.0	14.4	34.0	11.6	38.0	14.4	61.0	37.2	78.0	60.8	29.5	8.7
16.0	37.5	14.1	42.5	18.1	37.5	14.1	42.5	18.1	66.0	43.6	82.0	67.2	34.0	11.6
18.5	41.5	17.2	47.0	22.1	41.5	17.2	47.0	22.1	70.0	49.0	87.0	75.7	36.5	13.3
23.0	45.5	20.7	51.5	26.5	45.5	20.7	51.5	26.5	73.0	53.3	90.0	81.0	39.5	15.6
28.6	50.0	25.0	57.0	32.5	50.0	25.0	57.0	32.5	77.0	59.3	93.0	86.5	43.0	18.5
36.0	57.0	32.5	64.0	41.0	57.0	32.5	64.0	41.0	82.0	67.2	98.0	96.0	49.0	24.0
43.6	63.2	39.9	71.0	50.4	63.2	39.9	71.0	50.4	89.0	79.2	103.0	106.1	53.5	28.6
56.3	70.0	49.0	78.0	60.8	70.0	49.0	78.0	60.8	95.0	90.3	109.0	118.8	60.5	36.6

How do I calculate the cable weight?



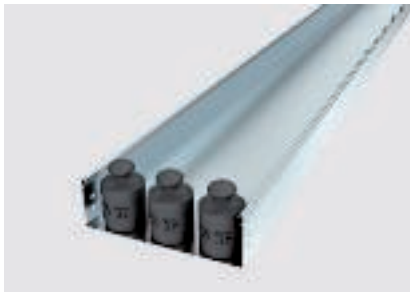
100 mm = 15 kg/m



150 mm = 22,5 kg/m



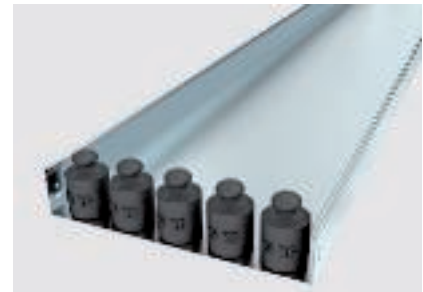
200 mm = 30 kg/m



300 mm = 45 kg/m



400 mm = 60 kg/m



500 mm = 75 kg/m

Of equal significance for the selection of the cable support system most suited to the application is the load capacity of the system. This must be matched with the expected cable weight (including the reserve for later installation). There are three variants for determining the cable weight:

Variant 1: Orientation to experience values

The average load capacity of a cable tray can be calculated roughly using experience values. For a system with a strut height of 60 mm, a value of 15 kg per 100 mm width is valid for each metre of cable tray or cable ladder. However, more accurate than orientation to experience values is to calculate the cable load using the formula from DIN VDE 0639 Part 1 (Variant 2) or the manufacturer's specifications (Variant 3). The graphics show the load capacities, based on experience values, of cable trays with a rail height of 60 mm, relative to cable tray widths of 100 to 600 mm.

Variant 2: Calculation formula according to VDE 0639 T1

To calculate a maximum approved cable load, DIN VDE 0639 Part 1 (cable support systems) can offer a formula.

In the example calculation, the maximum approved cable load for a cable tray is worked out using the dimension 60 mm x 300 mm and a usable cross-section of 178 cm².

Variant 3: Exact calculation according to manufacturer's specifications

Most cable manufacturers offer a very accurate method of calculating cable weights, and appropriate lists or tables can be obtained from them. Important: The tables only provide a rough overview. They are average values, which may vary from manufacturer to manufacturer. Please refer to the manufacturer's specifications for the exact values.

	0.028 N	
Cable load (F) =	_____	x Usable cross-section
	m x mm ²	

	0.028 N	
1. Cable load (F) =	_____	x 17,800 mm² = 500 N/m
	m x mm ²	

2. Conversion from Newtons (N) to kilogrammes (kg) 10 N ~ 1 kg – in our example, this means: 500 N/m = 50 kg/m
--

3. Maximum occurring load = 50 kg/m
--



How do I calculate the cable weight?

	1 core copper conductor, unarmoured	2 core copper conductor, unarmoured	3 core copper conductor, unarmoured	3 core copper conductor, armoured	3.5 core copper conductor, unarmoured	3.5 core copper conductor, armoured	3.5 core Aluminum conductor, unarmoured
Cable size in Sq mm	cable load kg/m	cable load kg/m	cable load kg/m	cable load kg/m	cable load kg/m	cable load kg/m	cable load kg/m
1.5		0.19	0.21	0.44			
2.5		0.25	0.28	0.54			
4	0.12	0.32	0.37	0.66			
6	0.14	3.97	0.47	0.78			
10	0.19	0.52	0.62	1.01			
16	0.25	0.52	0.72	1.15			
25	0.36	0.77	1.06	1.55	1.26	1.83	0.70
35	0.46	0.97	1.36	1.91	1.56	2.15	0.83
50	0.60	1.25	1.78	2.43	2.07	2.76	1.06
70	0.80	1.67	2.45	3.35	2.85	3.88	1.40
95		2.27	3.27	4.36	3.80	4.98	1.80
96	1.08						
120	1.33	2.76	4.00	5.22	4.79	6.01	2.20
150	1.62	3.36	4.93	6.26	5.67	7.12	2.58
185	2.05	4.14	6.11	7.94	7.08	9.11	3.15
240	2.56	5.35	7.92	10.06	9.19	11.46	4.06
300	3.16	6.65	9.81	12.13	11.40	14.60	4.97
400	4.02	8.46	12.50	15.95	14.40	18.08	6.21
500	5.00						
630	6.57						

Coaxial cable

type	cable load kg/m
RG 6 F	0.045
RG 11 F	0.099

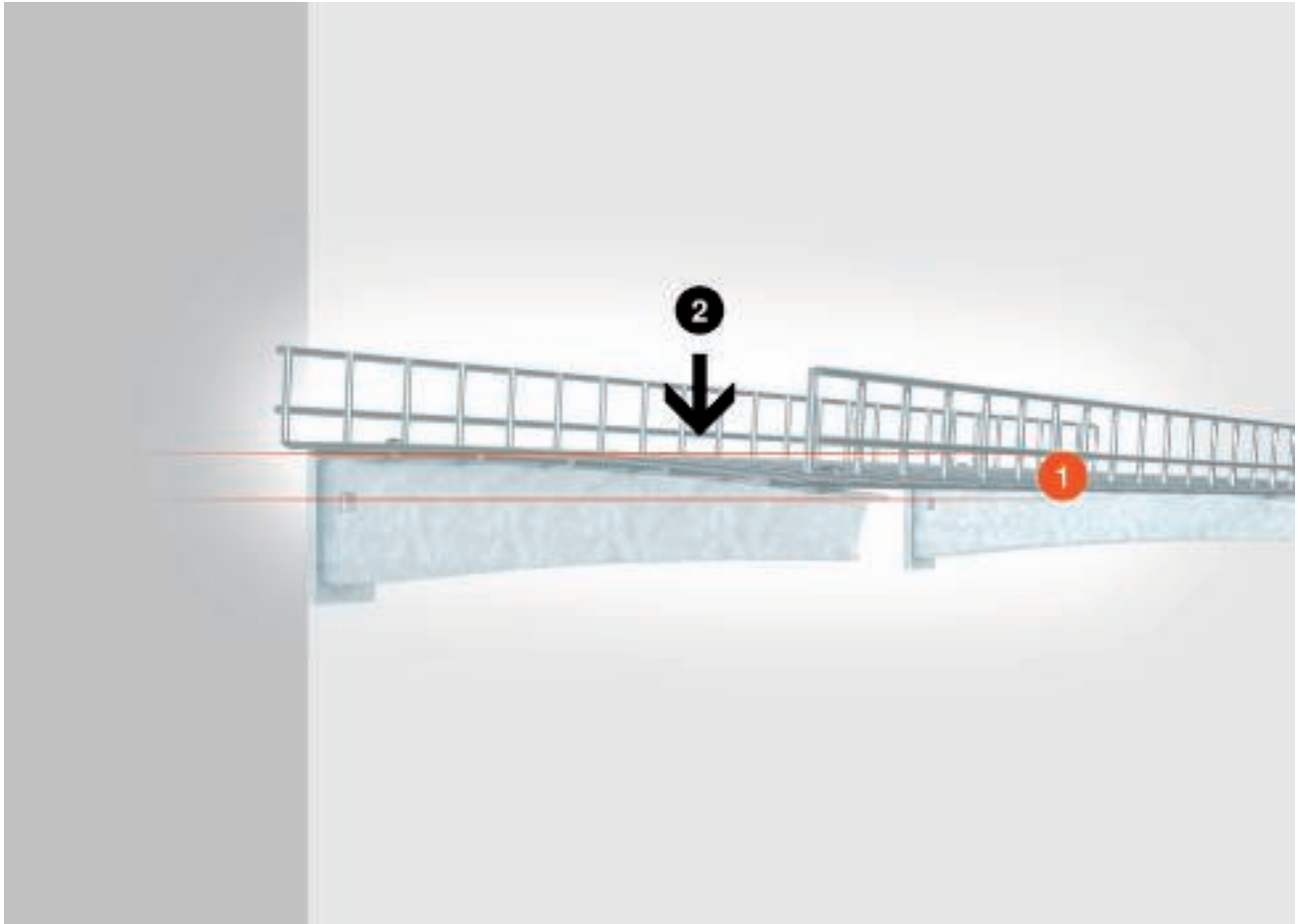
IT cable type

Type	cable load kg/m
Cat. 5	0.06
Cat. 6	0.06

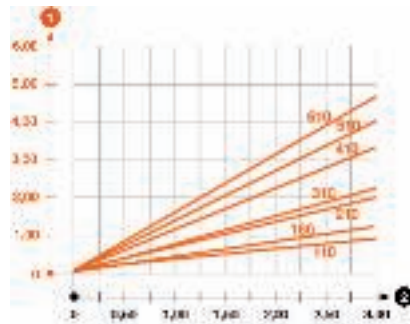
How do I calculate the cable weight?

		3.5 core Aluminum conductor, unarmoured	3.5 core Aluminium conductor, armoured	4 core copper conductor, unarmoured	4 core copper conductor, armoured	4 core Aluminum, unarmoured	4 core Aluminum conductor, armoured	3 core , HT cable 11 KV Aluminum conductor armoured	3 core , HT cable 33 KV Aluminum armoured	2 core copper conductor, armoured for Fire and smoke detector
		cable load kg/m	cable load kg/m	cable load kg/m	cable load kg/m	cable load kg/m	cable load kg/m	cable load kg/m	cable load kg/m	cable load kg/m
				0.26	0.50	0.21	0.47			0.41
				0.34	0.62	0.27	0.56			0.48
				0.45	0.77	0.34	0.68			0.60
				0.58	0.95	0.42	0.80			0.71
				0.77	1.27	0.51	1.03			0.86
				0.94	1.42	0.55	1.05			0.91
0.70	1,26	1.37	1.94	0.75	1.35	4.10	6.85	1.20		
0.83	1,45	1.76	2.44	0.90	1.62	4.50	7.30	1.53		
1.06	1,81	2.35	3.29	1.20	2.18	4.90	7.90	1.84		
1.40	2,41	3.19	4.26	1.52	2.66	5.50	8.50	2.32		
1.80	3,02	4.31	5.53	2.00	3.28	6.80	9.35	3.19		
2.20	3,55	5.29	6.66	2.38	3.84	7.45	11.15	3.78		
2.58	4,03	6.47	8.37	2.90	4.88	8.15	12.00	4.45		
3.15	5,30	8.06	10.18	3.58	5.81	8.95	12.75	5.36		
4.06	6,39	10.42	12.81	4.53	7.05	10.10	13.95	7.10		
4.97	8,21	13.07	16.49	5.68	9.26	12.45	15.20	8.56		
6.21	9,90	16.48	20.25	7.04	11.02	14.05	16.90	11.17		

Which bracket can support which cable load?



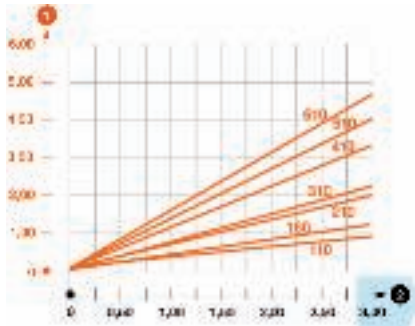
Key components of the OBO cable support systems are the installation components, in particular the brackets and suspended supports. They connect the cable trays and ladders to the wall and to the ceiling, and are thus an important construction element of the overall system. When calculating the load capacity of a cable support system, the brackets and suspended supports must not be forgotten. The test diagram is also useful in selecting the right products.



Load diagram, legend

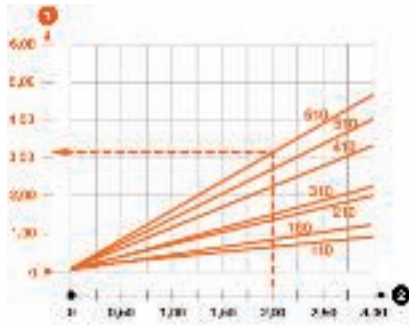
- 1 = Bend in mm at the bracket tip
- 2 = Load in kN/m without man load
- = Load curves for the various bracket lengths

Which bracket can support which cable load?



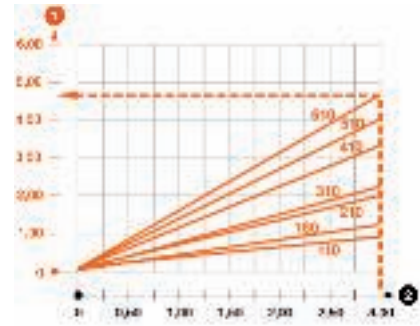
Information 1: Recommended maximum load of the brackets

The bracket is the part of the installation system upon which the cable tray or mesh cable tray is located. It is either directly connected to the wall or is connected to the ceiling using supports. The grey bar on the right edge of the diagram provides information on the maximum load capacity of the bracket.



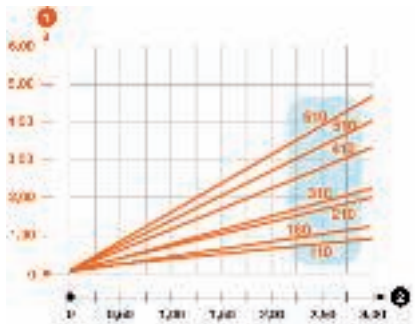
Information 3: Bending of the bracket tip at a specific load

The load curve in the diagram provides information on the bending of the boom tip at a specific load. In our example (dotted orange line), a 610 mm wide bracket with a load of 2 kN bends by approx. 3.1 mm. A basic rule of thumb is: The shorter the bracket, the less the bend will be.



Information 4: Bending of the bracket tip at maximum load

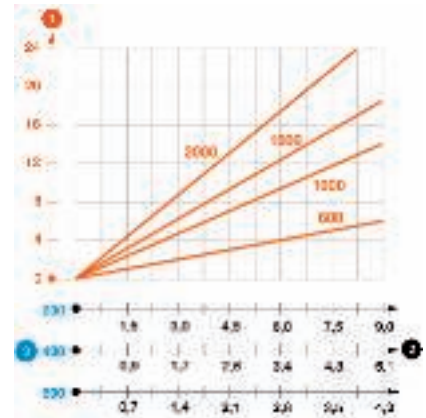
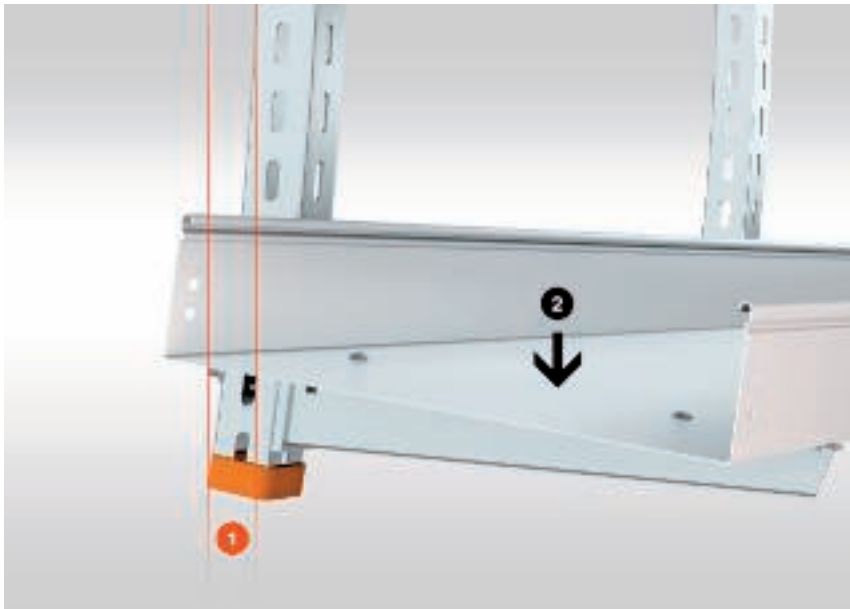
The bending factor of the bracket at maximum load can also be seen in the diagram. In our example (shown in orange), the bend value for a 610 mm wide bracket at a maximum load of approx. 3.0 kN is approximately 4.5 mm. To minimise the bend, the centre of gravity of the cable load should be as close as possible to the wall or the support fastening.



Information 2: Load curves for all bracket widths

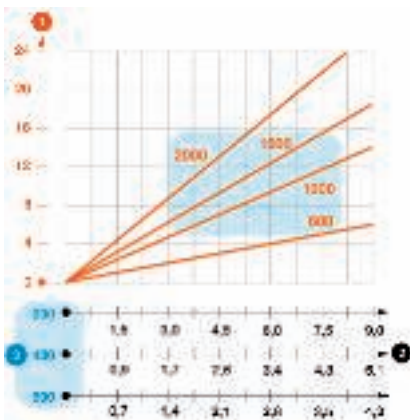
The bending of the bracket is dependent on its width, which, in our example, can range from 110 mm to 610 mm. The load curves are assigned to the appropriate bracket type.

Which support can support which cable load?



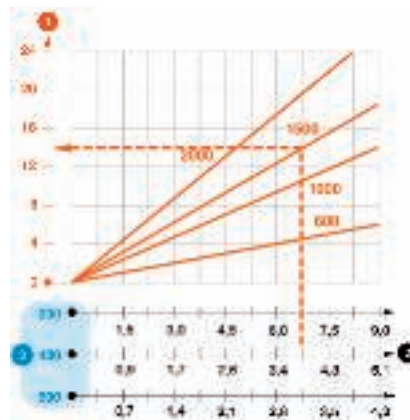
Load diagram, legend

- 1 = Bend in mm at the bracket tip
- 2 = Load in kN/m without man load
- = Load curves for the various bracket lengths



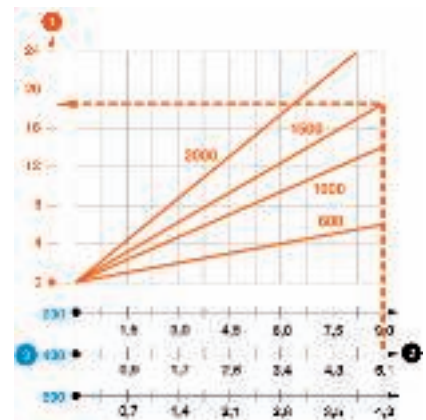
Information 1: Various support lengths and bracket widths

The load capacity of a cable support system is not just dependent on the width of a bracket, but also on the length of a suspended support. The load curves in the diagram provide information on the load capacity of a suspended support of length 600, 1,000, 1,500 or 2,000 mm, taking the bracket width into account.



Information 2: Calculation of the deflection for the example

The weight of the total suspended support/bracket/cable tray system causes an excursion of the suspended support from the vertical. The excursion value can be read off from the axis on the left edge of the diagram. In our example (blue background), a 1,500 mm long suspended support, together with a 400 mm wide bracket and a weight load of 4 kN at the end of the support, will produce an excursion of approximately 14 mm.



Information 3: Calculation of the excursion at maximum load for the example

The excursion of the suspended support at a maximum load can also be read off on the diagram. Our blue example shows an excursion of roughly 18 mm at the end of the support for a 1,500 mm long suspended support, in combination with a 400 mm wide bracket at a maximum cable load of approximately 5 kN.





Cable tray systems

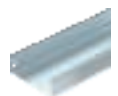


Cable tray systems



GKS cable tray, side height 60 mm

36

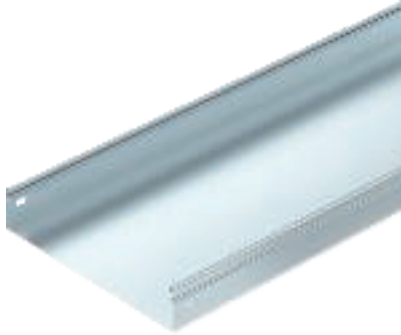


GKS cable tray, side height 100 mm

46

GKS cable tray, side height 60 mm

Unperforated cable tray (Raceway)



Type	Plate		Pack. m	Weight kg/100 m	Item No.
	Width mm	thickness mm			
GKS FL 610 FS	100	0.6	3	109,270	6480001
GKS FL 615 FS	150	0.7	3	154,960	6480002
GKS FL 620 FS	200	0.7	3	182,430	6480003
GKS FL 630 FS	300	1	3	339,120	6480004
GKS FL 640 FS	400	1.2	3	501,140	6480005
GKS FL 650 FS	500	1.2	3	595,340	6480006

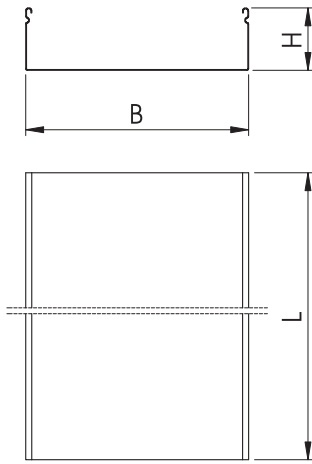
SI Steel

FS Strip-galvanised

/m

GKS 60 FL = unperforated cable tray system with 60 mm side height

Dimensions



Type	Dim.			Useful cross-section cm ²
	L mm	B mm	H mm	
GKS FL 610 FS	3000	100	60	58
GKS FL 615 FS	3000	150	60	88
GKS FL 620 FS	3000	200	60	118
GKS FL 630 FS	3000	300	60	178
GKS FL 640 FS	3000	400	60	238
GKS FL 650 FS	3000	500	60	298

Cable tray GX, perforated



Type	Plate		Pack. m	Weight kg/100 m	Item No.
	Width mm	thickness mm			
GKS GX 610 FS	100	0.6	3	109,270	6480031
GKS GX 615 FS	150	0.7	3	154,960	6480032
GKS GX 620 FS	200	0.7	3	182,430	6480033
GKS GX 630 FS	300	1	3	339,120	6480034
GKS GX 640 FS	400	1.2	3	501,140	6480035
GKS GX 650 FS	500	1.2	3	595,340	6480036
GKS GX 610 FT	100	0.6	3	120,200	6483031
GKS GX 615 FT	150	0.7	3	170,280	6483032
GKS GX 620 FT	200	0.7	3	200,680	6483033
GKS GX 630 FT	300	1	3	373,030	6483034
GKS GX 640 FT	400	1.2	3	551,260	6483035
GKS GX 650 FT	500	1.2	3	654,880	6483036

St Steel

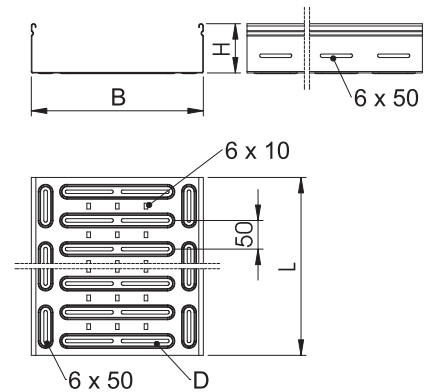
FS Strip-galvanised FT Hot-dip galvanised

/m

GKS 60 GX = perforated cable tray system with 60 mm side height

Type	Dim. L mm	Dim. B mm	Dim. H mm	Dim. D mm	Useful cross-section cm ²
GKS GX 615 FS	3000	150	60	25	88
GKS GX 620 FS	3000	200	60	75	118
GKS GX 630 FS	3000	300	60	75	178
GKS GX 640 FS	3000	400	60	80	238
GKS GX 650 FS	3000	500	60	110	298

Dimensions



Lid

Type	Dim. B mm	Plate thickness mm	Dim. L mm	Dim. D mm	Pack. m	Weight kg/100 m	Item No.
GDRL 150 FS	150	0.6	3000	8	3	93,260	6480102
GDRL 200 FS	200	0.6	3000	8	3	116,810	6480103
GDRL 300 FS	300	0.6	3000	8	3	163,910	6480104
GDRL 400 FS	400	0.7	3000	8	3	246,180	6480105
GDRL 500 FS	500	0.7	3000	8	3	301,130	6480106
GDRL 100 FT	100	0.6	3000	8	3	76,680	6483101
GDRL 150 FT	150	0.6	3000	8	3	102,580	6483102
GDRL 200 FT	200	0.6	3000	8	3	128,490	6483103
GDRL 300 FT	300	0.6	3000	8	3	180,300	6483104
GDRL 400 FT	400	0.7	3000	8	3	270,790	6483105
GDRL 500 FT	500	0.7	3000	8	3	331,240	6483106

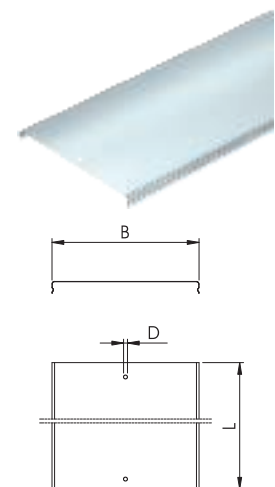
St Steel

FS Strip-galvanised FT Hot-dip galvanised

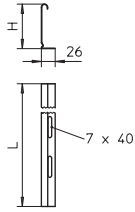
/m

Unperforated lid for cable trays for direct attachment.

When using covers outdoors, additional measures against the influence of wind must be taken. Cover clamps or turn buckles on their own are not sufficient securing elements against wind loads.



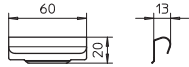
Barrier strip



Type	Dim.		Pack.	Weight		Item No.
	H	L		m	kg/100 m	
TSG 45 DD	45	3000	3	46,700	6062321	
St Steel					/m	
DD Strip galvanised zinc/aluminium, Double Dip						

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

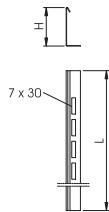
Barrier strip connector



Type	Pack.	Weight		Item No.
		pcs	kg/100 pcs.	
TSGV VA4310	10	1,000	6067970	
V2A Stainless steel, grade 301			/pc.	

Barrier strip connector for screwless connection of the TSG barrier strip in all side heights.

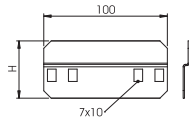
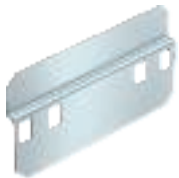
Barrier strip



Type	Dim.		Pack.	Weight		Item No.
	H	L		m	kg/100 m	
GKSTSG 60 FS	60	3000	3	38,420	6480111	
GKSTSG 60 FT	60	3000	3	41,450	6483111	
St Steel					/m	
FS Strip-galvanised FT Hot-dip galvanised						

Barrier strip for separation of cables of different voltages or functions.
Including appropriate fastening material.

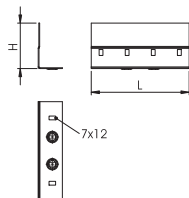
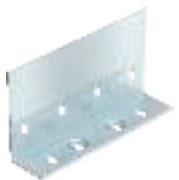
Straight connector



Type	Dim.	Pack.	Weight		Item No.
			H	pcs	
GKSLVL 60 FS	60	20	8,000	6481340	
GKSLVL 60 FT	60	20	10,520	6484331	
St Steel				/pc.	
FS Strip-galvanised FT Hot-dip galvanised					

Straight connector for connections of cable trays, fittings and separating retainers
Including appropriate fastening material.

Straight connector, angled



Type	Dim.		Pack.	Weight		Item No.
	H	L		pcs	kg/100 pcs.	
GKSWK 60 FS	60	200	20	24,580	6481345	
GKSWK 60 FT	60	200	20	25,400	6484337	
St Steel					/pc.	
FS Strip-galvanised FT Hot-dip galvanised						

Straight connector for connections of cable trays, fittings and separating retainers
Including appropriate fastening material.

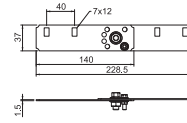
Adjustable connector

Type	Dim. H mm	Pack. pcs	Weight kg/100 pcs.	Item No.
GKSGV 60 FS	60	20	15,860	6481350
GKSGV 60 FT	60	20	14,300	6484343

St Steel

FS Strip-galvanised **FT** Hot-dip galvanised

Adjustable connector for vertical changes of direction of cable trays
Including appropriate fastening material.



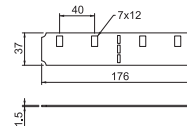
Angle connector

Type	Dim. H mm	Pack. pcs	Weight kg/100 pcs.	Item No.
GKSGO 60 FS	60	20	15,860	6481352
GKSGO 60 FT	60	20	22,000	6484347

St Steel

FS Strip-galvanised **FT** Hot-dip galvanised

Straight and angle connector for horizontal changes of direction of cable trays, fittings and separating retainers
Including appropriate fastening material.



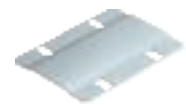
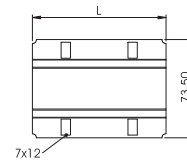
Joint plate

Type	Dim. L mm	Pack. pcs	Weight kg/100 pcs.	Item No.
GKS SSL FS	100	20	60,000	6481355
GKS SSL FT	100	20	66,000	6484351

St Steel

FS Strip-galvanised **FT** Hot-dip galvanised

Including appropriate fastening material.



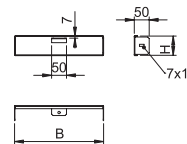
Stop-end

Type	Dim. H mm	Dim. B mm	Pack. pcs	Weight kg/100 pcs.	Item No.
GKS TC 610 FS	60	100	1	15,930	6481271
GKS TC 615 FS	60	150	1	19,070	6481273
GKS TC 620 FS	60	200	1	22,210	6481275
GKS TC 630 FS	60	300	1	28,490	6481277
GKS TC 640 FS	60	400	1	34,770	6481279
GKS TC 650 FS	60	500	1	41,050	6481281
GKS TC 610 FT	60	100	1	17,200	6484251
GKS TC 615 FT	60	150	1	16,500	6484253
GKS TC 620 FT	60	200	1	24,430	6484255
GKS TC 630 FT	60	300	1	30,800	6484257
GKS TC 640 FT	60	400	1	39,920	6484259
GKS TC 650 FT	60	500	1	45,100	6484261

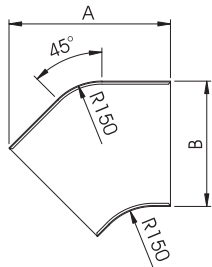
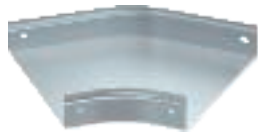
St Steel

FS Strip-galvanised **FT** Hot-dip galvanised

Stop-end to close cable trays of type GKS side height 60 mm.
Including appropriate fastening material.



45° horizontal bend



Type	Side height mm	Dim. A mm	Dim. B mm	Pack. pcs	Weight kg/100 pcs.	Item No.
GKSB 45 610 FS	60	250	100	1	54,990	6480161
GKSB 45 615 FS	60	280	150	1	74,090	6480162
GKSB 45 620 FS	60	320	200	1	94,770	6480163
GKSB 45 630 FS	60	390	300	1	135,500	6480164
GKSB 45 640 FS	60	470	400	1	242,950	6480165
GKSB 45 650 FS	60	570	500	1	326,110	6480166
GKSB 45 610 FT	60	250	100	1	60,480	6483161
GKSB 45 615 FT	60	280	150	1	81,400	6483162
GKSB 45 620 FT	60	320	200	1	104,240	6483163
GKSB 45 630 FT	60	390	300	1	149,050	6483164
GKSB 45 640 FT	60	470	400	1	92,400	6483165
GKSB 45 650 FT	60	570	500	1	358,720	6483166

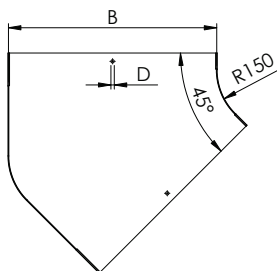
St Steel

FS Strip-galvanised FT Hot-dip galvanised

/pc.

45° bend, horizontal, for all cable tray types of the series GKS... of 60 mm side height.

Lid for 45° horizontal bend



Type	Dim. B mm	Dim. D mm	Pack. pcs	Weight kg/100 pcs.	Item No.
GKSDB 45 100 FS	100	8	1	25,500	6480191
GKSDB 45 150 FS	150	8	1	34,000	6480192
GKSDB 45 200 FS	200	8	1	46,750	6480193
GKSDB 45 300 FS	300	8	1	68,000	6480194
GKSDB 45 400 FS	400	8	1	102,000	6480195
GKSDB 45 500 FS	500	8	1	136,000	6480196
GKSDB 45 100 FT	100	8	1	28,050	6483191
GKSDB 45 150 FT	150	8	1	37,400	6483192
GKSDB 45 200 FT	200	8	1	51,420	6483193
GKSDB 45 300 FT	300	8	1	70,400	6483194
GKSDB 45 400 FT	400	8	1	112,200	6483195
GKSDB 45 500 FT	500	8	1	149,600	6483196

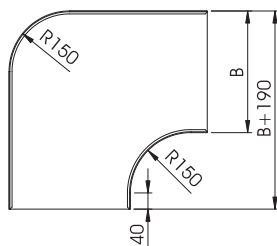
St Steel

FS Strip-galvanised FT Hot-dip galvanised

/pc.

Lock on the lid for the 45° bend.

90° horizontal bend



Type	Side height mm	Dim. B mm	Pack. pcs	Weight kg/100 pcs.	Item No.
GKSB 90 610 FS	60	100	1	72,800	6480121
GKSB 90 615 FS	60	150	1	97,260	6480122
GKSB 90 620 FS	60	200	1	124,860	6480123
GKSB 90 630 FS	60	300	1	189,480	6480124
GKSB 90 640 FS	60	400	1	317,440	6480125
GKSB 90 650 FS	60	500	1	427,210	6480126
GKSB 90 610 FT	60	100	1	80,080	6483121
GKSB 90 615 FT	60	150	1	106,900	6483122
GKSB 90 620 FT	60	200	1	137,340	6483123
GKSB 90 630 FT	60	300	1	208,420	6483124
GKSB 90 640 FT	60	400	1	349,180	6483125
GKSB 90 650 FT	60	500	1	469,930	6483126

St Steel

FS Strip-galvanised FT Hot-dip galvanised

/pc.

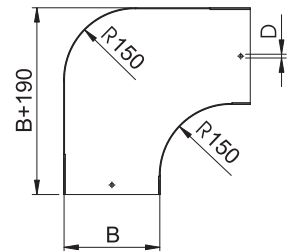
90° bend, horizontal, for all cable tray types of the series GKS... of 60 mm side height.

Lid for 90° horizontal bend

Type	Dim. B mm	Dim. D mm	Pack. pcs	Weight kg/100 pcs.	Item No.
GKSDB 90 100 FS	100	8	1	36,550	6480151
GKSDB 90 150 FS	150	8	1	57,800	6480152
GKSDB 90 200 FS	200	8	1	81,600	6480153
GKSDB 90 300 FS	300	8	1	140,250	6480154
GKSDB 90 400 FS	400	8	1	213,350	6480155
GKSDB 90 500 FS	500	8	1	299,200	6480156
GKSDB 90 100 FT	100	8	1	40,200	6483151
GKSDB 90 150 FT	150	8	1	63,580	6483152
GKSDB 90 200 FT	200	8	1	89,760	6483153
GKSDB 90 300 FT	300	8	1	154,270	6483154
GKSDB 90 400 FT	400	8	1	234,680	6483155
GKSDB 90 500 FT	500	8	1	329,120	6483156

St Steel
FS Strip-galvanised FT Hot-dip galvanised

Lock on the lid for the 90° bend.

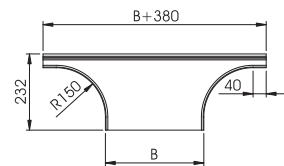


Add-on tee with lid

Type	Side height mm	Dim. B mm	Pack. pcs	Weight kg/100 pcs.	Item No.
GKSAA 610 FS	60	100	1	65,000	6480431
GKSAA 615 FS	60	150	1	80,000	6480432
GKSAA 620 FS	60	200	1	90,000	6480433
GKSAA 630 FS	60	300	1	125,000	6480434
GKSAA 640 FS	60	400	1	190,000	6480435
GKSAA 650 FS	60	500	1	260,000	6480436
GKSAA 610 FT	60	100	1	88,000	6483431
GKSAA 615 FT	60	150	1	88,000	6483432
GKSAA 620 FT	60	200	1	99,000	6483433
GKSAA 630 FT	60	300	1	137,500	6483434
GKSAA 640 FT	60	400	1	209,000	6483435
GKSAA 650 FT	60	500	1	286,000	6483436

St Steel
FS Strip-galvanised FT Hot-dip galvanised

Add-on tee with lid for all GKS... cable tray types of 60 mm side height.

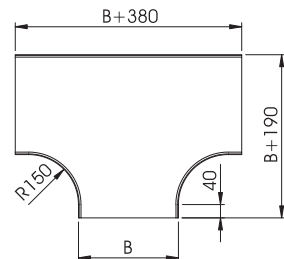
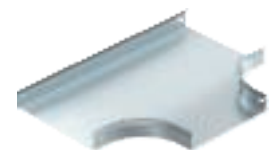


Horizontal tee

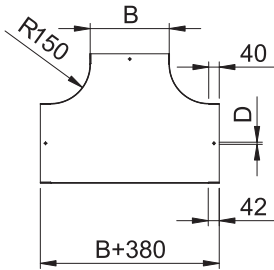
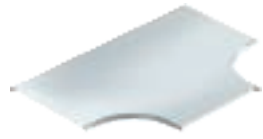
Type	Side height mm	Dim. B mm	Pack. pcs	Weight kg/100 pcs.	Item No.
GKST 610 FS	60	100	1	107,540	6480461
GKST 615 FS	60	150	1	135,560	6480462
GKST 620 FS	60	200	1	166,730	6480463
GKST 630 FS	60	300	1	238,480	6480464
GKST 640 FS	60	400	1	316,780	6480465
GKST 650 FS	60	500	1	508,490	6480466
GKST 610 FT	60	100	1	118,290	6483461
GKST 615 FT	60	150	1	149,110	6483462
GKST 620 FT	60	200	1	183,400	6483463
GKST 630 FT	60	300	1	262,320	6483464
GKST 640 FT	60	400	1	348,450	6483465
GKST 650 FT	60	500	1	559,330	6483466

St Steel
FS Strip-galvanised FT Hot-dip galvanised

Horizontal tee for all GKS... cable tray types with a side height of 60 mm.



Lid for horizontal tee



Type	Dim. B mm	Dim. D mm	Pack. pcs	Weight kg/100 pcs.	Item No.
GKSDT 100 FS	100	8	1	46,750	6480491
GKSDT 150 FS	150	8	1	63,750	6480492
GKSDT 200 FS	200	8	1	93,500	6480493
GKSDT 300 FS	300	8	1	137,700	6480494
GKSDT 400 FS	400	8	1	255,000	6480495
GKSDT 500 FS	500	8	1	323,000	6480496
GKSDT 100 FT	100	8	1	51,420	6483491
GKSDT 150 FT	150	8	1	70,120	6483492
GKSDT 200 FT	200	8	1	102,850	6483493
GKSDT 300 FT	300	8	1	151,470	6483494
GKSDT 400 FT	400	8	1	280,500	6483495
GKSDT 500 FT	500	8	1	355,300	6483496

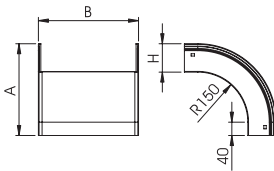
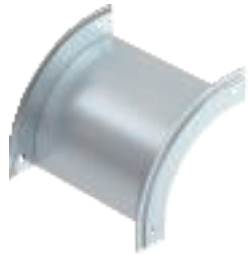
St Steel

FS Strip-galvanised FT Hot-dip galvanised

Lid for horizontal tee for GKS... cable tray types with all side heights.

/pc.

90° vertical bend, falling



Type	Dim. H mm	Dim. A mm	Dim. B mm	Pack. pcs	Weight kg/100 pcs.	Item No.
GKSBV 90610F FS	60	255	100	1	101,470	6480281
GKSBV 90615F FS	60	255	150	1	111,420	6480282
GKSBV 90620F FS	60	255	200	1	121,380	6480283
GKSBV 90630F FS	60	255	300	1	141,280	6480284
GKSBV 90640F FS	60	255	400	1	161,070	6480285
GKSBV 90650F FS	60	255	500	1	180,940	6480286
GKSBV 90610F FT	60	255	100	1	111,610	6483281
GKSBV 90615F FT	60	255	150	1	122,500	6483282
GKSBV 90620F FT	60	255	200	1	133,510	6483283
GKSBV 90630F FT	60	255	300	1	155,400	6483284
GKSBV 90640F FT	60	255	400	1	177,170	6483285
GKSBV 90650F FT	60	255	500	1	199,030	6483286

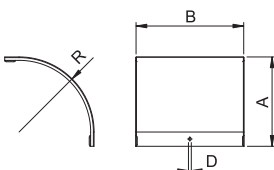
St Steel

FS Strip-galvanised FT Hot-dip galvanised

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

/pc.

Lid for 90° vertical bend, falling



Type	Dim. B mm	Dim. A mm	Dim. D mm	Dim. R mm	Pack. pcs	Weight kg/100 pcs.	Item No.
GKSDBV 90100F FS	100	250	8	209	1	32,720	6480311
GKSDBV 90150F FS	150	250	8	209	1	46,000	6480312
GKSDBV 90200F FS	200	250	8	209	1	58,280	6480313
GKSDBV 90300F FS	300	250	8	209	1	83,840	6480314
GKSDBV 90400F FS	400	250	8	209	1	136,740	6480315
GKSDBV 90500F FS	500	250	8	209	1	168,690	6480316
GKSDBV 90100F FT	100	250	8	209	1	35,990	6483311
GKSDBV 90150F FT	150	250	8	209	1	50,000	6483312
GKSDBV 90200F FT	200	250	8	209	1	64,100	6483313
GKSDBV 90300F FT	300	250	8	209	1	92,220	6483314
GKSDBV 90400F FT	400	250	8	209	1	120,340	6483315
GKSDBV 90500F FT	500	250	8	209	1	148,440	6483316

St Steel

FS Strip-galvanised FT Hot-dip galvanised

Lid for 90° vertical bend (falling) fitting with 60 mm side height for GKS... cable tray types

/pc.

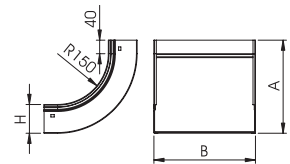
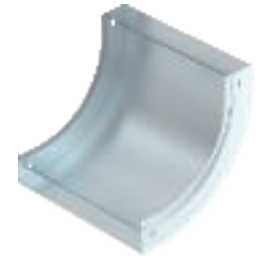
90° vertical bend, rising

Type	Dim.	Dim.	Dim.	Pack.	Weight	Item No.
	H	A	B			
	mm	mm	mm	pcs	kg/100 pcs.	
GKSBV 90610S FS	60	255	100	1	106,700	6480201
GKSBV 90615S FS	60	255	150	1	119,320	6480202
GKSBV 90620S FS	60	255	200	1	131,950	6480203
GKSBV 90630S FS	60	255	300	1	157,190	6480204
GKSBV 90640S FS	60	255	400	1	182,440	6480205
GKSBV 90650S FS	60	255	500	1	207,680	6480206
GKSBV 90610S FT	60	255	100	1	117,370	6483201
GKSBV 90615S FT	60	255	150	1	131,200	6483202
GKSBV 90620S FT	60	255	200	1	145,140	6483203
GKSBV 90630S FT	60	255	300	1	172,900	6483204
GKSBV 90640S FT	60	255	400	1	200,680	6483205
GKSBV 90650S FT	60	255	300	1	227,700	6483206

St Steel

FS Strip-galvanised FT Hot-dip galvanised

/pc.



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

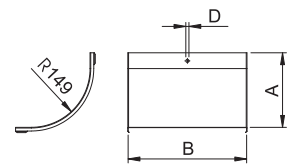
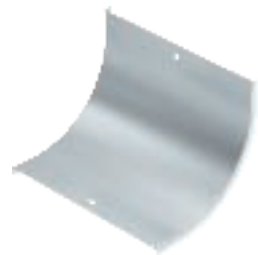
Lid for 90° vertical bend, rising

Type	Dim.	Dim.	Dim.	Pack.	Weight	Item No.
	B	A	D			
	mm	mm	mm	pcs	kg/100 pcs.	
GKSDBV 90100S FS	100	190	8	1	23,800	6480231
GKSDBV 90150S FS	150	190	8	1	34,850	6480232
GKSDBV 90200S FS	200	190	8	1	43,350	6480233
GKSDBV 90300S FS	300	190	8	1	63,750	6480234
GKSDBV 90400S FS	400	190	8	1	87,550	6480235
GKSDBV 90500S FS	500	190	8	1	107,950	6480236
GKSDBV 90100S FT	100	190	8	1	26,100	6483231
GKSDBV 90150S FT	150	190	8	1	38,330	6483232
GKSDBV 90200S FT	200	190	8	1	47,680	6483233
GKSDBV 90300S FT	300	190	8	1	70,120	6483234
GKSDBV 90400S FT	400	190	8	1	96,300	6483235
GKSDBV 90500S FT	500	190	8	1	118,740	6483236

St Steel

FS Strip-galvanised FT Hot-dip galvanised

/pc.



Lid for 90° vertical bend (rising) fitting for GKS... cable tray types

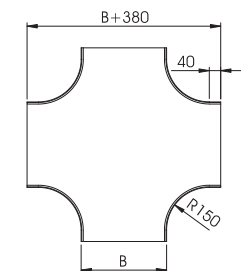
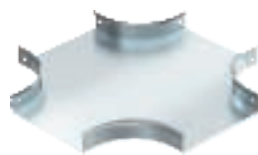
Intersection

Type	Side	Dim.	Pack.	Weight	Item No.
	height	B			
	mm	mm	pcs	kg/100 pcs.	
GKSK 610 FS	60	100	1	175,600	6480501
GKSK 615 FS	60	150	1	171,320	6480502
GKSK 620 FS	60	200	1	206,040	6480503
GKSK 630 FS	60	300	1	284,920	6480504
GKSK 640 FS	60	400	1	459,390	6480505
GKSK 650 FS	60	500	1	589,380	6480506
GKSK 610 FT	60	100	1	193,160	6483501
GKSK 615 FT	60	150	1	226,600	6483502
GKSK 620 FT	60	200	1	226,640	6483503
GKSK 630 FT	60	300	1	313,410	6483504
GKSK 640 FT	60	400	1	614,900	6483505
GKSK 650 FT	60	500	1	647,900	6483506

St Steel

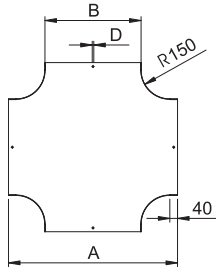
FS Strip-galvanised FT Hot-dip galvanised

/pc.



Horizontal intersection for all GKS... cable tray types of 60 mm side height.

Lid for intersection



Type	Dim.	Dim.	Dim.	Pack.	Weight	Item No.
	A	B	D			
	mm	mm	mm	pcs	kg/100 pcs.	
GKSDK 100 FS	480	100	8	1	80,750	6480531
GKSDK 150 FS	530	150	8	1	107,100	6480532
GKSDK 200 FS	580	200	8	1	144,500	6480533
GKSDK 300 FS	680	300	8	1	216,750	6480534
GKSDK 400 FS	780	400	8	1	297,500	6480535
GKSDK 500 FS	880	500	8	1	382,500	6480536
GKSDK 100 FT	480	100	8	1	88,820	6483531
GKSDK 150 FT	530	150	8	1	117,800	6483532
GKSDK 200 FT	580	200	8	1	158,900	6483533
GKSDK 300 FT	680	300	8	1	238,420	6483534
GKSDK 400 FT	780	400	8	1	327,200	6483535
GKSDK 500 FT	880	500	8	1	420,000	6483536

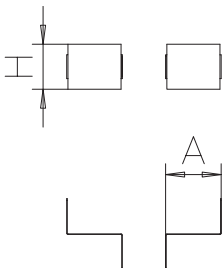
St Steel

FS Strip-galvanised FT Hot-dip galvanised

Lid for intersection fitting for GKS... cable tray types with all side heights.

/pc.

Reducing angle central, two-part



Type	Dim.	Dim.	Pack.	Weight	Item No.
	H	A			
	mm	mm	pcs	kg/100 pcs.	
GKSRA 6 25 FS	60	25	1	19,790	6480841
GKSRA 6 50 FS	60	50	1	22,030	6480842
GKSRA 6 75 FS	60	75	1	24,270	6480843
GKSRA 6 100 FS	60	100	1	26,500	6480844
GKSRA 6 125 FS	60	125	1	28,740	6480845
GKSRA 6 150 FS	60	150	1	30,980	6480846
GKSRA 6 175 FS	60	175	1	33,210	6480847
GKSRA 6 200 FS	60	200	1	35,450	6480848
GKSRA 6 25 FT	60	25	1	20,900	6483841
GKSRA 6 50 FT	60	50	1	18,020	6483842
GKSRA 6 75 FT	60	75	1	26,400	6483843
GKSRA 6 100 FT	60	100	1	28,600	6483844
GKSRA 6 125 FT	60	125	1	30,800	6483845
GKSRA 6 150 FT	60	150	1	33,000	6483846
GKSRA 6 175 FT	60	175	1	36,300	6483847
GKSRA 6 200 FT	60	200	1	38,500	6483848

St Steel

FS Strip-galvanised FT Hot-dip galvanised

Central reducing bracket, 2-part for GKS... type cable trays with a side height of 60 mm.

/pc.

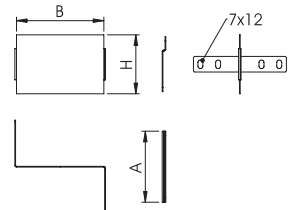
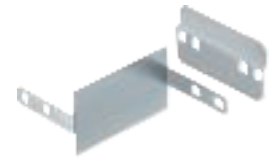
Reducing angle single-sided, two-part

Type	Dim.	Dim.	Pack.	Weight	Item No.
	H	B		pcs	
	mm	mm			
GKSRL 6 50 FS	60	50	1	20,850	6480871
GKSRL 6 100 FS	60	100	1	23,090	6480872
GKSRL 6 150 FS	60	150	1	25,330	6480873
GKSRL 6 200 FS	60	200	1	27,570	6480874
GKSRL 6 250 FS	60	250	1	30,310	6480875
GKSRL 6 300 FS	60	300	1	32,620	6480876
GKSRL 6 350 FS	60	350	1	34,920	6480877
GKSRL 6 400 FS	60	400	1	37,230	6480878
GKSRL 6 50 FT	60	50	1	22,000	6483871
GKSRL 6 100 FT	60	100	1	25,300	6483872
GKSRL 6 150 FT	60	150	1	27,500	6483873
GKSRL 6 200 FT	60	200	1	29,700	6483874
GKSRL 6 250 FT	60	250	1	33,000	6483875
GKSRL 6 300 FT	60	300	1	35,200	6483876
GKSRL 6 350 FT	60	350	1	37,400	6483877
GKSRL 6 400 FT	60	400	1	40,700	6483878

St Steel

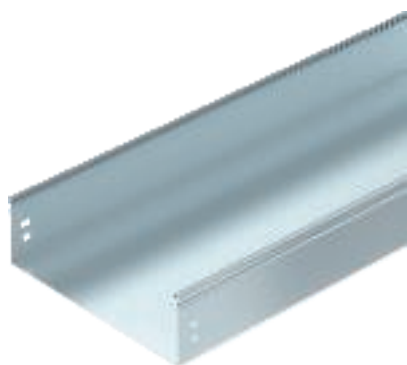
FS Strip-galvanised FT Hot-dip galvanised

/pc.



GKS cable tray, side height 100 mm

Unperforated cable tray (Raceway)



Type	Plate		Pack. m	Weight kg/100 m	Item No.
	Width mm	thickness mm			
GKS FL 115 FS	150	0.9	3	227,340	6480022
GKS FL 120 FS	200	0.9	3	323,420	6480023
GKS FL 130 FS	300	1	3	401,920	6480024
GKS FL 140 FS	400	1.2	3	576,500	6480025
GKS FL 150 FS	500	1.2	3	670,700	6480026

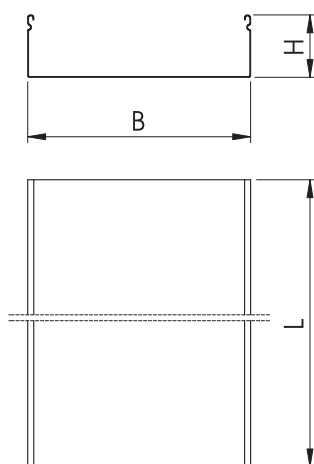
Sl Steel

FS Strip-galvanised

/m

GKS 100 FL = unperforated cable tray system with 100 mm side height

Dimensions



Type	Dim.			Useful cross-section cm ²
	L mm	B mm	H mm	
GKS FL 115 FS	3000	150	100	148
GKS FL 120 FS	3000	200	100	198
GKS FL 130 FS	3000	300	100	298
GKS FL 140 FS	3000	400	100	398
GKS FL 150 FS	3000	500	100	498

Cable tray GX, perforated



Type	Plate		Pack.	Weight	Item No.
	Width	thickness			
	mm	mm	m	kg/100 m	
GKS GX 115 FS	150	0.9	3	227,340	6480052
GKS GX 120 FS	200	0.9	3	323,420	6480053
GKS GX 130 FS	300	1	3	401,920	6480054
GKS GX 140 FS	400	1.2	3	576,500	6480055
GKS GX 150 FS	500	1.2	3	670,700	6480056
GKS GX 115 FT	150	0.9	3	312,590	6483052
GKS GX 120 FT	200	0.9	3	355,760	6483053
GKS GX 130 FT	300	1	3	441,670	6483054
GKS GX 140 FT	400	1.2	3	633,520	6483055
GKS GX 150 FT	500	1.2	3	737,030	6483056

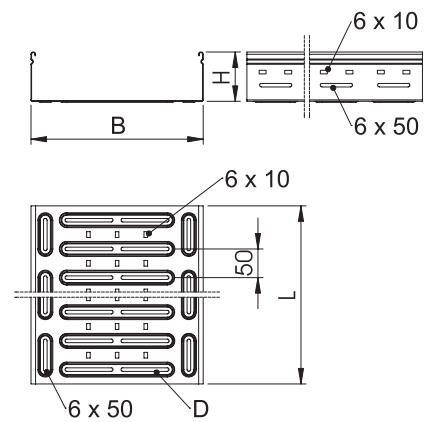
St Steel /m
FS Strip-galvanised FT Hot-dip galvanised

GKS 100 GX = perforated cable tray system with 100 mm side height



Type	Dim.	Dim.	Dim.	Useful
	L	B	H	cross-section
	mm	mm	mm	cm ²
GKS GX 115 FS	3000	150	100	148
GKS GX 120 FS	3000	200	100	198
GKS GX 130 FS	3000	300	100	298
GKS GX 140 FS	3000	400	100	398
GKS GX 150 FS	3000	500	100	498

Dimensions



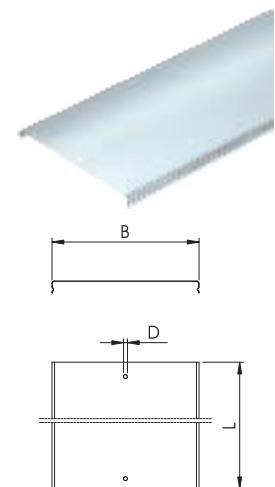
Lid

Type	Dim.	Plate	Dim.	Dim.	Pack.	Weight	Item No.
	B	thickness	L	D			
	mm	mm	mm	mm	m	kg/100 m	
GDRL 150 FS	150	0.6	3000	8	3	93,260	6480102
GDRL 200 FS	200	0.6	3000	8	3	116,810	6480103
GDRL 300 FS	300	0.6	3000	8	3	163,910	6480104
GDRL 400 FS	400	0.7	3000	8	3	246,180	6480105
GDRL 500 FS	500	0.7	3000	8	3	301,130	6480106
GDRL 150 FT	150	0.6	3000	8	3	102,580	6483102
GDRL 200 FT	200	0.6	3000	8	3	128,490	6483103
GDRL 300 FT	300	0.6	3000	8	3	180,300	6483104
GDRL 400 FT	400	0.7	3000	8	3	270,790	6483105
GDRL 500 FT	500	0.7	3000	8	3	331,240	6483106

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

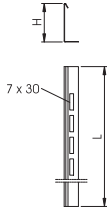
Unperforated lid for cable trays for direct attachment.

When using covers outdoors, additional measures against the influence of wind must be taken. Cover clamps or turn buckles on their own are not sufficient securing elements against wind loads.



GKS cable tray, side height 100 mm

Barrier strip



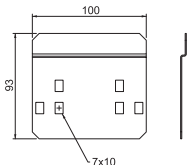
Type	Dim.		Pack.	Weight		Item No.
	H	L		m	kg/100 m	
GKSTSG 100 FS	100	3000	3	57,260		6480113
GKSTSG 100 FT	100	3000	3	62,007		6483113

St Steel

FS Strip-galvanised **FT** Hot-dip galvanised

Barrier strip for separation of cables of different voltages or functions.
Including appropriate fastening material.

Straight connector



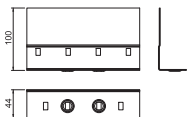
Type	Height	Pack.	Weight		Item No.
			pcs	kg/100 pcs.	
GKSLVL 100 FS	100	20	13,600		6481342
GKSLVL 100 FT	100	20	14,664		6484335

St Steel

FS Strip-galvanised **FT** Hot-dip galvanised

Straight connector for connections of cable trays, fittings and separating retainers
Including appropriate fastening material.

Straight connector, angled



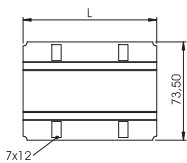
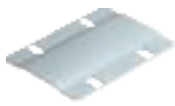
Type	Height	Length	Pack.	Weight		Item No.
				mm	mm	
GKSWK 100 FS	100	200	20	33,050		6481347
GKSWK 100 FT	100	200	20	30,800		6484341

St Steel

FS Strip-galvanised **FT** Hot-dip galvanised

Straight connector for connections of cable trays, fittings and separating retainers
Including appropriate fastening material.

Joint plate



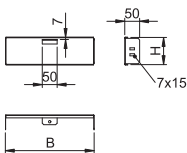
Type	Dim.	Pack.	Weight		Item No.
			L	mm	
GKS SSL FS	100	20	60,000		6481355
GKS SSL FT	100	20	66,000		6484351

St Steel

FS Strip-galvanised **FT** Hot-dip galvanised

Including appropriate fastening material.

Stop-end



Type	Dim.		Pack.	Weight		Item No.
	H	B		pcs	kg/100 pcs.	
GKS TC 115 FS	100	150	1	27,770		6481295
GKS TC 120 FS	100	200	1	32,640		6481297
GKS TC 130 FS	100	300	1	42,370		6481299
GKS TC 140 FS	100	400	1	52,100		6481301
GKS TC 150 FS	100	500	1	61,840		6481303
GKS TC 115 FT	100	150	1	29,700		6484275
GKS TC 120 FT	100	200	1	35,200		6484277
GKS TC 130 FT	100	300	1	46,200		6484279
GKS TC 140 FT	100	400	1	57,000		6484281
GKS TC 150 FT	100	500	1	67,100		6484283

St Steel

FS Strip-galvanised **FT** Hot-dip galvanised

Stop-end to close cable trays of type GKS with of side height 100 mm.
Including appropriate fastening material.

45° horizontal bend

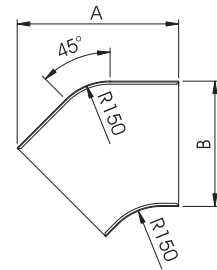
Type	Side height mm	Dim. A mm	Dim. B mm	Pack. pcs	Weight kg/100 pcs.	Item No.
GKSB 45 115 FS	100	280	150	1	84,080	6480182
GKSB 45 120 FS	100	320	200	1	108,870	6480183
GKSB 45 130 FS	100	390	300	1	151,680	6480184
GKSB 45 140 FS	100	470	400	1	261,220	6480185
GKSB 45 150 FS	100	570	500	1	346,490	6480186
GKSB 45 115 FT	100	280	150	1	166,100	6483182
GKSB 45 120 FT	100	320	200	1	119,750	6483183
GKSB 45 130 FT	100	390	300	1	287,100	6483184
GKSB 45 140 FT	100	470	400	1	227,700	6483185
GKSB 45 150 FT	100	570	500	1	381,130	6483186

St Steel

FS Strip-galvanised FT Hot-dip galvanised

/pc.

45° bend, horizontal, for all cable tray types of the series GKS... of 100 mm side height.



Lid for 45° horizontal bend

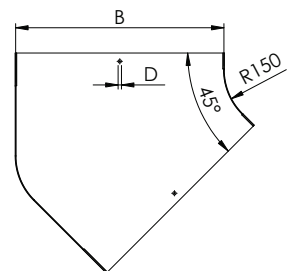
Type	Dim. B mm	Dim. D mm	Pack. pcs	Weight kg/100 pcs.	Item No.
GKSDB 45 150 FS	150	8	1	34,000	6480192
GKSDB 45 200 FS	200	8	1	46,750	6480193
GKSDB 45 300 FS	300	8	1	68,000	6480194
GKSDB 45 400 FS	400	8	1	102,000	6480195
GKSDB 45 500 FS	500	8	1	136,000	6480196
GKSDB 45 150 FT	150	8	1	37,400	6483192
GKSDB 45 200 FT	200	8	1	51,420	6483193
GKSDB 45 300 FT	300	8	1	70,400	6483194
GKSDB 45 400 FT	400	8	1	112,200	6483195
GKSDB 45 500 FT	500	8	1	149,600	6483196

St Steel

FS Strip-galvanised FT Hot-dip galvanised

/pc.

Lock on the lid for the 45° bend.



90° horizontal bend

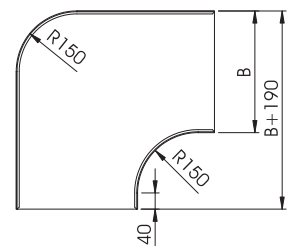
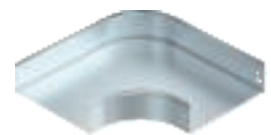
Type	Side height mm	Dim. B mm	Pack. pcs	Weight kg/100 pcs.	Item No.
GKSB 90 115 FS	100	150	1	120,540	6480142
GKSB 90 120 FS	100	200	1	150,650	6480143
GKSB 90 130 FS	100	300	1	220,290	6480144
GKSB 90 140 FS	100	400	1	353,280	6480145
GKSB 90 150 FS	100	500	1	468,080	6480146
GKSB 90 115 FT	100	150	1	132,000	6483142
GKSB 90 120 FT	100	200	1	165,710	6483143
GKSB 90 130 FT	100	300	1	242,000	6483144
GKSB 90 140 FT	100	400	1	363,280	6483145
GKSB 90 150 FT	100	500	1	514,800	6483146

St Steel

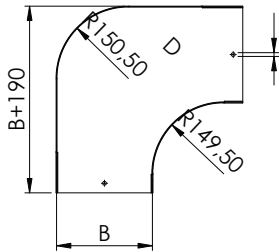
FS Strip-galvanised FT Hot-dip galvanised

/pc.

90° bend, horizontal, for all cable tray types of the series GKS... of 100 mm side height.



Lid for 90° horizontal bend



Type	Dim. B mm	Dim. D mm	Pack. pcs	Weight kg/100 pcs.	Item No.
GKSDB 90 150 FS	150	8	1	57,800	6480152
GKSDB 90 200 FS	200	8	1	81,600	6480153
GKSDB 90 300 FS	300	8	1	140,250	6480154
GKSDB 90 400 FS	400	8	1	213,350	6480155
GKSDB 90 500 FS	500	8	1	299,200	6480156
GKSDB 90 150 FT	150	8	1	63,580	6483152
GKSDB 90 200 FT	200	8	1	89,760	6483153
GKSDB 90 300 FT	300	8	1	154,270	6483154
GKSDB 90 400 FT	400	8	1	234,680	6483155
GKSDB 90 500 FT	500	8	1	329,120	6483156

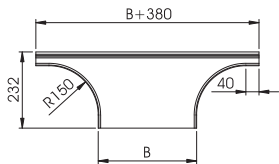
St Steel

FS Strip-galvanised **FT** Hot-dip galvanised

Lock on the lid for the 90° bend.

/pc.

Add-on tee with lid



Type	Side height mm	Dim. B mm	Pack. pcs	Weight kg/100 pcs.	Item No.
GKSAA 115 FS	100	150	1	100,000	6480451
GKSAA 120 FS	100	200	1	115,000	6480452
GKSAA 130 FS	100	300	1	145,000	6480453
GKSAA 140 FS	100	400	1	230,000	6480454
GKSAA 150 FS	100	500	1	295,000	6480455
GKSAA 115 FT	100	150	1	110,000	6483451
GKSAA 120 FT	100	200	1	126,500	6483452
GKSAA 130 FT	100	300	1	159,500	6483453
GKSAA 140 FT	100	400	1	253,000	6483454
GKSAA 150 FT	100	500	1	324,500	6483455

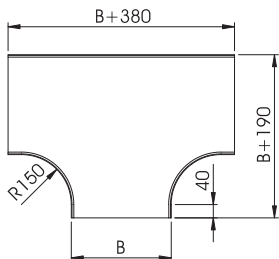
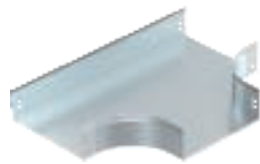
St Steel

FS Strip-galvanised **FT** Hot-dip galvanised

Add-on tee with lid for all GKS... cable tray types of 100 mm side height.

/pc.

Horizontal tee



Type	Side height mm	Dim. B mm	Pack. pcs	Weight kg/100 pcs.	Item No.
GKST 115 FS	100	150	1	164,580	6480482
GKST 120 FS	100	200	1	197,010	6480483
GKST 130 FS	100	300	1	271,270	6480484
GKST 140 FS	100	400	1	352,090	6480485
GKST 150 FS	100	500	1	546,310	6480486
GKST 115 FT	100	150	1	181,030	6483482
GKST 120 FT	100	200	1	216,700	6483483
GKST 130 FT	100	300	1	298,000	6483484
GKST 140 FT	100	400	1	387,200	6483485
GKST 150 FT	100	500	1	600,600	6483486

St Steel

FS Strip-galvanised **FT** Hot-dip galvanised

Horizontal tee for all GKS... cable tray types with a side height of 100 mm.

/pc.

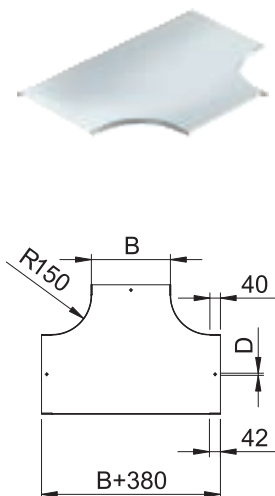
Lid for Horizontal tee

Type	Dim.		Pack. pcs	Weight kg/100 pcs.	Item No.
	B mm	D mm			
GKSDT 150 FS	150	8	1	63,750	6480492
GKSDT 200 FS	200	8	1	93,500	6480493
GKSDT 300 FS	300	8	1	137,700	6480494
GKSDT 400 FS	400	8	1	255,000	6480495
GKSDT 500 FS	500	8	1	323,000	6480496
GKSDT 150 FT	150	8	1	70,120	6483492
GKSDT 200 FT	200	8	1	102,850	6483493
GKSDT 300 FT	300	8	1	151,470	6483494
GKSDT 400 FT	400	8	1	280,500	6483495
GKSDT 500 FT	500	8	1	355,300	6483496

St Steel

FS Strip-galvanised FT Hot-dip galvanised

Lid for horizontal tee for GKS... cable tray types with all side heights.



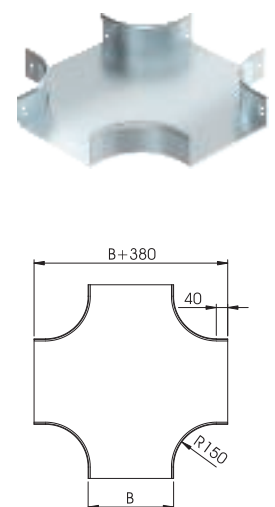
Intersection, horizontal

Type	Side height mm	Dim. B mm	Pack. pcs	Weight kg/100 pcs.	Item No.
GKSK 120 FS	100	200	1	237,560	6480523
GKSK 130 FS	100	300	1	316,440	6480524
GKSK 140 FS	100	400	1	490,910	6480525
GKSK 150 FS	100	500	1	620,900	6480526
GKSK 115 FT	100	150	1	222,200	6483522
GKSK 120 FT	100	200	1	260,700	6483523
GKSK 130 FT	100	300	1	347,000	6483524
GKSK 140 FT	100	400	1	539,000	6483525
GKSK 150 FT	100	500	1	682,000	6483526

St Steel

FS Strip-galvanised FT Hot-dip galvanised

Horizontal Intersection for all GKS... cable tray types with a side height of 100 mm.



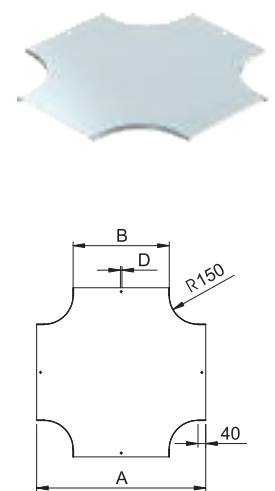
Lid for intersection

Type	Dim.			Pack. pcs	Weight kg/100 pcs.	Item No.
	A mm	B mm	D mm			
GKSDK 150 FS	530	150	8	1	107,100	6480532
GKSDK 200 FS	580	200	8	1	144,500	6480533
GKSDK 300 FS	680	300	8	1	216,750	6480534
GKSDK 400 FS	780	400	8	1	297,500	6480535
GKSDK 500 FS	880	500	8	1	382,500	6480536
GKSDK 150 FT	530	150	8	1	117,800	6483532
GKSDK 200 FT	580	200	8	1	158,900	6483533
GKSDK 300 FT	680	300	8	1	238,420	6483534
GKSDK 400 FT	780	400	8	1	327,200	6483535
GKSDK 500 FT	880	500	8	1	420,000	6483536

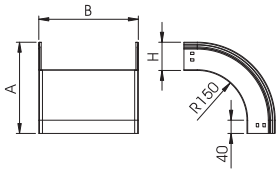
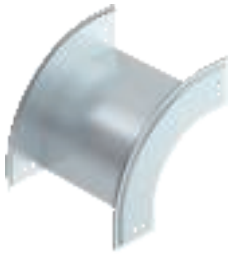
St Steel

FS Strip-galvanised FT Hot-dip galvanised

Lid for intersection fitting for GKS... cable tray types with all side heights.



90° vertical bend, falling



Type	Dim.	Dim.	Dim.	Pack.	Weight	Item No.
	H	A	B			
	mm	mm	mm	pcs	kg/100 pcs.	
GKSBV 90115F FS	100	295	150	1	150,000	6480302
GKSBV 90120F FS	100	295	200	1	159,960	6480303
GKSBV 90130F FS	100	295	300	1	179,860	6480304
GKSBV 90140F FS	100	295	400	1	199,650	6480305
GKSBV 90150F FS	100	295	500	1	219,520	6480306
GKSBV 90115F FT	100	295	150	1	165,000	6483302
GKSBV 90120F FT	100	295	200	1	175,950	6483303
GKSBV 90130F FT	100	295	300	1	196,900	6483304
GKSBV 90140F FT	100	295	400	1	219,610	6483305
GKSBV 90150F FT	100	295	500	1	241,470	6483306

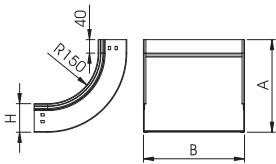
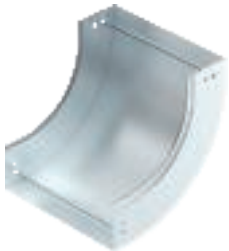
St Steel

FS Strip-galvanised FT Hot-dip galvanised

90° vertical bend, falling, for all GKS... cable tray types of 100 mm side height.

/pc.

90° vertical bend, rising



Type	Dim.	Dim.	Dim.	Pack.	Weight	Item No.
	H	A	B			
	mm	mm	mm	pcs	kg/100 pcs.	
GKSBV 90115S FS	100	295	150	1	163,810	6480222
GKSBV 90120S FS	100	295	200	1	178,420	6480223
GKSBV 90130S FS	100	295	300	1	207,660	6480224
GKSBV 90140S FS	100	295	400	1	236,890	6480225
GKSBV 90150S FS	100	295	500	1	266,120	6480226
GKSBV 90115S FT	100	295	150	1	179,300	6483222
GKSBV 90120S FT	100	295	200	1	195,800	6483223
GKSBV 90130S FT	100	295	300	1	227,700	6483224
GKSBV 90140S FT	100	295	400	1	259,600	6483225
GKSBV 90150S FT	100	295	500	1	292,600	6483226

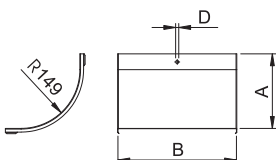
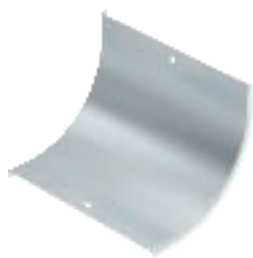
St Steel

FS Strip-galvanised FT Hot-dip galvanised

90° rising vertical bend, for all GKS... cable tray types of 100 mm side height.

/pc.

Lid for 90° vertical bend, rising



Type	Dim.	Dim.	Dim.	Pack.	Weight	Item No.
	B	A	D			
	mm	mm	mm	pcs	kg/100 pcs.	
GKSBV 90150S FS	150	190	8	1	34,850	6480232
GKSBV 90200S FS	200	190	8	1	43,350	6480233
GKSBV 90300S FS	300	190	8	1	63,750	6480234
GKSBV 90400S FS	400	190	8	1	87,550	6480235
GKSBV 90500S FS	500	190	8	1	107,950	6480236
GKSBV 90150S FT	150	190	8	1	38,330	6483232
GKSBV 90200S FT	200	190	8	1	47,680	6483233
GKSBV 90300S FT	300	190	8	1	70,120	6483234
GKSBV 90400S FT	400	190	8	1	96,300	6483235
GKSBV 90500S FT	500	190	8	1	118,740	6483236

St Steel

FS Strip-galvanised FT Hot-dip galvanised

Lid for 90° vertical bend (rising) fitting for GKS... cable tray types

/pc.

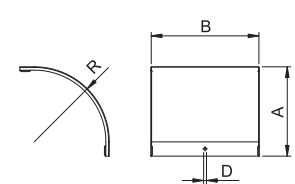
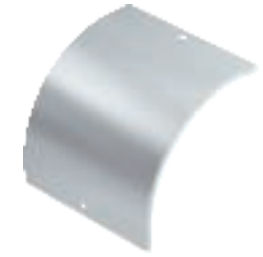
Lid for 90° vertical bend, falling

Type	Dim.	Dim.	Dim.	Dim.	Pack.	Weight	Item No.
	B	A	D	R			
	mm	mm	mm	mm	pcs	kg/100 pcs.	
GKSDBV 90150F FS	150	290	8	250	1	52,540	6480332
GKSDBV 90200F FS	200	290	8	250	1	67,300	6480333
GKSDBV 90300F FS	300	290	8	250	1	96,810	6480334
GKSDBV 90400F FS	400	290	8	250	1	157,910	6480335
GKSDBV 90500F FS	500	290	8	250	1	194,810	6480336
GKSDBV 90150F FT	150	290	8	250	1	57,200	6483332
GKSDBV 90200F FT	200	290	8	250	1	74,040	6483333
GKSDBV 90300F FT	300	290	8	250	1	105,600	6483334
GKSDBV 90400F FT	400	290	8	250	1	173,700	6483335
GKSDBV 90500F FT	500	290	8	250	1	213,400	6483336

St Steel

FS Strip-galvanised FT Hot-dip galvanised

Lid for 90° vertical bend (falling) fitting with 100 mm side height for GKS... cable tray types



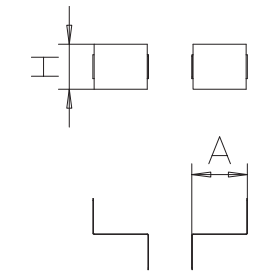
Reducing angle central, two-part

Type	Dim.	Dim.	Pack.	Weight	Item No.
	H	A			
	mm	mm	pcs	kg/100 pcs.	
GKSRA 1 25 FS	100	25	1	30,230	6480861
GKSRA 1 50 FS	100	50	1	34,150	6480862
GKSRA 1 75 FS	100	75	1	38,080	6480863
GKSRA 1 100 FS	100	100	1	42,000	6480864
GKSRA 1 125 FS	100	125	1	45,920	6480865
GKSRA 1 150 FS	100	150	1	49,840	6480866
GKSRA 1 175 FS	100	175	1	53,760	6480867
GKSRA 1 200 FS	100	200	1	57,680	6480868
GKSRA 1 25 FT	100	25	1	33,000	6483861
GKSRA 1 50 FT	100	50	1	37,400	6483862
GKSRA 1 75 FT	100	75	1	41,800	6483863
GKSRA 1 100 FT	100	100	1	46,200	6483864
GKSRA 1 125 FT	100	125	1	49,500	6483865
GKSRA 1 150 FT	100	150	1	53,900	6483866
GKSRA 1 175 FT	100	175	1	58,300	6483867
GKSRA 1 200 FT	100	200	1	62,700	6483868

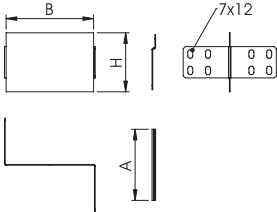
St Steel

FS Strip-galvanised FT Hot-dip galvanised

Central reducing bracket, 2-part for GKS... type cable trays with a side height of 100 mm.



Reducing angle single-sided, two-part



Type	Dim.		Pack.	Weight	Item No.
	H	B			
	mm	mm	pcs	kg/100 pcs.	
GKSRL 100 50 FS	100	50	1	30,760	6480897
GKSRL 100 100 FS	100	100	1	34,600	6480899
GKSRL 100 150 FS	100	150	1	38,520	6480895
GKSRL 100 200 FS	100	200	1	42,440	6480901
GKSRL 100 250 FS	100	250	1	45,500	6480903
GKSRL 100 300 FS	100	300	1	49,300	6480905
GKSRL 100 350 FS	100	350	1	53,110	6480907
GKSRL 100 400 FS	100	400	1	56,920	6480909
GKSRL 100 50 FT	100	50	1	41,250	6483888
GKSRL 100 100 FT	100	100	1	45,100	6483889
GKSRL 100 150 FT	100	150	1	41,800	6483887
GKSRL 100 200 FT	100	200	1	44,000	6483890
GKSRL 100 250 FT	100	250	1	37,400	6483891
GKSRL 100 300 FT	100	300	1	52,800	6483892
GKSRL 100 350 FT	100	350	1	50,600	6483893
GKSRL 100 400 FT	100	400	1	41,800	6483894

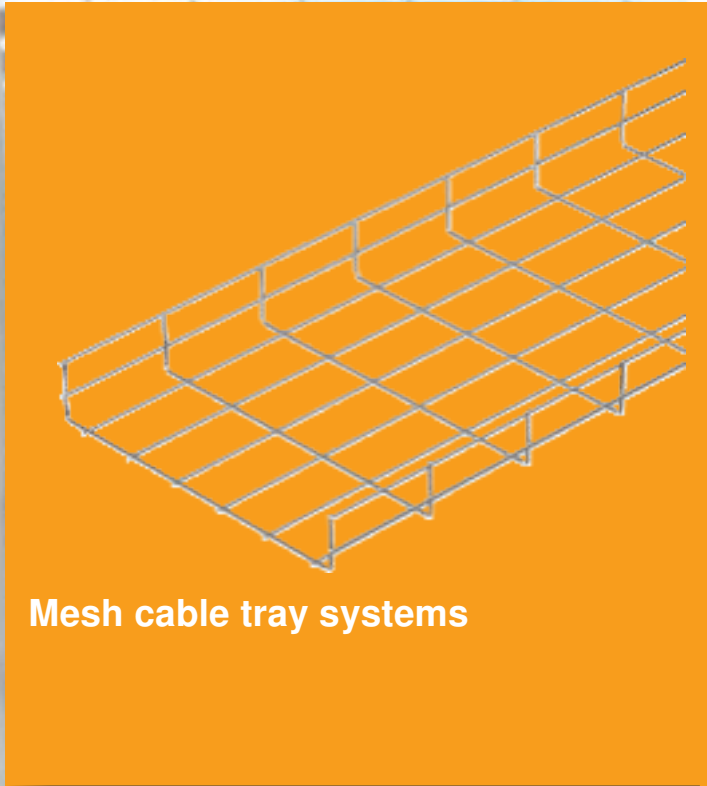
St Steel

FS Strip-galvanised **FT** Hot-dip galvanised

/pc.

One-sided reducing bracket, 2-part for GKS... type cable trays with a side height of 100 mm.








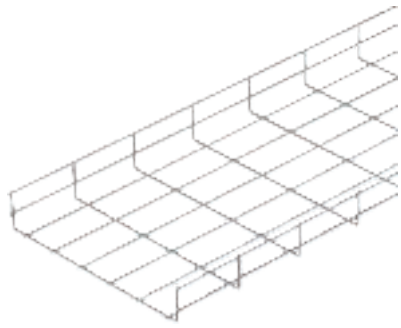
Mesh cable tray systems



Mesh cable tray systems

	Side height 55 mm	58
	Side height 105 mm	61
	Accessories for side height 55, 105 mm	64

Mesh cable tray GR 55

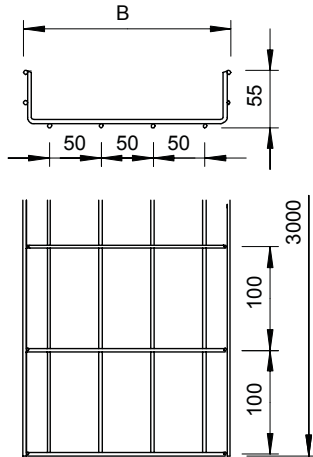


Type	Width mm	Wire Ø mm	Pack. m	Weight kg/100 m	Item No.
GR 55 100 G	100	3.9	3	70,400	6004814
GR 55 150 G	150	3.9	3	84,300	6004822
GR 55 200V G	200	4.8	3	128,600	6004830
GR 55 300 G	300	4.8	3	158,800	6004849
GR 55 400 G	400	4.8	3	230,000	6004857
GR 55 500 G	500	4.8	3	271,700	6004865
GR 55 600 G	600	4.8	3	313,000	6000770
GR 55 100 FT	100	3.9	3	73,800	6000118
GR 55 150 FT	150	3.9	3	86,800	6000150
GR 55 200V FT	200	4.7	1	162,000	6005039
GR 55 300 FT	300	4.8	3	165,500	6000304
GR 55 400 FT	400	4.8	3	230,000	6000401
GR 55 500 FT	500	4.8	3	271,700	6000509
GR 55 600 FT	600	4.8	3	313,000	6000606
GR 55 100 A2	100	3.8	3	70,400	6000908
GR 55 150 A2	150	3.8	3	84,300	6000912
GR 55 200 A2	200	3.8	3	97,400	6000916
GR 55 300 A2	300	4.8	3	158,800	6000924
GR 55 400 A2	400	4.8	3	230,000	6000932
GR 55 500 A2	500	4.8	3	271,700	6000940
GR 55 600 A2	600	4.8	3	313,000	6000959

St Steel V2A Stainless steel, A2 /m
 G Electrogalvanised GB pickled FT Hot-dip galvanised

Mesh cable tray made of spot-welded steel wire of side height 55 mm.

Dimensions



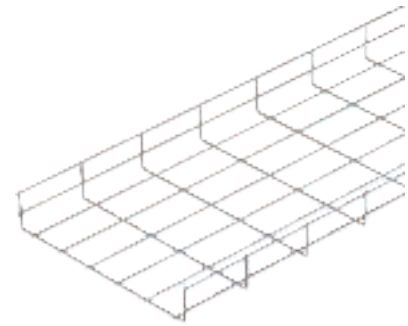
Type	Length mm	Dim. B mm	Wire Ø mm	Useful cross- section cm ²
GR 55 100 G	3000	100	3.9	40
GR 55 150 G	3000	150	3.9	63
GR 55 200V G	3000	—	4.8	87
GR 55 300 G	3000	300	4.8	129
GR 55 400 G	3000	400	4.8	175
GR 55 500 G	3000	500	4.8	220
GR 55 600 G	3000	600	4.8	265

Mesh cable tray GR 55, wire ø 6 mm

Type	Width mm	Wire Ø mm	Pack. m	Weight kg/100 m	Item No.
GR 55 100 6 G	100	6	3	166,340	6005470
GR 55 150 6 G	150	6	3	199,000	6005472
GR 55 200 6 G	200	6	3	231,340	6005474
GR 55 300 6 G	300	6	3	296,340	6005476
GR 55 400 6 G	400	6	3	361,340	6005478
GR 55 500 6 G	500	6	3	426,340	6005480
GR 55 600 6 G	600	6	3	491,670	6005482
GR 55 100 6 FT	100	6	3	199,000	6000122
GR 55 150 6 FT	150	6	3	205,330	6000190
GR 55 200 6 FT	200	6	3	238,670	6000209
GR 55 300 6 FT	300	6	3	305,700	6000331
GR 55 400 6 FT	400	6	3	366,670	6000451
GR 55 500 6 FT	500	6	3	439,670	6000515
GR 55 600 6 FT	600	6	3	507,000	6000775

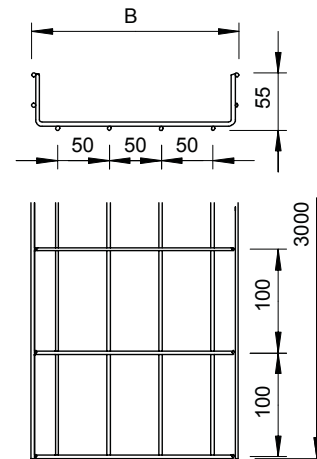
St. Steel /m
G Electrogalvanised FT Hot-dip galvanised

Mesh cable tray made of spot-welded steel wire of side height 55 mm.



Type	Length mm	Dim. B mm	Wire Ø mm	Useful cross- section cm ²
GR 55 100 6 G	3000	100	6	40
GR 55 150 6 G	3000	150	6	63
GR 55 200 6 G	3000	200	6	87
GR 55 300 6 G	3000	300	6	129
GR 55 400 6 G	3000	400	6	175
GR 55 500 6 G	3000	500	6	220
GR 55 600 6 G	3000	600	6	265

Dimensions

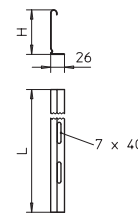


Type	Dim. H mm	Dim. L mm	Pack. m	Weight kg/100 m	Item No.
TSG 45 DD	45	3000	3	46,700	6062321
TSG 45 VA4301	45	3000	3	47,000	6062025

St. Steel V2A Stainless steel, grade 304 /m
DD Strip galvanised zinc/aluminium, Double Dip

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

Barrier strip

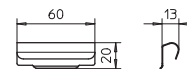


Barrier strip connector

Type	Pack. pcs	Weight kg/100 pcs.	Item No.
TSGV VA4310	10	1,000	6067970

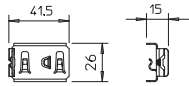
V2A Stainless steel, grade 301 /pc.

Barrier strip connector for screwless connection of the TSG barrier strip in all side heights.



Mesh cable tray, slant height 55 mm

Hold-down clamp for barrier strip fastening



Type

KS GR VA4310

V2A Stainless steel, grade 301

Hold-down clamp for fastening barrier strips in mesh cable trays.

Pack. Weight

pcs	kg/100 pcs.	Item No.
30	0,830	6062282

/100 pc.

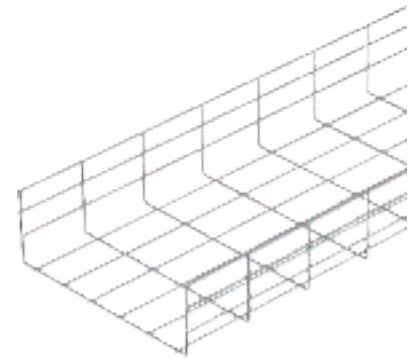
Mesh cable tray GR 105



Type	Width mm	Wire Ø mm	Pack. m	Weight kg/100 m	Item No.
GR 105 100 G	100	3.9	3	97,400	6002838
GR 105 150 G	150	3.9	3	116,200	6002803
GR 105 200 G	200	4.8	3	158,800	6002846
GR 105 300 G	300	4.8	3	230,300	6002854
GR 105 400 G	400	4.8	3	273,000	6002927
GR 105 500 G	500	4.8	3	313,000	6002935
GR 105 600 G	600	4.8	3	354,300	6002943
GR 105 100 FT	100	3.9	3	102,100	6003109
GR 105 150 FT	150	3.9	3	116,200	6003168
GR 105 200 FT	200	4.8	3	158,800	6003206
GR 105 300 FT	300	4.8	3	239,300	6003303
GR 105 400 FT	400	4.8	3	282,300	6003400
GR 105 500 FT	500	4.8	3	325,000	6003508
GR 105 600 FT	600	4.8	3	354,300	6003605
GR 105 100 A2	100	3.8	3	97,400	6002811
GR 105 150 A2	150	3.8	3	116,200	6002815
GR 105 200 A2	200	4.8	3	158,800	6002749
GR 105 300 A2	300	4.8	3	230,000	6002862
GR 105 400 A2	400	4.8	3	273,000	6002870
GR 105 500 A2	500	4.8	3	313,000	6002874
GR 105 600 A2	600	4.8	3	354,300	6002878

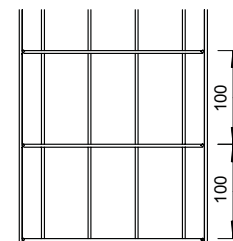
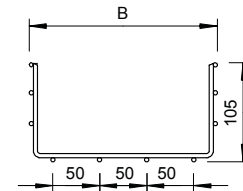
St Steel V2A Stainless steel, A2 /m
 G Electrogalvanised GB pickled Ft Hot-dip galvanised

Mesh cable tray made of spot-welded steel wire of side height 105 mm.



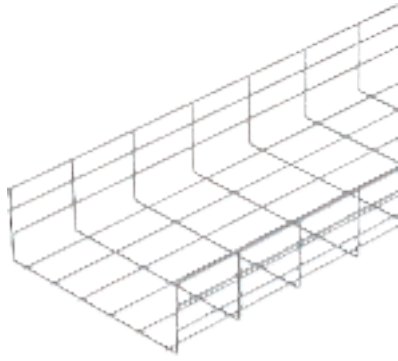
Type	Length mm	Dim. B mm	Wire Ø mm	Useful cross- section cm ²
GR 105 100 G	3000	100	3.9	82
GR 105 150 G	3000	150	3.9	130
GR 105 200 G	3000	200	4.8	175
GR 105 300 G	3000	300	4.8	268
GR 105 400 G	3000	400	4.8	363
GR 105 500 G	3000	500	4.8	459
GR 105 600 G	3000	600	4.8	554

Dimensions



Mesh cable tray, slant height 105 mm

Mesh cable tray GR 105, wire ø 6 mm

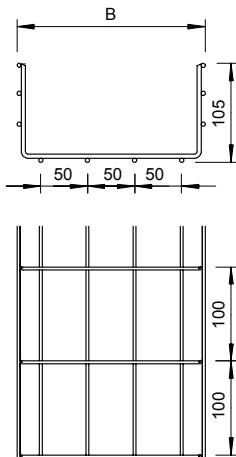


Type	Width mm	Wire Ø mm	Pack. m	Weight kg/100 m	Item No.
GR 105 100 6 G	100	6	3	231,340	6002606
GR 105 150 6 G	150	6	3	294,000	6002608
GR 105 200 6 G	200	6	3	296,340	6002612
GR 105 300 6 G	300	6	3	361,340	6002614
GR 105 400 6 G	400	6	3	426,340	6002616
GR 105 500 6 G	500	6	3	491,670	6002620
GR 105 600 6 G	600	6	3	557,340	6002622
GR 105 100 6 FT	100	6	3	238,670	6003117
GR 105 150 6 FT	150	6	3	272,340	6003175
GR 105 200 6 FT	200	6	3	305,700	6003214
GR 105 300 6 FT	300	6	3	372,670	6003309
GR 105 400 6 FT	400	6	3	439,670	6003402
GR 105 500 6 FT	500	6	3	507,000	6003515
GR 105 600 6 FT	600	6	3	574,700	6003616

St Steel /m
 G Electrogalvanised FT Hot-dip galvanised

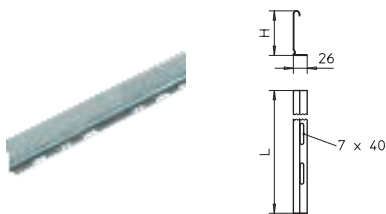
Mesh cable tray made of spot-welded steel wire of side height 105 mm.

Dimensions



Type	Length mm	Dim. B mm	Wire Ø mm	Useful cross- section cm ²
GR 105 100 6 G	3000	100	6	82
GR 105 150 6 G	3000	150	6	130
GR 105 200 6 G	3000	200	6	175
GR 105 300 6 G	3000	300	6	268
GR 105 400 6 G	3000	400	6	363
GR 105 500 6 G	3000	500	6	459
GR 105 600 6 G	3000	600	6	554

Barrier strip

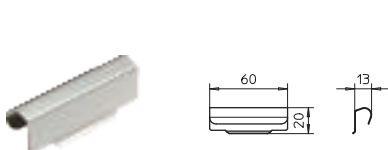


Type	Dim. H mm	Plate thickness mm	Dim. L mm	Pack. m	Weight kg/100 m	Item No.
TSG 85 DD	85	0.75	3000	3	70,300	6062331
TSG 85 VA4301	85	—	3000	3	69,670	6062173

St Steel V2A Stainless steel, grade 304 /m
 DD Strip galvanised zinc/aluminium, Double Dip

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

Barrier strip connector



Type	Pack. pcs	Weight kg/100 pcs	Item No.
TSGV VA4310	10	1,000	6067970

V2A Stainless steel, grade 301 /pc.

Barrier strip connector for screwless connection of the TSG barrier strip in all side heights.

Hold-down clamp for barrier strip fastening

Type

KS GR VA4310

V2A Stainless steel, grade 301

Hold-down clamp for fastening barrier strips in mesh cable trays.

Pack. Weight

pcs kg/100 pcs.

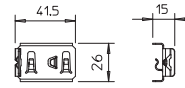
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0,830

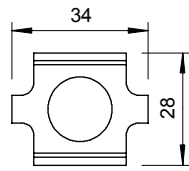
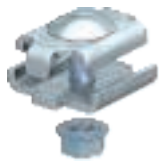
Item No.

6062282

/100 pc.



Joint connector



Type

Type	Pack. pcs	Weight kg/100 pcs.	Item No.
GSV 34 G	20	3,000	6016596
GSV 34 FT	20	3,000	6016634
GSV 34 VA4301	20	3,000	6016642

St Steel **V2A** Stainless steel, grade 304
G Electrogalvanised **FT** Hot-dip galvanised

Including FRS M6 x 20 bolt with flange nut.

Screwed version of joint connector for mesh cable trays.

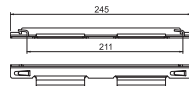
Figure: Positioning and quantity of mesh cable tray connectors.

50-150 mm = 2 units

400 mm = 3 units

450-600 mm = 5 units

Mesh cable tray connector, long



Type

Type	Width mm	Pack. pcs	Weight kg/100 pcs.	Item No.
GRV 245 FS	245	20	13,500	6016680
GRV 245 DD	245	20	13,500	6016684
GRV 245 VA4404	245	20	13,500	6016688

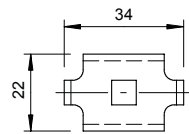
St Steel **V4A** Stainless steel, grade 316 L

FS Strip-galvanised **DD** Strip galvanised zinc/aluminium, Double Dip

Two straight connectors, type GRV 245, are used for each connection point.

Long mesh cable tray connection for screwless straight connection of mesh cable trays.

Hold-down clamp



Type

Type	Pack. pcs	Weight kg/100 pcs.	Item No.
GKS 34 G	20	2,000	6016855
GKS 34 FT	20	2,000	6016820
GKS 34 VA4301	20	2,000	6016839

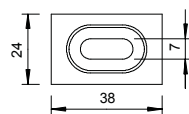
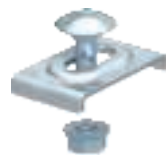
St Steel **V2A** Stainless steel, grade 304

G Electrogalvanised **FT** Hot-dip galvanised

Including FRS M6 x 20 bolt with flange nut.

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

Hold-down clamp



Type

Type	Pack. pcs	Weight kg/100 pcs.	Item No.
GKT 38 G	20	2,300	6017037
GKT 38 FT	20	2,400	6017061
GKT 38 VA4301	20	2,200	6017045

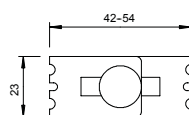
St Steel **V2A** Stainless steel, grade 304

G Electrogalvanised **FT** Hot-dip galvanised

Including FRS M6 x 20 bolt with flange nut.

Clamp for fastening barrier strip in mesh cable trays.

Corner connector



Type

Type	Pack. pcs	Weight kg/100 pcs.	Item No.
GEV 36 G	20	3,000	6016715
GEV 36 FT	20	3,000	6016723
GKT 38 VA4301	20	2,200	6017045

St Steel **V2A** Stainless steel, grade 304

G Electrogalvanised **FT** Hot-dip galvanised

Including FRS M6 x 12 bolt with flange nut

Corner connector for the creation of mesh cable tray bend elements.

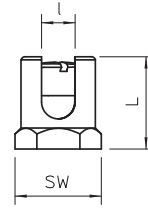
Earthing terminal

Type	Dim. L mm	Cross-section mm ²	SW mm	Thread	Accessories	Pack. pcs	Weight kg/100 pcs.	Item No.
EKL 25 M6	22	25	18	M6	—	50	3,100	6404006
EKL 35 M6	26	35	21	M6	—	50	4,800	6404014

CuZn Brass

/100 pcs.

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



Wall clamp / central hanger

Type	Pack. pcs	Weight kg/100 pcs.	Item No.
K 12 1818 FS	25	7,600	6437109
K12 1818 VA4301	25	7,600	6016421

St Steel **V2A** Stainless steel, grade 304

/pc.

FS Strip-galvanised

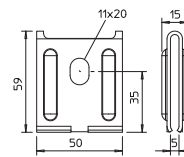
Recommendation:

As wall mounting up to max. mesh cable tray width 200 mm.

As centre suspension up to max. mesh cable tray width 200 mm.

As a trapeze suspension from a width of 300 mm.

Wall clamp and central hanger for mesh cable trays.



Stand-off bracket

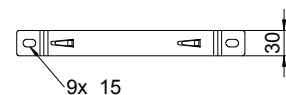
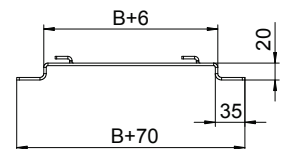
Type	Dim. B mm	Pack. pcs	Weight kg/100 pcs.	Item No.
DBLG 20 100 FS	100	20	13,800	6015654
DBLG 20 150 FS	150	20	17,400	6015658
DBLG 20 200 FS	200	20	20,900	6015662
DBLG 20 300 FS	300	20	37,300	6015670
DBLG 20 400 FS	400	20	46,700	6015689
DBLG 20 500 FS	500	25	56,900	6015693
DBLG 20 600 FS	600	25	66,400	6015697
DBLG 20 100 FT	100	20	14,300	6015656
DBLG 20 150 FT	150	20	18,100	6015660
DBLG 20 200 FT	200	20	21,700	6015664
DBLG 20 300 FT	300	20	38,800	6015672
DBLG 20 400 FT	400	20	48,600	6015691
DBLG 20 500 FT	500	25	59,200	6015695
DBLG 20 600 FT	600	25	69,100	6015699

St Steel

FS Strip-galvanised **FT** Hot-dip galvanised

/pc.

Screwless fastening of the mesh cable tray on the stand-off bracket.



Side holder

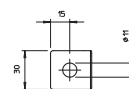
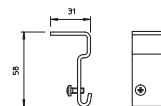
Type	For threaded rod	Pack. pcs	Weight kg/100 pcs.	Item No.
SH M10 FS	M10	50	5,800	6015336
SH M10 FT	M10	50	6,000	6015338
SH M10 A4	M10	20	5,500	6015340

St Steel **V4A** Stainless steel, grade 316

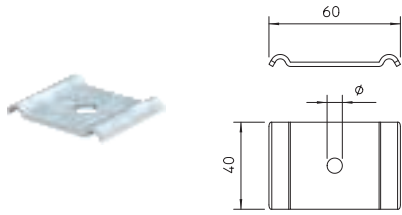
/pc.

FS Strip-galvanised **FT** Hot-dip galvanised

Side holder for suspension of mesh cable trays.



Hold-down clamp



Type	Hole- Ø mm	Pack. pcs	Weight kg/100 pcs.	Item No.
GKS 50 07 FS	7	50	4,000	6015263
GKS 50 11 FS	11	50	4,000	6015276
GKS 50 07 FT	7	50	4,100	6015271
GKS 50 11 FT	11	50	4,100	6015278
GKS 50 11 V4A	11	20	4,000	6015280

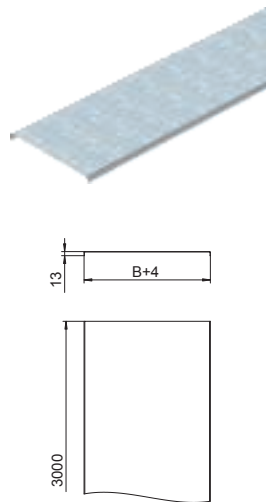
SI Steel V4A Stainless steel, grade 316 L

FS Strip-galvanised FT Hot-dip galvanised

/pc.

Hold-down clamp for fastening mesh cable trays on the ground or on stand-off brackets of type DBL.

Cover



Type	Plate			Pack. m	Weight kg/100 m	Item No.
	Width mm	thickness mm	Length mm			
DRLU 100 FS	100	0.75	3000	3	98,670	6052103
DRLU 150 FS	150	0.75	3000	3	138,000	6052153
DRLU 200 FS	200	1	3000	3	177,670	6052210
DRLU 300 FS	300	1	3000	3	255,670	6052307
DRLU 400 FS	400	1	3000	3	334,670	6052405
DRLU 500 FS	500	1.25	3000	3	619,500	6052512
DRLU 600 FS	600	1.25	3000	3	737,340	6052609
DRLU 100 DD	100	0.75	3000	3	89,000	6052643
DRLU 150 DD	150	0.75	3000	3	138,340	6052647
DRLU 200 DD	200	1	3000	3	177,670	6052650
DRLU 300 DD	300	1	3000	3	256,000	6052656
DRLU 400 DD	400	1	3000	3	334,470	6052662
DRLU 500 DD	500	1.25	3000	3	619,340	6052668
DRLU 600 DD	600	1.25	3000	3	737,270	6052674
DRLU 100 VA4301	100	1	3000	3	99,000	6052824
DRLU 150 VA4301	150	1	3000	3	138,000	6052828
DRLU 200 VA4301	200	1	3000	3	177,670	6052831
DRLU 300 VA4301	300	1	3000	3	256,000	6052834
DRLU 400 VA4301	400	1	3000	3	334,670	6052837
DRLU 500 VA4301	500	1.25	3000	3	516,000	6052841
DRLU 600 VA4301	600	1.25	3000	3	737,270	6052844

SI Steel V2A Stainless steel, grade 304

FS Strip-galvanised DD Strip galvanised zinc/aluminium, Double Dip

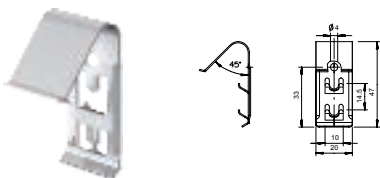
/m

Transverse bead from 500 mm width.

Cover for cable trays and mesh cable trays.

When using covers outdoors, additional measures against the influence of wind must be taken. Cover clamps or turn buckles on their own are not sufficient securing elements against wind loads.

Cover clamp, universal



Type	Pack. pcs	Weight kg/100 pcs.	Item No.
DKU VA4310	20	0,800	6065600

V2A Stainless steel, grade 301

/100 pc.

Depending on the tray width, 4–6 cover clamps are required for secure fastening of a 3 m cover.

Bolt cutter



Type	Length mm	Pack. pcs	Weight kg/100 pcs.	Item No.
GR BS	450	1	160,000	6017700

SI Steel

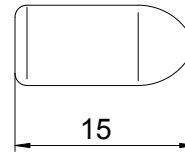
/pc.

Bolt cutter for cutting mesh cable trays.

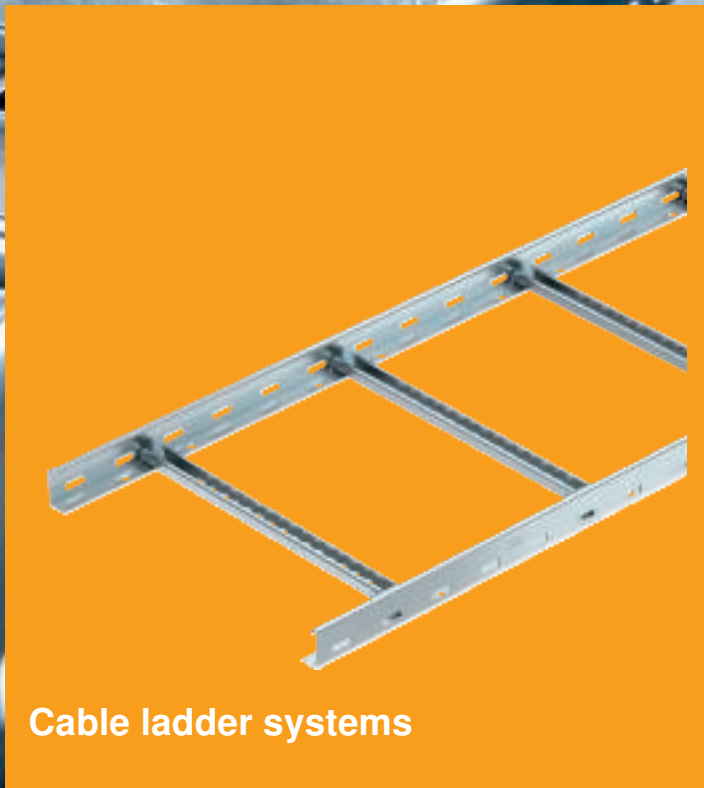
End cap

Type	Colour	Pack. pcs	Weight kg/100 pcs.	Item No.
GR KS 3.9 OR	Pure orange	500	0,025	6003750
GR KS 4.8 OR	Pure orange	500	0,030	6003754
GR KS 6.0 OR	Pure orange	500	0,036	6003758

PVC Polyvinylchloride /100 pc.



End cap to cover cut wire ends of mesh cable trays.



Cable ladder systems

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Cable ladder systems

	Side rail height 50 mm	70
	Side rail height 75 mm	73
	Side rail height 100 mm	76
	Accessories for side rail height 50, 75, 100 mm	79



Cable ladder, side height 50 mm

Cable ladder LG 50



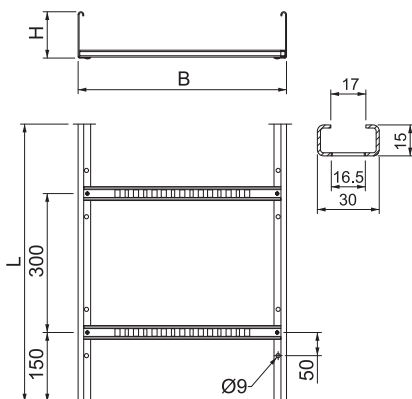
Type	Rail		Pack.	Weight	Item No.
	Width	thickness			
	mm	mm	m	kg/100 m	
LG 520 VS FS	200	1.5	3	241,933	6487012
LG 530 VS FS	300	1.5	3	263,667	6487014
LG 545 VS FS	450	1.5	3	297,800	6487017
LG 560 VS FS	600	1.5	3	328,900	6487019
LG 520 VS FT	200	1.5	3	257,967	6487002
LG 530 VS FT	300	1.5	3	281,167	6487004
LG 545 VS FT	450	1.5	3	317,567	6487007
LG 560 VS FT	600	1.5	3	350,700	6487009

St Steel

FS Strip-galvanised FT Hot-dip galvanised

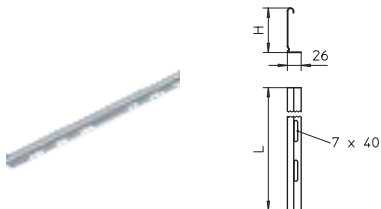
/m

Dimensions



Type	Length	Width	Rail	Useful	Rung
	mm	mm	mm	cm ²	mm
LG 520 VS FS	3000	200	1.5	60	300
LG 530 VS FS	3000	300	1.5	90	300
LG 545 VS FS	3000	450	1.5	134	300
LG 560 VS FS	3000	600	1.5	179	300

Barrier strip



Type	Dim.		Pack.	Weight	Item No.
	H	L			
	mm	mm	m	kg/100 m	
TSG 30 DD	30	3000	3	38,000	6062314

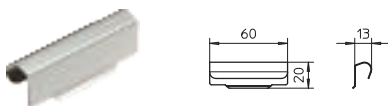
St Steel

DD Strip galvanised zinc/aluminium, Double Dip

/m

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

Barrier strip connector VA



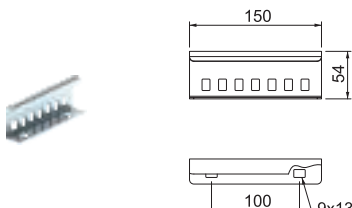
Type	Pack.	Weight	Item No.
TSGV VA4310	10	1,000	6067970

V2A Stainless steel, grade 301

/pc.

Barrier strip connector for screwless connection of the TSG barrier strip in all side heights.

Straight connector



Type	Side	Pack.	Weight	Item No.
	mm	pcs	kg/100 pcs.	
LVG 50 FS	50	10	22,500	6487335
LVG 50 FT	50	10	24,000	6487325

St Steel

FS Strip-galvanised FT Hot-dip galvanised

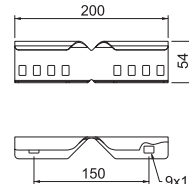
/pc.

Straight and angle connector

Type	Side height mm	Pack. pcs	Weight kg/100 pcs.	Item No.
LWVG 50 FS	50	10	25,900	6487362
LWVG 50 FT	50	10	27,600	6487352

St Steel
FS Strip-galvanised FT Hot-dip galvanised

/pc.

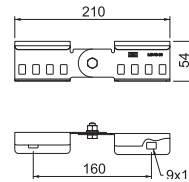


Articulated connector

Type	Side height mm	Pack. pcs	Weight kg/100 pcs.	Item No.
LGVG 50 FS	50	10	26,400	6487315
LGVG 50 FT	50	10	27,700	6487305

St Steel
FS Strip-galvanised FT Hot-dip galvanised

/pc.

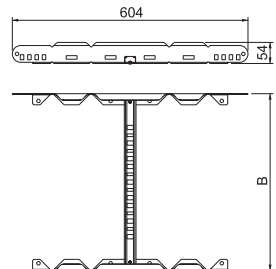


Multifunctional connector

Type	Side height mm	Dim. B mm	Plate thickness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
LMFV 520 FS	50	200	1.5	1	109,800	6487412
LMFV 530 FS	50	300	1.5	1	116,200	6487414
LMFV 545 FS	50	450	1.5	1	126,500	6487416
LMFV 560 FS	50	600	1.5	1	135,800	6487418
LMFV 520 FT	50	200	1.5	1	117,100	6487402
LMFV 530 FT	50	300	1.5	1	123,900	6487404
LMFV 545 FT	50	450	1.5	1	134,900	6487406
LMFV 560 FT	50	600	1.5	1	144,800	6487408

St Steel
FS Strip-galvanised FT Hot-dip galvanised

/pc.

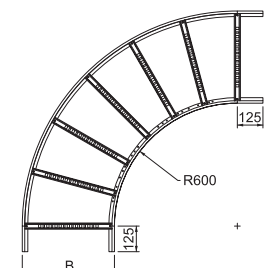


90° bend

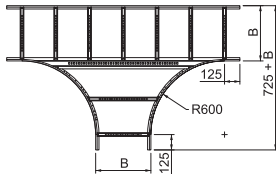
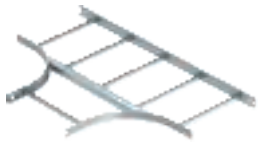
Type	Width rail mm	Material thickness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
LB 90 520 VS FS	200	1.5	1	232,900	6487212
LB 90 530 VS FS	300	1.5	1	294,900	6487214
LB 90 545 VS FS	450	1.5	1	370,500	6487216
LB 90 560 VS FS	600	1.5	1	480,700	6487218
LB 90 520 VS FT	200	1.5	1	248,300	6487202
LB 90 530 VS FT	300	1.5	1	314,500	6487204
LB 90 545 VS FT	450	1.5	1	395,100	6487206
LB 90 560 VS FT	600	1.5	1	512,600	6487208

St Steel
FS Strip-galvanised FT Hot-dip galvanised

/pc.



Tee



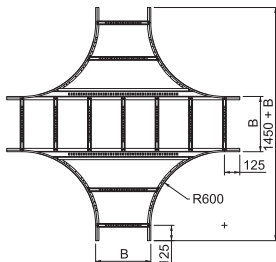
Type	Width rail		Material thickness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
	mm	mm				
LT 520 VS FS	200	1.5		1	451,000	6487672
LT 530 VS FS	300	1.5		1	519,200	6487674
LT 545 VS FS	450	1.5		1	624,700	6487676
LT 560 VS FS	600	1.5		1	723,600	6487678
LT 520 VS FT	200	1.5		1	480,900	6487662
LT 530 VS FT	300	1.5		1	553,600	6487664
LT 545 VS FT	450	1.5		1	666,100	6487666
LT 560 VS FT	600	1.5		1	771,600	6487668

St Steel

FS Strip-galvanised FT Hot-dip galvanised

/pc.

Cross-Over



Type	Width rail		Material thickness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
	mm	mm				
LK 520 VS FS	200	1.5		1	620,100	6487512
LK 530 VS FS	300	1.5		1	703,000	6487514
LK 545 VS FS	450	1.5		1	831,700	6487516
LK 560 VS FS	600	1.5		1	951,700	6487518
LK 520 VS FT	200	1.5		1	661,200	6487502
LK 530 VS FT	300	1.5		1	749,600	6487504
LK 545 VS FT	450	1.5		1	886,900	6487506
LK 560 VS FT	600	1.5		1	1.014,800	6487508

St Steel

FS Strip-galvanised FT Hot-dip galvanised

/pc.



Cable ladder LG 75

Type	Width mm	Rail thickness mm	Pack. m	Weight kg/100 m	Item No.
LG 720 VS FS	200	1.5	3	292,900	6487052
LG 730 VS FS	300	1.5	3	314,667	6487054
LG 745 VS FS	450	1.5	3	348,767	6487057
LG 760 VS FS	600	1.5	3	379,867	6487059
LG 775 VS FS	750	2	3	562,300	6487062
LG 7100 VS FS	1000	2	3	641,733	6487065
LG 720 VS FT	200	1.5	3	312,333	6487032
LG 730 VS FT	300	1.5	3	335,533	6487034
LG 745 VS FT	450	1.5	3	371,900	6487037
LG 760 VS FT	600	1.5	3	405,067	6487039
LG 775 VS FT	750	2	3	590,267	6487042
LG 7100 VS FT	1000	2	3	684,300	6487045

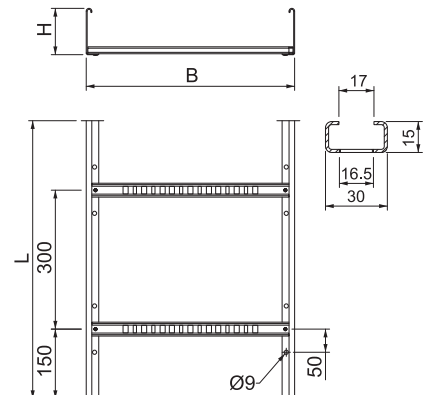
St Steel

FS Strip-galvanised FT Hot-dip galvanised



Dimensions

Type	Length mm	Width mm	Rail thickness mm	Useful cross- section cm ²	Rung spacing mm
LG 720 VS FS	3000	200	1.5	108	300
LG 730 VS FS	3000	300	1.5	163	300
LG 745 VS FS	3000	450	1.5	246	300
LG 760 VS FS	3000	600	1.5	328	300
LG 775 VS FS	3000	750	2	410	300
LG 7100 VS FS	3000	1000	2	548	300



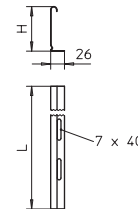
Type	Dim. H mm	Dim. L mm	Pack. m	Weight kg/100 m	Item No.
TSG 60 DD	60	3000	3	55,700	6062327

St Steel

DD Strip galvanised zinc/aluminium, Double Dip

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

Barrier strip

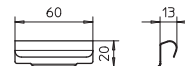


Barrier strip connector VA

Type	Pack. pcs	Weight kg/100 pcs	Item No.
TSGV VA4310	10	1,000	6067970

V2A Stainless steel, grade 301

Barrier strip connector for screwless connection of the TSG barrier strip in all side heights.

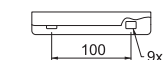
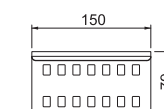


Straight connector

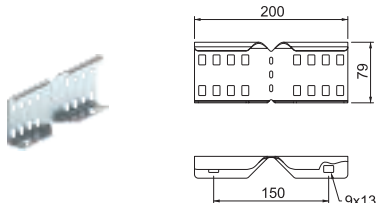
Type	Side height mm	Pack. pcs	Weight kg/100 pcs	Item No.
LVG 75 FS	75	10	32,500	6487337
LVG 75 FT	75	10	34,700	6487327

St Steel

FS Strip-galvanised FT Hot-dip galvanised



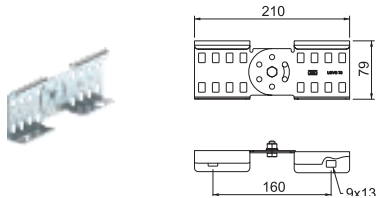
Straight and angle connector



Type	Side height mm	Pack. pcs	Weight kg/100 pcs.	Item No.
LWVG 75 FS	75	10	37,100	6487364
LWVG 75 FT	75	10	39,600	6487354

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

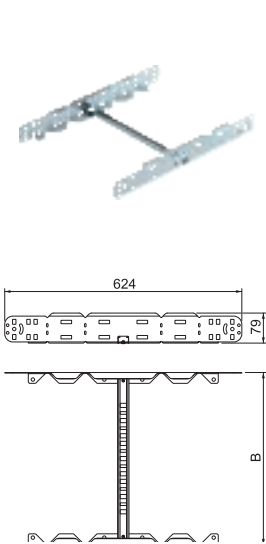
Adjustable connector



Type	Side height mm	Pack. pcs	Weight kg/100 pcs.	Item No.
LGVG 75 FS	75	10	36,700	6487317
LGVG 75 FT	75	10	38,300	6487307

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

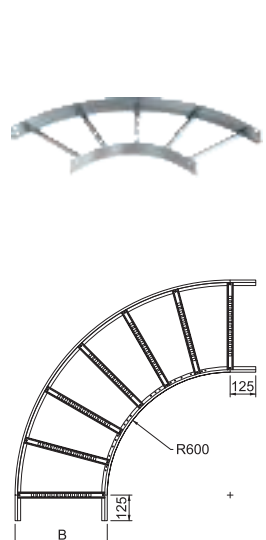
Multifunctional connector



Type	Side height mm	Dim. B mm	Plate thickness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
LMFV 720 FS	75	200	1.5	1	143,100	6487432
LMFV 730 FS	75	300	1.5	1	149,800	6487434
LMFV 745 FS	75	450	1.5	1	159,800	6487436
LMFV 760 FS	75	600	1.5	1	169,200	6487438
LMFV 720 FT	75	200	1.5	1	152,800	6487422
LMFV 730 FT	75	300	1.5	1	159,800	6487424
LMFV 745 FT	75	450	1.5	1	170,700	6487426
LMFV 760 FT	75	600	1.5	1	180,700	6487428

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

90° bend



Type	Width mm	Material rail thickness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
LB 90 720 VS FS	200	1.5	1	283,400	6487242
LB 90 730 VS FS	300	1.5	1	350,000	6487244
LB 90 745 VS FS	450	1.5	1	436,200	6487246
LB 90 760 VS FS	600	1.5	1	549,800	6487248
LB 90 775 VS FS	750	1.5	1	283,400	6487250
LB 90 7100 VS FS	1000	1.5	1	283,400	6487252
LB 90 720 VS FT	200	1.5	1	302,200	6487222
LB 90 730 VS FT	300	1.5	1	373,200	6487224
LB 90 745 VS FT	450	1.5	1	461,300	6487226
LB 90 760 VS FT	600	1.5	1	586,300	6487228
LB 90 775 VS FT	750	1.5	1	283,400	6487230
LB 90 7100 VS FT	1000	1.5	1	283,400	6487232

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

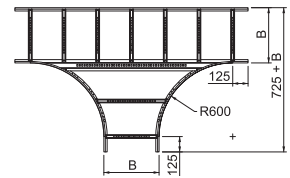
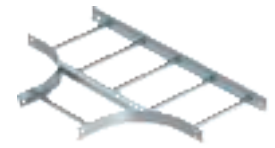
Tee

Type	Width mm	Material rail thickness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
LT 720 VS FS	200	1.5	1	522,700	6487702
LT 730 VS FS	300	1.5	1	594,400	6487704
LT 745 VS FS	450	1.5	1	704,400	6487706
LT 760 VS FS	600	1.5	1	807,600	6487708
LT 775 VS FS	750	1.5	1	1.112,700	6487710
LT 7100 VS FS	1000	1.5	1	1.358,700	6487712
LT 720 VS FT	200	1.5	1	557,400	6487682
LT 730 VS FT	300	1.5	1	633,800	6487684
LT 745 VS FT	450	1.5	1	751,100	6487686
LT 760 VS FT	600	1.5	1	861,200	6487688
LT 775 VS FT	750	1.5	1	1.186,500	6487690
LT 7100 VS FT	1000	1.5	1	1.448,800	6487692

St Steel

FS Strip-galvanised FT Hot-dip galvanised

/pc.



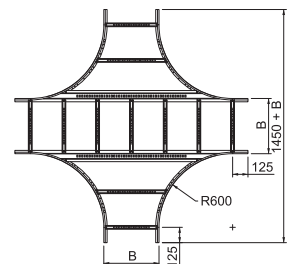
Cross-Over

Type	Width mm	Material rail thickness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
LK 720 VS FS	200	1.5	1	702,800	6487552
LK 730 VS FS	300	1.5	1	785,700	6487554
LK 745 VS FS	450	1.5	1	914,400	6487557
LK 760 VS FS	600	1.5	1	1.034,400	6487558
LK 775 VS FS	750	1.5	1	1.379,800	6487560
LK 7100 VS FS	1000	1.5	1	1.662,300	6487565
LK 720 VS FT	200	1.5	1	749,400	6487532
LK 730 VS FT	300	1.5	1	837,800	6487534
LK 745 VS FT	450	1.5	1	975,000	6487536
LK 760 VS FT	600	1.5	1	1.103,000	6487538
LK 775 VS FT	750	1.5	1	1.471,300	6487540
LK 7100 VS FT	1000	1.5	1	1.772,600	6487544

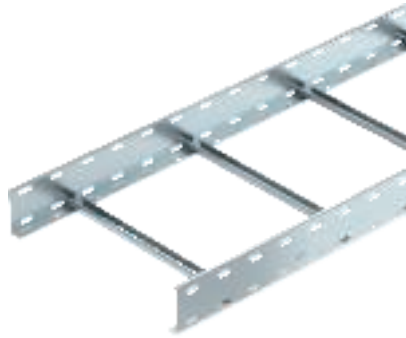
St Steel

FS Strip-galvanised FT Hot-dip galvanised

/pc.



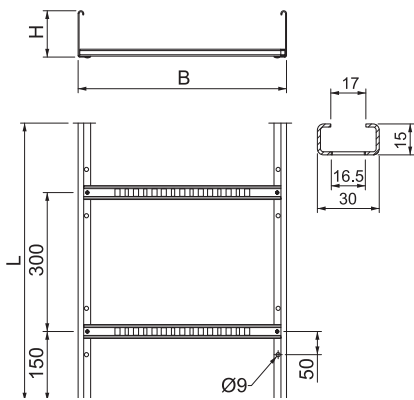
Cable ladder LG 100



Type	Width mm	Rail thickness mm	Pack. m	Weight kg/100 m	Item No.
LG 1020 VS FS	200	2	3	450,067	6487122
LG 1030 VS FS	300	2	3	471,833	6487124
LG 1045 VS FS	450	2	3	505,967	6487127
LG 1060 VS FS	600	2	3	537,033	6487129
LG 1075 VS FS	750	2	3	640,800	6487132
LG 1090 VS FS	900	2	3	688,433	6487134
LG 10100 VS FS	1000	2	3	720,233	6487136
LG 1020 VS FT	200	2	3	479,933	6487102
LG 1030 VS FT	300	2	3	503,133	6487104
LG 1045 VS FT	450	2	3	539,533	6487107
LG 1060 VS FT	600	2	3	572,667	6487109
LG 1075 VS FT	750	2	3	672,667	6487112
LG 1090 VS FT	900	2	3	722,667	6487114
LG 10100 VS FT	1000	2	3	756,067	6487116

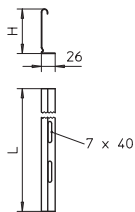
■ Steel
■ FS Strip-galvanised ■ FT Hot-dip galvanised /m

Dimensions



Type	Length mm	Width mm	Rail thickness mm	Useful cross- section cm ²	Rung spacing mm
LG 1020 VS FS	3000	200	2	158	300
LG 1030 VS FS	3000	300	2	238	300
LG 1045 VS FS	3000	450	2	358	300
LG 1060 VS FS	3000	600	2	478	300
LG 1075 VS FS	3000	750	2	598	300
LG 1090 VS FS	3000	900	2	718	300
LG 10100 VS FS	3000	1000	2	798	300

Barrier strip



Type	Dim. H mm	Plate thickness mm	Dim. L mm	Pack. m	Weight kg/100 m	Item No.
TSG 85 DD	85	0.75	3000	3	70,300	6062331

■ Si Steel
■ DD Strip galvanised zinc/aluminium, Double Dip /m
 Barrier strip for separation of cables of different voltages or functions.

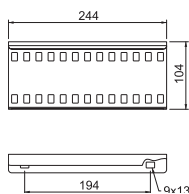
Barrier strip connector



Type	Pack. pcs	Weight kg/100 pcs.	Item No.
TSGV VA4310	10	1,000	6067970

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

Straight connector



Type	Side height mm	Pack. pcs	Weight kg/100 pcs.	Item No.
LVG 100 FS	100	10	51,500	6487339
LVG 100 FT	100	10	54,100	6487329

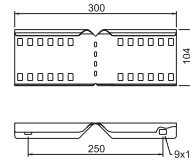
■ Si Steel
■ FS Strip-galvanised ■ FT Hot-dip galvanised /pc.

Straight and angle connector

Type	Side height mm	Pack. pcs	Weight kg/100 pcs.	Item No.
LWVG 100 FS	100	10	59,300	6487366
LWVG 100 FT	100	10	63,200	6487356

St Steel
 FS Strip-galvanised FT Hot-dip galvanised

/pc.

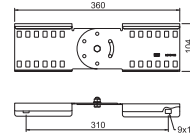


Ajustable connector

Type	Side height mm	Pack. pcs	Weight kg/100 pcs.	Item No.
LGVG 100 FS	100	10	70,200	6487319
LGVG 100 FT	100	10	74,000	6487309

St Steel
 FS Strip-galvanised FT Hot-dip galvanised

/pc.

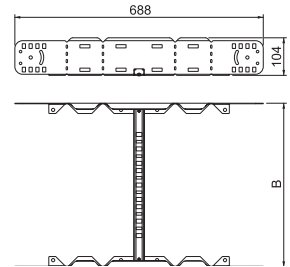


Multifunctional connector

Type	Side height mm	Dim. B mm	Plate thickness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
LMFV 120 FS	100	200	1.5	1	191,800	6487462
LMFV 130 FS	100	300	1.5	1	198,200	6487464
LMFV 145 FS	100	450	1.5	1	208,500	6487466
LMFV 160 FS	100	600	1.5	1	217,900	6487468
LMFV 120 FT	100	200	1.5	1	204,500	6487452
LMFV 130 FT	100	300	1.5	1	211,300	6487454
LMFV 145 FT	100	450	1.5	1	222,300	6487456
LMFV 160 FT	100	600	1.5	1	232,400	6487458

St Steel
 FS Strip-galvanised FT Hot-dip galvanised

/pc.

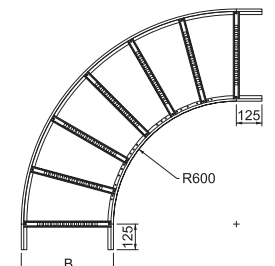


90° bend

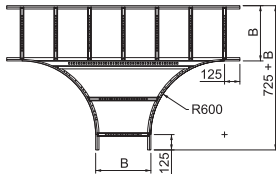
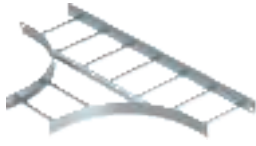
Type	Width rail mm	Material thickness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
LB 90 120 VS FS	200	1.5	1	501,300	6487282
LB 90 130 VS FS	300	1.5	1	579,000	6487284
LB 90 145 VS FS	450	1.5	1	708,700	6487286
LB 90 160 VS FS	600	1.5	1	812,200	6487288
LB 90 175 VS FS	750	1.5	1	1.080,400	6487290
LB 90 190 VS FS	900	1.5	1	1.288,500	6487291
LB 90 10100VS FS	1000	1.5	1	1.388,900	6487292
LB 90 120 VS FT	200	1.5	1	534,500	6487262
LB 90 130 VS FT	300	1.5	1	617,400	6487264
LB 90 145 VS FT	450	1.5	1	757,700	6487266
LB 90 160 VS FT	600	1.5	1	866,100	6487268
LB 90 175 VS FT	750	1.5	1	1.152,100	6487270
LB 90 190 VS FT	900	1.5	1	1.374,000	6487271
LB 90 10100VS FT	1000	1.5	1	1.481,000	6487272

St Steel
 FS Strip-galvanised FT Hot-dip galvanised

/pc.



Tee



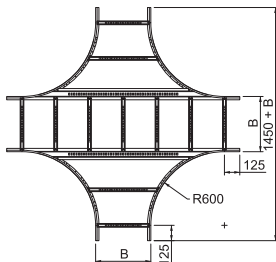
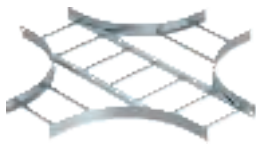
Type	Material thickness		Pack. pcs	Weight kg/100 pcs.	Item No.
	Width mm	rail mm			
LT 1020 VS FS	200	1.5	1	979,500	6487743
LT 1030 VS FS	300	1.5	1	1.066,600	6487744
LT 1045 VS FS	450	1.5	1	1.231,300	6487746
LT 1060 VS FS	600	1.5	1	1.366,900	6487748
LT 1075 VS FS	750	1.5	1	1.774,300	6487751
LT 1090 VS FS	900	1.5	1	1.970,400	6487752
LT 10100 VS FS	1000	1.5	1	2.100,700	6487754
LT 1020 VS FT	200	1.5	1	1.044,500	6487722
LT 1030 VS FT	300	1.5	1	1.137,300	6487724
LT 1045 VS FT	450	1.5	1	1.313,000	6487727
LT 1060 VS FT	600	1.5	1	1.457,600	6487728
LT 1075 VS FT	750	1.5	1	1.892,000	6487730
LT 1090 VS FT	900	1.5	1	2.101,100	6487732
LT 10100 VS FT	1000	1.5	1	2.240,000	6487735

St Steel

FS Strip-galvanised FT Hot-dip galvanised

/pc.

Cross-Over



Type	Material thickness		Pack. pcs	Weight kg/100 pcs.	Item No.
	Width mm	rail mm			
LK 1020 VS FS	200	1.5	1	1.346,400	6487602
LK 1030 VS FS	300	1.5	1	1.448,900	6487604
LK 1045 VS FS	450	1.5	1	1.638,000	6487606
LK 1060 VS FS	600	1.5	1	1.795,200	6487608
LK 1075 VS FS	750	1.5	1	2.273,400	6487610
LK 1090 VS FS	900	1.5	1	2.502,400	6487612
LK 10100 VS FS	1000	1.5	1	2.654,300	6487614
LK 1020 VS FT	200	1.5	1	1.435,700	6487582
LK 1030 VS FT	300	1.5	1	1.545,000	6487584
LK 1045 VS FT	450	1.5	1	1.746,600	6487586
LK 1060 VS FT	600	1.5	1	1.914,300	6487588
LK 1075 VS FT	750	1.5	1	2.424,200	6487590
LK 1090 VS FT	900	1.5	1	2.668,400	6487592
LK 10100 VS FT	1000	1.5	1	2.830,400	6487594

St Steel

FS Strip-galvanised FT Hot-dip galvanised

/pc.



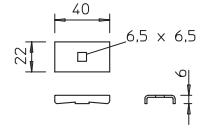
Hold-down clamp

Type	Pack. pcs	Weight kg/100 pcs.	Item No.
LKS 40 FS	10	3,400	6221076
LKS 40 FT	10	3,400	6221084

St Steel

FS Strip-galvanised **FT** Hot-dip galvanised

Hold-down clamp for fastening cable ladders.



Hold-down clamp

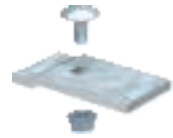
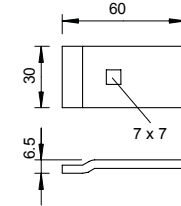
Type	Pack. pcs	Weight kg/100 pcs.	Item No.
LKS 60 4 FT	10	6,500	6221122

St Steel

FT Hot-dip galvanised

Fastening on brackets, type MWA 12, AW 15, AW 30 and AW 55, using the enclosed truss-head bolt FRS M6x20.

Hold-down clamp for fastening cable ladders.



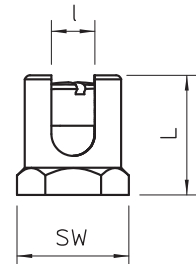
Earthing terminal

Type	Dim. L section SW				Thread	Accessories	Pack. pcs	Weight kg/100 pcs.	Item No.
	mm	mm ²	mm	mm					
EKL 25 M8	26	25	21	M8	With screw M8 x 10	50	3,970	6404001	

CuZn Brass

/100 pc.

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








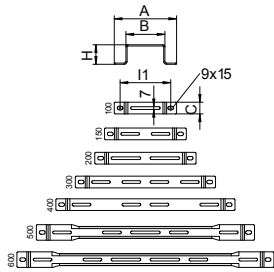
Mounting systems



Mounting systems

	Universal systems	82
	U support systems	83
	Wall and support brackets	92

Stand-off bracket



Type	Dim. B mm	Pack. pcs	Weight kg/100 pcs.	Item No.
DBL 50 100 FS	100	20	15,500	6015506
DBL 50 150 FS	150	20	18,800	6015514
DBL 50 200 FS	200	20	21,000	6015522
DBL 50 300 FS	300	20	36,900	6015530
DBL 50 400 FS	400	20	46,300	6015549
DBL 50 500 FS	500	25	57,200	6015552
DBL 50 600 FS	600	20	65,800	6015555
DBL 50 100 FT	100	20	16,000	6015565
DBL 50 150 FT	150	20	19,400	6015573
DBL 50 200 FT	200	20	22,000	6015581
DBL 50 300 FT	300	20	38,000	6015603
DBL 50 400 FT	400	20	47,700	6015611
DBL 50 500 FT	500	25	58,900	6015614
DBL 50 600 FT	600	20	67,800	6015617

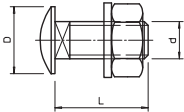
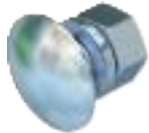
St Steel

FS Strip-galvanised FT Hot-dip galvanised

/pc.

Stand-off bracket for cable trays and mesh cable trays.

Truss-head bolt



Type	Dimension mm	Pack. pcs	Weight kg/100 pcs.	Item No.
FRS 10X25 F TPS	M 10 x 25	50	4,300	6407536

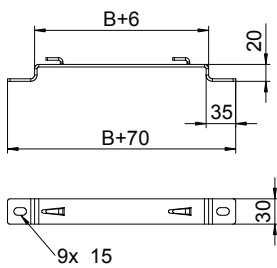
St Steel

F Hot-dip galvanised

/100 pc.

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

Stand-off bracket



Type	Dim. B mm	Pack. pcs	Weight kg/100 pcs.	Item No.
DBLG 20 100 FS	100	20	13,800	6015654
DBLG 20 150 FS	150	20	17,400	6015658
DBLG 20 200 FS	200	20	20,900	6015662
DBLG 20 300 FS	300	20	37,300	6015670
DBLG 20 400 FS	400	20	46,700	6015689
DBLG 20 500 FS	500	25	56,900	6015693
DBLG 20 600 FS	600	25	66,400	6015697
DBLG 20 100 FT	100	20	14,300	6015656
DBLG 20 150 FT	150	20	18,100	6015660
DBLG 20 200 FT	200	20	21,700	6015664
DBLG 20 300 FT	300	20	38,800	6015672
DBLG 20 400 FT	400	20	48,600	6015691
DBLG 20 500 FT	500	25	59,200	6015695
DBLG 20 600 FT	600	25	69,100	6015699

St Steel

FS Strip-galvanised FT Hot-dip galvanised

/pc.

Screwless fastening of the mesh cable tray on the stand-off bracket.

US 3 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	1	50,500	6342351
US 3 K 30 FT	300	2	5	1	64,400	6342353
US 3 K 40 FT	400	2	5	1	78,300	6342355
US 3 K 50 FT	500	2	5	1	92,300	6342357
US 3 K 60 FT	600	2	5	1	106,200	6342359
US 3 K 70 FT	700	2	5	1	120,200	6342362
US 3 K 80 FT	800	2	5	1	134,100	6342364
US 3 K 90 FT	900	2	5	1	147,800	6342366
US 3 K 100 FT	1000	2	5	1	162,000	6342368
US 3 K 110 FT	1100	2	5	1	175,900	6342370
US 3 K 120 FT	1200	2	5	1	189,900	6342372
US 3 K 20VA4301	200	2	5	1	44,000	6342401
US 3 K 30VA4301	300	2	5	1	58,000	6342403
US 3 K 40VA4301	400	2	5	1	71,000	6342405
US 3 K 50VA4301	500	2	5	1	84,000	6342407
US 3 K 60VA4301	600	2	5	1	97,000	6342409
US 3 K 70VA4301	700	2	5	1	110,000	6342411
US 3 K 80VA4301	800	2	5	1	123,000	6342413
US 3 K 90VA4301	900	2	5	1	137,000	6342415
US 3 K 100VA4301	1000	2	5	1	150,000	6342417

St. Steel V2A Stainless steel, grade 304 /pc.
 GB pickled FT Hot-dip galvanized

For fastening to horizontal concrete ceilings and steel girders. For bracket widths of 400 mm or more, or if the bracket is mounted at the end of a suspended support, we recommend the use of the spacer, type DSK 25.

Suspended support (U profile) of dimensions 50 x 30 mm with welded head plate.

Load diagram, U support, type US 3 K

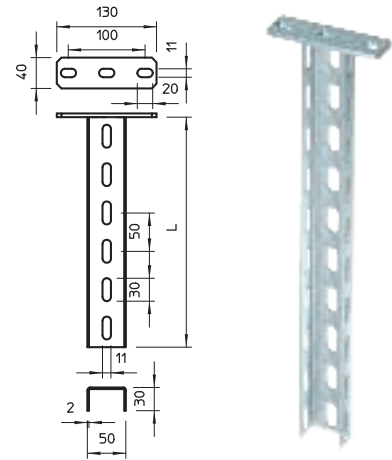
- 1 Bending of the end of the suspended support at permitted bracket load
 - 2 Permitted bracket load in kN without man load
 - 3 Bracket length in mm
- Load curves with support lengths in mm

Characteristic anchor load values for US 3 K suspended support

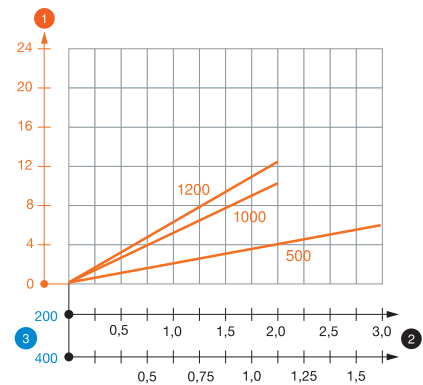
Single-sided load					
Anchor type	Max. load F [kN]				
	Bracket width [mm]				
	110	210	310	410	
BZ-U 8-10-21/75	2,00	1,50	1,15	0,90	
BZ-U 10-10-30/90	3,50	2,70	2,00	1,75	

Double-sided load					
Anchor type	Max. load F [kN]				
	Bracket width [mm]				
	110	210	310	410	
BZ-U 8-10-21/75	3,75	3,25	2,80	2,50	
BZ-U 10-10-30/90	5,50	5,80	5,00	4,50	

Max. total load F = cable weight + cable tray + bracket + support. The tabular values for double-sided loads take the available axis spacing ai = 10 cm into account. The load capacity values increase considerably when used in uncracked concrete. The values given are based on concrete of strength class C20/25. Observe the installation conditions of the DIBt approval (anchors).



Load

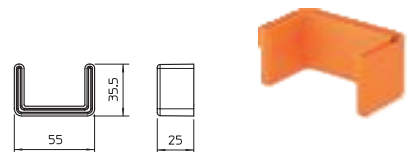


End cap

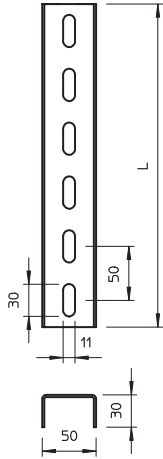
Type	Colour	Pack. pcs	Weight kg/100 pcs.	Item No.
US 3 KS OR	Pastel orange	20	1,068	6338458

PE Polyethylene /pc.

End cap to cover the ends of US 3 supports.



US 3 support



Type	Length mm	Material thickness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
US 3 20 FS	200	2	1	27,000	6342302
US 3 30 FS	300	2	1	40,000	6342304
US 3 40 FS	400	2	1	53,000	6342306
US 3 50 FS	500	2	1	67,000	6342308
US 3 60 FS	600	2	1	80,000	6342310
US 3 70 FS	700	2	1	93,000	6342312
US 3 80 FS	800	2	1	107,000	6342314
US 3 90 FS	900	2	1	120,000	6342316
US 3 100 FS	1000	2	1	133,000	6342318
US 3 150 FS	1500	2	1	200,000	6342328
US 3 200 FS	2000	2	1	266,000	6342338
US 3 30 VA4301	300	2	1	40,000	6342455
US 3 50 VA4301	500	2	1	66,000	6342457
US 3 100 VA4301	1000	2	1	132,000	6342460
US 3 150 VA4301	1500	2	1	198,000	6342463
US 3 200 VA4301	2000	2	1	263,000	6342466
US 3 600 VA4301	6000	2	1	790,000	6342468

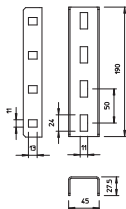
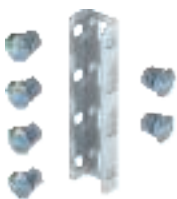
St Steel V2A Stainless steel, grade 304 /pc.

FS Strip-galvanised

For bracket widths of 400 mm or more, or if the bracket is mounted at the end of a suspended support, we recommend the use of the spacer, type DSK 25.

U support in fixed lengths. Dimensions 30 x 50 mm.

U support connector



Type	Pack. pcs	Weight kg/100 pcs.	Item No.
VUS 3 FT	10	48,000	6018513
VUS 3 VA4301	1	25,600	6018517

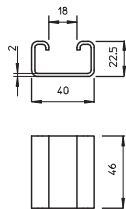
St Steel V2A Stainless steel, grade 304 /pc.

FT Hot-dip galvanised

Including appropriate fastening material.

U support connector to connect US 3 supports.

Spacer



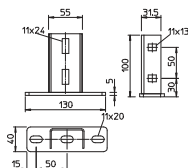
Type	Pack. pcs	Weight kg/100 pcs.	Item No.
DSK 25 FT IN	20	7,500	6486990
DSK 25 VA4301	10	7,500	6416448

St Steel V2A Stainless steel, grade 304 /pc.

FT Hot-dip galvanised

Spacer for use in U 3 supports.

Head plate



Type	Pack. pcs	Weight kg/100 pcs.	Item No.
KU 3 FT	10	46,800	6348874
KU 3 VA4301	10	41,000	6348876

St Steel V2A Stainless steel, grade 304 /pc.

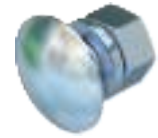
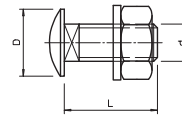
GB pickled FT Hot-dip galvanised

The head plate can be mounted to fixed lengths of the U support, type US 3.

Including appropriate fastening material.

Truss-head bolt

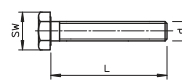
Type	Dimension mm	Pack. pcs	Weight kg/100 pcs.	Item No.
FRS 10X25 F 8.8	M 10 x 25	50	4,500	6407560
FRS 10x25 A2	M 10 x 25	50	4,500	6406718
St Steel	V2A Stainless steel, A2	/100 pc.		
F Hot-dip galvanised				



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

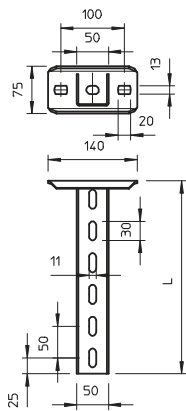
Hexagonal bolt

Type	Dimension mm	Dim. L mm	Dim. d mm	SW mm	Pack. pcs	Weight kg/100 pcs.	Item No.
SKS 10X80 F	M 10 x 80	80	10	17	20	7,700	6418250
SKS 10X90 F	M 10 x 90	90	10	17	20	7,800	6418252
SKS 10x80 A4	M 10 x 80	80	10	17	20	7,800	6418248
St Steel	V4A Stainless steel, A4	/100 pc.					
F Hot-dip galvanised							



Hexagonal bolt for universal fixing of structure components.

US 5 support



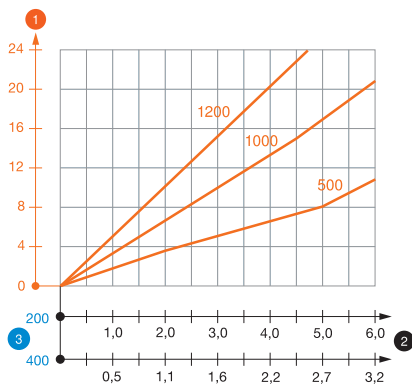
Type	Length mm	Material thickness mm	Tensile load kN	Pack. pcs	Weight kg/100 pcs.	Item No.
US 5 K 20 FT	200	2.5	10	1	85,000	6341527
US 5 K 30 FT	300	2.5	10	1	110,000	6341535
US 5 K 40 FT	400	2.5	10	1	136,000	6341543
US 5 K 50 FT	500	2.5	10	1	161,000	6341551
US 5 K 60 FT	600	2.5	10	1	185,000	6341578
US 5 K 70 FT	700	2.5	10	1	210,000	6341586
US 5 K 80 FT	800	2.5	10	1	236,000	6341594
US 5 K 90 FT	900	2.5	10	1	261,000	6341608
US 5 K 100 FT	1000	2.5	10	1	286,000	6341616
US 5 K 110 FT	1100	2.5	10	1	311,000	6341624
US 5 K 120 FT	1200	2.5	10	1	337,000	6341632
US 5 K 20 VA4301	200	2.5	10	1	100,000	6341358
US 5 K 30 VA4301	300	2.5	10	1	125,000	6341362
US 5 K 40 VA4301	400	2.5	10	1	150,000	6341366
US 5 K 50 VA4301	500	2.5	10	1	175,000	6341370
US 5 K 60 VA4301	600	2.5	10	1	200,000	6341374
US 5 K 70 VA4301	700	2.5	10	1	225,000	6341378
US 5 K 80 VA4301	800	2.5	10	1	255,000	6341382
US 5 K 90 VA4301	900	2.5	10	1	280,000	6341386
US 5 K 100VA4301	1000	2.5	10	1	300,000	6341390
US 5 K 110VA4301	1100	2.5	10	1	330,000	6341394
US 5 K 120VA4301	1200	2.5	10	1	360,000	6341398

St Steel V2A Stainless steel, grade 304 /pc.
GB pickled FT Hot-dip galvanised

For fastening to horizontal concrete ceilings and steel girders. For bracket widths of 400 mm or more, or if the bracket is mounted at the end of a suspended support, we recommend the use of the spacer, type DSK 45.

U support of dimensions 50 x 50 mm with welded head plate.

Load



Load diagram, U support, type US 5 K

- 1 Bending of the end of the suspended support at permitted bracket load
 - 2 Permitted bracket load in kN without man load
 - 3 Bracket length in mm
- Load curves with support lengths in mm

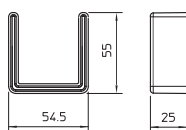
Characteristic anchor load values for US 5 K support

		Single-sided load			
		Max. load F [kN]			
		Bracket width [mm]			
Anchor type		110	210	310	410
	BZ-U 10-10-30/90	3,75	2,75	2,20	1,80
	BZ 12-15-35/110	5,75	4,75	3,85	3,25

		Double-sided load					
		Max. load F [kN]					
		Bracket width [mm]					
Anchor type		110	210	310	410	510	610
	BZ-U 10-10-30/90	5,50	5,80	5,00	4,50	3,80	1,75
	BZ 12-15-35/110	10,00	10,00	9,00	8,00	6,75	5,50

Max. total load F = cable weight + cable tray + bracket + support. The tabular values for double-sided loads take the available axis spacing $a_i = 10$ cm into account. The load capacity values increase considerably when used in uncracked concrete. The values given are based on concrete of strength class C20/25. Observe the installation conditions of the DIBt approval (anchors).

End cap



Type	Colour	Pack. pcs	Weight kg/100 pcs.	Item No.
US 5 KS OR	Pastel orange	20	1,528	6338462

PE Polyethylene /pc.

End cap to cover the ends of US 5 supports.

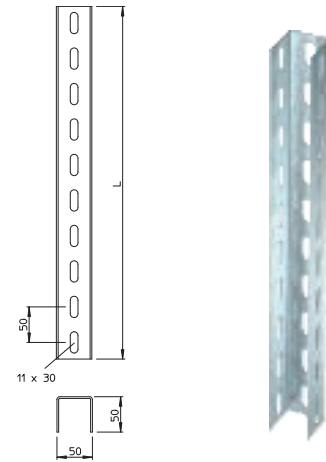
US 5 support

Type	Length mm	Material thickness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
US 5 20 FT	200	2.5	1	51,000	6340881
US 5 30 FT	300	2.5	1	79,000	6340903
US 5 300 FT	3000	2.5	1	795,000	6340989
US 5 40 FT	400	2.5	1	106,000	6340911
US 5 50 FT	500	2.5	1	133,000	6340938
US 5 60 FT	600	2.5	1	160,000	6340946
US 5 70 FT	700	2.5	1	175,000	6340950
US 5 80 FT	800	2.5	1	200,000	6340954
US 5 90 FT	900	2.5	1	227,000	6340958
US 5 100 FT	1000	2.5	1	265,000	6340962
US 5 150 FT	1500	2.5	1	395,000	6340966
US 5 200 FT	2000	2.5	1	506,000	6340970
US 5 20 VA4301	200	2.5	1	48,000	6341101
US 5 30 VA4301	300	2.5	1	72,000	6341105
US 5 40 VA4301	400	2.5	1	97,000	6341109
US 5 50 VA4301	500	2.5	1	121,000	6341113
US 5 70 VA4301	700	2.5	1	169,000	6341121
US 5 80 VA4301	800	2.5	1	193,000	6341125
US 5 90 VA4301	900	2.5	1	217,000	6341129
US 5 100 VA4301	1000	2.5	1	242,000	6341133
US 5 110 VA4301	1100	2.5	1	266,000	6341137
US 5 120 VA4301	1200	2.5	1	290,000	6341141
US 5 300 VA4301	3000	2.5	1	726,000	6341152

St Steel V2A Stainless steel, grade 304 /pc.
 FT Hot-dip galvanised

For bracket widths of 400 mm or more, or if the bracket is mounted at the end of a suspended support, we recommend the use of the spacer, type DSK 45.

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



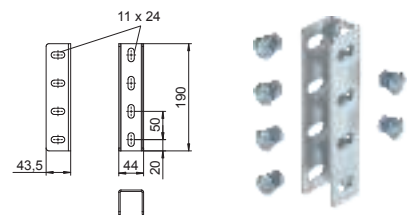
U support connector

Type	Pack. pcs	Weight kg/100 pcs.	Item No.
VUS 5 FT	10	44,000	6018505
VUS 5 VA4571	1	42,000	6018509

St Steel V4A Stainless steel, grade 316 Ti /pc.
 FT Hot-dip galvanised

Including appropriate fastening material.

U support connector to connect US 5 supports.



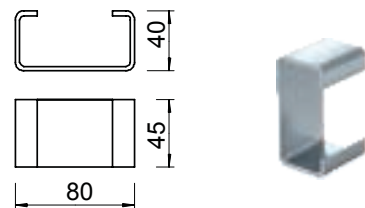
Spacer

Type	Pack. pcs	Weight kg/100 pcs.	Item No.
DSK 45 FT IN	20	11,900	6486992

St Steel /pc.
 FT Hot-dip galvanised

For static reasons, the spacer is always used to increase stability to prevent the support from deforming when the bracket is tightened with the hexagonal bolts.

Spacer for use in U 5 support and in the head plate, type KU 7 VQP.



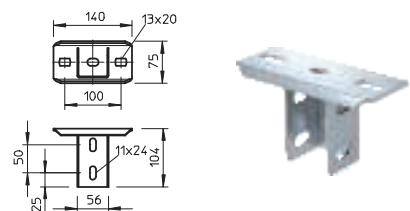
Head plate US 5

Type	Pack. pcs	Weight kg/100 pcs.	Item No.
KUS 5 FT	10	75,000	6348904

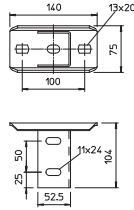
St Steel /pc.
 FT Hot-dip galvanised

When installing the head plate, please use the spacer, type DSK 45.

Head plate for installation in US 5 support.



Head plate US 5 NOK



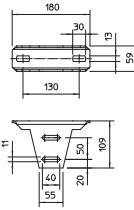
Type

Type	Pack. pcs	Weight kg/100 pcs.	Item No.
KUS 5 NOK FT	10	75,000	6348939
KUS 5 NOK VA4301	10	61,000	6348947

St Steel **V2A** Stainless steel, grade 304 /pc.
GB pickled **FT** Hot-dip galvanised

When installing the head plate, please use the spacer, type DSK 45.
 Head plate with U support mounting rotated 90°.

Head plate, variable



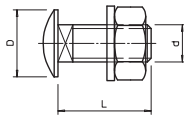
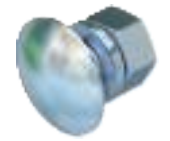
Type

Type	Pack. pcs	Weight kg/100 pcs.	Item No.
KU 5 V FT	4	82,000	6348920
KU 5 V VA4301	4	81,000	6348925

St Steel **V2A** Stainless steel, grade 304 /pc.
FT Hot-dip galvanised

The spacer, type DSK 47, is used for stabilisation when mounting the head plate. The maximum angle adjustment is approx. 30° on one side.
 Variable head plate for installation on US 5 support.

Truss-head bolt



Type	Dimension mm	Pack. pcs	Weight kg/100 pcs.	Item No.
FRS 10X25 F 8.8	M 10 x 25	50	4,500	6407560
FRS 10x25 A2	M 10 x 25	50	4,500	6406718

St Steel **V2A** Stainless steel, A2 /100 pc.
F Hot-dip galvanised

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

Hexagonal bolt

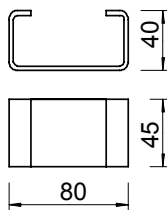


Type	Dimension mm	Dim. L mm	Dim. d mm	Dim. SW mm	Pack. pcs	Weight kg/100 pcs.	Item No.
SKS 10X80 F	M 10 x 80	80	10	17	20	7,700	6418250
SKS 10X90 F	M 10 x 90	90	10	17	20	7,800	6418252
SKS 10X120 F	M 10 x 120	120	10	17	20	13,500	3160793
SKS 10x80 A4	M 10 x 80	80	10	17	20	7,800	6418248

St Steel **V4A** Stainless steel, A4 /100 pc.
F Hot-dip galvanised

Hexagonal bolt for universal fixing of structure components.

Spacer



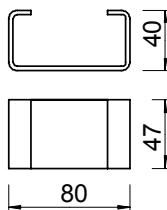
Type

Type	Pack. pcs	Weight kg/100 pcs.	Item No.
DSK 45 VA4301	10	15,000	6416489

V2A Stainless steel, grade 304 /pc.

For static reasons, the spacer is always used to increase stability to prevent the support from deforming when the bracket is tightened with the hexagonal bolts.
 Spacer for use in U 5 supports.

Spacer



Type

Type	Pack. pcs	Weight kg/100 pcs.	Item No.
DSK 47 VA4301	10	16,000	6416507

V2A Stainless steel, grade 304 /pc.

For static reasons, the spacer is always used to increase stability to prevent the head plate from deforming when the bolts are tightened.
 Spacer for use in head plate, type KU 5 V.

US 7 support

Type	Length mm	Material thickness mm	Tensile load kN	Pack. pcs	Weight kg/100 pcs.	Item No.
US 7 K 20 FT	200	4	11	1	176,000	6339018
US 7 K 30 FT	300	4	11	1	216,000	6339034
US 7 K 40 FT	400	4	11	1	257,000	6339050
US 7 K 50 FT	500	4	11	1	297,000	6339077
US 7 K 60 FT	600	4	11	1	337,000	6339093
US 7 K 70 FT	700	4	11	1	378,000	6339115
US 7 K 80 FT	800	4	11	1	418,000	6339131
US 7 K 90 FT	900	4	11	1	458,000	6339166
US 7 K 100 FT	1000	4	11	1	499,000	6339182
US 7 K 110 FT	1100	4	11	1	539,000	6339190
US 7 K 120 FT	1200	4	11	1	579,000	6339204
US 7 K 130 FT	1300	4	11	1	620,000	6339212
US 7 K 140 FT	1400	4	11	1	660,000	6339220
US 7 K 150 FT	1500	4	11	1	701,000	6339239
US 7 K 160 FT	1600	4	11	1	741,000	6339247
US 7 K 170 FT	1700	4	11	1	781,000	6339255
US 7 K 180 FT	1800	4	11	1	822,000	6339263
US 7 K 190 FT	1900	4	11	1	862,000	6339271
US 7 K 200 FT	2000	4	11	1	902,000	6339298
US 7 K 250 FT	2500	4	11	1	1.104,000	6339334
US 7 K 300 FT	3000	4	11	1	1.306,000	6339360

St. Steel

/pc.

FT Hot-dip galvanised

For fastening to horizontal concrete ceilings and steel girders. For bracket widths of 400 mm or more, or if the bracket is mounted at the end of a suspended support, we recommend the use of the spacer, type DSK 61.

Suspended support (U profile) of dimensions 70 x 50 mm with welded head plate.

Load diagram, U support, type US 7 K

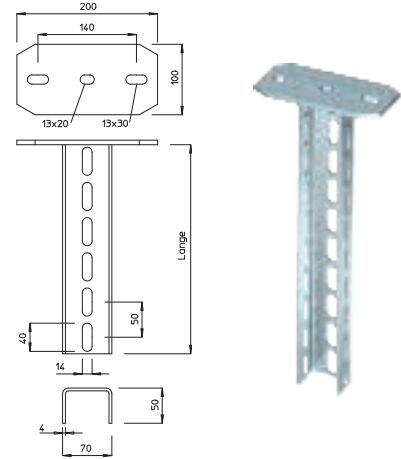
- 1 Bending of the end of the suspended support at permitted bracket load
 - 2 Permitted bracket load in kN without man load
 - 3 Bracket length in mm
- Load curves with support lengths in mm

Characteristic anchor load values for U support, type US 7 K

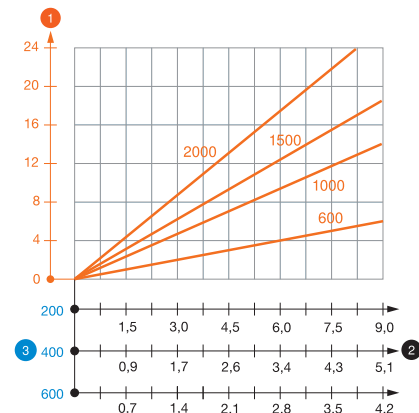
		Single-sided load					
		Max. load F [kN]					
		Bracket width [mm]					
Anchor type		110	210	310	410	510	610
BZ-U 10-10-30/90		4,25	3,25	2,50	2,25	2,00	1,75
BZ 12-15-35/110		7,25	5,50	4,50	4,00	3,50	3,00

		Double-sided load					
		Max. load F [kN]					
		Bracket width [mm]					
Anchor type		110	210	310	410	510	610
BZ-U 10-10-30/90		7,25	6,25	5,75	5,25	4,80	4,50
BZ 12-15-35/110		11,00	11,00	10,00	9,00	8,50	8,00

Max. total load F = cable weight + cable tray + bracket + suspended support. The tabular values for double-sided loads take the available axis spacing $a_i = 14$ cm into account. The load capacity values increase considerably when used in uncracked concrete. The specified values are based on concrete of resistance class C20/25. Comply with the installation conditions of the DIBt approval (anchors).



Load



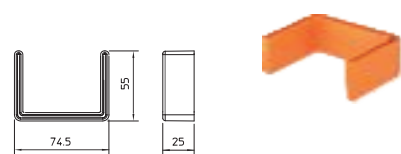
End cap

Type	Colour	Pack. pcs	Weight kg/100 pcs.	Item No.
US 7 KS OR	Pastel orange	20	1,806	6338497

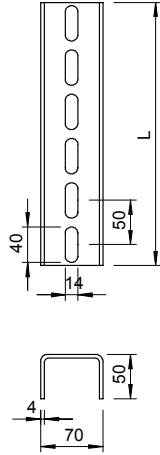
PE Polyethylene

/pc.

End cap to cover the ends of US 7 supports.



US 7 support



Type	Length mm	Material thickness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
US 7 20 FT	200	4	1	81,000	6340016
US 7 30 FT	300	4	1	121,000	6340032
US 7 40 FT	400	4	1	161,000	6340059
US 7 50 FT	500	4	1	202,000	6340075
US 7 60 FT	600	4	1	242,000	6340091
US 7 70 FT	700	4	1	283,000	6340113
US 7 80 FT	800	4	1	323,000	6340148
US 7 90 FT	900	4	1	363,000	6340164
US 7 100 FT	1000	4	1	404,000	6340180
US 7 110 FT	1100	4	1	444,000	6340199
US 7 120 FT	1200	4	1	484,000	6340202
US 7 130 FT	1300	4	1	525,000	6340210
US 7 140 FT	1400	4	1	565,000	6340229
US 7 150 FT	1500	4	1	606,000	6340237
US 7 160 FT	1600	4	1	646,000	6340245
US 7 180 FT	1800	4	1	727,000	6340261
US 7 190 FT	1900	4	1	767,000	6340288
US 7 200 FT	2000	4	1	807,000	6340296
US 7 300 FT	3000	4	1	1.211,000	6340377
US 7 400 FT	4000	4	1	1.615,000	6340393

St Steel

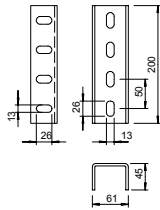
FT Hot-dip galvanised

/pc.

For bracket widths of 400 mm or more, or if the bracket is mounted at the end of a suspended support, we recommend the use of the spacer, type DSK 61.

U support in fixed lengths. Dimensions 70 x 50 mm.

U support connector



Type	Pack. pcs	Weight kg/100 pcs.	Item No.
VUS 7 FT	10	114,000	6018378

St Steel

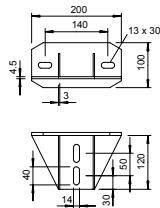
FT Hot-dip galvanised

/pc.

Including appropriate fastening material.

U support connector to connect US 7 supports.

Head plate, heavy-duty



Type	Pack. pcs	Weight kg/100 pcs.	Item No.
KU 7 NOX FT	1	184,000	6349056

St Steel

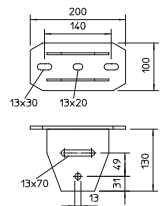
FT Hot-dip galvanised

/pc.

Please order fastening material (two truss-head bolts FRS 12 x 25) separately.

Heavy-duty head plate for installation in US 7 support.

Head plate, variable



Type	Pack. pcs	Weight kg/100 pcs.	Item No.
KU 7 VQP FT	10	180,000	6349153

St Steel

FT Hot-dip galvanised

/pc.

Please order fastening material (two hexagonal bolts SKS 12 x 80 and spacer DSK 45) separately. The maximum angle adjustment is 30° on one side.

Variable head plate for installation on US 7 support.

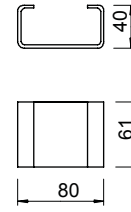
Spacer

Type	Pack. pcs	Weight kg/100 pcs.	Item No.
DSK 61 FT IN	20	26,000	6486994

St Steel /pc.
FT Hot-dip galvanised

For static reasons, the spacer is always used to increase stability to prevent the support from deforming when the bracket is tightened with the hexagonal bolts.

Spacer for use in U 7 supports.

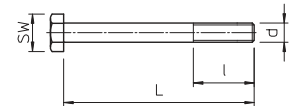


Hexagonal bolt

Type	Dimension mm	Dim. L mm	Dim. l mm	Dim. d mm	SW mm	Pack. pcs	Weight kg/100 pcs.	Item No.
SKS 12X100 F	M 12 x 100	100	30	12	19	20	12,600	6418295
SKS 12X110 F	M 12 x 110	110	30	12	19	20	14,500	6418317
SKS 12X130 F	M 12 x 130	130	36	12	19	20	15,500	6408478
SKS 12X80 F	M 12 x 80	80	30	12	19	20	11,800	6418287

St Steel /100 pc.
F Hot-dip galvanised

Hexagonal bolt with hexagonal nut, washer and tooth lock washer.

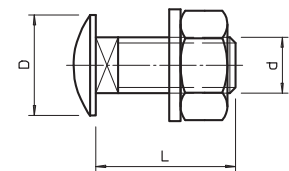
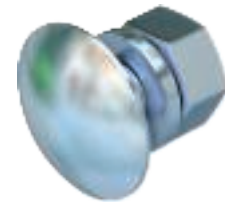


Truss-head bolt

Type	Dimension mm	Pack. pcs	Weight kg/100 pcs.	Item No.
FRS 12X25 F	M 12 x 25	10	6,400	6406254

St Steel /100 pc.
F Hot-dip galvanised

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



Wall and support bracket AW 15



Type	Width mm	F in kN	Pack. pcs	Weight kg/100 pcs.	Item No.
AW 15 11 FT	110	1.5	30	14,000	6420656
AW 15 16 FT	160	1.5	30	20,000	6420664
AW 15 21 FT	210	1.5	30	26,000	6420680
AW 15 31 FT	310	1.5	30	32,500	6420710
AW 15 41 FT	410	1.5	30	55,000	6420745
AW 15 51 FT	510	1.5	20	72,000	6420788
AW 15 56 FT	560	1.5	20	77,000	6420796
AW 15 61 FT	610	1.5	20	85,000	6420826
AW 15 11 VA4301	110	1.5	30	14,000	6421008
AW 15 21 VA4301	210	1.5	30	25,600	6421024
AW 15 31 VA4301	310	1.5	30	32,500	6421032
AW 15 41 VA4301	410	1.5	30	55,000	6421036
AW 15 51 VA4301	510	1.5	20	68,000	6421040
AW 15 61 VA4301	610	1.5	20	85,000	6421044

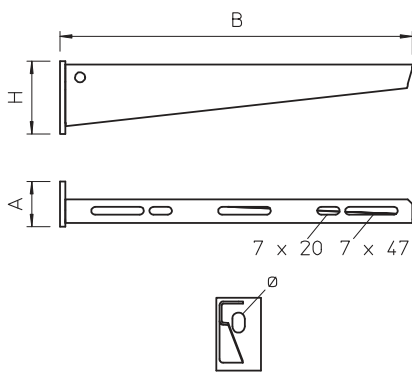
SI Steel V2A Stainless steel, grade 304 /pc.

GB pickled FT Hot-dip galvanised

Fastening of the bracket to the U support of width 400 mm or greater using hexagonal bolt through both sides of the support. Please insert suitable spacers.

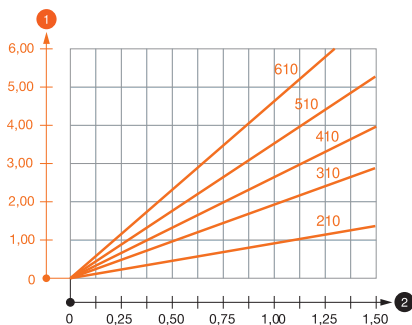
Light-duty wall and support bracket with welded head plate.

Dimensions



Type	Dim. B mm	Dim. A mm	Dim. H mm	Hole- Ø mm
AW 15 11 FT	110	40	50	11
AW 15 16 FT	160	40	55	11
AW 15 21 FT	210	40	60	11
AW 15 31 FT	310	40	65	11
AW 15 41 FT	410	40	70	11
AW 15 51 FT	510	40	75	11
AW 15 56 FT	560	40	80	11
AW 15 61 FT	610	40	80	11

Load



Load diagram, bracket, type AW 15

- 1 Bending of the bracket tip at permitted bracket load
- 2 Permitted bracket load in kN without man load
- Load curve with bracket lengths in mm

Characteristic anchor load values for wall bracket AW 15

F	Wall fastening								
	Anchor type	Max. load F [kN]							
		Bracket width [mm]							
	110	160	210	310	410	510	560	610	
BZ-U 8-10-21/75	1,10	0,90	0,80	0,65	0,55	0,50	0,45	0,45	
BZ-U 10-10-30/90	1,50	1,50	1,40	1,10	0,95	0,85	0,80	0,80	

Max. total load F = cable weight + cable tray + bracket. The load capacity values increase considerably when used in uncracked concrete. The values given are based on concrete of strength class C20/25. Observe the installation conditions of the DIBt approval (anchors).

Load values for AW 15 on suspended support

Support	Max. total load F in kN			
	Bracket length in mm			
	100	200	300	400
US 3 K/ 20 - 60	1,50	1,50	1,30	1,30
US 3 K/ 70 - 120	1,50	1,50	1,30	1,30
US 5 K/ 20 - 60	1,50	1,50	1,50	1,50
US 5 K/ 70 - 120	1,50	1,50	1,40	1,50

Wall and support bracket AWG 15

Type	Width mm	F in kN kN	Pack. pcs	Weight kg/100 pcs.	Item No.
AWG 15 11 VA4301	110	1.5	30	13,000	6420625
AWG 15 21 VA4301	210	1.5	30	25,000	6420628
AWG 15 31 VA4301	310	1.5	30	33,000	6420631
AWG 15 41 VA4301	410	1.5	30	53,000	6420634
AWG 15 51 VA4301	510	1.5	20	65,000	6420637
AWG 15 61 VA4301	610	1.5	20	80,000	6420640
AW G 15 11 FT	110	1.5	30	14,000	6420606
AW G 15 16 FT	160	1.5	30	20,000	6420607
AW G 15 21 FT	210	1.5	30	26,000	6420608
AW G 15 31 FT	310	1.5	30	35,000	6420610
AW G 15 41 FT	410	1.5	30	56,000	6420612
AW G 15 51 FT	510	1.5	20	69,000	6420614
AW G 15 61 FT	610	1.5	20	84,000	6420616

St. Steel V2A Stainless steel, grade 304 /pc.

GB pickled FT Hot-dip galvanised

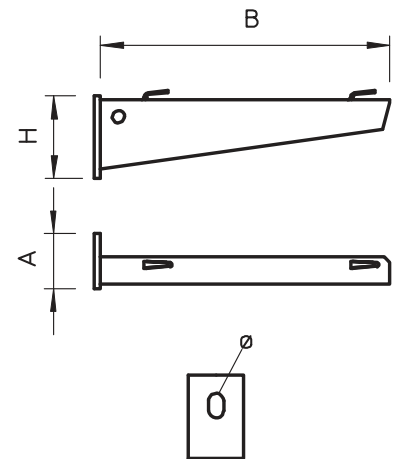
Fastening of the bracket to the U support of width 400 mm or greater using hexagonal bolt through both sides of the support. Please insert suitable spacers.

Light-duty wall and support bracket with welded head plate for screwless mesh cable tray fastening.

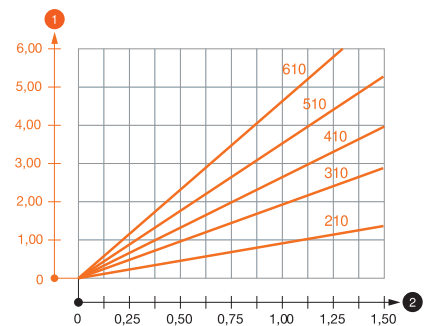


Type	Width mm	Dim. A mm	Dim. H mm	Hole- Ø mm
AWG 15 11 VA4301	110	40	50	11
AWG 15 21 VA4301	210	40	60	11
AWG 15 31 VA4301	310	40	65	11
AWG 15 41 VA4301	410	40	70	11
AWG 15 51 VA4301	510	40	75	11
AWG 15 61 VA4301	610	40	80	11

Dimensions



Load



Load diagram, bracket type AW G 15

- 1 Bending of the bracket tip at permitted bracket load
 - 2 Permitted bracket load in kN without man load
- Load curve with bracket lengths in mm

Characteristic anchor load values for wall and support bracket AW G 15

Anchors	Bracket load						
	Max. total load F in kN						
	Bracket length in mm						
F kN	100	200	300	400	500	600	
	3.57	1.09	0.90	0.73	0.65	0.61	0.55

Max. total load F = cable weight + cable tray + bracket. The load capacity values increase considerably when used in uncracked concrete. The values given are based on concrete of strength class C20/25. Observe the installation conditions of the DIBt approval (anchors).

Load values for AWG 15 on support

Wall and support bracket AW 30



Type	Width mm	F in kN	Pack. pcs	Weight kg/100 pcs.	Item No.
AW 30 11 FT	110	3	1	22,000	6419704
AW 30 16 FT	160	3	1	34,000	6419712
AW 30 21 FT	210	3	1	42,000	6419720
AW 30 31 FT	310	3	1	63,000	6419747
AW 30 41 FT	410	3	1	89,000	6419763
AW 30 46 FT	460	3	1	118,000	6419771
AW 30 51 FT	510	3	1	132,500	6419798
AW 30 56 FT	560	3	1	185,000	6419844
AW 30 61 FT	610	3	1	158,000	6419828
AW 30 71 FT	710	3	1	214,000	6419836
AW 30 76 FT	760	3	1	207,000	6419838
AW 30 91 FT	910	3	1	259,000	6419840
AW 30 101 FT	1010	3	1	296,000	6419842

St Steel

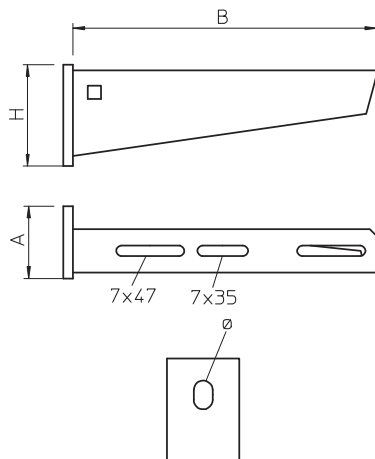
FT Hot-dip galvanised

/pc.

Fastening of the bracket to the U support of width 400 mm or greater using hexagonal bolt through both sides of the support. Please insert suitable spacers.

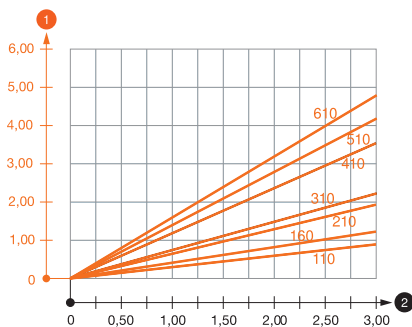
Medium-duty wall and support bracket with welded head plate.

Dimensions



Type	Dim. B mm	Dim. A mm	Dim. H mm	Hole-Ø mm
AW 30 11 FT	110	50	60	11
AW 30 16 FT	160	50	65	11
AW 30 21 FT	210	50	70	13
AW 30 31 FT	310	50	80	13
AW 30 41 FT	410	50	80	13
AW 30 46 FT	460	50	90	13
AW 30 51 FT	510	50	90	13
AW 30 56 FT	560	50	100	13
AW 30 61 FT	610	50	100	13
AW 30 71 FT	710	50	100	13
AW 30 76 FT	760	50	110	13
AW 30 91 FT	910	50	130	13
AW 30 101 FT	1010	50	140	13

Load



Load diagram, bracket, type AW 30

- 1 Bending of the bracket tip at permitted bracket load
- 2 Permitted bracket load in kN without man load
- Load curve with bracket lengths in mm

Characteristic anchor load values for wall and support bracket AW 30

F	Wall fastening							
	Max. load F [kN]							
	Bracket width [mm]							
	Anchor type	110	160	210	310	410	510	560
	BZ-U 10-10-30/90	2,50	2,10	1,65	1,40	1,10	1,00	1,00
	BZ 12-15-35/110	3,00	2,65	2,90	2,50	1,90	1,80	1,75
		* Values with tray width 600						

Max. total load F = cable weight + cable tray + bracket. The load capacity values increase considerably when used in uncracked concrete. The values given are based on concrete of strength class C20/25. Observe the installation conditions of the DIBt approval (anchors).

Load values for AW 30 on suspended support

Max. total load F in kN					
Support	Bracket length in mm				
	100	200	300	400	
US 3 K/ 20-60		2,10	1,80	1,30	1,30
US 3 K/ 70-120		1,80	1,50	1,30	1,30
US 5 K/ 20-60		2,40	2,00	1,80	2,50
US 5 K/ 70-120		2,40	2,00	1,40	2,50

Wall and support bracket AW 30



Type	Width mm	F in kN	Pack. pcs	Weight kg/100 pcs.	Item No.
AW 30 11 VA4301	110	3	1	21,200	6442803
AW 30 21 VA4301	210	3	1	38,200	6442838
AW 30 31 VA4301	310	3	1	61,000	6442854
AW 30 41 VA4301	410	3	1	86,000	6442870
AW 30 51 VA4301	510	3	1	126,000	6442897
AW 30 61 VA4301	610	3	1	154,000	6442919

V2A Stainless steel, grade 304

/pc.

GB pickled

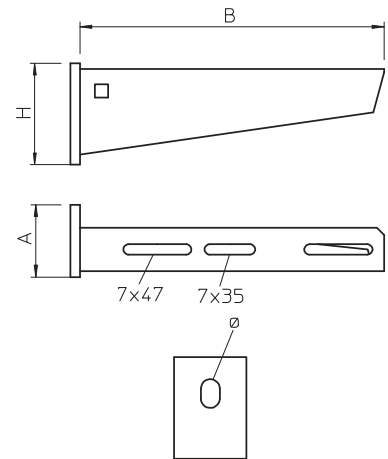
Fastening of the bracket to the U support of width 400 mm or greater using hexagonal bolt through both sides of the support. Please insert suitable spacers.

Medium-duty wall and support bracket with welded head plate.



Type	Width mm	Dim. A mm	Dim. H mm	Hole- Ø mm
AW 30 11 VA4301	110	50	60	11
AW 30 21 VA4301	210	50	70	13
AW 30 31 VA4301	310	50	80	13
AW 30 41 VA4301	410	50	80	13
AW 30 51 VA4301	510	50	90	13
AW 30 61 VA4301	610	50	100	13

Dimensions



Load

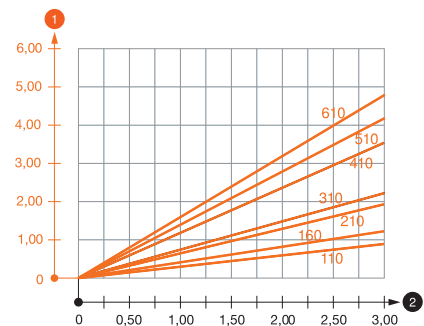
Load diagram, bracket AW 30 VA

- 1 Bending of the bracket tip at permitted bracket load
- 2 Permitted bracket load in kN without man load
- Load curve with bracket lengths in mm

Characteristic anchor load values for wall and support bracket AW 30

Anchors	Bracket load						
	Perm.	Max. total load F in kN					
		Bracket length in mm					
F kN	100	200	300	400	500	600	
3.57	1.66	1.12	0.99	0.76	0.74	0.74	
4.76	2.21	1.50	1.32	1.01	0.99	0.99	

Max. total load F = cable weight + cable tray + bracket. The load capacity values increase considerably when used in uncracked concrete. The values given are based on concrete of strength class C20/25. Observe the installation conditions of the DIBt approval (anchors).



Wall and support bracket AW 55



Type	Width mm	F in kN	Pack. pcs	Weight kg/100 pcs.	Item No.
AW 55 21 FT	210	5,5	1	77,000	6418554
AW 55 31 FT	310	5,5	1	123,000	6418570
AW 55 41 FT	410	5,5	1	167,000	6418597
AW 55 46 FT	460	5,5	1	192,000	6418607
AW 55 51 FT	510	5,5	1	249,000	6418619
AW 55 56 FT	560	5,5	1	282,000	6418627
AW 55 61 FT	610	5,5	1	305,000	6418635
AW 55 71 FT	710	5,5	1	418,000	6418651
AW 55 76 FT	760	5,5	1	391,000	6418676
AW 55 81 FT	810	5,5	1	477,000	6418686
AW 55 91 FT	910	5,5	1	558,000	6418708
AW 55 101 FT	1010	5,5	1	640,000	6418724

St Steel

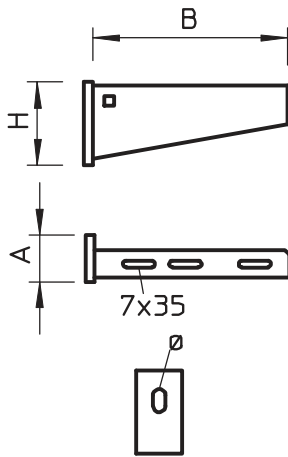
/pc.

FT Hot-dip galvanised

Fastening of the bracket to the U support of width 400 mm or greater using hexagonal bolt through both sides of the support. Please insert suitable spacers.

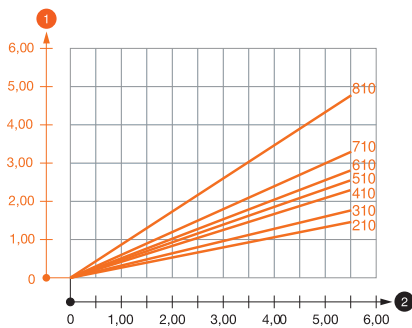
Heavy-duty wall and support bracket with welded head plate.

Dimensions



Type	Dim. B mm	Dim. A mm	Dim. H mm	Hole- Ø mm
AW 55 21 FT	210	50	90	13.5
AW 55 31 FT	310	50	110	13.5
AW 55 41 FT	410	50	130	13.5
AW 55 46 FT	460	60	130	13.5
AW 55 51 FT	510	60	145	13.5
AW 55 56 FT	560	60	165	13.5
AW 55 61 FT	610	60	165	13.5
AW 55 71 FT	710	60	195	13.5
AW 55 76 FT	760	60	185	13.5
AW 55 81 FT	810	60	195	13.5
AW 55 91 FT	910	60	215	13.5
AW 55 101 FT	1010	60	230	13.5

Load



Load diagram, bracket, type AW 55

- 1 Bending of the bracket tip at permitted bracket load
 - 2 Permitted bracket load in kN without man load
- Load curve with bracket lengths in mm

Characteristic anchor load values for wall and support bracket AW 55

Anchor type	Max. load F [kN]						
	Bracket width [mm]						
	210	310	410	510	560	610	710*
BZ-U 10-10-30/90	2,20	2,10	2,00	1,90	1,90	1,80	1,75
BZ 12-15-35/110	3,80	3,50	3,50	3,25	3,30	3,00	3,00
SZ-B 18/0x142	4,10	4,06	4,02	3,83	3,83	3,56	2,88

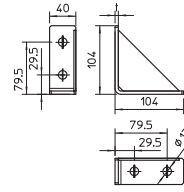
* Values with tray width 600

Max. total load F = cable weight + cable tray + bracket. The load capacity values increase considerably when used in uncracked concrete. The values given are based on concrete of strength class C20/25. Observe the installation conditions of the DIBt approval (anchors).

Triangular node

Type	Version	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
GMS 4 KD 90 FT	90° bracket	10	10	48,000	1124665
GMS 4 KD 90 G	90° bracket	10	10	42,000	1124625

St Steel / 100 pc.
G Electrogalvanised FT Hot-dip galvanised



Reinforced mounting bracket with four holes to connect profile rails 41 x 41 mm and 41 x 21 mm at an angle of 90°.



Fastening systems



Fastening systems



Screw and fastening systems

100



Anchor systems

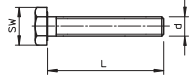
102



Earthing systems, surface refinement and edge protection

105

Hexagonal bolt



Type	Thread	Dimension mm	Dim. L mm	Dim. d mm	Dim. SW mm	Pack. pcs	Weight kg/100 pcs.	Item No.
342 M8X20 G	M8	M 8 x 20	20	8	13	100	1,230	3158209
342 M8X25 G	M8	M 8 x 25	25	8	13	100	1,390	3158241
342 M8X30 G	M8	M 8x30	30	8	13	100	1,550	3158306
342 M10X20 G	M10	M 10 x 20	20	10	17	100	2,320	3160203
342 M10X30 G	M10	M 10 x 30	30	10	17	100	2,820	3160300
342 M10X40 G	M10	M 10 x 40	40	10	17	50	3,240	3160408
342 M10X50 G	M10	M 10 x 50	50	10	17	50	3,820	3160505
342 M10X60 G	M10	M 10 x 60	60	10	17	50	4,330	3160602
342 M12X30 G	M12	M 12x30	30	12	19	50	4,020	3162303
342 M12X40 G	M12	M 12x40	40	12	19	50	4,740	3162400
342 M12X50 G	M12	M 12x50	50	12	19	50	5,450	3162508

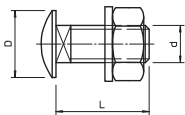
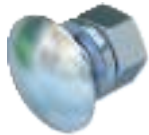
St Steel

G Electrogalvanised

/100 pc.

Hexagonal bolt to ISO 4017 with metric thread

Truss-head bolt with nut and washer



Type	Dimension mm	Pack. pcs	Weight kg/100 pcs.	Item No.
FRS 8X16 F 5.6	M 8 x 16	50	2,000	6406939
FRS 8X16 F 8.8	M 8 x 16	50	2,200	6406963
FRS 8X20 F	M 8 x 20	50	2,100	6406971
FRS 8X25 F	M 8 x 25	50	2,300	6406998
FRS 8X35 F	M 8 x 35	50	2,700	6407048
FRS 10X20 F	M 10 x 20	50	4,100	6407471
FRS 10X25 F	M 10 x 25	50	4,500	6407528
FRS 10X25 F 8.8	M 10 x 25	50	4,500	6407560
FRS 10X30 F	M 10 x 30	50	5,000	6407579
FRS 12X25 F	M 12 x 25	10	6,400	6406254
FRS 12X30 F	M 12 x 30	20	6,800	6406270

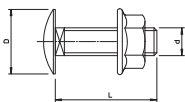
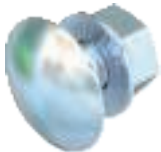
St Steel

F Hot-dip galvanised

/100 pc.

The truss-head screw can be used in combination with hot-dip and double-dip galvanised articles. Truss-head bolt with square neck. With washer and hexagonal nut.

Truss-head bolt with flange nut



Type	Dimension mm	Dim. L mm	Dim. d mm	Dim. D mm	Pack. pcs	Weight kg/100 pcs.	Item No.
FRSB 6X12 G	M 6 x 12	12	6	13.5	100	0,796	6406130
FRSB 6X12 VZ G	M 6 x 12	12	6	13.5	10	0,700	6406133
FRSB 6X20 G	M 6 x 20	20	6	13.5	100	0,903	6406181
FRSB 6X12 F	M 6 x 12	12	6	13.5	100	0,990	6406122
FRSB 6X12 VZ F	M 6 x 12	12	6	13.5	10	0,840	6406125
FRSB 6X15 F	M 6 x 15	15	6	13.5	100	0,800	6406157
FRSB 6X20 F	M 6 x 20	20	6	13.5	100	1,000	6406203
FRSB 6X30 F	M 6 x 30	30	6	13.5	100	1,200	6406907

St Steel

F Hot-dip galvanised G Electrogalvanised

/100 pc.

Truss-head bolt with square neck including flange nut.

Hexagonal bolt with nut and washer



Type	Dimension mm	Dim. L mm	Dim. d mm	SW mm	Pack. pcs	Weight kg/100 pcs.	Item No.
SKS 6X20 F	M 6 x 20	20	6	10	100	0,900	3156516
SKS 6X30 F	M 6 x 30	30	6	10	100	1,100	3156524

St Steel

F Hot-dip galvanised

/100 pc.

Hexagonal bolt for universal fixing of structure components.

Hexagonal bolt with nut and washer

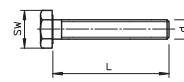
Type	Dimension mm	Dim.		SW mm	Pack. pcs	Weight kg/100 pcs.	Item No.
		L mm	d mm				
SKS 8X16 F	M 8 x 16	16	8	13	50	1,900	3158624
SKS 8X20 F	M 8 x 20	20	8	13	50	1,500	3158632
SKS 8X30 F	M 8 x 30	30	8	13	50	2,300	3158640

St Steel

/100 pc.

F Hot-dip galvanised

Hexagonal bolt for universal fixing of structure components.



Hexagonal bolt with nut and washer

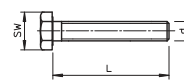
Type	Dimension mm	Dim.			Pack. pcs	Weight kg/100 pcs.	Item No.
		L mm	d mm	SW mm			
SKS 10X80 F	M 10 x 80	80	10	17	20	7,700	6418250
SKS 10X90 F	M 10 x 90	90	10	17	20	7,800	6418252
SKS 10X120 F	M 10 x 120	120	10	17	20	13,500	3160793

St Steel

/100 pc.

F Hot-dip galvanised

Hexagonal bolt for universal fixing of structure components.



Hexagonal bolt with nut and washer

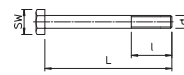
Type	Dimension mm	Dim.				Pack. pcs	Weight kg/100 pcs.	Item No.
		L mm	l mm	d mm	SW mm			
SKS 12X80 F	M 12 x 80	80	30	12	19	20	11,800	6418287
SKS 12X100 F	M 12 x 100	100	30	12	19	20	12,600	6418295
SKS 12X110 F	M 12 x 110	110	30	12	19	20	14,500	6418317
SKS 12X130 F	M 12 x 130	130	36	12	19	20	15,500	6408478

St Steel

/100 pc.

F Hot-dip galvanised

Hexagonal bolt with hexagonal nut, washer and tooth lock washer.



Wedge anchor BZ



Type	Thread	Dim. L mm	Pack. pcs	Weight kg/100 pcs.	Item No.
BZ 12-15-35/110	M12	110	25	10,320	3498350
BZ10-100-120/180	M10	180	25	10,320	3498342

St Steel /100 pc.
G Electrogalvanised

European technical approval ETA-99/0010, including characteristic values under fire exposure to fire resistance R 120.

Proof of suitability in the case of seismic impacts, categories C1 and C2.

Shock approval by the Federal Office for Civil Protection in Bern, Switzerland.

Wedge anchor BZ for the anchoring of medium-duty to heavy-duty loads, both in cracked and non-cracked concrete. It combines high approved loads with small edge distances and axial spacings.

Load

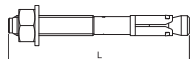
Standard anchoring depth

Loads and characteristic values		M 8	M 10-100/180	M 12-15/110	M 16-15/135
Standard anchoring depth	mm	-	60	70	85
Drill hole Ø	mm	-	10	12	16
Drill hole depth	mm	-	75	90	110
Clamping width	mm	-	100	15	15
Appr. load area, tension zone	KN	-	4.3	7.6	11.9

Reduced anchoring depth

Loads and characteristic values		M 8	M 10-120/180	M 12-35/110	M 16-35/135
Reduced anchoring depth	mm	-	40	50	65
Drill hole Ø	mm	-	10	12	16
Drill hole depth	mm	-	55	70	90
Clamping width	mm	-	120	35	35
Appr. load area, tension zone	KN	-	3.6	6.1	9.0

Wedge anchor BZ, V4A



Type	Thread	Dim. L mm	Pack. pcs	Weight kg/100 pcs.	Item No.
BZ12-15-35/110A4	M12	110	25	10,440	3498352

V4A Stainless steel, A4 /100 pc.

European technical approval ETA-99/0010, including characteristic values under fire exposure to fire resistance R 120.

Proof of suitability in the case of seismic impacts, categories C1 and C2.

Shock approval by the Federal Office for Civil Protection in Bern, Switzerland.

Wedge anchor BZ for the anchoring of medium-duty to heavy-duty loads, indoors and outdoors, both in cracked and non-cracked concrete. It combines high approved loads with small edge distances and axial spacings.

Load

Standard anchoring depth

Loads and characteristic values		M 8	M 10	M 12-15/110	M16
Standard anchoring depth	mm	-	-	70	-
Drill hole Ø	mm	-	-	12	-
Drill hole depth	mm	-	-	90	-
Clamping width	mm	-	-	15	-
Appr. load area, tension zone	KN	-	-	7.6	-

Reduced anchoring depth

Loads and characteristic values		M 8	M 10	M 12-35/110	M16
Reduced anchoring depth	mm	-	-	50	-
Drill hole Ø	mm	-	-	12	-
Drill hole depth	mm	-	-	70	-
Clamping width	mm	-	-	35	-
Appr. load area, tension zone	KN	-	-	6.1	-

Wedge anchor BZ-U

Type	Thread	Dim. L mm	Pack. pcs	Weight kg/100 pcs.	Item No.
BZ-U 10-10-30/90	M10	90	50	6,720	3498334
BZ-U 8-10-21/75	M8	75	50	3,460	3498320
BZ-U 8-30-41/95	M8	95	50	4,010	3498326
BZ-U10-30-50/110	M10	110	25	7,900	3498340

St Steel

/100 pc.

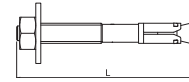
G Electrogalvanised

European technical approval ETA-99/0010, including characteristic values under fire exposure to fire resistance R 120.

Proof of suitability in the case of seismic impacts, categories C1 and C2.

Shock approval by the Federal Office for Civil Protection in Bern, Switzerland.

Bolt tie BZ for the anchoring of medium-duty to heavy-duty loads, both in cracked and non-cracked concrete. It combines high approved loads with small edge distances and axial spacings.



Load

Standard anchoring depth

Loads and characteristic values		M 8-10/75	M 8-30/75	M 10-10/90	M 10-30/110
Standard anchoring depth	mm	46	46	60	60
Drill hole Ø	mm	8	8	10	10
Drill hole depth	mm	60	60	75	75
Clamping width	mm	10	30	10	30
Appr. load area, tension zone	KN	2.4	2.4	4.3	4.3

Reduced anchoring depth

Loads and characteristic values		M 8-21/75	M 8-41/95	M 10-30/90	M 10-50/110
Reduced anchoring depth	mm	35	35	40	40
Drill hole Ø	mm	8	8	10	10
Drill hole depth	mm	49	49	55	55
Clamping width	mm	21	41	30	50
Appr. load area, tension zone	KN	2.4	2.4	3.6	3.6

Wedge anchor BZ-U, V4A

Type	Thread	Dim. L mm	Pack. pcs	Weight kg/100 pcs.	Item No.
BZU10-10-30/90A4	M10	90	50	6,740	3498336

V4A Stainless steel, A4

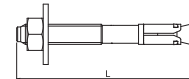
/100 pc.

European technical approval ETA-99/0010, including characteristic values under fire exposure to fire resistance R 120.

Proof of suitability in the case of seismic impacts, categories C1 and C2.

Shock approval by the Federal Office for Civil Protection in Bern, Switzerland.

Wedge anchor BZ for the anchoring of medium-duty to heavy-duty loads, indoors and outdoors, both in cracked and non-cracked concrete. It combines high approved loads with small edge distances and axial spacings.



Load

Standard anchoring depth

Loads and characteristic values		M 8-10/75	M 8-30/95	M 10-10/90	M 10
Standard anchoring depth	mm	46	46	60	-
Drill hole Ø	mm	8	8	10	-
Drill hole depth	mm	60	60	75	-
Clamping width	mm	10	30	10	-
Appr. load area, tension zone	KN	2.4	2.4	4.3	-

Reduced anchoring depth

Loads and characteristic values		M 8-21/75	M 8-41/95	M 10-30/90	M 10
Reduced anchoring depth	mm	35	35	40	-
Drill hole Ø	mm	8	8	10	-
Drill hole depth	mm	49	49	55	-
Clamping width	mm	21	41	30	-
Appr. load area, tension zone	KN	2.4	2.4	3.6	-



Drop-in anchor E



Type	Thread	Screw-in	Bore		Dim. L mm	Perm. load range, tension zone kN	Pack. pcs	Weight kg/100 pcs.	Item No.
		depth min.-max. mm	hole Ø mm	hole depth mm					
E M 10x40	M10	11 - 15	12	40	40	2	50	2,140	3492920
E M 12x50	M12	13 - 18	15	50	50	2.4	50	4,420	3492930
E M 8x40	M8	9 - 20	10	40	40	2	100	1,490	3492910

St Steel

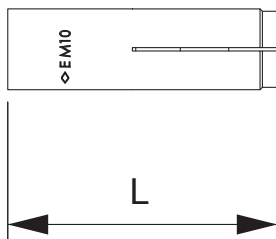
/100 pc.

G Electrogalvanised

European Technical Approval ETA-02/0020 (option 7) for single fixings in non-cracked concrete and European Technical Approval ETA-05/0116 for multiple fixings in cracked and non-cracked concrete, including characteristic values under fire exposure to fire protection R 120.

The drop-in anchor E can be used for single fixings in non-cracked concrete as well as for multiple fixings in cracked concrete of non-load-bearing systems.

The setting tool is placed onto the anchor sleeve thereby creating a visible mark which confirms the correct installation. Through the controlled expansion, the necessary axial spacings and edge distances are decreased significantly.



Hollow core anchor Easy



Type	Thread	Bore	Dim.	Pack. pcs	Weight kg/100 pcs.	Item No.
		hole Ø mm	L mm			
Easy M10	M10	16	53	25	3,320	3498774
Easy M8	M8	12	44	25	1,500	3498770

St Steel

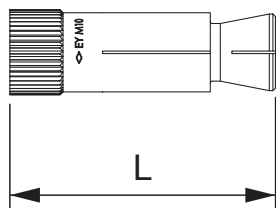
/100 pc.

G Electrogalvanised

General type approval Z-21.1-1785 granted by the German Institute for civil engineering (DIBt), Berlin, including permissible loads when exposed to fire up to a fire resistance duration of 120 minutes.

Hollow core anchor "Easy" four mounting in prestressed hollow concrete slabs. When the screw or the nut is tightened, the conus is released from the anchor sleeve and pulled into it. This makes the anchor expand in the hollow space, thereby creating form lock. The hollow core anchor can also be used when the expansion area is not located in the cavity.

The fastening of the component can be done with standard screws and threaded rods.

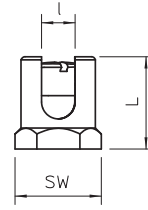


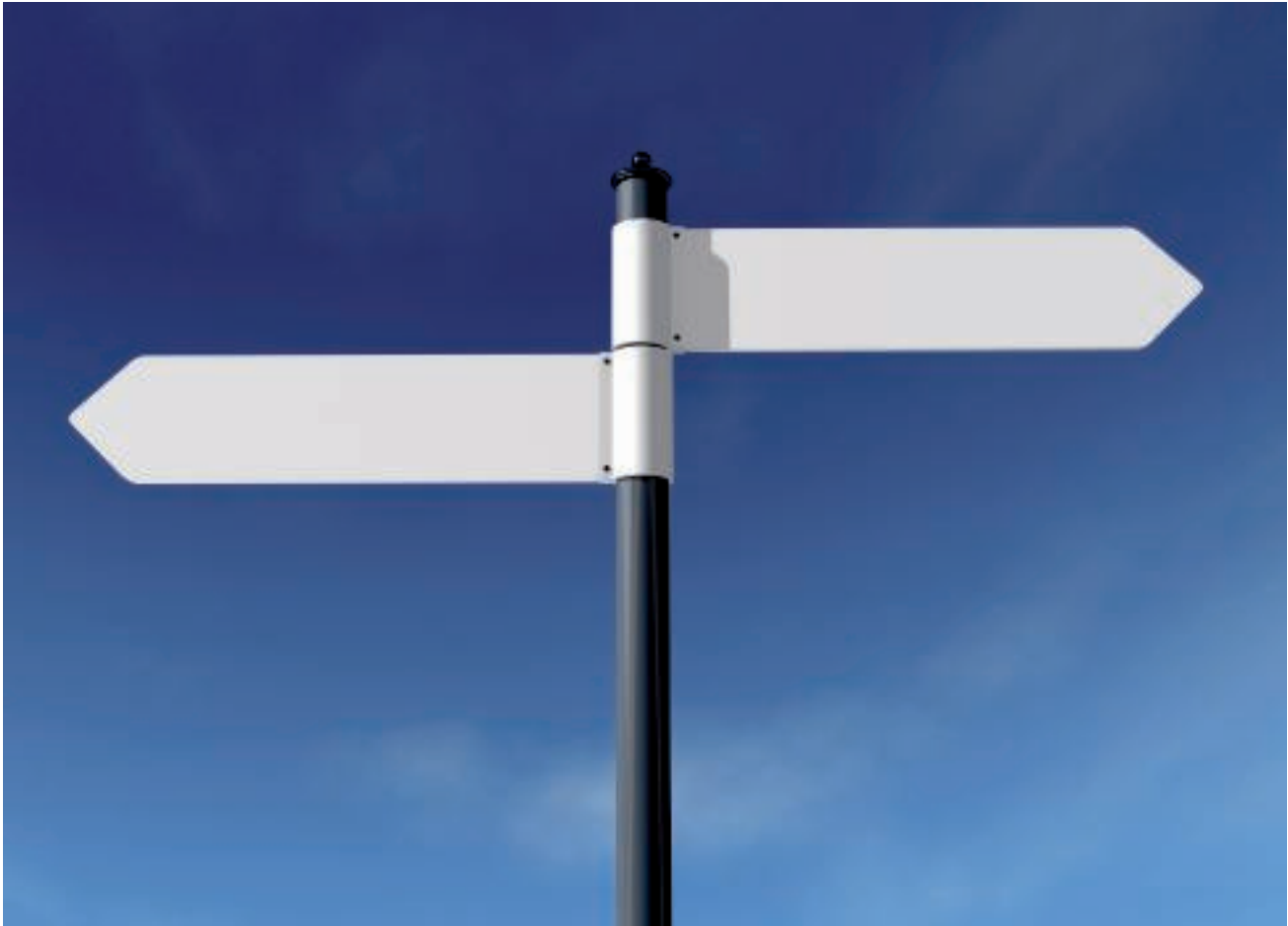
Earthing terminal

Type	Dim. L mm	Cross-section mm ²	SW mm	Thread	Accessories	Pack. pcs	Weight kg/100 pcs.	Item No.
EKL 25 M6	22	25	18	M6	—	50	3,100	6404006
EKL 35 M6	26	35	21	M6	—	50	4,800	6404014




CuZn Brass /100 pc.

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





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Wedge anchor BZ-U, V4A 103





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FRS 10X25 F 8.8	6201914	6407560	85
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US 7 K 160 FT	6187393	6339247	89
US 7 K 170 FT	6187454	6339255	89
US 7 K 180 FT	6187515	6339263	89
US 7 K 190 FT	6187577	6339271	89
US 7 K 20 FT	6186556	6339018	89
US 7 K 200 FT	6187638	6339298	89
US 7 K 250 FT	6931217	6339334	89
US 7 K 30 FT	6186617	6339034	89
US 7 K 300 FT	6457458	6339360	89
US 7 K 40 FT	6186679	6339050	89
US 7 K 50 FT	6186730	6339077	89
US 7 K 60 FT	6186792	6339093	89
US 7 K 70 FT	6186853	6339115	89
US 7 K 80 FT	6186914	6339131	89
US 7 K 90 FT	6186976	6339166	89
US 7 KS OR	5668060	6338497	89
VUS 3 FT	6229154	6018513	84
VUS 3 VA4301	5706007	6018517	84
VUS 5 FT	6446896	6018505	87
VUS 5 VA4571	6082773	6018509	87
VUS 7 FT	6014293	6018378	90



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04 KTS Markspezifischer Katalog Indien

2016_31052016_Gami

en

Bund

Bundle

Stand: 11/11/2016

LLExport_01986

Wenn LAGERLISTE:

Dann in Leaflet die Variabel "Lagerliste_JaNein"

auf Ja

und

Alle Variablen:

5_Lagerliste_JaNein.....	Nein
CID	EN
ChalfantNrAnzeigen_JaNein	Nein
Kundenname	
Kundenname_Tabellenkopf	
MasseUmrechnenImperial_JaNein	Nein
Preis_ValAID	
Rabattgruppen_JaNein	Nein
StandardVPE.....	1
SystemLogo	
ZeileWerkstoffRabattJaNein.....	Ja
ZusText_Werkstoff_Lieferbar_auf_Anfrage_JaNein	Ja
_AbstandhalterHoehe.....	1,5
_EinzugUntenObenProdTabelle.....	0,7
_ListatbsValAIDAnschlussTabelle.....	45519
_ListatbsValAIDBelastungsTabelle	45520
_ListatbsValAIDEinbauTabelle.....	45521
_ListatbsValAIDKlassifikationsTabelle	45662
_ListatbsValAIDMassTabelle	45518
_ListatbsValAIDProduktTabelle.....	17164
_Preiseinheit_JaNein	Ja
_SchnittmarkenJaNein	Ja
_nichtFuerPrintstrukturVerwenden_Ja=1Nein=0	1
crossAct_Farbhinterlegung_JaNein	nein

Katalogdatei:

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2016 10 14.tsl

