

# VBS



**Connection and  
fastening systems  
Export GmbH & Co KG**

**2019/2020**

**Building Connections**

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BETTERMANN



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# Planning and mounting aids

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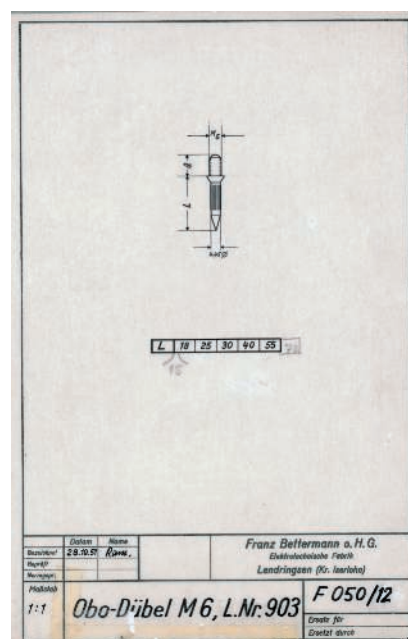


## VBS – Connection and fastening systems

VBS is one of a total of seven OBO product units, but of those it is one of the longest-standing and most extensive. Indeed, OBO Bettermann takes part of its

name from one of the most successful ever products from the VBS product unit – the OBO anchor, a metal anchor invented in 1952 that offers the advantage

that it can be fitted “Ohne **BO**hren”, that is, without the need for any drilling.





# VBS – Connection and fastening systems

## Distribution

- Junction box systems
- Concealed and cavity wall systems
- Terminal systems
- Cable gland systems



## Fastening

- Beam clamp systems
- Rail systems
- Clamp clip systems
- Screw-in and knock-in systems







## Routing

- Cable and pipe fastening systems
- Pipe systems



# Plastic: materials and properties

Essentially plastics can be of one of three types: thermoplastics, elastomers and Duroplast.

## Thermoplastics

are plastics that can be shaped within a specific temperature range. This process is reversible, in other words, thermoplastics can theoretically be cooled and then melted down again any number of times. Another unique advantage of thermoplastics is that they can be welded.

## Elastomers

have a fixed shape, but can be elastically deformed. They can elastically deform under tensile and compressive stresses, but afterwards will return to their original shape. Elastomers are used for producing seals and membrane entries.

## Duroplast

or thermosetting polymers/plastics, are plastics that can no longer be deformed following curing. Duroplast produce hard, glass-like (brittle) polymeric materials with a high thermo-mechanical strength.

## Temperature ranges of plastics

	Material	Max. temperature resistance Permanent	Max. temperature resistance Short-time	Min. temperature resistance Static
ABS/ASA	Acrylonitrile butadiene styrene	70 °C	85 °C	-40 °C
UF	Duroplast, Amino-plast, type 131.5	65 °C	90 °C	-40 °C
MF	Duroplast, melamine resin, type 150	80 °C	110 °C	-40 °C
EVA	Ethylene vinyl acetate	55 °C	70 °C	-50 °C
NBR/SBR	Rubber mixture	100 °C	110 °C	-40 °C
NBR	Nitrile rubber	100 °C	110 °C	-30 °C
PA	Polyamide	120 °C	150 °C	-40 °C
PA/GF	Polyamide, fibreglass reinforced	120 °C	160 °C	-20 °C
PBPT	Polybutylene terephthalate	120 °C	140 °C	-40 °C
PC	Polycarbonate	110 °C	125 °C	-35 °C
PE	Polyethylene	70 °C	90 °C	-40 °C
PP	Polypropylene (PP)	90 °C	110 °C	-30 °C
PS	Polystyrene	70 °C	80 °C	-10 °C
PVC	Polyvinylchloride	65 °C	80 °C	-30 °C



# Plastic: materials and properties

## Risk of stress cracks

Medium	ABS/ASA	UF	MF	EVA	NBR SBR	NBR	PA	PA/GF	PBPT	PC	PE	PP	PS	PVC
Risk of stress cracks	✗	✓	✓	✓	✓	✓	✓	○	○	✓	!	✓	✗	○

Danger of tension cracks:   
 ✓ Virtually negligible    ○ Low    ! High    ✗ Very high

## Chemical resistance

Medium	ABS/ASA	UF	MF	EVA	NBR SBR	NBR	PA	PA/GF	PBPT	PC	PE	PP	PS	PVC
Petroleum	✓	✓	✓	○	✓	○	✓	✓	✓		○	○	○	✓
Fat	✓	✓	✓	✓	✓	○	✓	✓	✓				○	✓
Benzole	!	✓	✓	○	✓	!	✓	✓	○	!	!	○	!	!
Solvents	!						✓	✓	○				!	!
Formic acid	✓	!									!	○		!
Citric acid	✓	!		○							!			
Lactic acid	✓	!		○							!	○	!	!
Hydrochloric acid	○	!									✓			!
Sulphanic acid	○	!									✓			!
Acetone	!	✓					✓	✓	○	!	!	○	!	!
Petrol	!	✓	✓	○	○	!	✓	✓	✓	✓	!	○	!	✓
Butyric acid	!	!		○							!	○		!
Chlorine	!						!	!	!	!	!	!	!	
Acetic acid	!	!		○							!		!	
Nitric acid	!	!									✓		!	
Ester		✓	✓	○	!	!								
Alcohol		✓	✓	○			✓						✓	
Mild alkalis		✓	✓	✓	✓	✓	○	○	!		✓	✓		✓
Mild acids		○	○	✓	✓	✓	!	!	✓	✓	✓			✓
Ether		✓	✓	○									!	
Water		✓	✓	✓	✓	✓								
Strong acids		!	!	○					!	!	!			!
Strong alkalis		!	!	✓					!		✓	✓		✓
Hydrofluoric acid				○							✓			
Paraffin hydrocarbon				○								○		
Haloalkanes				!										
Ketones				!	!								!	
Aldehyde				✓										
Organic acids				○							!	○		
Water Seawater					✓	✓								
Diesel fuel							✓	✓	✓		○	○	!	
Ammoniac									○				!	

Resistance:   
 ✓ Resistant    ○ Limited resistance    ! Not resistant

## Plastic: material properties

### HALOGEN FREE

#### Halogen freedom

Estimates suggest that around 95% of fire victims die not due to the immediate effects of the fire, but of poisoning from the smoke. In addition, the corrosive fire gases created during fires cause immense damage to property and can permanently damage the structure of a building. Therefore, halogen-free installation systems

should or must always be used in public areas (emergency routes, lifts, etc.).

The chemical composition of these halogen-free systems is designed in such a way that, in the case of fire, they produce less hazardous (toxic/corrosive) gases, which could combine with extinguishing agents to form hydrochloric acid. In the sense of the standard DIN VDE 0472, this means that materi-

als are considered halogen-free when "the proportions of the halogens chlorine, bromine and iodine are  $\leq 0.2\%$  for chlorine and  $\leq 0.1\%$  for fluorine".

OBO Bettermann offers a wide range of halogen-free products that reduce the risk of harm to people and property to a minimum in case of fire.

### UV Resistant

#### UV resistance

Outdoor installations should always be viewed particularly critically with regard to the mounting locations and the selection of the installation materials.

UV radiation is damaging to many plastics, causing them to turn yellow and/or brittle or lose their

elasticity. However, plastics can be protected against UV damage through the addition of UV stabilisers. Products made from UV-resistant materials are specially marked. In general, besides UV radiation, installations outdoors must also take other environmental influences into account. Factors such as maximum temperatures, regu-

larity of (extreme) temperature changes, humidity and the location of use/mounting (housing, industry, town, region, continent) all have an important role to play here.





## Flame resistance/fire resistance

Materials are described as “flame-resistant” if they prevent the spread of fire or are sufficiently fire-resistant. According to DIN EN 60695-2-11 (VDE 0471 Part 2-11), electrical connection materials must be subjected to a glow wire test, in order to evaluate the fire risk of the end product. When the glow wire test is being carried out, a glowing wire (for temperature see table below) is inserted into the component to be tested for a period of 30 seconds and then removed. After 30 seconds at the latest, the object, if it has caught light, must have extinguished again, in order to specify the flame resistances.



## Types of installation systems

Types of samples Test temperatures in °C	Surface-mounted	Con-cealed	Flush-mounted	Cavity wall/ furniture	Concrete structure	Installation duct
Connection sockets	650	650	750	850	650	750
Accessory sockets and device connection sockets	750	650	-	850	650	750
Ceiling lights, connection sockets	750	650	-	850	650	750
Wall light connection sockets	750	650	-	850	650	750
Device connection sockets	750	650	-	850	650	750
Connection sleeves	750	-	-	-	-	750
Insulation sections, which support active parts	960	-	-	-	-	-
Cover for installation sockets	750	-	-	-	-	-
Cover for installation sockets	750	-	-	-	-	-

## Metal: corrosion and corrosion protection

A large number of VBS products are made from metal. Metals are much tougher than many other materials, and metal components are less sensitive to mechanical loading.

### Corrosion

(from the Latin *corrodere*, “to eat or gnaw to pieces”)

In a technical context is a reaction between a material (generally a metal) and its surroundings leading to a measurable change in the material and potentially impairing the functionality of a component or system.

### Corrosion protection

Corrosion protection means all steps taken to prevent corrosion damage to metallic components. It is impossible to prevent corrosion permanently, so corrosion protection measures generally aim to reduce the speed of corrosion so that the component is not damaged by corrosion for the duration of its service life. The term “passive corrosion protection” refers to all measures designed to shield products from corrosive media. Coatings are one way of achieving passive corrosion protection. At OBO, most steel products are protected from corrosion by a layer of zinc. Zinc coatings can be applied to components using a variety of methods.

### Zinc slat surface

Zinc slat coverings are coatings applied in a non-electrolytic manner. The cathodic protection means that the zinc slat coverings offer very good corrosion protection. This excludes the risk of a break induced by hydrogen, which is caused through the surface coating process.

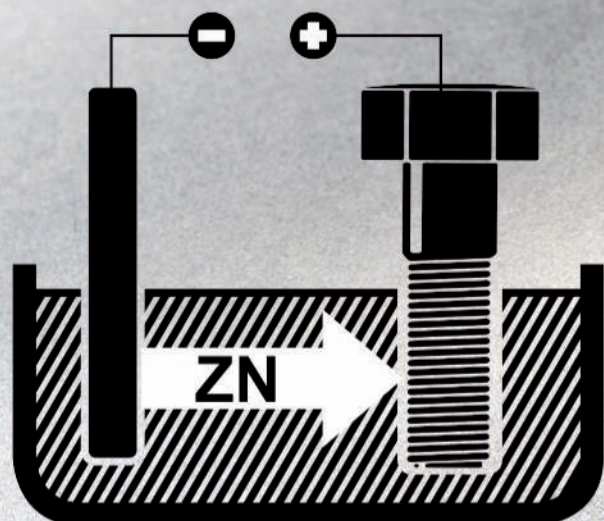
The main advantage of this coating is the very high level of corrosion protection, which corresponds to the corrosion protection of a hot galvanised coating. This coating achieves a resistance of 480 hrs in the salt spray test for the connection elements. The low layer thickness of the zinc slat covering allows a thin, homogeneous coating, which is particularly important for maintaining the accuracy of threads.





# Galvanisation types

## Electro galvanisation

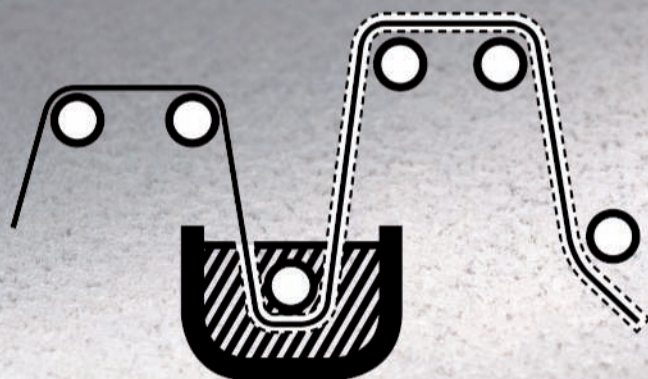


**G**

In electro galvanisation, the component is coated by dipping it not in molten zinc, but in a zinc electrolyte, through which a direct electric current is passed.

## Hot-dip galvanising

In hot-dip galvanisation, steel is coated by dipping it in molten zinc at a temperature of around 450 °C.



**FS**

“Continuous galvanising” or “strip galvanising” is where a continuous ribbon of steel is galvanised in a continuous line.

**FT**



“Batch galvanisation” is mainly used for galvanising prefabricated steel parts.

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## Installation locations

Whether indoors or outdoors, in aggressive atmospheres or under special hygienic conditions: OBO can offer the perfect surface and materials for your installation, no

matter what the requirements may be. OBO products are machined from high-quality sheet steel or steel wire and are available with various surfaces. Different harden-

ing and coating methods ensure tailor-made corrosion protection, specially tailored to the appropriate application:

Application	Material	Surface protection
Indoors 	<b>St</b> Steel	<b>L</b> Painted/ powder-coated
	<b>St</b> Steel	<b>FS</b> Strip-galvanised (ca. 20 µm) DIN EN 10346
	<b>St</b> Steel	<b>G</b> Electrogalvanised (ca. 2,5 - 10 µm) DIN EN 12329
Outdoors 	<b>St</b> Steel	<b>FT</b> Hot galvanised (ca. 40 - 60 µm) DIN EN ISO 1461
	<b>VA</b> Stainless steel A2	
	<b>VA</b> Stainless steel A4	
Especially corrosive areas 	<b>VA</b> Stainless steel A2	
	<b>VA</b> Stainless steel A4	

## Contact corrosion

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

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.



## Land climate

Component (large)	Component (small)					
	FT	VA	Alu	Cu	CuZn 37	Zn
Steel, galvanised	✓	✓	✓	!	○	✓
Stainless steel	✓	✓	○	○	○	✓
Aluminium	✓	✓	✓	!	○	✓
Copper	○	○	○	✓	○	!
Brass	✓	!	○	○	✓	!
Die-cast zinc	○	○	✓	✗	○	✓

## Industrial atmosphere

Component (large)	Component (small)					
	FT	VA	Alu	Cu	CuZn 37	Zn
Steel, galvanised	✓	✓	○	✗	!	✓
Stainless steel	✓	✓	○	○	○	✓
Aluminium	○	○	✓	!	!	✓
Copper	!	!	✗	✓	○	!
Brass	○	○	✗	○	✓	○
Die-cast zinc	✓	✓	✓	✗	!	✓

## Sea climate

Component (large)	Component (small)					
	FT	VA	Alu	Cu	CuZn 37	Zn
Steel, galvanised	✓	○	✗	✗	!	○
Stainless steel	○	✓	✗	○	○	✓
Aluminium	✗	○	✓	!	!	✓
Copper	!	!	✗	✓	○	!
Brass	○	○	✗	○	✓	○
Die-cast zinc	✓	✓	✓	✗	!	✓

No risk of contact corrosion     
 High risk of contact corrosion     
 Low risk of contact corrosion

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

## Maintenance of electrical function

### Safety in case of fire

To ensure that emergency and escape routes and important technical equipment such as emergency lighting, fire alarm systems and smoke exhaust systems remain usable in case of fire, it is absolutely essential to provide special protection for the power supply for these systems. The use of special cables and laying systems means that it is possible to maintain the power supply, even in the case of fire, thus guaranteeing the maintenance of electrical function.

You can find detailed information on the subject of fire protection in the OBO BSS fire protection catalogue.



The maintenance of electrical function is particularly important in buildings regularly frequented by large numbers of people. These include public buildings such as schools, hospitals, meeting places, civic buildings and underground stations, but also industrial plants, high-rise buildings, shopping centres and large car parks.

### Fire loads of installation systems

According to rules governing wiring systems in the individual German federal states, no fire loads may be installed in emergency and escape routes. OBO's fire-tested steel fastenings fulfil these requirements.



Junction boxes which have the capability to maintain electrical function ensure the fireproof connection of the safety cables. The boxes in the FireBox series are tested and approved to maintain electrical function for 30 to 90 minutes in accordance with DIN 4102-12.



## E30

### **30 minutes: Maintaining electrical function for an evacuation.**

The first 30 minutes after the start of a fire are decisive when clearing the affected building.

During this time, the maintenance of electrical function must be guaranteed for the following units:

- Safety lighting systems
- Lifts with fire control
- Fire alarm systems
- Alarm systems and systems to issue instructions to visitors and employees
- Smoke extraction systems

## E90

### **90 minutes: Maintaining electrical function for better firefighting.**

To support firefighting operations, it is imperative that certain technical equipment is supplied with sufficient power even up to 90 minutes after a fire breaks out in a building. This equipment includes:

- Systems to increase the pressure of the water for fighting the fire
- Mechanical smoke extraction and smoke protection pressure systems
- Fire brigade lifts, bed lifts in hospitals





## Individual routing systems

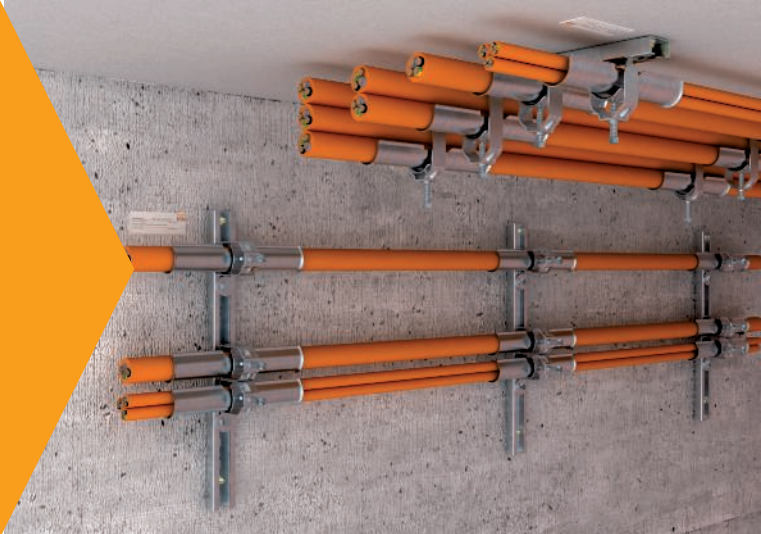
With the individual laying systems, OBO Bettermann can offer a range of practical, flexible mounting options to maintain function of electrical installations. The systems are suited to vertical and horizontal in-

stallation and are approved for the fire protection classes E30 to E90. Standardised supporting constructions as defined in the testing standard, DIN 4102 Part 12, include: The laying of cables with in-

dividual clips and the laying of cables with profile rail, clamp clip and a long trough.

### Clamp clip

Standard support construction consisting of clamp clip without long trough for individual laying or bundling cables.



#### Standard routing type, clamp clip Type 2056

- Wall or ceiling mounting
- Horizontal installation
- Rail mounting: max. 0.3 m
- Anchor spacing in the rail: max. 0.25 m
- Individual cable assignment: diameters of up to 100 mm
- possible
- Assignment with bunched cables: Max. 3 cables with max. diameter 25 mm

### Cable tidy

Cable-specific laying type with cable tidies for individual laying, horizontal/vertical mounting on wall or ceiling.



#### Type 2031/M 15

- Fastening distance: max. 0.5 m
- Cable assignment: max. 1.1 kg/m

#### Type 2031/M 30

- Fastening distance: max. 0.5 m
- Cable assignment: max. 2.5 kg/m

#### Type 2031/M 70

- Fastening distance: max. 0.8 m
- Cable assignment: max. 6.0 kg/m



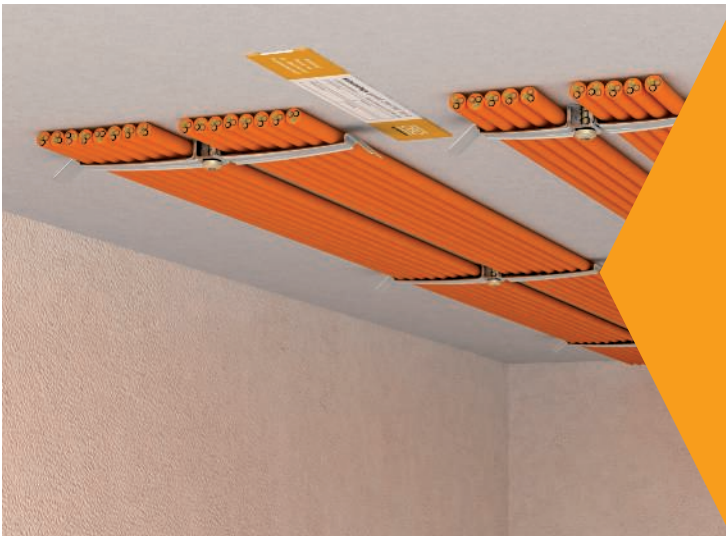


## Spacer clips

Standard support construction consisting of spacer clips for individual laying or bundling cables.

### Standard routing type, single clip Type 732/733

- Wall or ceiling mounting
- Vertical or horizontal mounting
- Mounting spacing: max. 0.3 m
- Individual cable assignment: diameters of up to 50 mm possible
- Assignment with bunched cables: Max. three cables with max. diameter 25 mm



## Pressure clip

Cable-specific laying type with pressure clips for individual laying, mounting on the ceiling.

### Type 2033 M

- Fastening distance: max. 0.5 m

### Type 2034 M

- Fastening distance: max. 0.5 m



## Protection ratings

### IP protection rating

The IP protection rating specifies how far a component is protected against contact and foreign bodies and the ingress of water. The IP protection ratings are controlled by the standard DIN EN 60529 (VDE 0470 Part 1). The IP is always made up of two digits.

### The first digit

designates the contact and foreign body protection. On the one hand, it specifies how far a housing prevents access to dangerous parts, by preventing or limiting the ingress of body parts or objects held by a person. On the other hand, it specifies how far the housing protects the installed resources against the ingress of solid foreign bodies.





### The second digit

specifies the protection against water. It specifies how far the resource is protected against incoming water and the resulting damage.



### Protection rating against the entry of water with a damaging impact

Second code digit	Short description	Definition
0	Not protected	-
1	Protected against water droplets	Droplets falling vertically may have no damaging impact.
2	Protected against water droplets when the housing is tilted to up to 15°	Droplets falling vertically may not have a damaging impact, if the housing is tilted to angle of 15° on either side of the vertical.
3	Protected against spray water	Water being sprayed at an angle of 60° on both sides of the vertical may not have any damaging impact.
4	Protected against spray water	Water spraying the housing from any direction may not have any damaging impact.
5	Protected against water jets	Jets of water pointing at the housing from any direction may not have any damaging impact.
6	Protected against strong water jets	Strong jets of water pointing at the housing from any direction may not have any damaging impact.
7	Protected against the effects of being temporarily immersed in water	If the housing is sometimes underwater under standard pressure and time conditions, then water may not enter in such volumes as would have a damaging impact.
8	Protected against the effects of being continuously immersed in water	If the housing is continuously underwater, then water may not enter in such volumes as would have a damaging impact and this shall be subject to conditions to be agreed between the manufacturer and the user. However, the conditions are more difficult to fulfil than for number 7.





## IK code

The IK code to DIN EN 50102 indicates the protection rating of housings against external mechanical loads. It is made up of the code letters IK and a two-digit number from 00 to 10. Each

group of numbers standards for a load energy value in Joules (J). The IK code always applies to the complete housing, which guarantees the protection of resources against the damaging effects of

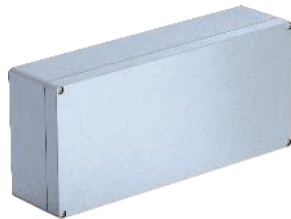
mechanical loads. The housings are tested by knocking them with different testing hammers.

IK code	00	01	02	03	04	05	06	07	08	09	10
Stress energy value [J]	-	0.15	0.20	0.35	0.50	0.70	1	2	5	10	20



## Protection classes of electrical resources in accordance with VDE 0140

Protection class	
I	Resources with protective conduction connection (protection measure through protective conductor connection on housing)
II	Resources with protective insulation (protection measure through insulation)
III	Resource with protective low voltage (SELV-PELV, protection through measured voltages max. 25/50 V AC and max. 60/120 V DC)



Empty plastic housings correspond to protection class II, housings made of metal/metal plating must be intended for the connection of a protection conductor and thus meet protection class I.

## Electrical designations

When using junction boxes, connection sockets and connection terminals, the resources are assigned nominal values, as defined in VDE 0100 Part 200. In the des-

ignation, a distinction is made between the maximum approved voltage (nominal voltage), the maximum approved current (nominal current) and the maximum ap-

proved cross-section (nominal cross-section of the cables to be connected).

2,5  
mm<sup>2</sup>

### Nominal cross-section

Largest tested-approved cross-section of the cable to be connected.

16  
A

### Nominal current

Largest approved current at the connection point.

660  
V

### Nominal voltage

Greatest approved voltage at the connection point.

12

### No. of poles

Number of connection points of the clamp connector.

7

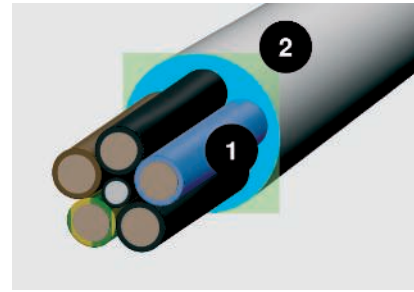
### Number of entries

Number of entries in an electrical connection box or connection socket.



# Cable sizes

The term "cable" means a jacketed electrical cable for the transmission of electrical energy and data. Cables are given according to their nominal cross-section. The external diameter and usable cross-section depend on their nominal cross-section and the number of individual wires contained in the cable. Fastening clips are given with their maximum span distance as a nominal size in mm. To determine the correct fastening clip for the component to be fastened, you can find the interplay between the PG sizes and the metric data in the table.



Cable diameter in mm (1)  
and space required in cm<sup>2</sup> (2)

## 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.

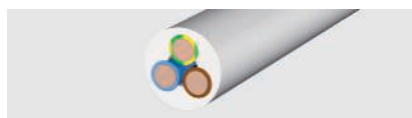
$$(2r)^2$$

### Overview of PG and metric sizes

External diameter in mm	PG sizes	External diameter in mm	Metric sizes
12	PG 7	12.5	M 12
13	PG 7	12.5	M 12
15	PG 9	15.2	M 16
16	-	-	M 16
18	PG 11	18.6	M 16/M 20
19	PG 11	18.6	M 16/M 20
20	PG 13.5	20.4	M 20
21	PG 13.5	20.4	M 20/M 25
22	PG 16	22.5	M 20/M 25
23	PG 16	22.5	M 20/M 25
24	-	-	M 20/M 25
25	-	-	M 25
28	PG 21	28.3	M 25/M 32
32	-	-	M 32
37	PG 29	37	M 32/ M 40
40	-	-	M 40
47	PG 36	47	M 40/M 50
50	-	-	M 50
54	PG 42	54	M 50/M 63
59	PG 48	59.3	M 50/M 63
63	-	-	M 63

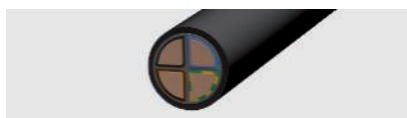


# How can I work out the volume of cables?



## Insulated power cables

Type	Diameter mm	Usable cross-section cm <sup>2</sup>
1 x 4	6.5	0.42
1 x 6	7	0.49
1 x 10	8	0.64
1 x 16	9.5	0.9
1 x 25	12.5	1.56
3 x 1.5	8.5	0.72
3 x 2.5	9.5	0.9
3 x 4	11	1.21
4 x 1.5	9	0.81
4 x 2.5	10.5	1.1
4 x 4	12.5	1.56
4 x 6	13.5	1.82
4 x 10	16.5	2.72
4 x 16	19	3.61
4 x 25	23.5	5.52
4 x 35	26	6.76
5 x 1.5	9.5	0.9
5 x 2.5	11	1.21
5 x 4	13.5	1.82
5 x 6	14.5	2.1
5 x 10	18	3.24
5 x 16	21.5	4.62
5 x 25	26	6.76
7 x 1.5	10.5	1.1
7 x 2.5	13	1.69



## Insulated power cables

Type	Diameter mm	Usable cross-section cm <sup>2</sup>
1 x 10	10.5	1.1
1 x 16	11.5	1.32
1 x 25	12.5	1.56
1 x 35	13.5	1.82
1 x 50	15.5	2.4
1 x 70	16.5	2.72
1 x 95	18.5	3.42
1 x 120	20.5	4.2
1 x 150	22.5	5.06
1 x 185	25	6.25
1 x 240	28	7.84
1 x 300	30	9
3 x 1.5	11.5	1.32
3 x 2.5	12.5	1.56
3 x 10	17.5	3.06
3 x 16	19.5	3.8
3 x 50	26	6.76
3 x 70	30	9
3 x 120	36	12.96
4 x 1.5	12.5	1.56
4 x 2.5	13.5	1.82
4 x 6	16.5	2.72
4 x 10	18.5	3.42
4 x 16	21.5	4.62
4 x 25	25.5	6.5
4 x 35	28	7.84
4 x 50	30	9
4 x 70	34	11.56
4 x 95	39	15.21
4 x 120	42	17.64
4 x 150	47	22
4 x 185	52	27
4 x 240	58	33.6
5 x 1.5	13.5	1.82
5 x 2.5	14.5	2.1
5 x 6	18.5	3.42
5 x 10	20.5	4.2
5 x 16	22.5	5.06
5 x 25	27.5	7.56
5 x 35	34	11.56
5 x 50	40	16



## Telecommunications cables

Type	Diameter mm	Usable cross-section cm <sup>2</sup>
2 x 2 x 0.6	5	0.25
4 x 2 x 0.6	5.5	0.3
6 x 2 x 0.6	6.5	0.42
10 x 2 x 0.6	7.5	0.56
20 x 2 x 0.6	9	0.81
40 x 2 x 0.6	11	1.12
60 x 2 x 0.6	13	1.69
100 x 2 x 0.6	17	2.89
200 x 2 x 0.6	23	5.29
2 x 2 x 0.8	6	0.36
4 x 2 x 0.8	7	0.49
6 x 2 x 0.8	8.5	0.72
10 x 2 x 0.8	9.5	0.9
20 x 2 x 0.8	13	1.69
40 x 2 x 0.8	16.5	2.72
60 x 2 x 0.8	20	4
100 x 2 x 0.8	25.5	6.5
200 x 2 x 0.8	32	10.24



## IT cables type Cat...

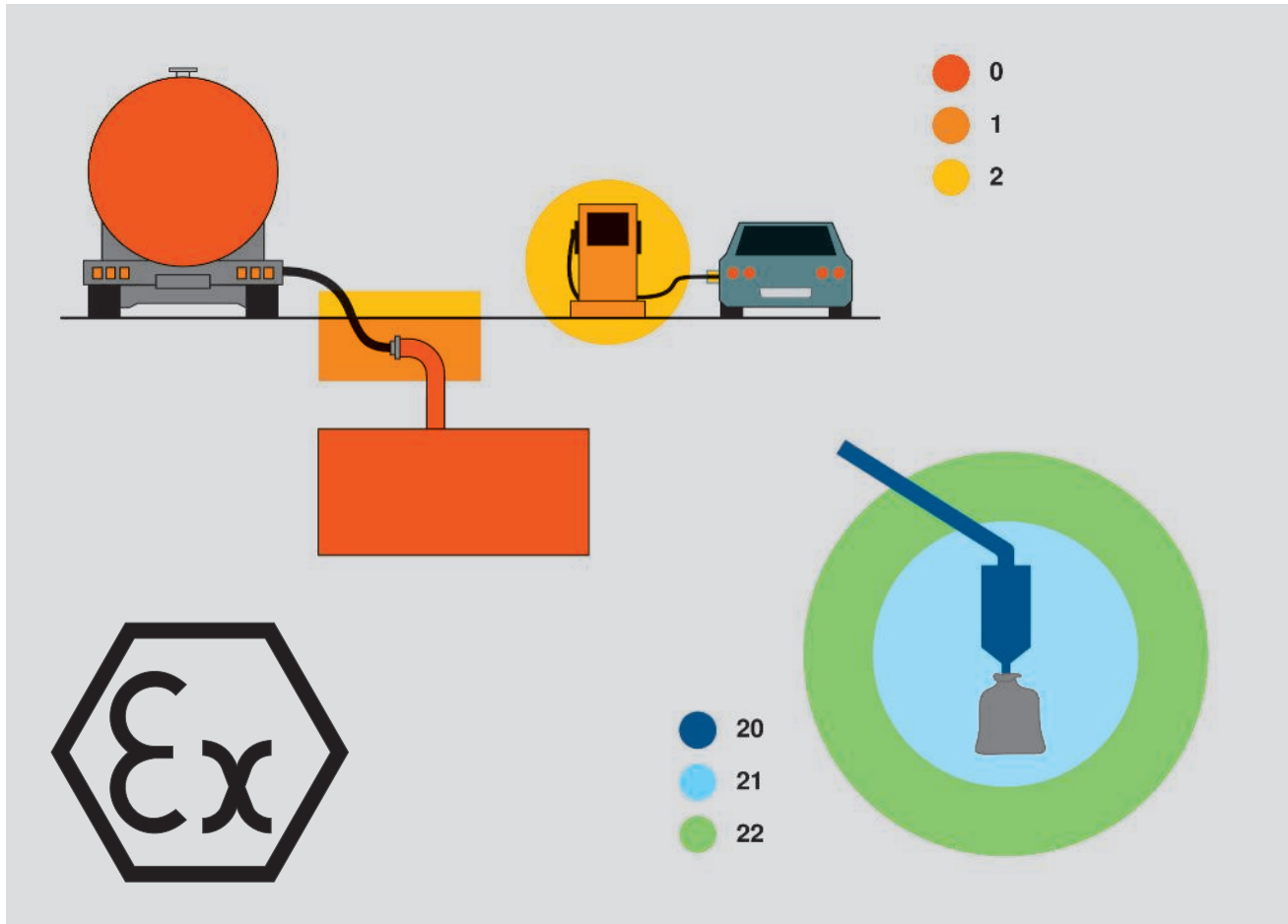
Type	Diameter mm	Usable cross-section cm <sup>2</sup>
Cat. 5	8	0.64
Cat. 6	8	0.64



## Coax cable (Standard)

Type	Diameter mm	Usable cross-section cm <sup>2</sup>
SAT/BK cable	6.8	0.48

## Zone division for explosive areas



The ATEX workplace directive 1999/92/EC (also known unofficially as “ATEX 137”, a reference to Article 137 of the EC Treaty), sets out the minimum requirements for improving the safety and health protection of workers potentially at risk from explosive atmospheres. The directive divides areas with dangerous, potentially explosive atmosphere into zones:

### Zone allocation of device group II (applied)

Gas	Dust
<b>Explosive gas atmosphere, zone division to DIN EN 60079-10</b>	<b>Explosive dust-air mixtures, zone division to DIN EN 61214-10</b>
Zone 0	Zone 20
An area in which it can be expected that, under normal conditions, an explosive atmosphere of gas occurs continuously or for long periods of time.	An area in which it can be expected that, under normal conditions, an explosive atmosphere of dust/air occurs continuously or for long periods of time.
Zone 1	Zone 21
An area in which it can be expected that, under normal conditions, an explosive atmosphere of gas occasionally occurs.	An area in which it can be expected that, under normal conditions, an explosive atmosphere of dust/air occasionally occurs.
Zone 2	Zone 22
Area, in which it can be expected that, under normal conditions, an explosive atmosphere of gas seldom or only briefly occurs.	Area, in which it can be expected that, under normal conditions, an explosive atmosphere of dust/air seldom or only briefly occurs.



## Certificates and test marks



### VDE

VDE is the Association for Electrical, Electronic and Information Technologies, their study and the technologies and applications based upon them. The VDE mark on electrical equipment is proof that the equipment complies with VDE regulations and/or European or international harmonised standards, and meets the safety requirements of the applicable directives. The VDE mark indicates that a product is safe in relation to electrical, mechanical, thermal, toxic, radiological and other hazards.



### CE symbol

Technical resources included in a legal ordinance, i.e. electrical resources, machines and safety components, must have a CE symbol, with which the manufacturer confirms that the safety requirements of the ordinances are fulfilled. In addition, there must also be a declaration of conformity and technical documentation. The CE symbol is not a quality mark, but simply a declaration by the manufacturer that they have complied with the legal requirements and the codes of practice.



## LISTED

### UL

Underwriters Laboratories (UL) is an independent organisation that tests and certifies product safety. UL certification is generally required if a product is to be sold on the US market.

UL offers various certification options: the "UL Listed" test mark indicates that UL has tested representative samples of a product and that it conforms to UL's safety requirements. The "UL Recognized" component test mark entitles a product to be used in a product or system bearing the "UL Listed" test mark.











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## Junction box systems

	<b>A series</b>	37
	<b>T series</b>	42
	<b>X series</b>	85
	<b>Mx series</b>	110
	<b>B series</b>	114
	<b>FireBox</b>	120

# Variety

Small or large, classic or modern, for standard or special applications – variety is at home in the field of OBO junction boxes. There's something for everyone. Learn more at [www.obo.com](http://www.obo.com)





**Staying young  
A series**



**Universal  
T series**



**Extremely high load capacity  
X series**



**Real hard cases  
Mx series**



**The reliable ones  
B series**



**Maintaining functionality  
Firebox series**

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### A series

- Polyethylene (PE)
- Light grey, pure white, red
- Halogen-free



### T series with plug-in seal

- Polypropylene (PP)
- Light grey, pure white, red
- EVA perforation membrane



### T series with plug-in seal, flame resistant

- Polypropylene (PP)
- Light grey
- EVA perforation membrane



### T series with plug-in seal and terminal strip

- Polypropylene (PP)
- Light grey
- With terminal strip



### T series, closed, with terminal strip

- Polypropylene (PP)
- Light grey
- With terminal strip



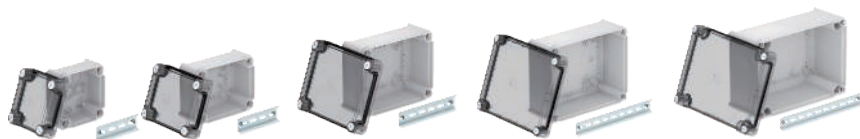
### T series with plug-in seal and elevated transparent cover

- Polypropylene (PP)
- Light grey, light grey-transparent
- EVA perforation membrane
- With hat profile rail



### T series, closed with elevated transparent cover

- Polypropylene (PP)
- Light grey, light grey-transparent
- With hat profile rail



### T series with strain relief entries

- Polypropylene (PP)
- Light grey



### T series with knock-out entries

- Polypropylene (PP)
- Light grey



### T series with Wieland connectors

- Polypropylene (PP)
- Light grey



### X series with knock-out entries, junction boxes

- Polycarbonate (PC)
- Extremely impact-resistant
- 7 sizes
- 4 colour variations



### X series with knock-out entries and terminal strip

- Polycarbonate (PC)
- Extremely impact-resistant
- With supplied terminal strips



### X series with knock-out entries and cable glands

- Polycarbonate (PC)
- Extremely impact-resistant
- Including cable glands and locknuts



### X series with knock-out entries, cable glands and terminal strip

- Polycarbonate (PC)
- Extremely impact-resistant
- Including cable glands, locknuts and terminal strip



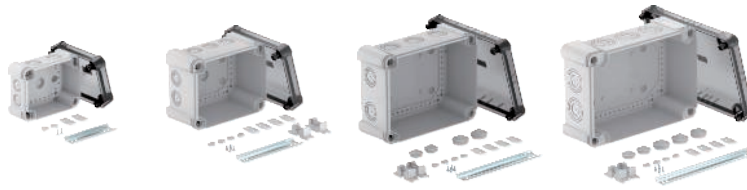
### X series with knock-out entries, cable glands and screwless terminals

- Polycarbonate (PC)
- Extremely impact-resistant
- Including cable glands, locknuts and universal screwless terminal



### X series with knock-out entries and hat profile rail

- Polycarbonate (PC)
- Extremely impact-resistant
- With hat profile rail and fastening set



### X series with knock-out entries and main cable junction terminal

- Polycarbonate (PC)
- Extremely impact-resistant
- Including pre-mounted main cable junction terminal



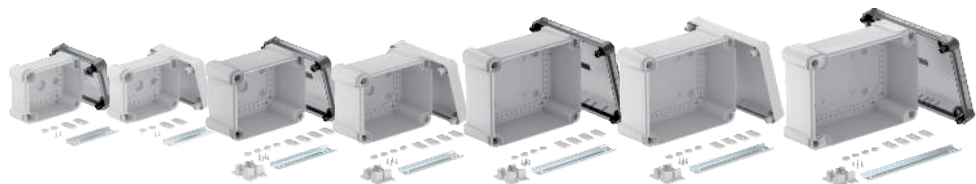
### X series without entries, empty housing

- Polycarbonate (PC)
- Extremely impact-resistant
- 7 sizes
- 3 colour variants



### X series without entries, with hat profile rail

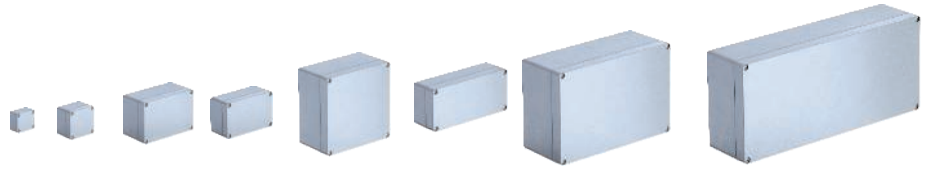
- Polycarbonate (PC)
- Extremely impact-resistant
- With hat profile rails and fastenings





### Mx series

- Die-cast aluminium
- Sandblasted or grey



### B series

- Thermoset
- Light grey



### FireBox

- Polypropylene (PP)
- Pastel orange



## A series

- Halogen-free thermoplastic
- Sturdy external fastenings
- Quick mounting with snug-fitting clamshell
- Suitable for wet rooms, IP55



Classic and still youthful

### Pre-marked cable entry

The pre-marked cable entries can be opened with a knife or using the cut-out tool supplied.



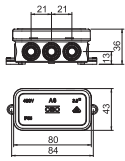
Classic and still youthful: The well-known junction boxes of the A series have had a makeover. Halogen-free thermoplastic is just as much of a hallmark of the A series as a tight-fitting clamshell and pre-

marked cable entries. A protection rating of IP55 and practical external fastenings round off the profile of the classic item.





## Junction box A 6

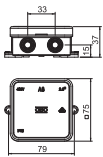


Type	A 6	A 6 HF RW	A 6 HF RO
Colour	Light grey	Pure white	Red
Dimension LxWxH mm	80x43x36	80x43x36	80x43x36
Clear internal dimensions mm	69x32x30	69x32x30	69x32x30
Pack. pcs	10	10	10
Weight kg/100 pcs.	2.560	2.560	2.560
<b>Item No.</b>	<b>2000001</b>	<b>2000005</b>	<b>2000003</b>

PE Polyethylene

Protection rating IP55, nominal voltage 400 V, nominal cross-section 2,5 mm<sup>2</sup>, 6 entries for cable diameter 5-14 mm  
 4 entries for cable diameter 5-9 mm.  
 Clamshell.  
 Dimensions: 80 x 43 x 36 mm  
 Clear internal dimensions: 69x32x30 mm  
 1 cut-out tool for every 10 boxes

## Junction box A 8 with terminal strip



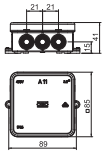
Type	A 8 5	A 8	A 8 HF RW	A 8 HF RO
Accessories	1 terminal strip	without terminal strip	without terminal strip	without terminal strip
Colour	Light grey	Light grey	Pure white	Red
Dimension LxWxH mm	75x75x36,2	75x75x36,2	75x75x36,2	75x75x36,2
Clear internal dimensions mm	65x65x32	65x65x32	65x65x32	65x65x32
Pack. pcs	10	10	10	10
Weight kg/100 pcs.	6.500	3.813	5.140	5.140
<b>Item No.</b>	<b>2000024</b>	<b>2000016</b>	<b>2000075</b>	<b>2000059</b>

PE Polyethylene

Protection rating IP55, nominal voltage 400 V, nominal cross-section 2,5 mm<sup>2</sup>, 7 entries for cable diameter 5–14 mm.  
 Clamshell.  
 Dimensions: 75 x 75 x 36,2 mm  
 Clear internal dimensions: 65x65x32 mm  
 1 cut-out tool for every 10 boxes

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### Junction box A 11 with terminal strip



Type	A 11 5	A 11	A 11 HF RW	A 11 HF RO
Accessories	1 terminal strip	without terminal strip	without terminal strip	without terminal strip
Colour	Light grey	Light grey	Pure white	Red
Dimension LxWxH mm	85x85x40	85x85x40	85x85x40	85x85x40
Clear internal dimensions mm	75x75x35	75x75x35	75x75x35	75x75x35
Pack. pcs	10	10	10	10
Weight kg/100 pcs.	7.640	6.200	6.200	4.530
<b>Item No.</b>	<b>2000326</b>	<b>2000342</b>	<b>2000180</b>	<b>2000164</b>

PE Polyethylene

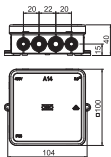
Protection rating IP55, nominal voltage 400 V, nominal cross-section 2,5 mm<sup>2</sup>, 12 entries for cable diameter 5–14 mm. Clamshell.

Dimensions: 85 x 85 x 40 mm

Clear internal dimensions: 75x75x35 mm

1 cut-out tool for every 10 boxes

### Junction box A 14 with terminal strip



Type	A 14 5	A 14	A 14 HF RW	A 14 HF RO
Accessories	1 terminal strip	without terminal strip	without terminal strip	without terminal strip
Colour	Light grey	Light grey	Pure white	Red
Dimension LxWxH mm	100x100x40	100x100x40	100x100x40	100x100x40
Clear internal dimensions mm	90x90x35	90x90x35	90x90x35	90x90x35
Pack. pcs	10	10	10	10
Weight kg/100 pcs.	5.855	5.855	5.855	5.855
<b>Item No.</b>	<b>2000382</b>	<b>2000378</b>	<b>2000390</b>	<b>2000386</b>

PE Polyethylene

Protection rating IP55, nominal voltage 400 V, nominal cross-section 2,5 mm<sup>2</sup>, 8 entries for cable diameter 5–14 mm, 8 entries for cable diameter 5–11 mm. Clamshell.

Dimensions: 100 x 100 x 40 mm

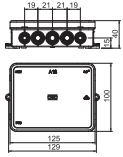
Clear internal dimensions: 90x90x35 mm

1 cut-out tool for every 10 boxes





## Junction box A 18 with terminal strip



Type	A 18 5	A 18	A 18 HF RW	A 18 HF RO
Accessories	1 terminal strip	without terminal strip	without terminal strip	without terminal strip
Colour	Light grey	Light grey	Pure white	Red
Dimension LxWxH mm	125x100x40	125x100x40	125x100x40	125x100x40
Clear internal dimensions mm	115x90x35	115x90x35	115x90x35	115x90x35
Pack. pcs	10	10	10	10
Weight kg/100 pcs.	6.957	6.957	6.957	6.957
<b>Item No.</b>	<b>2000414</b>	<b>2000410</b>	<b>2000422</b>	<b>2000418</b>

PE Polyethylene

Protection rating IP55, nominal voltage 400 V, nominal cross-section 2,5 mm<sup>2</sup>, 10 entries for cable diameter 5-14 mm  
 8 entries for cable diameter 5-11 mm.  
 Clamshell.  
 Dimensions: 125 x 100 x 40 mm  
 Clear internal dimensions: 115x90x35 mm  
 1 cut-out tool for every 10 boxes

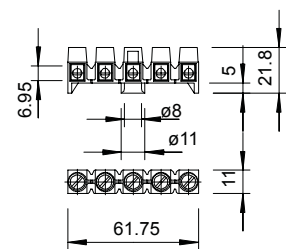
## Terminal strip 2.5 mm<sup>2</sup>



Type	Colour	No. of terminals	Nominal cross-section mm <sup>2</sup>	Nom. voltage V	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>689</b>	Light grey	5	0.8 - 2.5	660	50	1.502	<b>2017342</b>

PA Polyamide

Terminal strip, nickel-plated brass, steel screws, galvanised and transparently passivated, nominal cross-section 0,8 - 2,5 mm<sup>2</sup>, nominal voltage 660 V, 5-pole, with terminal sockets, max. connectable cross-sections per terminal: 4 x 2.5 mm<sup>2</sup>, 5 x 1.5 mm<sup>2</sup> or 6 x 1 mm<sup>2</sup>, unnecessary poles can be cut off and used as individual terminals.



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## The success of the T series has a solid basis

Intelligence is the natural characteristic of the T series: Our developers have used high-quality materials, sensible wall thicknesses and a stable construction to ensure that the T series can

stand up to even the hardest conditions. All the boxes are made of halogen-free polypropylene and do not contain fluorine, chlorine or bromine.

### Condensation water opening

There is a condensation water opening on each side, which can be pushed in as necessary.



### Alignment markings

There are markings on all sides of the junction box for alignment with a chalk line.



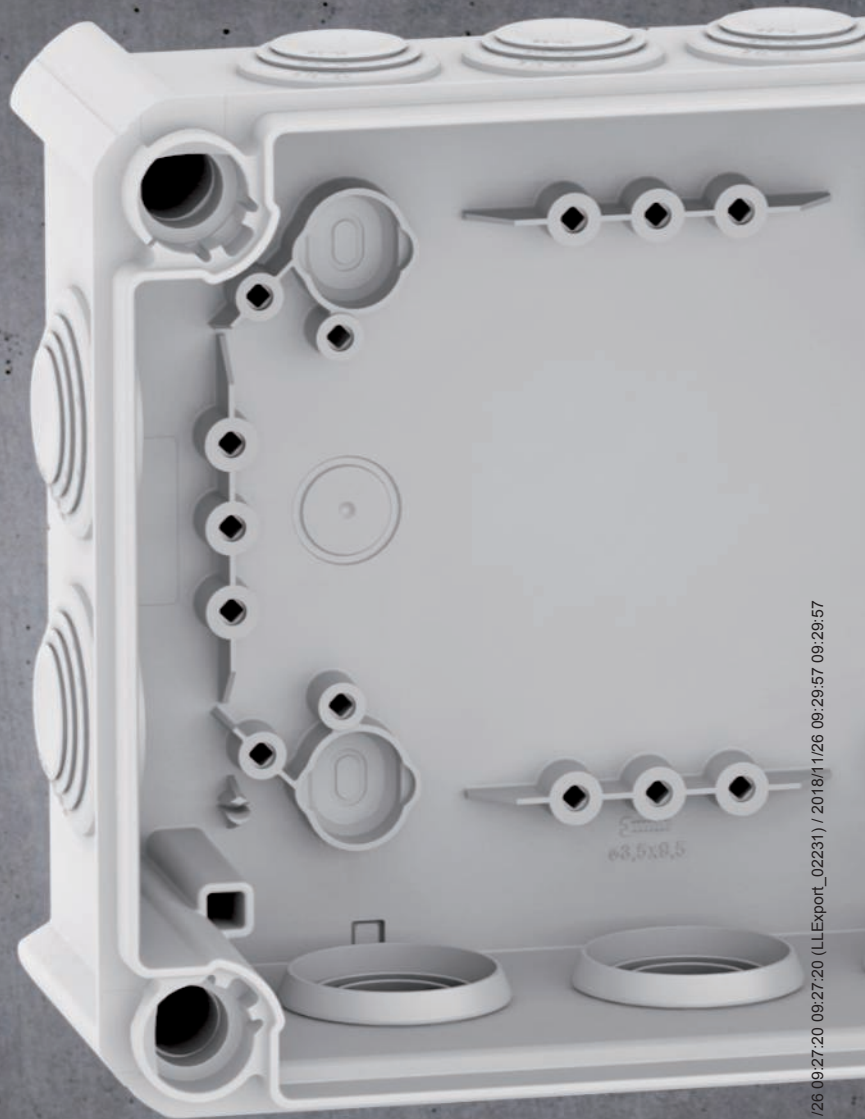
### Mounting points

Thanks to cleverly arrayed mounting points, versatile installation options are created for the internal space.



### Cover captivity

The cover captivity ensures that the lid cannot go missing or drop down – a benefit that one comes to appreciate quickly in many assembly situations.







#### Screw cover flaps

When fixed through the back wall the included screw cover flaps will cover the openings again.



#### UV resistance

The material of all junction boxes is UV-resistant and is therefore suitable for the use outside.



#### Corner dome

The corner dome separates the fixation of the junction box from the internal room and ensures a particularly torsion-resistant box. The good impact characteristics have been tested to DIN EN 50102 and classified according to the universally accepted IK code.



#### Knock-out entries

Knock-out entries in the bottom allow the insertion of cables from below.



#### Screw-on covers

Screw-on covers provide fast and secure fastening of the cover. The junction box can be sealed.

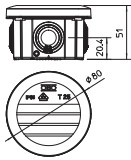
Junction box, T series with plug-in seal

## Junction box, T series with plug-in seal



- High impermeability of IP66. Plug-in seals made of thermoplastic elastomer (TPE). Alternatively, cable glands or pipe entries can be mounted
- Universally deployable: UV-resistant for use outdoors, halogen-free for the use indoors

### Junction box T 25, plug-in seal



**Type**

Colour  
Entries  
Dimension mm  
Clear internal dimensions mm  
Pack. pcs  
Weight kg/100 pcs.  
**Item No.**

	<b>T 25</b>	<b>T 25 RW</b>
Colour	Light grey	Pure white
Entries	4 x M25	4 x M25
Dimension mm	Ø80x51	Ø80x51
Clear internal dimensions mm	Ø63x45	Ø63x45
Pack. pcs	5	5
Weight kg/100 pcs.	4.190	4.190
<b>Item No.</b>	<b>2007029</b>	<b>2007509</b>

**PP** Polypropylene

The junction boxes are made of a thermoplastic polypropylene polymer with plug-in seals made of ethylene vinyl acetate (EVA). This plastic is soft, which means that it is malleable. This allows installation of cables either directly through the 4 x M25 seals, or the seals can be cut with a knife at the pre-marked points, in order to create an insertion opening for cables or pipes. In addition, cable glands can be inserted through the openings instead of the seals and locked with a locknut from inside.

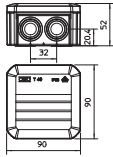
The cable junction boxes can be screwed onto an M6 thread or mounted on mounting plates in the openings on the floor using steel bolts 3.5 x 9.5.

Clear internal dimensions: Ø63x45 mm.

Cover with labelling panel.



### Junction box T 40, plug-in seal



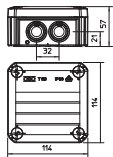
Type	T 40	T 40 RW	T 40 RO-LGR
Colour	Light grey	Pure white	Grey / red
Entries	7 x M25	7 x M25	7 x M25
Dimension LxWxH mm	90x90x52	90x90x52	90x90x52
Clear internal dimensions mm	77x77x46	77x77x46	77x77x46
Pack. pcs	5	5	5
Weight kg/100 pcs.	6.700	6.700	6.700
<b>Item No.</b>	<b>2007045</b>	<b>2007517</b>	<b>2007630</b>

PP Polypropylene

All the T series junction boxes are UV-resistant. They are made of a thermoplastic polypropylene plastic with plug-in seals made of ethylene vinyl acetate (EVA). This plastic is soft, which means that it is malleable. This allows installation of cables through the 7 x M25 seals, or the seals can be cut with a knife at the pre-marked points, in order to create an insertion opening for cables or pipes. Alternatively, instead of seals, cable glands can be inserted through the openings and be countered internally with a locknut.

The junction boxes can be mounted on mounting plates in the openings on the floor using self-tapping screws 3.5 x 9.5. Clear internal dimensions: 77x77x46 mm

### Junction box T 60, plug-in seal



Type	T 60	T 60 RW	T 60 RO-LGR
Colour	Light grey	Pure white	Grey / red
Entries	7 x M25	7 x M25	7 x M25
Dimension LxWxH mm	114x114x57	114x114x57	114x114x57
Clear internal dimensions mm	100x100x48	100x100x48	100x100x48
Pack. pcs	5	5	5
Weight kg/100 pcs.	12.300	12.300	12.300
<b>Item No.</b>	<b>2007061</b>	<b>2007525</b>	<b>2007638</b>

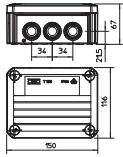
PP Polypropylene

All the T series junction boxes are UV-resistant. They are made of a thermoplastic polypropylene plastic with plug-in seals made of ethylene vinyl acetate (EVA). This plastic is soft, which means that it is malleable. This allows installation of cables through the 7 x M25 seals, or the seals can be cut with a knife at the pre-marked points, in order to create an insertion opening for cables or pipes. Alternatively, instead of seals, cable glands can be inserted through the openings and be countered internally with a locknut.

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

Clear internal dimensions: 100x100x48 mm  
Cover with labelling panel and lead-sealed.

### Junction box T 100, plug-in seal



Type	T 100	T 100 RW	T 100 RO-LGR	T 100 M25-M32
Colour	Light grey	Pure white	Grey / red	Light grey
Entries	10 x M25	10 x M25	10 x M25	8 x M25 2 x M32
Dimension LxWxH mm	150x116x67	150x116x67	150x116x67	150x116x67
Clear internal dimensions mm	136x102x57	136x102x57	136x102x57	136x102x57
Pack. pcs	1	1	1	1
Weight kg/100 pcs.	16.270	16.270	16.270	16.300
<b>Item No.</b>	<b>2007077</b>	<b>2007533</b>	<b>2007644</b>	<b>2007081</b>

PP Polypropylene

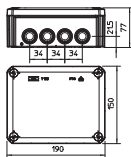
All the T series junction boxes are UV-resistant. They are made of a thermoplastic polypropylene plastic with plug-in seals made of ethylene vinyl acetate (EVA). This plastic is soft, which means that it is malleable. This allows installation of cables through the 10 x M25 seals, or the seals can be cut with a knife at the pre-marked points, in order to create an insertion opening for cables or pipes. Alternatively, instead of seals, cable glands can be inserted through the openings and be countered internally with a locknut.

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

Clear internal dimensions: 136x102x57 mm

Cover with labelling panel and lead-sealed.

### Junction box T 160, plug-in seal



Type	T 160	T 160 RW	T 160 RO-LGR	T 160 M32
Colour	Light grey	Pure white	Grey / red	Light grey
Entries	7 x M25 5 x M32	7 x M25 5 x M32	7 x M25 5 x M32	10 x M32
Dimension LxWxH mm	190x150x77	190x150x77	190x150x77	190x150x77
Clear internal dimensions mm	176x135x67	176x135x67	176x135x67	176x135x67
Pack. pcs	1	1	1	1
Weight kg/100 pcs.	30.000	30.000	30.000	30.000
<b>Item No.</b>	<b>2007093</b>	<b>2007541</b>	<b>2007649</b>	<b>2007097</b>

PP/GF Polypropylene, Glass-fibre reinforced

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

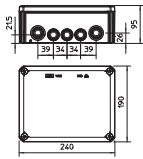
The junction boxes can be mounted on mounting plates in the openings on the floor using steel screws 3.5 x 9.5.

Clear internal dimensions: 176x135x67 mm

Cover with labelling panel and lead-sealed.



### Junction box T 250, plug-in seal



Type	T 250	T 250 RW	T 250 RO-LGR
Colour	Light grey	Pure white	Grey / red
Entries	9 x M25 7 x M32	9 x M25 7 x M32	9 x M25 7 x M32
Dimension LxWxH mm	240x190x95	240x190x95	240x190x95
Clear internal dimensions mm	225x173x86	225x173x86	225x173x86
Pack. pcs	1	1	1
Weight kg/100 pcs.	50.000	50.000	50.000
<b>Item No.</b>	<b>2007109</b>	<b>2007554</b>	<b>2007657</b>

PP/GF Polypropylene, Glass-fibre reinforced

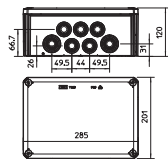
All the T series junction boxes are UV-resistant. They are made of a thermoplastic polypropylene plastic with plug-in seals made of ethylene vinyl acetate (EVA). This plastic is soft, which means that it is malleable. This allows installation of cables through the 9x M25 + 7x M32 seals, or the seals can be cut with a knife at the pre-marked points, in order to create an insertion opening for cables or pipes. Alternatively, instead of seals, cable glands can be inserted through the openings and be countered internally with a locknut.

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

Clear internal dimensions: 225x173x86 mm

Cover with labelling panel and lead-sealed.

### Junction box T 350, plug-in seal



Type	T 350	T 350 RW
Colour	Light grey	Pure white
Entries	16 x M32 8 x M40	16 x M32 8 x M40
Dimension LxWxH mm	285x201x120	285x201x120
Clear internal dimensions mm	267x182x110	267x182x110
Pack. pcs	1	1
Weight kg/100 pcs.	63.000	63.000
<b>Item No.</b>	<b>2007125</b>	<b>2007568</b>

PP/GF Polypropylene, Glass-fibre reinforced

All the T series junction boxes are UV-resistant. They are made of a thermoplastic polypropylene plastic with plug-in seals made of ethylene vinyl acetate (EVA). This plastic is soft, which means that it is malleable. This allows installation of cables through the 16x M32 + 8x M40 seals, or the seals can be cut with a knife at the pre-marked points, in order to create an insertion opening for cables or pipes. Alternatively, instead of seals, cable glands can be inserted through the openings and be countered internally with a locknut.

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

Clear internal dimensions: 267x182x110 mm

Cover with labelling panel and lead-sealed.

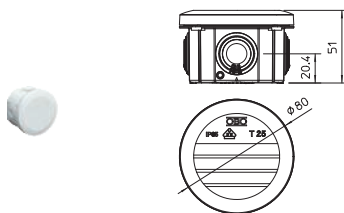


## Junction box, T series with plug-in seal, flame-resistant



- Flame-resistant type (F) to DIN EN 60695-2-11 made from special polypropylene (960 °C)
- High impermeability of IP66. Plug-in seals made of thermoplastic elastomer (TPE). Alternatively, cable glands or pipe entries can be mounted
- Universally deployable: UV-resistant for use outdoors, halogen-free for the use indoors

### Junction box T 25, plug-in seal, flame-resistant



Type	Colour	Entries	Dimension mm	Clear internal dimensions mm	Pack. pcs.	Weight kg/100 pcs.	Item No.
T 25 F	Light grey	4 x M25	Ø80x51	Ø63x45	5	4.190	2007312

PP Polypropylene

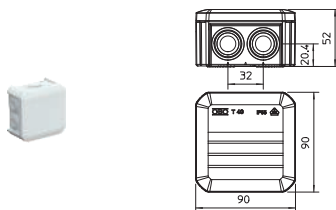
The junction boxes are made of a thermoplastic polypropylene polymer with plug-in seals made of ethylene vinyl acetate (EVA). This plastic is soft, which means that it is malleable. This allows installation of cables either directly through the 4 x M25 seals, or the seals can be cut with a knife at the pre-marked points, in order to create an insertion opening for cables or pipes. In addition, cable glands can be inserted through the openings instead of the seals and locked with a locknut from inside.

The cable junction boxes can be screwed onto an M6 thread or mounted on mounting plates in the openings on the floor using steel bolts 3.5 x 9.5.

Clear internal dimensions: Ø63x45 mm.

Cover with labelling panel.

### Junction box T 60, plug-in seal, flame-resistant



Type	Colour	Entries	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs.	Weight kg/100 pcs.	Item No.
T 40 F	Light grey	7 x M25	90x90x52	77x77x46	5	6.700	2007320

PP Polypropylene

All the T series junction boxes are UV-resistant. They are made of a thermoplastic polypropylene plastic with plug-in seals made of ethylene vinyl acetate (EVA). This plastic is soft, which means that it is malleable. This allows installation of cables through the 7 x M25 seals, or the seals can be cut with a knife at the pre-marked points, in order to create an insertion opening for cables or pipes. Alternatively, instead of seals, cable glands can be inserted through the openings and be countered internally with a locknut.

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

Clear internal dimensions: 77x77x46 mm

### Junction box T 60, plug-in seal, flame-resistant



Type	Colour	Entries	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs	Item No.
<b>T 60 F</b>	Light grey	7 x M25	114x114x57	100x100x48	5	12.300	<b>2007339</b>

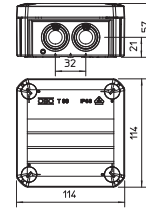
PP Polypropylene

All the T series junction boxes are UV-resistant. They are made of a thermoplastic polypropylene plastic with plug-in seals made of ethylene vinyl acetate (EVA). This plastic is soft, which means that it is malleable. This allows installation of cables through the 7 x M25 seals, or the seals can be cut with a knife at the pre-marked points, in order to create an insertion opening for cables or pipes. Alternatively, instead of seals, cable glands can be inserted through the openings and be countered internally with a locknut.

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

Clear internal dimensions: 100x100x48 mm

Cover with labelling panel and lead-sealed.



Junction box systems

### Junction box T 100, plug-in seal, flame-resistant



Type	Colour	Entries	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs	Item No.
<b>T 100 F</b>	Light grey	10 x M25	150x116x67	136x102x57	1	16.270	<b>2007347</b>

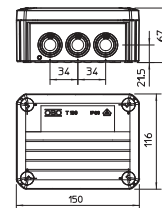
PP Polypropylene

All the T series junction boxes are UV-resistant. They are made of a thermoplastic polypropylene plastic with plug-in seals made of ethylene vinyl acetate (EVA). This plastic is soft, which means that it is malleable. This allows installation of cables through the 10 x M25 seals, or the seals can be cut with a knife at the pre-marked points, in order to create an insertion opening for cables or pipes. Alternatively, instead of seals, cable glands can be inserted through the openings and be countered internally with a locknut.

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

Clear internal dimensions: 136x102x57 mm

Cover with labelling panel and lead-sealed.



### Junction box T 160, plug-in seal, flame-resistant



Type	Colour	Entries	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs	Item No.
<b>T 160 F</b>	Light grey	7 x M25 5 x M32	190x150x77	176x135x67	1	30.000	<b>2007355</b>

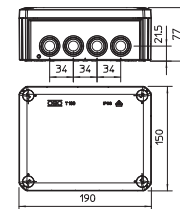
PP/GF Polypropylene, Glass-fibre reinforced

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

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

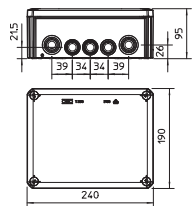
Clear internal dimensions: 176x135x67 mm

Cover with labelling panel and lead-sealed.



01\_VBS\_Produkteheitenkatalog\_EX\_2018 / en / 2018/11/26 09:27:20 (LLExport\_02231) / 2018/11/26 09:29:57 09:29:57

### Junction box T 250, plug-in seal, flame-resistant



Type	Colour	Entries	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs	Item No.
T 250 F	Light grey	9 x M25 7 x M32	240x190x95	225x173x86	1	50.000	2007363

PP/GF Polypropylene, Glass-fibre reinforced

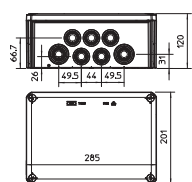
All the T series junction boxes are UV-resistant. They are made of a thermoplastic polypropylene plastic with plug-in seals made of ethylene vinyl acetate (EVA). This plastic is soft, which means that it is malleable. This allows installation of cables through the 9x M25 + 7x M32 seals, or the seals can be cut with a knife at the pre-marked points, in order to create an insertion opening for cables or pipes. Alternatively, instead of seals, cable glands can be inserted through the openings and be countered internally with a locknut.

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

Clear internal dimensions: 225x173x86 mm

Cover with labelling panel and lead-sealed.

### Junction box T 350, plug-in seal, flame-resistant



Type	Colour	Entries	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs	Item No.
T 350 F	Light grey	16 x M32 8 x M40	285x201x120	267x182x110	1	63.000	2007371

PP/GF Polypropylene, Glass-fibre reinforced

All the T series junction boxes are UV-resistant. They are made of a thermoplastic polypropylene plastic with plug-in seals made of ethylene vinyl acetate (EVA). This plastic is soft, which means that it is malleable. This allows installation of cables through the 16x M32 + 8x M40 seals, or the seals can be cut with a knife at the pre-marked points, in order to create an insertion opening for cables or pipes. Alternatively, instead of seals, cable glands can be inserted through the openings and be countered internally with a locknut.

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

Clear internal dimensions: 267x182x110 mm

Cover with labelling panel and lead-sealed.



## Junction box, T series with plug-in seal and terminal strip



- Neat and clean wiring thanks to pre-mounted terminal strips
- If the cable cross-section is large, the connection terminals are arranged at the top edge. The installation will therefore become significantly easier
- High impermeability of IP66. Plug-in seals made of thermoplastic elastomer (TPE). Alternatively, cable glands or pipe entries can be mounted.
- Universally deployable: UV-resistant for use outdoors, halogen-free for the use indoors

### Junction box T 25, plug-in seal, terminal strip



Type	Colour	Entries	Dimension mm	Clear internal dimensions mm	Pack. pcs.	Weight kg/100 pcs.	Item No.
<b>T 25 KL</b>	Light grey	4 x M25	Ø80x51	Ø63x45	5	6.400	<b>2007430</b>

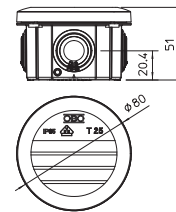
PP Polypropylene

The junction boxes are made of a thermoplastic polypropylene polymer with plug-in seals made of ethylene vinyl acetate (EVA). This plastic is soft, which means that it is malleable. This allows installation of cables either directly through the 4 x M25 seals, or the seals can be cut with a knife at the pre-marked points, in order to create an insertion opening for cables or pipes. In addition, cable glands can be inserted through the openings instead of the seals and locked with a locknut from inside.

The cable junction boxes can be screwed onto an M6 thread or mounted on mounting plates in the openings on the floor using steel bolts 3.5 x 9.5.

Clear internal dimensions: Ø63x45 mm.

Cover with labelling panel.



### Junction box T 40, plug-in seal, terminal strip



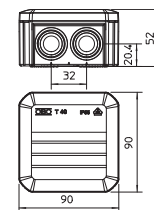
Type	Colour	Entries	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs.	Weight kg/100 pcs.	Item No.
<b>T 40 KL</b>	Light grey	7 x M25	90x90x52	77x77x46	5	8.900	<b>2007432</b>

PP Polypropylene

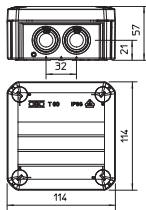
All the T series junction boxes are UV-resistant. They are made of a thermoplastic polypropylene plastic with plug-in seals made of ethylene vinyl acetate (EVA). This plastic is soft, which means that it is malleable. This allows installation of cables through the 7 x M25 seals, or the seals can be cut with a knife at the pre-marked points, in order to create an insertion opening for cables or pipes. Alternatively, instead of seals, cable glands can be inserted through the openings and be countered internally with a locknut.

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

Clear internal dimensions: 77x77x46 mm



### Junction box T 60, plug-in seal, terminal strip



Type	Colour	Entries	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs	Item No.
T 60 KL	Light grey	7 x M25	114x114x57	100x100x48	5	16.700	2007434

PP Polypropylene

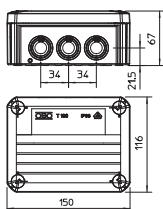
All the T series junction boxes are UV-resistant. They are made of a thermoplastic polypropylene plastic with plug-in seals made of ethylene vinyl acetate (EVA). This plastic is soft, which means that it is malleable. This allows installation of cables through the 7 x M25 seals, or the seals can be cut with a knife at the pre-marked points, in order to create an insertion opening for cables or pipes. Alternatively, instead of seals, cable glands can be inserted through the openings and be countered internally with a locknut.

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

Clear internal dimensions: 100x100x48 mm

Cover with labelling panel and lead-sealed.

### Junction box T 100, plug-in seal, terminal strip



Type	Colour	Entries	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs	Item No.
T 100 KL	Light grey	10 x M25	150x116x67	136x102x57	1	40.000	2007436

PP Polypropylene

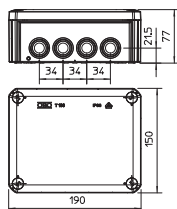
All the T series junction boxes are UV-resistant. They are made of a thermoplastic polypropylene plastic with plug-in seals made of ethylene vinyl acetate (EVA). This plastic is soft, which means that it is malleable. This allows installation of cables through the 10 x M25 seals, or the seals can be cut with a knife at the pre-marked points, in order to create an insertion opening for cables or pipes. Alternatively, instead of seals, cable glands can be inserted through the openings and be countered internally with a locknut.

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

Clear internal dimensions: 136x102x57 mm

Cover with labelling panel and lead-sealed.

### Junction box T 160, plug-in seal



Type	Colour	Entries	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs	Item No.
T 160 KL	Light grey	7 x M25 5 x M32	190x150x77	176x135x67	1	64.200	2007440

PP/GF Polypropylene, Glass-fibre reinforced

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

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

Clear internal dimensions: 176x135x67 mm

Cover with labelling panel and lead-sealed.

### Junction box T 250, plug-in seal, terminal strip



Type	Colour	Entries	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs	Item No.
<b>T 250 KL</b>	Light grey	9 x M25 7 x M32	240x190x95	225x173x86	1	79.500	<b>2007444</b>

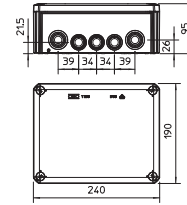
PP/GF Polypropylene, Glass-fibre reinforced

All the T series junction boxes are UV-resistant. They are made of a thermoplastic polypropylene plastic with plug-in seals made of ethylene vinyl acetate (EVA). This plastic is soft, which means that it is malleable. This allows installation of cables through the 9x M25 + 7x M32 seals, or the seals can be cut with a knife at the pre-marked points, in order to create an insertion opening for cables or pipes. Alternatively, instead of seals, cable glands can be inserted through the openings and be countered internally with a locknut.

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

Clear internal dimensions: 225x173x86 mm

Cover with labelling panel and lead-sealed.



### Junction box T 350, plug-in seal, terminal strip



Type	Colour	Entries	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs	Item No.
<b>T 350 KL</b>	Light grey	16 x M32 8 x M40	285x201x120	267x182x110	1	95.700	<b>2007448</b>

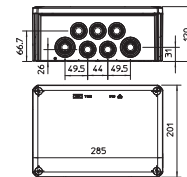
PP/GF Polypropylene, Glass-fibre reinforced

All the T series junction boxes are UV-resistant. They are made of a thermoplastic polypropylene plastic with plug-in seals made of ethylene vinyl acetate (EVA). This plastic is soft, which means that it is malleable. This allows installation of cables through the 16x M32 + 8x M40 seals, or the seals can be cut with a knife at the pre-marked points, in order to create an insertion opening for cables or pipes. Alternatively, instead of seals, cable glands can be inserted through the openings and be countered internally with a locknut.

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

Clear internal dimensions: 267x182x110 mm

Cover with labelling panel and lead-sealed.

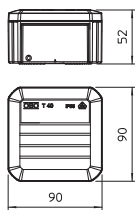


## Junction box, T series, closed



- In the closed side walls, entries can be created in any required number and size
- Universally deployable: UV-resistant for use outdoors, halogen-free for the use indoors

### Junction box T 40, closed



Type	Colour	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs	Item No.
T 40 OE	Light grey	90x90x52	77x77x46	5	6.300	2007223

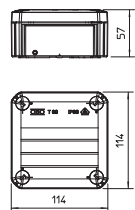
PP Polypropylene

All the T series junction boxes are UV-resistant. They are made from polypropylene (a thermoplastic material) and have closed side walls. This means that the required openings can be made wherever they are required. EDK plug-in seals or cable glands with locknuts can be inserted in these openings, to allow cable insertion.

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

Clear internal dimensions: 77x77x46 mm

### Junction box T 60, closed



Type	Colour	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs	Item No.
T 60 OE	Light grey	114x114x57	100x100x46	5	12.000	2007239

PP Polypropylene

The junction boxes are made of a thermoplastic polypropylene polymer with closed side walls. This means that the required openings can be made wherever they are required. EDK plug-in seals or cable glands with locknuts can be inserted in these openings, to allow cable insertion.

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

Clear internal dimensions: 100x100x46 mm

Cover with labelling panel and lead-sealed.



### Junction box T 100, closed

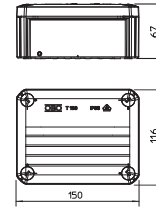


Type	Colour	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs	Item No.
<b>T 100 OE</b>	Light grey	150x116x67	136x102x57	1	16.200	<b>2007255</b>

PP Polypropylene

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

Clear internal dimensions: 136x102x57 mm  
Cover with labelling panel and lead-sealed.



Junction box systems



### Junction box T 160, closed

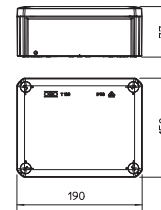


Type	Colour	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs	Item No.
<b>T 160 OE</b>	Light grey	190x150x77	176x135x67	1	30.000	<b>2007271</b>

PP/GF Polypropylene, Glass-fibre reinforced

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

Clear internal dimensions: 176x135x67 mm  
Cover with labelling panel and lead-sealed.



### Junction box T 250, closed

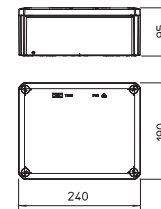


Type	Colour	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs	Item No.
<b>T 250 OE</b>	Light grey	240x190x95	225x173x86	1	48.300	<b>2007287</b>

PP/GF Polypropylene, Glass-fibre reinforced

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

Clear internal dimensions: 225x173x86 mm  
Cover with labelling panel and lead-sealed.



### Junction box T 350, closed

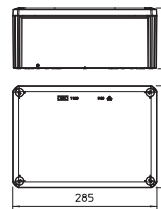


Type	Colour	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs	Item No.
<b>T 350 OE</b>	Light grey	285x201x120	267x182x110	1	58.800	<b>2007303</b>

PP/GF Polypropylene, Glass-fibre reinforced

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

Clear internal dimensions: 267x182x110 mm  
Cover with labelling panel and lead-sealed.



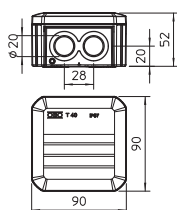
01\_VBS\_Produkteheitenkatalog\_EX\_2018 / en / 2018/11/26 09:27:20 09:27:20 (LLExpert\_02231) / 2018/11/26 09:29:57 09:29:57

## Junction box, T series, with knock-out entries



- The junction boxes have seven pre-marked cable entries with a diameter of 20 mm. These can be knocked out when required and can, for instance, be equipped with plug-in seals or cable glands
- Universally deployable: UV-resistant for use outdoors, halogen-free for the use indoors
- Colour: Light grey

### Junction box T40 with pre-marking, closed



Type	Entries	Colour	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs	Item No.
T 40 M20	7x020	Light grey	90x90x52	77x77x46	5	6.100	2007900

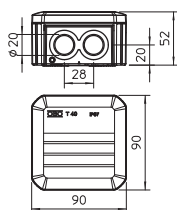
PP Polypropylene

The junction boxes are made from polypropylene (a thermoplastic material) and the plug-in seals are made from ethylene vinyl acetate (EVA). This allows installation of cables either directly through the 7x020 seals, or the seals can be cut with a knife at the pre-marked points, in order to create an insertion opening for cables or pipes. Alternatively, instead of seals, cable glands can be inserted through the openings and be countered internally with a locknut.

The junction boxes can be mounted in openings in the base onto mounting plates with self-tapping screws 3.5 x 9.5.

Clear internal dimensions: 77x77x46 mm

### Junction box T40 with pre-marking, with terminal strip



Type	Entries	Colour	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs	Item No.
T 40 M20 KL	7x020	Light grey	90x90x52	77x77x46	5	8.200	2007900

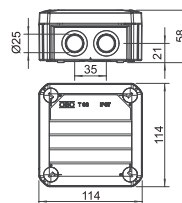
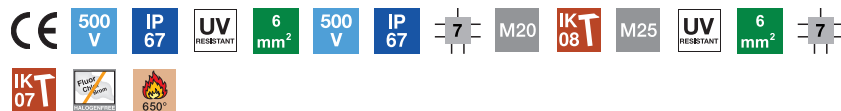
PP Polypropylene

The junction boxes are made from polypropylene (a thermoplastic material) and the plug-in seals are made from ethylene vinyl acetate (EVA). This allows installation of cables either directly through the 7x020 seals, or the seals can be cut with a knife at the pre-marked points, in order to create an insertion opening for cables or pipes. Alternatively, instead of seals, cable glands can be inserted through the openings and be countered internally with a locknut.

The junction boxes can be mounted in openings in the base onto mounting plates with self-tapping screws 3.5 x 9.5.

Clear internal dimensions: 77x77x46 mm

## Junction box T60 with pre-marking, closed



Type	Entries	Colour	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>T 60 M20</b>	7xØ20	Light grey	114x114x57	100x100x48	5	12.100	<b>2007910</b>
<b>T 60 M25</b>	7 x Ø25	Light grey	114x114x57	100x100x48	5	12.300	<b>2007926</b>
<b>T 60 M25 RO-LGR</b>	7 x Ø25	Grey / red	114x114x57	100x100x48	5	12.300	<b>2007927</b>

PP Polypropylene

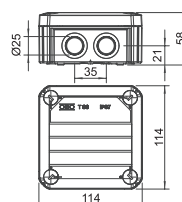
The junction boxes are made of polypropylene. Cables can be inserted through the seven break-out openings with the diameter 25 mm.

After knocking-out the break-out openings, we recommend using cable glands, in order to run the cables into the housing and to maintain the protection rating.

The junction boxes can be mounted on mounting plates using self-tapping screws 3.5x9.5 mm.

The box lid contains a labelling panel and can also be lead-sealed.

## Junction box T60 with pre-marking, with terminal strip



Type	Entries	Colour	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>T 60 M20 KL</b>	7xØ20	Light grey	114x114x57	100x100x48	5	16.500	<b>2007914</b>

PP Polypropylene

The junction boxes are made of polypropylene. Cables can be inserted through the seven break-out openings with the diameter 25 mm.

After knocking-out the break-out openings, we recommend using cable glands, in order to run the cables into the housing and to maintain the protection rating.

The junction boxes can be mounted on mounting plates using self-tapping screws 3.5x9.5 mm.

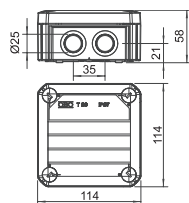
The box lid contains a labelling panel and can also be lead-sealed.

## Junction box, T series, with V-TEC cable glands



- Set with junction box and V-TEC screw connection
- The junction boxes have seven pre-marked cable entries with a diameter of 20 mm. These can be knocked out when required and can, for instance, be equipped with plug-in seals or cable glands
- Universally deployable: UV-resistant for use outdoors, halogen-free for the use indoors
- Colour: Light grey

### Cable junction box T 60 pre-embossed and 3 cable glands



Type	Entries	Colour	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs	Item No.
T 60 M20 NL	7x020	Light grey	114x114x57	100x100x48	5	15.100	2007918

PP Polypropylene

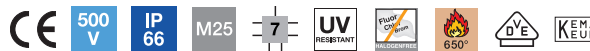
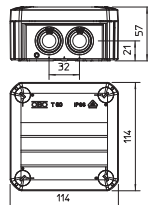
The junction boxes are made of polypropylene. Cables can be inserted through the seven break-out openings with the diameter 25 mm.

After knocking-out the break-out openings, we recommend using cable glands, in order to run the cables into the housing and to maintain the protection rating.

The junction boxes can be mounted on mounting plates using self-tapping screws 3.5x9.5 mm.

The box lid contains a labelling panel and can also be lead-sealed.

### Junction box T 60 with plug-in seals and 3 cable glands



Type	Entries	Colour	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs	Item No.
T 60 M25 NL	7 x M25	Light grey	114x114x57	100x100x48	5	14.010	2007922

PP Polypropylene

All the T series junction boxes are UV-resistant. They are made of a thermoplastic polypropylene plastic with plug-in seals made of ethylene vinyl acetate (EVA). This plastic is soft, which means that it is malleable. This allows installation of cables through the 7 x M25 seals, or the seals can be cut with a knife at the pre-marked points, in order to create an insertion opening for cables or pipes. Alternatively, instead of seals, cable glands can be inserted through the openings and be countered internally with a locknut.

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

Clear internal dimensions: 100x100x48 mm

Cover with labelling panel and lead-sealed.





## Junction box, T series, with elevated cover and plug-in seals



- Large wiring space due to elevated cover. The scope of delivery includes hat profile rail for the mounting of electronic components
- High impermeability of IP66. Plug-in seals made of thermoplastic elastomer (TPE). Alternatively, cable glands or pipe entries can be mounted
- Universally deployable: UV-resistant for use outdoors, halogen-free for the use indoors

### Junction box T60, plug-in seal, elevated cover

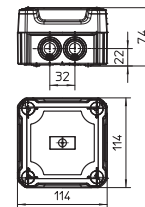


Type	Entries	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs	Item No.
<b>T 60 HD LGR</b>	7xM25	114x114x74	100x100x65	1	17.180	<b>2007710</b>

PP/PC Polypropylene / polycarbonate

The junction boxes consist of thermoplastic material. The bottom parts are made from impact-resistant polypropylene, the box cover is made from extremely hard-wearing, impact-resistant polycarbonate. The high IK 10 impact resistance at -5 °C shows this also.

Thanks to the elevated cover, OBO creates significantly more wiring space, therefore offering the facility to install and protect pushbuttons and series terminals, as well as the option to accommodate control sensors, switches and electronic equipment from the housing and installation technology area. Together with the fastening plate, it is an ideal partner in visible installations.



### Junction box T100, plug-in seal, elevated cover

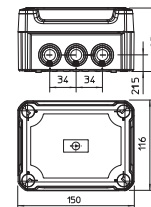


Type	Entries	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs	Item No.
<b>T 100 HD LGR</b>	10xM25	150x116x83	136x102x74	1	22.550	<b>2007712</b>

PP/PC Polypropylene / polycarbonate

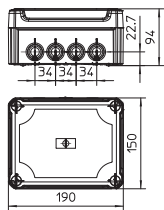
The junction boxes consist of thermoplastic material. The bottom parts are made from impact-resistant polypropylene, the box cover is made from extremely hard-wearing, impact-resistant polycarbonate. The high IK 10 impact resistance at -5 °C shows this also.

Thanks to the elevated cover, OBO creates significantly more wiring space, therefore offering the facility to install and protect pushbuttons and series terminals, as well as the option to accommodate control sensors, switches and electronic equipment from the housing and installation technology area. Together with the fastening plate, it is an ideal partner in visible installations.



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### Junction box T160, plug-in seal, elevated cover



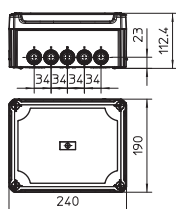
Type	Entries	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs	Item No.
<b>T 160 HD LGR</b>	7xM25 5xM32	190x150x94	176x135x84	1	34.180	<b>2007714</b>

PP/PC Polypropylene / polycarbonate

The junction boxes consist of thermoplastic material. The bottom parts are made from impact-resistant polypropylene, the box cover is made from extremely hard-wearing, impact-resistant polycarbonate. The high IK 10 impact resistance at -5 °C shows this also.

Thanks to the elevated cover, OBO creates significantly more wiring space, therefore offering the facility to install and protect pushbuttons and series terminals, as well as the option to accommodate control sensors, switches and electronic equipment from the housing and installation technology area. Together with the fastening plate, it is an ideal partner in visible installations.

### Junction box T250, plug-in seal, elevated cover



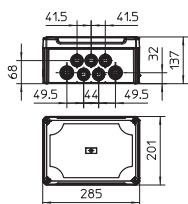
Type	Entries	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs	Item No.
<b>T 250 HD LGR</b>	9xM25 7xM32	240x190x112	225x173x103	1	52.010	<b>2007716</b>

PP/PC Polypropylene / polycarbonate

The junction boxes consist of thermoplastic material. The bottom parts are made from impact-resistant polypropylene, the box cover is made from extremely hard-wearing, impact-resistant polycarbonate. The high IK 10 impact resistance at -5 °C shows this also.

Thanks to the elevated cover, OBO creates significantly more wiring space, therefore offering the facility to install and protect pushbuttons and series terminals, as well as the option to accommodate control sensors, switches and electronic equipment from the housing and installation technology area. Together with the fastening plate, it is an ideal partner in visible installations.

### Junction box T350, plug-in seal, elevated cover



Type	Entries	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs	Item No.
<b>T 350 HD LGR</b>	16xM32 8xM40	285x201x137	267x182x127	1	72.760	<b>2007718</b>

PP/PC Polypropylene / polycarbonate

The junction boxes consist of thermoplastic material. The bottom parts are made from impact-resistant polypropylene, the box cover is made from extremely hard-wearing, impact-resistant polycarbonate. The high IK 10 impact resistance at -5 °C shows this also.

Thanks to the elevated cover, OBO creates significantly more wiring space, therefore offering the facility to install and protect pushbuttons and series terminals, as well as the option to accommodate control sensors, switches and electronic equipment from the housing and installation technology area. Together with the fastening plate, it is an ideal partner in visible installations.



## Junction box, T series with elevated cover, closed



- Large wiring space due to elevated cover. The scope of delivery includes hat profile rail for the mounting of electrical components. In the closed side walls, entries can be created in any required number and size
- In the closed side walls, entries can be created in any required number and size
- Universally deployable: UV-resistant for use outdoors, halogen-free for the use indoors

### Junction box T60, closed, elevated cover

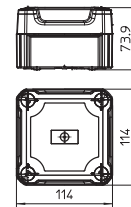


Type	Entries	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>T 60 OE HD LGR</b>	None	114x114x74	100x100x63	1	16.600	<b>2007730</b>

PP/PC Polypropylene / polycarbonate

The junction boxes consist of thermoplastic material. The bottom parts are made from impact-resistant polypropylene, the box cover is made from extremely hard-wearing, impact-resistant polycarbonate. The high IK 10 impact resistance at -5°C shows this also.

Thanks to the elevated cover, OBO creates significantly more wiring space, therefore offering the facility to install and protect pushbuttons and series terminals, as well as the option to accommodate control sensors, switches and electronic equipment from the housing and installation technology area. Together with the fastening plate, it is an ideal partner in visible installations.



### Junction box T100, closed, elevated cover

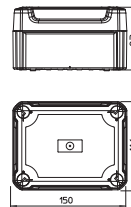


Type	Entries	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>T 100 OE HD LGR</b>	None	150x116x83	136x102x74	1	23.650	<b>2007732</b>

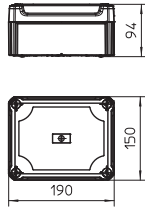
PP/PC Polypropylene / polycarbonate

The junction boxes consist of thermoplastic material. The bottom parts are made from impact-resistant polypropylene, the box cover is made from extremely hard-wearing, impact-resistant polycarbonate. The high IK 10 impact resistance at -5°C shows this also.

Thanks to the elevated cover, OBO creates significantly more wiring space, therefore offering the facility to install and protect pushbuttons and series terminals, as well as the option to accommodate control sensors, switches and electronic equipment from the housing and installation technology area. Together with the fastening plate, it is an ideal partner in visible installations.



### Junction box T160, closed, elevated cover

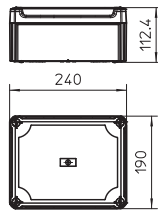


Type	Entries	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs	Item No.
<b>T 160 OE HD LGR</b>	None	190x150x94	176x135x84	1	33.920	<b>2007734</b>

PP/PC Polypropylene / polycarbonate

The junction boxes consist of thermoplastic material. The bottom parts are made from impact-resistant polypropylene, the box cover is made from extremely hard-wearing, impact-resistant polycarbonate. The high IK 10 impact resistance at  $-5^{\circ}\text{C}$  shows this also. Thanks to the elevated cover, OBO creates significantly more wiring space, therefore offering the facility to install and protect pushbuttons and series terminals, as well as the option to accommodate control sensors, switches and electronic equipment from the housing and installation technology area. Together with the fastening plate, it is an ideal partner in visible installations.

### Junction box T250, closed, elevated cover

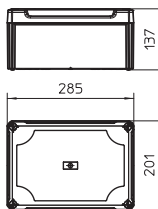


Type	Entries	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs	Item No.
<b>T 250 OE HD LGR</b>	None	240x190x112	225x173x102	1	100.000	<b>2007736</b>

PP/PC Polypropylene / polycarbonate

The junction boxes consist of thermoplastic material. The bottom parts are made from impact-resistant polypropylene, the box cover is made from extremely hard-wearing, impact-resistant polycarbonate. The high IK 10 impact resistance at  $-5^{\circ}\text{C}$  shows this also. Thanks to the elevated cover, OBO creates significantly more wiring space, therefore offering the facility to install and protect pushbuttons and series terminals, as well as the option to accommodate control sensors, switches and electronic equipment from the housing and installation technology area. Together with the fastening plate, it is an ideal partner in visible installations.

### Junction box T350, closed, elevated cover



Type	Entries	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs	Item No.
<b>T 350 OE HD LGR</b>	None	285x201x137	267x182x127	1	68.660	<b>2007738</b>

PP/PC Polypropylene / polycarbonate

The junction boxes consist of thermoplastic material. The bottom parts are made from impact-resistant polypropylene, the box cover is made from extremely hard-wearing, impact-resistant polycarbonate. The high IK 10 impact resistance at  $-5^{\circ}\text{C}$  shows this also. Thanks to the elevated cover, OBO creates significantly more wiring space, therefore offering the facility to install and protect pushbuttons and series terminals, as well as the option to accommodate control sensors, switches and electronic equipment from the housing and installation technology area. Together with the fastening plate, it is an ideal partner in visible installations.





## Junction box, T series with elevated transparent cover and plug-in seal



- Large wiring space due to elevated transparent cover. Operating states of electronic components are visible without dismantling the cover. The scope of delivery includes hat profile rail for the mounting of electronic components
- High impermeability of IP66. Plug-in seals made of thermoplastic elastomer (TPE). Alternatively, cable glands or pipe entries can be mounted
- Universally deployable: UV-resistant for use outdoors, halogen-free for the use indoors

### Junction box T60, with plug-in seal, transparent elevated cover

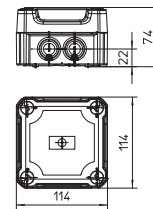


Type	Entries	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>T 60 HD TR</b>	7xM25	114x114x74	100x100x65	1	17.180	<b>2007750</b>

PP/PC Polypropylene / polycarbonate

The junction boxes consist of thermoplastic material. The bottom parts are made from impact-resistant polypropylene, the box cover is made from extremely hard-wearing, impact-resistant polycarbonate. The high IK 10 impact resistance at -5 °C shows this also.

Thanks to the elevated cover, OBO creates significantly more wiring space, therefore offering the facility to install and protect pushbuttons and series terminals, as well as the option to accommodate control sensors, switches and electronic equipment from the housing and installation technology area. Together with the fastening plate, it is an ideal partner in visible installations.



### Junction box T100, with plug-in seal, transparent elevated cover

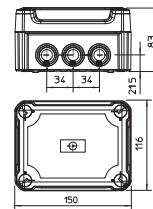


Type	Entries	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>T 100 HD TR</b>	10xM25	150x116x83	136x102x74	1	22.550	<b>2007752</b>

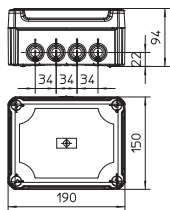
PP/PC Polypropylene / polycarbonate

The junction boxes consist of thermoplastic material. The bottom parts are made from impact-resistant polypropylene, the box cover is made from extremely hard-wearing, impact-resistant polycarbonate. The high IK 10 impact resistance at -5 °C shows this also.

Thanks to the elevated cover, OBO creates significantly more wiring space, therefore offering the facility to install and protect pushbuttons and series terminals, as well as the option to accommodate control sensors, switches and electronic equipment from the housing and installation technology area. Together with the fastening plate, it is an ideal partner in visible installations.



### Junction box T160, with plug-in seal, transparent elevated cover



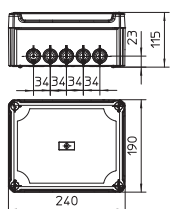
Type	Entries	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs	Item No.
<b>T 160 HD TR</b>	7xM25 5xM32	190x150x94	176x135x84	1	34.180	<b>2007754</b>

PP/PC Polypropylene / polycarbonate

The junction boxes consist of thermoplastic material. The bottom parts are made from impact-resistant polypropylene, the box cover is made from extremely hard-wearing, impact-resistant polycarbonate. The high IK 10 impact resistance at -5 °C shows this also.

Thanks to the elevated cover, OBO creates significantly more wiring space, therefore offering the facility to install and protect pushbuttons and series terminals, as well as the option to accommodate control sensors, switches and electronic equipment from the housing and installation technology area. Together with the fastening plate, it is an ideal partner in visible installations.

### Junction box T250, with plug-in seal, transparent elevated cover



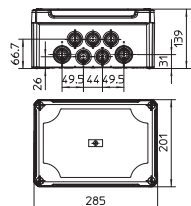
Type	Entries	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs	Item No.
<b>T 250 HD TR</b>	9xM25 7xM32	240x190x112	225x173x103	1	52.010	<b>2007756</b>

PP/PC Polypropylene / polycarbonate

The junction boxes consist of thermoplastic material. The bottom parts are made from impact-resistant polypropylene, the box cover is made from extremely hard-wearing, impact-resistant polycarbonate. The high IK 10 impact resistance at -5 °C shows this also.

Thanks to the elevated cover, OBO creates significantly more wiring space, therefore offering the facility to install and protect pushbuttons and series terminals, as well as the option to accommodate control sensors, switches and electronic equipment from the housing and installation technology area. Together with the fastening plate, it is an ideal partner in visible installations.

### Junction box T350, with plug-in seal, transparent elevated cover



Type	Entries	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs	Item No.
<b>T 350 HD TR</b>	16xM32 8xM40	285x201x137	267x182x127	1	72.760	<b>2007758</b>

PP/PC Polypropylene / polycarbonate

The junction boxes consist of thermoplastic material. The bottom parts are made from impact-resistant polypropylene, the box cover is made from extremely hard-wearing, impact-resistant polycarbonate. The high IK 10 impact resistance at -5 °C shows this also.

Thanks to the elevated cover, OBO creates significantly more wiring space, therefore offering the facility to install and protect pushbuttons and series terminals, as well as the option to accommodate control sensors, switches and electronic equipment from the housing and installation technology area. Together with the fastening plate, it is an ideal partner in visible installations.



## Junction box, T series with elevated transparent cover, closed



- Large wiring space due to elevated transparent cover. Operating states of electronic components are visible without dismantling the cover. The scope of delivery includes hat profile rail for the mounting of electrical components. In the closed side walls, entries can be created in any required number and size
- In the closed side walls, entries can be created in any required number and size
- Universally deployable: UV-resistant for use outdoors, halogen-free for the use indoors

### Junction box T60, closed, transparent elevated cover

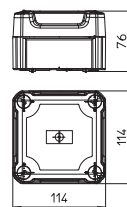


Type	Entries	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>T 60 OE HD TR</b>	None	114x114x74	100x100x63	1	16.600	<b>2007770</b>

PP/PC Polypropylene / polycarbonate

The junction boxes consist of thermoplastic material. The bottom parts are made from impact-resistant polypropylene, the box cover is made from extremely hard-wearing, impact-resistant polycarbonate. The high IK 10 impact resistance at -5°C shows this also.

Thanks to the elevated cover, OBO creates significantly more wiring space, therefore offering the facility to install and protect pushbuttons and series terminals, as well as the option to accommodate control sensors, switches and electronic equipment from the housing and installation technology area. Together with the fastening plate, it is an ideal partner in visible installations.



### Junction box T100, closed, transparent elevated cover

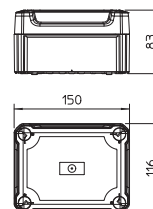


Type	Entries	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>T 100 OE HD TR</b>	None	150x116x83	136x102x74	1	23.650	<b>2007772</b>

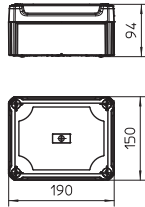
PP/PC Polypropylene / polycarbonate

The junction boxes consist of thermoplastic material. The bottom parts are made from impact-resistant polypropylene, the box cover is made from extremely hard-wearing, impact-resistant polycarbonate. The high IK 10 impact resistance at -5°C shows this also.

Thanks to the elevated cover, OBO creates significantly more wiring space, therefore offering the facility to install and protect pushbuttons and series terminals, as well as the option to accommodate control sensors, switches and electronic equipment from the housing and installation technology area. Together with the fastening plate, it is an ideal partner in visible installations.



### Junction box T160, closed, transparent elevated cover

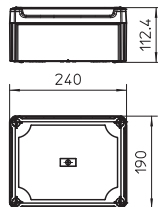


Type	Entries	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs	Item No.
T 160 OE HD TR	None	190x150x94	176x135x84	1	33.920	2007774

PP/PC Polypropylene / polycarbonate

The junction boxes consist of thermoplastic material. The bottom parts are made from impact-resistant polypropylene, the box cover is made from extremely hard-wearing, impact-resistant polycarbonate. The high IK 10 impact resistance at  $-5^{\circ}\text{C}$  shows this also. Thanks to the elevated cover, OBO creates significantly more wiring space, therefore offering the facility to install and protect pushbuttons and series terminals, as well as the option to accommodate control sensors, switches and electronic equipment from the housing and installation technology area. Together with the fastening plate, it is an ideal partner in visible installations.

### Junction box T250, closed, transparent elevated cover

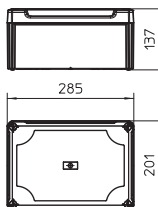


Type	Entries	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs	Item No.
T 250 OE HD TR	None	240x190x112	225x173x102	1	100.000	2007776

PP/PC Polypropylene / polycarbonate

The junction boxes consist of thermoplastic material. The bottom parts are made from impact-resistant polypropylene, the box cover is made from extremely hard-wearing, impact-resistant polycarbonate. The high IK 10 impact resistance at  $-5^{\circ}\text{C}$  shows this also. Thanks to the elevated cover, OBO creates significantly more wiring space, therefore offering the facility to install and protect pushbuttons and series terminals, as well as the option to accommodate control sensors, switches and electronic equipment from the housing and installation technology area. Together with the fastening plate, it is an ideal partner in visible installations.

### Junction box T350, closed, transparent elevated cover



Type	Entries	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs	Item No.
T 350 OE HD TR	None	285x201x137	267x182x127	1	68.660	2007778

PP/PC Polypropylene / polycarbonate

The junction boxes consist of thermoplastic material. The bottom parts are made from impact-resistant polypropylene, the box cover is made from extremely hard-wearing, impact-resistant polycarbonate. The high IK 10 impact resistance at  $-5^{\circ}\text{C}$  shows this also. Thanks to the elevated cover, OBO creates significantly more wiring space, therefore offering the facility to install and protect pushbuttons and series terminals, as well as the option to accommodate control sensors, switches and electronic equipment from the housing and installation technology area. Together with the fastening plate, it is an ideal partner in visible installations.





## Junction box, T series with strain relief and Modul 45 sockets



- Quick mounting thanks to pre-wired Modul 45 protective contact sockets in the cover
- Cables and wires with a diameter of 7 to 21 mm can be inserted directly. The strain relief entries prevent the accidental extraction of the cables
- Note: Installation to VDE 0620-1 only by persons with appropriate electrotechnical knowledge and experience. There is danger to life if installed incorrectly

### T 100 NL S, 2 Modul 45 sockets in cover, 1-pole



Entries Colour

Type	Pack. pcs	Weight kg/100 pcs	Item No.
T 100 2MSD WS   10   Light grey	1	25.850	2007821

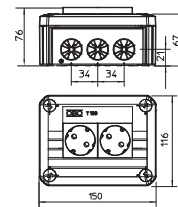
PP Polypropylene

The junction boxes are made of a thermoplastic polypropylene polymer and are equipped with strain relief entries. These entries can be penetrated directly with the cables. The special structure of the opening means that the cables cannot be removed unintentionally. Suitable for cable diameters of between 7 and 21 mm.

Depending on the type, the cover contains two or four Modul 45 protective contact sockets in red or white.

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

Cover can be lead-sealed, with labelling panel for double sockets.



### T 100 NL S, 4 Modul 45 sockets in cover, 2-pole



Entries Colour

Type	Pack. pcs	Weight kg/100 pcs	Item No.
T 100 4MSD WS   10   Light grey	1	35.200	2007825

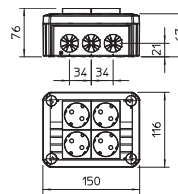
PP Polypropylene

The junction boxes are made of a thermoplastic polypropylene polymer and are equipped with strain relief entries. These entries can be penetrated directly with the cables. The special structure of the opening means that the cables cannot be removed unintentionally. Suitable for cable diameters of between 7 and 21 mm.

Depending on the type, the cover contains two or four Modul 45 protective contact sockets in red or white.

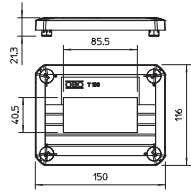
The junction boxes can be mounted on mounting plates in the openings on the floor using steel screws 3.5 x 9.5.

Cover can be lead-sealed, with labelling panel for double sockets.



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**Cover for junction box T 100, perforated without Schuko sockets**



Version Colour

Type	Version	Colour	Pack. pcs	Weight kg/100 pcs	Item No.
<b>T 100 D MSD2A</b>	For 2 Modul 45 accessories	Light grey	1	6.200	<b>2007826</b>

PP Polypropylene

Cover for T 100 propylene junction boxes. Depending on the type, opening for Modul 45 devices or with two or four Modul 45 protective contact sockets in white. Cover can be lead-sealed, with labelling panel for double sockets.



## Junction box, T series with 3-pole Wieland socket, single-phase



- Quick mounting thanks to pre-terminated Wieland connection sockets (type GST18-i3, single-phase connection)
- Cables and wires with a diameter of 7 to 21 mm can be inserted directly. The strain relief entries prevent the accidental extraction of the cables
- Note: Installation to VDE 0620-1 only by persons with appropriate electrotechnical knowledge and experience. There is danger to life if installed incorrectly

### Junction box T 100, without Wieland socket



Type	Version	Entries	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs.	Item No.
T 100 WB3	Empty	4	136x102x57	1	15.500	2007807
T 100 WB3-10	Empty	4	136x102x57	1	15.300	2007808

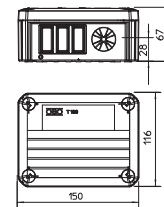
PP Polypropylene

All the T series junction boxes are UV-resistant. They are made of polypropylene (a thermoplastic polymer) and are equipped with strain relief entries and pre-terminated Wieland connection sockets, type GST-18-i3 (s = black, w = white, r = red). The strain relief entries can be penetrated directly with the cables. The special structure of the opening means that the cables cannot be removed unintentionally. Suitable for cable diameters of between 7 and 21 mm.

The junction boxes can be mounted on mounting plates in the openings on the floor using steel bolts 3.5 x 9.5. Cover with labelling panel and lead seal.

Caution:

According to standard VDE 0620-1: Installation only by people with the relevant electrical knowledge and experience. There is danger to life if installed incorrectly.



### Junction box T 100, with Wieland socket 2s



Type	Version	Entries	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs.	Item No.
T 100 WB 2S3	W socket 2s	4	136x102x57	1	20.500	2007809

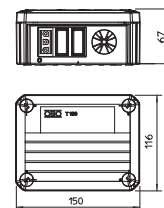
PP Polypropylene

All the T series junction boxes are UV-resistant. They are made of polypropylene (a thermoplastic polymer) and are equipped with strain relief entries and pre-terminated Wieland connection sockets, type GST-18-i3 (s = black, w = white, r = red). The strain relief entries can be penetrated directly with the cables. The special structure of the opening means that the cables cannot be removed unintentionally. Suitable for cable diameters of between 7 and 21 mm.

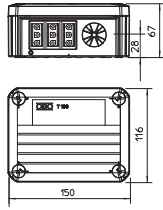
The junction boxes can be mounted on mounting plates in the openings on the floor using steel bolts 3.5 x 9.5. Cover with labelling panel and lead seal.

Caution:

According to standard VDE 0620-1: Installation only by people with the relevant electrical knowledge and experience. There is danger to life if installed incorrectly.



### Junction box T 100, with Wieland socket 3s



Type	Version	Entries	Clear internal dimensions mm	Pack. pcs	Weight		Item No.
					kg/100 pcs.		
<b>T 100 WB 3S3</b>	W socket 3s	4	136x102x57	1	22.300		<b>2007813</b>

PP Polypropylene

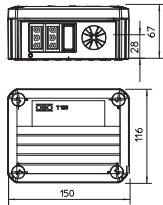
All the T series junction boxes are UV-resistant. They are made of polypropylene (a thermoplastic polymer) and are equipped with strain relief entries and pre-terminated Wieland connection sockets, type GST-18-i3 (s = black, w = white, r = red). The strain relief entries can be penetrated directly with the cables. The special structure of the opening means that the cables cannot be removed unintentionally. Suitable for cable diameters of between 7 and 21 mm.

The junction boxes can be mounted on mounting plates in the openings on the floor using steel bolts 3.5 x 9.5. Cover with labelling panel and lead seal.

Caution:

According to standard VDE 0620-1: Installation only by people with the relevant electrical knowledge and experience. There is danger to life if installed incorrectly.

### Junction box T 100, with Wieland socket 4s



Type	Version	Entries	Clear internal dimensions mm	Pack. pcs	Weight		Item No.
					kg/100 pcs.		
<b>T 100 WB 4S3</b>	W socket 4s	4	136x102x57	1	25.400		<b>2007811</b>

PP Polypropylene

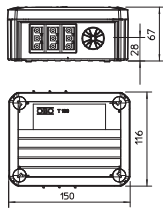
All the T series junction boxes are UV-resistant. They are made of polypropylene (a thermoplastic polymer) and are equipped with strain relief entries and pre-terminated Wieland connection sockets, type GST-18-i3 (s = black, w = white, r = red). The strain relief entries can be penetrated directly with the cables. The special structure of the opening means that the cables cannot be removed unintentionally. Suitable for cable diameters of between 7 and 21 mm.

The junction boxes can be mounted on mounting plates in the openings on the floor using steel bolts 3.5 x 9.5. Cover with labelling panel and lead seal.

Caution:

According to standard VDE 0620-1: Installation only by people with the relevant electrical knowledge and experience. There is danger to life if installed incorrectly.

### Junction box T 100 WB, with Wieland socket 6s



Type	Version	Entries	Clear internal dimensions mm	Pack. pcs	Weight		Item No.
					kg/100 pcs.		
<b>T 100 WB 6S3</b>	W socket 6s	4	136x102x57	1	29.400		<b>2007822</b>

PP Polypropylene

All the T series junction boxes are UV-resistant. They are made of polypropylene (a thermoplastic polymer) and are equipped with strain relief entries and pre-terminated Wieland connection sockets, type GST-18-i3 (s = black, w = white, r = red). The strain relief entries can be penetrated directly with the cables. The special structure of the opening means that the cables cannot be removed unintentionally. Suitable for cable diameters of between 7 and 21 mm.

The junction boxes can be mounted on mounting plates in the openings on the floor using steel bolts 3.5 x 9.5. Cover with labelling panel and lead seal.

Caution:

According to standard VDE 0620-1: Installation only by people with the relevant electrical knowledge and experience. There is danger to life if installed incorrectly.





## Junction box, T series with 3-pole Wieland socket, two-phase



- Quick mounting thanks to pre-terminated Wieland connection sockets (type GST18-i3, two-phase connection)
- Cables and wires with a diameter of 7 to 21 mm can be inserted directly. The strain relief entries prevent the accidental extraction of the cables
- Note: Installation to VDE 0620-1 only by persons with appropriate electrotechnical knowledge and experience. There is danger to life if installed incorrectly

### Junction box T100, with Wieland socket 1w3p+1s3p



Type	Version	Entries	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>T 100 WB 1W3 1S3</b>	W socket 1w+1s	4	136x102x57	1	21.600	<b>2007815</b>

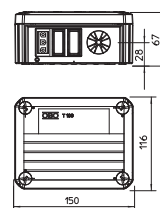
PP Polypropylene

All the T series junction boxes are UV-resistant. They are made of polypropylene (a thermoplastic polymer) and are equipped with strain relief entries and pre-terminated Wieland connection sockets, type GST-18-i3 (s = black, w = white, r = red). The strain relief entries can be penetrated directly with the cables. The special structure of the opening means that the cables cannot be removed unintentionally. Suitable for cable diameters of between 7 and 21 mm.

The junction boxes can be mounted on mounting plates in the openings on the floor using steel bolts 3.5 x 9.5. Cover with labelling panel and lead seal.

Caution:

According to standard VDE 0620-1: Installation only by people with the relevant electrical knowledge and experience. There is danger to life if installed incorrectly.



### Junction box T100, with Wieland socket 1w3p+2s3p



Type	Version	Entries	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>T 100 WB 1W3 2S3</b>	W socket 1w+2s	4	136x102x57	1	23.600	<b>2007817</b>

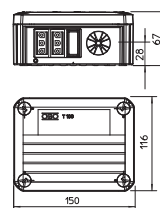
PP Polypropylene

All the T series junction boxes are UV-resistant. They are made of polypropylene (a thermoplastic polymer) and are equipped with strain relief entries and pre-terminated Wieland connection sockets, type GST-18-i3 (s = black, w = white, r = red). The strain relief entries can be penetrated directly with the cables. The special structure of the opening means that the cables cannot be removed unintentionally. Suitable for cable diameters of between 7 and 21 mm.

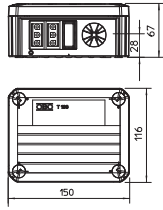
The junction boxes can be mounted on mounting plates in the openings on the floor using steel bolts 3.5 x 9.5. Cover with labelling panel and lead seal.

Caution:

According to standard VDE 0620-1: Installation only by people with the relevant electrical knowledge and experience. There is danger to life if installed incorrectly.



Junction box T100, with Wieland socket 2w3p+2s3p



Type	Version	Entries	Clear internal dimensions mm	Pack. pcs	Weight		Item No.
					kg/100 pcs.		
T 100 WB 2W3 2S3	W socket 2w+2s	4	136x102x57	1	25.500		2007819

PP Polypropylene

All the T series junction boxes are UV-resistant. They are made of polypropylene (a thermoplastic polymer) and are equipped with strain relief entries and pre-terminated Wieland connection sockets, type GST-18-i3 (s = black, w = white, r = red). The strain relief entries can be penetrated directly with the cables. The special structure of the opening means that the cables cannot be removed unintentionally. Suitable for cable diameters of between 7 and 21 mm.

The junction boxes can be mounted on mounting plates in the openings on the floor using steel bolts 3.5 x 9.5. Cover with labelling panel and lead seal.

Caution:

According to standard VDE 0620-1: Installation only by people with the relevant electrical knowledge and experience. There is danger to life if installed incorrectly.



## Junction box, T series with 3-pole Wieland socket, three-phase



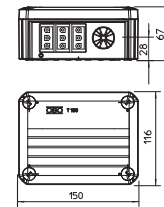
- Quick mounting thanks to pre-terminated three-pole Wieland connection sockets (type GST18-i3, three-phase connection)
- Cables and wires with a diameter of 7 to 21 mm can be inserted directly. The strain relief entries prevent the accidental extraction of the cables
- Note: Installation to VDE 0620-1 only by persons with appropriate electrotechnical knowledge and experience. There is danger to life if installed incorrectly

### Junction box T 100 6S 3x2, with Wieland socket



Type	Version	Entries	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>T 100 WB 6S 3x2</b>	W socket 3x2 (white; black; red)	4	136x102x57	1	29.500	<b>2007814</b>

PP Polypropylene



All the T series junction boxes are UV-resistant. They are made of polypropylene (a thermoplastic polymer) and are equipped with strain relief entries and pre-terminated Wieland connection sockets, type GST-18-i3 (s = black, w = white, r = red). The strain relief entries can be penetrated directly with the cables. The special structure of the opening means that the cables cannot be removed unintentionally. Suitable for cable diameters of between 7 and 21 mm.

The junction boxes can be mounted on mounting plates in the openings on the floor using steel bolts 3.5 x 9.5. Cover with labelling panel and lead seal.

Caution:

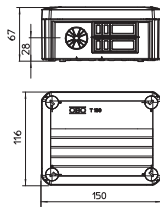
According to standard VDE 0620-1: Installation only by people with the relevant electrical knowledge and experience. There is danger to life if installed incorrectly.

## Junction box, T series, with 4-pole Wieland socket, two-phase and strain relief



- Quick mounting thanks to pre-terminated 5-pole Wieland connection sockets (on each socket line 1 and line 2 are connected)
- Cables and wires with a diameter of 7 to 21 mm can be inserted directly. The strain relief entries prevent the accidental extraction of the cables
- Note: Installation to VDE 0620-1 only by persons with appropriate electrotechnical knowledge and experience. There is danger to life if installed incorrectly

### Junction box T 100, with Wieland socket 3-5 pole



Type	Entries	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs	Item No.
T 100 WB5	4	136x102x57	1	14.600	2007840

PP Polypropylene

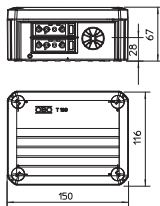
All the T series junction boxes are UV-resistant. They are made of polypropylene (a thermoplastic polymer) and are equipped with strain relief entries and pre-terminated Wieland connection sockets, type GST-18-i3 (s = black, w = white, r = red). The strain relief entries can be penetrated directly with the cables. The special structure of the opening means that the cables cannot be removed unintentionally. Suitable for cable diameters of between 7 and 21 mm.

The junction boxes can be mounted on mounting plates in the openings on the floor using steel bolts 3.5 x 9.5. Cover with labelling panel and lead seal.

Caution:

According to standard VDE 0620-1: Installation only by people with the relevant electrical knowledge and experience. There is danger to life if installed incorrectly.

### Junction box T 100, with Wieland socket 2s4p



Type	Entries	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs	Item No.
T 100 WB 2s4	4	136x102x57	1	24.000	2007848

PP Polypropylene

All the T series junction boxes are UV-resistant. They are made of polypropylene (a thermoplastic polymer) and are equipped with strain relief entries and pre-terminated Wieland connection sockets, type GST-18-i3 (s = black, w = white, r = red). The strain relief entries can be penetrated directly with the cables. The special structure of the opening means that the cables cannot be removed unintentionally. Suitable for cable diameters of between 7 and 21 mm.

The junction boxes can be mounted on mounting plates in the openings on the floor using steel bolts 3.5 x 9.5. Cover with labelling panel and lead seal.

Caution:

According to standard VDE 0620-1: Installation only by people with the relevant electrical knowledge and experience. There is danger to life if installed incorrectly.





## Junction box, T series, with 5-pole Wieland socket, three-phase and strain relief



- Quick mounting thanks to pre-terminated 5-pole Wieland connection sockets (on each socket line 1 and line 2 are connected)
- Cables and wires with a diameter of 7 to 21 mm can be inserted directly. The strain relief entries prevent the accidental extraction of the cables
- Note: Installation to VDE 0620-1 only by persons with appropriate electrotechnical knowledge and experience. There is danger to life if installed incorrectly

### Junction box T 100, with Wieland socket 3-5 pole



Type	Entries	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>T 100 WB5</b>	4	136x102x57	1	14.600	<b>2007840</b>

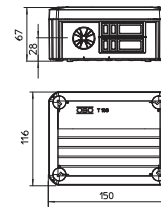
PP Polypropylene

All the T series junction boxes are UV-resistant. They are made of polypropylene (a thermoplastic polymer) and are equipped with strain relief entries and pre-terminated Wieland connection sockets, type GST-18-i3 (s = black, w = white, r = red). The strain relief entries can be penetrated directly with the cables. The special structure of the opening means that the cables cannot be removed unintentionally. Suitable for cable diameters of between 7 and 21 mm.

The junction boxes can be mounted on mounting plates in the openings on the floor using steel bolts 3.5 x 9.5. Cover with labelling panel and lead seal.

Caution:

According to standard VDE 0620-1: Installation only by people with the relevant electrical knowledge and experience. There is danger to life if installed incorrectly.



### Junction box T 100, with Wieland socket 2s5p



Type	Entries	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>T 100 WB 2s5</b>	4	136x102x57	1	25.000	<b>2007852</b>

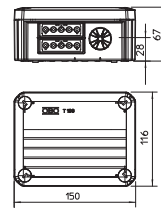
PP Polypropylene

All the T series junction boxes are UV-resistant. They are made of polypropylene (a thermoplastic polymer) and are equipped with strain relief entries and pre-terminated Wieland connection sockets, type GST-18-i3 (s = black, w = white, r = red). The strain relief entries can be penetrated directly with the cables. The special structure of the opening means that the cables cannot be removed unintentionally. Suitable for cable diameters of between 7 and 21 mm.

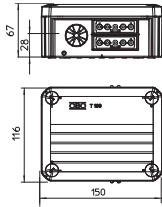
The junction boxes can be mounted on mounting plates in the openings on the floor using steel bolts 3.5 x 9.5. Cover with labelling panel and lead seal.

Caution:

According to standard VDE 0620-1: Installation only by people with the relevant electrical knowledge and experience. There is danger to life if installed incorrectly.



## Junction box T 100, with Wieland socket 4s5p



Type	Entries	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs	Item No.
<b>T 100 WB 4s5</b>	4	136x102x57	1	28.000	<b>2007856</b>

PP Polypropylene

All the T series junction boxes are UV-resistant. They are made of polypropylene (a thermoplastic polymer) and are equipped with strain relief entries and pre-terminated Wieland connection sockets, type GST-18-i3 (s = black, w = white, r = red). The strain relief entries can be penetrated directly with the cables. The special structure of the opening means that the cables cannot be removed unintentionally. Suitable for cable diameters of between 7 and 21 mm.

The junction boxes can be mounted on mounting plates in the openings on the floor using steel bolts 3.5 x 9.5. Cover with labelling panel and lead seal.

**Caution:**

According to standard VDE 0620-1: Installation only by people with the relevant electrical knowledge and experience. There is danger to life if installed incorrectly.



## Junction box, T series with strain relief, Wieland connector/socket



- Quick mounting thanks to pre-terminated 5-pole Wieland connection sockets (on each socket line 1, line 2 and line 3 are connected)
- Cables and wires with a diameter of 7 to 21 mm can be inserted directly. The strain relief entries prevent the accidental extraction of the cables
- Note: Installation to VDE 0620-1 only by persons with appropriate electrotechnical knowledge and experience. There is danger to life if installed incorrectly

### Junction box T 100, with Wieland connector and socket 1S3+2B3



Type	Entries	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>T100 WS 1S3 2S3D</b>	4	136x102x57	1	20.700	<b>2007876</b>

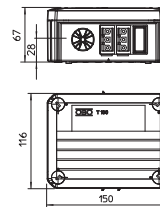
PP Polypropylene

All the T series junction boxes are UV-resistant. They are made of polypropylene (a thermoplastic polymer) and are equipped with strain relief entries and pre-terminated Wieland connection sockets, type GST-18-i3 (s = black, w = white, r = red). The strain relief entries can be penetrated directly with the cables. The special structure of the opening means that the cables cannot be removed unintentionally. Suitable for cable diameters of between 7 and 21 mm.

The junction boxes can be mounted on mounting plates in the openings on the floor using steel bolts 3.5 x 9.5. Cover with labelling panel and lead seal.

Caution:

According to standard VDE 0620-1: Installation only by people with the relevant electrical knowledge and experience. There is danger to life if installed incorrectly.



### Junction box T 100, with Wieland connector and socket 1S4+3B3



Type	Entries	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>T100 WS 1S3 3S3A</b>	4	136x102x57	1	22.600	<b>2007870</b>

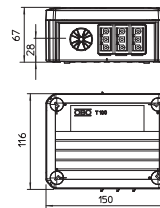
PP Polypropylene

All the T series junction boxes are UV-resistant. They are made of polypropylene (a thermoplastic polymer) and are equipped with strain relief entries and pre-terminated Wieland connection sockets, type GST-18-i3 (s = black, w = white, r = red). The strain relief entries can be penetrated directly with the cables. The special structure of the opening means that the cables cannot be removed unintentionally. Suitable for cable diameters of between 7 and 21 mm.

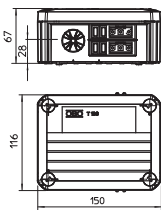
The junction boxes can be mounted on mounting plates in the openings on the floor using steel bolts 3.5 x 9.5. Cover with labelling panel and lead seal.

Caution:

According to standard VDE 0620-1: Installation only by people with the relevant electrical knowledge and experience. There is danger to life if installed incorrectly.



## Junction box T 100, with Wieland connector and socket 1S4+1B4+2B3



Type	Entries	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>T100 WS 1S4 2S3C</b>	4	136x102x57	1	24.500	<b>2007874</b>

PP Polypropylene

All the T series junction boxes are UV-resistant. They are made of polypropylene (a thermoplastic polymer) and are equipped with strain relief entries and pre-terminated Wieland connection sockets, type GST-18-i3 (s = black, w = white, r = red). The strain relief entries can be penetrated directly with the cables. The special structure of the opening means that the cables cannot be removed unintentionally. Suitable for cable diameters of between 7 and 21 mm.

The junction boxes can be mounted on mounting plates in the openings on the floor using steel bolts 3.5 x 9.5. Cover with labelling panel and lead seal.

**Caution:**

According to standard VDE 0620-1: Installation only by people with the relevant electrical knowledge and experience. There is danger to life if installed incorrectly.





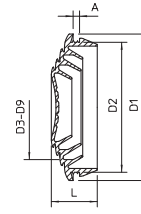
### Plug-in seal EDK light grey



Type	Size	For Ø mm	Colour	Pack. pcs	Weight kg/100 pcs	Item No.
EDK 25 LGR	M25	0 - 22	Light grey	100	0.165	2011638
EDK 32 LGR	M32	0 - 27	Light grey	50	0.260	2011646
EDK 40 LGR	M40	0 - 34	Light grey	25	0.425	2011654
EDK 25 RW	M25	0 - 22	Pure white	100	0.175	2011689
EDK 32 RW	M32	0 - 27	Pure white	50	0.260	2011697
EDK 40 RW	M40	0 - 34	Pure white	25	0.425	2011700

**EVA** Ethylene vinyl acetate

The plug-in seal can be cut back to suit the relevant cable diameter.

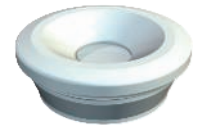
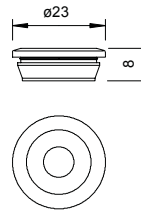


Type	Size	For Ø mm	Colour	Pack. pcs	Weight kg/100 pcs	Item No.
89	PG 11	7 - 13	Light grey	100	0.111	2012030
89 RW	PG 11	7 - 13	Pure white	100	0.113	2012103
89 SW	PG 11	7 - 13	Black	100	0.112	2012146
89 LoG	PG 11	7 - 13	Light grey	5000	0.111	2012065
89 3MM NUT	PG 11	7 - 13	Light grey	2000	0.106	2012081

**PE** Polyethylene

Closed entry nipple with perforation membrane for cable diameters 7–13 mm. Ideal for simple cable routing in housings or through thin sheet metal.

Required hole diameter 18.5–19 mm, wall thickness max. 1.8 mm.



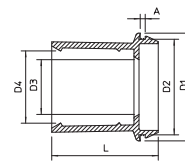
### Plug-in seal for pipes, T-series junction box, light grey



Type	Size	Colour	Pack. pcs	Weight kg/100 pcs	Item No.
EDR 25 16-20 LGR	M25	Light grey	50	0.520	2011506
EDR 25 20-25 LGR	M25	Light grey	50	0.680	2011514
EDR 32 25-32 LGR	M32	Light grey	50	1.170	2011530
EDR 40 32-40 LGR	M40	Light grey	25	2.200	2011546

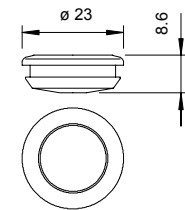
**PVC** Polyvinylchloride

Plug-in seal for junction boxes for direct insertion of metric pipes



Type	Size	For Ø mm	Colour	Pack. pcs	Weight kg/100 pcs	Item No.
89 ROE 12-16	PG 13,5	12 - 16	Light grey	100	0.102	2012049

**PE** Polyethylene



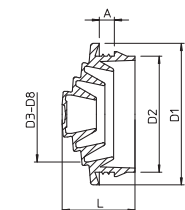
### Plug-in seal EDVS



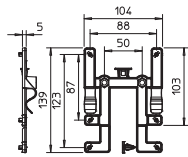
Type	Size	For Ø mm	Colour	Pack. pcs	Weight kg/100 pcs	Item No.
EDVS M20 LGR	M20	0 - 17	Light grey	100	0.117	2012375
EDVS M25 LGR	M25	0 - 22	Light grey	100	0.179	2012383
EDVS M32 LGR	M32	0 - 28	Light grey	50	0.295	2012391

**PE** Polyethylene

The push-in nipple can be cut back to suit the relevant cable diameter.



### Fastening element for cable tray



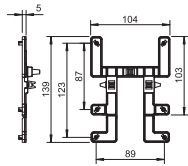
Type  
**BE TS KR**

PC Polycarbonate

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

Pack.	Weight		Item No.
	pcs	kg/100 pcs.	
10	2.800		<b>2007835</b>

### Fastening element for mesh cable tray



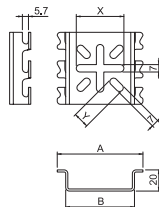
Type  
**BE TS GR**

PC Polycarbonate

The fastening element BE TS GR can be used to attach OBO junction boxes, type T60 and T100, to mesh cable trays quickly and in a few actions. This keeps the junction box securely in position. However, it can be quickly dismantled as necessary.

Pack.	Weight		Item No.
	pcs	kg/100 pcs.	
10	2.300		<b>2007833</b>

### Mounting plate for mesh cable tray



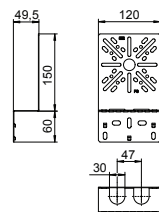
Type	Dimension A mm	Dimension B mm	Dimension x mm	Dimension y mm	Pack. pcs	Weight		Item No.
						kg/100 pcs.		
<b>MPG 65 FT</b>	81	65	45	15	30	9.200		<b>6006486</b>

St Steel

FT Hot-dip galvanised

Mounting plate for screwless wall fastening of mesh cable trays.

### Mounting plate, angled



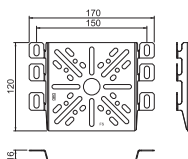
Type	Height mm	Width mm	Pack. pcs	Weight		Item No.
				kg/100 pcs.		
<b>MP WI KL. FS</b>	210	120	20	20.200		<b>7084765</b>
<b>MP WI KL. DD</b>	210	120	20	20.200		<b>7085111</b>

St Steel

FS Strip-galvanised DD Strip galvanised zinc/aluminium, double dip

Curved mounting plate, for fixing on the side rail of the cable tray.

### Mounting plate



Type	Height mm	Width mm	Pack. pcs	Weight		Item No.
				kg/100 pcs.		
<b>MP UNI FS</b>	115	170	40	13.300		<b>7084773</b>

St Steel

FS Strip-galvanised

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

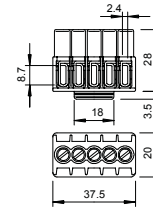
### Terminal strip 1–4 mm<sup>2</sup>, junction box, T series



Type	Colour	No. of terminals	Nominal cross-section mm <sup>2</sup>	Nom. voltage V	Pack. pcs	Weight kg/100 pcs	Item No.
<b>KL-T 01-04</b>	Light grey	5	1 - 4	400	10	2.100	<b>2016180</b>

PA Polyamide

Steel terminal block and bolts, galvanised and transparently passivated, nominal 1 - 4 mm<sup>2</sup>, nominal voltage 400 V, 5-pole, with terminal sockets, Max. connectable cross-sections per terminal max. 4 x 2.5 mm<sup>2</sup>, 5 x 1.5 mm<sup>2</sup> or 6 x 1 mm<sup>2</sup>.



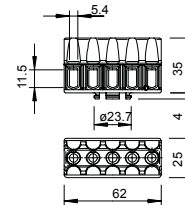
### Terminal strip 1.5–6 mm<sup>2</sup>, junction box, T series



Type	Colour	No. of terminals	Nominal cross-section mm <sup>2</sup>	Nom. voltage V	Pack. pcs	Weight kg/100 pcs	Item No.
<b>KL-T 02-06</b>	Light grey	5	1.5 - 6	400	10	4.380	<b>2016185</b>

PA Polyamide

Steel terminal block and bolts, galvanised and transparently passivated, nominal 1,5 - 6 mm<sup>2</sup>, nominal voltage 400 V, 5-pole, with terminal sockets, Max. connectable cross-sections per terminal: 3 x 6 mm<sup>2</sup>, 4 x 4 mm<sup>2</sup> or 6 x 2.5 mm<sup>2</sup>.



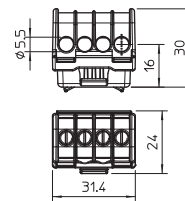
### Terminal strip 6–16 mm<sup>2</sup>, junction box, T series



Type	Colour	No. of terminals	Nominal cross-section mm <sup>2</sup>	Nom. voltage V	Pack. pcs	Weight kg/100 pcs	Item No.
<b>KL-T 06-16</b>	Light grey	4	6 - 16	400	10	1.970	<b>2016190</b>

PA Polyamide

Brass terminals, steel screws, electrogalvanised and transparently passivated, nominal cross-section 6 - 16 mm<sup>2</sup>, nominal voltage 400 V, 1-pole, with terminal sockets, Max. connectable conductors per terminal max. 4 x 16 mm<sup>2</sup>, 4 x 10 mm<sup>2</sup>, 8x6 mm<sup>2</sup> or 12 x 4 mm<sup>2</sup>.



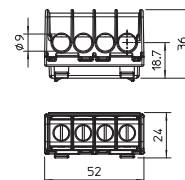
### Terminal strip 16–35 mm<sup>2</sup>, junction box, T series



Type	Colour	No. of terminals	Nominal cross-section mm <sup>2</sup>	Nom. voltage V	Pack. pcs	Weight kg/100 pcs	Item No.
<b>KL-T 16-35</b>	Light grey	4	16 - 35	400	10	5.630	<b>2016195</b>

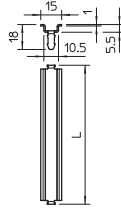
PA Polyamide

Brass terminals, steel screws, electrogalvanised and transparently passivated, nominal cross-section 16 - 35 mm<sup>2</sup>, nominal voltage 400 V, 1-pole, with terminal sockets, Max. connectable conductors per terminal max. 4 x 35 mm<sup>2</sup>, 4 x 25 mm<sup>2</sup>, 8x16 mm<sup>2</sup> or 12 x 10 mm<sup>2</sup>.



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### Hat profile rail 15 x 5 mm



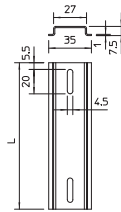
Type	Version	Length mm	Pack. pcs	Weight kg/100 pcs	Item No.
<b>46277 T160 Q GTP</b>	For T160 crosswise + T100 lengthwise	99	10	9.641	<b>1115270</b>
<b>46277 T250 Q GTP</b>	For T250 crosswise + T160 lengthwise	139	10	13.520	<b>1115274</b>
<b>46277 T250 L GTP</b>	For T 250 lengthwise	189	10	17.900	<b>1115278</b>
<b>46277 T350 Q GTP</b>	For T 350 crosswise	161	10	15.670	<b>1115282</b>
<b>46277 T350 L GTP</b>	For T 350 lengthwise	168	10	16.370	<b>1115286</b>

**St** Steel

**GTP** Electrogalvanised, transparently passivated

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

### Hat profile rail 35 x 7.5 mm



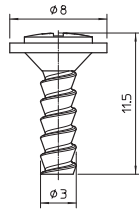
Type	Version	Length mm	Pack. pcs	Weight kg/100 pcs	Item No.
<b>2069 T60 GTP</b>	For T60 lengthwise + T00 crosswise	89	10	3.070	<b>1115380</b>
<b>2069 T100 GTP</b>	For T100 lengthwise + T160 crosswise	118	10	4.140	<b>1115382</b>
<b>2069 T160 GTP</b>	For T160 lengthwise + T250, T350 crosswise	157	10	5.520	<b>1115384</b>
<b>2069 T250 GTP</b>	For T 250 lengthwise	206	10	7.107	<b>1115386</b>
<b>2069 T350 GTP</b>	For T 350 lengthwise	245	10	8.450	<b>1115388</b>

**St** Steel

**FS** Strip-galvanised

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

### Fastening pin for mounting plates



Type	Pack. pcs	Weight kg/100 pcs	Item No.
<b>T-S MST</b>	100	0.090	<b>2007831</b>

**St** Steel

**G** Electrogalvanised

Metal fastening pin for fastening the T series onto mounting plates or other thin-walled supporting structures. Mounted by simply pressing the bolt into the fastening holes in the T series. Easy removal with a screw thread.







## The X series

### Impact-resistant

The use of special plastics based on high-quality polycarbonate allows the X series junction boxes and empty housings with the protection rating of IK09 to offer particularly high impact resistance. All the boxes of the X series are tested according to DIN EN 60670 Part 1 and 22.



### Adaptable

The junction boxes have been tested in practical applications and have certainly not been found wanting: Thus the X series offers high wiring space and simple and particularly flexible fastening. The junction boxes can be mounted using internal, external or corner fastenings, as required.

## Equipment

The X series is available in different equipment versions. For example, completely pre-installed versions with main cable junction terminals, cable glands, screwless terminals and hat rails are available.



## Accessories

Screw covers, plug-in seals and external fastening elements are contained in the scope of delivery of the X series junction boxes. In addition, the X series offers a comprehensive range of accessories.

When used in unprotected external areas, we recommend protecting the junction box against direct weathering influences (e.g. through snow, wind, rain or sun).

Always indicate the item number when ordering.





# X-TREME

The X series of the junction boxes

With the new X series, OBO Bettermann can offer a range of junction boxes and empty housings that can withstand even the toughest impacts. The use of special plastics based on high-quality polycarbonate allows the X series to meet the requirements for the highest level of impact resistance, achieving the protection rating of IK09.



- ⊕ Robust and impact-resistant
- ⊕ For outdoor applications and the toughest conditions
- ⊕ Simple and flexible installation
- ⊕ Tested according to DIN EN 60670 Part 1 and 22





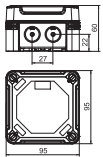


## Junction box, X series, with knock-out entries and plug-in seals



- Junction boxes with impact resistance IK09 and protection class IP67 can withstand even strong mechanical stress
- Made of high-quality, halogen-free and UV-resistant polycarbonate
- Tested to DIN EN 60670 Part 1 and 22
- The scope of delivery contains screw cover caps, external fastening elements and plug-in seals

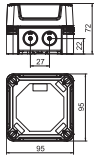
### Junction box X 01



Type	X01 LGR	X01 LGR-TR	X01 SW	X01 SW-RO
Colour	Light grey	Grey / transparent	Graphite black	Black / red
Entries	7 x Ø20	7 x Ø20	7 x Ø20	7 x Ø20
Dimension LxWxH mm	95x95x60	95x95x60	95x95x60	95x95x60
Clear internal dimensions mm	85x85x45	85x85x45	85x85x45	85x85x45
Pack. pcs	1	1	1	1
Weight kg/100 pcs.	16.000	16.000	16.000	16.000
<b>Item No.</b>	<b>2005000</b>	<b>2005050</b>	<b>2005110</b>	<b>2005140</b>

PC Polycarbonate

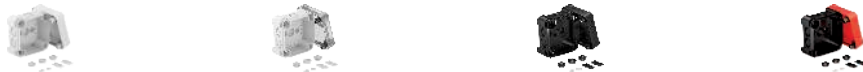
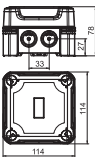
### Junction box X 02



Type	X02 LGR	X02 LGR-TR	X02 SW	X02 SW-RO
Colour	Light grey	Grey / transparent	Graphite black	Black / red
Entries	7 x Ø20	7 x Ø20	7 x Ø20	7 x Ø20
Dimension LxWxH mm	95x95x72	95x95x72	95x95x72	95x95x72
Clear internal dimensions mm	85x85x57	85x85x57	85x85x57	85x85x57
Pack. pcs	1	1	1	1
Weight kg/100 pcs.	17.800	17.800	17.800	17.800
<b>Item No.</b>	<b>2005004</b>	<b>2005054</b>	<b>2005114</b>	<b>2005144</b>

PC Polycarbonate

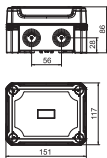
### Junction box X 04



Type	X04 LGR	X04 LGR-TR	X04 SW	X04 SW-RO
Colour	Light grey	Grey / transparent	Graphite black	Black / red
Entries	7 x Ø20/25	7 x Ø20/25	7 x Ø20/25	7 x Ø20/25
Dimension LxWxH mm	114x114x78	114x114x78	114x114x78	114x114x78
Clear internal dimensions mm	102x102x60	102x102x60	102x102x60	102x102x60
Pack. pcs	1	1	1	1
Weight kg/100 pcs.	26.600	26.600	26.600	26.600
<b>Item No.</b>	<b>2005008</b>	<b>2005058</b>	<b>2005118</b>	<b>2005148</b>

PC Polycarbonate

### Junction box X 06

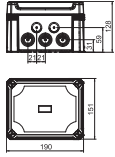
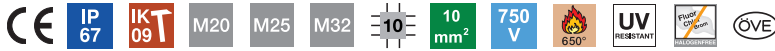


Type	X06 LGR	X06 LGR-TR	X06 SW	X06 SW-RO
Colour	Light grey	Grey / transparent	Graphite black	Black / red
Entries	8 x Ø20/25	8 x Ø20/25	8 x Ø20/25	8 x Ø20/25
Dimension LxWxH mm	151x167x87	151x167x87	151x167x87	151x167x87
Clear internal dimensions mm	137x105x68	137x105x68	137x105x68	137x105x68
Pack. pcs	1	1	1	1
Weight kg/100 pcs.	33.500	33.500	33.500	33.500
<b>Item No.</b>	<b>2005012</b>	<b>2005062</b>	<b>2005122</b>	<b>2005152</b>

PC Polycarbonate



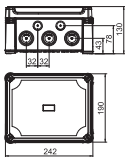
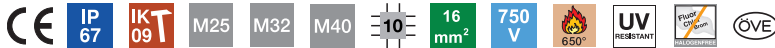
### Junction box X 10



Type	X10 LGR	X10 LGR-TR	X10 SW	X10 SW-RO
Colour	Light grey	Grey / transparent	Graphite black	Black / red
Entries	10 x Ø20/25/32	10 x Ø20/25/32	10 x Ø20/25/32	10 x Ø20/25/32
Dimension LxWxH mm	191x151x126	191x151x126	191x151x126	191x151x126
Clear internal dimensions mm	177x137x110	177x137x110	177x137x110	177x137x110
Pack. pcs	1	1	1	1
Weight kg/100 pcs.	59.200	59.200	59.200	59.200
Item No.	2005016	2005066	2005126	2005156

PC Polycarbonate

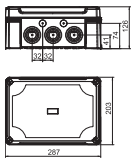
### Junction box X 16



Type	X16 LGR	X16 LGR-TR	X16 SW	X16 SW-RO
Colour	Light grey	Grey / transparent	Graphite black	Black / red
Entries	10 x Ø25/32/40	10 x Ø25/32/40	10 x Ø25/32/40	10 x Ø25/32/40
Dimension LxWxH mm	241x191x126	241x191x126	241x191x126	241x191x126
Clear internal dimensions mm	227x177x110	227x177x110	227x177x110	227x177x110
Pack. pcs	1	1	1	1
Weight kg/100 pcs.	79.300	79.300	79.300	79.300
Item No.	2005020	2005070	2005130	2005160

PC Polycarbonate

### Junction box X 25



Type	X25 LGR	X25 LGR-TR	X25 SW	X25 SW-RO
Colour	Light grey	Grey / transparent	Graphite black	Black / red
Entries	10 x Ø25/32/40	10 x Ø25/32/40	10 x Ø25/32/40	10 x Ø25/32/40
Dimension LxWxH mm	286x202x126	286x202x126	286x202x126	286x202x126
Clear internal dimensions mm	271x187x110	271x187x110	271x187x110	271x187x110
Pack. pcs	1	1	1	1
Weight kg/100 pcs.	96.500	96.500	96.500	96.500
Item No.	2005024	2005074	2005134	2005164

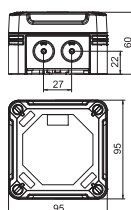
PC Polycarbonate

## Junction box X series with knock-out entries and cable glands



- Junction boxes with impact resistance IK09 and protection class IP67 can withstand even strong mechanical stress
- Made of high-quality, halogen-free, UV-resistant polycarbonate
- Tested to DIN EN 60670 Part 1 and 22
- Besides screw cover caps, external fastening elements and plug-in seals, the scope of delivery also contains three V-TEC M20 cable glands with matching locknuts

### Junction box X 01 with cable gland



Colour Entries

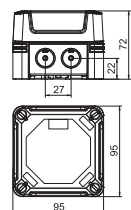
Type	Pack. pcs	Weight kg/100 pcs	Item No.
<b>X01 G M20 LGR</b>   Light grey   7 x Ø20	1	19.000	<b>2005030</b>

PC Polycarbonate

#### Dimensions

Type	Dimension LxWxH mm	Clear internal dimensions mm
<b>X01 G M20 LGR</b>	95x95x60	85x85x45

### Junction box X 02 with cable gland



Colour Entries

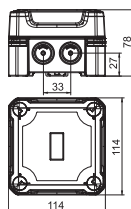
Type	Pack. pcs	Weight kg/100 pcs	Item No.
<b>X02 G M20 LGR</b>   Light grey   7 x Ø20	1	21.500	<b>2005032</b>

PC Polycarbonate

#### Dimensions

Type	Dimension LxWxH mm	Clear internal dimensions mm
<b>X02 G M20 LGR</b>	95x95x72	85x85x57

### Junction box X 04 with cable glands



Colour Entries

Type	Pack. pcs	Weight kg/100 pcs	Item No.
<b>X04 G M20 LGR</b>   Light grey   7 x Ø20/25	1	31.400	<b>2005034</b>

PC Polycarbonate

#### Dimensions

Type	Dimension LxWxH mm	Clear internal dimensions mm
<b>X04 G M20 LGR</b>	114x114x78	102x102x60





## Junction box X series with knock-out entries and terminal strip



- Junction boxes with impact resistance IK09 and protection class IP67 can withstand even strong mechanical stress
- Made of high-quality, halogen-free, UV-resistant polycarbonate
- Tested to DIN EN 60670 Part 1 and 22
- Besides screw cover caps, external fastening elements and plug-in seals, the scope of delivery also contains a terminal strip matched to the cross-section

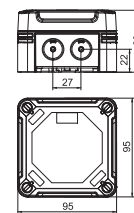
### Junction box X 01 with terminal strip

Colour: Light grey    Entries: 7 x Ø20

Type	Pack. pcs	Weight kg/100 pcs	Item No.
<b>X01 T LGR</b>   Light grey   7 x Ø20	1	17.500	<b>2005190</b>

PC Polycarbonate

The scope of delivery contains a 5-pole terminal strip.



Dimensions

Type	Dimension LxWxH mm	Clear internal dimensions mm
<b>X01 T LGR</b>	95x95x60	85x85x45

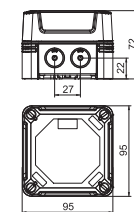
### Junction box X 02 with terminal strip

Colour: Light grey    Entries: 7 x Ø20

Type	Pack. pcs	Weight kg/100 pcs	Item No.
<b>X02 T LGR</b>   Light grey   7 x Ø20	1	19.300	<b>2005194</b>

PC Polycarbonate

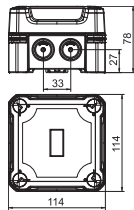
The scope of delivery contains a 5-pole terminal strip.



Dimensions

Type	Dimension LxWxH mm	Clear internal dimensions mm
<b>X02 T LGR</b>	95x95x72	85x85x57

### Junction box X 04 with terminal strip



Colour Entries

Type	Colour	Entries	Pack. pcs	Weight kg/100 pcs	Item No.
<b>X04 T LGR</b>	Light grey	7 x Ø20/25	1	31.600	<b>2005198</b>

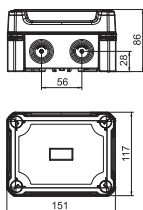
PC Polycarbonate

The scope of delivery contains a 5-pole terminal strip.

#### Dimensions

Type	Dimension LxWxH mm	Clear internal dimensions mm
<b>X04 T LGR</b>	114x114x78	102x102x60

### Junction box X 06 with terminal strip



Colour Entries

Type	Colour	Entries	Pack. pcs	Weight kg/100 pcs	Item No.
<b>X06 T LGR</b>	Light grey	8 x Ø20/25	1	38.000	<b>2005202</b>

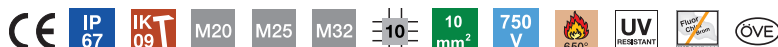
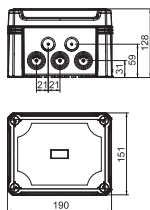
PC Polycarbonate

The scope of delivery contains a 5-pole terminal strip.

#### Dimensions

Type	Dimension LxWxH mm	Clear internal dimensions mm
<b>X06 T LGR</b>	151x117x86	137x105x68

### Junction box X 10 with terminal strip



Colour Entries

Type	Colour	Entries	Pack. pcs	Weight kg/100 pcs	Item No.
<b>X10 T LGR</b>	Light grey	10 x Ø20/25/32	1	72.000	<b>2005206</b>

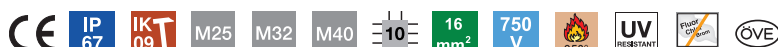
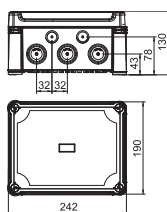
PC Polycarbonate

The scope of delivery contains 5 terminal strips, each with 4 terminals.

#### Dimensions

Type	Dimension LxWxH mm	Clear internal dimensions mm
<b>X10 T LGR</b>	191x151x126	177x137x110

### Junction box X 16 with terminal strip



Colour Entries

Type	Colour	Entries	Pack. pcs	Weight kg/100 pcs	Item No.
<b>X16 T LGR</b>	Light grey	10 x Ø25/32/40	1	97.500	<b>2005210</b>















PC Polycarbonate

The scope of delivery contains 5 terminal strips, each with 4 terminals.

#### Dimensions

Type	Dimension LxWxH mm	Clear internal dimensions mm
<b>X16 T LGR</b>	241x191x126	227x177x110

### Junction box X 25 with terminal strip

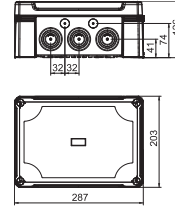















Colour      Entries

Type	Colour	Entries	Pack. pcs	Weight kg/100 pcs	Item No.
<b>X25 T LGR</b>	Light grey	10 x Ø25/32/40	1	130.000	<b>2005214</b>

**PC** Polycarbonate

The scope of delivery contains 5 terminal strips, each with 4 terminals.



#### Dimensions

Type	Dimension LxWxH mm	Clear internal dimensions mm
<b>X25 T LGR</b>	286x202x126	271x187x110

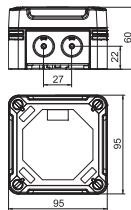


## Junction box X series with knock-out entries, cable glands and terminal strip



- Junction boxes with impact resistance IK09 and protection class IP67 can withstand even strong mechanical stress
- Made of high-quality, halogen-free, UV-resistant polycarbonate
- Tested to DIN EN 60670 Part 1 and 22
- Besides screw cover caps, external fastening elements and plug-in seals, the scope of delivery also contains a terminal strip matched to the cross-section and three V-TEC M20/M25 cable glands with matching locknuts

### Junction box X 01 with cable gland and terminal strip



Colour Entries

Type	Colour	Entries	Pack. pcs	Weight kg/100 pcs	Item No.
<b>X01 T G M20 LGR</b>	Light grey	7 x Ø20	1	20.500	<b>2005220</b>

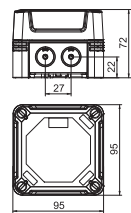
PC Polycarbonate

A terminal strip, three V-TEC M20 cable glands and three matching locknuts are included.

#### Dimensions

Type	Dimension LxWxH mm	Clear internal dimensions mm
<b>X01 T G M20 LGR</b>	95x95x60	85x85x45

### Junction box X 02 with cable gland and terminal strip



Colour Entries

Type	Colour	Entries	Pack. pcs	Weight kg/100 pcs	Item No.
<b>X02 T G M20 LGR</b>	Light grey	7 x Ø20	1	23.000	<b>2005222</b>

PC Polycarbonate

A terminal strip, three V-TEC M20 cable glands and three matching locknuts are included.

#### Dimensions

Type	Dimension LxWxH mm	Clear internal dimensions mm
<b>X02 T G M20 LGR</b>	95x95x72	85x85x57



### Junction box X 04 with cable glands and terminal strip

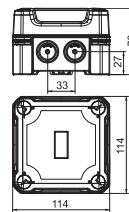


Colour      Entries

Type	Colour	Entries	Pack. pcs	Weight kg/100 pcs	Item No.
<b>X04 T G M25 LGR</b>	Light grey	7 x Ø20/25	1	36.700	<b>2005224</b>

PC Polycarbonate

A terminal strip, three V-TEC M25 cable glands and three matching locknuts are included.



Dimensions

Type	Dimension LxWxH mm	Clear internal dimensions mm
<b>X04 T G M25 LGR</b>	114x114x78	102x102x60

### Junction box X 06 with cable glands and terminal strip

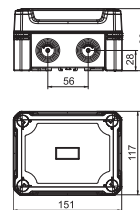


Colour      Entries

Type	Colour	Entries	Pack. pcs	Weight kg/100 pcs	Item No.
<b>X06 T G M25 LGR</b>	Light grey	8 x Ø20/25	1	38.000	<b>2005226</b>

PC Polycarbonate

A terminal strip, three V-TEC M25 cable glands and three matching locknuts are included.



Dimensions

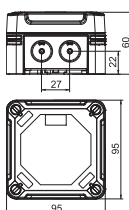
Type	Dimension LxWxH mm	Clear internal dimensions mm
<b>X06 T G M25 LGR</b>	151x167x87	137x105x68

## Junction box X series with knock-out entries, cable glands and screwless terminals



- Junction boxes with impact resistance IK09 and protection class IP67 can withstand even strong mechanical stress
- Made of high-quality, halogen-free, UV-resistant polycarbonate
- Tested to DIN EN 60670 Part 1 and 22
- The scope of delivery contains screw cover caps, external fastening elements and plug-in seals. In addition, these junction boxes include three V-TEC cable glands and three screwless terminals

### Junction box X 01 with cable gland and plug-in terminals



Colour Entries

Type	Pack. pcs	Weight kg/100 pcs	Item No.
<b>X01 UT G LGR</b>   Light grey   7 x Ø20	1	20.000	<b>2005240</b>

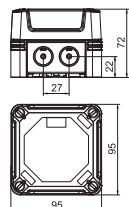
PC Polycarbonate

Three universal clamps (with 5 clamping points), three V-TEC M20 cable glands and three matching locknuts are included.

#### Dimensions

Type	Dimension LxWxH mm	Clear internal dimensions mm
<b>X01 UT G LGR</b>	95x95x60	85x85x45

### Junction box X 02 with cable gland and plug-in terminals



Colour Entries

Type	Pack. pcs	Weight kg/100 pcs	Item No.
<b>X02 UT G LGR</b>   Light grey   7 x Ø20	1	23.000	<b>2005244</b>

PC Polycarbonate

Three universal clamps (with 5 clamping points), three V-TEC M20 cable glands and three matching locknuts are included.

#### Dimensions

Type	Dimension LxWxH mm	Clear internal dimensions mm
<b>X02 UT G LGR</b>	95x95x72	85x85x57

## Junction box X 04 with cable glands and plug-in terminals



Colour      Entries

**Type**

**X04 UT G LGR** | Light grey | 7 x Ø20/25

**PC** Polycarbonate

Three universal clamps (with 5 clamping points), three V-TEC M25 cable glands and three matching locknuts are included.

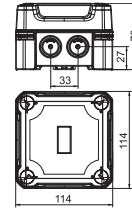
Weight

Pack. kg/100

pcs pcs.

**Item No.**

1 | 33.500 | **2005248**



### Dimensions

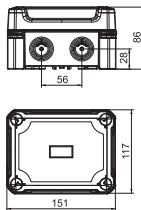
Type	Dimension LxWxH mm	Clear internal dimensions mm
<b>X04 UT G LGR</b>	114x114x78	102x102x60

## Junction box, X series, with knock-out entries and hat profile rail



- Junction boxes with impact resistance IK09 and protection class IP67 can withstand even strong mechanical stress
- Made of high-quality, halogen-free, UV-resistant polycarbonate
- Tested to DIN EN 60670 Part 1 and 22
- Besides screw cover caps, external fastening elements and plug-in seals, the scope of delivery also contains a hat rail set consisting of a hat rail, type 2069, and matching fastening elements

### Junction box X 06 with hat profile rail



Colour

Entries

Weight

Type	Pack. pcs.	kg/100 pcs.	Item No.
<b>X06 R LGR-TR</b>   Grey / transparent	1	37.600	<b>2005092</b>

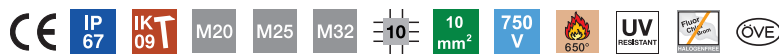
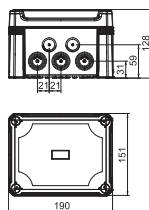
PC Polycarbonate

With transparent cover and hat profile rail, type 2069, with fastening set.

#### Dimensions

Type	Dimension LxWxH mm	Clear internal dimensions mm
<b>X06 R LGR-TR</b>	151x167x87	137x105x68

### Junction box X 10 with hat profile rail



Colour

Entries

Weight

Type	Pack. pcs.	kg/100 pcs.	Item No.
<b>X10 R LGR-TR</b>   Grey / transparent	1	65.600	<b>2005096</b>

PC Polycarbonate

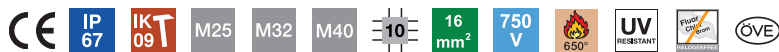
With transparent cover and hat profile rail, type 2069, with fastening set.

#### Dimensions

Type	Dimension LxWxH mm	Clear internal dimensions mm
<b>X10 R LGR-TR</b>	191x151x126	177x137x110



### Junction box X 16 with hat profile rail

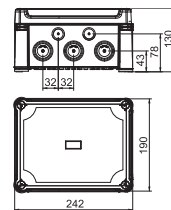


Colour Entries

Type	Colour	Entries	Pack. pcs	Weight kg/100 pcs	Item No.
<b>X16 R LGR-TR</b>	Grey / transparent	10 x Ø25/32/40	1	87.300	<b>2005100</b>

PC Polycarbonate

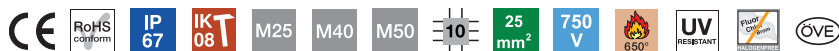
With transparent cover and hat profile rail, type 2069, with fastening set.



Dimensions

Type	Dimension LxWxH mm	Clear internal dimensions mm
<b>X16 R LGR-TR</b>	241x191x126	227x177x110

### Junction box X 25 with hat profile rail

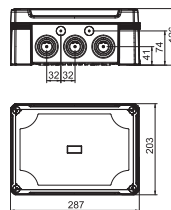


Colour Entries

Type	Colour	Entries	Pack. pcs	Weight kg/100 pcs	Item No.
<b>X25 R LGR-TR</b>	Grey / transparent	10 x Ø25/32/40	1	107.000	<b>2005104</b>

PC Polycarbonate

With transparent cover and hat profile rail, type 2069, with fastening set.



Dimensions

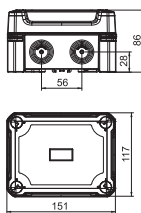
Type	Dimension LxWxH mm	Clear internal dimensions mm
<b>X25 R LGR-TR</b>	286x202x126	271x187x110

## Junction box X series with cut-out entries and main cable junction terminal



- Junction boxes with impact resistance IK09 and protection class IP67 can withstand even strong mechanical stress
- Made of high-quality, halogen-free, UV-resistant polycarbonate
- Tested to DIN EN 60670 Part 1 and 22
- Besides screw cover caps, external fastening elements and plug-in seals, the scope of delivery also contains a pre-mounted hat rail and the main cable junction terminal for the appropriate cross-section

### Junction box X 06 with main branch terminal



Colour Entries

Type	Colour	Entries	Pack. pcs.	Weight kg/100 pcs.	Item No.
<b>X06 H25 GP4 LGR</b>	Light grey	8 x Ø20/25	1	56.800	<b>2005304</b>

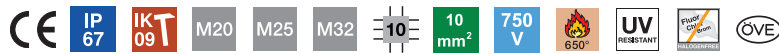
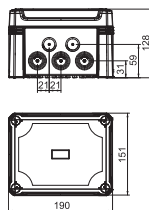
PC Polycarbonate

A 4-pole main terminal block is included with 16 clamping points.  
For 25 mm<sup>2</sup> cable cross-section

#### Dimensions

Type	Dimension LxWxH mm	Clear internal dimensions mm
<b>X06 H25 GP4 LGR</b>	151x167x87	137x105x68

### Junction box X 10 with main branch terminal



Colour Entries

Type	Colour	Entries	Pack. pcs.	Weight kg/100 pcs.	Item No.
<b>X10 H25 GNP5 LGR</b>	Light grey	10 x Ø20/25/32	1	104.000	<b>2005308</b>

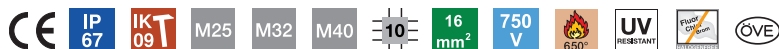
PC Polycarbonate

A 5-pole main terminal block is included with 20 clamping points.  
For 25 mm<sup>2</sup> cable cross-section

#### Dimensions

Type	Dimension LxWxH mm	Clear internal dimensions mm
<b>X10 H25 GNP5 LGR</b>	191x151x126	177x137x110

### Junction box X 16 with main branch terminal



Colour Entries

**Type**

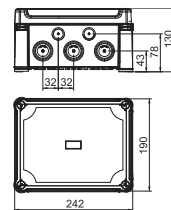
Type	Colour	Entries	Pack. pcs	Weight kg/100 pcs	Item No.
<b>X16 H25 GNP5 LGR</b>	Light grey	10 x Ø25/32/40	1	111.000	<b>2005312</b>
<b>X16 H35 GNP5 LGR</b>	Light grey	10 x Ø25/32/40	1	125.000	<b>2005316</b>

PC Polycarbonate

A 5-pole main terminal block is included with 20 clamping points.

X16 H25 GNP5 LGR: for 25 mm<sup>2</sup> conductor cross-section

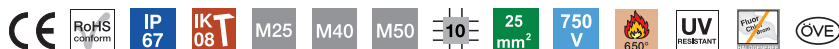
X16 H35 GNP5 LGR: for 35 mm<sup>2</sup> conductor cross-section



#### Dimensions

Type	Dimension LxWxH mm	Clear internal dimensions mm
<b>X16 H25 GNP5 LGR</b>	241x191x126	227x177x110
<b>X16 H35 GNP5 LGR</b>	241x191x126	227x177x110

### Junction box X 25 with main branch terminal



Colour Entries

**Type**

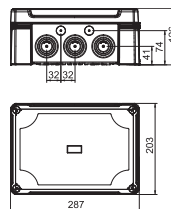
Type	Colour	Entries	Pack. pcs	Weight kg/100 pcs	Item No.
<b>X25 H35 GNP5 LGR</b>	Light grey	10 x Ø25/32/40	1	145.000	<b>2005320</b>
<b>X25 H50 GNP5 LGR</b>	Light grey	10 x Ø25/32/40	1	165.000	<b>2005324</b>

PC Polycarbonate

A 5-pole main terminal block is included with 20 clamping points.

X25 H35 GNP5 LGR: for 35 mm<sup>2</sup> conductor cross-section

X25 H50 GNP5 LGR: for 50 mm<sup>2</sup> conductor cross-section



#### Dimensions

Type	Dimension LxWxH mm	Clear internal dimensions mm
<b>X25 H35 GNP5 LGR</b>	286x202x126	271x187x110
<b>X25 H50 GNP5 LGR</b>	286x202x126	271x187x110

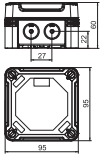
Empty housing, X series without entries

## Empty housing, X series without entries



- In comparison to junction boxes, empty housings do not have any entry openings. They can be drilled individually for the application
- Tested to DIN EN 60670 Part 1 and 22
- The scope of delivery contains screw cover caps and external fastening elements

### Empty housing X 01



**Type**

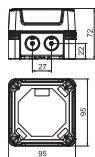
Colour  
 Dimension LxWxH mm  
 Clear internal dimensions mm  
 Pack. pcs  
 Weight kg/100 pcs.  
**Item No.**

	<b>X01C LGR</b>	<b>X01C LGR-TR</b>	<b>X01C SW</b>
Colour	Light grey	Grey / transparent	Graphite black
Dimension LxWxH mm	95x95x60	95x95x60	95x95x60
Clear internal dimensions mm	85x85x45	85x85x45	85x85x45
Pack. pcs	1	1	1
Weight kg/100 pcs.	15.600	15.600	15.600
<b>Item No.</b>	<b>2005450</b>	<b>2005520</b>	<b>2005590</b>

**PC** Polycarbonate



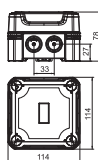
## Empty housing X 02



Type	X02C LGR	X02C LGR-TR	X02C SW
Colour	Light grey	Grey / transparent	Graphite black
Dimension LxWxH mm	95x95x72	95x95x72	95x95x72
Clear internal dimensions mm	85x85x57	85x85x57	85x85x57
Pack. pcs	1	1	1
Weight kg/100 pcs.	17.500	17.500	17.500
<b>Item No.</b>	<b>2005454</b>	<b>2005524</b>	<b>2005594</b>

PC Polycarbonate

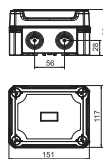
## Empty housing X 04



Type	X04C LGR	X04C LGR-TR	X04C SW
Colour	Light grey	Grey / transparent	Graphite black
Dimension LxWxH mm	114x114x78	114x114x78	114x114x78
Clear internal dimensions mm	102x102x60	102x102x60	102x102x60
Pack. pcs	1	1	1
Weight kg/100 pcs.	26.300	26.300	26.300
<b>Item No.</b>	<b>2005458</b>	<b>2005528</b>	<b>2005598</b>

PC Polycarbonate

## Empty housing X 06



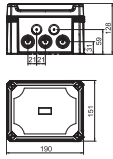
Type	X06C LGR	X06C LGR-TR	X06C SW
Colour	Light grey	Grey / transparent	Graphite black
Dimension LxWxH mm	151x167x87	151x167x87	151x167x87
Clear internal dimensions mm	137x105x68	137x105x68	137x105x68
Pack. pcs	1	1	1
Weight kg/100 pcs.	33.100	33.100	33.500
<b>Item No.</b>	<b>2005462</b>	<b>2005532</b>	<b>2005602</b>

PC Polycarbonate



## Empty housing, X series without entries

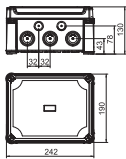
### Empty housing X 10



Type	X10C LGR	X10C LGR-TR	X10C SW
Colour	Light grey	Grey / transparent	Graphite black
Dimension LxWxH mm	191x151x126	191x151x126	191x151x126
Clear internal dimensions mm	177x137x110	177x137x110	177x137x110
Pack. pcs	1	1	1
Weight kg/100 pcs.	58.500	85.500	58.500
<b>Item No.</b>	<b>2005466</b>	<b>2005536</b>	<b>2005606</b>

PC Polycarbonate

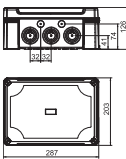
### Empty housing X 16



Type	X16C LGR	X16C LGR-TR	X16C SW
Colour	Light grey	Grey / transparent	Graphite black
Dimension LxWxH mm	241x191x126	241x191x126	241x191x126
Clear internal dimensions mm	227x177x110	227x177x110	227x177x110
Pack. pcs	1	1	1
Weight kg/100 pcs.	78.400	78.400	78.400
<b>Item No.</b>	<b>2005470</b>	<b>2005540</b>	<b>2005610</b>

PC Polycarbonate

### Empty housing X 25



Type	X25C LGR	X25C LGR-TR	X25C SW
Colour	Light grey	Grey / transparent	Graphite black
Dimension LxWxH mm	286x202x126	286x202x126	286x202x126
Clear internal dimensions mm	271x187x110	271x187x110	271x187x110
Pack. pcs	1	1	1
Weight kg/100 pcs.	95.000	95.000	95.000
<b>Item No.</b>	<b>2005474</b>	<b>2005544</b>	<b>2005614</b>

PC Polycarbonate

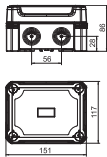


## Empty housing, X series without entries with hat profile rail



- In comparison to junction boxes, empty housings do not have any entry openings. They can be drilled individually for the application
- Tested to DIN EN 60670 Part 1 and 22
- Besides screw cover caps and external fastening elements, the scope of delivery also contains a hat rail set consisting of a hat rail, type 2069, and matching fastening elements

### Empty housing X 06 with hat profile rail

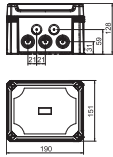


Type	X06C R LGR	X06C R LGR-TR
Colour	Light grey	Grey / transparent
Dimension LxWxH mm	151x167x87	151x167x87
Clear internal dimensions mm	137x105x68	137x105x68
Pack. pcs	1	1
Weight kg/100 pcs.	37.600	37.600
<b>Item No.</b>	<b>2005490</b>	<b>2005560</b>

Polycarbonate

With hat profile rail, type 2069, and fastening set.

### Empty housing X 10 with hat profile rail

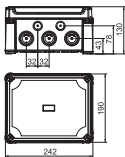


Type	X10C R LGR	X10C R LGR-TR
Colour	Light grey	Grey / transparent
Dimension LxWxH mm	191x151x126	191x151x126
Clear internal dimensions mm	177x137x110	177x137x110
Pack. pcs	1	1
Weight kg/100 pcs.	65.600	65.600
<b>Item No.</b>	<b>2005494</b>	<b>2005564</b>

PC Polycarbonate

With hat profile rail, type 2069, and fastening set.

### Empty housing X 16 with hat profile rail

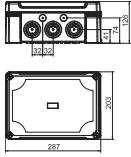


Type	X16C R LGR	X16C R LGR-TR
Colour	Light grey	Grey / transparent
Dimension LxWxH mm	241x191x126	241x191x126
Clear internal dimensions mm	227x177x110	227x177x110
Pack. pcs	1	1
Weight kg/100 pcs.	87.300	87.300
<b>Item No.</b>	<b>2005498</b>	<b>2005568</b>

PC Polycarbonate

With hat profile rail, type 2069, and fastening set.

## Empty housing X 25 with hat profile rail



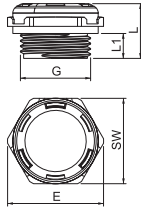
Type	X25C R LGR	X25C R LGR-TR
Colour	Light grey	Grey / transparent
Dimension LxWxH mm	286x202x126	286x202x126
Clear internal dimensions mm	271x187x110	271x187x110
Pack. pcs	1	1
Weight kg/100 pcs.	107.000	107.000
<b>Item No.</b>	<b>2005502</b>	<b>2005572</b>

**PC** Polycarbonate

With hat profile rail, type 2069, and fastening set.



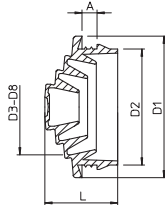
### Pressure balance plug 109



Type	Thread	Protection rating	Colour	Pack. pcs	Weight kg/100 pcs	Item No.
109 M20 LGR	M20x1,5	IP68	Light grey	5	0.538	2034680

The pressure compensation element is surrounded by an ePTFE membrane, which is permeable in both directions to air. The air throughput at a pressure difference of 70 mbar is 110 L/h. At the same time, moisture cannot enter the housing from outside.

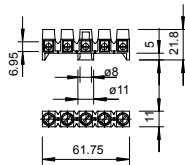
### EDS plug-in seal, light grey



Type	Size	For Ø mm	Colour	Pack. pcs	Weight kg/100 pcs	Item No.
EDS M20 LGR	M20	0 - 17	Light grey	100	0.125	2012350
EDS M25 LGR	M25	0 - 22	Light grey	100	0.185	2012354
EDS M32 LGR	M32	0 - 28	Light grey	50	0.295	2012358

PE Polyethylene

### Terminal strip 2.5 mm<sup>2</sup>

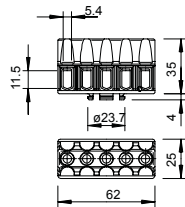


Type	Colour	No. of terminals	Nominal cross-section mm <sup>2</sup>	Nom. voltage V	Pack. pcs	Weight kg/100 pcs	Item No.
689	Light grey	5	0.8 - 2.5	660	50	1.502	2017342

PA Polyamide

Terminal strip, nickel-plated brass, steel screws, galvanised and transparently passivated, nominal cross-section 0,8 - 2,5 mm<sup>2</sup>, nominal voltage 660 V, 5-pole, with terminal sockets, max. connectable cross-sections per terminal: 4 x 2.5 mm<sup>2</sup>, 5 x 1.5 mm<sup>2</sup> or 6 x 1 mm<sup>2</sup>, unnecessary poles can be cut off and used as individual terminals.

### Terminal strip 1.5–6 mm<sup>2</sup>, junction box, T series

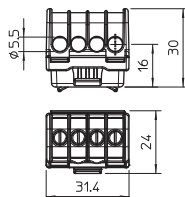


Type	Colour	No. of terminals	Nominal cross-section mm <sup>2</sup>	Nom. voltage V	Pack. pcs	Weight kg/100 pcs	Item No.
KL-T 02-06	Light grey	5	1.5 - 6	400	10	4.380	2016185

PA Polyamide

Steel terminal block and bolts, galvanised and transparently passivated, nominal 1,5 - 6 mm<sup>2</sup>, nominal voltage 400 V, 5-pole, with terminal sockets, Max. connectable cross-sections per terminal: 3 x 6 mm<sup>2</sup>, 4 x 4 mm<sup>2</sup> or 6 x 2.5 mm<sup>2</sup>.

### Terminal strip 6–16 mm<sup>2</sup>, junction box, T series



Type	Colour	No. of terminals	Nominal cross-section mm <sup>2</sup>	Nom. voltage V	Pack. pcs	Weight kg/100 pcs	Item No.
KL-T 06-16	Light grey	4	6 - 16	400	10	1.970	2016190

PA Polyamide

Brass terminals, steel screws, electrogalvanised and transparently passivated, nominal cross-section 6 - 16 mm<sup>2</sup>, nominal voltage 400 V, 1-pole, with terminal sockets, Max. connectable conductors per terminal max. 4 x 16 mm<sup>2</sup>, 4 x 10 mm<sup>2</sup>, 8x6 mm<sup>2</sup> or 12 x 4 mm<sup>2</sup>.



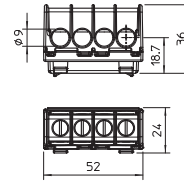
### Terminal strip 16–35 mm<sup>2</sup>, junction box, T series



Type	Colour	No. of terminals	Nominal cross-section mm <sup>2</sup>	Nom. voltage V	Pack. pcs	Weight kg/100 pcs	Item No.
<b>KL-T 16-35</b>	Light grey	4	16 - 35	400	10	5.630	<b>2016195</b>

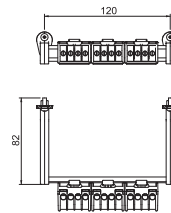
PA Polyamide

Brass terminals, steel screws, electrogalvanised and transparently passivated, nominal cross-section 16 - 35 mm<sup>2</sup>, nominal voltage 400 V, 1-pole, with terminal sockets, Max. connectable conductors per terminal max. 4 x 35 mm<sup>2</sup>, 4 x 25 mm<sup>2</sup>, 8x16 mm<sup>2</sup> or 12 x 10 mm<sup>2</sup>.



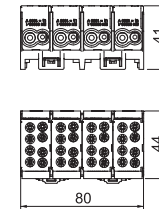
### Terminal strip set for X series

Type	Nominal cross-section mm <sup>2</sup>	Pole number	Number of screwless terminals per pole	Pack. pcs	Weight kg/100 pcs	Item No.
<b>KL-X10 06-16</b>	6 - 16	5	4	1	17.600	<b>2008931</b>
<b>KL-X16 06-16</b>	6 - 16	5	4	1	14.500	<b>2008935</b>
<b>KL-X25 16-35</b>	16 - 35	5	4	1	37.500	<b>2008939</b>



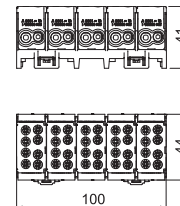
### Main branch terminal, 4-pole

Type	Max. conductor cross-section mm <sup>2</sup>	Number of screwless terminals per pole	Pole number	Pack. pcs	Weight kg/100 pcs	Item No.
<b>Hlak 4-8x16</b>	25	4	4	1	19.200	<b>2009032</b>



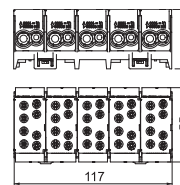
### Main branch terminal, 5-pole

Type	Max. conductor cross-section mm <sup>2</sup>	Number of screwless terminals per pole	Pole number	Pack. pcs	Weight kg/100 pcs	Item No.
<b>Hlak 5-10x16</b>	25	4	5	1	23.100	<b>2009036</b>



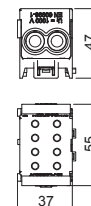
### Main branch terminal, 5-pole

Type	Max. conductor cross-section mm <sup>2</sup>	Number of screwless terminals per pole	Pole number	Pack. pcs	Weight kg/100 pcs	Item No.
<b>Hlak 5-10x25</b>	35	4	5	1	38.100	<b>2009038</b>



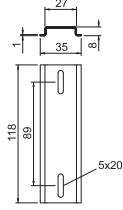
### Main branch terminal, 1-pole

Type	Max. conductor cross-section mm <sup>2</sup>	Number of screwless terminals per pole	Pole number	Pack. pcs	Weight kg/100 pcs	Item No.
<b>Hlak 1-2x35 GR</b>	70	4	1	1	11.600	<b>2009042</b>
<b>Hlak 1-2x35 GRGN</b>	70	4	1	1	11.600	<b>2009044</b>
<b>Hlak 1-2x35 GRBL</b>	70	4	1	1	11.600	<b>2009046</b>



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**Hat rail set**



Type	Length mm	Width mm	Height mm	Weight		Item No.
				Pack. pcs	kg/100 pcs.	
<b>2069 X06 FS</b>	118	35	8	1	4.300	<b>1115876</b>
<b>2069 X10 FS</b>	161	62	23	1	7.400	<b>1115879</b>
<b>2069 X16 FS</b>	211	62	23	1	9.200	<b>1115882</b>
<b>2069 X25 FS</b>	252	62	23	1	10.700	<b>1115887</b>



## Mx series

- High impact resistance
- High temperature resistance
- Optimum EMV protection
- 8 sizes
- 2 surface variants
- Temperature range:  $-40$  to  $125$  °C



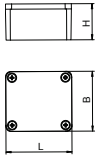
Real hard cases

Our aluminium empty housings were designed for use under the toughest conditions and provide optimum protection of the installation. The metal housing of the Mx series withstands extremely high

and low temperatures, as well as large temperature differences. High impact loads in an industrial surrounding, vandalism or rock falls are not able to harm the housing. Furthermore, the Mx series of-

fers perfect EMC protection and is ideally secured against the entry of dust and water in line with protection rating IP66.

Aluminium empty housing Mx06-Mx15, powder-coated



Type	Mx 060503 SGR	Mx 080705 SGR	Mx 120805 SGR	Mx 161008 SGR
Version	Closed with 4 stainless steel lid screws	Closed with 4 stainless steel lid screws	Closed with 4 stainless steel lid screws	Closed with 4 stainless steel lid screws
Colour	Silver grey	Silver grey	Silver grey	Silver grey
Dimension LxWxH mm	64 x58 x34	80 x75 x57	125 x80 x57	160 x100 x81
Clear internal dimensions mm	56.5x50.5x31.5	71x65.6x52.5	115.5x70.5x51	117x90x74.5
Pack. pcs	1	1	1	1
Weight kg/100 pcs.	19.200	36.400	50.000	90.000
<b>Item No.</b>	<b>2011304</b>	<b>2011308</b>	<b>2011312</b>	<b>2011316</b>

**AIG** Cast aluminium

**P** Powder-coated

Robust aluminium empty housing for mechanical engineering and automation technology.

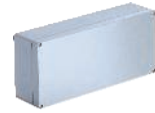
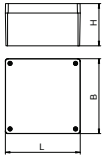
The OBO Mx series' excellent mechanical and thermal features make it most suitable for extreme demands in many different areas. It is therefore also best suited for applications in industry, ports and shipbuilding, as well as in the agricultural sector.

The products protect the electrical installation against high-grade strains. They withstand both extreme cold and heat as well as vandalism and impact on roads, railways or in tunnels. With an IP66 protection class, they are optimally protected against the intrusion of dust and water. The aluminium housings are plastic coated (RAL 7035) and are delivered with a cover including stainless steel screws, a seal and two or four earthing screws.

Temperature: -40°C to +125°C



## Aluminium empty housing Mx06-Mx15, powder-coated



Type	Mx 161609 SGR	Mx 170805 SGR	Mx 261609 SGR	Mx 361609 SGR
Version	Closed with 4 stainless steel lid screws	Closed with 4 stainless steel lid screws	Closed with 4 stainless steel lid screws	Closed with 4 stainless steel lid screws
Colour	Silver grey	Silver grey	Silver grey	Silver grey
Dimension LxWxH mm	160 x160 x90	175 x80 x57	260 x160 x90	360x 160x 91
Clear internal dimensions mm	149x149x84.5	165x70x75	229.5x149x94.5	317.5 x 149 x92
Pack. pcs	1	1	1	1
Weight kg/100 pcs.	170.000	66.000	230.000	320.000
<b>Item No.</b>	<b>2011320</b>	<b>2011324</b>	<b>2011328</b>	<b>2011332</b>

**AIG** Cast aluminium

**P** Powder-coated

Robust aluminium empty housing for mechanical engineering and automation technology.

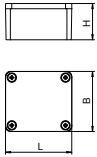
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Temperature: -40°C to +125°C



Aluminium empty housing Mx06-Mx15, paintable



Type	Mx 060503 CR3	Mx 080705 CR3	Mx 090603 CR3	Mx 120805 CR3
Version	Closed with 4 stainless steel lid screws	Closed with 4 stainless steel lid screws	Closed with 4 stainless steel lid screws	Closed with 4 stainless steel lid screws
Dimension LxWxH mm	64x58x34	80x75x57	98x64x34	125x80x57
Clear internal dimensions mm	56,5x50,5x31,5	71x65,5x52,5	91x54x29	115,5x70,5x51
Pack. pcs	1	1	1	1
Weight kg/100 pcs.	19.200	36.400	25.000	50.000
Item No.	2011378	2011381	2011384	2011386

**AIG** Cast aluminium

**Cr3** Chrome III coating

Robust aluminium empty housing for mechanical engineering and automation technology.

The OBO Mx series' excellent features make it most suitable for extreme demands in all different areas. It is therefore also best suited for applications in industry, ports and shipbuilding, as well as in the agricultural sector.

The series' properties protect the electrical installation when under extreme strain. The products withstand both great cold and heat as well as impacts or kicks on roads, railways or in tunnels.

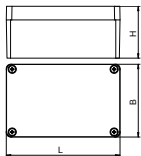
With a protection class of up to IP66, they are optimally protected against the intrusion of water. The aluminium is of course UV-resistant and halogen-free. The lid seal is made from polyurethane.

The aluminium housings are chrome 3-coated and are delivered with a lid including stainless steel screws, a seal and 2 or 4 earthing screws.

The Chrome 3 surface provides a good contact when using metal fittings and can easily be painted or powder-coated.

Temperature: -40°C to +125°C

Aluminium empty housing Mx06-Mx15, paintable



Type	Mx 161008 CR3	Mx 161609 CR3	Mx 221209 CR3	Mx 261609 CR3	Mx 361609 CR3
Version	Closed with 4 stainless steel lid screws	Closed with 4 stainless steel lid screws	Closed with 4 stainless steel lid screws	Closed with 4 stainless steel lid screws	Closed with 4 stainless steel lid screws
Dimension LxWxH mm	160x100x81	150x100x91	220x120x90	260x160x90	360x160x91
Clear internal dimensions mm	140,5x90x74,5	140,5x90x74,5	210x109x81	249x149x82	317,5x149x82
Pack. pcs	1	1	1	1	1
Weight kg/100 pcs.	90.000	170.000	168.000	230.000	320.000
Item No.	2011389	2011392	2011394	2011396	2011398

**AIG** Cast aluminium

**Cr3** Chrome III coating

Robust aluminium empty housing for mechanical engineering and automation technology.

The OBO Mx series' excellent features make it most suitable for extreme demands in all different areas. It is therefore also best suited for applications in industry, ports and shipbuilding, as well as in the agricultural sector.

The series' properties protect the electrical installation when under extreme strain. The products withstand both great cold and heat as well as impacts or kicks on roads, railways or in tunnels.

With a protection class of up to IP66, they are optimally protected against the intrusion of water. The aluminium is of course UV-resistant and halogen-free. The lid seal is made from polyurethane.

The aluminium housings are chrome 3-coated and are delivered with a lid including stainless steel screws, a seal and 2 or 4 earthing screws.

The Chrome 3 surface provides a good contact when using metal fittings and can easily be painted or powder-coated.

Temperature: -40°C to +125°C

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## B series

- With pre-moulded threaded entries for insertion of cable glands without locknut
- Cable openings are easily broken open with a screwdriver
- Supplied with flexible cable glands
- Cover fastening with metal screws



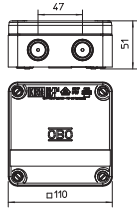
The reliable ones

A classic amongst the OBO thermoset junction boxes is the B series with and without a thread. The material is Aminoplast. This plastic is hard and is highly resistant, meaning that the junction

boxes are very stable. This means that the required openings can be broken-out at the marked points using a screwdriver. Cables can be perfectly installed with cable glands, either directly in a housing

thread or in a penetration hole with a cable gland and a locknut in the interior.

### Junction box B 9/T, with perforation membrane

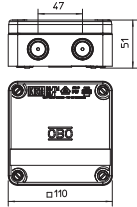


Type	Colour	Dimension LxWxH mm	Version	Pack. pcs	Weight kg/100 pcs	Item No.
B 9 T M 5	Light grey	110x110x51	With terminal strip	5	17.500	2001845
B 9 T M	Light grey	110x110x51	Empty	5	13.100	2001853
B 9 T M NL	Light grey	110x110x51	With 3 cable glands	5	17.100	2001861

PP Polypropylene

The wet-room junction box B9/T...: comprises two halogen-free plastic components, 2 additional entries in base with push-through membrane (for cable diameter up to 15 mm) with perforation membrane (for cable diameter up to 15 mm) in the floor area. Where cable glands are used (giving additional strain relief), there is no need to remove the membrane (this saves time). Protection rating IP 67 with perforation membrane and with cable gland without removal of the perforation membrane. Rated voltage 400 V; nominal cross-section 4 - 6 mm<sup>2</sup>. The lid is secured with 4 pre-fitted, captured quick lid fastenings (180°) and can be sealed. The fastening holes are additionally moulded with a soft plastic component for bolt ø 5 mm (spacing 75 mm). Clear internal dimensions 98x98x40

### Junction box B 9/T, with perforation membrane and terminal strip

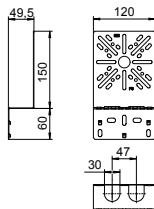


Type	Colour	Dimension LxWxH mm	Clear internal dimensions mm	Version	Pack. pcs	Weight kg/100 pcs	Item No.
B 9 T 5	Light grey	110x110x51	98x98x40	With terminal strip	5	17.500	2001802

PP Polypropylene

B9/T...: Comprises 2 halogen-free plastics components, 8 threaded entries (PG16) with push-through membrane (for cable diameter up to 15 mm) including one in base. Where cable glands are used (giving additional strain relief) there is no need to remove the membrane (this saves time). Protection IP67. Rated voltage 400 V; Nominal cross section 4 - 6 mm<sup>2</sup>. The lid is secured with 4 pre-fitted rapid fixings (180°). The fixing holes are additionally moulded with a soft plastics component for screw ø 5 mm (spacing 75 mm). Clear internal dimensions: 98x98x40

### Mounting plate, angled



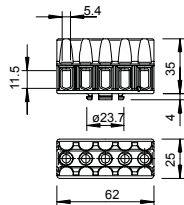
Type	Height mm	Width mm	Pack. pcs	Weight kg/100 pcs	Item No.
MP WI KL. FS	210	120	20	20.200	7084765
MP WI KL. DD	210	120	20	20.200	7085111

St Steel

FS Strip-galvanised DD Strip galvanised zinc/aluminium, double dip

Curved mounting plate, for fixing on the side rail of the cable tray.

### Terminal strip 1.5–6 mm<sup>2</sup>, junction box, T series



Type	Colour	No. of terminals	Nominal cross-section mm <sup>2</sup>	Nom. voltage V	Pack. pcs	Weight kg/100 pcs	Item No.
KL-T 02-06	Light grey	5	1.5 - 6	400	10	4.380	2016185

PA Polyamide

Steel terminal block and bolts, galvanised and transparently passivated, nominal 1,5 - 6 mm<sup>2</sup>, nominal voltage 400 V, 5-pole, with terminal sockets, Max. connectable cross-sections per terminal: 3 x 6 mm<sup>2</sup>, 4 x 4 mm<sup>2</sup> or 6 x 2.5 mm<sup>2</sup>.



## Junction boxes, B series with thread



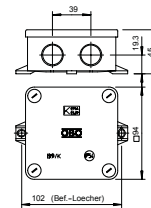
- Sturdy thermoset plastic
- Screw-on cover
- Insertion openings with threaded entries for cable gland

### Junction box, B 9/K M empty, with thread



Type	Colour	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs	Item No.
<b>B 9 K M</b>	Light grey	94x94x45	84x84x34	5	13.500	<b>2001942</b>

UF Duroplast, Aminoplast, type 131.5

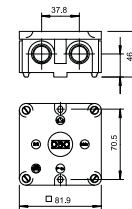


### Junction box, B 9/B M, with thread



Type	Colour	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs	Item No.
<b>B 9 B M</b>	Light grey	81,9x81,9x46	73x73x35	5	9.960	<b>2001632</b>

UF Duroplast, Aminoplast, type 131.5

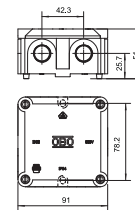


### Junction box, B 10 M, with thread

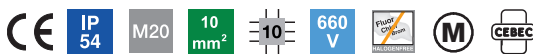


Type	Colour	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs	Item No.
<b>B 10 M 5</b>	Light grey	91x91x51	80x80x39	5	22.480	<b>2002140</b>
<b>B 10 M</b>	Light grey	91x91x51	80x80x39	5	17.360	<b>2002167</b>

UF Duroplast, Aminoplast, type 131.5

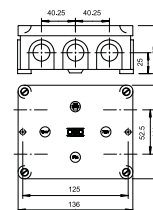


### Junction box, B 11 M, with thread



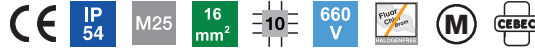
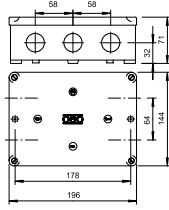
Type	Colour	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs	Item No.
<b>B 11 M 5</b>	Light grey	111x136x57	125x100x44	1	39.700	<b>2002329</b>
<b>B 11 M</b>	Light grey	111x136x57	125x100x44	1	32.200	<b>2002345</b>

UF Duroplast, Aminoplast, type 131.5



## Junction box, Duroplast, B series

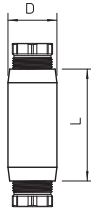
### Junction box, B 12 M, with thread



Type	Colour	Dimension LxWxH mm	Clear internal dimensions mm	Pack. pcs	Weight kg/100 pcs	Item No.
B 12 M 5	Light grey	144x196x71	178x126x57	1	96.700	2002507
B 12 M	Light grey	144x196x71	178x126x57	1	65.500	2002523

UF Duroplast, Aminoplast, type 131.5

### Cable connection sleeve



Type	Entries	Dimension D mm	Dimension L mm	Colour	Pack. pcs	Weight kg/100 pcs	Item No.
117 5x2.5	Pg 16	28	64	Light grey	10	4.891	2022028
117 5x6	Pg 21	33.5	82	Light grey	5	8.306	2022060

PS Polystyrene



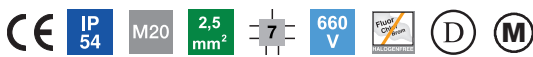


## Junction boxes, B series without thread



- Sturdy thermoset plastic
- Screw-on cover
- Insertion openings for breaking open
- Cable entry via push-through mounting, plug-in seal or cable gland with locknut

### Junction box, B 25 M, without thread

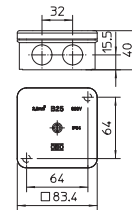


Type	Colour	Dimension LxWxH mm	Pack. pcs	Weight kg/100 pcs	Item No.
<b>B 25 M</b>	Light grey	83,4x83,4x40	5	10.400	<b>2001136</b>

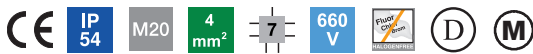
UF Duroplast, Aminoplast, type 131.5

Protection rating IP54, rated voltage 660 V, nominal cross-section 2,5 mm<sup>2</sup>, two fastening holes for screws of up to 4.5 mm Ø in the interior of the box (seals and covers included), M6 fastening thread and adhesive area under the base, 1 cover screw, 7 break-out entries Ø 21 mm (M 20), with 4 cable entries EDVS 20 for cable diameters 7.5–14 mm.

Clear internal dimensions: 73x73x35 mm.



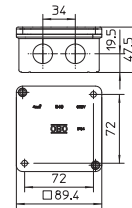
### Junction box, B 40 M, without thread



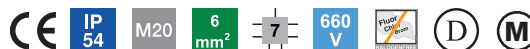
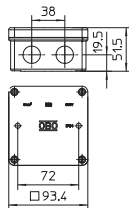
Type	Colour	Dimension LxWxH mm	Pack. pcs	Weight kg/100 pcs	Item No.
<b>B 40 M</b>	Light grey	89,4x89,4x47,5	5	12.000	<b>2001179</b>

UF Duroplast, Aminoplast, type 131.5

Protection rating IP54, nominal voltage 660 V, nominal cross-section 4 mm<sup>2</sup>, two fastening holes for screws up to 4.5 mm Ø on the inside of the box, but outside the terminals. M6 fastening thread and adhesive area under the base. Two cover screws, 7 break-out entries Ø 20 mm (M20), with 4 cable entries EDVS 20 for cable diameters 20–15 mm. Clear internal dimensions: 78x78x43 mm.



### Junction box, B 60 M, without thread



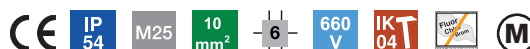
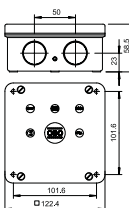
Type	Colour	Dimension LxWxH mm	Pack. pcs	Weight kg/100 pcs	Item No.
<b>B 60 M</b>	Light grey	93,4x93,4x51	5	14.700	<b>2001217</b>

UF Duroplast, Aminoplast, type 131.5

Protection rating IP54, rated voltage 660 V, nominal cross-section 6 mm<sup>2</sup>, two fastening holes for screws of up to 4.5 mm Ø in the interior of the box (seals and covers included), M6 fastening thread and adhesive area under the base, four cover screws, 7 break-out entries Ø 20.5 mm (M 20), with 4 cable entries EDVS 20 for cable diameters 7.5–15 mm.

Clear internal dimensions: 83x83x47 mm.

### Junction box, B 100 M, without thread



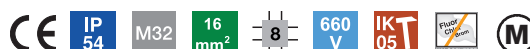
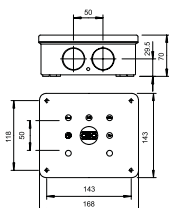
Type	Colour	Dimension LxWxH mm	Pack. pcs	Weight kg/100 pcs	Item No.
<b>B 100 M</b>	Light grey	122,4x122,4x58,5	5	31.000	<b>2001268</b>

UF Duroplast, Aminoplast, type 131.5

Protection rating IP54, nominal voltage 660 V, nominal cross-section 10 mm<sup>2</sup>, four fastening holes for screws up to 5 mm Ø on the inside of the box, but outside the terminals. Four cover screws, sealable with sealing caps supplied, 6 break-out entries Ø 25.5 mm (M25), with 4 push-in seals EDVS 25 for cable diameters 7.5–22 mm.

Clear internal dimensions: 108x108x51 mm.

### Junction box, B 160 M, without thread



Type	Colour	Dimension LxWxH mm	Pack. pcs	Weight kg/100 pcs	Item No.
<b>B 160 M</b>	Light grey	168x143x70	1	55.000	<b>2001306</b>

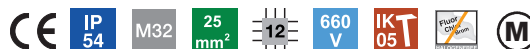
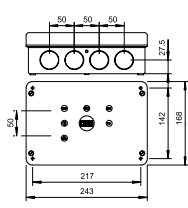
UF Duroplast, Aminoplast, type 131.5

Protection rating IP54, nominal voltage 660 V, nominal cross-section 16 mm<sup>2</sup>, four fastening holes for screws up to 5.5 mm Ø on the inside of the box, but outside the terminals.

Four cover screws, sealable with sealing caps supplied, 8 break-out entries Ø 32.5 mm (M 32), with 4 cable entries EDVS 32 for cable diameters 12–30 mm.

Clear internal dimensions: 150x125x61 mm.

### Junction box, B 250 M, without thread



Type	Colour	Dimension LxWxH mm	Pack. pcs	Weight kg/100 pcs	Item No.
<b>B 250 M</b>	Light grey	243x168x82,5	1	85.000	<b>2001349</b>

UF Duroplast, Aminoplast, type 131.5

Protection rating IP54, nominal voltage 660 V, nominal cross-section 25 mm<sup>2</sup>, four fastening holes for screws up to 5.5 mm Ø on the inside of the box, but outside the terminals.

Four cover screws, sealable with sealing caps supplied, 12 break-out entries Ø 32.5 mm (M 32), with 4 push-in seals EDVS 32 for cable diameters 12–30 mm.

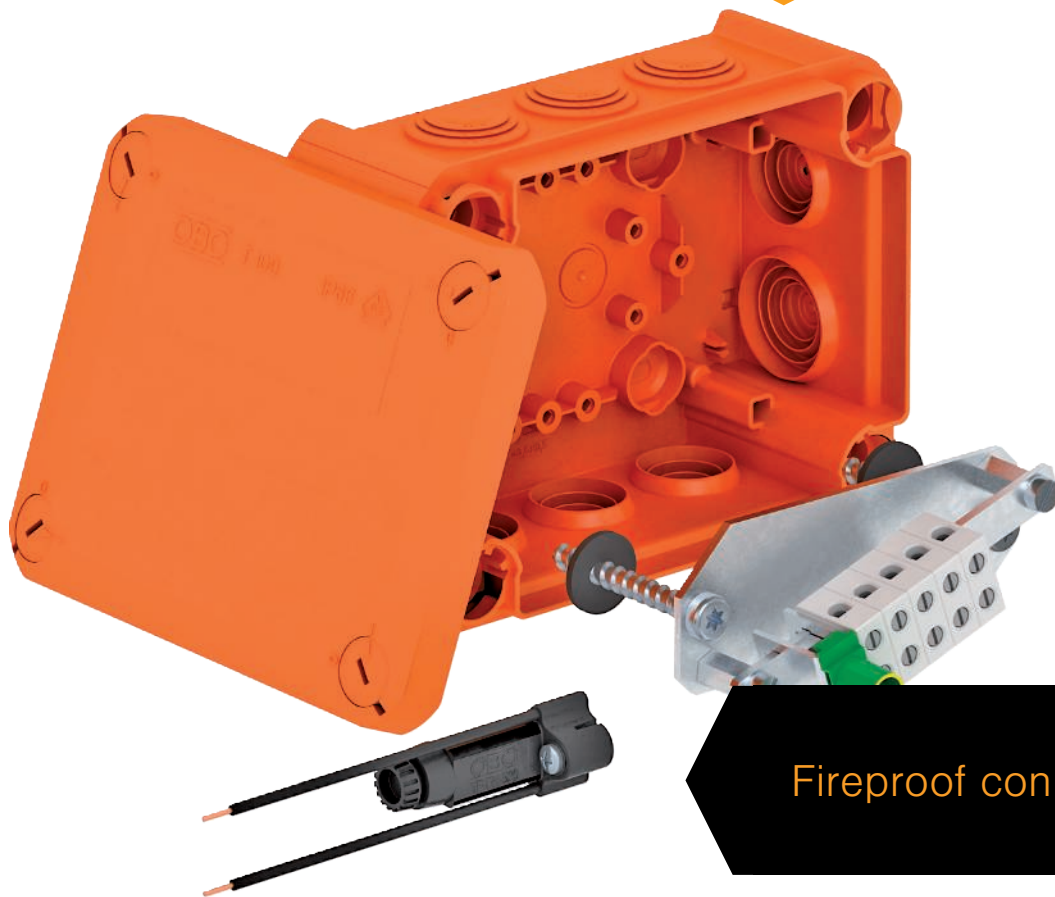
Clear internal dimensions: 224x149x75 mm.





## FireBox T series

- Tested for the maintenance of electrical functionality according to DIN 4102-12 E30-E90
- Box made of elastic, yet impact-resistant, thermoplastic
- Various wire cross-sections for power and data cables
- Complete scope of delivery with equipped connection unit and fire protection bolt ties
- Optionally with fuse holder for secured branches
- All the advantages of the T series



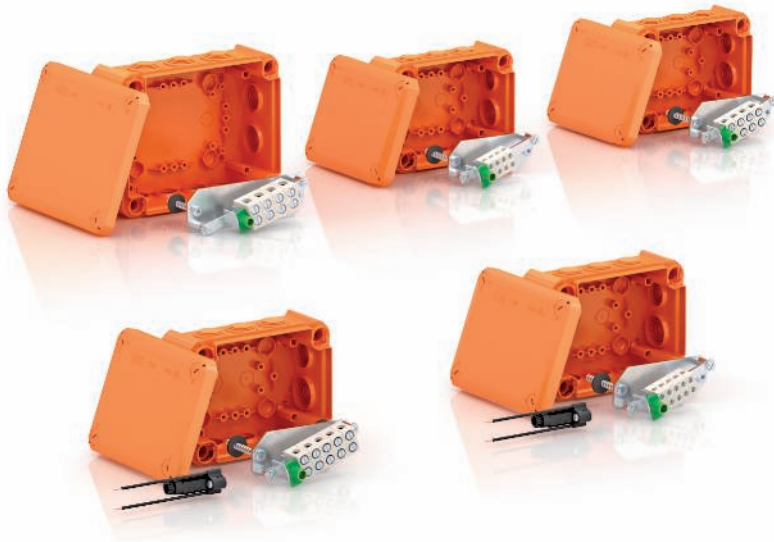
### Fireproof connection

The T-series FireBoxes offer all the benefits of normal cable junction boxes and are made of a thermoplastic polymer. These benefits include resistance to breakages, resistance to knocks and high IP protection rating. The FireBox is

tested and approved as a connection socket for maintaining electrical functionality to DIN 4102 Part 12 with the classes E30 to E90. The high temperature-resistant terminals to connect the individual cable wires are pre-mounted to

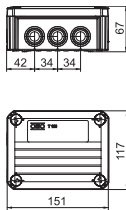
form a connection unit. The protective conductor terminal is connected to the beam clamp, meaning that covers of the metal parts are not required.

## FireBox T, with plug-in seals and internal fastening



- Halogen-free
- With soft push-in seals
- Pre-mounted connection unit made from high temperature-resistant special ceramic
- Labelled protective conductor terminal
- Supplied with two MMS 6x50 fire protection screw ties
- Protection rating IP65
- Impact resistance class T100ED... IK08; T160ED... IK05.
- Nominal cross-section 6/10/16 mm<sup>2</sup>
- Details on the cable types and manufacturers can be found in the general construction test certificate of the material testing institute MPA NRW, Erwitte

## FireBox T100ED with plug-in seal and internal fastening



E30 E90 IP 66

Type	Nominal cross-section mm <sup>2</sup>	Number of terminals	Entries	Pack. pcs	Weight kg/100 pcs.	Item No.
T 100 ED 4-5	4	5	8 x M25 2 x M32	1	34.600	7205529
T 100 ED 6-5	6	5	8 x M25 2 x M32	1	34.000	7205530
T 100 ED 10-5	10	5	8 x M25 2 x M32	1	35.900	7205533

PP Polypropylene

Halogen-free junction box with pre-mounted, soft plug-in seals, approved for the maintenance of electrical function according to DIN 4102 Part 12. Maintenance of electrical function classes E30 to E90.

Colour: Pastel orange.

Including pre-mounted connection unit made of high temperature-resistant special ceramic and labelled protective conductor terminal. Supplied with 2 MMS 6x50 fire protection screw ties for anchorless fastening.

Power cable nominal cross-sections: 1.5 to 10 mm<sup>2</sup> depending on the type, data cables with 0.8 mm wire Ø. Several rigid copper wires with smaller cross-sections per terminal possible. High protection rating IP66, impact resistance class IK08.

Details on the cable types and manufacturers can be found in the general construction test certificate of the material testing institute NRW, Erwitte.

### FireBox T160ED with internal fastening

**E30** **E90** **IP 66**

Type	Nominal cross-section mm <sup>2</sup>	Number of terminals	Entries	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>T 160 ED 16-5</b>	16	5	7 x M25 5 x M32	1	62.500	<b>7205536</b>

PP Polypropylene

Halogen-free junction box with pre-mounted, soft plug-in seals, approved for the maintenance of electrical function according to DIN 4102 Part 12. Maintenance of electrical function classes E30 to E90.

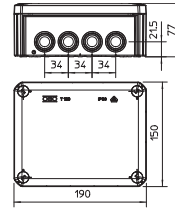
Colour: Pastel orange.

Including pre-mounted connection unit made of high temperature-resistant special ceramic and labelled protective conductor terminal. Supplied with 2 MMS 6x50 fire protection screw ties for anchorless fastening.

Power cable nominal cross-sections: Up to 16 mm<sup>2</sup>. Several rigid copper wires with smaller cross-sections per terminal possible.

High protection rating IP66, impact resistance class IK05.

Details on the cable types and manufacturers can be found in the general construction test certificate of the material testing institute NRW, Erwitte.



### FireBox T100ED with internal fastening and fuse holder

**E30** **E90** **IP 66**

Type	Nominal cross-section mm <sup>2</sup>	Number of terminals	Entries	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>T 100 ED 6-6 F</b>	6	6	8 x M25 2 x M32	1	38.650	<b>7205550</b>
<b>T 100 ED 10-6 F</b>	10	6	8 x M25 2 x M32	1	38.650	<b>7205553</b>

PP Polypropylene

Halogen-free junction box with pre-mounted, soft plug-in seals, approved for the maintenance of electrical function according to DIN 4102 Part 12. Maintenance of electrical function classes E30 to E90.

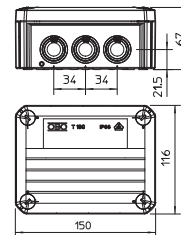
Colour: Pastel orange.

Including pre-mounted connection unit made of high temperature-resistant special ceramic and labelled protective conductor terminal. Supplied with fuse holder TE-FH 520 for VDE-conformant, reaction-free protection of consumers and 2 fire protection screw ties MMS 6x50 for anchorless fastening.

Power cable nominal cross-sections: 1.5 to 10 mm<sup>2</sup> depending on the type, data cables with 0.8 mm wire Ø. Several rigid copper wires with smaller cross-sections per terminal possible.

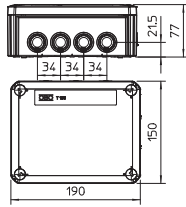
High protection rating IP66, impact resistance class IK08.

Details on the cable types and manufacturers can be found in the general construction test certificate of the material testing institute NRW, Erwitte.





## FireBox T160ED with internal fastening and fuse holder



**E30** **E90** **IP 66**

Type	Nominal cross-section mm <sup>2</sup>	Number of terminals	Entries	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>T 160 ED 16-6 F</b>	16	6	7 x M25 5 x M32	1	64.000	<b>7205556</b>

**PP** Polypropylene

Halogen-free junction box with pre-mounted, soft plug-in seals, approved for the maintenance of electrical function according to DIN 4102 Part 12. Maintenance of electrical function classes E30 to E90.

Colour: Pastel orange.

Including pre-mounted connection unit made of high temperature-resistant special ceramic and labelled protective conductor terminal. Supplied with fuse holder TE-FH 520 for VDE-conformant, reaction-free protection of consumers and 2 fire protection screw ties MMS 6x50 for anchorless fastening.

Power cable nominal cross-sections: Up to 16 mm<sup>2</sup>. Several rigid copper wires with smaller cross-sections per terminal possible.

High protection rating IP66, impact resistance class IK05.

Details on the cable types and manufacturers can be found in the general construction test certificate of the material testing institute NRW, Erwitte.



## FireBox T, with plug-in seals and external fastening



- Fully mounted connection unit made from high temperature-resistant special ceramic
- Labelled protective conductor terminal
- External fastening
- Supplied with two MMS 6x50 fire protection screw ties
- Protection rating IP65
- Impact resistance class T100ED... IK08; T160ED... IK05
- Nominal cross-section 6/10/16 mm<sup>2</sup>
- Details on the cable types and manufacturers can be found in the general construction test certificate of the material testing institute MPA NRW, Erwitte

## FireBox T100ED with external fastening

**E30** **E90** **IP 66**

Type	Nominal cross-section mm <sup>2</sup>	Number of terminals	Entries	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>T 100 ED 6-5 A</b>	6	5	8 x M25 2 x M32	1	38.500	<b>7205540</b>
<b>T 100 ED 10-5 A</b>	10	5	8 x M25 2 x M32	1	40.600	<b>7205543</b>

PP Polypropylene

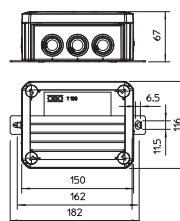
Halogen-free junction box with pre-mounted, soft plug-in seals, approved for the maintenance of electrical function according to DIN 4102 Part 12. Maintenance of electrical function classes E30 to E90.

Colour: Pastel orange.

Fully mounted connection unit made of high temperature-resistant special ceramic and labelled protective conductor terminal. Supplied with 2 MMS 6x50 fire protection screw ties for anchorless fastening on the external straps.

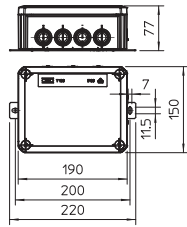
Power cable nominal cross-sections: 1.5 to 10 mm<sup>2</sup> depending on the type, data cables with 0.8 mm wire Ø. Several rigid copper wires with smaller cross-sections per terminal possible. High protection rating IP66, impact resistance class IK08.

Details on the cable types and manufacturers can be found in the general construction test certificate of the material testing institute NRW, Erwitte.



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## FireBox T160ED with external fastening



**E30** **E90** **IP 66**

Type	Nominal cross-section mm <sup>2</sup>	Number of terminals	Entries	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>T 160 ED 16-5 A</b>	16	5	7 x M25 5 x M32	1	60.000	<b>7205546</b>

PP Polypropylene

Halogen-free junction box with pre-mounted, soft plug-in seals, approved for the maintenance of electrical function according to DIN 4102 Part 12. Maintenance of electrical function classes E30 to E90.

Colour: Pastel orange.

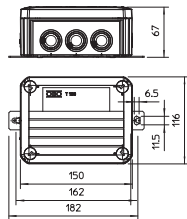
Fully mounted connection unit made of high temperature-resistant special ceramic and labelled protective conductor terminal. Supplied with 2 MMS 6x50 fire protection screw ties for anchorless fastening on the external straps.

Power cable nominal cross-sections: Up to 16 mm<sup>2</sup>. Several rigid copper wires with smaller cross-sections per terminal possible.

High protection rating IP66, impact resistance class IK05.

Details on the cable types and manufacturers can be found in the general construction test certificate of the material testing institute NRW, Erwitte.

## FireBox T100ED external fastening with fuse holder



**E30** **E90** **IP 66**

Type	Nominal cross-section mm <sup>2</sup>	Number of terminals	Entries	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>T 100 ED 6-6 AF</b>	6	6	8 x M25 2 x M32	1	43.330	<b>7205560</b>
<b>T 100 ED 10-6 AF</b>	10	6	8 x M25 2 x M32	1	43.340	<b>7205563</b>

PP Polypropylene

Halogen-free junction box with pre-mounted, soft plug-in seals, approved for the maintenance of electrical function according to DIN 4102 Part 12. Maintenance of electrical function classes E30 to E90.

Colour: Pastel orange.

Fully mounted connection unit made of high temperature-resistant special ceramic and labelled protective conductor terminal. Supplied with fuse holder TE-FH 520 for VDE-conformant, reaction-free protection of consumers and 2 fire protection screw ties MMS 6x50 for anchorless fastening on the external shackles.

Power cable nominal cross-sections: 1.5 to 10 mm<sup>2</sup> depending on the type, data cables with 0.8 mm wire Ø. Several rigid copper wires with smaller cross-sections per terminal possible.

High protection rating IP66, impact resistance class IK08.

Details on the cable types and manufacturers can be found in the general construction test certificate of the material testing institute NRW, Erwitte.

## FireBox T160ED with external fastening and fuse holder

E30 E90 IP 66

Type	Nominal cross-section mm <sup>2</sup>	Number of terminals	Entries	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>T 160 ED 16-6 AF</b>	16	6	7 x M25 5 x M32	1	60.000	<b>7205566</b>

PP Polypropylene

Halogen-free junction box with pre-mounted, soft plug-in seals, approved for the maintenance of electrical function according to DIN 4102 Part 12. Maintenance of electrical function classes E30 to E90.

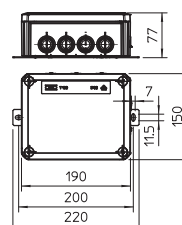
Colour: Pastel orange.

Fully mounted connection unit made of high temperature-resistant special ceramic and labelled protective conductor terminal. Supplied with fuse holder TE-FH 520 for VDE-conformant, reaction-free protection of consumers and 2 fire protection screw ties MMS 6x50 for anchorless fastening on the external shackles.

Power cable nominal cross-sections: Up to 16 mm<sup>2</sup>. Several rigid copper wires with smaller cross-sections per terminal possible.

High protection rating IP66, impact resistance class IK05.

Details on the cable types and manufacturers can be found in the general construction test certificate of the material testing institute NRW, Erwitte.



## FireBox T100ED with external fastening and impact-proof cover

E30 E90 IP 66

Type	Nominal cross-section mm <sup>2</sup>	Number of terminals	Entries	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>T100ED 6-5 AS</b>	6	5	8 x M25 2 x M32	1	44.500	<b>7205620</b>
<b>T100ED 10-5 AS</b>	10	5	8 x M25 2 x M32	1	46.600	<b>7205623</b>

PP/PC Polypropylene / polycarbonate

Halogen-free junction box with impact-proof cover and pre-mounted, soft plug-in seals, approved for the maintenance of electrical function according to DIN 4102 Part 12. Maintenance of electrical function classes E30 to E90.

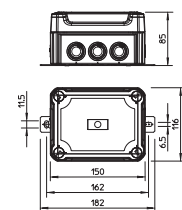
Colour: Pastel orange.

Fully mounted connection unit made of high temperature-resistant special ceramic and labelled protective conductor terminal. Supplied with 2 MMS 6x50 fire protection screw ties for anchorless fastening on the external straps.

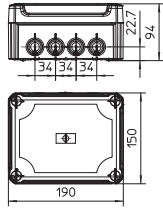
Power cable nominal cross-sections: 1.5 to 10 mm<sup>2</sup> depending on the type, data cables with 0.8 mm wire Ø. Several rigid copper wires with smaller cross-sections per terminal possible.

High protection rating IP66, impact resistance class IK09.

Details on the cable types and manufacturers can be found in the general construction test certificate of the material testing institute NRW, Erwitte.



## FireBox T160ED with external fastening and impact-proof cover



**E30** **E90** **IP 66**

Type	Nominal cross-section mm <sup>2</sup>	Number of terminals	Entries	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>T160ED 16-5 AS</b>	16	5	7 x M25 5 x M32	1	65.000	<b>7205626</b>

PP/PC Polypropylene / polycarbonate

Halogen-free junction box with impact-proof cover and pre-mounted, soft plug-in seals, approved for the maintenance of electrical function according to DIN 4102 Part 12. Maintenance of electrical function classes E30 to E90.

Colour: Pastel orange.

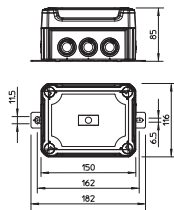
Fully mounted connection unit made of high temperature-resistant special ceramic and labelled protective conductor terminal. Supplied with 2 MMS 6x50 fire protection screw ties for anchorless fastening on the external straps.

Power cable nominal cross-sections: Up to 16 mm<sup>2</sup>. Several rigid copper wires with smaller cross-sections per terminal possible.

High protection rating IP66, impact resistance class IK10.

Details on the cable types and manufacturers can be found in the general construction test certificate of the material testing institute NRW, Erwitte.

## FireBox T100ED with external fastening, fuse holder and impact-proof cover



**E30** **E90** **IP 66**

Type	Nominal cross-section mm <sup>2</sup>	Number of terminals	Entries	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>T100ED 6-6 AFS</b>	6	6	8 x M25 2 x M32	1	49.200	<b>7205630</b>
<b>T100ED 10-6 AFS</b>	10	6	8 x M25 2 x M32	1	49.300	<b>7205633</b>

PP/PC Polypropylene / polycarbonate

Halogen-free junction box with impact-proof cover and pre-mounted, soft plug-in seals, approved for the maintenance of electrical function according to DIN 4102 Part 12. Maintenance of electrical function classes E30 to E90.

Colour: Pastel orange.

Fully mounted connection unit made of high temperature-resistant special ceramic and labelled protective conductor terminal. Supplied with fuse holder TE-FH 520 for VDE-conformant, reaction-free protection of consumers and 2 fire protection screw ties MMS 6x50 for anchorless fastening on the external shackles.

Power cable nominal cross-sections: 1.5 to 10 mm<sup>2</sup> depending on the type, data cables with 0.8 mm wire Ø. Several rigid copper wires with smaller cross-sections per terminal possible.

High protection rating IP66, impact resistance class IK09.

Details on the cable types and manufacturers can be found in the general construction test certificate of the material testing institute NRW, Erwitte.





## FireBox T, with plug-in seals for data technology



- Connection unit made from high temperature-resistant special ceramic
- Labelled protective conductor terminal
- Internal and external fastening
- Supplied with two MMS 6x50 fire protection screw ties
- Protection rating IP65
- Impact resistance class T100ED... IK08; T350ED... IK06
- Nominal cross-section 4 mm<sup>2</sup>
- For multi-wire data cables with a wire diameter of 0.8 mm (0.5 mm<sup>2</sup>)
- Details on the cable types and manufacturers can be found in the general construction test certificate of the material testing institute MPA NRW, Erwitte

### FireBox T100ED for data technology with internal fastening

E30 E90 IP 66

Type	Nominal cross-section of terminals mm <sup>2</sup>	Number of terminals	Entries	Pack. pcs	Weight kg/100 pcs	Item No.
T 100 ED 4-10 D	4	10	8 x M25 2 x M32	1	38.300	7205580

PP Polypropylene

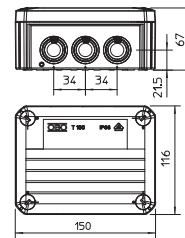
Halogen-free junction box with pre-mounted, soft plug-in seals, approved for the maintenance of electrical function according to DIN 4102 Part 12. Maintenance of electrical function classes E30 to E90.

Colour: Pastel orange.

Fully mounted connection unit made of high temperature-resistant special ceramic and labelled protective conductor terminals. Supplied with 2 MMS 6x50 fire protection screw ties for anchorless fastening on the external straps.

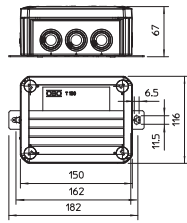
For data cables with wire Ø 0.8 mm. Up to 6 rigid copper wires (0.5 mm<sup>2</sup>) possible on each terminal. High protection rating IP66, impact resistance class IK08.

Details on the cable types and manufacturers can be found in the general construction test certificate of the material testing institute NRW, Erwitte.



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## FireBox T100ED for data technology with external fastening



**E30** **E90** **IP 66**

Type	Nominal cross-section mm <sup>2</sup>	Number of terminals	Entries	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>T 100 ED 4-10 AD</b>	4	10	8 x M25 2 x M32	1	45.600	<b>7205583</b>

PP Polypropylene

Halogen-free junction box with pre-mounted, soft plug-in seals, approved for the maintenance of electrical function according to DIN 4102 Part 12. Maintenance of electrical function classes E30 to E90.

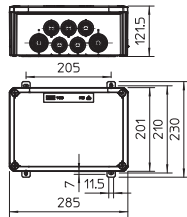
Colour: Pastel orange.

Fully mounted connection unit made of high temperature-resistant special ceramic and labelled protective conductor terminals. Supplied with 2 MMS 6x50 fire protection screw ties for anchorless fastening on the external straps.

For data cables with wire Ø 0.8 mm. Up to 6 rigid copper wires (0.5 mm<sup>2</sup>) possible on each terminal. High protection rating IP66, impact resistance class IK08.

Details on the cable types and manufacturers can be found in the general construction test certificate of the material testing institute NRW, Erwitte.

## FireBox T350ED for data technology with external fastening



**E30** **E90** **IP 66**

Type	Nominal cross-section mm <sup>2</sup>	Number of terminals	Entries	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>T 350 ED 4-28 AD</b>	4	28	16 x M32 8 x M40	1	163.000	<b>7205590</b>

PP Polypropylene

Halogen-free junction box as small data distributor with pre-mounted, soft plug-in seals, approved for Maintenance of electrical functionality according to DIN 4102 Part 12. Maintenance of electrical function classes E30 to E90.

Colour: Pastel orange.

Fully mounted connection unit made of high temperature-resistant special ceramic and labelled protective conductor terminals. Supplied with 4 MMS 6x50 fire protection screw ties for anchorless fastening on the external straps.

For data cables with wire Ø 0.8 mm. Up to 6 rigid copper wires (0.5 mm<sup>2</sup>) possible on each terminal. High protection rating IP66, impact resistance class IK06.

Details on the cable types and manufacturers can be found in the general construction test certificate of the material testing institute NRW, Erwitte.

## FireBox T100ED for data equipment, external fastening and impact-proof cover

**E30** **E90** **IP 66**

Type	Nominal cross-section mm <sup>2</sup>	Number of terminals	Entries	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>T100ED 4-10 ADS</b>	4	10	8 x M25 2 x M32	1	51.600	<b>7205640</b>

**PP/PC** Polypropylene / polycarbonate

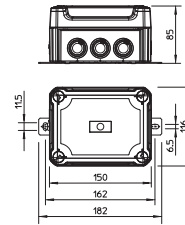
Halogen-free junction box with impact-proof cover and pre-mounted, soft plug-in seals, approved for the maintenance of electrical function according to DIN 4102 Part 12. Maintenance of electrical function classes E30 to E90.

Colour: Pastel orange.

Fully mounted connection unit made of high temperature-resistant special ceramic and labelled protective conductor terminals. Supplied with 2 MMS 6x50 fire protection screw ties for anchorless fastening on the external straps.

For data cables with wire Ø 0.8 mm. Up to 6 rigid copper wires (0.5 mm<sup>2</sup>) possible on each terminal. High protection rating IP66, impact resistance class IK09.

Details on the cable types and manufacturers can be found in the general construction test certificate of the material testing institute NRW, Erwitte.

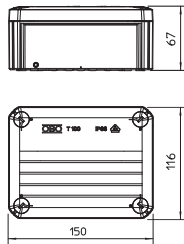


## FireBox T, closed version



- Pre-mounted connection unit made from high temperature-resistant special ceramic
- Labelled protective conductor terminal
- Supplied with two MMS 6x50 fire protection screw ties
- Protection rating IP65
- Impact resistance class T100ED... IK08; T160ED... IK05
- Cable outlets with V-TEC glands
- Nominal cross-section 6/10/16 mm<sup>2</sup>
- Details on the cable types and manufacturers can be found in the general construction test certificate of the material testing institute MPA NRW, Erwitte

## FireBox T100E with internal fastening



E30 E90 IP 66

Type	Nominal cross-section mm <sup>2</sup>	Number of terminals	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
T 100 E 4-5	4	5	Pastel orange	17	1	27.400	7205510

PP Polypropylene

Halogen-free junction box, approved for the maintenance of electrical function according to DIN 4102 Part 12. Maintenance of electrical function classes E30 to E90.

Colour: Pastel orange.

Including pre-mounted connection unit made of high temperature-resistant special ceramic and labelled protective conductor terminal. Supplied with fire protection screw ties for anchorless fastening.

Power cable nominal cross-sections: 1.5 to 4 mm<sup>2</sup>, data cables with 0.8 mm wire Ø. Maximum of two 1.5 mm<sup>2</sup> rigid copper cables per terminal (remove wire protection).

High protection rating IP66, impact resistance class IK07.

Details on the cable types and manufacturers can be found in the general construction test certificate of the material testing institute NRW, Erwitte.

## FireBox T160E with internal fastening

E30 E90 IP 66

Type	Nominal cross-section mm <sup>2</sup>	Number of terminals	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
T 160 E 10-5	10	5	Pastel orange	5	1	48.700	7205524
T 160 E 16-5	16	5	Pastel orange	5	1	53.800	7205528

PP Polypropylene

Halogen-free junction box, approved for the maintenance of electrical function according to DIN 4102 Part 12.

Maintenance of electrical function classes E30 to E90.

Colour: Pastel orange.

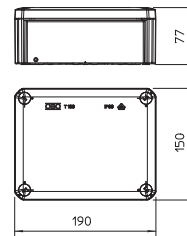
Including pre-mounted connection unit made of high temperature-resistant special ceramic and labelled protective conductor terminal. Supplied with fire protection screw ties for anchorless fastening.

Nominal cross-sections of the power cable: 10 or 16 mm<sup>2</sup>

A maximum of 2 rigid copper cables of 2.5 mm<sup>2</sup> or 4 mm<sup>2</sup> per terminal (remove wire protection).

High protection rating IP66, impact resistance class IK06.

Details on the cable types and manufacturers can be found in the general construction test certificate of the material testing institute NRW, Erwitte.



## FireBox T160E for data technology with internal fastening

E30 E90 IP 66

Type	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
T 160 E 4-8D	Pastel orange	5	1	46.500	7205520

PP Polypropylene

Halogen-free junction box, approved for the maintenance of electrical function according to DIN 4102 Part 12. Maintenance of electrical function classes E30 to E90.

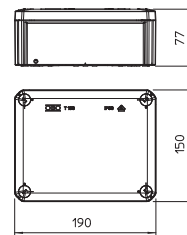
Colour: Pastel orange.

Including pre-mounted connection unit made of high temperature-resistant special ceramic with fire protection screw ties for anchorless fastening.

Nominal cross-section: data cables with 0.8 mm wire Ø.

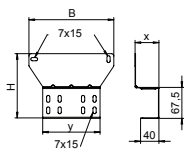
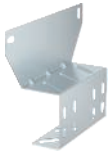
High protection rating IP66, impact resistance class IK06.

Details on the cable types and manufacturers can be found in the general construction test certificate of the material testing institute NRW, Erwitte.





## Mounting plate for FireBox T series



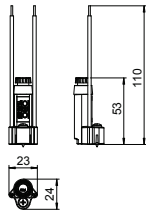
Type	Dimension H mm	Dimension B mm	Dimension x mm	Dimension y mm	Pack. pcs	Weight kg/100 pcs	Item No.
<b>MP T610</b>	141	185	52	125	1	23.600	<b>7205480</b>
<b>MP T616</b>	159	220	63	165	1	34.500	<b>7205484</b>

**SI** Steel

**DD** Strip galvanised zinc/aluminium, double dip

Mounting plate for the fastening of junction boxes of the FireBox T series (with external fastening) onto cable trays or cable ladders with a side height of 60 mm. The angled construction from sheet steel reinforced through crimps enables the secure mounting of cables that maintain electrical function, without having to bend the cable over the side rail. Including fastening material.

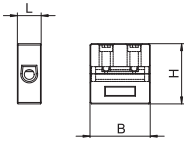
## Fuse holder for FireBox T series



Type	Pack. pcs	Weight kg/100 pcs	Item No.
<b>TE-FH 520</b>	1	1.800	<b>7205570</b>

Fuse holder with bayonet lock for fine-wire fuse for dimensions  $\varnothing 5 \times 20$  mm. Connection wires to maintain electrical function with nominal cross-section 2.5 mm<sup>2</sup>, ready-stripped. For mounting on one of the exposed domes in the junction box of the FireBox T series using the supplied screw.

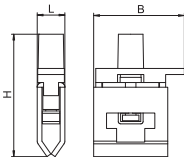
## Ceramic terminal



Type	Nominal cross-section mm <sup>2</sup>	Pack. pcs	Weight kg/100 pcs	Item No.
<b>TK 04</b>	0.5 - 4	5	0.880	<b>7205700</b>
<b>TK 06</b>	6	5	0.880	<b>7205702</b>
<b>TK 10</b>	10	5	1.840	<b>7205704</b>
<b>TK 16</b>	16	5	3.160	<b>7205706</b>

High temperature-resistant ceramic terminal for refitting of the FireBox T series.

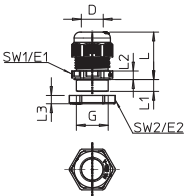
## Protective conductor terminal



Type	Nominal cross-section mm <sup>2</sup>	Pack. pcs	Weight kg/100 pcs	Item No.
<b>TPE 04</b>	4	5	0.400	<b>7205708</b>
<b>TPE 25</b>	25	5	1.440	<b>7205710</b>

Productive conductor terminal for retro-fitting the FireBox T series with green-yellow identification.

## Cable gland with locknut as a set



Type	Thread	Shipping box pcs	Pack. pcs	Weight kg/100 pcs	Item No.
<b>V-TEC VM20+ OR</b>	M20 x 1,5	100	10	1.106	<b>7205660</b>
<b>V-TEC VM25+ OR</b>	M25 x 1,5	100	10	1.710	<b>7205663</b>
<b>V-TEC VM32+ OR</b>	M32 x 1,5	100	10	2.840	<b>7205666</b>
<b>V-TEC VM40+ OR</b>	M40 x 1,5	120	10	5.150	<b>7205669</b>

**PA** Polyamide

Robust cap nut cable gland with metric connecting thread to IEC 423, including pre-mounted locknut. For high tightness requirements. Strain relief, wringing protection and tightness over the whole clamping area. Sealing ring made of polychloroprene/acrylonitrile butadiene rubber. Moulded shaped sealing lip on intermediate support, no connection thread sealing ring required. VDE-tested according to DIN EN 50262, protection rating IP68 at 5 bar for 1 hr. For the maintenance of electrical function according to DIN 4102 Part 12 in connection with the junction boxes of the FireBox T series. Colour: Pastel orange.

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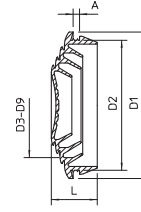
### Plug-in seal for FireBox T series

Type	For Ø Size mm	Pack. pcs	Weight		Item No.
			kg/100 pcs.	pcs.	
<b>EDK 25 OR</b>	M25   0 - 22	10	0.165	7205675	
<b>EDK 32 OR</b>	M32   0 - 27	10	0.274	7205677	
<b>EDK 40 OR</b>	M40   0 - 34	10	0.420	7205679	

**EVA** Ethylene vinyl acetate

The soft plug-in seal can be cut back step by step to suit the relevant cable diameter.

Colour: Pastel orange.

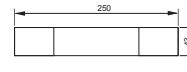


### Identification plate for function maintenance

Type	Pack. pcs	Weight		Item No.
		kg/100 pcs.	pcs.	
<b>KS-E DE</b>	10	0.600	7205423	
<b>KS-E EN</b>	10	0.600	7205432	
<b>KS-E HU</b>	10	0.600	7205434	
<b>KS-E PL</b>	10	0.600	7205436	

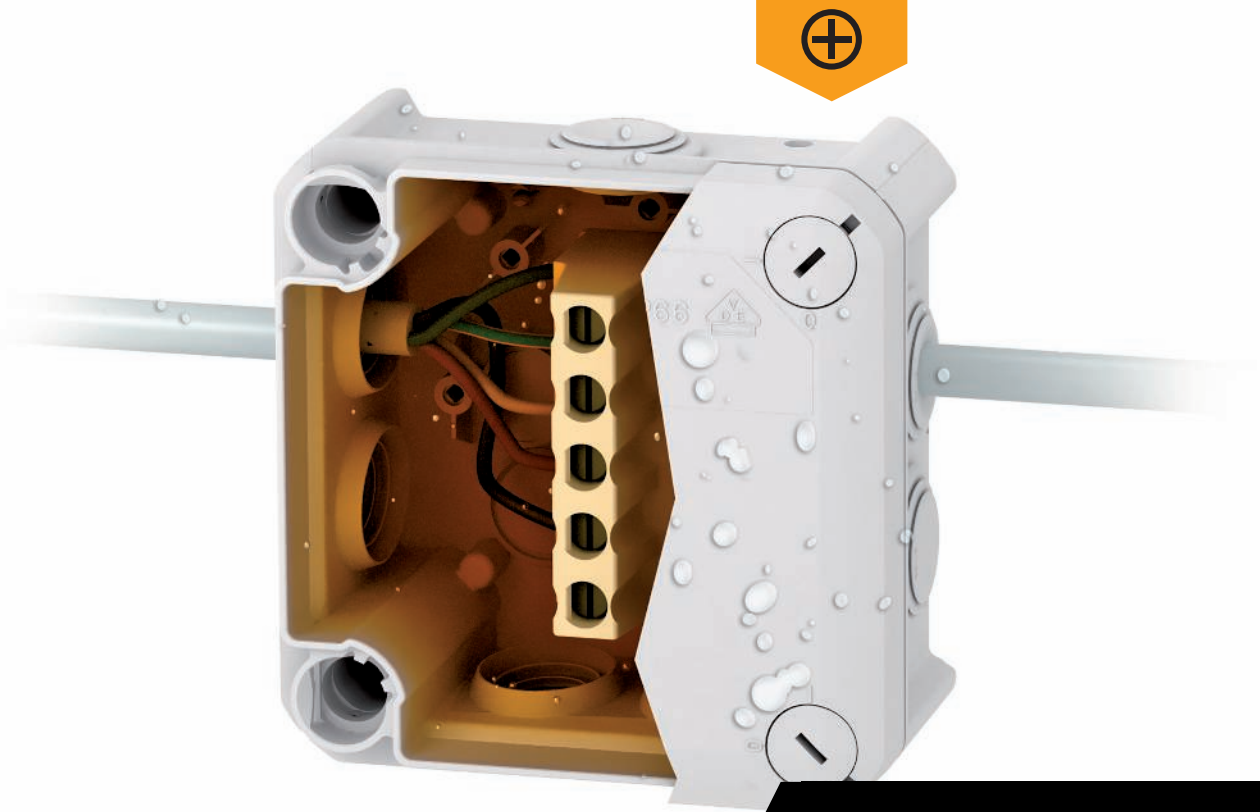
**PVC** Polyvinylchloride

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



## Aquasit cold casting compound

- Protection rating: IP68 at 1.8 bar/1,000 h
- Rated voltage: 400 V
- Penetration resistance: >20 kV/mm according to VDE 0291 Part 2
- Operational temperature: -40 to +90 °C
- Processing temperature: 0 to +40 °C
- Halogen-free, silicone-free, isocyanate-free
- Environmentally friendly and without a labelling requirement



Protection rating IP68

OBO Aquasit cold casting compound is the solution for electrical installations in particularly damp environments. Whether for connections in the garden, by waterways, in laundries or in a pump well –

Aquasit ensures a safe electrical installation anywhere. The application is simple: Aquasit is cast simply and tidily using a standard cartridge pistol. The transparent, amber-coloured cold casting com-

ound, based on carbon resins, then sets to a soft elastic. Aquasit is "self-healing" and can also be removed easily.

### Aquasit cold casting compound, cartridge



Type	Contents ml	Pack. pcs	Weight kg/100 pcs	Item No.
<b>KVM 250</b>	250	1	42.000	<b>2363010</b>



Aquasit is a two-component casting compound in a cartridge, for applications in areas with continuous and extremely high levels of moisture. It can also be used against mechanical shock and vibrations. The cartridge is suitable for use in standard cartridge pistols. At room temperature, the unopened aluminium packaging can be stored for up to 18 months. When the cartridge is opened, the material should be used within 24 hours.

Practical experience, tests and approvals valid only in conjunction with OBO junction boxes.

Aquasit properties:

Protection rating with appropriate junction box: IP68 at 1.8 bar/1,000 hrs

Rated voltage: 400 V

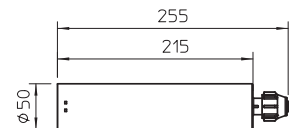
Penetration resistance: >20 kv/mm to VDE 0291 Part 2

Operating temperature: -40 to +90 °C

Processing temperature: 0 to +40 °C

Halogen-free, silicon-free, isocyanate-free

Environmentally friendly and without the need to be labelled



### Aquasit cold casting compound with cable box T40



Type	Version	Entries	Shipping box pcs	Pack. pcs	Weight kg/100 pcs	Item No.
<b>T 40 KVM</b>	With terminal strip	7 x M25	1	1	48.700	<b>2363012</b>

PP Polypropylene

Aquasit is a two-component casting compound in a cartridge, for applications in areas with continuous and extremely high levels of moisture. It can also be used against mechanical shock and vibrations.

The cartridge is suitable for use in standard cartridge pistols. At room temperature, the unopened aluminium packaging can be stored for up to 18 months. When the cartridge is opened, the material should be used within 24 hours.

Practical experience, tests and approvals valid only in conjunction with OBO junction boxes.

Aquasit properties:

Protection rating with appropriate junction box: IP68 at 1.8 bar/1,000 hrs

Rated voltage: 400 V

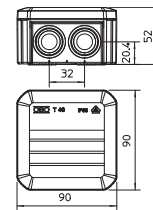
Penetration resistance: >20 kv/mm to VDE 0291 Part 2

Operating temperature: -40 to +90 °C

Processing temperature: 0 to +40 °C

Halogen-free, silicon-free, isocyanate-free

Environmentally friendly and without the need to be labelled



### AQUASIT mixer pipe



Type	Pack. PU	Weight kg/100 PUs	Item No.
<b>KVM-M</b>	1	17.000	<b>2363015</b>

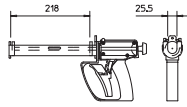
10 mixer pipes in the set.

Simple, automatic mixing of OBO AQUASIT when pressing out the compound from the cartridge.



## Aquasit cold casting compound

### Aquasit cartridge pistol



Contents  
ml

Type  
**KVM-P**

Weight  
Pack. kg/100  
pcs pcs.

Item No.

1	100.000	<b>2363019</b>
---	---------	----------------

High-quality one-component cartridge pistol for use with the AQUASIT cold casting compound. The cartridge pistol can also be used with normal 300 ml cartridges.









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## Distribution box

	<b>Distribution box, 3 division units</b>	144
	<b>Distribution box, 5 division units</b>	145
	<b>Distribution box, 9 division units</b>	146
	<b>Distribution box, 12 division units</b>	147
	<b>Terminal sets</b>	149

## Sturdy and safe

These high-quality polycarbonate distribution boxes protect electrical installations even when under extreme strain. They can withstand harsh cleaning agents, cold and heat, and knocks and impacts in industrial settings and public places. In short, this distribution box series can handle any application – even in uncovered outdoor locations.



## Shock-resistant – in any position

The SDB distribution boxes from OBO Bettermann are tough customers. OBO has only just added the versatile plastic housing to its range of products. This is characterised by its robustness and reliability. In the tough environment of industrial production, they ensure that power is available at any time.





## Protection rating IP66

With a protection rating of IP66, the small distributors additionally provide protection against powerful water jets and dust.



## 2 materials

The small distributors are available in two different materials to suit different installation locations. The professional quality housing is made from robust polystyrene. This quality is suitable for use primarily in indoor and covered outdoor environments. For even greater stability and safety, opt for the polycarbonate distributors.





# Simple and particularly flexible installation

Thanks to the use of high-quality special plastics, the new OBO SDB series can satisfy all the requirements for modern small distributors. In addition, it allows simple and particularly flexible installation.

## Flexible fastening

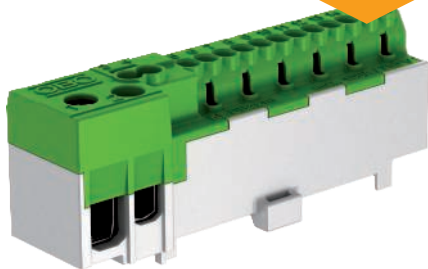
The housing can be attached using internal, external or corner fastenings, as required.



## Simply plugged-in

Innovative PE/N terminal with

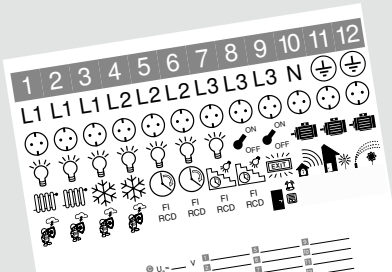
- 1x 25 mm<sup>2</sup> screw terminal
- 1x 16 mm<sup>2</sup> screw terminal
- 2x 4 mm<sup>2</sup> screwless terminals
- 12x 2.5 mm<sup>2</sup> screwless terminals



## Shock-resistant – in any position

The SDB small distributors from OBO Bettermann are tough customers. OBO has only just added the versatile plastic housing to its range of products. This is characterised by its robustness and reliability. In the tough environment of industrial production, they ensure that power is available at any time.





### Practical details

The practical adhesive labelling sheets with self-adhesive pictograms ensure tidy, simple labelling of the installation.



### Four sizes

The four sizes with three, five, nine or twelve division units offer flexible installation space for devices on hat rails.



### Perfect handling

The robust locking contour can be opened and closed easily – perfect for daily use in tough industrial environments.



### Distribution box, 3 division units, with screwless terminal



Type	Terminals	Colour	Dimension LxWxH mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>SDB 03 PC</b>	Connector	Light grey	150x190x125	1	75.540	<b>2008840</b>

**PC** Polycarbonate

Surface-mounted distribution box, with protective insulation for max. 3 division units. There are 3 break-out openings (2x Ø20 and 1x Ø20/25) on both the upper and lower sides incl. pre-mounted 35 mm hat profile support rail. The four screw cover caps supplied prevent unwanted "voltage carry over".

Suitable for interior and exterior mounting  
VDE-tested to DIN EN 61439

Accessories:

- Terminal strip set consisting of: One PE/N terminal (1x25<sup>2</sup> and 1x16<sup>2</sup> screw terminal points, 2x4<sup>2</sup> and 12x2.5<sup>2</sup> screwless terminals), mini hat profile rail, mounting instructions and fastening set
- Self-adhesive pictograms for installation labelling
- Two elastic cable entries Ø20 mm for cable diameters 0–17 mm
- One elastic cable entry Ø25 mm for cable diameter 0–22 mm
- Two stainless steel external fastenings
- Cover strip for closing off unused separation units

### Distribution box, 3 division units, with screw terminal



Type	Terminals	Colour	Dimension LxWxH mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>SDB 03 PS</b>	Screw	Light grey	150x190x125	1	81.000	<b>2008800</b>

**PS** Polystyrene

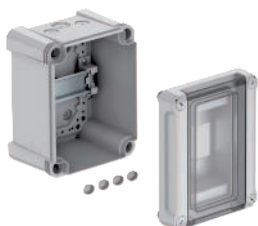
Surface-mounted distribution box, with protective insulation for max. 3 division units. There are 3 break-out openings (2x Ø20 and 1x Ø20/25) on both the upper and lower sides incl. pre-mounted 35 mm hat profile support rail. The four screw cover caps supplied prevent unwanted "voltage carry over".

Suitable for interior and protected exterior mounting

Accessories:

- Terminal strip set consisting of: One PE/N terminals with 4x 16 mm<sup>2</sup> screw terminal points, mini hat profile rail, mounting instructions and fastening set
- Self-adhesive pictograms for installation labelling and labelling of the connected consumers
- Two elastic cable entries Ø20 mm for cable diameters 0–17 mm
- One elastic cable entry Ø25 mm for cable diameter 0–22 mm

### Distribution box, 3 division units, empty



Type	Colour	Dimension LxWxH mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>SDB 03L PC</b>	Light grey	150x190x125	1	78.000	<b>2008860</b>
<b>SDB 03L PS</b>	Light grey	150x190x125	1	69.000	<b>2008820</b>

**PS** Polystyrene **PC** Polycarbonate

Surface-mounted distribution box, with protective insulation for max. 3 division units. There are 3 break-out openings (2x Ø20 and 1x Ø20/25) on both the upper and lower sides incl. pre-mounted 35 mm hat profile support rail. The four screw cover caps supplied prevent unwanted "voltage carry over".

The PC distribution boxes are suitable for mounting for interior and exterior use.

## Distribution box, 5 division units, with screwless terminal



Type	Terminals	Colour	Dimension LxWxH mm	Pack. pcs	Weight		Item No.
					kg/100	pcs.	
<b>SDB 05 PC</b>	Connector	Light grey	190x150x125	1	76.040		<b>2008844</b>

**PC** Polycarbonate

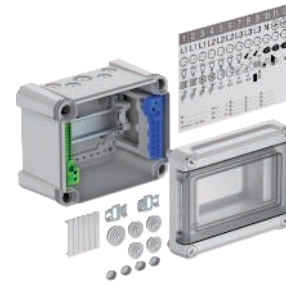
Surface-mounted distribution box, with protective insulation for max. 5 division units. There are 5 break-out openings (4x Ø20 and 1x Ø20/25) on both the upper and lower sides incl. pre-mounted 35 mm hat profile support rail. The four screw cover caps supplied prevent unwanted "voltage carry over".

Suitable for interior and exterior mounting

VDE-tested to DIN EN 61439

Accessories:

- Terminal strip set consisting of: One PE/N terminal (1x25<sup>2</sup> and 1x16<sup>2</sup> screw terminal points, 2x4<sup>2</sup> and 12x2.5<sup>2</sup> screwless terminals), mini hat profile rail, mounting instructions and fastening set
- Self-adhesive pictograms for installation labelling
- Four elastic cable entries Ø20 mm for cable diameters 0–17 mm
- One elastic cable entry Ø25 mm for cable diameter 0–22 mm
- Two stainless steel external fastenings
- Cover strip for closing off unused separation units



## Distribution box, 5 division units, with screw terminal



Type	Terminals	Colour	Dimension LxWxH mm	Pack. pcs	Weight		Item No.
					kg/100	pcs.	
<b>SDB 05 PS</b>	Screw	Light grey	190x150x125	1	81.500		<b>2008804</b>

**PS** Polystyrene

Surface-mounted distribution box, with protective insulation for max. 5 division units. There are 5 break-out openings (4x Ø20 and 1x Ø20/25) on both the upper and lower sides incl. pre-mounted 35 mm hat profile support rail. The four screw cover caps supplied prevent unwanted "voltage carry over".

Suitable for interior and protected exterior mounting;

Accessories:

- Terminal strip set consisting of: One PE/N terminals with 4x 16 mm<sup>2</sup> screw terminal points, mini hat profile rail, mounting instructions and fastening set
- Self-adhesive pictograms for installation labelling and labelling of the connected consumers
- Four elastic cable entries Ø20 mm for cable diameters 0–17 mm
- One elastic cable entry Ø25 mm for cable diameter 0–22 mm



## Distribution box, 5 division units, empty



Type	Colour	Dimension LxWxH mm	Pack. pcs	Weight		Item No.
				kg/100	pcs.	
<b>SDB 05L PC</b>	Light grey	190x150x125	1	78.500		<b>2008864</b>
<b>SDB 05L PS</b>	Light grey	190x150x125	1	69.500		<b>2008824</b>

**PS** Polystyrene **PC** Polycarbonate

Surface-mounted distribution box, with protective insulation for max. 5 division units. There are 5 break-out openings (4x Ø20 and 1x Ø20/25) on both the upper and lower sides incl. pre-mounted 35 mm hat profile support rail. The four screw cover caps supplied prevent unwanted "voltage carry over".

The PC distribution boxes are suitable for mounting for interior and exterior use.





## Distribution box, 9 division units, with screwless terminal



Type	Terminals	Colour	Dimension LxWxH mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>SDB 09 PC</b>	Connector	Light grey	240x191x125	1	103.840	<b>2008848</b>

**PC** Polycarbonate

Surface-mounted distribution box, with protective insulation for max. 9 division units. There are 9 break-out openings (8x Ø20 and 1x Ø20/25/32) on both the upper and lower sides incl. pre-mounted 35 mm hat profile support rail. The four screw cover caps supplied prevent unwanted "voltage carry over".

Suitable for interior and exterior mounting  
VDE-tested to DIN EN 61439

Accessories:

- Terminal strip set consisting of: One PE/N terminal (1x25<sup>2</sup> and 1x16<sup>2</sup> screw terminal points, 2x4<sup>2</sup> and 12x2.5<sup>2</sup> screwless terminals), mini hat profile rail, mounting instructions and fastening set
- Self-adhesive pictograms for installation labelling
- Six elastic cable entries Ø20 mm for cable diameters 0–17 mm
- One elastic cable entry Ø25 mm for cable diameter 0–22 mm
- One elastic cable entry Ø32 mm for cable diameter 0–28 mm
- Two stainless steel external fastenings
- Cover strip for closing off unused separation units

## Distribution box, 9 division units, with screw terminal



Type	Terminals	Colour	Dimension LxWxH mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>SDB 09 PS</b>	Screw	Light grey	240x191x125	1	110.000	<b>2008808</b>

**PS** Polystyrene

Surface-mounted distribution box, with protective insulation for max. 9 division units. There are 9 break-out openings (8x Ø20 and 1x Ø20/25/32) on both the upper and lower sides incl. pre-mounted 35 mm hat profile support rail. The four screw cover caps supplied prevent unwanted "voltage carry over".

Suitable for interior and protected exterior mounting

Accessories:

- Terminal strip set consisting of: Two PE/N terminals each with 4x 16 mm<sup>2</sup> screw terminal points, mini hat profile rail, mounting instructions and fastening set
- Self-adhesive pictograms for installation labelling and labelling of the connected consumers;
- Six elastic cable entries Ø20 mm for cable diameters 0–17 mm
- One elastic cable entry Ø25 mm for cable diameter 0–22 mm
- One elastic cable entry Ø32 mm for cable diameter 0–28 mm

## Distribution box, 9 division units, empty



Type	Colour	Dimension LxWxH mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>SDB 09L PS</b>	Light grey	240x191x125	1	96.000	<b>2008828</b>
<b>SDB 09L PC</b>	Light grey	240x191x125	1	108.000	<b>2008868</b>

**PS** Polystyrene **PC** Polycarbonate

Surface-mounted distribution box, with protective insulation for max. 9 division units. There are 9 break-out openings (8x Ø20 and 1x Ø20/25/32) on both the upper and lower sides incl. pre-mounted 35 mm hat profile support rail. The four screw cover caps supplied prevent unwanted "voltage carry over".

The PS distribution boxes are suitable for mounting in interiors and in protected exteriors.



## Distribution box, 12 division units, with screwless terminal



Type	Terminals	Colour	Dimension LxWxH mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>SDB 12 PC</b>	Connector	Light grey	286x202x125	1	150.000	<b>2008852</b>

**PC** Polycarbonate

Surface-mounted distribution box, with protective insulation for max. 12 division units. There are 11 break-out openings (10x Ø20 and 1x Ø20/25/32) on both the upper and lower sides incl. pre-mounted 35 mm hat profile support rail. The four screw cover caps supplied prevent unwanted "voltage carry over".

Suitable for interior and exterior mounting

VDE-tested to DIN EN 61439

Accessories:

- Terminal strip set consisting of: One PE/N terminal (1x25<sup>2</sup> and 1x16<sup>2</sup> screw terminal points, 2x4<sup>2</sup> and 12x2.5<sup>2</sup> screwless terminals), mini hat profile rail, mounting instructions and fastening set
- Self-adhesive pictograms for installation labelling
- Eight elastic cable entries Ø20 mm for cable diameters 0–17 mm
- One elastic cable entry Ø25 mm for cable diameter 0–22 mm
- One elastic cable entry Ø32 mm for cable diameter 0–28 mm
- Two stainless steel external fastenings
- Cover strip for closing off unused separation units



## Distribution box, 12 division units, with screw terminal



Type	Terminals	Colour	Dimension LxWxH mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>SDB 12 PS</b>	Screw	Light grey	286x202x125	1	141.000	<b>2008812</b>

**PS** Polystyrene

Surface-mounted distribution box, with protective insulation for max. 12 division units. There are 11 break-out openings (10x Ø20 and 1x Ø20/25/32) on both the upper and lower sides incl. pre-mounted 35 mm hat profile support rail. The four screw cover caps supplied prevent unwanted "voltage carry over".

Suitable for interior and protected exterior mounting

Accessories:

- Terminal strip set consisting of: Three PE/N terminals each with 4x 16 mm<sup>2</sup> screw terminal points, mini hat profile rail, mounting instructions and fastening set
- Self-adhesive pictograms for installation labelling and labelling of the connected consumers
- Eight elastic cable entries Ø20 mm for cable diameters 0–17 mm
- One elastic cable entry Ø25 mm for cable diameter 0–22 mm
- One elastic cable entry Ø32 mm for cable diameter 0–28 mm



## Distribution box, 12 division units, empty



Type	Colour	Dimension LxWxH mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>SDB 12L PS</b>	Light grey	286x202x125	1	120.000	<b>2008832</b>
<b>SDB 12L PC</b>	Light grey	286x202x125	1	134.000	<b>2008872</b>

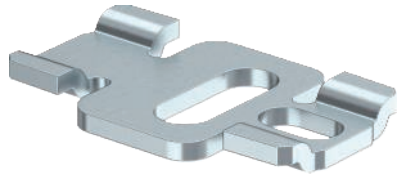
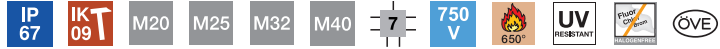
**PS** Polystyrene **PC** Polycarbonate

Surface-mounted distribution box, with protective insulation for max. 12 division units. There are 11 break-out openings (10x Ø20 and 1x Ø20/25/32) on both the upper and lower sides incl. pre-mounted 35 mm hat profile support rail. The four screw cover caps supplied prevent unwanted "voltage carry over".

The PS distribution boxes are suitable for mounting in interiors and in protected exteriors.



External fastening or connection



Type	Pack.		Weight	Item No.
	pcs	pcs	kg/100	
<b>AV-S</b>	20	0.900		<b>2007990</b>

V2A Stainless steel, A2

The junction box is tested according to DIN EN 60670-1, VDE 0606-1:2014 (EN 60670-1:2005 + Cor.:2007 + Cor.:2010 + A1:2013) and DIN EN 60670-22, VDE 0606-22:2007 (EN 60670-22:2006)

The junction box fulfils the protection type test requirements to IP 67 according to DIN EN 60529, VDE0470-1:2014 (EN 60529/AC:2016)



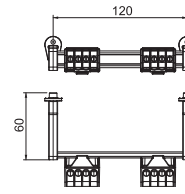
### Terminal strip set with screw terminals for SDB 03

Type	Number of screwless terminals per pole	Pack. pcs	Weight kg/100 pcs	Item No.
<b>KLS-SDB 03</b>	4	1	7.990	<b>2008880</b>

Terminal strip set for the small distributors of the SDB series. The sets can be used to expand and equip empty small distributors of the SDB 03... type series.

The terminal strip set with screw terminals contains:

Mounting instructions; hat rail with corresponding support and fastening material; 16 mm<sup>2</sup> protective conductor terminal; 16 mm<sup>2</sup> neutral conductor terminal



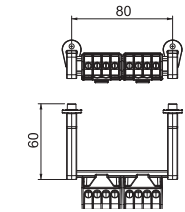
### Terminal strip set with screw terminals for SDB 05

Type	Number of screwless terminals per pole	Pack. pcs	Weight kg/100 pcs	Item No.
<b>KLS-SDB 05</b>	4	1	7.290	<b>2008884</b>

Terminal strip set for the small distributors of the SDB series. The sets can be used to expand and equip empty small distributors of the SDB 05... type series.

The terminal strip set with screw terminals contains:

Mounting instructions; hat rail with corresponding support and fastening material; 16 mm<sup>2</sup> protective conductor terminal; 16 mm<sup>2</sup> neutral conductor terminal



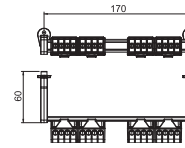
### Terminal strip set with screw terminals for SDB 09

Type	Number of screwless terminals per pole	Pack. pcs	Weight kg/100 pcs	Item No.
<b>KLS-SDB 09</b>	8	1	8.890	<b>2008888</b>

Terminal strip set for the small distributors of the SDB series. The sets can be used to expand and equip empty small distributors of the SDB 09... type series.

The terminal strip set with screw terminals contains:

Mounting instructions; hat rail with corresponding support and fastening material; 16 mm<sup>2</sup> protective conductor terminal; 16 mm<sup>2</sup> neutral conductor terminal



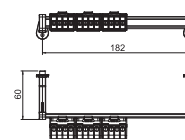
### Terminal strip set with screw terminals for SDB 12

Type	Number of screwless terminals per pole	Pack. pcs	Weight kg/100 pcs	Item No.
<b>KLS-SDB 12</b>	12	1	9.090	<b>2008892</b>

Terminal strip set for the small distributors of the SDB series. The sets can be used to expand and equip empty small distributors of the SDB 12... type series.

The terminal strip set with screw terminals contains:

Mounting instructions; hat rail with corresponding support and fastening material; 16 mm<sup>2</sup> protective conductor terminal; 16 mm<sup>2</sup> neutral conductor terminal



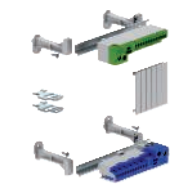
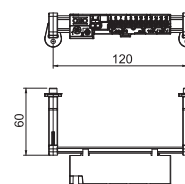
### Terminal strip set with screwless terminals for SDB 03

Type	Pack. pcs	Weight kg/100 pcs	Item No.
<b>KLS-SDB 03S</b>	1	13.830	<b>2008910</b>

Terminal strip set for the small distributors of the SDB series. The sets can be used to expand and equip the empty small distributors of the SDB 03... type series.

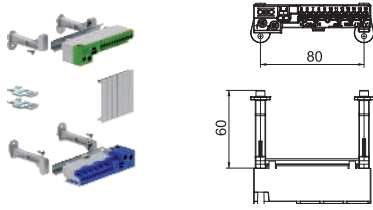
The terminal strip set with screwless terminals contains:

Mounting instructions; cover strip; hat rail with corresponding support and fastening material; one protective conductor terminal and one neutral conductor terminal each with two 16/25 mm<sup>2</sup> screw terminals and 2x 4 mm<sup>2</sup> and 12x 2.5 mm<sup>2</sup> screwless terminals



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### Terminal strip set with screwless terminals for SDB 05



Type

**KLS-SDB 05S**

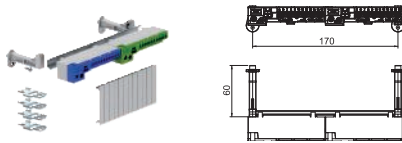
Pack. pcs.	Weight kg/100		Item No.
	pcs.	pcs.	
1	13.130	2008914	

Terminal strip set for the small distributors of the SDB series. The sets can be used to expand and equip the empty small distributors of the SDB 05... type series.

The terminal strip set with screwless terminals contains:

Mounting instructions; cover strip; hat rail with corresponding support and fastening material; one protective conductor terminal and one neutral conductor terminal each with two 16/25 mm<sup>2</sup> screw terminals and 2x 4 mm<sup>2</sup> and 12x 2.5 mm<sup>2</sup> screwless terminals

### Terminal strip set with screwless terminals for SDB 09



Type

**KLS-SDB 09S**

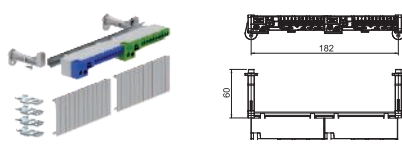
Pack. pcs.	Weight kg/100		Item No.
	pcs.	pcs.	
1	14.730	2008918	

Terminal strip set for the small distributors of the SDB series. The sets can be used to expand and equip the empty small distributors of the SDB 09... type series.

The terminal strip set with screwless terminals contains:

Mounting instructions; cover strip; hat rail with corresponding support and fastening material; one protective conductor terminal and one neutral conductor terminal each with two 16/25 mm<sup>2</sup> screw terminals and 2x 4 mm<sup>2</sup> and 12x 2.5 mm<sup>2</sup> screwless terminals

### Terminal strip set with screwless terminals for SDB 12



Type

**KLS-SDB 12S**

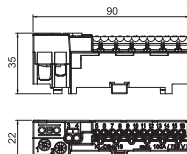
Pack. pcs.	Weight kg/100		Item No.
	pcs.	pcs.	
1	14.180	2008922	

Terminal strip set for the small distributors of the SDB series. The sets can be used to expand and equip the empty small distributors of the SDB 12... type series.

The terminal strip set with screwless terminals contains:

Mounting instructions; cover strip; hat rail with corresponding support and fastening material; one protective conductor terminal and one neutral conductor terminal each with two 16/25 mm<sup>2</sup> screw terminals and 2x 4 mm<sup>2</sup> and 12x 2.5 mm<sup>2</sup> screwless terminals

### Protective conductor terminal, with screwless contacts, 12 terminals



Colour

Type

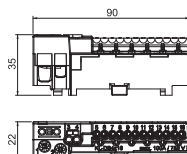
**KL-DBS12x02GRGN** | Grey / green

Pack. pcs.	Weight kg/100		Item No.
	pcs.	pcs.	
10	4.500	2016260	

PA Polyamide

Protective conductor connection terminal with 12 2.5 mm<sup>2</sup> screwless terminal points; two 4 mm<sup>2</sup> screwless terminal points and two 16/25 mm<sup>2</sup> screw connection terminal points. For snapping onto 15 mm hat rails to DIN EN 60715 (formerly DIN EN 50022).

### Neutral conductor terminal, with screwless contacts, 12 terminals



Colour

Type

**KL-DBN12x02GRBL** | Grey / blue

Pack. pcs.	Weight kg/100		Item No.
	pcs.	pcs.	
10	4.500	2016265	

PA Polyamide

Protective conductor connection terminal with 12 2.5 mm<sup>2</sup> screwless terminal points; two 4 mm<sup>2</sup> screwless terminal points and two 16/25 mm<sup>2</sup> screw connection terminal points. For snapping onto 15 mm hat rails to DIN EN 60715 (formerly DIN EN 50022).

### Phase terminal, with screwless contacts, 12 terminals

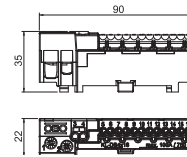


Colour

Type	Pack. pcs.	Weight kg/100 pcs.	Item No.
<b>KL-DBP12x02GR</b> Grey	10	4.500	2016270

PA Polyamide

Phase connection terminal with 12 2.5 mm<sup>2</sup> screwless terminal points; two 4 mm<sup>2</sup> screwless terminal points and two 16/25 mm<sup>2</sup> screw connection terminal points.  
For snapping onto 15 mm hat rails to DIN EN 50022.



### Protective conductor terminal, with screw contacts, 4 terminals

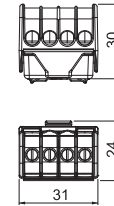


Colour

Type	Pack. pcs.	Weight kg/100 pcs.	Item No.
<b>KL-DBS4x16GN</b> Green	10	1.980	2016250

PA Polyamide

Protective conductor brass connection terminal strip, steel screws, electrogalvanised and transparently passivated, nominal cross-section 6 - 16 mm<sup>2</sup>, nominal voltage 400 V, 1-pole, with terminal sockets, max. connectable conductors per terminal max. 4 x 16 mm<sup>2</sup>, 4 x 10 mm<sup>2</sup>, 8x6 mm<sup>2</sup> or 12 x 4 mm<sup>2</sup>.



### Neutral conductor terminal, with screw contacts, 4 terminals

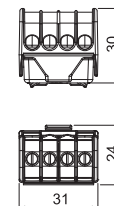


Colour

Type	Pack. pcs.	Weight kg/100 pcs.	Item No.
<b>KL-DBN4x16BL</b> Blue	10	1.980	2016255

PA Polyamide

Neutral conductor brass connection terminal, steel screws, electrogalvanised and transparently passivated, nominal cross-section 6 - 16 mm<sup>2</sup>, nominal voltage 400 V, 1-pole, with terminal sockets, max. connectable conductors per terminal max. 4 x 16 mm<sup>2</sup>, 4 x 10 mm<sup>2</sup>, 8x6 mm<sup>2</sup> or 12 x 4 mm<sup>2</sup>.



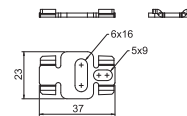
### External fastening or connection



Type	Pack. pcs.	Weight kg/100 pcs.	Item No.
<b>AV-S</b>	20	0.900	2007990

V2A Stainless steel, A2

The convenient external fastening/connection means the cable boxes and distribution boxes of the S and SDB series can be fastened easily to a wall. Because they fasten outside the cable box, the possibility of voltage carry over is ruled out.  
These metal connectors can also be used for lining up several boxes together.

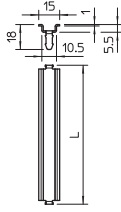


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Smaller distributor systems



## Hat profile rail 15 x 5 mm



Type	Version	Length mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>46277 T160 Q GTP</b>	For T160 crosswise + T100 lengthwise	99	10	9.641	<b>1115270</b>
<b>46277 T250 Q GTP</b>	For T250 crosswise + T160 lengthwise	139	10	13.520	<b>1115274</b>
<b>46277 T250 L GTP</b>	For T 250 lengthwise	189	10	17.900	<b>1115278</b>
<b>46277 T350 Q GTP</b>	For T 350 crosswise	161	10	15.670	<b>1115282</b>
<b>46277 T350 L GTP</b>	For T 350 lengthwise	168	10	16.370	<b>1115286</b>

**St** Steel

**GTP** Electrogalvanised, transparently passivated

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






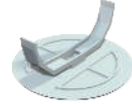







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## Concealed and cavity wall systems

	<b>Concealed</b>	156
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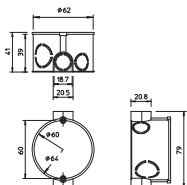


## Concealed systems



Accessory/connection socket with torsion-resistant guaranteed standard combination spacing of 71 mm (to DIN 49 073-1) through snap-lock coupling. Combinable for spreading and screw fastening, low-lying plaster brackets, device bolt spacing 60 mm, for screw fastening with 3.2 mm self-tapping screws, with 2 screw bosses without screws, protection rating IP20.

### Concealed accessory box

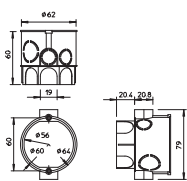


Type	Colour	No. of entries	Pipe Ø	Pack. pcs	Weight kg/100 pcs	Item No.
UG 60 D	Black	7	20/25 mm	25	1.319	2003015

PS Polystyrene

Device socket with torsion-resistant guaranteed standard combination spacing of 71 mm (to DIN 49 073-1) through snap-lock coupling. 7 break-out openings for cables and pipes Ø 20 mm and Ø 25 mm. Combinable for spreading and screw fastening, low-lying plaster brackets, device bolt spacing 60 mm, for screw fastening with 3.2 mm self-tapping screws, with 2 screw bosses without screws, protection rating IP20.

### Concealed accessory/connection socket



Type	Colour	No. of entries	Pipe Ø	Pack. pcs	Weight kg/100 pcs	Item No.
UG 60 VD	Black	13	20/25 mm	25	1.790	2003019

PS Polystyrene

Device/connection socket with torsion-resistant guaranteed standard combination spacing of 71 mm (to DIN 49 073-1) through snap-lock coupling. 13 break-out openings for cables and pipes Ø 20 mm and Ø 25 mm. Combinable for spreading and screw fastening, low-lying plaster brackets, device bolt spacing 60 mm, for screw fastening with 3.2 mm self-tapping screws, with 2 screw bosses without screws, protection rating IP20.

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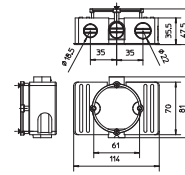
### Concealed accessory/connection box



Type	Colour	No. of entries	Pipe Ø	Pack. pcs	Weight kg/100 pcs	Item No.
<b>UG 60 VK</b>	Black	8	20 mm	10	4.600	<b>2003023</b>

PS Polystyrene

Device/connection socket with increased socket volume on both sides of device installation opening to accept connection terminals. Torsion-resistant guaranteed standard combination spacing of 71 mm (to DIN 49 073-1) through snap-lock coupling. 8 break-out openings for cables and pipes to Ø 21 mm, low-lying plaster brackets, device bolt spacing 60 mm, for screw fastening with 3.2 mm self-tapping screws, with 4 screw bosses and 2 device screws, protection rating IP20.



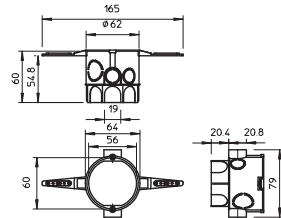
### Concealed accessory/connection socket with nail strap



Type	Colour	No. of entries	Pipe Ø	Pack. pcs	Weight kg/100 pcs	Item No.
<b>UG 60 VD NL</b>	Black	13	20/25 mm	100	2.040	<b>2003035</b>

PS Polystyrene

Device/connection socket with nail straps. These are used as a mounting aid to prefix the sockets. Nail diameter max. 3 mm, plaster thickness min. 8 mm, with increased socket volume to accept connection terminals. Torsion-resistant guaranteed standard combination spacing of 71 mm (to DIN 49 073-1) through snap-lock coupling. 13 break-out openings for cables and pipes Ø 20 mm and Ø 25 mm. Combinable for spreading and screw fastening, low-lying plaster brackets, device bolt spacing 60 mm, for screw fastening with 3.2 mm self-tapping screws, with 2 screw bosses without screws, protection rating IP20.

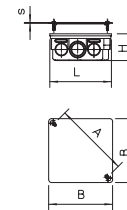


### Concealed connection box

Type	Colour	No. of entries	Pack. pcs	Weight kg/100 pcs	Item No.
<b>UV 80 K</b>	Black	12	50	4.500	<b>2003112</b>
<b>UV 100 K</b>	Black	12	50	5.836	<b>2003118</b>
<b>UV 150 K</b>	Black	12	16	15.667	<b>2003124</b>
<b>UV 200 K</b>	Black	12	10	35.714	<b>2003130</b>
<b>UV 250 K</b>	Black	12	10	52.000	<b>2003136</b>

PS Polystyrene

Connection box for clamping terminals, with lid and lid screw (15 mm), lid edge is flat, surface is roughened, in conjunction with the lid and lid screws, the connection sockets achieve the VDE test mark to VDE 0606 and are flame-resistant to VDE 0471/DIN 695 Part 2-1, testing temperature 750 °C, protection rating IP20.



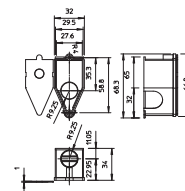
### Wall light connection socket



Type	Colour	No. of entries	Pipe Ø	Pack. pcs	Weight kg/100 pcs	Item No.
<b>UWA</b>	Cream	3	Other	25	0.892	<b>2003082</b>

PS Polystyrene

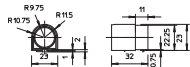
Wall luminaire connection socket with internal lid, space for 3 connection terminals, use according to VDE 0100, 3 break-out openings for cables and pipes Ø 18.7 mm, not to be used as a connection socket, protection rating IP20.



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## Expansion support for concealed accessory sockets



Colour

Type

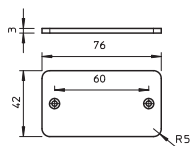
**UG AS** | Black

PS Polystyrene

Expansion support suitable for all sockets with tunnel support. Suitable for the combination of heavy and weak current devices and telecommunications equipment using separated covers, combination spacing 90 mm.

Pack.	Weight		Item No.
	pcs	kg/100 pcs.	
25	0.290		<b>2003212</b>

## Wall light socket cover



Shipping

Type

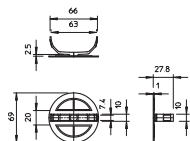
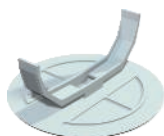
**UW AD** | White | 250

PS Polystyrene

Wall light socket cover for flush closure of the wall outlet socket, surface is roughened, cover bolts can be lowered. Delivery including two 15 mm bolts.

Pack.	Weight		Item No.
	pcs	kg/100 pcs.	
10	0.600		<b>2003218</b>

## Sprung cover, 60 mm



Shipping

Type

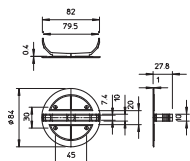
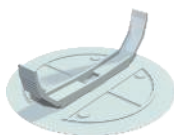
**UG 60 FD** | White | 69 | 500

PS Polystyrene

Sprung cover with centrally moulded, elastic spreading spring, for sockets with Ø 60 mm, cover edge is flush, surface is roughened.

Pack.	Weight		Item No.
	pcs	kg/100 pcs.	
25	0.810		<b>2003223</b>

## Sprung cover, 70 mm



Shipping

Type

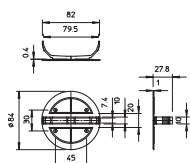
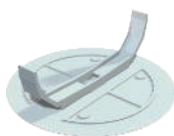
**UV 70 FD** | White | 84 | 500

PS Polystyrene

Sprung cover with centrally moulded, elastic spreading spring, for sockets with Ø 70 mm, cover edge is flush, surface is roughened.

Pack.	Weight		Item No.
	pcs	kg/100 pcs.	
25	1.200		<b>2003227</b>

## Sprung cover, 80 mm



Shipping

Type

**UV 80 FD** | White | 95 | 500

PS Polystyrene

Sprung cover with centrally moulded, elastic spreading spring, for sockets with Ø 80 mm, cover edge is flush, surface is roughened.

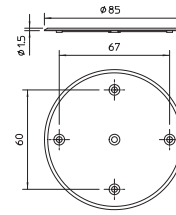
Pack.	Weight		Item No.
	pcs	kg/100 pcs.	
25	1.500		<b>2004634</b>

### Universal cover

Type	Colour	Ø	Shipping box max. pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>UG UD</b>	White	84	400	20	1.070	<b>2003236</b>

PS Polystyrene

Universal cover for all socket types, cover with central fastening for connection sockets, bolt hole spacing 60 mm for accessory sockets and device connection sockets, bolt hole spacing 67 mm for connection sockets, cover edge is flush, surface is roughened, lowerable cover bolts.



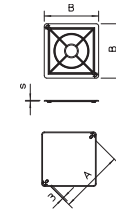
### Box lid



Type	Dimension A mm	Dimension B mm	Dimension s mm	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>UV 80 D</b>	102	97	1.5	White	250	10	1.275	<b>2003240</b>
<b>UV 100 D</b>	130	114	1.5	White	240	10	2.004	<b>2003244</b>
<b>UV 150 D</b>	200	170	1.75	White	150	5	4.850	<b>2003248</b>
<b>UV 200 D</b>	260	210	2	White	50	5	9.500	<b>2003252</b>
<b>UV 250 D</b>	328	260	2.5	White	25	5	17.190	<b>2003256</b>

PS Polystyrene

Box cover suitable for the connection sockets, type UV...K, cover edge is flush, surface is roughened, cover bolts can be lowered.



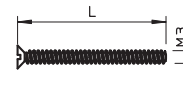
### Device screw

Type	Dimension L mm	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>U 15 GS</b>	15	3000	100	0.060	<b>2003265</b>
<b>U 20 GS</b>	20	2500	100	0.090	<b>2004676</b>
<b>U 25 GS</b>	25	2000	100	0.092	<b>2003269</b>
<b>U 30 GS</b>	30	2000	100	0.108	<b>2004680</b>
<b>U 35 GS</b>	35	1500	100	0.124	<b>2003273</b>
<b>U 40 GS</b>	40	1000	100	0.140	<b>2003277</b>

Sl Steel

G Electrogalvanised

Screws suitable for different types of device and lid fastening, with self-tapping thread Ø 3.2 mm.



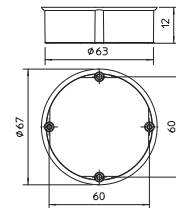
### Surface equalisation ring, 12 mm, accessory sockets



Type	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>UG 60 PA 12</b>	Red	250	25	0.700	<b>2003287</b>

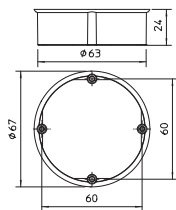
PS Polystyrene

Compensation ring to screw onto deeply concealed accessory sockets and accessory connection sockets, can be combined, when they are screwed on at a 90° offset. Compensation heights selectable by combining the different types, with two device/cover screws 15 mm and two fastening screws, protection rating <math>IP23</math>.



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### Surface equalisation ring, 24 mm, accessory sockets

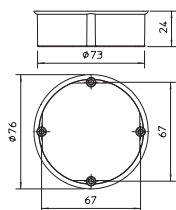


Type	Colour	Shipping box pcs	Weight		Item No.
			Pack. pcs	kg/100 pcs	
<b>UG 60 PA 24</b>	<b>Red</b>	250	25	1.100	<b>2003295</b>

PS Polystyrene

Compensation ring to screw onto deeply concealed accessory sockets and accessory connection sockets, can be combined, when they are screwed on at a 90° offset. Compensation heights selectable by combining the different types, with two device/cover screws 15 mm and two fastening screws, protection rating.

### Surface equalisation ring, 24 mm, connection sockets

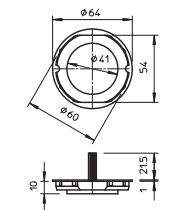
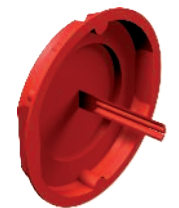


Type	Colour	Weight		Item No.
		Pack. pcs	kg/100 pcs	
<b>UV 70 PA 24</b>	<b>Red</b>	25	1.850	<b>2003299</b>

PS Polystyrene

Compensation ring to screw onto deeply concealed connection sockets, can be combined, when they are screwed on at a 90° offset. Compensation heights selectable through combination of the various types, with 2 device/cover screws 15 mm and 2 fastening screws, protection rating.

### Signal cover 60 mm, accessory sockets

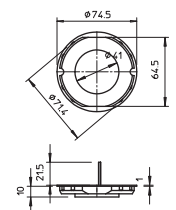


Type	Installation type	Colour	Shipping box pcs	Weight		Item No.
				Pack. pcs	kg/100 pcs	
<b>UG 60 SD</b>	Concealed	<b>Red</b>	500	50	0.437	<b>2003317</b>

PE Polyethylene

Signal covers protect the interior, the screw domes and screw heads on plastering. The marking bristles allow simple location of the sockets and boxes after plastering. The signal covers can be used several times. After plastering, simply push the cover into the socket and remove the signal cover.

### Signal cover, 70 mm, connection sockets

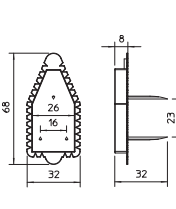
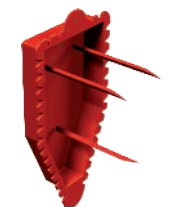


Type	Installation type	Colour	Shipping box pcs	Weight		Item No.
				Pack. pcs	kg/100 pcs	
<b>UV 70 SD</b>	Concealed	<b>Red</b>	250	25	0.680	<b>2003321</b>

PE Polyethylene

Signal covers protect the interior, the screw domes and screw heads on plastering. The marking bristles allow simple location of the sockets and boxes after plastering. The signal covers can be used several times. After plastering, simply push the cover into the socket and remove the signal cover.

### Signal cover, wall luminaire socket



Type	Installation type	Colour	Shipping box pcs	Weight		Item No.
				Pack. pcs	kg/100 pcs	
<b>UW ASD</b>	Concealed	<b>Red</b>	100	100	0.200	<b>2003325</b>

PE Polyethylene

Signal covers protect the interior, the screw domes and screw heads on plastering. The marking bristles allow simple location of the sockets and boxes after plastering. The signal covers can be used several times. After plastering, simply push the cover into the socket and remove the signal cover.



## Cavity wall systems



Cavity wall accessory socket, wind-tight version through soft entry membrane. Dimensions to DIN 49073-1, for plate thickness 7–35 mm. Standard combination spacing 71 mm, option of through-wiring using connection supports when combining accessory sockets and accessory connection sockets, break-out openings/entry membranes for NYM cables, data cables and pipes of Ø 20 mm. Accessory sockets can also be used as connection sockets in accordance with VDE 0606-1 with double screw fastening and screw-on lid, protection rating IP 20, wind-tight version IP 40.

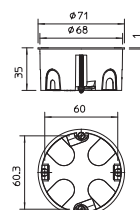
### Cavity wall accessory socket, wind-proof



Type	Milling hole		Height	max. Entries	Pipe Ø	Weight		Item No.
	Ø	mm				mm	kg/100 pcs	
<b>HG 60-35 MW</b>	68	35	68	8	20 mm	25	1.275	<b>2003603</b>

PP Polypropylene

Cavity wall device socket, wind-proof version through soft entry membrane. Dimensions to DIN 49073-1, for plate thickness 7–35 mm. Standard combination spacing 71 mm, option for continuous wiring using connection support for combinations between device sockets and device connection sockets, 8 wind-proof insertion membranes for NYM cables, data cables and pipes Ø 20 mm., device sockets can also be used as connection sockets to VDE 0606-1 with double screw fastening and screw-on lid, protection rating IP40.



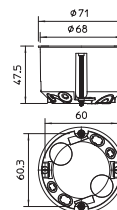
### Cavity wall accessory socket, wind-proof



Type	Milling hole		Height	max. Entries	Pipe Ø	Weight		Item No.
	Ø	mm				mm	kg/100 pcs	
<b>HG 60 MW</b>	68	47	68	8	20 mm	25	2.160	<b>2003611</b>

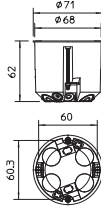
PP Polypropylene

Cavity wall device socket, wind-proof version through soft entry membrane. Dimensions to DIN 49073-1, for plate thickness 7–35 mm. Standard combination spacing 71 mm, option for continuous wiring using connection support for combinations between device sockets and device connection sockets, 8 soft insertion membrane for NYM cables, data cables and pipes Ø 20 mm, device sockets can also be used as connection sockets to VDE 0606-1 with double screw fastening and screw-on lid, protection rating IP40.





Cavity wall accessory/connection socket, wind-proof



Type	Milling hole		Height		Entries	Pipe Ø	Weight		Item No.
	mm	mm	mm	mm			Pack. pcs	kg/100 pcs	
<b>HV 60 MW</b>	68	68	61	68	8	20 mm	25	2.600	<b>2003619</b>

PP Polypropylene

Cavity wall device/connection socket, wind-tight version through soft entry membrane. Dimensions to DIN 49073-1, for plate thickness 7–35 mm. Standard combination spacing 71 mm, option for continuous wiring using connection support for combinations between device sockets and device connection sockets,

8 wind-proof insertion membranes for NYM cables, data cables and pipes Ø 20 mm., device sockets can also be used as connection sockets to VDE 0606-1 with double screw fastening and screw-on lid, protection rating IP40.

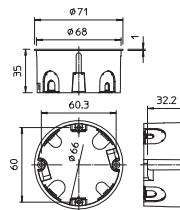
## Cavity wall accessory socket



Type	Milling hole Ø		Height Ø		Entries	Pipe Ø	Pack. pcs.	Weight kg/100 pcs.	Item No.
	mm	mm	mm	max.					
<b>HG 60-35</b>	68	35	68	8	20 mm	25	1.811	<b>2003426</b>	

PP Polypropylene

Cavity wall device socket. Dimensions to DIN 49073-1, for plate thickness 7–35 mm. Standard combination spacing 71 mm, option for continuous wiring using connection support for combinations between device sockets and device connection sockets, 8 break-out openings for NYM cables, data cables and pipes Ø 20 mm, device sockets can also be used as connection sockets to VDE 0606-1 with double screw fastening and screw-on lid, protection rating IP20.



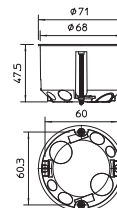
## Cavity wall accessory socket



Type	Milling hole Ø		Height Ø		Entries	Pipe Ø	Pack. pcs.	Weight kg/100 pcs.	Item No.
	mm	mm	mm	max.					
<b>HG 60</b>	68	47	68	8	20 mm	25	2.180	<b>2003414</b>	

PP Polypropylene

Cavity wall device socket. Dimensions to DIN 49073-1, for plate thickness 7–35 mm. Standard combination spacing 71 mm, option for continuous wiring using connection support for combinations between device sockets and device connection sockets, 8 break-out openings for NYM cables, data cables and pipes Ø 20 mm, device sockets can also be used as connection sockets to VDE 0606-1 with double screw fastening and screw-on lid, protection rating IP30.



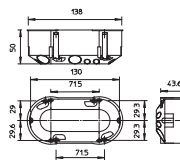
## Cavity wall, double accessory socket



Type	Milling hole Ø		Height Ø		Entries	Pipe Ø	Pack. pcs.	Weight kg/100 pcs.	Item No.
	mm	mm	mm	max.					
<b>HG 60 2</b>	68	50	—	14	20 mm	10	4.850	<b>2003422</b>	

PP Polypropylene

Double device socket, for two service units or one double service units, with four device screws. Dimensions to DIN 49073-1, for plate thickness 7–35 mm. Standard combination spacing 71 mm, 14 break-out openings for NYM cables, data cables and pipes Ø 20 mm, protection rating IP30.



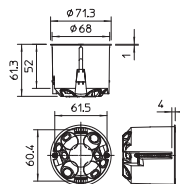
## Cavity wall accessory/connection socket



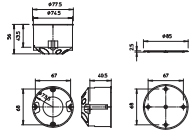
Type	Milling hole Ø		Height Ø		Entries	Pipe Ø	Pack. pcs.	Weight kg/100 pcs.	Item No.
	mm	mm	mm	max.					
<b>HV 60</b>	68	61	68	8	20 mm	25	2.740	<b>2003442</b>	

PP Polypropylene

Cavity wall device/connection socket Dimensions to DIN 49073-1, for plate thickness 7–35 mm. Standard combination spacing 71 mm, option for continuous wiring using connection support for combinations between accessory sockets and accessory connection sockets, 8 break-out openings for NYM cables, data cables and pipes Ø 20 mm, accessory sockets can also be used as connection sockets to VDE 0606-1 with double screw fastening and screw-on lid, protection rating IP30.



### Cavity wall connection socket with cover

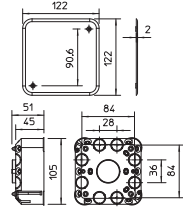


Type	Milling hole Ø		Height		max. Entries	Pipe Ø	Pack. pcs	Weight		Item No.
	mm	mm	mm	mm				kg/100 pcs	pcs.	
<b>HV 70 D</b>	74	50	74	8	20 mm	10	3.650		<b>2003430</b>	

PP Polypropylene

Cavity wall connection box with lid, dimensions to DIN 49073-1, for plate thickness 7–35 mm. 8 break-out openings for NYM cables, data cables and pipes Ø 20 mm, protection rating IP30.

### Cavity wall connection box

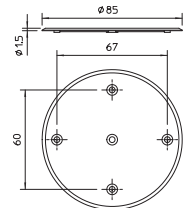


Type	Milling hole Ø		Height		max. Entries	Pipe Ø	Pack. pcs	Weight		Item No.
	mm	mm	mm	mm				kg/100 pcs	pcs.	
<b>HV 100 KD</b>	—	50	—	20	20 mm	25	6.300		<b>2003449</b>	

PP Polypropylene

Cavity wall connection box, 20 break-out openings for NYM cables, data cables and pipes Ø 20 mm, with lid and lid screws, with white lid and lid screws (flame-resistant to VDE 0471/DIN 695 Part 2-1, testing temperature 750 °C), for plate thickness 7-35 mm. Suitable for installation of standard rails (hat and support rails) for series terminals, protection rating IP30.

### Universal cover



Type	Colour	Shipping box		Pack. pcs	Weight		Item No.
		max.	pcs		kg/100 pcs	pcs.	
<b>UG UD</b>	White	84	400	20	1.070		<b>2003236</b>

PS Polystyrene

Universal cover for all socket types, cover with central fastening for connection sockets, bolt hole spacing 60 mm for accessory sockets and device connection sockets, bolt hole spacing 67 mm for connection sockets, cover edge is flush, surface is roughened, lowerable cover bolts.













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## Terminal systems

	<b>Individual connection terminals, plug-in</b>	170
	<b>Individual connection terminals, screw-in</b>	175
	<b>Connection and housing terminals</b>	175
	<b>Neutral and protective conductor terminal</b>	184
	<b>Main cable junction terminals</b>	185
	<b>Terminal sets</b>	186



### Individual connection terminals, plug-in

- Screwless terminal, universal
- Screwless terminals
- Luminaire connection terminals



### Individual connection terminals, screw-in

- Dolü terminals
- Terminal strips



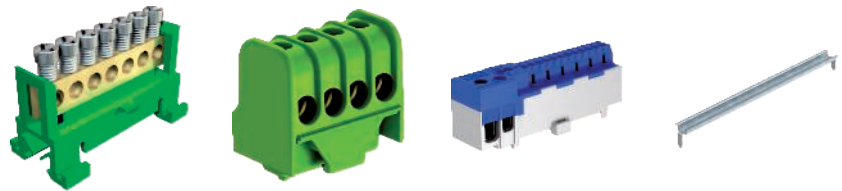
### Connection/housing terminals

- Phase terminals



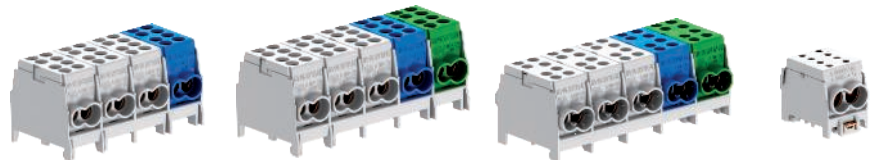
### Connection/housing terminals

- Neutral and protective conductors
- Hat profile rail, T series



### Main cable junction terminals

- Multi-pin terminal blocks
- Quick fastening for hat profile rails



### Connection/housing terminals

- Set for small distributors



## Screwless universal terminal

- Simple connection and disconnection
- Test opening
- Simple checking of the stripping length
- For flexible and rigid conductors
- Rigid conductors can be inserted without even handling the release lever
- Connection cross-sections of 0.2 to 2.5 mm<sup>2</sup>
- Tested to EN 60998

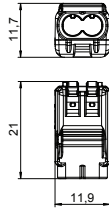


Simply plugged-in

This is the easiest way to connect or disconnect rigid cables and strands: OBO's new screwless connection terminals for flexible and rigid cables.



### Universal plug-in terminal, 2-pole



Colour

Type

**61 225 FL** | Transparent

PC Polycarbonate

Tested according to EN 60998

Screwless terminal to connect electrical conductors. The type of conductor can either be flexible, multi-wire or rigid.

If rigid conductors are used, an opening of the release lever is not necessary. The conductor can be plugged into the terminal directly.

To extract the conductors, simply open the release lever. The strand can then be easily pulled-out.

Nominal cross-section:

2 x 0.2 - 2.5 mm<sup>2</sup> multi-wire cables / single-wire conductors

Rated voltage V

Rated current A

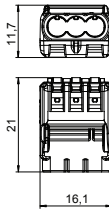
Stripping length: 9 mm (+1 mm)

Inspection opening: Phase tester and testing pin (max. Ø 2 mm), very easily accessible on the top side of the terminal

Max. approved ambient temperature according to EN 60998: 85 °C.

Pack. pcs	Weight kg/100		Item No.
	pcs.	pcs.	
100	0.200		<b>2054450</b>

### Universal plug-in terminal, 3-pole



Colour

Type

**61 325 FL** | Transparent

PC Polycarbonate

Tested according to EN 60998

Screwless terminal to connect electrical conductors. The type of conductor can either be flexible, multi-wire or rigid.

If rigid conductors are used, an opening of the release lever is not necessary. The conductor can be plugged into the terminal directly.

To extract the conductors, simply open the release lever. The strand can then be easily pulled-out.

Nominal cross-section:

3 x 0.2 - 2.5 mm<sup>2</sup> multi-wire cables / single-wire conductors

Rated voltage V

Rated current A

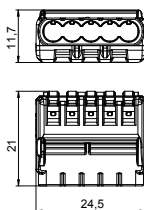
Stripping length: 9 mm (+1 mm)

Inspection opening: Phase tester and testing pin (max. Ø 2 mm), very easily accessible on the top side of the terminal

Max. approved ambient temperature according to EN 60998: 85 °C.

Pack. pcs	Weight kg/100		Item No.
	pcs.	pcs.	
75	0.270		<b>2054454</b>

### Universal plug-in terminal, 5-pole



Colour

Type

**61 525 FL** | Transparent

PC Polycarbonate

Tested according to EN 60998

Screwless terminal to connect electrical conductors. The type of conductor can either be flexible, multi-wire or rigid.

If rigid conductors are used, an opening of the release lever is not necessary. The conductor can be plugged into the terminal directly.

To extract the conductors, simply open the release lever. The strand can then be easily pulled-out.

Nominal cross-section:

5 x 0.2 - 2.5 mm<sup>2</sup> multi-wire cables / single-wire conductors

Rated voltage V

Rated current A

Stripping length: 9 mm (+1 mm)

Inspection opening: Phase tester and testing pin (max. Ø 2 mm), very easily accessible on the top side of the terminal

Max. approved ambient temperature according to EN 60998: 85 °C.

Pack. pcs	Weight kg/100		Item No.
	pcs.	pcs.	
50	0.410		<b>2054458</b>

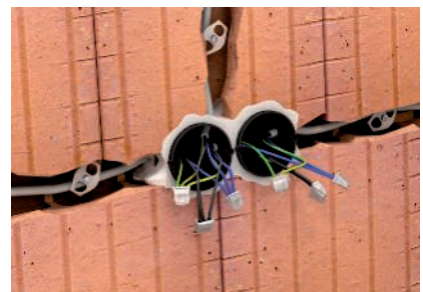
## Screwless terminals 61 ... LGR

- Tested to EN 60998
- Nominal cross-section:
  - 3, 5 or 8 x 0.5 mm<sup>2</sup>–2.5 mm<sup>2</sup> single-strand conductors
  - 3, 5 or 8 x 1.5 mm<sup>2</sup>–2.5 mm<sup>2</sup> rigid, multi-wire conductors
- Nominal voltage 450 V
- Nominal current 24 A
- Stripped length: 8–9 mm
- Inspection opening: Phase tester and testing pin (max. Ø 2 mm)
- Max. approved ambient temperature to EN 60998: 90 °C



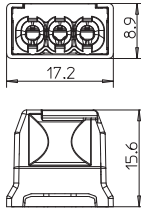
For 3, 5 and 8 conductors

Screwless terminals for quick and easy connection of single-strand or rigid multi-wire cables.





### Screwless terminals, 3-pole



Colour

**Type**  
**61 325 LGR** Light grey

PA Polyamide

Screwless terminal to connect single-strand cables.

Nominal cross-section:

5 x 0.5 mm<sup>2</sup> to 2.5 mm<sup>2</sup> single-wire cable

5 x 1.5 mm<sup>2</sup> to 2.5 mm<sup>2</sup> rigid, multi-wire cable

Rated voltage V.

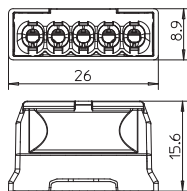
Rated current A.

Stripping length: 8–9 mm.

Inspection opening: phase tester and testing pin (max. Ø 2 mm).

Pack.	Weight		Item No.
	pcs	kg/100 pcs	
100	0.135		2054485

### Screwless terminals, 5-pole



Colour

**Type**  
**61 525 LGR** Light grey

PA Polyamide

Screwless terminal to connect single-strand cables.

Nominal cross-section:

5 x 0.5 mm<sup>2</sup> to 2.5 mm<sup>2</sup> single-wire cable

5 x 1.5 mm<sup>2</sup> to 2.5 mm<sup>2</sup> rigid, multi-wire cable

Rated voltage V.

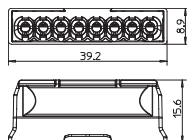
Rated current A.

Stripping length: 8–9 mm.

Inspection opening: phase tester and testing pin (max. Ø 2 mm).

Pack.	Weight		Item No.
	pcs	kg/100 pcs	
100	0.300		2054507

### Screwless terminals, 8-pole



Colour

**Type**  
**61 825 LGR** Light grey

PA Polyamide

Screwless terminal to connect single-strand cables.

Nominal cross-section:

8 x 0.5 mm<sup>2</sup> to 2.5 mm<sup>2</sup> single-wire cable.

8 x 1.5 mm<sup>2</sup> to 2.5 mm<sup>2</sup> rigid, multi-wire cable.

Rated voltage V.

Rated current A.

Stripping length: 8–9 mm.

Inspection opening: phase tester and testing pin (max. Ø 2 mm).

Pack.	Weight		Item No.
	pcs	kg/100 pcs	
50	0.490		2054523

## Luminaire connection terminal with 3 connections



Colour

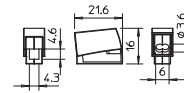
## Type

**61 2/1 25 WS** | White

PA Polyamide

Pack.	Weight
pcs	kg/100
100	0,225

Item No.

**2054755**

Luminaire connection terminal for toolless connection of remote cables. Tested according to EN 60998

Screwless terminal to connect single-wire cables to multi-wire cables.

Nominal cross-section:

0,5 - 2,5

Rated voltage V

Rated current A

Stripping length: 8–9 mm

Inspection opening: Phase tester and testing pin (max. Ø 2 mm)

Max. approved ambient temperature according to EN 60998: T 110 °C



## Dolü branch terminal

- “Dolü” is an OBO trademark that stands for cutting-edge quality
- Proven technology for more than 50 years
- 12-pin, individual terminals detachable
- Various colours



70/S VDE

The branch terminal/terminal strip consists of an insulating plastic housing that serves as electric shock protection for the steel/brass terminal insert. Thus no voltage-carrying parts can be touched if the component is used

correctly. The ends of the wire strands must be inserted using ferules. These ensure no mechanical damage can occur and rule out the risk of damage to individual strands from the clamping screw as it turns. When using lustre ter-

minals, it must be ensured in each individual case that the installation conforms to the applicable VDE standards.

## Dolü branch terminals, open on both sides 12 pole



Colour

Type	Pack. pcs.	Weight		Item No.
		kg/100 pcs.	pcs.	
<b>70 VDE</b>   (sorted)	10	2.500	2055023	

PA Polyamide

\* Sorted in colours black, brown, blue and yellow-green.

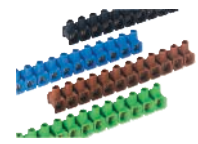
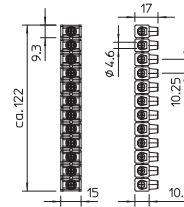
Terminals made of brass, screws of steel, galvanised and transparently passivated, 12-pole, strip separable into individual terminals, open on both sides.

Captive upwards screw.

Nominal cross-section 2,5 mm<sup>2</sup>.

Nominal voltage 380 V.

Nominal current 16 A.

Max. connectable cross-sections per terminal: 4 x 2.5 mm<sup>2</sup>, 5 x 1.5 mm<sup>2</sup> or 6 x 1 mm<sup>2</sup>.

## Dolü branch terminals, open on both sides 10 pole



Colour

Type	Pack. pcs.	Weight		Item No.
		kg/100 pcs.	pcs.	
<b>71</b>   Black	10	7.030	2055503	

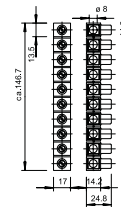
PP Polypropylene

Terminals made of brass, screws of steel, galvanised and transparently passivated, 10-pole, strip separable into individual terminals, open on both sides.

Captive upwards screw.

Nominal cross-section 10 mm<sup>2</sup>.

Nominal voltage 380 V.

Max. connectable cross-sections per terminal: 3 x 10 mm<sup>2</sup>, 4 x 6 mm<sup>2</sup>.

## Dolü branch terminals, open on one side



Colour

Type	Pack. pcs.	Weight		Item No.
		kg/100 pcs.	pcs.	
<b>70 S</b>   (sorted)	10	2.852	2055201	

PA Polyamide

Terminals made of brass, screws of steel, galvanised and transparently passivated, 12-pole, strip separable into individual terminals, only open on one side.

Closed on one side, captive upwards screw.

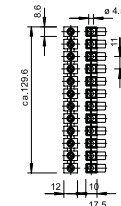
Nominal cross-section 2,5 mm<sup>2</sup>.

Nominal voltage 250 V.

Nominal current 24 A.

Max. connectable cross-sections per terminal: 4 x 2.5 mm<sup>2</sup>, 5 x 1.5 mm<sup>2</sup> or 6 x 1 mm<sup>2</sup>.

Delivery sorted by colour: 3 black, 2 blue, 3 yellow-green, 1 brown and 1 grey strip in each packaging unit.



## Protection conductor terminals, with screw contacts, 12 terminals



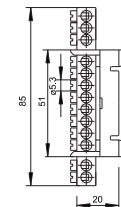
Colour

Type	Pack. pcs.	Weight		Item No.
		kg/100 pcs.	pcs.	
<b>60 S 12x16 GN</b>   Green	10	4.200	2054094	

PA Polyamide

Protective conductor connection terminal with 7 terminals up to 16 mm<sup>2</sup>.

Clamping rail, brass, steel screws, electrogalvanised and transparently passivated, for snapping onto 35 x 7.5 mm hat profile rails to DIN EN 60715 (previously DIN EN 50022) (transverse) or flat rails 10 x 2-2.5 mm (lengthwise).



## Terminal strips

- Tested to EN 60998
- Brass terminals, bolts made of electrogalvanised steel
- 12-pin strips, separable into individual terminals through "twist'n'pull"
- Captive upwards screw
- Max. approved ambient temperature to EN 60998: -5 to +80 °C
- Nominal cross-section 4–35 mm<sup>2</sup>

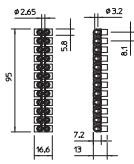


Separable strips through  
"twist'n'pull"

The branch terminal/terminal strip consists of an insulating plastic housing that serves as electric shock protection for the steel/brass terminal insert. Thus no voltage-carrying parts can be touched if the component is used correctly. The ends of wire strands

must be inserted with wire end sleeves to ensure no mechanical damage can occur and rule out the risk of damage to individual strands from the clamping screw as it turns.



4 mm<sup>2</sup> series connectors, polypropylene

Type	72 CE WS/EKL 0 S	72 CE SW/EKL 0 S
Colour	White	Black
Box quantity pcs	500	500
Pack. pcs	10	10
Weight kg/100 pcs.	1.800	1.800
Item No.	2056070	2056089

PP Polypropylene

Tested to EN 60998.

Steel terminals, steel screws, electrogalvanised, 12-pole, individual terminals detachable from strips using "twist'n'pull".

Captive upwards screw.

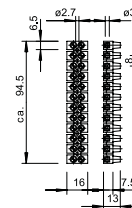
Max. approved ambient temperature to EN 60998: -5 to +80 °C.

Nominal cross-section mm<sup>2</sup>.

Nominal voltage 450 V.

Nominal current A.

Max. attachment each side: 4 mm<sup>2</sup> single-wire or 2.5 mm<sup>2</sup> multi-wire/flexible.

4 mm<sup>2</sup> series connector, polyamide

Type	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
72 VDE/EKL 0E PA	Transparent	500	10	2.000	2055929

PA Polyamide

Brass terminals, steel screws, galvanised and blue passivated, 12-pole, individual terminals detachable.

Captive upwards screw.

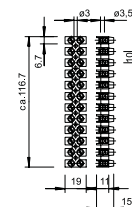
Nominal cross-section mm<sup>2</sup>.

Nominal voltage V.

Nominal current A.

Max. attachment each side: 4 mm<sup>2</sup> single-wire or 2.5 mm<sup>2</sup> multi-wire.

Maximum approved ambient temperature to EN 60998: -5 to +85 °C.

Series connectors, 4 mm<sup>2</sup>, polyamide wire protection clamp

Type	Colour	Pack. pcs	Weight kg/100 pcs.	Item No.
74 D/EKL 1BEF2 D	Transparent	10	3.680	2056178

PA Polyamide

With wire protection clamp.

Tested to EN 60998.

Brass terminals, nickel-plated, steel screws, electrogalvanised and blue passivated, 12-pole, individual terminals detachable.

Captive upwards screw.

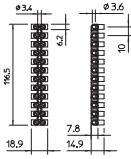
Nominal cross-section 4 mm<sup>2</sup>

Nominal voltage 450 V

Nominal current 32 A Max. attachment each side: 4 mm<sup>2</sup> single-wire or 4 mm<sup>2</sup> fine-wire.

Maximum approved ambient temperature to EN 60998: -5 to +85 °C.



6 mm<sup>2</sup> series connectors, polypropylene

## Type

Colour

Box quantity pcs

Pack. pcs

Weight kg/100

pcs.

Item No.

74 CE WS/EKL 1 S

White

200

10

2.600

2056224

74 CE SW/EKL 1 S

Black

200

10

2.600

2056232

PP Polypropylene

Tested to EN 60998.

Steel terminals, steel screws, electrogalvanised, 12-pole, individual terminals detachable from strips using "twist'n'pull".

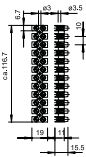
Captive upwards screw.

Max. approved ambient temperature to EN 60998: -5 to +80 °C.

Nominal cross-section mm<sup>2</sup>.

Nominal voltage 450 V.

Nominal current 41 A.

Max. attachment each side: 6 mm<sup>2</sup> single-wire or 4 mm<sup>2</sup> fine-wire.6 mm<sup>2</sup> series connectors, polyamide

## Type

Colour

Pack. pcs

Weight kg/100

pcs.

Item No.

74 VDE/EKL 1BEF2

Transparent

10

3.580

2056143

PA Polyamide

Tested to EN 60998.

Brass terminals, nickel-plated, steel screws, electrogalvanised and blue passivated, 12-pole, individual terminals detachable.

Captive upwards screw.

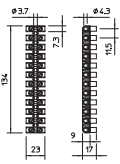
Nominal cross-section 6 mm<sup>2</sup>

Nominal voltage 450 V

Nominal current 41 A

Max. attachment each side: 6 mm<sup>2</sup> single-wire or 4 mm<sup>2</sup> fine-wire.

Maximum approved ambient temperature to EN 60998: -5 to +85 °C.

10 mm<sup>2</sup> series connectors, polypropylene

Type	76 CE WS/EKL 2 S	76 CE SW/EKL 2 S
Colour	White	Black
Pack. pcs	10	10
Weight kg/100 pcs.	4.300	4.300
Item No.	2056372	2056380

PP Polypropylene

Tested to EN 60998.

Steel terminals, steel screws, electrogalvanised, 12-pole, individual terminals detachable from strips using "twist'n'pull".

Captive upwards screw.

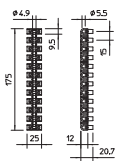
Max. approved ambient temperature to EN 60998: -5 to +80 °C.

Nominal cross-section 10 mm<sup>2</sup>.

Nominal voltage 450 V.

Nominal current 57 A.

Max. attachment each side: 10 mm<sup>2</sup> single-wire or 6 mm<sup>2</sup> multi-wire/flexible.

16 mm<sup>2</sup> series connectors, polypropylene

Type	78 CE WS/EKL 3 S	78 CE SW/EKL 3 S
Colour	White	Black
Pack. pcs	10	10
Weight kg/100 pcs.	7.500	7.500
Item No.	2056550	2056569

PP Polypropylene

Tested to EN 60998.

Steel terminals, steel screws, electrogalvanised, 12-pole, individual terminals detachable from strips using "twist'n'pull".

Captive upwards screw.

Max. approved ambient temperature to EN 60998: -5 to +80 °C.

Nominal cross-section 16 mm<sup>2</sup>.

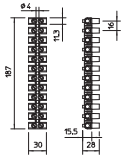
Nominal voltage 450 V.

Nominal current 76 A.

Max. attachment each side: 16 mm<sup>2</sup> single-wire or 10 mm<sup>2</sup> multi-wire or 6 mm<sup>2</sup> flexible.



## 25 mm<sup>2</sup> series connectors, polypropylene



**Type**

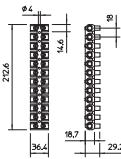
Colour  
Pack. pcs  
Weight kg/100 pcs.  
**Item No.**

79 CE WS/EKL 4BE	79 CE SW/EKL 4BE
White	Black
10	10
11.200	11.200
<b>2056577</b>	<b>2056585</b>

PP Polypropylene

Tested to EN 60998.  
Brass terminals, steel screws, electrogalvanised and transparently passivated, 12-pole, individual terminals detachable from strips.  
Captive upwards screw.  
Max. approved ambient temperature to EN 60998: -5 to +80 °C.  
Nominal cross-section 25 mm<sup>2</sup>.  
Nominal voltage 750 V.  
Nominal current 101 A.  
Max. attachment each side: 25 mm<sup>2</sup> multi-wire or 16 mm<sup>2</sup> fine-wire.

## 35 mm<sup>2</sup> series connectors, polypropylene



**Type**

Colour  
Pack. pcs  
Weight kg/100 pcs.  
**Item No.**

80 CE WS/EKL 5E	80 CE SW/EKL 5E
White	Black
10	10
17.400	17.400
<b>2056590</b>	<b>2056593</b>

PP Polypropylene

Tested to EN 60998.  
Brass terminals, steel screws, electrogalvanised, 12-pole, individual terminals detachable from strips.  
Captive upwards screw.  
Max. approved ambient temperature to EN 60998: -5 to +80 °C.  
Nominal cross-section 35 mm<sup>2</sup>.  
Nominal voltage 750 V.  
Nominal current 125 A.  
Max. attachment each side: 35 mm<sup>2</sup> multi-wire or 25 mm<sup>2</sup> fine-wire.

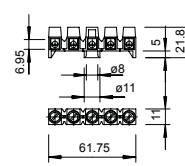


Terminal strip 2.5 mm<sup>2</sup>

Type	Colour	No. of terminals	Nominal cross-section mm <sup>2</sup>	Nom. voltage V	Pack. pcs	Weight kg/100 pcs	Item No.
689	Light grey	5	0.8 - 2.5	660	50	1.502	2017342

PA Polyamide

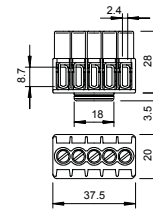
Terminal strip, nickel-plated brass, steel screws, galvanised and transparently passivated, nominal cross-section 0,8 - 2,5 mm<sup>2</sup>, nominal voltage 660 V, 5-pole, with terminal sockets, max. connectable cross-sections per terminal: 4 x 2.5 mm<sup>2</sup>, 5 x 1.5 mm<sup>2</sup> or 6 x 1 mm<sup>2</sup>, unnecessary poles can be cut off and used as individual terminals.

Terminal strip 1–4 mm<sup>2</sup>, junction box, T series

Type	Colour	No. of terminals	Nominal cross-section mm <sup>2</sup>	Nom. voltage V	Pack. pcs	Weight kg/100 pcs	Item No.
KL-T 01-04	Light grey	5	1 - 4	400	10	2.100	2016180

PA Polyamide

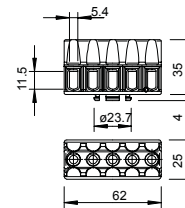
Steel terminal block and bolts, galvanised and transparently passivated, nominal 1 - 4 mm<sup>2</sup>, nominal voltage 400 V, 5-pole, with terminal sockets, Max. connectable cross-sections per terminal max. 4 x 2.5 mm<sup>2</sup>, 5 x 1.5 mm<sup>2</sup> or 6 x 1 mm<sup>2</sup>.

Terminal strip 1.5–6 mm<sup>2</sup>, junction box, T series

Type	Colour	No. of terminals	Nominal cross-section mm <sup>2</sup>	Nom. voltage V	Pack. pcs	Weight kg/100 pcs	Item No.
KL-T 02-06	Light grey	5	1.5 - 6	400	10	4.380	2016185

PA Polyamide

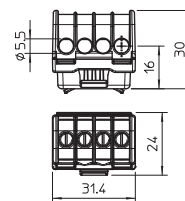
Steel terminal block and bolts, galvanised and transparently passivated, nominal 1,5 - 6 mm<sup>2</sup>, nominal voltage 400 V, 5-pole, with terminal sockets, Max. connectable cross-sections per terminal: 3 x 6 mm<sup>2</sup>, 4 x 4 mm<sup>2</sup> or 6 x 2.5 mm<sup>2</sup>.

Terminal strip 6–16 mm<sup>2</sup>, junction box, T series

Type	Colour	No. of terminals	Nominal cross-section mm <sup>2</sup>	Nom. voltage V	Pack. pcs	Weight kg/100 pcs	Item No.
KL-T 06-16	Light grey	4	6 - 16	400	10	1.970	2016190

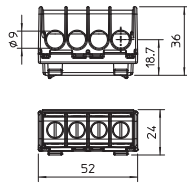
PA Polyamide

Brass terminals, steel screws, electrogalvanised and transparently passivated, nominal cross-section 6 - 16 mm<sup>2</sup>, nominal voltage 400 V, 1-pole, with terminal sockets, Max. connectable conductors per terminal max. 4 x 16 mm<sup>2</sup>, 4 x 10 mm<sup>2</sup>, 8x6 mm<sup>2</sup> or 12 x 4 mm<sup>2</sup>.





## Terminal strip 16–35 mm<sup>2</sup>, junction box, T series

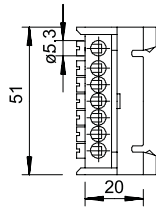


Type	Colour	No. of terminals	Nominal cross-section mm <sup>2</sup>	Nom. voltage V	Pack. pcs	Weight kg/100 pcs	Item No.
<b>KL-T 16-35</b>	Light grey	4	16 - 35	400	10	5.630	<b>2016195</b>

PA Polyamide

Brass terminals, steel screws, electrogalvanised and transparently passivated, nominal cross-section 16 - 35 mm<sup>2</sup>, nominal voltage 400 V, 1-pole, with terminal sockets, Max. connectable conductors per terminal max. 4 x 35 mm<sup>2</sup>, 4 x 25 mm<sup>2</sup>, 8x16 mm<sup>2</sup> or 12 x 10 mm<sup>2</sup>.

## Protection conductor terminals, with screw contacts, 7 terminals



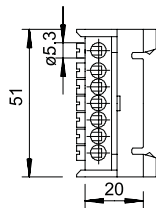
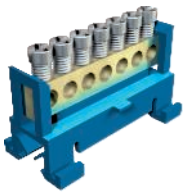
Type	Colour	Pack. pcs	Weight kg/100 pcs	Item No.
<b>60 S 7x16 GN</b>	Green	10	2.900	<b>2054019</b>

PA Polyamide

Protective conductor connection terminal with 7 terminals up to 16 mm<sup>2</sup>.

Clamping rail, brass, steel screws, electrogalvanised and transparently passivated, for snapping onto 35 x 7.5 mm hat profile rails to DIN EN 60715 (previously DIN EN 50022) (transverse) or flat rails 10 x 2-2.5 mm (lengthwise).

## Neutral conductor terminals, with screw contacts, 7 terminals



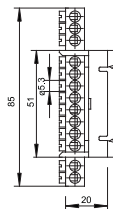
Type	Colour	Pack. pcs	Weight kg/100 pcs	Item No.
<b>60 N 7x16 BL</b>	Blue	10	2.900	<b>2054000</b>

PA Polyamide

Neutral conductor connection terminal with 7 terminals up to 16 mm<sup>2</sup>.

Clamping rail, brass, steel screws, electrogalvanised and transparently passivated, for snapping onto 35 mm hat rails to DIN EN 60715 - previously DIN EN 50022 - (transverse) or flat rails 10 x 2-2.5 mm (lengthwise).

## Protection conductor terminals, with screw contacts, 12 terminals



Type	Colour	Pack. pcs	Weight kg/100 pcs	Item No.
<b>60 S 12x16 GN</b>	Green	10	4.200	<b>2054094</b>

PA Polyamide

Protective conductor connection terminal with 7 terminals up to 16 mm<sup>2</sup>.

Clamping rail, brass, steel screws, electrogalvanised and transparently passivated, for snapping onto 35 x 7.5 mm hat profile rails to DIN EN 60715 (previously DIN EN 50022) (transverse) or flat rails 10 x 2-2.5 mm (lengthwise).

## Neutral conductor terminals, with screw contacts, 12 terminals



Colour

## Type

**60 N 12x16 BL** Blue

PA Polyamide

Weight

Pack. kg/100

pcs pcs.

Item No.

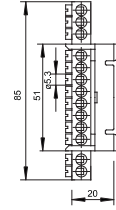
10

4.200

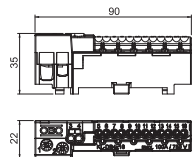
2054086

Neutral conductor connection terminal with 12 terminals up to 16 mm<sup>2</sup>.

Clamping rail, brass, steel screws, electrogalvanised and transparently passivated, for snapping onto 35 mm hat rails to DIN EN 60715 - previously DIN EN 50022 - (transverse) or flat rails 10 x 2-2.5 mm (lengthwise).



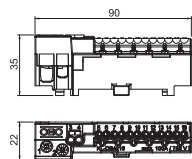
### Protective conductor terminal, with screwless contacts, 12 terminals



Type	Colour	Pack. pcs	Weight kg/100 pcs	Item No.
<b>KL-DBS12x02GRGN</b>	Grey / green	10	4.500	<b>2016260</b>
PA Polyamide				

Protective conductor connection terminal with 12 2.5 mm<sup>2</sup> screwless terminal points; two 4 mm<sup>2</sup> screwless terminal points and two 16/25 mm<sup>2</sup> screw connection terminal points. For snapping onto 15 mm hat rails to DIN EN 60715 (formerly DIN EN 50022).

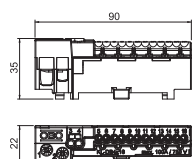
### Neutral conductor terminal, with screwless contacts, 12 terminals



Type	Colour	Pack. pcs	Weight kg/100 pcs	Item No.
<b>KL-DBN12x02GRBL</b>	Grey / blue	10	4.500	<b>2016265</b>
PA Polyamide				

Neutral conductor connection terminal with twelve 2.5 mm<sup>2</sup> screwless terminal points; two 4 mm<sup>2</sup> screwless terminal points and two 16/25 mm<sup>2</sup> screw connection terminal points. For snapping onto 15 mm hat rails to DIN EN 60715 (formerly DIN EN 50022).

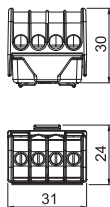
### Phase terminal, with screwless contacts, 12 terminals



Type	Colour	Pack. pcs	Weight kg/100 pcs	Item No.
<b>KL-DBP12x02GR</b>	Grey	10	4.500	<b>2016270</b>
PA Polyamide				

Phase connection terminal with 12 2.5 mm<sup>2</sup> screwless terminal points; two 4 mm<sup>2</sup> screwless terminal points and two 16/25 mm<sup>2</sup> screw connection terminal points. For snapping onto 15 mm hat rails to DIN EN 50022.

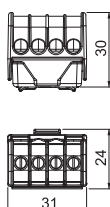
### Protective conductor terminal, with screw contacts, 4 terminals



Type	Colour	Pack. pcs	Weight kg/100 pcs	Item No.
<b>KL-DBS4x16GN</b>	Green	10	1.980	<b>2016250</b>
PA Polyamide				

Protective conductor brass connection terminal strip, steel screws, electrogalvanised and transparently passivated, nominal cross-section 6 - 16 mm<sup>2</sup>, nominal voltage 400 V, 1-pole, with terminal sockets, max. connectable conductors per terminal max. 4 x 16 mm<sup>2</sup>, 4 x 10 mm<sup>2</sup>, 8x6 mm<sup>2</sup> or 12 x 4 mm<sup>2</sup>.

### Neutral conductor terminal, with screw contacts, 4 terminals

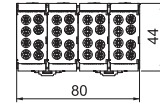
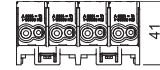


Type	Colour	Pack. pcs	Weight kg/100 pcs	Item No.
<b>KL-DBN4x16BL</b>	Blue	10	1.980	<b>2016255</b>
PA Polyamide				

Neutral conductor brass connection terminal, steel screws, electrogalvanised and transparently passivated, nominal cross-section 6 - 16 mm<sup>2</sup>, nominal voltage 400 V, 1-pole, with terminal sockets, max. connectable conductors per terminal max. 4 x 16 mm<sup>2</sup>, 4 x 10 mm<sup>2</sup>, 8x6 mm<sup>2</sup> or 12 x 4 mm<sup>2</sup>.

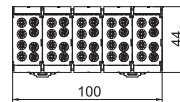
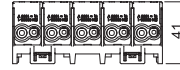
## Main branch terminal, 4-pole

Type	Max. conductor cross-section mm <sup>2</sup>	Number of screwless terminals per pole	Pole number	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>HЛАK 4-8x16</b>	25	4	4	1	19.200	<b>2009032</b>



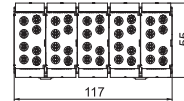
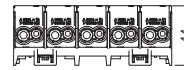
## Main branch terminal, 5-pole

Type	Max. conductor cross-section mm <sup>2</sup>	Number of screwless terminals per pole	Pole number	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>HЛАK 5-10x16</b>	25	4	5	1	23.100	<b>2009036</b>



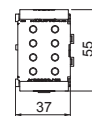
## Main branch terminal, 5-pole

Type	Max. conductor cross-section mm <sup>2</sup>	Number of screwless terminals per pole	Pole number	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>HЛАK 5-10x25</b>	35	4	5	1	38.100	<b>2009038</b>

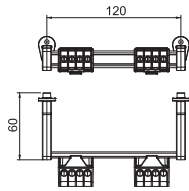


## Main branch terminal, 1-pole

Type	Max. conductor cross-section mm <sup>2</sup>	Number of screwless terminals per pole	Pole number	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>HЛАK 1-2x35 GR</b>	70	4	1	1	11.600	<b>2009042</b>
<b>HЛАK 1-2x35 GRGN</b>	70	4	1	1	11.600	<b>2009044</b>
<b>HЛАK 1-2x35 GRBL</b>	70	4	1	1	11.600	<b>2009046</b>



## Terminal strip set with screw terminals for SDB 03



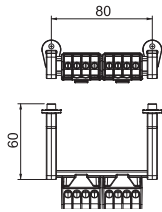
Type	Number of screwless terminals per pole	Weight		Item No.
		Pack. pcs	kg/100 pcs.	
<b>KLS-SDB 03</b>	4	1	7.990	<b>2008880</b>

Terminal strip set for the small distributors of the SDB series. The sets can be used to expand and equip empty small distributors of the SDB 03... type series.

The terminal strip set with screw terminals contains:

Mounting instructions; hat rail with corresponding support and fastening material; 16 mm<sup>2</sup> protective conductor terminal; 16 mm<sup>2</sup> neutral conductor terminal

## Terminal strip set with screw terminals for SDB 05



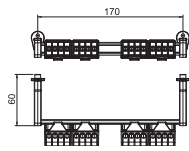
Type	Number of screwless terminals per pole	Weight		Item No.
		Pack. pcs	kg/100 pcs.	
<b>KLS-SDB 05</b>	4	1	7.290	<b>2008884</b>

Terminal strip set for the small distributors of the SDB series. The sets can be used to expand and equip empty small distributors of the SDB 05... type series.

The terminal strip set with screw terminals contains:

Mounting instructions; hat rail with corresponding support and fastening material; 16 mm<sup>2</sup> protective conductor terminal; 16 mm<sup>2</sup> neutral conductor terminal

## Terminal strip set with screw terminals for SDB 09



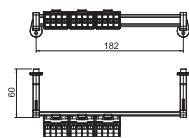
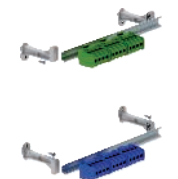
Type	Number of screwless terminals per pole	Weight		Item No.
		Pack. pcs	kg/100 pcs.	
<b>KLS-SDB 09</b>	8	1	8.890	<b>2008888</b>

Terminal strip set for the small distributors of the SDB series. The sets can be used to expand and equip empty small distributors of the SDB 09... type series.

The terminal strip set with screw terminals contains:

Mounting instructions; hat rail with corresponding support and fastening material; 16 mm<sup>2</sup> protective conductor terminal; 16 mm<sup>2</sup> neutral conductor terminal

## Terminal strip set with screw terminals for SDB 12



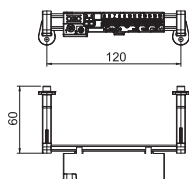
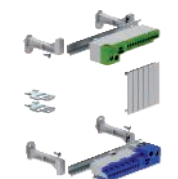
Type	Number of screwless terminals per pole	Weight		Item No.
		Pack. pcs	kg/100 pcs.	
<b>KLS-SDB 12</b>	12	1	9.090	<b>2008892</b>

Terminal strip set for the small distributors of the SDB series. The sets can be used to expand and equip empty small distributors of the SDB 12... type series.

The terminal strip set with screw terminals contains:

Mounting instructions; hat rail with corresponding support and fastening material; 16 mm<sup>2</sup> protective conductor terminal; 16 mm<sup>2</sup> neutral conductor terminal

## Terminal strip set with screwless terminals for SDB 03



Type	Number of screwless terminals per pole	Weight		Item No.
		Pack. pcs	kg/100 pcs.	
<b>KLS-SDB 03S</b>	4	1	13.830	<b>2008910</b>

Terminal strip set for the small distributors of the SDB series. The sets can be used to expand and equip the empty small distributors of the SDB 03... type series.

The terminal strip set with screwless terminals contains:

Mounting instructions; cover strip; hat rail with corresponding support and fastening material; one protective conductor terminal and one neutral conductor terminal each with two 16/25 mm<sup>2</sup> screw terminals and 2x 4 mm<sup>2</sup> and 12x 2.5 mm<sup>2</sup> screwless terminals



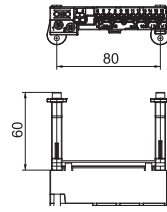
## Terminal strip set with screwless terminals for SDB 05

Type	Pack. pcs	Weight		Item No.
		kg/100	pcs.	
<b>KLS-SDB 05S</b>	1	13.130	2008914	

Terminal strip set for the small distributors of the SDB series. The sets can be used to expand and equip the empty small distributors of the SDB 05... type series.

The terminal strip set with screwless terminals contains:

Mounting instructions; cover strip; hat rail with corresponding support and fastening material; one protective conductor terminal and one neutral conductor terminal each with two 16/25 mm<sup>2</sup> screw terminals and 2x 4 mm<sup>2</sup> and 12x 2.5 mm<sup>2</sup> screwless terminals



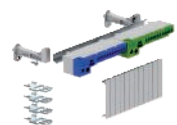
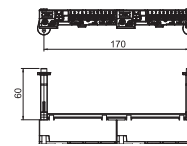
## Terminal strip set with screwless terminals for SDB 09

Type	Pack. pcs	Weight		Item No.
		kg/100	pcs.	
<b>KLS-SDB 09S</b>	1	14.730	2008918	

Terminal strip set for the small distributors of the SDB series. The sets can be used to expand and equip the empty small distributors of the SDB 09... type series.

The terminal strip set with screwless terminals contains:

Mounting instructions; cover strip; hat rail with corresponding support and fastening material; one protective conductor terminal and one neutral conductor terminal each with two 16/25 mm<sup>2</sup> screw terminals and 2x 4 mm<sup>2</sup> and 12x 2.5 mm<sup>2</sup> screwless terminals



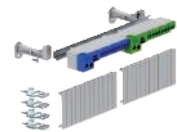
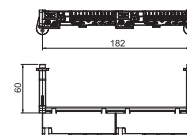
## Terminal strip set with screwless terminals for SDB 12

Type	Pack. pcs	Weight		Item No.
		kg/100	pcs.	
<b>KLS-SDB 12S</b>	1	14.180	2008922	

Terminal strip set for the small distributors of the SDB series. The sets can be used to expand and equip the empty small distributors of the SDB 12... type series.

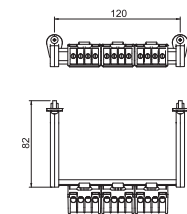
The terminal strip set with screwless terminals contains:

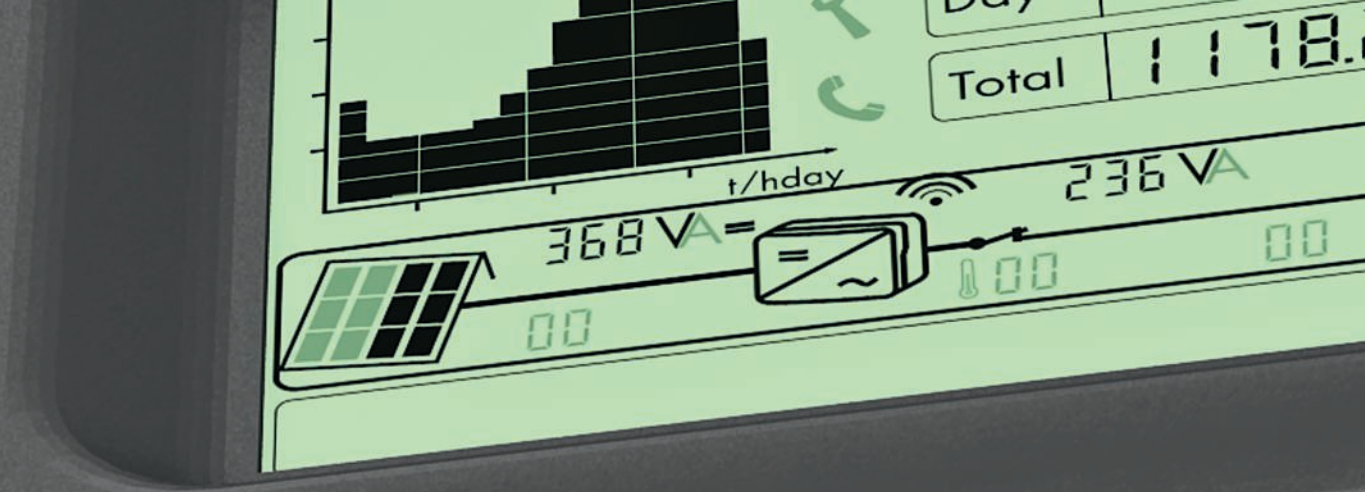
Mounting instructions; cover strip; hat rail with corresponding support and fastening material; one protective conductor terminal and one neutral conductor terminal each with two 16/25 mm<sup>2</sup> screw terminals and 2x 4 mm<sup>2</sup> and 12x 2.5 mm<sup>2</sup> screwless terminals









## Terminal strip set for X series

Type	Nominal cross-section		Number of screwless terminals per pole	Pack. pcs	Weight		Item No.
	mm <sup>2</sup>	Pole number			kg/100	pcs.	
<b>KL-X10 06-16</b>	6 - 16	5	4	1	17.600	2008931	
<b>KL-X16 06-16</b>	6 - 16	5	4	1	14.500	2008935	
<b>KL-X25 16-35</b>	16 - 35	5	4	1	37.500	2008939	





## Cable gland systems, plastic

	<b>Cap nut cable gland</b>	195
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# Overview of PG and metric sizes

Metric sizes



PG sizes

Comparison of diameters : PG vs. metric

PG sizes	PG Ø	Metric external diameter in mm	Metric Ø
PG 7	12.5	M 12	12
PG 7	12.5	M 12	13
PG 9	15.2	M 16	15
-	-	M 16	16
PG 11	18.6	M 16/M 20	18
PG 11	18.6	M 16/M 20	19
PG 13.5	20.4	M 20	20
PG 13.5	20.4	M 20/M 25	21
PG 16	22.5	M 20/M 25	22
PG 16	22.5	M 20/M 25	23
-	-	M 20/M 25	24
-	-	M 25	25
PG 21	28.3	M 25/M 32	28
-	-	M 32	32
PG 29	37	M 32/ M 40	37
-	-	M 40	40
PG 36	47	M 40/M 50	47
-	-	M 50	50
PG 42	54	M 50/M 63	54
PG 48	59.3	M 50/M 63	59
-	-	M 63	63





# Cable glands and DIN EN 50262

Cable glands are manufactured and tested according to DIN EN 62444. Amongst other things, this standard controls the retaining ability and strain relief of cables. The V-TEC cable glands from OBO Bettermann correspond to version "A". Table 2A of the standard specifies which withdrawal forces

these cable glands must withstand. The V-TEC cable glands also fulfil the requirements of DIN EN 62444 with regard to the twist protection of cables (see Table 3). To ensure the tested dust and moisture protection of the cable glands, continuous perforations should correspond to the mount-

ing openings specified in the standard DIN EN 62444 according to Table 1. The on-site specialist must ensure that these parameters are complied with in order to hand over a functioning system.

**Table 1**

Size of the penetration hole	mm	6	8	10	12	16	20	25	32	40	50	63	75
Thread of the cable gland	M	M6	M8	M10	M12	M16	M20	M25	M32	M40	M50	M63	M75
Diameter of the mounting hole (+0.2/-0.4)	mm	6.5	8.5	10.5	12.5	16.5	20.5	25.5	32.5	40.5	50.5	63.5	75.5

**Table 2 A**

Cable diameter	Retaining capacity	Strain relief, version A
mm	N	N
to 4	5	-
>4 to 8	10	30
>8 to 11	15	42
>11 to 16	20	55
>16 to 23	25	70
>23 to 31	30	80
>31 to 43	45	90
>43 to 55	55	100
>55	70	115

**Table 3**

Cable diameter	Torque Version A and B
mm	Nm
>4 to 8	0.10
>8 to 11	0.15
>11 to 16	0.35
>16 to 23	0.60
>23 to 31	0.80
>31 to 43	0.90
>43 to 55	1.00
>55	1.20



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### V-TEC VM plastic cap nut cable gland, metric

- Very large number of versions
- Light grey, silver grey, black, orange, etc.
- Polyamide (PA)
- With normal, short, long and extra-long connection thread



### V-TEC TB.. Plastic cap nut cable gland, separable

- M20, M25 and M32 connection thread
- High protection rating
- For various diameters
- Multiple sealing inserts



### V-TEC plastic cap nut cable gland; PG

- Silver grey, light grey
- Polyamide (PA)
- Various versions
- With normal, short and long connection thread



### V-TEC EX plastic cap nut gland for EX areas

- Metric and PG connection thread
- With normal and long connection thread



### Accessories for the V-TEC and V-TEC VM series

- Ratchets
- Multiple sealing inserts
- Reducing sealing inserts
- Dust protection plates
- Screw plugs



### Cone cable gland/flat cable threaded connection

- Various versions
- Various materials
- With metric and PG thread



### Accessories

- Locknuts
- Pressure screws
- Seals
- Cable entries



## Cable gland V-TEC VM and V-TEC VM L

- Fast and convenient means of cable entry for junction boxes and housings
- With the integrated sealing lip and the special OBO lamella technology, protection class IP68 is achieved
- Strain relief and tightness have been tested to DIN EN 62444
- The connecting threads are metric and are therefore suitable for universal use
- Applications: From private housing with junction boxes up to industrial applications in the distributor cabinet
- Temperature range:  $-20\text{ }^{\circ}\text{C}$  to  $+65\text{ }^{\circ}\text{C}$

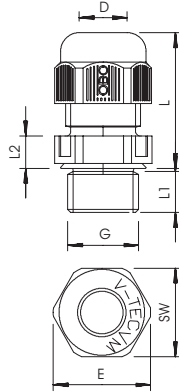


Protection rating IP 68

The quickest and most convenient way of providing strain relief and tightness with cable glands on junction boxes and housings is with the tried-and-trusted V-TEC VM cable glands from OBO.



## V-TEC VM



- Fast, convenient means of cable entry for junction boxes and housings
- With the integrated sealing lip and the special OBO lamella technology, protection class IP68 is achieved
- Strain relief and tightness have been tested to DIN EN 62444
- The connecting threads are metric and are therefore suitable for universal use
- Applications: From private housing with junction boxes up to industrial applications in the distributor cabinet
- Temperature range: -20 °C to +65 °C

G	D	SW	E	L min.	L max.	L1	L2
	mm	mm	mm	mm	mm	mm	mm
M12 x 1.5	3.5-7	15	16.5	18.5	23.5	8	5
M16 x 1.5	4.5-10	20	22	21.5	29	8	5
M20 x 1.5	6-13	24	27	23.5	30.5	10	6
M25 x 1.5	9-17	29	32	26	35	10	6
M32 x 1.5	15-21	36	41	29	40	11	6
M40 x 1.5	16-28	44	50	36	46	11	7
M50 x 1.5	23-35	54	60	43	52	12	8
M63 x 1.5	36-48	67	75	48	60	12	9

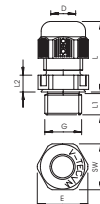
## Cable gland, metric thread, light grey



Colour

Type	Colour	Pack. pcs	Weight kg/100 pcs	Item No.
V-TEC VM12 LGR	Light grey	50	0.318	2022862
V-TEC VM16 LGR	Light grey	50	0.638	2022864
V-TEC VM20 LGR	Light grey	50	0.856	2022866
V-TEC VM25 LGR	Light grey	25	1.360	2022868
V-TEC VM32 LGR	Light grey	20	2.235	2022870
V-TEC VM40 LGR	Light grey	10	3.467	2022872
V-TEC VM50 LGR	Light grey	5	5.466	2022874
V-TEC VM63 LGR	Light grey	5	8.306	2022876

PA Polyamide



The quickest and most convenient way of providing strain relief and tightness with cable glands on junction boxes and housings is with the tried-and-trusted V-TEC VM cable glands from OBO. With the integrated sealing lip and the special OBO slat technology, protection class IP68 is achieved. Strain relief and tightness have been tested to DIN EN 62444.

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

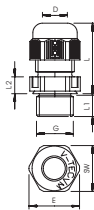
Applications: From private housing with junction boxes up to industrial applications in the distributor cabinet. Temperature range: -20 °C to +65 °C.

### Dimensions

Type	Thread	Sealing range D mm	SW mm	Dimension E mm	Dimension L min. mm	Dimension L max. mm	Dimension L1 mm	Dimension L2 mm	Installation torque Nm
V-TEC VM12 LGR	M12 x 1,5	3.5 - 7	15	16.5	18.5	23.5	8	5	2
V-TEC VM16 LGR	M16 x 1,5	4.5 - 10	20	22	21.5	23.5	8	5	2
V-TEC VM20 LGR	M20 x 1,5	6 - 13	24	27	23.5	30.5	9	5	3.8
V-TEC VM25 LGR	M25 x 1,5	9 - 17	29	32	26	35	10	6	5
V-TEC VM32 LGR	M32 x 1,5	15 - 21	36	41	29	40	11	6	7.5
V-TEC VM40 LGR	M40 x 1,5	16 - 28	44	50	36	46	11	7	10
V-TEC VM50 LGR	M50 x 1,5	23 - 35	54	60	43	52	12	8	12
V-TEC VM63 LGR	M63 x 1,5	36 - 48	67	75	48	60	12	9	15



## Cable gland, metric thread, silver grey



Colour

Type	Colour	Pack. pcs	Weight kg/100 pcs	Item No.
V-TEC VM12 SGR	Silver grey	50	0.318	2022843
V-TEC VM16 SGR	Silver grey	50	0.638	2022845
V-TEC VM20 SGR	Silver grey	50	0.856	2022847
V-TEC VM25 SGR	Silver grey	25	1.360	2022849
V-TEC VM32 SGR	Silver grey	20	2.230	2022851
V-TEC VM40 SGR	Silver grey	10	3.467	2022853
V-TEC VM50 SGR	Silver grey	5	5.466	2022855
V-TEC VM63 SGR	Silver grey	5	8.306	2022857

PA Polyamide

The quickest and most convenient way of providing strain relief and tightness with cable glands on junction boxes and housings is with the tried-and-trusted V-TEC VM cable glands from OBO. With the integrated sealing lip and the special OBO slat technology, protection class IP68 is achieved. Strain relief and tightness have been tested to DIN EN 62444.

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

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

Temperature range: -20 °C to +65 °C.

### Dimensions

Type	Thread	Sealing range D mm	SW mm	Dimension E mm	Dimension L min. mm	Dimension L max. mm	Dimension L1 mm	Dimension L2 mm	Installation torque Nm
V-TEC VM12 SGR	M12 x 1,5	3.5 - 7	15	16.5	18.5	23.5	8	5	2
V-TEC VM16 SGR	M16 x 1,5	4.5 - 10	20	22	21.5	29	8	5	2.5
V-TEC VM20 SGR	M20 x 1,5	6 - 13	24	27	23.5	30.5	10	6	3.8
V-TEC VM25 SGR	M25 x 1,5	9 - 17	29	32	26	35	10	6	5
V-TEC VM32 SGR	M32 x 1,5	15 - 21	36	41	29	40	11	6	7.5
V-TEC VM40 SGR	M40 x 1,5	16 - 28	44	50	36	46	11	7	10
V-TEC VM50 SGR	M50 x 1,5	23 - 35	54	60	43	52	12	8	12
V-TEC VM63 SGR	M63 x 1,5	36 - 48	67	75	48	60	12	9	15



Cable gland, metric thread, black



Colour

Type	Colour	Pack. pcs	Weight kg/100 pcs	Item No.
V-TEC VM12 SW	Black	50	0.318	2022883
V-TEC VM16 SW	Black	50	0.638	2022885
V-TEC VM20 SW	Black	50	0.856	2022887
V-TEC VM25 SW	Black	25	1.360	2022889
V-TEC VM32 SW	Black	20	2.230	2022891
V-TEC VM40 SW	Black	10	3.467	2022893
V-TEC VM50 SW	Black	5	5.466	2022895
V-TEC VM63 SW	Black	5	8.306	2022897

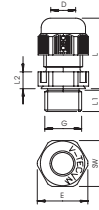
PA Polyamide

The quickest and most convenient way of providing strain relief and tightness with cable glands on junction boxes and housings is with the tried-and-trusted V-TEC VM cable glands from OBO. With the integrated sealing lip and the special OBO slot technology, protection class IP68 is achieved. Strain relief and tightness have been tested to DIN EN 62444.

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

Applications: From private housing with junction boxes up to industrial applications in the distribut- or cabinet.

Temperature range: -20 °C to +65 °C.

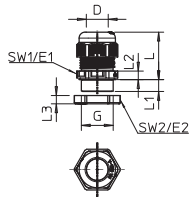


Dimensions

Type	Thread	Sealing range D mm	SW mm	Dimen- sion E mm	Dimen- sion L min. mm	Dimen- sion L max. mm	Dimen- sion L1 mm	Dimen- sion L2 mm	Instal- lation torque Nm
V-TEC VM12 SW	M12 x 1,5	3.5 - 7	15	16.5	18.5	23.5	8	5	2
V-TEC VM16 SW	M16 x 1,5	4.5 - 10	20	22	21.5	29	8	5	2
V-TEC VM20 SW	M20 x 1,5	6 - 13	24	27	23.5	30.5	9	5	3.8
V-TEC VM25 SW	M25 x 1,5	9 - 17	29	32	26	35	10	6	5
V-TEC VM32 SW	M32 x 1,5	15 - 21	36	41	29	40	11	6	7.5
V-TEC VM40 SW	M40 x 1,5	16 - 28	44	50	36	46	11	7	10
V-TEC VM50 SW	M50 x 1,5	23 - 35	54	60	43	52	12	8	12
V-TEC VM63 SW	M63 x 1,5	36 - 48	67	75	48	60	12	9	15



Cable gland, metric thread, set with locknut, light grey



Colour

Type	Colour	Pack. pcs	Weight kg/100 pcs	Item No.
V-TEC VM12+ LGR	Light grey	50	0.337	2022762
V-TEC VM16+ LGR	Light grey	50	0.795	2022764
V-TEC VM20+ LGR	Light grey	50	1.106	2022766
V-TEC VM25+ LGR	Light grey	25	1.710	2022768
V-TEC VM32+ LGR	Light grey	20	2.840	2022770
V-TEC VM40+ LGR	Light grey	10	5.150	2022772
V-TEC VM50+ LGR	Light grey	5	6.356	2022774
V-TEC VM63+ LGR	Light grey	5	10.136	2022776

PA Polyamide

The quickest and most convenient way of providing strain relief and tightness with cable glands on junction boxes and housings is with the tried-and-trusted V-TEC VM cable glands from OBO. With the integrated sealing lip and the special OBO slat technology, protection class IP68 is achieved. Strain relief and tightness have been tested to DIN EN 62444.

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

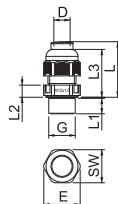
Applications: From private housing with junction boxes up to industrial applications in the distributor cabinet.

Temperature range: -20 °C to +65 °C.

Dimensions

Type	Thread	Sealing range D mm	SW mm	Dimension E1 mm	Dimension E2 mm	Dimension L min. mm	Dimension L max. mm	Dimension L1 mm	Dimension L2 mm	Dimension L3 mm	Installation torque Nm
V-TEC VM12+ LGR	M12 x 1,5	3.5 - 7	15	16.5	19	18.5	23.5	8	5	5	2
V-TEC VM16+ LGR	M16 x 1,5	4.5 - 10	20	22	25	21.5	23.5	8	5	5	2
V-TEC VM20+ LGR	M20 x 1,5	6 - 13	24	27	27	23.5	30.5	9	5	6	3.8
V-TEC VM25+ LGR	M25 x 1,5	9 - 17	29	32	36	26	35	10	6	6.5	5
V-TEC VM32+ LGR	M32 x 1,5	15 - 21	36	41	46	29	40	11	6	7	7.5
V-TEC VM40+ LGR	M40 x 1,5	16 - 28	44	50	56	36	46	11	7	7.5	10
V-TEC VM50+ LGR	M50 x 1,5	23 - 35	54	60	68	43	52	12	8	8	12
V-TEC VM63+ LGR	M63 x 1,5	36 - 48	68	75	83	48	60	12	9	8.5	15

Plastic cap nut cable glands with screw plug, light grey



Colour

Type	Colour	Pack. pcs	Weight kg/100 pcs	Item No.
V-TEC VM12VS LGR	Light grey	50	0.360	2023040
V-TEC VM16VS LGR	Light grey	50	0.730	2023042
V-TEC VM20VS LGR	Light grey	50	0.990	2023044
V-TEC VM25VS LGR	Light grey	25	1.550	2023046
V-TEC VM32VS LGR	Light grey	20	2.480	2023048

PA Polyamide

The quickest and most convenient way of providing strain relief and tightness with cable glands on junction boxes and housings is with the tried-and-trusted V-TEC VM cable glands from OBO. With the integrated sealing lip and the special OBO slat technology, protection class IP68 is achieved. Strain relief and tightness have been tested to DIN EN 62444.

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

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

Temperature range: -20 °C to +65 °C.

Dimensions

Type	Thread	Sealing range D mm	SW mm	Dimension E mm	Dimension L min. mm	Dimension L max. mm	Dimension L1 mm	Dimension L2 mm
V-TEC VM12VS LGR	M12 x 1,5	3.5 - 7	15	16.5	21.5	23.5	8	5
V-TEC VM16VS LGR	M16 x 1,5	4.5 - 10	20	22	25.5	23.5	8	5
V-TEC VM20VS LGR	M20 x 1,5	6 - 13	24	27	28	30.5	9	5
V-TEC VM25VS LGR	M25 x 1,5	9 - 17	29	32	30.5	35	10	6
V-TEC VM32VS LGR	M32 x 1,5	15 - 21	36	41	29	40	11	6

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Cable gland, metric thread with multi-way seal insert, light grey



Colour

Type	Pack. pcs	Weight kg/100 pcs	Item No.
V-TEC VM20 2x4	50	0.860	2022110
V-TEC VM20 4x5	50	0.860	2022112
V-TEC VM20 2x6	50	0.860	2022114
V-TEC VM25 5x4	25	1.360	2022120
V-TEC VM25 3x6	25	1.360	2022122
V-TEC VM25 2x6	25	1.360	2022124
V-TEC VM25 3x7	25	1.360	2022126
V-TEC VM25 2x8	25	1.360	2022128
V-TEC VM32 2x8	20	2.240	2022136
V-TEC VM32 4x8	20	2.240	2022138

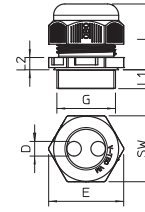
PA Polyamide

The quickest and most convenient way of providing strain relief and tightness with cable glands on junction boxes and housings is with the tried-and-trusted V-TEC VM cable glands from OBO. With the integrated sealing lip and the special OBO slat technology, protection class IP68 is achieved. Strain relief and tightness have been tested to DIN EN 62444.

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

Applications: From private housing with junction boxes up to industrial applications in the distribut- or cabinet.

Temperature range: -20 °C to +65 °C.

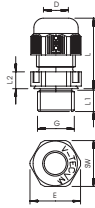


Dimensions

Type	Thread	SW mm	Dimen- sion E mm	Dimen- sion L min. mm	Dimen- sion L max. mm	Dimen- sion L1 mm	Dimen- sion L2 mm
V-TEC VM20 2x4	M20 x 1,5	24	27	23,5	30,5	10	6
V-TEC VM20 4x5	M20 x 1,5	24	27	23,5	30,5	10	6
V-TEC VM20 2x6	M20 x 1,5	24	27	23,5	30,5	10	6
V-TEC VM25 5x4	M25 x 1,5	29	32	26	35	10	6
V-TEC VM25 3x6	M25 x 1,5	29	32	26	35	10	6
V-TEC VM25 2x6	M25 x 1,5	29	32	26	35	10	6
V-TEC VM25 3x7	M25 x 1,5	29	32	26	35	10	6
V-TEC VM25 2x8	M25 x 1,5	29	32	26	35	10	6
V-TEC VM32 2x8	M32 x 1,5	36	41	29	40	11	6
V-TEC VM32 4x8	M32 x 1,5	36	41	29	40	11	6



## Cable gland, metric thread, UV-resistant, light grey



Colour

Type	Colour	Pack. pcs	Weight		Item No.
			kg/100 pcs	pcs	
V-TEC VM12UV LGR	Light grey	50	0.319	2022900	
V-TEC VM16UV LGR	Light grey	50	0.590	2022901	
V-TEC VM20UV LGR	Light grey	50	0.590	2022902	
V-TEC VM25UV LGR	Light grey	25	1.360	2022903	
V-TEC VM32UV LGR	Light grey	20	2.235	2022904	
V-TEC VM40UV LGR	Light grey	10	3.496	2022905	
V-TEC VM50UV LGR	Light grey	5	5.480	2022906	
V-TEC VM63UV LGR	Light grey	5	8.328	2022907	

PA Polyamide

The quickest and most convenient way of providing strain relief and tightness with cable glands on junction boxes and housings is with the tried-and-trusted V-TEC VM cable glands from OBO. With the integrated sealing lip and the special OBO slat technology, protection class IP68 is achieved. Strain relief and tightness have been tested to DIN EN 62444.

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

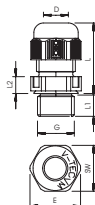
Applications: From private housing with junction boxes up to industrial applications in the distributor cabinet.

Temperature range: -20 °C to +65 °C.

### Dimensions

Type	Sealing range D mm	SW mm	Dimension E mm	Dimension L mm		Dimension L1 mm	Dimension L2 mm
				min.	max.		
V-TEC VM12UV LGR	3.5 - 7	15	16.5	18.5	23.5	8	5
V-TEC VM16UV LGR	4.5 - 10	20	22	21.5	23.5	8	5
V-TEC VM20UV LGR	6 - 13	24	27	23.5	30.5	9	5
V-TEC VM25UV LGR	9 - 17	29	32	26	35	10	6
V-TEC VM32UV LGR	15 - 21	36	41	29	40	11	6
V-TEC VM40UV LGR	16 - 28	44	50	36	46	11	7
V-TEC VM50UV LGR	23 - 35	54	54	43	52	12	8
V-TEC VM63UV LGR	36 - 48	67	75	48	60	12	9

## Cap nut cable glands V-TEC M, light grey



Colour

Type	Colour	Pack. pcs	Weight		Item No.
			kg/100 pcs	pcs	
V-TEC M KA M20NL	Light grey	50	1.380	2024880	

PA Polyamide

The quickest and most convenient way of providing strain relief and tightness with cable glands on junction boxes and housings is with the tried-and-trusted V-TEC VM cable glands from OBO. With the integrated sealing lip and the special OBO slat technology, protection class IP68 is achieved. Strain relief and tightness have been tested to DIN EN 62444.

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

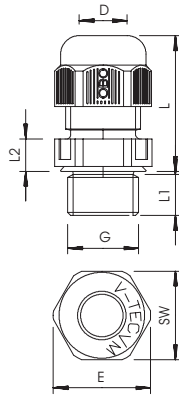
Applications: From private housing with junction boxes up to industrial applications in the distributor cabinet.

Temperature range: -20 °C to +65 °C.

### Dimensions

Type	Thread	Sealing range D mm	SW mm	Dimension L mm		Dimension L1 mm	Dimension L2 mm	Dimension L3 mm
				min.	max.			
V-TEC M KA M20NL	M20 x 1,5	7 - 14	27	25	33	7	6	19

V-TEC VM L



- Long connection thread (up to 33 mm) for thick-walled housing penetrations
- With the integrated sealing lip and the special OBO lamella technology, protection class IP68 is achieved
- Strain relief and tightness have been tested to DIN EN 62444
- The connecting threads are metric and are therefore suitable for universal use
- Applications: From private housing with junction boxes up to industrial applications in the distributor cabinet
- Temperature range: -20 °C to +65 °C

G	D	SW	E	L min.	L max.	L1	L2
	mm	mm	mm	mm	mm	mm	mm
M12 x 1.5	3.5-7	15	16.5	17.5	24	15	12
M16 x 1.5	4.5-10	20	22	20.5	29.5	15	15.5
M20 x 1.5	6-13	24	27	22.5	32.5	15	17.5
M25 x 1.5	9-17	29	32	25.5	36	15	19.5
M32 x 1.5	15-21	36	41	28	40	15	22
M40 x 1.5	16-28	44	50	32	46	18	25
M50 x 1.5	23-35	54	60	37.5	54.3	18	29.5
M63 x 1.5	36-48	68	75	41.5	60.3	18	32.5

Cable gland, long metric thread



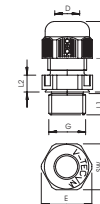
Type	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
V-TEC VM L12 LGR	Light grey	500	50	0.392	2022943
V-TEC VM L16 LGR	Light grey	500	50	0.727	2022945
V-TEC VM L20 LGR	Light grey	600	50	0.883	2022947
V-TEC VM L25 LGR	Light grey	300	25	1.597	2022949
V-TEC VM L32 LGR	Light grey	240	20	2.047	2022951
V-TEC VM L40 LGR	Light grey	120	10	3.168	2022953
V-TEC VM L50 LGR	Light grey	60	5	5.010	2022955
V-TEC VM L63 LGR	Light grey	60	5	7.390	2022957

PA Polyamide

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

Applications: From private housing with junction boxes up to industrial applications in the distributor cabinet. Temperature range: -20 °C to +65 °C.



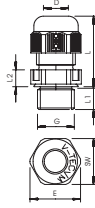
Dimensions

Type	Thread	Sealing range D mm	SW mm	Dimension E mm	Dimension L min. mm	Dimension L max. mm	Dimension L1 mm	Dimension L2 mm	Installation torque Nm
V-TEC VM L12 LGR	M12x1,5	3.5 - 7	15	16.5	17.5	24	15	12	2
V-TEC VM L16 LGR	M16x1,5	4.5 - 10	20	22	20.5	29.5	15	15.5	2.5
V-TEC VM L20 LGR	M20x1,5	6 - 13	24	27	22.5	32.5	15	17.5	3.75
V-TEC VM L25 LGR	M25x1,5	9 - 17	29	32	25.5	36	15	19.5	5
V-TEC VM L32 LGR	M32x1,5	15 - 21	36	41	28	40	15	22	7.5
V-TEC VM L40 LGR	M40x1,5	16 - 28	44	50	32	46	18	25	10
V-TEC VM L50 LGR	M50x1,5	23 - 35	54	60	37.5	54.3	18	29.5	12
V-TEC VM L63 LGR	M63x1,5	36 - 48	68	75	41.5	60.3	18	32.5	12





Cable gland, long metric thread, silver grey



Type	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs	Item No.
V-TEC VM L12 SGR	Silver grey	500	50	0.392	2022921
V-TEC VM L16 SGR	Silver grey	500	50	0.727	2022924
V-TEC VM L20 SGR	Silver grey	600	50	0.883	2022926
V-TEC VM L25 SGR	Silver grey	300	25	1.597	2022928
V-TEC VM L32 SGR	Silver grey	240	20	2.047	2022930
V-TEC VM L40 SGR	Silver grey	120	10	3.168	2022933
V-TEC VM L50 SGR	Silver grey	60	5	5.010	2022935
V-TEC VM L63 SGR	Silver grey	60	5	7.390	2022937

PA Polyamide

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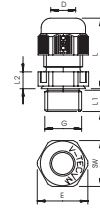
Applications: From private housing with junction boxes up to industrial applications in the distributor cabinet.

Temperature range: -20 °C to +65 °C.

Dimensions

Type	Thread	Sealing range D mm	SW mm	Dimension E mm	Dimension L min. mm	Dimension L max. mm	Dimension L1 mm	Dimension L2 mm	Installation torque Nm
V-TEC VM L12 SGR	M12 x 1,5	3.5 - 7	15	16.5	17.5	24	15	5	2
V-TEC VM L16 SGR	M16 x 1,5	4.5 - 10	20	22	20.5	29.5	15	5	2.5
V-TEC VM L20 SGR	M20 x 1,5	6 - 13	24	27	22.5	32.5	15	5	3.75
V-TEC VM L25 SGR	M25 x 1,5	9 - 17	29	32	25.5	36	15	6	5
V-TEC VM L32 SGR	M32 x 1,5	15 - 21	36	41	28	40	15	6	7.5
V-TEC VM L40 SGR	M40x1,5	16 - 28	44	50	32	46	18	7	10
V-TEC VM L50 SGR	M50x1,5	23 - 35	54	60	37.5	54.3	18	8	12
V-TEC VM L63 SGR	M63x1,5	36 - 48	68	75	41.5	60.3	18	9	12

## Cable gland, long metric thread, black



Type	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs	Item No.
V-TEC VM L12 SW	Black	500	50	0.392	2022964
V-TEC VM L16 SW	Black	500	50	0.727	2022966
V-TEC VM L20 SW	Black	600	50	0.883	2022968
V-TEC VM L25 SW	Black	300	25	1.597	2022970
V-TEC VM L32 SW	Black	240	20	2.047	2022972
V-TEC VM L40 SW	Black	120	10	3.168	2022974
V-TEC VM L50 SW	Black	60	5	5.010	2022976
V-TEC VM L63 SW	Black	60	5	7.390	2022978

PA Polyamide

The quickest and most convenient way of providing strain relief and tightness with cable glands on junction boxes and housings is with the tried-and-trusted V-TEC VM cable glands from OBO. With the integrated sealing lip and the special OBO slot technology, protection class IP68 is achieved. Strain relief and tightness have been tested to DIN EN 62444.

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

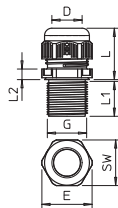
Temperature range: -20 °C to +65 °C.

### Dimensions

Type	Thread	Sealing range D mm	SW mm	Dimension E mm	Dimension L min. mm	Dimension L max. mm	Dimension L1 mm	Dimension L2 mm	Installation torque Nm
V-TEC VM L12 SW	M12x1,5	3.5 - 7	15	16.5	17.5	24	15	12	2
V-TEC VM L16 SW	M16x1,5	4.5 - 10	20	22	20.5	29.5	15	15.5	2.5
V-TEC VM L20 SW	M20x1,5	6 - 13	24	27	22.5	32.5	15	17.5	3.75
V-TEC VM L25 SW	M25x1,5	9 - 17	29	32	25.5	36	15	19.5	5
V-TEC VM L32 SW	M32x1,5	15 - 21	36	41	28	40	15	22	7.5
V-TEC VM L40 SW	M40x1,5	16 - 28	44	50	32	46	18	25	10
V-TEC VM L50 SW	M50x1,5	23 - 35	54	60	37.5	54.3	18	29.5	12
V-TEC VM L63 SW	M63x1,5	36 - 48	68	75	41.5	60.3	18	32.5	12



Cable gland, metric thread, extra long, black



Type	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs	Item No.
V-TEC VM LL16 SW	Black	500	50	0.800	2022985
V-TEC VM LL20 SW	Black	600	50	1.000	2022987
V-TEC VM LL25 SW	Black	300	25	1.700	2022989
V-TEC VM LL32 SW	Black	240	20	2.200	2022991
V-TEC VM LL40 SW	Black	120	10	2.200	2022993
V-TEC VM LL50 SW	Black	60	5	5.500	2022995
V-TEC VM LL63 SW	Black	60	5	7.500	2022997

PA Polyamide

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

Temperature range: -20 °C to +65 °C.

Dimensions

Type	Thread	Sealing range D mm	SW mm	Dimension E mm	Dimension L min. mm	Dimension L max. mm	Dimension L1 mm	Dimension L2 mm	Installation torque Nm
V-TEC VM LL16 SW	M16x1,5	4.5 - 10	20	22	20.5	29.5	24	5	2.5
V-TEC VM LL20 SW	M20x1,5	6 - 13	24	27	22.5	32.5	24	5	3.75
V-TEC VM LL25 SW	M25x1,5	9 - 17	29	32	25.5	36	24	6	5
V-TEC VM LL32 SW	M32x1,5	15 - 21	36	41	28	40	24	6	7.5
V-TEC VM LL40 SW	M40x1,5	16 - 28	44	50	36	46	24	7	10
V-TEC VM LL50 SW	M50x1,5	23 - 35	54	60	37.5	54.3	24	8	12
V-TEC VM LL63 SW	M63x1,5	36 - 48	68	75	41.5	60.3	24	9	12

## Separable cable glands

- For repairs, reinstallation or pre-terminated cables
- High sealability
- Connection thread size M20, M25 and M32
- Sealing inserts: Closed, for single cables or multiple cables

IP  
67



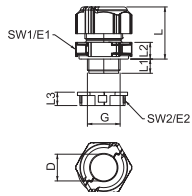
Easy to separate

The separable cable gland allows easy and quick installation, for example, of pre-terminated cables with connectors. In an existing installation, a missing or defective

cable gland can be replaced or supplemented without dismantling and interruption.



## Divisible cable gland, seal insert enclosed, light grey



Type	Thread	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs	Item No.
V-TEC TB20	M20x1,5	Light grey	50	5	2.236	2024940
V-TEC TB25	M25x1,5	Light grey	50	5	3.440	2024910
V-TEC TB32	M32x1,5	Light grey	60	5	7.756	2024970

PC Polycarbonate

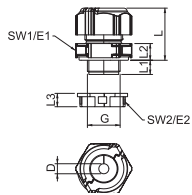
The splittable cable gland V-TEC TB.. ensures - like all V-TEC glands - a secure sealing of the cable. The installation of pre-terminated cables or function cables, for example, is easy and quick, thanks to the splitting of the cable gland.

The V-TEC TB is also unbeatable when refitting an existing installation and as a "repair gland". There is no need to disassemble pre-mounted cables, it can be installed without interrupting the production process.

### Dimensions

Type	Dimension E mm	Dimension L min. mm	Dimension L max. mm	Dimension L1 mm	Dimension L2 mm
V-TEC TB20	33.5	24.5	30.5	10	8.5

## Divisible cable gland, seal insert, 1 cable, light grey



Type	Thread	Colour	Sealing range D mm	Shipping box pcs	Pack. pcs	Weight kg/100 pcs	Item No.
V-TEC TB20 06-08	M20x1,5	Light grey	6 - 8	50	5	2.133	2024942
V-TEC TB20 08-10	M20x1,5	Light grey	8 - 10.5	50	5	2.063	2024944
V-TEC TB20 09-13	M20x1,5	Light grey	9 - 13	50	5	1.973	2024946
V-TEC TB20 11-14	M20x1,5	Light grey	11.5 - 14.5	50	5	1.853	2024948
V-TEC TB25 06-09	M25x1,5	Light grey	6 - 7.5	50	5	2.900	2024912
V-TEC TB25 09-11	M25x1,5	Light grey	9 - 11	50	5	2.900	2024913
V-TEC TB25 11-13	M25x1,5	Light grey	11 - 13	50	5	3.110	2024916
V-TEC TB25 12-15	M25x1,5	Light grey	12 - 15	50	5	2.980	2024919
V-TEC TB25 14-18	M25x1,5	Light grey	14 - 18	50	5	2.510	2024922
V-TEC TB25 18-20	M25x1,5	Light grey	18 - 20	50	5	2.290	2024925
V-TEC TB32 09-13	M32x1,5	Light grey	9 - 13	60	5	7.416	2024972
V-TEC TB32 11-15	M32x1,5	Light grey	11.5 - 15.5	60	5	7.246	2024974
V-TEC TB32 14-18	M32x1,5	Light grey	14 - 18	60	5	7.069	2024976
V-TEC TB32 17-20	M32x1,5	Light grey	17 - 20.5	60	5	7.156	2024978
V-TEC TB32 20-25	M32x1,5	Light grey	20 - 25	60	5	6.396	2024980
V-TEC TB32 24-26	M32x1,5	Light grey	24 - 26.5	60	5	6.026	2024982

PC Polycarbonate

The splittable cable gland V-TEC TB.. ensures - like all V-TEC glands - a secure sealing of the cable. The installation of pre-terminated cables or function cables, for example, is easy and quick, thanks to the splitting of the cable gland.

The V-TEC TB is also unbeatable when refitting an existing installation and as a "repair gland". There is no need to disassemble pre-mounted cables, it can be installed without interrupting the production process.

### Dimensions

Type	Sealing range D mm	SW 1 mm	SW 2 mm	Dimension L1 mm	Dimension L2 mm	Dimension L mm
V-TEC TB20 06-08	6 - 8	30	27	10	8.5	30
V-TEC TB20 08-10	8 - 10.5	30	27	10	8.5	30
V-TEC TB20 09-13	9 - 13	30	27	10	8.5	30
V-TEC TB20 11-14	11.5 - 14.5	30	27	10	8.5	30



## Separable cable gland, sealing insert, multiple, light grey



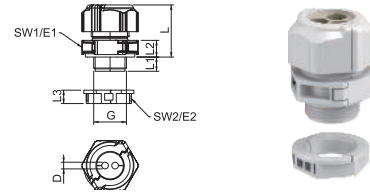
Type	Thread	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
V-TEC TB20 2x4	M20x1,5	Light grey	50	5	2.187	2024950
V-TEC TB20 2x5	M20x1,5	Light grey	50	5	2.153	2024952
V-TEC TB20 2x6	M20x1,5	Light grey	50	5	2.113	2024954
V-TEC TB20 4x4	M20x1,5	Light grey	50	5	2.123	2024956
V-TEC TB20 6x4	M20x1,5	Light grey	50	5	2.083	2024958
V-TEC TB25 3x7	M25x1,5	Light grey	50	5	2.449	2024927
V-TEC TB25 3x9	M25x1,5	Light grey	50	5	2.640	2024928
V-TEC TB25 4x5	M25x1,5	Light grey	50	5	2.539	2024929
V-TEC TB25 4x6	M25x1,5	Light grey	50	5	2.439	2024930
V-TEC TB25 4x8	M25x1,5	Light grey	50	5	2.950	2024931
V-TEC TB32 2x11	M32x1,5	Light grey	60	5	7.196	2024984
V-TEC TB32 3x9	M32x1,5	Light grey	60	5	7.196	2024986
V-TEC TB32 3x11	M32x1,5	Light grey	60	5	7.196	2024988
V-TEC TB32 4x8	M32x1,5	Light grey	60	5	7.211	2024990
V-TEC TB32 6x6	M32x1,5	Light grey	60	5	7.284	2024992

PC Polycarbonate

The splittable cable gland V-TEC TB.. ensures - like all V-TEC glands - a secure sealing of the cable. The installation of pre-terminated cables or function cables, for example, is easy and quick, thanks to the splitting of the cable gland.

The V-TEC TB is also unbeatable when refitting an existing installation and as a "repair gland".

There is no need to disassemble pre-mounted cables, it can be installed without interrupting the production process.



### Dimensions

Type	Dimension D mm	Dimension SW mm	Dimension E mm	Dimension L min. mm	Dimension L max. mm	Dimension L1 mm	Dimension L2 mm
V-TEC TB20 2x4	4	30	33.5	24.5	30.5	10	8.5
V-TEC TB20 2x5	5	30	33.5	24.5	30.5	10	8.5
V-TEC TB20 2x6	6	30	33.5	24.5	30.5	10	8.5
V-TEC TB20 4x4	4	30	33.5	24.5	30.5	10	8.5
V-TEC TB20 6x4	4	30	33.5	24.5	30.5	10	8.5

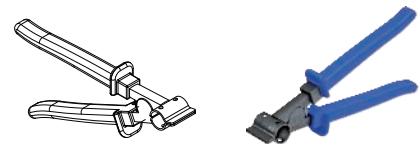
## Parting pliers for divisible cable gland seal insert

M25

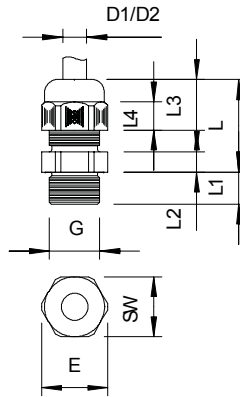
Type	Pack. pcs	Weight kg/100 pcs.	Item No.
V-TEC TBZ	1	26.000	2024900

The ideal aids are the spreading pliers which can be used to open the sealing insert. With this tool, inserting the individual cables is easy and quick.

Place the cable into the spreading pliers, insert the spreading pliers into the sealing separation and then open them. Now the cable can easily be placed into the seal.



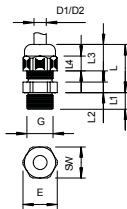
## Cable gland, PG thread



- PG connection thread
- With the integrated sealing lip, protection class IP68 is achieved
- Applications: From private housing with junction boxes up to industrial applications in the distributor cabinet
- Temperature range: -20 °C to +65 °C

G	D1	D2	SW	E	L min.	L max.	L1	L2	L3
	mm	mm	mm	mm	mm	mm	mm	mm	mm
Pg 7	2.5-6.5	3-6.5	15	16.5	18	23	8	5	12.6
Pg 9	2.5-8	3.5-8	19	21	21	27	8	5	15.5
PG 11	3.5-10	4.5-10	22	25	22	29	8	5	17
Pg 13.5	5-12	6-12	24	27	23	30	9	5	18
Pg 16	7-14	7-14	27	30	25	33	10	6	19
Pg 21	9-18	12-18	33	37.5	28	38	11	6	22
Pg 29	14-25	17-25	42	47.5	32	43	11	7	24.5
Pg 36	18-32	20-32	53	60	39	54	13	8	31
Pg 42	24-38	26-38	60	68.5	42	57	13	9	32.5
Pg 48	30-44	30-44	65	74	42	58	14	9	33

## Cable gland, PG thread, silver grey



Type	Thread	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
V-TEC PG7 SGR	Pg 7	Silver grey	500	50	0.410	2022605
V-TEC PG9 SGR	Pg 9	Silver grey	500	50	0.630	2022613
V-TEC PG11 SGR	Pg 11	Silver grey	500	50	0.890	2022621
V-TEC PG13.5 SGR	Pg 13,5	Silver grey	400	50	1.020	2022648
V-TEC PG16 SGR	Pg 16	Silver grey	250	25	1.380	2022656
V-TEC PG21 SGR	Pg 21	Silver grey	300	25	2.290	2022664
V-TEC PG29 SGR	Pg 29	Silver grey	240	20	4.020	2022672
V-TEC PG36 SGR	Pg 36	Silver grey	120	10	6.040	2022680
V-TEC PG42 SGR	Pg 42	Silver grey	60	5	7.650	2022699
V-TEC PG48 SGR	Pg 48	Silver grey	60	5	9.460	2022702

PA Polyamide

The quickest and most convenient way of providing strain relief and tightness with cable glands on junction boxes and housings is with the tried-and-trusted V-TEC VM cable glands from OBO. With the integrated sealing lip and the special OBO slat technology, protection class IP68 is achieved. Strain relief and tightness have been tested to DIN EN 62444.

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

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

Temperature range: -20 °C to +65 °C.

### Cable gland, PG thread, light grey



Type	Thread	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs	Item No.
V-TEC PG7 LGR	Pg 7	Light grey	500	50	0.410	2024705
V-TEC PG9 LGR	Pg 9	Light grey	500	50	0.630	2024713
V-TEC PG11 LGR	Pg 11	Light grey	500	50	0.890	2024721
V-TEC PG13 LGR	Pg 13,5	Light grey	400	50	1.020	2024748
V-TEC PG16 LGR	Pg 16	Light grey	250	25	1.380	2024756
V-TEC PG21 LGR	Pg 21	Light grey	300	25	2.290	2024764
V-TEC PG29 LGR	Pg 29	Light grey	240	20	4.020	2024772
V-TEC PG36 LGR	Pg 36	Light grey	120	10	6.030	2024780
V-TEC PG42 LGR	Pg 42	Light grey	60	5	7.650	2024799
V-TEC PG48 LGR	Pg 48	Light grey	60	5	9.460	2024802

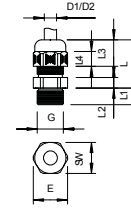
PA Polyamide

The quickest and most convenient way of providing strain relief and tightness with cable glands on junction boxes and housings is with the tried-and-trusted V-TEC VM cable glands from OBO. With the integrated sealing lip and the special OBO slat technology, protection class IP68 is achieved. Strain relief and tightness have been tested to DIN EN 62444.

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

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

Temperature range: -20 °C to +65 °C.



### Cable gland, PG thread, set with locknut, light grey



Type	Thread	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs	Item No.
V-TEC PG7+ LGR	Pg 7	Light grey	600	50	0.503	2024655
V-TEC PG9+ LGR	Pg 9	Light grey	500	50	0.799	2024657
V-TEC PG11+ LGR	Pg 11	Light grey	500	50	1.074	2024659
V-TEC PG13,5+LGR	Pg 13,5	Light grey	400	50	1.276	2024661
V-TEC PG16+ LGR	Pg 16	Light grey	250	25	1.705	2024663
V-TEC PG21+ LGR	Pg 21	Light grey	300	25	2.756	2024665
V-TEC PG29+ LGR	Pg 29	Light grey	240	20	5.120	2024667
V-TEC PG36+ LGR	Pg 36	Light grey	120	10	7.713	2024669
V-TEC PG42+ LGR	Pg 42	Light grey	60	5	9.406	2024671
V-TEC PG48+ LGR	Pg 48	Light grey	60	5	11.290	2024673

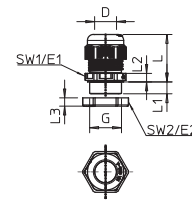
PA Polyamide

The quickest and most convenient way of providing strain relief and tightness with cable glands on junction boxes and housings is with the tried-and-trusted V-TEC VM cable glands from OBO. With the integrated sealing lip and the special OBO slat technology, protection class IP68 is achieved. Strain relief and tightness have been tested to DIN EN 62444.

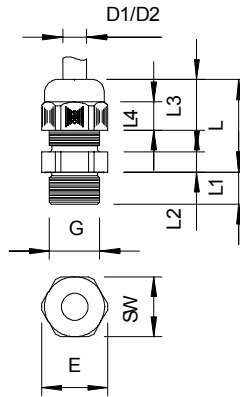
The connecting threads of the cable glands are metric or PG and are therefore suitable for universal use. Once screwed in place, the installation is there forever, as the optimum thread adjustment with the right pitch ensures permanent resistance to shaking.

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

Temperature range: -20 °C to +65 °C.



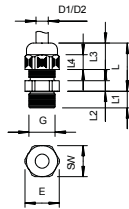
## Cable gland, long thread



- Long PG connection thread – 15–18 mm
- With the integrated sealing lip, protection class IP68 is achieved
- Applications: From private housing with junction boxes up to industrial applications in the distributor cabinet
- Temperature range: –20 °C to +65 °C

G	D1	D2	SW	E	L min.	L max.	L1	L2	L3
	mm	mm	mm	mm	mm	mm	mm	mm	mm
Pg 7	2.5–6.5	3–6.5	15		18	23	15	5	12.6
Pg 9	2.5–8	3.5–8	19	21	21	27	15	5	15.5
PG 11	3.5–10	4.5–10	22	25	22	29	15	5	17
Pg 13.5	5–12	6–12	24	27	23	30	15	5	18
Pg 16	7–14	7–14	27	30	25	33	15	6	19
Pg 21	9–18	12–18	33	37.5	28	38	15	6	22
Pg 29	14–25	17–25	42	47.5	32	43	15	7	24.5
Pg 36	18–32	20–32	53	60	39	54	18	8	31
Pg 42	24–38	26–38	60		42	57	18	9	32.5

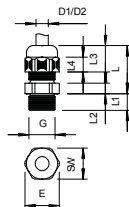
### Cable gland, long PG thread, silver grey



Type	Thread	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
V-TEC L PG9 SGR	Pg 9	Silver grey	500	50	0.670	2024187
V-TEC L PG11 SGR	Pg 11	Silver grey	500	50	0.930	2024195
V-TEC L PG13 SGR	Pg 13,5	Silver grey	600	50	1.090	2024209
V-TEC L PG16 SGR	Pg 16	Silver grey	250	25	1.490	2024217
V-TEC L PG21 SGR	Pg 21	Silver grey	300	25	2.330	2024225
V-TEC L PG29 SGR	Pg 29	Silver grey	240	20	3.860	2024233
V-TEC L PG36 SGR	Pg 36	Silver grey	120	10	7.750	2024241

PA Polyamide

### Cable gland, long PG thread, light grey

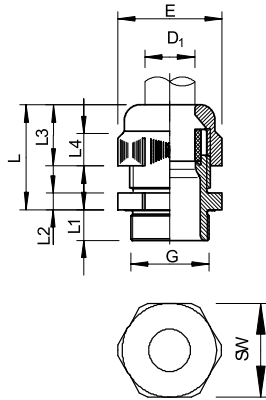


Type	Thread	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
V-TEC L PG7 LGR	Pg 7	Light grey	500	50	0.410	2024284
V-TEC L PG9 LGR	Pg 9	Light grey	500	50	0.670	2024292
V-TEC L PG11 LGR	Pg 11	Light grey	500	50	0.930	2024306
V-TEC L PG13 LGR	Pg 13,5	Light grey	600	50	1.090	2024314
V-TEC L PG16 LGR	Pg 16	Light grey	250	25	1.490	2024322
V-TEC L PG21 LGR	Pg 21	Light grey	300	25	2.330	2024330
V-TEC L PG29 LGR	Pg 29	Light grey	240	20	3.860	2024349
V-TEC L PG36 LGR	Pg 36	Light grey	120	10	7.750	2024357
V-TEC L PG42 LGR	Pg 42	Light grey	60	5	10.070	2024365

PA Polyamide



## Cable gland, EX area



- Cable gland with EC design type approval certificate for products and protection systems for use in accordance with the regulations in explosion-hazard areas in accordance with directive 94/9/EC
- EC design type approval certificate number: PTB 99 ATEX 3112X and ... 3113X
- With metric and PG connection thread
- Robust cap-nut cable gland with wide sealing range, as well as strain relief and twist protection for high sealing demands
- Sealing ring of chloroprene/nitrile rubber
- Moulded sealing lips, so no connection thread sealing ring required
- Protection rating IP68 at 5 bar

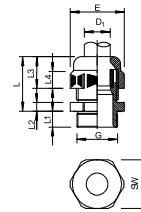
## Cable gland, EX area, metric thread



Thread Colour

Type	Thread	Colour	Pack. pcs	Weight kg/100 pcs.	Item No.
VTEC EX M12 SW	M12 x 1,5	Black	50	0.360	2050307
VTEC EX M16 SW	M16 x 1,5	Black	50	0.630	2050315
VTEC EX M20 SW	M20 x 1,5	Black	50	1.000	2050323
VTEC EX M25 SW	M25 x 1,5	Black	25	2.350	2050331
VTEC EX M32 SW	M32 x 1,5	Black	20	3.900	2050358
VTEC EX M40 SW	M40 x 1,5	Black	10	7.500	2050366
VTEC EX M50 SW	M50 x 1,5	Black	5	9.200	2050374
VTEC EX M63 SW	M63 x 1,5	Black	5	9.460	2050382

PA Polyamide

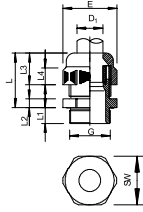


Dimensions

G	D1	WAF	E	L	L	L1	L2	L3
	mm	mm	mm	min. mm	max. mm	mm	mm	mm
M12 x 1.5	3.5-6.5	15	16.5	18	23	8	5	12.6
M16 x 1.5	5-8	19	21	21	27	8	5	15.5
M20 x 1.5	7-12	24	27	23	30	9	5	18
M25 x 1.5	12-18	33	37.5	28	38	11	6	22
M32 x 1.5	17-25	42	47.5	32	43	11	7	24.5
M40 x 1.5	21-32	53	60	39	54	13	8	31
M50 x 1.5	24-37	60	68.5	42	57	13	9	32.5
M63 x 1.5	30-44	65	74	42	58	14	9	33



## Cable gland, EX area, PG thread



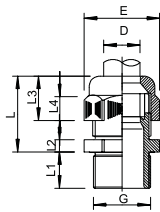
Type	Thread	Colour	Pack. pcs	Weight kg/100 pcs	Item No.
VTEC EX PG7 SW	Pg 7	Black	50	0.410	2050005
VTEC EX PG9 SW	Pg 9	Black	50	0.630	2050013
VTEC EX PG11 SW	Pg 11	Black	50	0.890	2050021
VTEC EX PG13.5SW	Pg 13,5	Black	50	1.020	2050048
VTEC EX PG16 SW	Pg 16	Black	25	1.380	2050056
VTEC EX PG21 SW	Pg 21	Black	25	2.290	2050064
VTEC EX PG29 SW	Pg 29	Black	20	4.020	2050072
VTEC EX PG36 SW	Pg 36	Black	10	6.030	2050080
VTEC EX PG42 SW	Pg 42	Black	5	7.650	2050099
VTEC EX PG48 SW	Pg 48	Black	5	9.460	2050102

PA Polyamide

### Dimensions

G	D1 mm	WAF mm	E mm	L min. mm	L max. mm	L1 mm	L2 mm	L3 mm
Pg 7	3.5-6.5	15	16.5	18	23	8	5	12.6
Pg 9	5-8	19	21	21	27	8	5	17
Pg 11	4.5-10	22	25	22	29	8	5	17
Pg 13.5	6.5-12	24	27	23	30	9	5	18
Pg 16	7-14	27	30	25	33	10	6	19
Pg 21	12-18	33	37.5	28	38	11	6	22
Pg 29	17-25	42	47.5	32	43	11	7	24.5
Pg 36	21-32	53	60	39	54	13	8	31
Pg 42	24-38	60	68.5	42	57	13	9	32.5
Pg 48	30-44	65	74	42	58	14	9	33

## Cable gland, EX area, long PG thread



Type	Thread	Colour	Pack. pcs	Weight kg/100 pcs	Item No.
VTEC EXL PG9 SW	Pg 9	Black	50	0.670	2050145
VTEC EXL PG11 SW	Pg 11	Black	50	0.930	2050153
VTEC EXL PG13 SW	Pg 13,5	Black	50	1.090	2050161
VTEC EXL PG16 SW	Pg 16	Black	25	1.490	2050188
VTEC EXL PG21 SW	Pg 21	Black	25	2.330	2050196

PA Polyamide

### Dimensions

G	D1 mm	WAF mm	E mm	L min. mm	L max. mm	L1 mm	L2 mm	L3 mm
Pg 9	5-8	19	21	21	27	15	5	15.5
Pg 11	4.5-10	22	25	22	29	15	5	17
Pg 13.5	6.5-12	24	27	23	30	15	5	18
Pg 16	7-14	27	30	25	33	15	6	19
Pg 21	12-18	33	37.5	28	38	15	6	22



### Socket spanner attachment

Type	SW Size mm		Pack. pcs	Weight kg/100 pcs.	Item No.
	M	mm			
V-TEC ST15	M12	15	1	3.500	3010236
V-TEC ST20	M16	20	1	3.700	3010244
V-TEC ST29	M25	29	1	8.500	3010260

Socket spanner attachment opened at the side with side for ground ratchet, V-TEC GR.



### Ratchet set

Type	Accessories		Pack. pcs	Weight kg/100 pcs.	Item No.
V-TEC RA SET	1 ground ratchet		1	71.600	3010275
	1 grip for ground ratchet				
	4 socket spanner attachments				

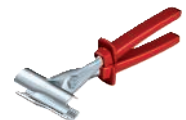
Set consisting of a ground ratchet, type V-TEC RA, a grip for ground ratchet, type V-TEC GR, and four socket spanner attachments in sizes WAF 15, WAF 20, WAF 24 and WAF 29.



### Special tongs for cable glands

Type	Pack. pcs	Weight kg/100 pcs.	Item No.
186	1	47.000	3010104

Universal tool for easy tightening of all glands up to size PG 21 or M25 x 1.5, also usable with glands very close to one another.  
Small opening PG 7–PG 11.  
Large opening PG 13.5–PG 21.



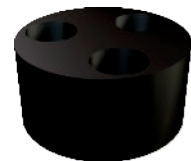
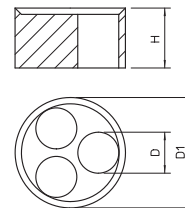
### Multiple sealing insert, metric

M

Type	Size mm	Dimen- sion D mm	Dimen- sion H mm	Dimen- sion D1 mm	Number of drill holes	Pack. pcs	Weight kg/100 pcs.	Item No.
107 C VM 20 2x4	M20	4	8.1	15.1	2	50	0.130	2029672
107 C VM 20 4x5	M20	5	8.1	15.1	4	50	0.080	2029675
107 C VM 20 2x6	M20	6	8.1	15.1	2	50	0.100	2029677
107 C VM 25 5x4	M25	4	10	19.8	5	50	0.180	2029679
107 C VM 25 3x6	M25	6	10	19.8	3	50	0.210	2029682
107 C VM 25 2x6	M25	6	10	19.8	2	50	0.260	2029685
107 C VM 25 3x7	M25	7	10	19.8	3	50	0.180	2029688
107 C VM 25 2x8	M25	8	10	19.8	2	50	0.200	2029690
107 C VM 32 2x8	M32	8	13.4	25.1	2	25	0.530	2029693
107 C VM 32 4x8	M32	8	13.4	25.1	4	25	0.400	2029696

**NBR-SBR** Rubber mixture

Use to insert multiple thin cables in the V-TEC VM cable glands, is replaced with the simple sealing ring of the cable gland.

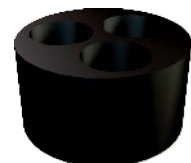
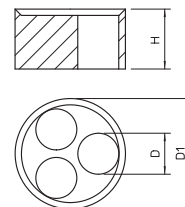


Pg

Type	Size mm	Dimen- sion D mm	Dimen- sion H mm	Dimen- sion D1 mm	Number of drill holes	Pack. pcs	Weight kg/100 pcs.	Item No.
107 C V 16 5x4	Pg 16	4	9.5	17.5	5	50	0.205	2029618
107 C V 16 3x5	Pg 16	5	9.5	17.5	3	50	0.210	2029626
107 C V 16 2x6	Pg 16	6	9.5	17.5	2	50	0.210	2029634
107 C V 16 3x6	Pg 16	6.5	9.5	17.5	3	50	0.155	2029642
107 C V 21 3x7	Pg 21	7	12	23	3	25	0.450	2029650
107 C V 21 2x8	Pg 21	8	12	23	2	25	0.340	2029669

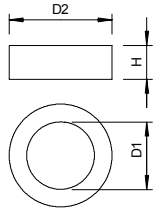
**NBR-SBR** Rubber mixture

Use to insert multiple thin cables in the V-TEC cable glands, is replaced with the simple sealing ring of the cable gland.



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## Reducing sealing insert, metric



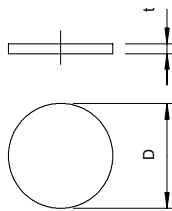
M

Type	Size mm	Sealing range D mm	Dimension D1 mm	Dimension D2 mm	Dimension H mm	Pack. pcs	Weight kg/100 pcs.	Item No.
107CR VM 12	M12	2 - 5	5	8.9	7.2	50	0.050	2029560
107CR VM 16	M16	2.5 - 7	7	12.7	8.1	50	0.115	2029563
107CR VM 20	M20	4 - 9	9	16	9.3	50	0.205	2029566
107CR VM 25	M25	6 - 13	13	20.7	10.5	50	0.340	2029569
107CR VM 32	M32	11 - 16	16	25.7	12.3	25	0.625	2029572
107CR VM 40	M40	12 - 23	23	33.7	15	25	1.140	2029575
107CR VM 50	M50	18 - 29	29	41.7	18.5	25	2.080	2029578
107CR VM 63	M63	29 - 40	40	54.8	20.2	25	3.560	2029581

NBR-SBR Rubber mixture

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

## Dust protection plate, metric



M

Type	Size mm	Dimension D mm	Dimension t mm	Pack. pcs	Weight kg/100 pcs.	Item No.
107 S VTEC M12	M12	12	1.5	100	0.001	2028870
107 S VTEC M16	M16	16	1.5	100	0.002	2028873
107 S VTEC M20	M20	20	1.5	100	0.004	2028875
107 S VTEC M25	M25	25	1.5	100	0.008	2028877
107 S VTEC M32	M32	32	1.5	100	0.012	2028880
107 S VTEC M40	M40	40	1.5	100	0.022	2028883
107 S VTEC M50	M50	50	1.5	100	0.040	2028885

ZPE Cellular polyethylene

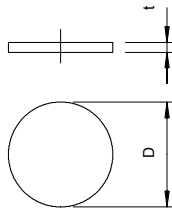
Cellular polyethylene.

Small protective disc to protect the V-TEC VM and V-TEC VM MS cable glands against dust before the cable is installed.

Application: the discs are pre-mounted between the cap nut and the seal. They do not need to be removed when the cable is installed, but are simply passed through to the interior with the cable.

Note: the discs do not provide any mechanical protection.

## Dust protection plate, PG



Pg

Type	Size mm	Dimension D mm	Dimension t mm	Pack. pcs	Weight kg/100 pcs.	Item No.
107 S VTEC PG7	Pg 7	11	2	100	0.001	2028891
107 S VTEC PG9	Pg 9	14	2	100	0.002	2028905
107 S VTEC PG11	Pg 11	16.5	2	100	0.003	2028913
107 S VTEC PG13	Pg 13,5	18.5	2	100	0.004	2028921
107 S VTEC PG16	Pg 16	21	2	100	0.006	2028948
107 S VTEC PG21	Pg 21	26.5	2	100	0.010	2028956
107 S VTEC PG29	Pg 29	34.5	2	100	0.015	2028964
107 S VTEC PG36	Pg 36	44	3	100	0.035	2028972
107 S VTEC PG42	Pg 42	50	3	100	0.050	2028980
107 S VTEC PG48	Pg 48	56	3	100	0.060	2028999

ZPE Cellular polyethylene

Cellular polyethylene.

Small protective disc to protect the V-TEC and V-TEC MS cable glands against dust before the cable is installed.

Application: the discs are pre-mounted between the cap nut and the seal. They do not need to be removed when the cable is installed, but are simply passed through to the interior with the cable.

Note: the discs do not provide any mechanical protection.

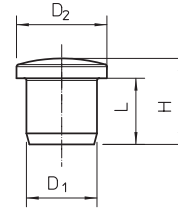


## Screw plug, metric and PG

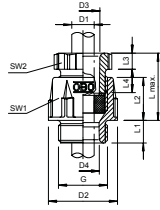
Type	Size	Dimension D1 mm	Dimension L mm	Dimension D2 mm	Dimension H mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>107VS VM 5 PA</b>	für M12 / Pg9	5.5	9	10	12.5	50	0.041	<b>2029511</b>
<b>107VS VM 9 PA</b>	für M16 / Pg13,5	9.5	12	13.5	16	50	0.090	<b>2029514</b>
<b>107VS VM 12 PA</b>	für M20 / Pg16	12	12	16.5	16.5	50	0.130	<b>2029517</b>
<b>107VS VM 16 PA</b>	für M25 / Pg21	16	15	20.5	19.5	50	0.190	<b>2029520</b>
<b>107VS VM 20 PA</b>	für M32 / Pg29	20	17	24.5	21.5	25	0.250	<b>2029523</b>
<b>107VS VM 27 PA</b>	für M40 / Pg36	27	20	32	24	10	0.353	<b>2029529</b>
<b>107VS VM 35 PA</b>	für M50 / Pg42	35	25	39	29	5	0.500	<b>2029533</b>

PA Polyamide

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



## Cable gland, metric thread, Polystyrene



Thread Colour

Type	Thread	Colour	Pack. pcs	Weight kg/100 pcs	Item No.
106 M12 PS	M12 x 1,5	Light grey	50	0.400	2035316
106 M16 PS	M16 x 1,5	Light grey	50	0.560	2035324
106 M 20 PS	M20 x 1,5	Light grey	50	0.753	2035332
106 M 25 PS	M25 x 1,5	Light grey	50	1.018	2035340
106 M 32 PS	M32 x 1,5	Light grey	10	2.891	2035359
106 M 40 PS	M40 x 1,5	Light grey	10	4.973	2035367
106 M 50 PS	M50 x 1,5	Light grey	5	6.594	2035375
106 M 63 PS	M63 x 1,5	Light grey	5	9.630	2035383

PS Polystyrene

Standard cable gland, shape A, to DIN 46320 with simple NR/SBR sealing ring with metric connection thread to IEC 423.

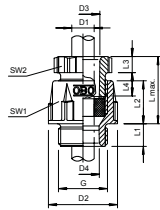
Protection rating: with connection thread sealing ring IP 65, without connection thread sealing ring IP 54.

Note: only tighten polystyrene cable glands lightly on account of the risk of stress crack formation.

### Dimensions

G	D1 mm	D2 mm	D3 mm	D4 mm	SW1 mm	SW2 mm	L1 mm	L2 mm	L3 mm	L4 mm	L max. mm
M12 x 1.5	3.5–6.5	16.5	7	7	15	13	8	13	5	8.5	23
M16 x 1.5	4.5–7	21.5	10.2	10	19	16	8	14	5	9	25
M20 x 1.5	9–13	27	13.4	13.5	24	21	9	16	5	10.8	28
M25 x 1.5	10–14	30	15.8	16	27	23	10	16.5	6	12	30
M32 x 1.5	18–25	47.5	30.3	26	42	40	11	20.5	8	18	42
M40 x 1.5	25–33	58	38.4	33	53	50	12	24	8	17	43
M50 x 1.5	30–38	65	44.5	40.5	60	55	13	27	9	18.5	48
M63 x 1.5	37–44	70	50	45.5	65	60	14	27	9	18.5	48

## Cable gland, PG thread



Thread Colour

Type	Thread	Colour	Pack. pcs	Weight kg/100 pcs	Item No.
106 PG7	Pg 7	Light grey	50	0.325	2036061
106 PG9	Pg 9	Light grey	50	0.560	2036096
106 PG11	Pg 11	Light grey	50	0.800	2036118
106 PG13.5	Pg 13,5	Light grey	50	0.794	2036134
106 PG16	Pg 16	Light grey	50	1.003	2036169
106 PG21	Pg 21	Light grey	50	1.760	2036215
106 PG29	Pg 29	Light grey	10	3.004	2036290
106 PG36	Pg 36	Light grey	10	6.240	2036363
106 PG42	Pg 42	Light grey	5	6.698	2036428
106 PG48	Pg 48	Light grey	5	7.336	2036487

PS Polystyrene

Standard cable gland, shape A, to DIN 46320 with simple NR/SBR sealing ring.

PG connection thread in accordance with DIN 40430.

Protection rating: with connection thread sealing ring IP65, without connection thread sealing ring IP54.

Note: only tighten polystyrene cable glands lightly on account of the risk of stress crack formation.

### Dimensions

G	D1 mm	D2 mm	D3 mm	D4 mm	SW1 mm	SW2 mm	L1 mm	L2 mm	L3 mm	L4 mm	L max. mm
Pg 7	3.5–6.5	16.5	7	7	15	13	8	13	5	8.5	23
Pg 9	4.5–7	21.5	10.2	10.2	19	16	8	14	5	9	25
Pg 11	5.5–10	25	11.3	11.5	22	19	8	15	5	10	27
Pg 13.5	9–13	27	13.4	13.5	24	21	9	16	5	10.8	28
Pg 16	10–14	30	15.8	16.5	27	23	10	16.5	6	12	30
Pg 21	14–18	37.5	21.2	21	33	30	11	19	7	17	38
Pg 29	18–25	47.5	30	27.5	42	40	11	20.5	8	18	42
Pg 36	25–33	58	38	34.5	53	50	12	24	8	17	43
Pg 42	30–38	65	44.5	40.5	60	55	13	27	9	18.5	48
Pg 48	37–44	70	50	45.5	65	60	14	27	9	18.5	48



### Twin gland, PG thread



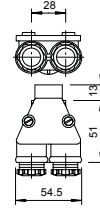
Thread Colour

**Type**

Type	Thread	Colour	Pack. pcs	Weight kg/100 pcs	Item No.
<b>113 PG13.5 LGR</b>	Pg 13,5	Light grey	5	3.752	<b>2024136</b>
<b>113 PG16 LGR</b>	Pg 16	Light grey	5	4.360	<b>2024160</b>

UF Duroplast, Aminoplast, type 131.5

Protection rating, with removable polystyrene cover, as well as two polyethylene connection thread sealing rings.



### Twin gland, metric thread



Thread Colour

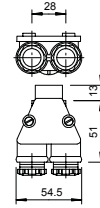
**Type**

Type	Thread	Colour	Pack. pcs	Weight kg/100 pcs	Item No.
<b>113 M20 LGR</b>	M 20 x 1,5	Light grey	5	3.701	<b>2024063</b>

UF Duroplast, Aminoplast, type 131.5

Protection rating, with removable polystyrene cover, as well as two polyethylene connection thread sealing rings.

With connection thread M20 x 1.5, two half glands PG 13.5 for cable diameters 6.5–10.5 mm.



### Flat cable threaded connection, metric thread M20



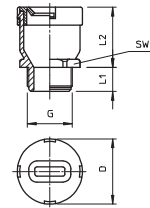
Flat cables/ thickness mm Flat cables/ width mm

**Type**

Type	Thread	Flat cables/ thickness mm	Flat cables/ width mm	Colour	Pack. pcs	Weight kg/100 pcs	Item No.
<b>106 FL M20 8 19</b>	M20	6 - 8	17 - 19	Stone grey	50	1.350	<b>2013002</b>

PE Polyethylene

Flat-cable entry, choke-nipple design with metric connecting thread to IEC 432, protection rating IP 31, with pre-mounted support sealing ring 107/F.

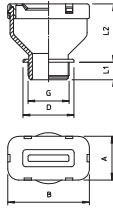


G	D mm	L1 mm	L2 mm	SW mm
M20	32.5	12	30	27

Dimensions



## Flat cable threaded connection, metric thread M25



Type	Thread	Flat cables/ thickness mm	Flat cables/ width mm	Colour	Pack. pcs	Weight kg/100 pcs.	Item No.
106 FL M25 6 30	M25	4 - 6	27 - 30	Stone grey	25	2.630	2013006
106 FL M25 8 33	M25	6 - 8	30 - 33	Stone grey	25	2.630	2013007
106 FL M25 9 22	M25	7 - 9	19 - 22	Stone grey	25	2.630	2013008
106 FL M25 9 39	M25	7 - 9	36 - 39	Stone grey	25	2.630	2013009
106 FL M25 10 29	M25	8 - 10	26 - 29	Stone grey	25	2.630	2013010
106 FL M25 10 31	M25	8.5 - 10.5	28.5 - 31.5	Stone grey	25	2.630	2013011
106 FL M25 12 35	M25	9 - 12	31 - 35	Stone grey	25	2.630	2013012
106 FL M25 14 40	M25	11 - 14	37 - 40	Stone grey	25	2.680	2013013
106 FL M32 6 30	M32	4 - 6	27 - 30	Stone grey	15	3.450	2013015
106 FL M32 8 33	M32	6 - 8	30 - 33	Stone grey	15	3.450	2013016
106 FL M32 9 22	M32	7 - 9	19 - 22	Stone grey	15	3.450	2013017
106 FL M32 9 39	M32	7 - 9	36 - 39	Stone grey	15	3.450	2013018
106 FL M32 10 29	M32	8 - 10	26 - 29	Stone grey	15	3.450	2013019
106 FL M32 10 31	M32	8.5 - 10.5	28.5 - 31.5	Stone grey	15	3.450	2013020
106 FL M32 12 35	M32	9 - 12	31 - 35	Stone grey	15	3.450	2013021
106 FL M32 14 40	M32	11 - 14	37 - 40	Stone grey	15	3.500	2013022

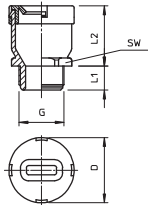
PE Polyethylene

Flat-cable entry, choke-nipple design with metric connecting thread to IEC 432, protection rating IP31, with pre-mounted support sealing ring 107/F.

### Dimensions

G	D	L1	L2	A	B
	mm	mm	mm	mm	mm
M25	35	12	40	30	56

## Flat cable threaded connection, PG thread Pg16



Type	Thread	Flat cables/ thickness mm	Flat cables/ width mm	Colour	Pack. pcs	Weight kg/100 pcs.	Item No.
106 FL 16 8 19	Pg 16	6 - 8	17 - 19	Stone grey	50	1.006	2012758

PE Polyethylene

Flat-cable entry, choke-nipple design with PG connecting thread to DIN 40430, protection rating IP31, with pre-mounted support sealing ring 107/F.

### Dimensions

G	D	L1	L2	SW
	mm	mm	mm	mm
PG16	32.5	12	30	27



## Flat cable threaded connection, PG thread

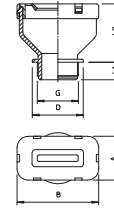


Type	Thread	Flat cables/ thickness mm	Flat cables/ width mm	Colour	Pack. pcs	Weight kg/100 pcs.	Item No.
106 FL 21 6 30	Pg 21	4 - 6	27 - 30	Stone grey	25	2.006	2012855
106 FL 21 8 33	Pg 21	6 - 8	30 - 33	Stone grey	25	1.977	2012782
106 FL 21 9 22	Pg 21	7 - 9	19 - 22	Stone grey	25	1.996	2012820
106 FL 21 9 39	Pg 21	7 - 9	36 - 39	Stone grey	25	1.975	2012804
106 FL 21 10 29	Pg 21	8 - 10	26 - 29	Stone grey	25	1.989	2012839
106 FL 21 10 31	Pg 21	8.5 - 10.5	28.5 - 31.5	Stone grey	25	1.999	2012871
106 FL 21 12 35	Pg 21	9 - 12	31 - 35	Stone grey	25	1.965	2012847
106 FL 21 14 40	Pg 21	11 - 14	37 - 40	Stone grey	25	2.015	2012928
106 FL 29 14 40	Pg 29	11 - 14	37 - 40	Stone grey	15	3.500	2012774

PE Polyethylene

Flat-cable entry, choke-nipple design with PG connecting thread to DIN 40430, protection rating IP31, with pre-mounted support sealing ring 107/F.

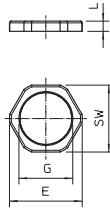
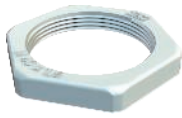
G	D mm	L1 mm	L2 mm	A mm	B mm
PG21	35	12	40	30	56
PG 29	46	13	46	30	56



## Dimensions



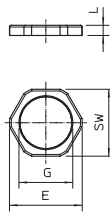
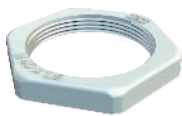
Locknut, metric thread



Type	Thread	Colour	SW mm	Dimen- sion E mm	Dimen- sion L mm	Pack. pcs	Item No.
116 M12 LGR PA	M12x1,5	Light grey	17	19	5	100	2048906
116 M16 LGR PA	M16x1,5	Light grey	22	25	5	100	2048914
116 M20 LGR PA	M20x1,5	Light grey	26	29	6	100	2048922
116 M25 LGR PA	M25x1,5	Light grey	32	36	6.5	100	2048930
116 M32 LGR PA	M32x1,5	Light grey	41	46	7	50	2048949
116 M40 LGR PA	M40x1,5	Light grey	50	56	7	25	2048957
116 M50 LGR PA	M50x1,5	Light grey	60	68	8	25	2048965
116 M63 LGR PA	M63x1,5	Light grey	75	83	8	25	2048973

PA Polyamide

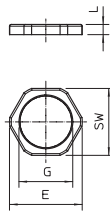
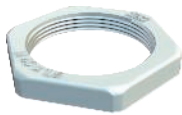
Cable outlet, plastic locknut



Type	Thread	Colour	SW mm	Dimen- sion E mm	Dimen- sion L mm	Pack. pcs	Item No.
116 M12 SGR PA	M12x1,5	Silver grey	17	19	5	100	2048752
116 M16 SGR PA	M16x1,5	Silver grey	22	25	5	100	2048760
116 M20 SGR PA	M20x1,5	Silver grey	26	29	6	100	2048779
116 M25 SGR PA	M25x1,5	Silver grey	32	36	6.5	100	2048787
116 M32 SGR PA	M32x1,5	Silver grey	41	46	7	50	2048795
116 M40 SGR PA	M40x1,5	Silver grey	50	56	7	25	2048809
116 M50 SGR PA	M50x1,5	Silver grey	60	68	8	25	2048817
116 M63 SGR PA	M63x1,5	Silver grey	75	83	8	25	2048825

PA Polyamide

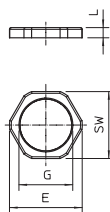
Locknut, metric thread



Type	Thread	Colour	SW mm	Dimen- sion E mm	Dimen- sion L mm	Pack. pcs	Item No.
116 M12 SW PA	M12x1,5	Black	17	19	5	100	2049066
116 M16 SW PA	M16x1,5	Black	22	25	5	100	2049074
116 M20 SW PA	M20x1,5	Black	26	29	6	100	2049082
116 M25 SW PA	M25x1,5	Black	32	36	6.5	100	2049090
116 M32 SW PA	M32x1,5	Black	41	46	7	50	2049104
116 M40 SW PA	M40x1,5	Black	50	56	7	25	2049112
116 M50 SW PA	M50x1,5	Black	60	68	8	25	2049120
116 M63 SW PA	M63x1,5	Black	75	83	8	25	2049139

PA Polyamide

Locknut, PG thread



Type	Thread	Colour	SW mm	Dimen- sion E mm	Dimen- sion L mm	Pack. pcs	Item No.
116 VDE PG7 PA	Pg 7	Light grey	19	21	5	100	2048078
116 VDE PG 9 PA	Pg 9	Light grey	22	24	5	100	2048094
116 VDE PG11 PA	Pg 11	Light grey	24	26	5	100	2048116
116 VDE PG13.5PA	Pg 13,5	Light grey	27	29	6	100	2048132
116 VDE PG16 PA	Pg 16	Light grey	30	33	6	100	2048167
116 VDE PG21 PA	Pg 21	Light grey	36	39	7	100	2048221
116 VDE PG29 PA	Pg 29	Light grey	46	50	7	50	2048299
116 VDE PG36 PA	Pg 36	Light grey	60	66	8	25	2048361
116 VDE PG42 PA	Pg 42	Light grey	65	73	8	25	2048426
116 VDE PG48 PA	Pg 48	Light grey	70	78	8	25	2048485

PA Polyamide



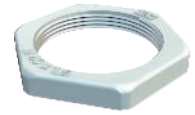
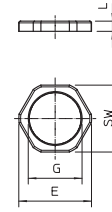
## Locknut, metric thread



Type	Thread	Colour	SW mm	Dimen- sion E mm	Dimen- sion L mm	Pack. pcs	Item No.
116 M12 LGR PS	M12 x 1,5	Light grey	17	19	5	100	2049503
116 M16 LGR PS	M16 x 1,5	Light grey	22	25	5	100	2049511
116 M20 LGR PS	M20 x 1,5	Light grey	26	29	6	100	2049538
116 M25 LGR PS	M25 x 1,5	Light grey	32	36	6.5	100	2049546
116 M32 LGR PS	M32 x 1,5	Light grey	41	46	7	50	2049554
116 M40 LGR PS	M40 x 1,5	Light grey	50	56	7	25	2049562
116 M50 LGR PS	M50 x 1,5	Light grey	60	68	8	25	2049570
116 M63 LGR PS	M63 x 1,5	Light grey	75	83	8	25	2049589

PS Polystyrene

Locknut DIN 46319, with metric thread IEC 423.



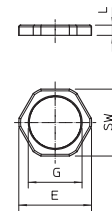
## Locknut, PG thread



Type	Thread	Colour	SW mm	Dimen- sion E mm	Dimen- sion L mm	Pack. pcs	Item No.
116 PG 7	Pg 7	Light grey	19	21	5	100	2043076
116 PG 9	Pg 9	Light grey	22	24	5	100	2043092
116 PG11	Pg 11	Light grey	24	26	5	100	2043114
116 PG13.5	Pg 13,5	Light grey	27	29	6	100	2043130
116 PG16	Pg 16	Light grey	30	33	6	100	2043165
116 PG21	Pg 21	Light grey	36	39	7	100	2043211
116 PG29	Pg 29	Light grey	46	50	7	50	2043297
116 PG36	Pg 36	Light grey	60	66	8	25	2043351
116 PG42	Pg 42	Light grey	65	73	8	25	2043424
116 PG48	Pg 48	Light grey	70	78	8	25	2043483

PS Polystyrene

Locknut DIN 46320, with PG thread DIN 40430.



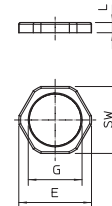
## Locknut, PG thread



Type	Thread	Colour	SW mm	Dimen- sion E mm	Dimen- sion L mm	Pack. pcs	Item No.
116 VDE PG7 PA	Pg 7	Light grey	19	21	5	100	2048078
116 VDE PG 9 PA	Pg 9	Light grey	22	24	5	100	2048094
116 VDE PG11 PA	Pg 11	Light grey	24	26	5	100	2048116
116 VDE PG13.5PA	Pg 13,5	Light grey	27	29	6	100	2048132
116 VDE PG16 PA	Pg 16	Light grey	30	33	6	100	2048167
116 VDE PG21 PA	Pg 21	Light grey	36	39	7	100	2048221
116 VDE PG29 PA	Pg 29	Light grey	46	50	7	50	2048299
116 VDE PG36 PA	Pg 36	Light grey	60	66	8	25	2048361
116 VDE PG42 PA	Pg 42	Light grey	65	73	8	25	2048426
116 VDE PG48 PA	Pg 48	Light grey	70	78	8	25	2048485

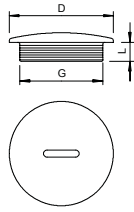
PA Polyamide

Locknut DIN 46320, with PG thread DIN 40430.





## Screw plug, metric thread

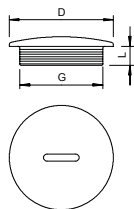


Type	Thread	Dimension D mm	Dimension L mm	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
108 M12 PS	M12 x 1,5	15	6	Light grey	3000	100	0.047	2033003
108 M16 PS	M16 x 1,5	20	6	Light grey	1800	100	0.085	2033007
108 M20 PS	M20 x 1,5	24	6	Light grey	1200	100	0.128	2033011
108 M25 PS	M25 x 1,5	30	8	Light grey	1000	100	0.210	2033016
108 M32 PS	M32 x 1,5	37	8	Light grey	500	50	0.339	2033021
108 M40 PS	M40 x 1,5	46	8	Light grey	300	25	0.564	2033026
108 M50 PS	M50 x 1,5	56	10	Light grey	300	25	0.939	2033032
108 M63 PS	M63 x 1,5	70	12	Light grey	300	25	1.492	2033038

PS Polystyrene

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

## Screw plug, PG thread

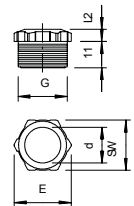


Type	Thread	Dimension D mm	Dimension L mm	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
108 PG 7	Pg 7	14	6	Light grey	2400	100	0.056	2033070
108 PG 9	Pg 9	19	6	Light grey	1800	100	0.096	2033097
108 PG11	Pg 11	22	6	Light grey	2000	100	0.128	2033119
108 PG13.5	Pg 13,5	25	6.5	Light grey	1200	100	0.164	2033135
108 PG16	Pg 16	27	6.5	Light grey	1000	100	0.184	2033151
108 PG21	Pg 21	34	8	Light grey	1200	100	0.345	2033216
108 PG29	Pg 29	44	8	Light grey	600	50	0.646	2033291
108 PG36	Pg 36	58	10	Light grey	200	25	1.057	2033364
108 PG42	Pg 42	67	10	Light grey	300	25	1.479	2033429
108 PG48	Pg 48	73	12	Light grey	300	25	1.832	2033488

PS Polystyrene

Screw plug in accordance with DIN 46320, with PG thread to DIN 40430.

## Pressure screw, PG thread



Type	Thread	Colour	Pack. pcs	Weight kg/100 pcs.	Item No.
107 E PG7 PS	Pg 7	Light grey	100	0.102	2025078
107 E PG9 PS	Pg 9	Light grey	100	0.134	2025094
107 E PG11 PS	Pg 11	Light grey	100	0.215	2025116
107 E PG13.5 PS	Pg 13,5	Light grey	100	0.244	2025132
107 E PG16 PS	Pg 16	Light grey	100	0.319	2025167
107 E PG21 PS	Pg 21	Light grey	50	0.700	2025213
107 E PG29 PS	Pg 29	Light grey	25	1.047	2025299
107 E PG36 PS	Pg 36	Light grey	25	1.612	2025361
107 E PG42 PS	Pg 42	Light grey	10	1.966	2025426
107 E PG48 PS	Pg 48	Light grey	10	5.580	2025485

PS Polystyrene

Pressure screw (Part 1) to DIN 46320, with Pg thread DIN 40430.

### Dimensions

G	D mm	SW mm	E mm	L1 mm	L2 mm
Pg 7	7	13	14.7	8.5	5
Pg 9	10.2	16	18	9	5
Pg 11	11.3	19	21.5	10	5
Pg 13.5	13.4	21	23.8	10.5	5
Pg 16	15.8	23	26	12	6
Pg 21	21.2	30	34	17	7
Pg 29	30	40	45	18	8
Pg 36	38.2	50	56.5	17	8
Pg 42	44.5	55	62	18.5	9
Pg 48	50	60	68	18.5	9

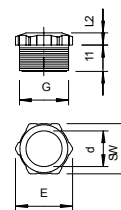
## Pressure screw, PG thread



Type	Thread	Colour	Pack. pcs	Weight		Item No.
				kg/100	pcs.	
<b>107 E PG11 PA</b>	Pg 11	Light grey	100	0.306	2025531	
<b>107 E PG13.5 PA</b>	Pg 13,5	Light grey	100	0.342	2025566	
<b>107 E PG21 PA</b>	Pg 21	Light grey	50	0.780	2025604	
<b>107 E PG36 PA</b>	Pg 36	Light grey	25	2.256	2025647	

PA Polyamide

Pressure screw, Part 1, to DIN 46320, fibreglass reinforced.



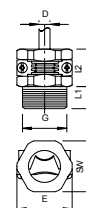
## Pressure screw, PG strain relief



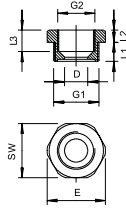
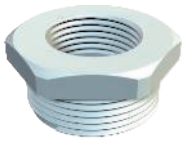
Type	Thread	Colour	Pack. pcs	Weight		Item No.
				kg/100	pcs.	
<b>107 Z PG 9 PA</b>	Pg 9	Light grey	100	0.400	2023091	
<b>107 Z PG11 PA</b>	Pg 11	Light grey	100	0.600	2023113	
<b>107 Z PG13.5 PA</b>	Pg 13,5	Light grey	100	0.680	2023121	
<b>107 Z PG16 PA</b>	Pg 16	Light grey	50	0.900	2023164	
<b>107 Z PG21 PA</b>	Pg 21	Light grey	25	1.800	2023210	
<b>107 Z PG29 PA</b>	Pg 29	Light grey	25	3.000	2023296	

PA Polyamide

Pressure screw with transverse clip strain relief, electrogalvanised steel screws, PG thread to DIN 40430.



Reduction, metric thread



Type	External thread	Internal thread	Colour	SW mm	Pack. pcs	Weight kg/100 pcs	Item No.
107 R M20-12 PA	M20	M12	Light grey	24	100	0.500	2030616
107 R M20-16 PA	M20	M16	Light grey	24	100	0.700	2030619
107 R M25-12 PA	M25	M12	Light grey	32	100	0.850	2030624
107 R M25-16 PA	M25	M16	Light grey	32	100	0.850	2030626
107 R M25-20 PA	M25	M20	Light grey	32	100	0.650	2030628
107 R M32-12 PA	M32	M12	Light grey	36	50	1.200	2030632
107 R M32-16 PA	M32	M16	Light grey	36	50	1.100	2030634
107 R M32-20 PA	M32	M20	Light grey	36	50	1.050	2030637
107 R M32-25 PA	M32	M25	Light grey	36	50	1.000	2030640
107 R M40-16 PA	M40	M16	Light grey	46	50	2.000	2030643
107 R M40-20 PA	M40	M20	Light grey	46	50	1.850	2030646
107 R M40-25 PA	M40	M25	Light grey	46	50	1.950	2030649
107 R M40-32 PA	M40	M32	Light grey	46	50	1.400	2030652
107 R M50-20 PA	M50	M20	Light grey	55	25	2.300	2030655
107 R M50-25 PA	M50	M25	Light grey	55	25	2.250	2030659
107 R M50-32 PA	M50	M32	Light grey	55	25	2.200	2030661
107 R M50-40 PA	M50	M40	Light grey	55	25	2.050	2030664
107 R M63-25 PA	M63	M25	Light grey	68	25	3.050	2030667
107 R M63-32 PA	M63	M32	Light grey	68	25	3.070	2030670
107 R M63-40 PA	M63	M40	Light grey	68	25	3.100	2030673
107 R M63-50 PA	M63	M50	Light grey	68	25	3.000	2030675

PA Polyamide

Reduction, with metric internal and external thread.

Dimensions

G1	G2	SW mm	E mm	L1 mm	L3 mm
M20	M12	24	26.6	8	12
M20	M16	24	26.6	8	12
M25	M12	32	32	8	14
M25	M16	32	32	8	14
M25	M20	32	32	8	14
M32	M12	36	40	10	16
M32	M16	36	40	10	16
M32	M20	36	40	10	16
M32	M25	36	40	10	16
M40	M16	46	50.5	10	16
M40	M20	46	50.5	10	16
M40	M25	46	50.5	10	16
M40	M32	46	50.5	10	16
M50	M20	55	60	12	18
M50	M25	55	60	12	18
M50	M32	55	60	12	18
M50	M40	55	60	12	18
M63	M25	68	75	12	18
M63	M32	68	75	12	18
M63	M40	68	75	12	18
M63	M50	68	75	12	18

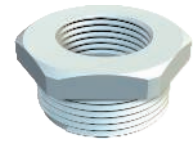
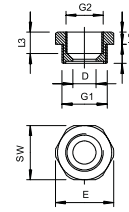
## Reduction, PG thread



Type	External thread	Internal thread	Colour	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>107 R PG11- 7 PA</b>	Pg 11	Pg 7	Light grey	50	0.400	<b>2030705</b>
<b>107 R PG13- 9 PA</b>	Pg 13,5	Pg 9	Light grey	50	0.450	<b>2030713</b>
<b>107 R PG16- 9 PA</b>	Pg 16	Pg 9	Light grey	50	0.600	<b>2030748</b>
<b>107 R PG16-11 PA</b>	Pg 16	Pg 11	Light grey	50	0.480	<b>2030756</b>
<b>107 R PG21-11 PA</b>	Pg 21	Pg 11	Light grey	50	0.910	<b>2030764</b>
<b>107 R PG21-13 PA</b>	Pg 21	Pg 13,5	Light grey	50	0.800	<b>2030772</b>
<b>107 R PG21-16 PA</b>	Pg 21	Pg 16	Light grey	50	0.650	<b>2030780</b>
<b>107 R PG29-16 PA</b>	Pg 29	Pg 16	Light grey	50	1.460	<b>2030799</b>
<b>107 R PG29-21 PA</b>	Pg 29	Pg 21	Light grey	25	1.500	<b>2030802</b>
<b>107 R PG36-21 PA</b>	Pg 36	Pg 21	Light grey	25	2.350	<b>2030829</b>
<b>107 R PG36-29 PA</b>	Pg 36	Pg 29	Light grey	25	2.200	<b>2030810</b>
<b>107 R PG42-29 PA</b>	Pg 42	Pg 29	Light grey	25	2.350	<b>2030837</b>

PA Polyamide

Reduction, PG internal and external thread to DIN 40430.



## Dimensions

G1	G2	D mm	SW mm	E mm	L1 mm	L2 mm	L3 mm
Pg 11	Pg 7	7.5	22	24	8	6	9.5
Pg 13.5	Pg 9	9.5	24	26	8.5	6	9.5
Pg 16	Pg 9	9.5	27	29	9.5	6	11.5
Pg 16	Pg 11	11.5	27	29	9.5	6	11
Pg 21	Pg 11	11.5	32	35.5	10.5	5	11
Pg 21	Pg 13.5	13.5	32	35.5	10.5	5	11
Pg 21	Pg 16	16.5	32	35.5	10.5	5	11
Pg 29	Pg 16	16.5	40	43	12	6	12.5
Pg 29	Pg 21	21.5	39	43	12.5	6	13.5
Pg 36	Pg 21	21	50	54	13	6	13.5
Pg 36	Pg 29	28.5	50	54	18	6	18
Pg 42	Pg 29	27.5	55	59	16	6	17

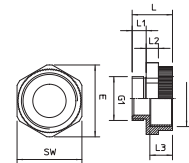
## Intermediate expansion connector, metric thread



Type	External thread	Internal thread	Colour	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>107 E M 12-16 PA</b>	M12	M16	Light grey	50	0.300	<b>2031450</b>
<b>107 E M 16-20 PA</b>	M16	M20	Light grey	50	0.380	<b>2031451</b>
<b>107 E M 20-25 PA</b>	M20	M25	Light grey	50	0.630	<b>2031452</b>
<b>107 E M 25-32 PA</b>	M25	M32	Light grey	50	0.970	<b>2031453</b>
<b>107 E M 32-40 PA</b>	M32	M40	Light grey	25	1.300	<b>2031454</b>

PA Polyamide

Intermediate expansion connector, metric internal and external thread.

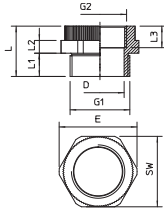


## Dimensions

G1	G2	SW mm	E mm	L mm	L1 mm	L2 mm	L3 mm	D mm
M12	M16	20	22	20.6	8	5	11.2	7.2
M16	M20	24	26.6	20.6	8	5	11	11.3
M20	M25	30	33	21	8	6	10.8	15
M25	M32	37	41	22.7	8	7	12.5	19
M32	M40	45	49.5	25	10	7	12.5	26.4



## Adapter PG-M



Type	External thread	Internal thread	Colour	Pack. pcs	Weight kg/100 pcs	Item No.
107 ADA PG7-M12	PG7	M12	Light grey	20	0.194	2031465
107 ADA PG9-M12	PG9	M12	Light grey	20	0.370	2031466
107 ADA PG11-M16	PG11	M16	Light grey	20	0.410	2031467
107 ADA PG13-M20	PG13,5	M20	Light grey	20	0.416	2031468
107 ADA PG16-M20	PG16	M20	Light grey	20	0.630	2031469
107 ADA PG21-M25	PG21	M25	Light grey	10	0.940	2031470
107 ADA PG29-M32	PG29	M32	Light grey	10	1.610	2031471

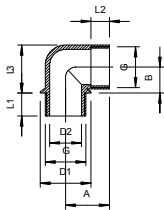
PA Polyamide

Adapter for converting a Pg threaded drill hole to a metric threaded drill hole.

### Dimensions

G1	G2	SW mm	E mm	L mm	L1 mm	L2 mm	L3 mm	D mm
PG 7	M12	15	16.5	20.3	7.9	5	10.4	7.7
PG 9	M12	19	21	20		5	10	10.5
PG11	M16	22	24.5	20.3	8	5	10	13.6
PG13.5	M20	24	26.7	21.3	9.1	5	10	15.2
PG16	M20	27	30	22	10	6	10	17.6
PG21	M25	33	36.5	23.6	10.9	6	10	22.7
PG29	M32	42	46.7	25.5	11.2	7	10.4	30.8

## 90° elbow socket, PG thread



Type	Colour	Pack. pcs	Weight kg/100 pcs	Item No.
107 W PG 9 PA	Light grey	10	0.390	2029901
107 W PG11 PA	Light grey	10	0.620	2029928
107 W PG13.5 PA	Light grey	10	0.750	2029936
107 W PG16 PA	Light grey	10	0.950	2029944
107 W PG21 PA	Light grey	10	1.470	2029952

PA Polyamide

Elbow socket with PG internal and external thread to DIN 40430.

The elbow socket can be turned into an angular gland with two steel pressure rings 107/D, a sealing ring 107/A or 107/B and a pressure screw 107/E.

### Dimensions

G	D1 mm	D2 mm	A mm	B mm	L1 mm	L2 mm	L3 mm
Pg 9	19.5	11.5	18.5	10.5	11	9	19
Pg 11	23.5	15	20	12	11	9.5	22
Pg 13.5	25.5	16	22	13	11.5	10	24
Pg 16	27.5	18.5	24	15	11.5	11	27
Pg 21	34	24	28	18	13	13	33





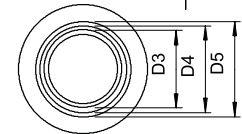
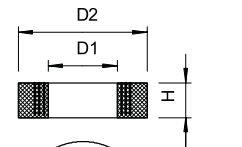
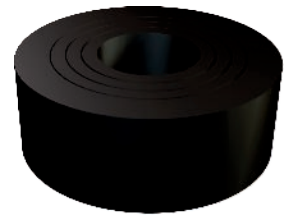
## Cutting ring

Pg

Type	Size mm	Size	Dimension D1 mm	Dimension D2 mm	Dim. D3 mm	Dim. D4 mm	Dim. D5 mm	Dimension H mm	Pack. pcs.	Weight kg/100 pcs.	Item No.
107 B PG9	Pg 9	M16	5	13.3	7.5	10	0	5.5	100	0.240	2029103
107 B PG11	Pg 11	—	7.5	16.5	10	12.5	0	6	100	0.230	2029111
107 B PG13.5	Pg 13,5	M20	7.5	18.3	10	12.5	0	6	100	0.230	2029138
107 B PG16	Pg 16	M25	7.5	20.4	10	12.5	15	7	100	0.320	2029162
107 B PG21	Pg 21	—	10	25.9	13	16	19	8	100	0.590	2029219
107 B PG29	Pg 29	M32	18	34.7	21	24	27	9.5	100	1.160	2029294
107 B PG36	Pg 36	M40	24	44.7	27	30	33	12	50	1.940	2029367
107 B PG42	Pg 42	M50	30	51.7	33	36	39	14	50	2.710	2029421
107 B PG48	Pg 48	M63	36	56.9	39	42	45	14	50	3.490	2029480

NBR-SBR Rubber mixture

Rubber cutting ring (cuttable sealing ring) to DIN 46320 for cone cable gland.



## Connection thread sealing ring, metric

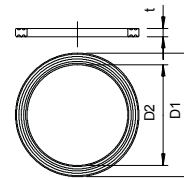
M



Type	Size mm	Dimension D1 mm	Dimension D2 mm	Dimension t mm	Pack. pcs.	Weight kg/100 pcs.	Item No.
107 F M12 PE	M12	16.3	12	1	100	0.017	2030004
107 F M16 PE	M16	20.9	16	1.1	100	0.018	2030008
107 F M20 PE	M20	25.1	20	1.1	100	0.030	2030012
107 F M25 PE	M25	31.3	25	1.4	100	0.038	2030016
107 F M32 PE	M32	37.6	32	1.7	100	0.105	2030020
107 F M40 PE	M40	49.1	40	1.7	100	0.200	2030024
107 F M50 PE	M50	60.1	50	2	100	0.250	2030028
107 F M63 PE	M63	73.8	63	2	100	0.290	2030032

PE Polyethylene

Connection thread sealing ring, suitable for all plastic cable glands with metric connection thread to DIN EN 60423 or ISO 68. The internal diameters of the sealing rings are designed in such a way that they can be pre-mounted in a captive manner.



## Connection thread sealing ring, metric

M

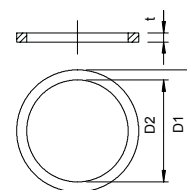
Type	Size mm	Dimension D1 mm	Dimension D2 mm	Dimension t mm	Pack. pcs.	Weight kg/100 pcs.	Item No.
170 M16	M16	19.9	16	2	100	0.040	2088428
170 M20	M20	24	20	2	100	0.066	2088436
170 M25	M25	30	25	3	100	0.170	2088444
170 M32	M32	38	32	3	100	0.270	2088452
170 M40	M40	47	40	3	50	0.330	2088460
170 M50	M50	57	50	3	50	0.440	2088479

FA Fibre-proof material DIN 28091

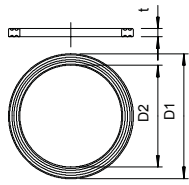
Asbestos-free material.

Connection thread sealing ring, Part 9, to DIN 46320, suitable for all brass cable glands with metric connection thread to DIN EN 60423 or ISO 68.

Colour: green, graphited on one side.



## Connection thread sealing ring, PG

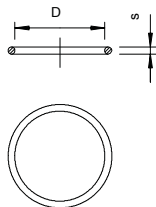


Type	Size mm	Dimension D1 mm	Dimension D2 mm	Dimension t mm	Pack. pcs	Weight kg/100 pcs	Item No.
<b>107 F PG7 PE</b>	Pg 7	16.5	12.1	1.6	100	0.010	<b>2030071</b>
<b>107 F PG9 PE</b>	Pg 9	19	14.7	1.6	100	0.013	<b>2030098</b>
<b>107 F PG11 PE</b>	Pg 11	23	18	1.8	100	0.022	<b>2030101</b>
<b>107 F PG13.5 PE</b>	Pg 13,5	25	19.8	1.8	100	0.030	<b>2030136</b>
<b>107 F PG16 PE</b>	Pg 16	27	21.8	1.8	100	0.038	<b>2030160</b>
<b>107 F PG21 PE</b>	Pg 21	34	27.5	2.2	100	0.049	<b>2030217</b>
<b>107 F PG29 PE</b>	Pg 29	44	36.2	2.2	100	0.105	<b>2030292</b>
<b>107 F PG36 PE</b>	Pg 36	55.5	46.2	2.7	100	0.200	<b>2030365</b>
<b>107 F PG48 PE</b>	Pg 48	69.5	58.5	3.2	100	0.290	<b>2030489</b>

**PE** Polyethylene

Connection thread sealing ring, in accordance with Part 9 to DIN 46320, however, dimensions may, according to material or function, deviate, suitable for all plastic cable glands with PG connection thread to DIN EN 40430, the internal diameter of the sealing rings are designed so that they can be captively pre-mounted.

## O sealing ring for metric connection thread

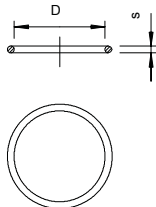


Type	Size mm	Dimension D mm	Dimension S mm	Pack. pcs	Weight kg/100 pcs	Item No.
<b>171 M12</b>	M12	10	1.5	100	0.007	<b>2088703</b>
<b>171 M16</b>	M16	13	1.5	100	0.008	<b>2088711</b>
<b>171 M20</b>	M20	18	1.5	100	0.011	<b>2088738</b>
<b>171 M25</b>	M25	22	1.5	100	0.012	<b>2088746</b>
<b>171 M32</b>	M32	29	2	100	0.035	<b>2088754</b>
<b>171 M40</b>	M40	36	2	50	0.045	<b>2088762</b>
<b>171 M50</b>	M50	46	2	50	0.052	<b>2088770</b>
<b>171 M63</b>	M63	59	2	25	0.056	<b>2088789</b>

**NBR** Nitrile rubber

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

## O sealing ring for PG connection thread



Type	Size mm	Dimension D mm	Dimension S mm	Pack. pcs	Weight kg/100 pcs	Item No.
<b>171 PG 9</b>	Pg 9	13	1.5	100	0.008	<b>2088819</b>
<b>171 PG11</b>	Pg 11	16	1.5	100	0.010	<b>2088827</b>
<b>171 PG13.5</b>	Pg 13,5	18	1.5	100	0.011	<b>2088835</b>
<b>171 PG16</b>	Pg 16	20	1.5	100	0.012	<b>2088843</b>
<b>171 PG21</b>	Pg 21	25	2	100	0.027	<b>2088851</b>
<b>171 PG29</b>	Pg 29	33	2	100	0.035	<b>2088878</b>
<b>171 PG36</b>	Pg 36	43	2	50	0.045	<b>2088886</b>
<b>171 PG42</b>	Pg 42	50	2	50	0.052	<b>2088894</b>

**NBR** Nitrile rubber

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

## Dust protection plate, metric

M

Type	Size mm	Dimen- sion D mm	Dimen- sion t mm	Pack. pcs	Weight kg/100 pcs.	Item No.
107 S VTEC M12	M12	12	1.5	100	0.001	2028870
107 S VTEC M16	M16	16	1.5	100	0.002	2028873
107 S VTEC M20	M20	20	1.5	100	0.004	2028875
107 S VTEC M25	M25	25	1.5	100	0.008	2028877
107 S VTEC M32	M32	32	1.5	100	0.012	2028880
107 S VTEC M40	M40	40	1.5	100	0.022	2028883
107 S VTEC M50	M50	50	1.5	100	0.040	2028885

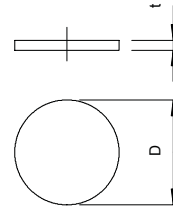
ZPE Cellular polyethylene

Cellular polyethylene.

Small protective disc to protect the V-TEC VM and V-TEC VM MS cable glands against dust before the cable is installed.

Application: the discs are pre-mounted between the cap nut and the seal. They do not need to be removed when the cable is installed, but are simply passed through to the interior with the cable.

Note: the discs do not provide any mechanical protection.



## Dust protection plate, PG

Pg

Type	Size mm	Dimen- sion D mm	Dimen- sion t mm	Pack. pcs	Weight kg/100 pcs.	Item No.
107 S VTEC PG7	Pg 7	11	2	100	0.001	2028891
107 S VTEC PG9	Pg 9	14	2	100	0.002	2028905
107 S VTEC PG11	Pg 11	16.5	2	100	0.003	2028913
107 S VTEC PG13	Pg 13,5	18.5	2	100	0.004	2028921
107 S VTEC PG16	Pg 16	21	2	100	0.006	2028948
107 S VTEC PG21	Pg 21	26.5	2	100	0.010	2028956
107 S VTEC PG29	Pg 29	34.5	2	100	0.015	2028964
107 S VTEC PG36	Pg 36	44	3	100	0.035	2028972
107 S VTEC PG42	Pg 42	50	3	100	0.050	2028980
107 S VTEC PG48	Pg 48	56	3	100	0.060	2028999

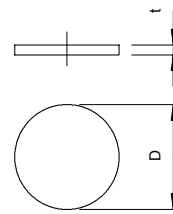
ZPE Cellular polyethylene

Cellular polyethylene.

Small protective disc to protect the V-TEC and V-TEC MS cable glands against dust before the cable is installed.

Application: the discs are pre-mounted between the cap nut and the seal. They do not need to be removed when the cable is installed, but are simply passed through to the interior with the cable.

Note: the discs do not provide any mechanical protection.



Pg

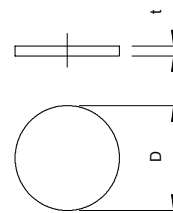
Type	Size mm	Dimen- sion D mm	Dimen- sion t mm	Pack. pcs	Weight kg/100 pcs.	Item No.
107 V PG 7 PVC	Pg 7	11	0.5	100	0.013	2029707
107 V PG 9 PVC	Pg 9	13.5	0.5	100	0.020	2029715
107 V PG11 PVC	Pg 11	16.5	0.5	100	0.030	2029723
107 V PG13.5 PVC	Pg 13,5	18.5	0.5	100	0.038	2029731
107 V PG16 PVC	Pg 16	20.5	0.5	100	0.048	2029758
107 V PG21 PVC	Pg 21	26	0.5	100	0.075	2029766
107 V PG29 PVC	Pg 29	35	1	100	0.135	2029774

PVC Polyvinylchloride

The sealing plate offers both mechanical protection and the maintenance of the protection rating of plastic and metal cable glands to DIN 46320 before cable installation.

Application: the discs are placed between the pressure screw and the pressure ring. If the safe maintenance of IP65 is required, we recommend placing the discs between the pressure ring and the sealing ring. To mount the cable, remove the discs – they can be reused.

## Sealing plate, PG



## Electrical insulating and sealing compound



Type	Colour	Weight		Item No.
		Pack. pcs	kg/100 pcs.	
<b>115 GR-GN</b>	Natural	10	11.020	<b>2340038</b>

In rods.

Permanently elastic, fibre-free sealing kit on a polymer and a mineral basis to fill cavities in installations, e.g. cable glands or similar components, to prevent the entry of dirt and water,

Colour: Natural

Characteristics of the sealing kit:

- Halogen-, acid- and silicone-free
- Can also be processed at low temperatures
- Permanent heat resistance to +80 °C
- Corrosion-resistant
- Low water consumption
- Good insulation properties
- Puncture strength 16 kV/mm to VDE 0291 Part 2
- Can be stored almost indefinitely



## Screw-in nipple, metric thread



Type	Thread	Colour	Dimension D mm	SW mm	Dimension E mm	Dimension L1 mm	Dimension L2 mm	Pack. pcs	Weight kg/100 pcs.	Item No.
90 M12 OF	M12 x 1,5	Light grey	3.5	13	17	8	6	100	0.170	2032007
90 M16 OF	M16 x 1,5	Light grey	5	16	20	8	6	100	0.192	2032011
90 M20 OF	M20 x 1,5	Light grey	7	21	24	10	6	100	0.268	2032015
90 M25 OF	M25 x 1,5	Light grey	8.5	30	32	12	6	50	0.513	2032019
90 M32 OF	M32 x 1,5	Light grey	13	34	39	14	8	25	0.694	2032023
90 M40 OF	M40 x 1,5	Light grey	22	44	48	16	8	10	0.875	2032031

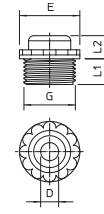
PE Polyethylene

With open cable entry.

Grip seal to screw into metric thread end to IEC 423.

With self-sealing cone at the end of the thread, therefore no connection thread sealing ring required.

Protection rating achievable with careful mounting: IP54.



## Screw-in nipple, metric thread



Type	Thread	Colour	Dimension D mm	SW mm	Dimension E mm	Dimension L1 mm	Dimension L2 mm	Pack. pcs	Weight kg/100 pcs.	Item No.
90 M12 GE	M12 x 1,5	Light grey	3.5	13	17	8	6	100	0.170	2032378
90 M16 GE	M16 x 1,5	Light grey	5	16	20	8	6	100	0.192	2032380
90 M20 GE	M20 x 1,5	Light grey	7	21	24	10	6	100	0.268	2032382
90 M25 GE	M25 x 1,5	Light grey	8.5	30	32	12	6	50	0.513	2032384
90 M32 GE	M32 x 1,5	Light grey	13	34	39	14	8	25	0.694	2032386
90 M40 GE	M40 x 1,5	Light grey	16	44	48	16	8	10	0.875	2032388

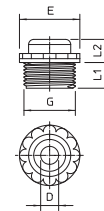
PE Polyethylene

With perforation membranes, the opening D is pre-marked, but closed.

Grip seal to screw into metric thread to IEC 423.

With self-sealing cone at the end of the thread, therefore no connection thread sealing ring required.

Protection rating achievable with careful mounting: IP54.



## Screw-in nipple, PG thread with opening



Type	Thread	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
90 PG11 OF	Pg 11	Light grey	1200	100	0.161	2032112
90 PG13.5 OF	Pg 13,5	Light grey	1000	100	0.268	2032139
90 PG16 OF	Pg 16	Light grey	1000	100	0.251	2032163
90 PG21 OF	Pg 21	Light grey	500	50	0.409	2032201

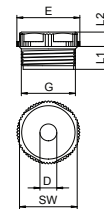
PE Polyethylene

With open cable entry.

Grip seal to screw into PG thread end to DIN 40430.

With self-sealing cone at the end of the thread, therefore no connection thread sealing ring required.

Protection rating achievable with careful mounting: IP54.



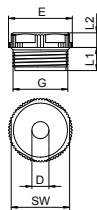
G	D mm	SW mm	E mm	L1 mm	L2 mm
Pg 11	5	19	21	9.5	6
Pg 13.5	7	22	24	9.5	6
Pg 16	7	24	26	9.5	6
Pg 21	9	30	33	11.5	6

Dimensions





## Screw-in nipple, PG thread with perforation membrane



Type	Thread	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs	Item No.
90 PG 9 DSMB	Pg 9	Light grey	2400	100	0.156	2032503
90 PG11 DSMB	Pg 11	Light grey	1200	100	0.156	2032511
90 PG13.5 DSMB	Pg 13,5	Light grey	1000	100	0.216	2032538
90 PG16 DSMB	Pg 16	Light grey	1000	100	0.249	2032546
90 PG21 DSMB	Pg 21	Light grey	500	50	0.422	2032554
90 PG29 DSMB	Pg 29	Light grey	300	25	0.563	2032562

PE Polyethylene

With perforation membrane, the opening D is pre-marked, but closed.

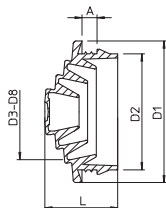
Grip seal to screw into PG thread to DIN 40430.

With self-sealing cone at the end of the thread, therefore no connection thread sealing ring required. Protection rating achievable with careful mounting: IP54.

### Dimensions

G	D	SW	E	L1	L2
	mm	mm	mm	mm	mm
Pg 9	4	17	19	9.5	6
Pg 11	5	19	21	9.5	6
Pg 13.5	7	22	24	9.5	6
Pg 16	7	24	26	9.5	6
Pg 21	9	30	33	11.5	6
Pg 29	15	37	40	11.5	6

## Plug-in seal EDVS



Type	Size	For Ø mm	Colour	Pack. pcs	Weight kg/100 pcs	Item No.
EDVS M20 LGR	M20	0 - 17	Light grey	100	0.117	2012375
EDS M20 LGR	M20	0 - 17	Light grey	100	0.125	2012350
EDVS M25 LGR	M25	0 - 22	Light grey	100	0.179	2012383
EDS M25 LGR	M25	0 - 22	Light grey	100	0.185	2012354
EDVS M32 LGR	M32	0 - 28	Light grey	50	0.295	2012391
EDS M32 LGR	M32	0 - 28	Light grey	50	0.295	2012358

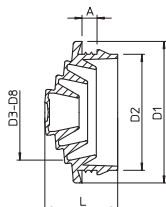
PE Polyethylene

The push-in nipple can be cut back to suit the relevant cable diameter.

### Dimensions

G	L	A	D1	D2	D3	D4	D5	D6	D7	D8
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
M20	12.8	3.4	24.8	20.3	0-6	5-10	9-15	14-17	-	-
M20	12.8	3.1	24.8	20.3	0-6	5-10	9-15	14-17	-	-
M25	14.5	4.3	29.5	25.3	0-6	5-10	9-15	14-20	19-22	-
M25	14.5	3.1	29.5	25.3	0-6	5-10	9-15	14-20	19-22	-
M32	17.8	4.4	36.3	32.3	0-6	5-10	9-15	14-20	19-25	24-28
M32	17.8	3.1	36.3	32.3	0-6	5-10	9-15	14-20	19-25	24-28

## EDS plug-in seal, light grey



Type	Size	For Ø mm	Colour	Pack. pcs	Weight kg/100 pcs	Item No.
EDS M20 LGR	M20	0 - 17	Light grey	100	0.125	2012350
EDS M25 LGR	M25	0 - 22	Light grey	100	0.185	2012354
EDS M32 LGR	M32	0 - 28	Light grey	50	0.295	2012358

PE Polyethylene

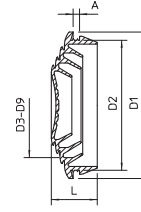
## Plug-in seal EDK light grey



Type	Size	For Ø mm	Colour	Pack. pcs	Weight kg/100 pcs	Item No.
EDK 25 LGR	M25	0 - 22	Light grey	100	0.165	2011638
EDK 32 LGR	M32	0 - 27	Light grey	50	0.260	2011646
EDK 40 LGR	M40	0 - 34	Light grey	25	0.425	2011654
EDK 25 RW	M25	0 - 22	Pure white	100	0.175	2011689
EDK 32 RW	M32	0 - 27	Pure white	50	0.260	2011697
EDK 40 RW	M40	0 - 34	Pure white	25	0.425	2011700

**EVA** Ethylene vinyl acetate

The plug-in seal can be cut back to suit the relevant cable diameter.



## Dimensions

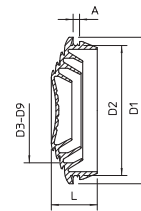
G	L	A	D1	D2	D3	D4	D5	D6	D7	D8	D9
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
M25	10.1	2.2	29.5	25.4	0-5	4-10	9-15	14.5-18	18.5-22		
M32	11.4	2.2	36.4	32.3	0-5	4-10	9-15	14.5-18	18.5-22	24-27	
M40	13.4	2.2	44.1	40.2	0-5	4-10	9-15	14.5-18	18.5-22	24-27	31-34

## Plug-in seal for FireBox T series

Type	Size	For Ø mm	Pack. pcs	Weight kg/100 pcs	Item No.
EDK 25 OR	M25	0 - 22	10	0.165	7205675
EDK 32 OR	M32	0 - 27	10	0.274	7205677
EDK 40 OR	M40	0 - 34	10	0.420	7205679

**EVA** Ethylene vinyl acetate

The soft plug-in seal can be cut back step by step to suit the relevant cable diameter.  
Colour: Pastel orange.



## Plug-in seal for pipes, T-series junction box, light grey

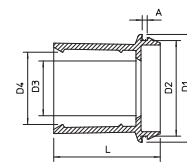


Type	Size	Colour	Pack. pcs	Weight kg/100 pcs	Item No.
EDR 25 16-20 LGR	M25	Light grey	50	0.520	2011506
EDR 25 20-25 LGR	M25	Light grey	50	0.680	2011514
EDR 32 25-32 LGR	M32	Light grey	50	1.170	2011530
EDR 40 32-40 LGR	M40	Light grey	25	2.200	2011546

**PVC** Polyvinylchloride

Plug-in seal for junction boxes for direct insertion of metric pipes

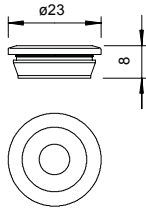
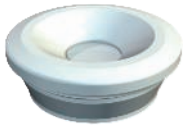
G	L	A	D1	D2	D3	D4
mm	mm	mm	mm	mm	mm	mm
M25	30	2.2	29.5	25.3	15.0	18.4
M25	30	2.2	29.5	25.3	18.5	24.2
M32	36	2.2	37	32.3	24	31.2
M40	49	2.2	46	42.3	31	39.2



## Dimensions



### Nipple 89

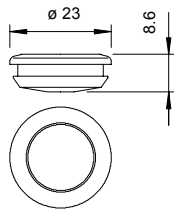


Type	Size	For Ø mm	Colour	Pack. pcs	Weight kg/100 pcs	Item No.
<b>89</b>	PG 11	7 - 13	Light grey	100	0.111	<b>2012030</b>
<b>89 RW</b>	PG 11	7 - 13	Pure white	100	0.113	<b>2012103</b>
<b>89 SW</b>	PG 11	7 - 13	Black	100	0.112	<b>2012146</b>
<b>89 LoG</b>	PG 11	7 - 13	Light grey	5000	0.111	<b>2012065</b>
<b>89 3MM NUT</b>	PG 11	7 - 13	Light grey	2000	0.106	<b>2012081</b>

PE Polyethylene

Closed entry nipple with perforation membrane for cable diameters 7–13 mm. Ideal for simple cable routing in housings or through thin sheet metal. Required hole diameter 18.5–19 mm, wall thickness max. 1.8 mm.

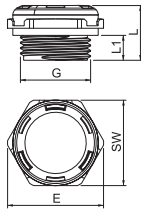
### Nipple 89/RK



Type	Size	For Ø mm	Colour	Pack. pcs	Weight kg/100 pcs	Item No.
<b>89 ROE 12-16</b>	PG 13,5	12 - 16	Light grey	100	0.102	<b>2012049</b>

PE Polyethylene

### Pressure balance plug 109



Type	Thread	Protection rating	Colour	Pack. pcs	Weight kg/100 pcs	Item No.
<b>109 M20 LGR</b>	M20x1,5	IP68	Light grey	5	0.538	<b>2034680</b>







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## Cable gland systems, brass



**Cap nut cable gland**

239



**Locknuts**

248

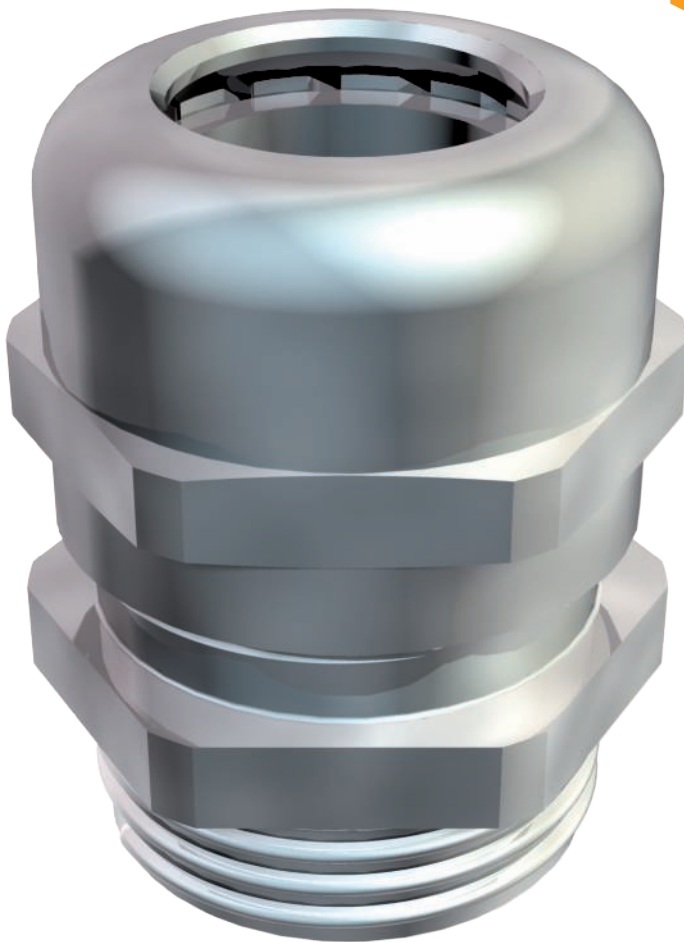


**Cable gland system accessories**

249

## Cable gland systems, brass

- Robust
- With long and short connection
- Excellent protection
- VDE-tested



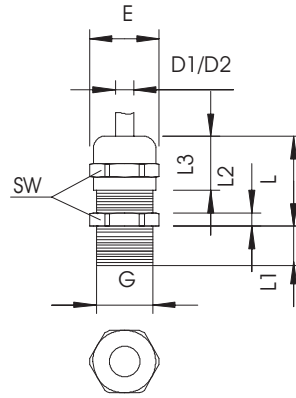
V-TEC VM MS

Tough conditions are no problem for the brass V-TEC VM. Here too, the well-known V-TEC cap nut design of the cable glands ensures a secure hold of the cables. The protection class IP68 is achieved using separate sealing rings and their special OBO slat

technology. Strain relief and tightness have been tested to DIN EN 62444. The connecting threads are metric or PG and are therefore suitable for universal use. Once screwed in place, the installation will stay secure for a long time to come. The optimum thread adjust-

ment with the right pitch ensures permanent resistance to shaking. Applications: From private housing with junction boxes up to industrial applications in the distributor cabinet.

## Cap nut cable gland



- Sturdy cable gland to withstand mechanical loads
- The proven V-TEC cap nut design ensures a secure hold of the cables
- The protection class IP68 is achieved using separate sealing rings and their special OBO slat technology
- With metric connecting thread to IEC 423
- Neoprene/NBR sealing ring, polyamide terminal insert
- With pre-mounted sealing ring on the connection thread
- Optimum thread adjustment with the right pitch ensures lasting resistance to shaking
- Applications: from private housing with junction boxes up to industrial applications in the distributor cabinet
- Temperature range: -20 °C to +100 °C
- \*Prices according to DEL notation

G	D1	SW	E	L max.
	mm	mm	mm	mm
M12 x 1.5	3-6	14	15.5	20
M16 x 1.5	5-9	17	19	24
M20 x 1.5	9-13	22	24	27
M25 x 1.5	11-16	27	30	29.5
M32 x 1.5	14-21	34	36	30
M40 x 1.5	19-27	43	46	33
M50 x 1.5	24-35	55	60	38.5
M63 x 1.5	32-42	65	70	44.5

## Cable gland, metric thread



Type	Thread	Dimension L1 mm	Pack. pcs	Weight kg/100 pcs	Item No.
V-TEC VM12 MS	M12 x 1,5	5	50	1.200	2086018
V-TEC VM16 MS	M16 x 1,5	5	50	1.640	2086024
V-TEC VM20 MS	M20 x 1,5	6	25	3.140	2086030
V-TEC VM25 MS	M25 x 1,5	7	25	4.260	2086036
V-TEC VM32 MS	M32 x 1,5	8	20	7.160	2086042
V-TEC VM40 MS	M40 x 1,5	8	5	12.240	2086048
V-TEC VM50 MS	M50 x 1,5	9	5	22.700	2086054
V-TEC VM63 MS	M63 x 1,5	10	5	30.300	2086060

**CuZn** Brass

**N** Nickel-plated

With metric connecting thread to IEC 423, robust cap-nut cable gland with large sealing area. Strain relief, wringing protection and tightness over the whole clamping area. Neoprene sealing ring. Polyamide terminal insert. With pre-mounted O sealing ring on connection thread, VDE-tested to DIN EN 50262, protection rating IP68 at 5 bar for 1 hr, max. permitted ambient temperature -20 - 100°C.

\* Prices according to DEL notation.

G	D1	SW	E	L max.	L1	L2	L3
	mm	mm	mm	mm	mm	mm	mm
M12 x 1.5	3-6	14	15.5	20	5	11.5	3
M16 x 1.5	5-9	17	19	24	5	15	3
M20 x 1.5	9-13	22	24	27	6	16.5	3.5
M25 x 1.5	11-16	27	30	29.5	7		
M32 x 1.5	14-21	34	36	30	8	18.5	4.5
M40 x 1.5	19-27	43	46	33	8	21	4.5
M50 x 1.5	24-35	55	60	38.5	9	25	4.5
M63 x 1.5	32-42	65	70	44.5	10	31	5

### Dimensions



Cable gland, long metric thread



Type	Thread	Dimension L1 mm	Pack. pcs	Weight kg/100 pcs.	Item No.
V-TEC VM LM12 MS	M12 x 1,5	10	50	1.300	2086111
V-TEC VM LM16 MS	M16 x 1,5	10	50	1.940	2086117
V-TEC VM LM20 MS	M20 x 1,5	10	25	3.360	2086123
V-TEC VM LM25 MS	M25 x 1,5	11	25	4.800	2086129
V-TEC VM LM32 MS	M32 x 1,5	13	10	7.840	2086135
V-TEC VM LM40 MS	M40 x 1,5	13	5	13.400	2086141
V-TEC VM LM50 MS	M50 x 1,5	14	5	24.000	2086147
V-TEC VM LM63 MS	M63 x 1,5	14	5	32.100	2086153
V-TEC VM LM75MS1	M75 x 1,5	18	3	112.300	2086156
V-TEC VM LM75MS2	M75 x 1,5	18	3	98.200	2086159

**CuZn** Brass

**N** Nickel-plated

With metric connecting thread to IEC 423 robust cap-nut cable gland with large sealing area. Strain relief, wringing protection and tightness over the whole clamping area. For thicker housing wall thicknesses in conjunction with locknuts. Neoprene sealing ring. Polyamide terminal insert. With pre-mounted sealing ring on connection thread, VDE-tested to DIN EN 50262, protection rating IP 68 at 5 bar for 1 hr.

With long connection thread.

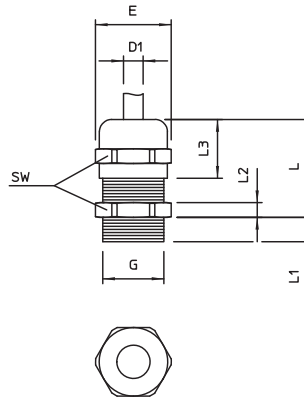
\* Prices according to DEL notation.

Dimensions

G	D1 mm	SW mm	E mm	L max. mm	L1 mm
M12 x 1.5	3-6	14	15.5	20	10
M16 x 1.5	5-9	17	19	24	10
M20 x 1.5	9-13	22	24	27	10
M25 x 1.5	11-16	27	30	29.5	11
M32 x 1.5	14-21	34	36	30	13
M40 x 1.5	19-27	43	46	33	13
M50 x 1.5	24-35	55	60	38.5	14
M63 x 1.5	32-42	65	65	44.5	14
M75 x 1.5	48 - 55	90	97	42	18
M75 x 1.5	53 - 60	90	97	42	18



## Cable gland, PG thread



- Even tough conditions are no problem
- With PG connection thread
- Once screwed in place, the installation will stay secure for a long time to come
- Temperature range: -20 °C to +100 °C
- \*Prices according to DEL notation

G	D1	D2	SW	E	L max.	L2	L3
	mm	mm	mm	mm	mm	mm	mm
Pg 7	2.5-6.5	3-6.5	14	15.5	20	3	12
Pg 9	2.5-8	3.5-8	17	18.9	22	3	14
PG 11	3.5-10	4.5-10	20	22.2	24	3	15
Pg 13.5	5-12	6-12	22	24.4	25	3.5	15
Pg 16	7-14	7-14	24	26.7	27	4	17
Pg 21	9-18	12-18	30	33.5	33	4.5	20
Pg 29	14-25	17-25	40	43.5	39	5	23.5
Pg 36	18-32	20-32	50	54	49	5.5	29
Pg 42	24-38	26-38	57	61	52	6	31
Pg 48	30-44	30-44	64	69	52.5	6.5	31

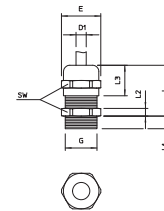
## Cable gland, PG thread



Type	Thread	Dimension L1 mm	Pack. pcs	Weight kg/100 pcs	Item No.
V-TEC PG7 MS	Pg 7	5	50	1.000	2085607
V-TEC PG9 MS	Pg 9	6	50	1.600	2085615
V-TEC PG11 MS	Pg 11	6	50	2.300	2085623
V-TEC PG13 MS	Pg 13,5	6,5	50	2.800	2085631
V-TEC PG16 MS	Pg 16	6,5	25	3.400	2085658
V-TEC PG21 MS	Pg 21	7	25	6.000	2085666
V-TEC PG29 MS	Pg 29	8	20	13.000	2085674
V-TEC PG36 MS	Pg 36	9	10	21.000	2085682
V-TEC PG42 MS	Pg 42	10	5	23.500	2085690
V-TEC PG48 MS	Pg 48	10	5	31.500	2085704

**CuZn** Brass

**N** Nickel-plated



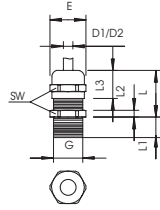
G	D1	D2	SW	E	L max.	L1	L2	L3
	mm	mm	mm	mm	mm	mm	mm	mm
Pg 7	2.5-6.5	3-6.5	14	15.5	20	5	3	12
Pg 9	2.5-8	3.5-8	17	18.9	22	6	3	14
Pg 11	3.5-10	4.5-10	20	22.2	24	6	3	15
Pg 13.5	5-12	6-12	22	24.4	25	6.5	3.5	15
Pg 16	7-14	7-14	24	26.7	27	6.5	4	17
Pg 21	9-18	12-18	30	33.5	33	7	4.5	20
Pg 29	14-25	17-25	40	43.5	39	8	5	23.5
Pg 36	18-32	20-32	50	54	49	9	5.5	29
Pg 42	24-38	26-38	57	61	52	10	6	31
Pg 48	30-44	30-44	64	69	52.5	10	6.5	31

Dimensions





Cable gland, long PG thread



Type	Thread	Dimension L1 mm	Pack. pcs	Weight kg/100 pcs.	Item No.
V-TEC L PG9 MS	Pg 9	10	50	1.740	2085739
V-TEC L PG11 MS	Pg 11	10	50	2.550	2085747
V-TEC L PG13 MS	Pg 13,5	10	50	3.030	2085755
V-TEC L PG16 MS	Pg 16	10	25	3.660	2085763
V-TEC L PG21 MS	Pg 21	12	25	6.580	2085771
V-TEC L PG29 MS	Pg 29	12	10	13.660	2085798
V-TEC L PG48 MS	Pg 48	15	5	37.900	2085836

CuZn Brass

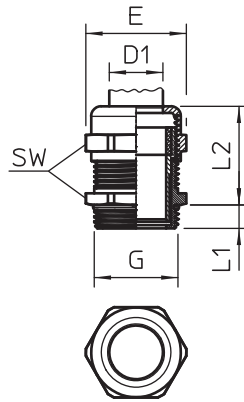
N Nickel-plated

Dimensions

G	D1 mm	D2 mm	SW mm	E mm	L max. mm	L1 mm	L2 mm	L3 mm
Pg 9	2.5-8	3.5-8	17	18.9	22	10	3	14
Pg 11	3.5-10	4.5-10	20	22.2	24	10	3	15
Pg 13.5	5-12	6-12	22	24.4	25	10	3.5	16
Pg 16	7-14	7-14	24	26.7	27	10	4	17
Pg 21	9-18	12-18	30	33.5	33	12	4.5	20
Pg 29	14-25	17-25	40	43.5	39	12	5	23
Pg 48	30-44	30-44	64	69	52.5	15	6.5	31



## Cable gland, EMC



- Robust EMC cap-nut cable gland
- With metric connecting thread to IEC 423
- Satisfies high tightness requirements: protection rating IP68 at 5 bar/1 hr
- Neoprene/natural rubber sealing ring, polyamide terminal insert
- With pre-mounted O sealing ring on the connection thread
- \* Prices according to DEL notation

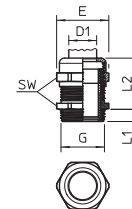
G	D1	SW	E	L max.	L1
	mm	mm	mm	mm	mm
M12 x 1.5	3-6	14	15.5	25	5
M16 x 1.5	5-9	17	19	30	5
M20 x 1.5	9-13	22	24	33.5	6
M25 x 1.5	11-16	27	30	36.5	7
M32 x 1.5	14-21	34	36	38	8
M40 x 1.5	19-27	43	46	49.5	8
M50 x 1.5	24-35	55	60	49.5	9
M63 x 1.5	32-42	65	70	52.5	10

## Cable gland, EMC, metric

Type	Thread	Pack. pcs.	Weight kg/100 pcs.	Item No.
V-TEC VM12 EMV	M12 x 1,5	50	1.362	2086203
V-TEC VM16 EMV	M16 x 1,5	50	1.849	2086207
V-TEC VM20 EMV	M20 x 1,5	25	3.473	2086211
V-TEC VM25 EMV	M25 x 1,5	25	5.280	2086215
V-TEC VM32 EMV	M32 x 1,5	20	7.470	2086219
V-TEC VM40 EMV	M40 x 1,5	5	12.880	2086223
V-TEC VM50 EMV	M50 x 1,5	5	26.165	2086227
V-TEC VM63 EMV	M63 x 1,5	5	33.990	2086231

CuZn Brass

N Nickel-plated



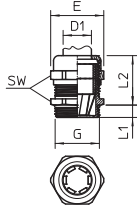
G	D1	SW	E	L max.	L1
	mm	mm	mm	mm	mm
M12 x 1.5	3-6	14	15.5	25	5
M16 x 1.5	5-9	17	19	30	5
M20 x 1.5	9-13	22	24	33.5	6
M25 x 1.5	11-16	27	30	36.5	7
M32 x 1.5	14-21	34	36	38	8
M40 x 1.5	19-27	43	46	49.5	8
M50 x 1.5	24-35	55	60	49.5	9
M63 x 1.5	32-42	65	70	52.5	10

### Dimensions



01\_VBS\_Produkteheitenkatalog\_EX\_2018 / en / 2018/11/26 09:27:20 (LLEXP02231) / 2018/11/26 09:29:57 09:29:57

Cable gland, EMC spring contact, metric



Type	Thread	Weight		Item No.
		Pack. pcs	kg/100 pcs.	
V-TEC VM16 EMV-K	M16x1,5	50	2.044	2086165
V-TEC VM20 EMV-K	M20x1,5	25	3.564	2086169
V-TEC VM25 EMV-K	M25x1,5	25	5.918	2086173
V-TEC VM32 EMV-K	M32x1,5	20	9.880	2086177
V-TEC VM40 EMV-K	M40x1,5	5	17.200	2086181
V-TEC VM50 EMV-K	M50x1,5	5	13.735	2086185
V-TEC VM63 EMV-K	M63x1,5	5	16.780	2086189

**CuZn** Brass

**N** Nickel-plated

## Cone cable gland

IP  
54 IP  
65



- Robust EMC cap-nut cable gland
- With metric connecting thread to IEC 423 for meeting high tightness requirements

## Cable gland, M cutting ring

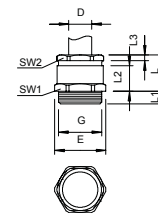
IP  
54 IP  
65 M

Thread

Type	Thread	Pack. pcs	Weight kg/100 pcs.	Item No.
162 MS M16	M16 x 1,5	50	1.814	2083712
162 MS M20	M20 x 1,5	25	2.520	2083716
162 MS M25	M25 x 1,5	25	3.388	2083720
162 MS M32	M32 x 1,5	10	5.004	2083724
162 MS M40	M40 x 1,5	10	8.720	2083728
162 MS M50	M50 x 1,5	5	15.800	2083732
162 MS M63	M63 x 1,5	5	21.600	2083736

CuZn Brass

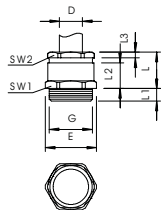
N Nickel-plated



## Dimensions

G	D mm	SW1 mm	SW2 mm	E mm	L1 mm	L2 mm
M16 x 1.5	5-9.5	17	15	18.9	7	16
M20 x 1.5	7.5-13.5	22	20	24.4	7	18
M25 x 1.5	10-20.5	32	28	35.5	8	22
M32 x 1.5	18-29	40	37	43.5	8.5	24
M40 x 1.5	24-31	50	47	54	8.5	29
M50 x 1.5	30-42	58	54	62.1	9.5	33
M63 x 1.5	36-47	65	60	69	10	10

## Cable gland, PG cutting ring



IP 54 IP 65 Pg

Type	Thread	Pack. pcs	Weight kg/100 pcs	Item No.
162 MS PG 9	Pg 9	50	1.250	2082519
162 MS PG11	Pg 11	50	1.960	2082500
162 MS PG13.5	Pg 13,5	50	2.630	2082527
162 MS PG16	Pg 16	25	3.190	2082543
162 MS PG21	Pg 21	25	5.240	2082578
162 MS PG29	Pg 29	10	9.260	2082594
162 MS PG36	Pg 36	10	16.490	2082616

CuZn Brass

N Nickel-plated

Cable gland with hexagonal intermediate connector, shape C4, to DIN 46320 with Pg connection thread to DIN 40430.

Pressure rings made of electrogalvanised and transparently passivated steel.

NR/SBR sealing ring.

Protection rating: with connection thread sealing ring IP 65, without connection thread sealing ring IP 54.

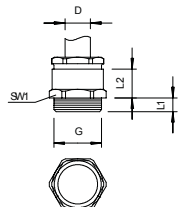
With cutting ring.

\* Prices according to DEL notation.

### Dimensions

G	D mm	SW1 mm	SW2 mm	E mm	L max. mm	L1 mm	L2 mm	L3 mm
Pg 9	5-9.5	17	15	18.9	16	6	10.5	2.5
Pg 11	7.5-11.5	20	18	22.2	17	6	11	3
Pg 13.5	7.5-13.5	22	20	24.4	18	6.5	12.5	3
Pg 16	7.5-15.5	24	22	26.7	19	6.5	13.5	3
Pg 21	10-20.5	30	28	33.5	22	7	15	3.5
Pg 29	18-29	40	37	43.5	24	8	16.5	4
Pg 36	24-37	50	47	54	29	9	19.5	4.5

## Cable gland, small sealing ring, M



IP 54 IP 65 M

Type	Thread	Surface finish	Pack. pcs	Weight kg/100 pcs	Item No.
163 MS M12	M12 x 1,5	Nickel-plated	50	0.850	2083612
163 MS M16	M16 x 1,5	Nickel-plated	50	1.160	2083620
163 MS M20	M20 x 1,5	Nickel-plated	25	2.210	2083639
163 MS M25	M25 x 1,5	Nickel-plated	25	4.550	2083647
163 MS M32	M32 x 1,5	Nickel-plated	10	8.210	2083655
163 MS M40	M40 x 1,5	Nickel-plated	10	14.230	2083663
163 MS M50	M50 x 1,5	Nickel-plated	5	20.540	2083671
163 MS M63	M63 x 1,5	Nickel-plated	5	30.000	2083698

CuZn Brass

N Nickel-plated

### Dimensions

G	D mm	SW1 mm	SW2 mm	E mm	L1 mm	L2 mm
M12 x 1.5	5-7	14	13	15.5	7	10
M16 x 1.5	6-8	17	15	18.9	7	10.5
M20 x 1.5	8-10	22	20	24.4	7	12.5
M25 x 1.5	17-19	34	28	35.5	8	15
M32 x 1.5	24-26	42	37	43.5	8.5	16.5
M40 x 1.5	31-33	52	47	54	8.5	19.5
M50 x 1.5	37-39	57	54	62.1	10.5	23
M63 x 1.5	43-45	65	60	69	10.5	23



## Cable gland, small sealing ring, PG

IP 54 IP 65 Pg

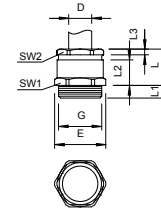
Type	Thread	Surface finish	Pack. pcs	Weight kg/100 pcs	Item No.
163 MS PG 7	Pg 7	Nickel-plated	50	0.850	2082071
163 MS PG 9	Pg 9	Nickel-plated	50	1.160	2082098
163 MS PG11	Pg 11	Nickel-plated	25	1.690	2082101
163 MS PG13.5	Pg 13,5	Nickel-plated	25	2.210	2082136
163 MS PG16	Pg 16	Nickel-plated	25	2.960	2082160
163 MS PG21	Pg 21	Nickel-plated	25	4.550	2082217
163 MS PG29	Pg 29	Nickel-plated	10	8.210	2082292
163 MS PG36	Pg 36	Nickel-plated	10	14.230	2082365
163 MS PG42	Pg 42	Nickel-plated	5	20.540	2082411
163 MS PG48	Pg 48	Nickel-plated	5	30.050	2082489

CuZn Brass

N Nickel-plated

G	D	SW1	SW2	E	L max.	L1	L2	L3
	mm	mm	mm	mm	mm	mm	mm	mm
Pg 7	5-7	14	13	15.5	15	5	10	2.5
Pg 9	6-8	17	15	18.9	16	6	10.5	2.5
Pg 11	8-10	20	18	22.2	17	6	11	3
Pg 13.5	8-10	22	20	24.4	18	6.5	12	3
Pg 16	8-10	24	22	26.7	19	6.5	13.5	3
Pg 21	17-19	30	28	33.5	22	7	15	3.5
Pg 29	24-26	40	37	43.5	24	8	16.5	4
Pg 36	31-33	50	47	54	29	9	19.5	4.5
Pg 42	37-39	57	54	61	33	10	22	6
Pg 48	43-45	64	60	69	34	10	23	6

Dimensions



## Cable gland, PG strain relief

IP 54 IP 65 Pg

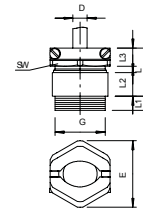
Type	Thread	Surface finish	Pack. pcs	Weight kg/100 pcs	Item No.
159 MS PG 7	Pg 7	Nickel-plated	50	1.960	2046075
159 MS PG 9	Pg 9	Nickel-plated	50	2.460	2046091
159 MS PG11	Pg 11	Nickel-plated	50	3.250	2046113
159 MS PG13.5	Pg 13,5	Nickel-plated	50	3.830	2046121
159 MS PG16	Pg 16	Nickel-plated	25	5.700	2046164
159 MS PG21	Pg 21	Nickel-plated	25	7.590	2046210
159 MS PG29	Pg 29	Nickel-plated	10	14.970	2046296
159 MS PG36	Pg 36	Nickel-plated	5	22.030	2046369
159 MS PG42	Pg 42	Nickel-plated	5	41.070	2046423
159 MS PG48	Pg 48	Nickel-plated	4	46.250	2046482

CuZn Brass

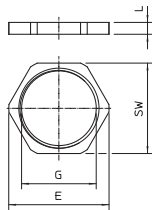
N Nickel-plated

G	D	SW1	SW2	E	L max.	L1	L2	L3
	mm	mm	mm	mm	mm	mm	mm	mm
Pg 7	5-7	14	16	17.5	22	5	10	9.3
Pg 9	6-8	17	19	20.5	24	6	10.5	10.6
Pg 11	8-10	20	22	24.5	25	6	11	11.3
Pg 13.5	8-10	22	24	27	26	6.5	12.5	11.3
Pg 16	8-10	24	26	29	28	6.5	13.5	11.8
Pg 21	17-19	30	33	37	32	7	15	13.3
Pg 29	24-26	40	42	46.5	34	8	16.5	13.8
Pg 36	31-33	50	52	57	40	9	19.5	15.8
Pg 42	37-39	57	59	65	43	10	22	16.3
Pg 48	43-45	64	64	70	44	10	23	16.3

Dimensions



Locknut, metric thread



M

Type	Thread	SW mm	Dimen- sion E mm	Dimen- sion L mm	Pack. pcs	Weight kg/100 pcs.	Item No.
169 MS M12	M12 x 1,5	15	16.6	3	100	0.220	2091607
169 MS M16	M16 x 1,5	20	22.1	2.8	100	0.310	2091615
169 MS M20	M20 x 1,5	24	25.6	3	100	0.580	2091623
169 MS M25	M25 x 1,5	30	33.2	3.5	100	0.880	2091631
169 MS M32	M32 x 1,5	35	38.7	4	100	1.120	2091658
169 MS M40	M40 x 1,5	45	49.8	4.5	50	1.920	2091666
169 MS M50	M50 x 1,5	55	60.4	5.5	50	3.070	2091674
169 MS M63	M63 x 1,5	70	77.6	6	25	5.720	2091682
169 MS M75	M75 x 1,5	90	100	8	3	16.800	2091685

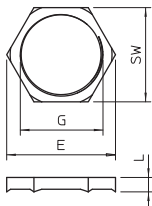
CuZn Brass

N Nickel-plated

Locknuts DIN 46319 with metric thread IEC 423.

\* Prices according to DEL notation.

Locknut, metric thread with cutting teeth



M

Type	Thread	SW mm	Dimen- sion E mm	Dimen- sion L mm	Pack. pcs	Weight kg/100 pcs.	Item No.
169 MSS M12	M12x1,5	15	17.3	4.5	50	0.360	2091705
169 MSS M16	M16x1,5	19	21.9	4.5	50	0.490	2091709
169 MSS M20	M20x1,5	24	27.7	4.5	50	0.760	2091713
169 MSS M25	M25x1,5	30	34.6	4.5	50	1.190	2091717
169 MSS M32	M32x1,5	36	41.5	4.5	50	1.230	2091721
169 MSS M40	M40x1,5	46	53.1	5	25	2.590	2091725
169 MSS M50	M50x1,5	60	69.2	5	25	5.070	2091729
169 MSS M63	M63x1,5	70	80.8	6	25	5.910	2091733

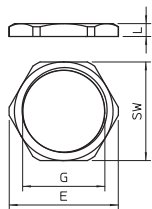
CuZn Brass

N Nickel-plated

Locknuts DIN 46319 with metric thread IEC 423.

\* Prices according to DEL notation.

Locknut, PG thread



Pg

Type	Thread	SW mm	Dimen- sion E mm	Dimen- sion L mm	Pack. pcs	Weight kg/100 pcs.	Item No.
169 MS PG 7	Pg 7	15	16.6	2.8	100	0.180	2091070
169 MS PG 9	Pg 9	18	20	2.8	100	0.260	2091097
169 MS PG11	Pg 11	21	23.5	3	100	0.290	2091119
169 MS PG13.5	Pg 13,5	23	25.5	3	100	0.364	2091135
169 MS PG16	Pg 16	26	29	3	100	0.460	2091151
169 MS PG21	Pg 21	32	35.5	3.5	100	0.720	2091216
169 MS PG29	Pg 29	41	45	4	100	1.320	2091291
169 MS PG36	Pg 36	51	56	5	50	2.100	2091364
169 MS PG42	Pg 42	60	65	5	50	3.260	2091429
169 MS PG48	Pg 48	64	69	5.5	25	3.270	2091488

CuZn Brass

N Nickel-plated

Locknuts, part M to DIN 46320 with Pg thread to DIN 40430. \* Price according to DEL notation.

## Screw plug, metric thread

M

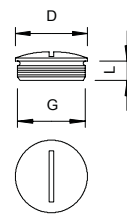
Type	Thread	Dimension D mm	Dimension L mm	Pack. pcs	Weight kg/100 pcs.	Item No.
168 MS M12	M12 x 1,5	16	5	100	0.390	2090511
168 MS M16	M16 x 1,5	20	6	100	0.640	2090538
168 MS M20	M20 x 1,5	22	6.5	100	0.930	2090546
168 MS M25	M25 x 1,5	28	7	50	1.850	2090554
168 MS M32	M32 x 1,5	35	8	50	2.810	2090562
168 MS M40	M40 x 1,5	45	8	50	5.290	2090570
168 MS M50	M50 x 1,5	55	9	25	6.310	2090589
168 MS M63	M63 x 1,5	68	10	25	12.570	2090597

CuZn Brass

N Nickel-plated

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

\* Prices according to DEL notation.



## Screw plug, PG thread

Pg

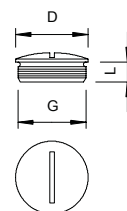
Type	Thread	Dimension D mm	Dimension L mm	Pack. pcs	Weight kg/100 pcs.	Item No.
168 MS PG 7	Pg 7	14	5	100	0.410	2090074
168 MS PG 9	Pg 9	17	6	100	0.530	2090090
168 MS PG11	Pg 11	20	6	100	0.840	2090112
168 MS PG13	Pg 13,5	22	6.5	100	0.930	2090139
168 MS PG16	Pg 16	24	6.5	100	1.300	2090163
168 MS PG21	Pg 21	30	7	50	2.420	2090201
168 MS PG29	Pg 29	39	8	50	4.310	2090295
168 MS PG36	Pg 36	50	9	50	7.800	2090368
168 MS PG42	Pg 42	57	10	25	11.710	2090422
168 MS PG48	Pg 48	64	10	25	15.260	2090481

CuZn Brass

N Nickel-plated

Screw plug in accordance with DIN 46320, with Pg thread to DIN EN 40430.

\* Prices according to DEL notation.



## Pressure screw, PG thread

Pg

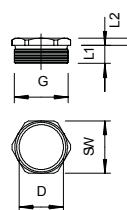
Type	Thread	Dimension D mm	Dimension SW mm	Dimension E mm	Dimension L1 mm	Dimension L2 mm	Pack. pcs	Weight kg/100 pcs.	Item No.
164 MS PG11	Pg 11	15	18	20	6	3	100	0.590	2084112
164 MS PG16	Pg 16	18.5	22	24.4	7.5	3	100	0.910	2084163
164 MS PG21	Pg 21	24	28	31.2	8	3.5	50	1.560	2084201

CuZn Brass

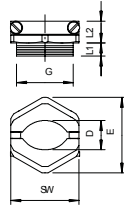
N Nickel-plated

Pressure screw (Part 3) in accordance with DIN 46320, with Pg thread to DIN EN 40430.

\* Prices according to DEL notation.



## Pressure screw, PG strain relief



**Pg**

Type	Thread	Pack. pcs	Weight		Item No.
			kg/100 pcs	pcs.	
157 MS PG 7	Pg 7	100	1.200		2013061
157 MS PG 9	Pg 9	100	1.500		2013096
157 MS PG11	Pg 11	100	2.100		2013118
157 MS PG13.5	Pg 13,5	100	2.200		2013134
157 MS PG16	Pg 16	50	3.400		2013169
157 MS PG21	Pg 21	50	4.500		2013215
157 MS PG29	Pg 29	25	6.800		2013290

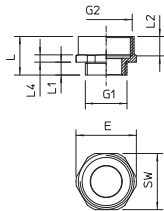
**CuZn** Brass

**N** Nickel-plated

Pressure screw with centrally acting transverse clip strain relief, rust-proof stainless steel screws. With bend protection and strain relief.

\* Prices according to DEL notation.

## Expansion piece, metric thread



**M**

Type	Thread		Pack. pcs	Weight		Item No.
	External thread	Internal thread		kg/100 pcs.	pcs.	
165 ADA M12-16	M12	M16	50	1.030		2088280
165 ADA M16-20	M16	M20	50	1.430		2088281
165 ADA M20-25	M20	M25	50	2.090		2088282
165 ADA M25-32	M25	M32	50	2.710		2088283
165 ADA M32-40	M32	M40	25	5.180		2088284
165 ADA M40-50	M40	M50	10	10.150		2088285
165 ADA M 50-63	M50	M63	5	13.060		2088286

**CuZn** Brass

**N** Nickel-plated

The areas of application for brass cable glands range from junction boxes as a distribution/connection box up to large industrial applications for safe floor routing to switchgear cabinets with a control and distribution function. For high mechanical requirements, OBO can offer the entire family of extensions (Part K) to DIN 46320.

\* Prices according to DEL notation.

### Dimensions

Type	External thread	Internal thread	SW mm	Dimension E mm	Dimension L mm	Dimension L1 mm	Dimension L2 mm	Dimension D mm
165 ADA M12-16	M12	M16	18	20	16	5	7	8
165 ADA M16-20	M16	M20	22	24.5	16.7	5	8	12
165 ADA M20-25	M20	M25	27	29	18.5	6.4	9	15
165 ADA M25-32	M25	M32	34	35.8	20.7	7.4	8	20.8
165 ADA M32-40	M32	M40	42	45.5	23.8	8	10	26
165 ADA M40-50	M40	M50	52	58	30.5	8.2	12.5	33.8
165 ADA M 50-63	M50	M63	65	69.9	33	9.2	16	43.4

## Reduction, metric thread

M

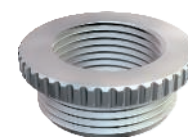
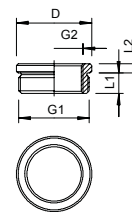
Type	External thread	Internal thread	Dimension D mm	Thread length mm	Dimension L2 mm	Pack. pcs	Weight kg/100 pcs.	Item No.
167 R MS M16-12	M16	M12	20	6	2.5	50	0.880	2089505
167 R MS M20-12	M20	M12	24	6.5	3.5	50	1.340	2089513
167 R MS M20-16	M20	M16	24	6.5	3.5	50	1.480	2089521
167 R MS M25-16	M25	M16	30	7	3	50	3.220	2089548
167 R MS M25-20	M25	M20	30	7	3	50	2.700	2089556
167 R MS M32-20	M32	M20	39	8	3.5	50	6.120	2089564
167 R MS M32-25	M32	M25	39	8	3.5	50	4.500	2089572
167 R MS M40-25	M40	M25	50	6	3.5	25	9.960	2089580
167 R MS M40-32	M40	M32	50	9	3.5	25	6.840	2089599
167 R MS M50-32	M50	M32	57	10	4	25	16.300	2089602
167 R MS M50-40	M50	M40	57	10	4	25	10.250	2089610
167 R MS M63-40	M63	M40	64	10	4	10	30.080	2089629
167 R MS M63-50	M63	M50	64	10	4	10	10.090	2089637

CuZn Brass

N Nickel-plated

Reduction (Part H) in accordance with DIN 46320, with metric thread to DIN EN 60423 or ISO 68.

\* Prices according to DEL notation.



## Reduction, PG thread

Pg

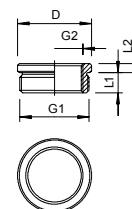
Type	External thread	Internal thread	Dimension D mm	Thread length mm	Dimension L2 mm	Pack. pcs	Weight kg/100 pcs.	Item No.
167 R MS PG9-7	Pg 9	Pg 7	17	6	2.5	50	0.430	2089025
167 R MS PG11-7	Pg 11	Pg 7	20	6	2.5	50	1.030	2089041
167 R MS PG11-9	Pg 11	Pg 9	20	6	2.5	50	0.650	2089076
167 R MS PG13-7	Pg 13,5	Pg 7	22	6.5	2.5	50	1.520	2089092
167 R MS PG13-9	Pg 13,5	Pg 9	22	6.5	2.5	50	1.120	2089114
167 R MS PG13-11	Pg 13,5	Pg 11	22	6.5	2.5	50	0.470	2089130
167 R MS PG16-9	Pg 16	Pg 9	24	6.5	3	50	1.730	2089157
167 R MS PG16-11	Pg 16	Pg 11	24	6.5	3	50	1.050	2089173
167 R MS PG16-13	Pg 16	Pg 13,5	24	6.5	3	50	0.656	2089203
167 R MS PG21-11	Pg 21	Pg 11	30	7	3	50	2.960	2089238
167 R MS PG21-13	Pg 21	Pg 13,5	30	7	3	50	2.520	2089254
167 R MS PG21-16	Pg 21	Pg 16	30	7	3	50	1.964	2089270
167 R MS PG29-16	Pg 29	Pg 16	39	8	3.5	50	6.560	2089297
167 R MS PG29-21	Pg 29	Pg 21	39	8	3.5	50	4.273	2089319
167 R MS PG36-21	Pg 36	Pg 21	50	9	3.5	25	11.660	2089335
167 R MS PG36-29	Pg 36	Pg 29	50	9	3.5	25	6.980	2089351
167 R MS PG42-36	Pg 42	Pg 36	57	10	4	25	6.750	2089408
167 R MS PG48-36	Pg 48	Pg 36	64	10	4	25	12.840	2089424
167 R MS PG48-42	Pg 48	Pg 42	64	10	4	25	6.230	2089440

CuZn Brass

N Nickel-plated

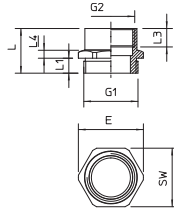
Reduction (Part H) to DIN 46320, with Pg thread to DIN 40430, as a transition from a PG thread hole to a smaller cable gland.

\* Prices according to DEL notation.





## Adapter expansion M - PG



M Pg

Type	External thread	Internal thread	Pack. pcs	Weight kg/100 pcs.	Item No.
165 ADA M12-PG7	M12	PG7	20	0.590	2088301
165 ADA M16-PG9	M16	PG9	20	9.110	2088312
165 ADA M16-PG11	M16	PG11	20	2.220	2088302
165 ADA M20-PG11	M20	PG11	20	1.760	2088316
165 ADA M20-PG13	M20	PG13,5	20	1.320	2088303
165 ADA M20-PG16	M20	PG16	20	1.650	2088318
165 ADA M25-PG16	M25	PG16	20	2.540	2088304
165 ADA M25-PG21	M25	PG21	20	2.330	2088324
165 ADA M32-PG29	M32	PG29	10	4.850	2088330
165 ADA M40-PG29	M40	PG29	10	7.150	2088306
165 ADA M50-PG42	M50	PG42	10	10.110	2088307
165 ADA M63-PG48	M63	PG48	4	20.080	2088348

CuZn Brass

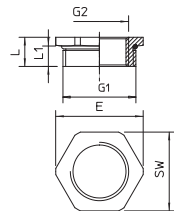
N Nickel-plated

Adapter for converting a metric threaded drill hole to a Pg threaded drill hole.

### Dimensions

Type	External thread	Internal thread	SW mm	Dimension E mm	Dimension L mm	Dimension L1 mm	Dimension L3 mm	Dimension D mm
165 ADA M12-PG7	M12	PG7	14	15.5	16	6	9	8
165 ADA M16-PG9	M16	PG9	17	19	16.5	5	7	12
165 ADA M16-PG11	M16	PG11	22	24.5	16	6	7.9	12.5
165 ADA M20-PG11	M20	PG11	22	24.5	17.6	6.5	10.2	15
165 ADA M20-PG13	M20	PG13,5	22	24.5	19	6.5	11.5	16
165 ADA M20-PG16	M20	PG16	14.9	23.9	19.6	6	9	11.5
165 ADA M25-PG16	M25	PG16	27	30	20.5	7	12.5	18.3
165 ADA M25-PG21	M25	PG21	30	33.5	22.2	7	13.5	20.5
165 ADA M32-PG29	M32	PG29	40	44	24.4	8	15	27.5
165 ADA M40-PG29	M40	PG29	43	46.2	24.4	8	15	31.8
165 ADA M50-PG42	M50	PG42	57	60.8	31	9	20	44
165 ADA M63-PG48	M63	PG48	65	69.8	33	10	21	52.2

## Adapter reduction M - PG



M Pg

Type	External thread	Internal thread	Pack. pcs	Weight kg/100 pcs.	Item No.
165 ADA M16-PG7	M16	PG7	20	5.130	2088310
165 ADA M20-PG9	M20	PG9	20	1.100	2088314
165 ADA M25-PG11	M25	PG11	20	1.940	2088320
165 ADA M25-PG13	M25	PG13,5	20	1.610	2088322
165 ADA M32-PG16	M32	PG16	10	3.790	2088328
165 ADA M32-PG21	M32	PG21	10	1.730	2088305
165 ADA M40-PG21	M40	PG21	10	6.980	2088334
165 ADA M50-PG29	M50	PG29	5	11.220	2088340
165 ADA M63-PG36	M63	PG36	5	16.950	2088344
165 ADA M63-PG42	M63	PG42	5	10.460	2088346

CuZn Brass

N Nickel-plated

Adapter for reducing a metric threaded drill hole to a smaller Pg threaded drill hole.

### Dimensions

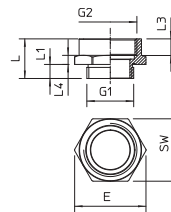
Type	External thread	Internal thread	SW mm	Dimension E mm	Dimension L mm	Dimension L1 mm
165 ADA M16-PG7	M16	PG7	17	19	8	5
165 ADA M20-PG9	M20	PG9	22	24.5	9	6
165 ADA M25-PG11	M25	PG11	27	30	10	7
165 ADA M25-PG13	M25	PG13,5	27	30	10	7
165 ADA M32-PG16	M32	PG16	34	36	11	8
165 ADA M32-PG21	M32	PG21	34	36	11	8
165 ADA M40-PG21	M40	PG21	43	46	12	8
165 ADA M50-PG29	M50	PG29	55	60	13	9
165 ADA M63-PG36	M63	PG36	65	69	14.2	10
165 ADA M63-PG42	M63	PG42	65	70	14.2	10



### Adapter expansion PG - M

M Pg

Type	External thread	Internal thread	Pack. pcs	Weight kg/100 pcs	Item No.
165 ADA PG9-M16	PG9	M16	20	1.160	2088291
165 ADA PG11-M16	PG11	M16	20	1.000	2088292
165 ADA PG13-M20	PG13,5	M20	20	2.040	2088293
165 ADA PG16-M20	PG16	M20	20	3.080	2088294
165 ADA PG16-M25	PG16	M25	20	3.320	2088295
165 ADA PG21-M25	PG21	M25	10	4.490	2088296
165 ADA PG21-M32	PG21	M32	10	4.310	2088297
165 ADA PG29-M40	PG29	M40	10	4.830	2088298
165 ADA PG36-M50	PG36	M50	5	9.250	2088299



CuZn Brass

N Nickel-plated

Adapter for converting a Pg threaded drill hole to a larger metric threaded drill hole.

#### Dimensions

Type	External thread	Internal thread	SW mm	Dimension E mm	Dimension L mm	Dimension L1 mm	Dimension L3 mm	Dimension D mm
165 ADA PG9-M16	PG9	M16	19	21	16	6	7.5	12
165 ADA PG11-M16	PG11	M16	20	22	17	6	10	12
165 ADA PG13-M20	PG13,5	M20	24	26	17.5	6.5	8.5	16
165 ADA PG16-M20	PG16	M20	27	29	17.5	6.5	8.3	18.4
165 ADA PG16-M25	PG16	M25	30	33.5	18.5	6.6	9.5	18.4
165 ADA PG21-M25	PG21	M25	32	33.5	19	7	10	23
165 ADA PG21-M32	PG21	M32	36	39	20	7	10.5	22.7
165 ADA PG29-M40	PG29	M40	43	46	21	8	10.8	32
165 ADA PG36-M50	PG36	M50	55	60	23	9	10.5	42

### Adapter reduction PG - M

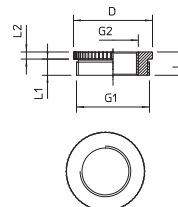
M Pg

Type	External thread	Internal thread	Pack. pcs	Weight kg/100 pcs	Item No.
165 ADA PG29-M25	PG29	M25	20	5.730	2088289

CuZn Brass

N Nickel-plated

Adapter for converting a Pg threaded drill hole to a metric threaded drill hole.



#### Dimensions

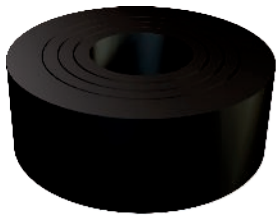
Type	External thread	Internal thread	Dimension D mm	Dimension L mm	Dimension L1 mm
165 ADA PG29-M25	PG29	M25	39	11.5	8

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Cable gland systems, brass



## Cutting ring

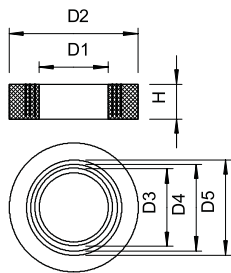


Pg

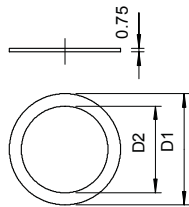
Type	Size mm	Size	Dimension D1 mm	Dimension D2 mm	Dim. D3 mm	Dim. D4 mm	Dim. D5 mm	Dimension H mm	Pack. pcs	Weight kg/100 pcs.	Item No.
107 B PG9	Pg 9	M16	5	13.3	7.5	10	0	5.5	100	0.240	2029103
107 B PG11	Pg 11	—	7.5	16.5	10	12.5	0	6	100	0.230	2029111
107 B PG13.5	Pg 13,5	M20	7.5	18.3	10	12.5	0	6	100	0.230	2029138
107 B PG16	Pg 16	M25	7.5	20.4	10	12.5	15	7	100	0.320	2029162
107 B PG21	Pg 21	—	10	25.9	13	16	19	8	100	0.590	2029219
107 B PG29	Pg 29	M32	18	34.7	21	24	27	9.5	100	1.160	2029294
107 B PG36	Pg 36	M40	24	44.7	27	30	33	12	50	1.940	2029367
107 B PG42	Pg 42	M50	30	51.7	33	36	39	14	50	2.710	2029421
107 B PG48	Pg 48	M63	36	56.9	39	42	45	14	50	3.490	2029480

NBR-SBR Rubber mixture

Rubber cutting ring (cuttable sealing ring) to DIN 46320 for cone cable gland.



## Pressure ring, PG thread



Pg

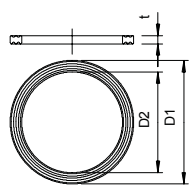
Type	Size mm	Dimension D1 mm	Dimension D2 mm	Pack. pcs	Weight kg/100 pcs.	Item No.
107 D PG7 GTP	Pg 7	11	8	100	0.020	2027070
107 D PG9 GTP	Pg 9	13.5	10	100	0.038	2027097
107 D PG11 GTP	Pg 11	16.5	12	100	0.061	2027119
107 D PG13.5 GTP	Pg 13,5	18.5	14	100	0.066	2027135
107 D PG16 GTP	Pg 16	20.5	16	100	0.074	2027151
107 D PG21 GTP	Pg 21	26	21	50	0.100	2027216

St Steel

GTP Electrogalvanised, transparently passivated

Pressure ring, Part 7, to DIN 46320, suitable for plastic and brass glands to DIN 46320.

## Connection thread sealing ring, metric



M



Type	Size mm	Dimension D1 mm	Dimension D2 mm	Dimension t mm	Pack. pcs	Weight kg/100 pcs.	Item No.
107 F M12 PE	M12	16.3	12	1	100	0.017	2030004
107 F M16 PE	M16	20.9	16	1.1	100	0.018	2030008
107 F M20 PE	M20	25.1	20	1.1	100	0.030	2030012
107 F M25 PE	M25	31.3	25	1.4	100	0.038	2030016
107 F M32 PE	M32	37.6	32	1.7	100	0.105	2030020
107 F M40 PE	M40	49.1	40	1.7	100	0.200	2030024
107 F M50 PE	M50	60.1	50	2	100	0.250	2030028
107 F M63 PE	M63	73.8	63	2	100	0.290	2030032

PE Polyethylene

Connection thread sealing ring, suitable for all plastic cable glands with metric connection thread to DIN EN 60423 or ISO 68. The internal diameters of the sealing rings are designed in such a way that they can be pre-mounted in a captive manner.

## Connection thread sealing ring, metric

M

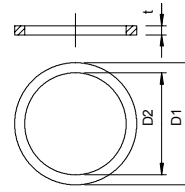
Type	Size mm	Dimen- sion D1 mm	Dimen- sion D2 mm	Dimen- sion t mm	Pack. pcs	Weight kg/100 pcs.	Item No.
170 M16	M16	19.9	16	2	100	0.040	2088428
170 M20	M20	24	20	2	100	0.066	2088436
170 M25	M25	30	25	3	100	0.170	2088444
170 M32	M32	38	32	3	100	0.270	2088452
170 M40	M40	47	40	3	50	0.330	2088460
170 M50	M50	57	50	3	50	0.440	2088479

FA Fibre-proof material DIN 28091

Asbestos-free material.

Connection thread sealing ring, Part 9, to DIN 46320, suitable for all brass cable glands with metric connection thread to DIN EN 60423 or ISO 68.

Colour: green, graphited on one side.



## Connection thread sealing ring, PG

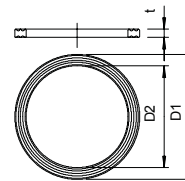
Pg



Type	Size mm	Dimen- sion D1 mm	Dimen- sion D2 mm	Dimen- sion t mm	Pack. pcs	Weight kg/100 pcs.	Item No.
107 F PG7 PE	Pg 7	16.5	12.1	1.6	100	0.010	2030071
107 F PG9 PE	Pg 9	19	14.7	1.6	100	0.013	2030098
107 F PG11 PE	Pg 11	23	18	1.8	100	0.022	2030101
107 F PG13.5 PE	Pg 13,5	25	19.8	1.8	100	0.030	2030136
107 F PG16 PE	Pg 16	27	21.8	1.8	100	0.038	2030160
107 F PG21 PE	Pg 21	34	27.5	2.2	100	0.049	2030217
107 F PG29 PE	Pg 29	44	36.2	2.2	100	0.105	2030292
107 F PG36 PE	Pg 36	55.5	46.2	2.7	100	0.200	2030365
107 F PG48 PE	Pg 48	69.5	58.5	3.2	100	0.290	2030489

PE Polyethylene

Connection thread sealing ring, in accordance with Part 9 to DIN 46320, however, dimensions may, according to material or function, deviate, suitable for all plastic cable glands with PG connection thread to DIN EN 40430, the internal diameter of the sealing rings are designed so that they can be captively pre-mounted.



## O sealing ring for metric connection thread

M

Type	Size mm	Dimen- sion D mm	Dim. S mm	Pack. pcs	Weight kg/100 pcs.	Item No.
171 M12	M12	10	1.5	100	0.007	2088703
171 M16	M16	13	1.5	100	0.008	2088711
171 M20	M20	18	1.5	100	0.011	2088738
171 M25	M25	22	1.5	100	0.012	2088746
171 M32	M32	29	2	100	0.035	2088754
171 M40	M40	36	2	50	0.045	2088762
171 M50	M50	46	2	50	0.052	2088770
171 M63	M63	59	2	25	0.056	2088789

NBR Nitrile rubber

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



## O sealing ring for PG connection thread



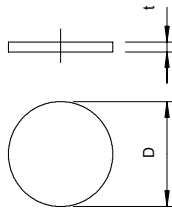
Pg

Type	Size mm	Dimension D mm	Dimension S mm	Pack. pcs	Weight kg/100 pcs.	Item No.
171 PG 9	Pg 9	13	1.5	100	0.008	2088819
171 PG11	Pg 11	16	1.5	100	0.010	2088827
171 PG13.5	Pg 13,5	18	1.5	100	0.011	2088835
171 PG16	Pg 16	20	1.5	100	0.012	2088843
171 PG21	Pg 21	25	2	100	0.027	2088851
171 PG29	Pg 29	33	2	100	0.035	2088878
171 PG36	Pg 36	43	2	50	0.045	2088886
171 PG42	Pg 42	50	2	50	0.052	2088894

NBR Nitrile rubber

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

## Dust protection plate, metric



M

Type	Size mm	Dimension D mm	Dimension t mm	Pack. pcs	Weight kg/100 pcs.	Item No.
107 S VTEC M12	M12	12	1.5	100	0.001	2028870
107 S VTEC M16	M16	16	1.5	100	0.002	2028873
107 S VTEC M20	M20	20	1.5	100	0.004	2028875
107 S VTEC M25	M25	25	1.5	100	0.008	2028877
107 S VTEC M32	M32	32	1.5	100	0.012	2028880
107 S VTEC M40	M40	40	1.5	100	0.022	2028883
107 S VTEC M50	M50	50	1.5	100	0.040	2028885

ZPE Cellular polyethylene

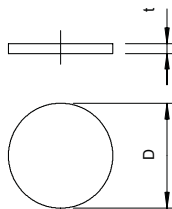
Cellular polyethylene.

Small protective disc to protect the V-TEC VM and V-TEC VM MS cable glands against dust before the cable is installed.

Application: the discs are pre-mounted between the cap nut and the seal. They do not need to be removed when the cable is installed, but are simply passed through to the interior with the cable.

Note: the discs do not provide any mechanical protection.

## Dust protection plate, PG



Pg

Type	Size mm	Dimension D mm	Dimension t mm	Pack. pcs	Weight kg/100 pcs.	Item No.
107 S VTEC PG7	Pg 7	11	2	100	0.001	2028891
107 S VTEC PG9	Pg 9	14	2	100	0.002	2028905
107 S VTEC PG11	Pg 11	16.5	2	100	0.003	2028913
107 S VTEC PG13	Pg 13,5	18.5	2	100	0.004	2028921
107 S VTEC PG16	Pg 16	21	2	100	0.006	2028948
107 S VTEC PG21	Pg 21	26.5	2	100	0.010	2028956
107 S VTEC PG29	Pg 29	34.5	2	100	0.015	2028964
107 S VTEC PG36	Pg 36	44	3	100	0.035	2028972
107 S VTEC PG42	Pg 42	50	3	100	0.050	2028980
107 S VTEC PG48	Pg 48	56	3	100	0.060	2028999

ZPE Cellular polyethylene

Cellular polyethylene.

Small protective disc to protect the V-TEC and V-TEC MS cable glands against dust before the cable is installed.

Application: the discs are pre-mounted between the cap nut and the seal. They do not need to be removed when the cable is installed, but are simply passed through to the interior with the cable.

Note: the discs do not provide any mechanical protection.



## Sealing plate, PG

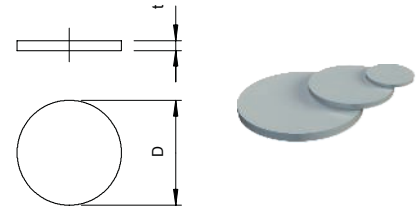
Pg

Type	Size mm	Dimen- sion D mm	Dimen- sion t mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>107 V PG 7 PVC</b>	Pg 7	11	0.5	100	0.013	<b>2029707</b>
<b>107 V PG 9 PVC</b>	Pg 9	13.5	0.5	100	0.020	<b>2029715</b>
<b>107 V PG11 PVC</b>	Pg 11	16.5	0.5	100	0.030	<b>2029723</b>
<b>107 V PG13.5 PVC</b>	Pg 13,5	18.5	0.5	100	0.038	<b>2029731</b>
<b>107 V PG16 PVC</b>	Pg 16	20.5	0.5	100	0.048	<b>2029758</b>
<b>107 V PG21 PVC</b>	Pg 21	26	0.5	100	0.075	<b>2029766</b>
<b>107 V PG29 PVC</b>	Pg 29	35	1	100	0.135	<b>2029774</b>

PVC Polyvinylchloride

The sealing plate offers both mechanical protection and the maintenance of the protection rating of plastic and metal cable glands to DIN 46320 before cable installation.

Application: the discs are placed between the pressure screw and the pressure ring. If the safe maintenance of IP65 is required, we recommend placing the discs between the pressure ring and the sealing ring. To mount the cable, remove the discs – they can be reused.





## Cable/pipe fastening systems, plastic

	<b>Quick clip</b>	264
	<b>Push-fit anchors</b>	271
	<b>cable tidy</b>	274
	<b>Pressure clip</b>	276
	<b>Fastening clip</b>	279
	<b>Nail clip</b>	287



# Installation – the professional way

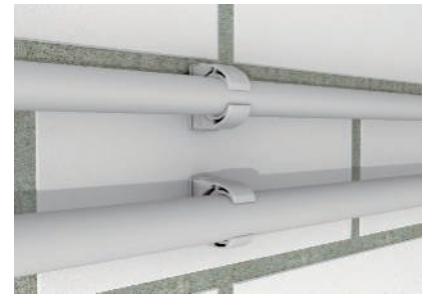
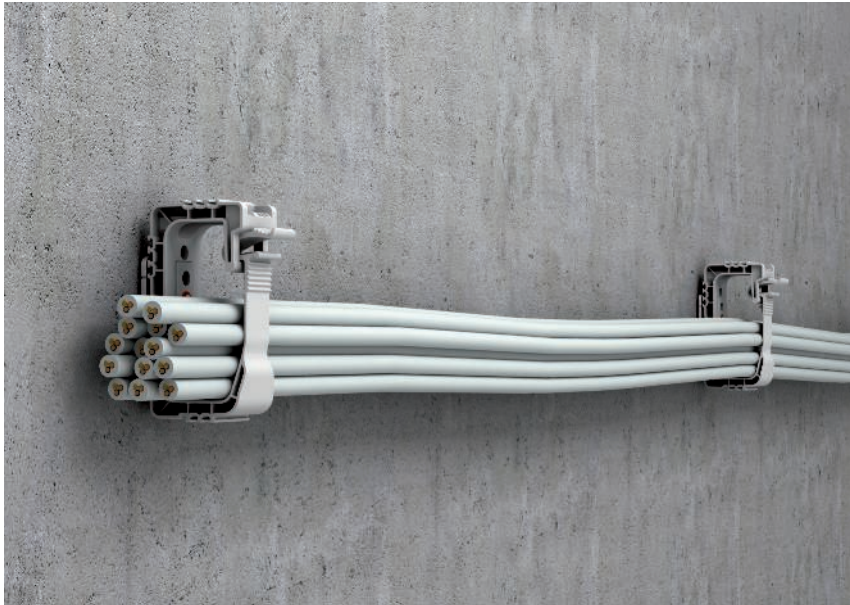
Fastening systems for  
day-to-day use



Cable and pipe fastening systems, plastic



## Information on cable fastening



### Cable fastening

The standard DIN EN 61914 "Cable holders for electrical installations" specifies that cable holders "must be able to accept cables or cable bundles of the diameter specified by the manufacturer or responsible retailer, without tearing or breaking or shearing off the threads of bolts".

During the installation of cables, the current national and international standard must be taken into account, such as DIN VDE 0100 520. "Suitable agents and meth-

ods, which prevent damage or changes to the shape", must be used for fastening.

In addition, with masses of cables, DIN VDE 0298 requires the appropriate "load capacities of cables for fixed laying in and on buildings..." to be taken into account when selecting the fastening systems.

Besides these standardising aspects, the end customer/client can/must take specific laying specifications into account.

The fastening spacing for cables is given in DIN VDE 0100-520, June

2003. For example, cables laid horizontally require a spacing of 20x the cable diameter. However, a spacing of 80 cm should not be exceeded. With vertical laying, the clip spacings may be increased but should not exceed 1.5 m.

The table below shows the maximum fastening spacings for cables according to the cable diameter. The laying spacings given in the catalogue, e.g. for cable tidies or Quick clips, are guide values and can only be treated as such.

External diameter of the cables mm	Maximum spacing for horizontal fastening mm	Maximum spacing for vertical fastening mm
$D \leq 9$	250	400
$9 < D \leq 15$	300	400
$15 < D \leq 20$	350	450
$20 < D \leq 40$	400	550





**Quick clip**

- For metric and PG
- Suitable for lining up
- Insertion slopes

**Multi-Quick clip**

- Suitable for lining up
- PG and metric
- Universally usable

**starQuick clip**

- High breaking load
- UV-resistant
- Large clamping range

**Push-fit anchor**

- Versatile
- Resilient
- For solid substrates

**Clamp clip**

- Wall and ceiling mounting
- For multiple cables
- Can be lined up

**Pressure clip**

- Specially adapted corrugation
- Tidy, well-organised cable routing

**Fastening clamp**

- Large selection
- Various types
- High loading

**Nail clamp**

- Easy cable fastening
- Various sizes
- With and without pre-mounted nail



## Quick clip

- Extreme loading capacity
- Maximum stability
- Extremely easy mounting
- Insertion slopes
- Slot fastening
- Suitable for lining up
- Latch-in hole/middle stopper



### The high-speed clip

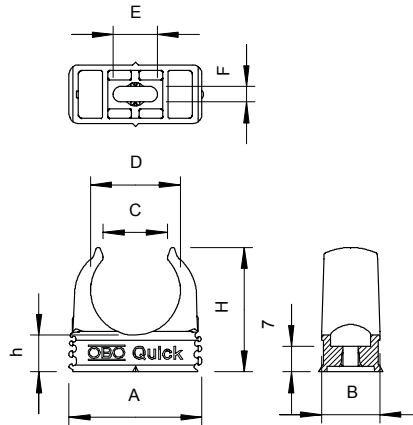
With its unique design and the modified halogen-free material from which it is built, the Quick clip is exceptionally robust. Maximum pipe extraction values: up to 230 N. Rounded retaining arms on the exterior provide the highest level of stability. The roundness means that the clip is extremely torsion-resistant. The bull horns ensure

automatic alignment of the clip. At clip inclines of up to 15°, the clips align themselves automatically upon insertion of the pipe. Insertion slopes, specially adapted to the pipe dimensions, simplify the insertion of the pipe in the clip. The slots enable alignment of the clip during installation. OBO's patented system for lining up clips

can withstand 25% higher loads than conventional systems. Clips can additionally be placed on either side of each other. The combination of latch-in hole and middle stopper means the clips are always arrested and fixed in the centre position when lined up.



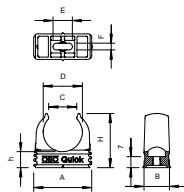
# OBO Quick



- OBO Quick clip for all metric steel armoured pipes, and light-duty and heavy-duty insulation pipes
- Suitable for OBO Quick pipe
- Pipe centring aids allow optimal attachment of the pipe and automatically turn the clip into the correct position
- Patented
- Universal fastening option; can be arranged with the OBO Multi-quick and starQuick clip
- Slot for side alignment during mounting with wood screw or knock-in anchor
- Recommended fastening spacing 50–60 cm
- For max. extraction values (F) at a room temperature of 20 °C, see table.

G	A	B	C	D	E	F	H	H	F (20 °C)
	mm	mm	mm	mm	mm	mm	mm	mm	N
<b>M16</b>	25.3	16	11.5	15.5	7	4.2	25	10	75
<b>M20</b>	30.3	16	14	19.4	9	4.2	29.5	10	90
<b>M25</b>	36.3	16	17.5	24.3	12	4.2	34	10	100
<b>M32</b>	46.3	16	22.4	31.4	12	4.2	42	11	120
<b>M40</b>	57.3	16	26	39.2	11	4.6	51	12	140
<b>M50</b>	70.3	18	32	49	12	6	63	14	165
<b>M63</b>	87.3	20	43	61.5	12	6	74.5	15	230

## Quick clip



Type	Nominal size	Colour	Pack. pcs	Weight kg/100 pcs	Item No.
<b>2955 M16</b>	M16	Light grey	100	0.252	<b>2149004</b>
<b>2955 M20</b>	M20	Light grey	100	0.325	<b>2149010</b>
<b>2955 M25</b>	M25	Light grey	100	0.433	<b>2149016</b>
<b>2955 M32</b>	M32	Light grey	50	0.630	<b>2149022</b>
<b>2955 M40</b>	M40	Light grey	50	0.835	<b>2149028</b>
<b>2955 M50</b>	M50	Light grey	25	1.454	<b>2149034</b>
<b>2955 M63</b>	M63	Light grey	20	2.203	<b>2149040</b>

PP Polypropylene

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

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

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

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

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

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

Quick clip, black

M

Type	Nominal size	Colour	Pack. pcs	Weight kg/100 pcs	Item No.
2955 M16 SW	M16	Jet black	100	0.252	2149559
2955 M20 SW	M20	Jet black	100	0.325	2149563
2955 M25 SW	M25	Jet black	100	0.433	2149567
2955 M32 SW	M32	Jet black	50	0.630	2149571
2955 M40 SW	M40	Jet black	50	0.835	2149575
2955 M50 SW	M50	Jet black	25	1.454	2149579
2955 M63 SW	M63	Jet black	20	2.203	2149583

PP Polypropylene

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

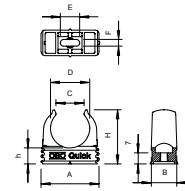
Pipe centring aids allow optimal attachment of the pipe and automatically turn the clip into the correct position.

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

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

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

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



Quick clip, flame-resistant

M



M

Type	Nominal size	Colour	Pack. pcs	Weight kg/100 pcs	Item No.
2955 F M16 STGR	M16	Stone grey	100	0.252	2149303
2955 F M20 STGR	M20	Stone grey	100	0.325	2149309
2955 F M25 STGR	M25	Stone grey	100	0.433	2149315
2955 F M32 STGR	M32	Stone grey	50	0.630	2149321
2955 F M40 STGR	M40	Stone grey	50	0.835	2149327
2955 F M50 STGR	M50	Stone grey	25	1.454	2149333
2955 F M63 STGR	M63	Stone grey	20	2.203	2149339

PP Polypropylene

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

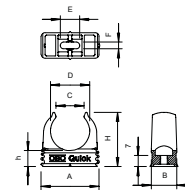
Pipe centring aids allow optimal attachment of the pipe and automatically turn the clip into the correct position.

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

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

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

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



Quick clip, flame-resistant

M



M

Type	Nominal size	Colour	Pack. pcs	Weight kg/100 pcs	Item No.
2955 F M16 RW	M16	Pure white	100	0.252	2149351
2955 F M20 RW	M20	Pure white	100	0.325	2149357
2955 F M25 RW	M25	Pure white	100	0.433	2149363
2955 F M32 RW	M32	Pure white	50	0.630	2149369
2955 F M40 RW	M40	Pure white	50	0.835	2149375

PP Polypropylene

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

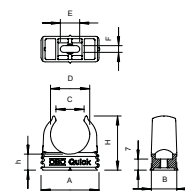
Pipe centring aids allow optimum attachment of the pipe and automatically turn the clip into the correct position.

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

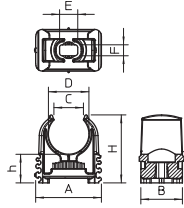
Slot for side alignment during mounting with wood screw or knock-in anchor.

Size M16-M32 can be screwed onto M6 thread.

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



## Quick clip, for push-fit anchor

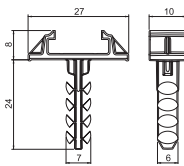


Type	Nominal size	Colour	Weight		Item No.
			Pack. pcs	kg/100 pcs	
<b>2957 M16</b>	M16	Light grey	100	0.315	<b>2149701</b>
<b>2957 M19-20</b>	M19-20	Light grey	100	0.403	<b>2149710</b>

**ABS/ASA** Acrylonitrile butadiene styrene

OBO Quick clip, type 2957/...: for metric steel armoured pipes, M16 and M19-20 as well as light-duty and heavy-duty metric insulation pipes. Suitable for mounting the OBO Quick pipe. Pipe centring aids allow optimal attachment of the pipe in the clip. Universal fastening option; can be arranged with the OBO Multi-quick and starQuick clip. Slot for side alignment during mounting with wood screw or knock-in anchor. Size M16-M19-20 can be screwed onto an M6 thread. Recommended fastening spacing 50–60 cm, for max. extraction values F at a room temperature of 20 °C, see the table.

## Push-fit anchor for Quick clip for type 2957



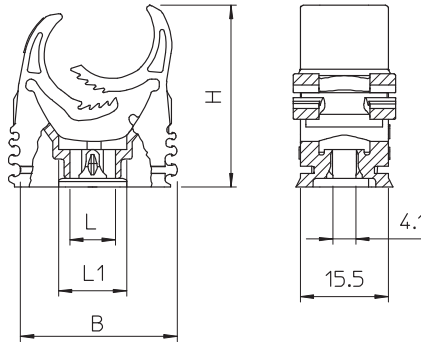
Type	Dowel Ø	Length	Bore hole depth	Weight		Item No.
				Pack. pcs	kg/100 pcs	
<b>910 STQS 6x26</b>	6	26	30	100	0.110	<b>2351650</b>

**PA** Polyamide

Push-fit anchor suitable for Quick clip, type 2957. The anchor is fixed to the Quick clip by a locking mechanism. Suitable for rapid mounting in concrete walls and masonry. The anchor is pushed into the hole until the clip makes contact with the surface.



## Multi-Quick clip



- PG and metric
- Easy fastening
- Secure locking
- Radial arrangement
- Simplified storage
- Clamping ranges from 15–37 mm
- Universal application
- Fastening in rails types 2060 and 2061

D	B	H	L	L1
mm	mm	mm	mm	mm
15–19	27.5	32	8	12
18.5–22.5	33	37	9	13
25–28.5	43	46	12	16
31–37	55	58	14	18

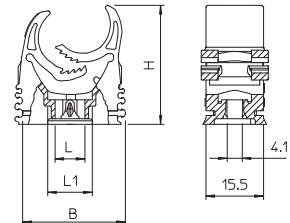
## Multi-Quick clip



Type	Clamping range D mm	Colour	Pack. pcs	Weight kg/100 pcs.	Item No.
M-Quick 15-19LGR	15 - 19	Light grey	100	0.545	2153106
M-Quick 18-22LGR	18.5 - 22.5	Light grey	100	0.760	2153114
M-Quick 25-28LGR	25 - 28.5	Light grey	50	1.170	2153130
M-Quick 31-37LGR	31 - 37	Light grey	25	1.780	2153157

PA Polyamide

- PG and metric
- Simple fastening
- Secure locking
- Radial arrangement
- Simplified storage
- Clamping ranges from 15-37 mm
- Universally applicable
- Fastening in rail type CL2008



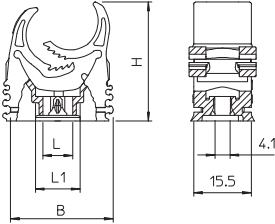
Multi-Quick clip, metric



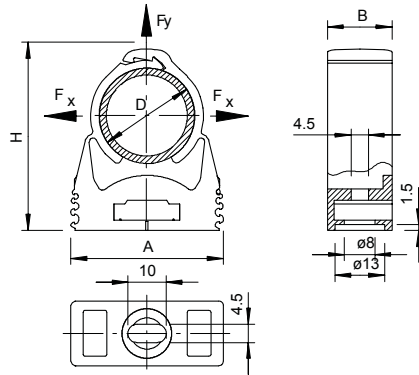
Type	Clamping range D mm	Colour	Pack.		Weight kg/100 pcs.	Item No.
			pcs.	pcs.		
<b>M-Quick M20 LGR</b>	16 - 20	Light grey	100	0.600		<b>2153718</b>
<b>M-Quick M25 LGR</b>	20 - 25	Light grey	50	0.930		<b>2153726</b>
<b>M-Quick M32 LGR</b>	25 - 32	Light grey	50	1.390		<b>2153734</b>

PA Polyamide

- Multi-quick metric
- Simple fastening
- Secure locking
- Radial arrangement
- Simplified storage
- Universally applicable



# starQuick clip



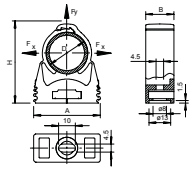
- All sizes clip together, up to size SQ28
- Breaking load with bolt DIN96, diameter 4.5 mm, min. at 20 °C
- For use outdoors and in public spaces
- UV- and weatherproof polyamide
- Clamping range 10–65 mm
- Wall and ceiling mounting
- Patented safety system

G	A	B	D	H	Fx	Fy
mm	mm	mm	mm	mm	N	N
10	29	17	9.5–12	31.6	500	500
12–14	29	17	11.5–15	34.5	550	550
15–16	29	17	14–16.5	35.7	600	600
17–19	29	17	16–20	39.8	700	700
20–23	29	17	19.5–23.5	49.5	800	800
25–28	40	17	24–28	49.5	850	850
28–32	40	17	27.5–32	52.8	900	900
32–35	43	17	31.2–35.8	65.8	1,000	1,000
35–40	47	17	35–40.1	65.8	1,100	1,100
40–44	52	17	39.3–44.5	69.5	1,200	1,200
45–50	57	17	44–50	75.5	1,200	1,200
50–54	63	17	48–55	81	1,400	1,400
59–65	74	20	58.5–65	94.3	1,500	1,500

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## starQuick clip



Type	Clamping range D mm	Colour	Pack. pcs	Weight		Item No.
				kg/100	pcs.	
<b>SQ-10 LGR</b>	9.5 - 12	Light grey	100	0.568		<b>2146053</b>
<b>SQ-12 LGR</b>	11.5 - 15	Light grey	100	0.540		<b>2146061</b>
<b>SQ-15 LGR</b>	14 - 16.5	Light grey	100	0.584		<b>2146096</b>
<b>SQ-17 LGR</b>	16 - 20	Light grey	100	0.640		<b>2146118</b>
<b>SQ-20 LGR</b>	19.5 - 23.5	Light grey	50	0.670		<b>2146134</b>
<b>SQ-25 LGR</b>	24 - 28	Light grey	50	0.970		<b>2146207</b>
<b>SQ-28 LGR</b>	27.5 - 32	Light grey	50	1.070		<b>2146215</b>
<b>SQ-32 LGR</b>	31.2 - 35.8	Light grey	50	1.230		<b>2146258</b>
<b>SQ-36 LGR</b>	35 - 40.1	Light grey	25	1.510		<b>2146290</b>
<b>SQ-40 LGR</b>	39.3 - 44.5	Light grey	25	1.710		<b>2146320</b>
<b>SQ-47 LGR</b>	44 - 50	Light grey	25	1.980		<b>2146363</b>
<b>SQ-51 LGR</b>	48 - 55	Light grey	15	2.250		<b>2146444</b>
<b>SQ-59 LGR</b>	58.5 - 65	Light grey	15	3.300		<b>2146487</b>

PA Polyamide

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

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

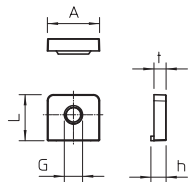
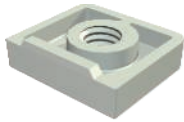
starQuick clip Type SQ... a comprehensive programme of quality clips ideal for the use in outside areas such as parking garages, under bridges and on the exterior of steel structures. Climate conditions have no chance: the starQuick clips are made from UV weather-resistant polyamide.

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

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

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

## starQuick nut



Type	Nominal size	Dimen- sion L mm	Dimen- sion h mm	Dimen- sion t mm	Colour	Pack. pcs	Weight		Item No.
							kg/100	pcs.	
<b>SQ M6</b>	M6	15	5	4	Light grey	100	0.070		<b>2146509</b>

PC Polycarbonate

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

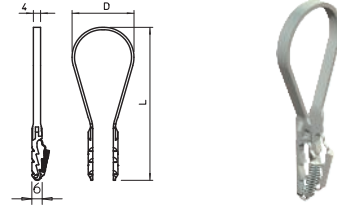
### BKS clamp clip



Type	Clamping range D mm	Dimension L mm	Dimension D mm	Pull-out value N	Colour	Pack. pcs	Weight kg/100 pcs.	Item No.
1973 3-13 LGR	3 - 13	52	13	500	Light grey	100	0.089	2148803
1973 8-28 LGR	8 - 28	70	27	500	Light grey	100	0.116	2148846
1973 20-40 LGR	20 - 40	89	36	500	Light grey	100	0.150	2148862

PA Polyamide

For cables, flexible pipes and all kinds of insulating and armoured steel pipes, suitable for concrete, calcareous limestone and full brick. Use in gas concrete masonry is possible, but reduced load capacities must be expected.



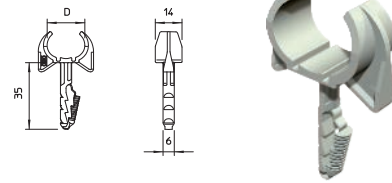
### Snap clip



Type	Clamping range D mm	Bore hole depth mm	Colour	Pack. pcs	Weight kg/100 pcs.	Item No.
1975 12-15	12 - 15	40	Light grey	100	0.251	2148021
1975 16-19	16 - 19	40	Light grey	100	0.372	2148048
1975 19-22	19 - 22.5	40	Light grey	100	0.533	2148056

PA Polyamide

With moulded-on push-fit plug for rapid mounting in concrete walls and masonry. Push plug into hole until the clip makes contact with the surface. When the pipe is pressed into the clip, the arms of the clip grip it.



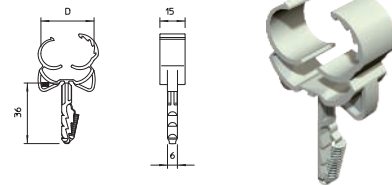
### Click-snap clip



Type	Clamping range D mm	Breaking load for concrete B25	Colour	Pack. pcs	Weight kg/100 pcs.	Item No.
1976 12-15	12 - 15.5	190 N	Light grey	100	0.245	2148501
1976 16-21	16 - 21.5	500 N	Light grey	100	0.443	2148528
1976 22-28	22.5 - 28.5	500 N	Light grey	100	0.781	2148536

PA Polyamide

With moulded-on push-fit plug for rapid mounting in concrete walls and masonry. Push plug into hole until the clip makes contact with the surface. When the pipe is pressed into the clip, the arms of the clip grip it.



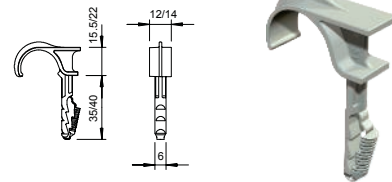
### Single push-fit clip



Type	Clamping range D mm	Bore hole Ø mm	Bore hole depth mm	Colour	Pack. pcs	Weight kg/100 pcs.	Item No.
1974 16-23	16 - 23	6	40	Light grey	100	0.263	2197804
1974 22-30	22 - 30	6	40	Light grey	100	0.446	2197812

PA Polyamide

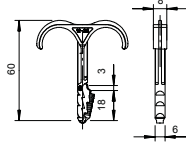
These push-fit clips are used when installing cables and pipes on walls and ceilings and when running flexible pipes on concrete and in the screed. The single push-fit clips can be used instead of nail clips in concrete and aerated concrete. The advantage of the push-fit clips is that they only have to be pushed into the drilled hole. Anchors and bolts are not needed.



01\_VBS\_Produnkteilheitenkatalog\_EX\_2018 / en / 2018/11/26 09:27:20 (LLEXPOR\_02231) / 2018/11/26 09:29:57 09:29:57



## Double push-fit clip

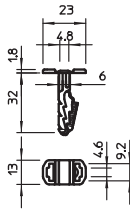


Type	Clamping range D mm	Bore hole Ø mm	Bore hole depth mm	Colour	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>1974 2X4-12</b>	4 - 12	6	40	Light grey	100	0.128	<b>2197855</b>
<b>1974 2X12-25</b>	12 - 25	6	40	Light grey	100	0.282	<b>2197863</b>

PA Polyamide

These push-fit clips are used when installing cables and pipes on walls and ceilings and when running flexible pipes on concrete and in the screed. The single push-fit clips can be used instead of nail clips in concrete and aerated concrete. The advantage of the push-fit clips is that they only have to be pushed into the drilled hole. Anchors and bolts are not needed.

## Push-fit anchors for cable ties

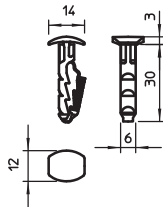


Type	Bore hole depth mm	Colour	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>910 STK 6x30</b>	35	Light grey	100	0.108	<b>2351609</b>

PA Polyamide

The push-fit anchor can accept a cable tie (type 550 or 555) up to 9 mm wide, which can be used to install several cables and pipes. Suitable for concrete, lime sand and brickwork as solid brick. Use in gas concrete masonry is possible, but reduced load capacities must be expected.

## Push-fit anchor with mushroom head

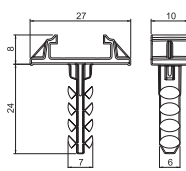


Type	Dowel Ø mm	Length mm	Bore hole depth mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>910 STP 6x30</b>	6	30	35	100	0.101	<b>2351412</b>

PA Polyamide

The push-fit anchor allows simple mounting, e.g. of labelling panels or small WDK ducts. Suitable for concrete, lime sandstone and brickwork as solid brick. Use in gas concrete masonry is possible, but reduced load capacities must be expected.

## Push-fit anchor for Quick clip for type 2957



Ø6

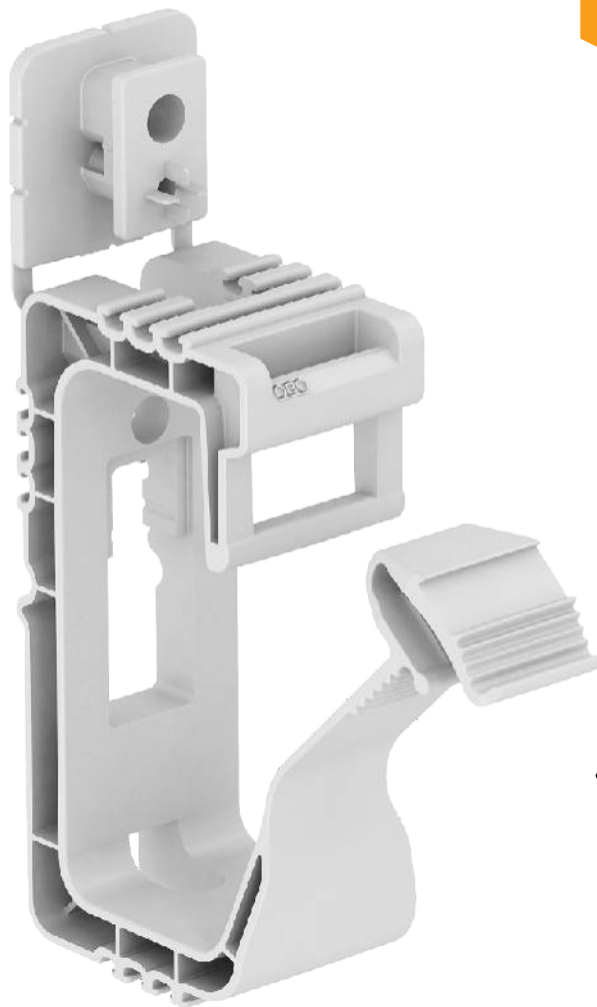
Type	Dowel Ø mm	Length mm	Bore hole depth mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>910 STQS 6x26</b>	6	26	30	100	0.110	<b>2351650</b>

PA Polyamide

Push-fit anchor suitable for Quick clip, type 2957. The anchor is fixed to the Quick clip by a locking mechanism. Suitable for rapid mounting in concrete walls and masonry. The anchor is pushed into the hole until the clip makes contact with the surface.

## Grip, cable tidy

- Wall and ceiling mounting
- Can be joined together “back to back”
- For multiple cables
- Rapid installation using the fastening element
- Ideal for retroinstallation
- Flame-resistant version, stone grey, to DIN EN 0471 / DIN IEC 695 Part 2-1, test temperature 960 °C



Wall  
and ceiling mounting

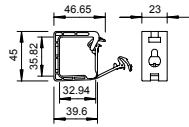
Cable tidy for general use, suitable for wall and ceiling mounting. The

moulded fastening element can be fastened using knock-in anchors

or a gas pressure nail gun.



## GRIP 10



Type	No. of conductors	NYM 3 x 1.5	Colour	Pack.		Weight	Item No.
				pcs	kg/100 pcs.		
2031 10	10		Light grey	50	0.765		2205398
2031 F 10	10		Stone grey	50	0.798		2205400

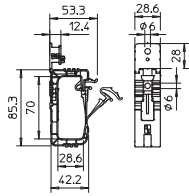
PP Polypropylene

The new GRIP plastic grouped supports are suitable for mounting installation cables. Besides the known advantages of grouped supports, they have special features which considerably simplify mounting:

In addition, the Grip grouped supports are available in a hardly flammable version.

The Grip grouped supports will support you in a proper and safe installation of installation cables, even under difficult circumstances.

## GRIP 20

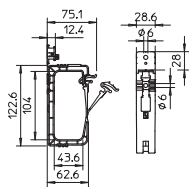


Type	No. of conductors	NYM 3 x 1.5	Colour	Pack.		Weight	Item No.
				pcs	kg/100 pcs.		
2031 20	20		Light grey	50	1.920		2205404
2031 20 SP	20		Light grey	100	1.920		2205408
2031 F 20	20		Stone grey	50	1.920		2205412

PP Polypropylene

Cable tidy for general use, suitable for wall and ceiling mounting. The moulded fastening element can be fastened using knock-in anchors or a gas pressure nail gun.

## GRIP 40



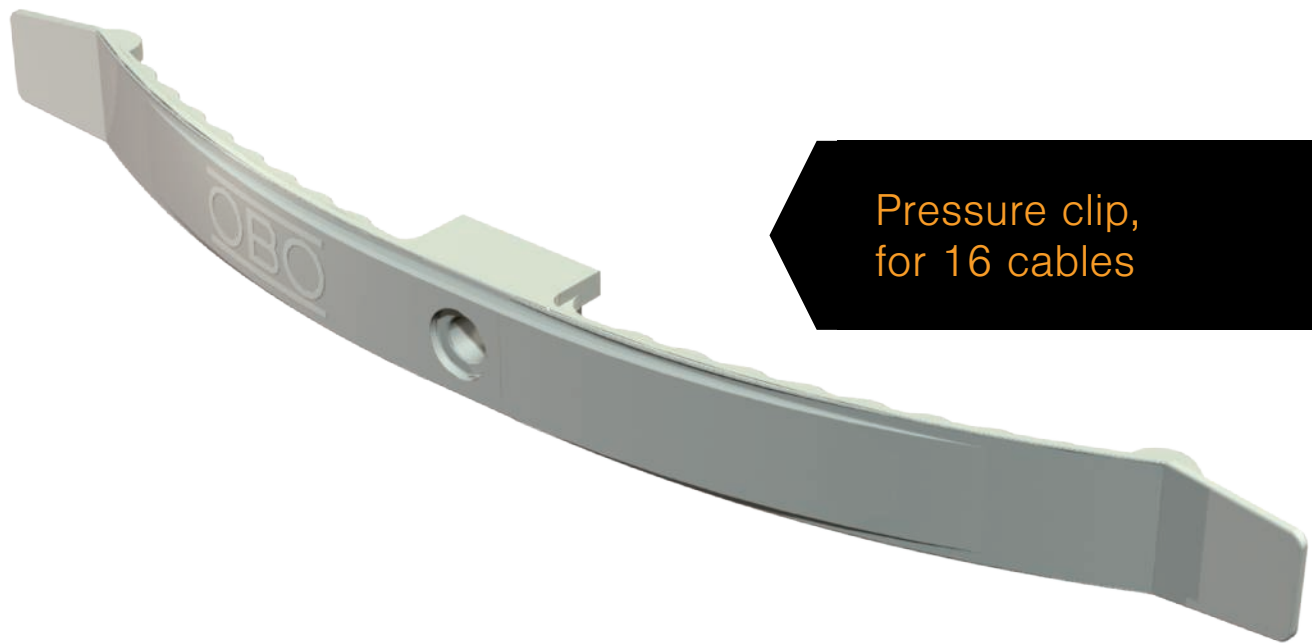
Type	No. of conductors	NYM 3 x 1.5	Colour	Pack.		Weight	Item No.
				pcs	kg/100 pcs.		
2031 40	40		Light grey	25	3.610		2205416
2031 40 SP	40		Light grey	50	3.280		2205420
2031 F 40	40		Stone grey	25	3.610		2205423

PP Polypropylene

Cable tidy for general use, suitable for wall and ceiling mounting. The moulded fastening element can be fastened using knock-in anchors or a gas pressure nail gun.

## Pressure clip

- Striking surface on top
- Specially adapted corrugation
- Spacer for larger cable diameters
- Connectable
- With knock-in anchor



Pressure clip,  
for 16 cables

The quicker, the better – this also applies to installations in false ceilings. The pressure clips from OBO Bettermann are made of high-quality polyamide and simplify the routing of cables under the ceiling.

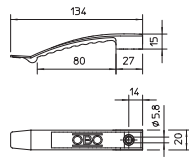
The pressure clip is an ideal solution for areas in which every centimetre counts. Mounting is very simple using an M6 knock-in anchor. The top impact surface simplifies contact with the impact bolt

on knocking in. After mounting the cables are passed under the clips in a "lasso technique" hand movement – and that's all there is to it!



## Pressure clip

### Pressure clip for 8 cables

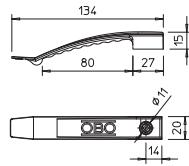


Type	No. of conductors NYM 3 x 1.5	Colour	Pack.		Weight kg/100	Item No.
			pcs	pcs.		
<b>2032</b>	8	Light grey	50	1.371		<b>2205017</b>
<b>2032 SP</b>	8	Light grey	100	1.371		<b>2204975</b>
<b>2032 F</b>	8	Stone grey	50	1.412		<b>2204908</b>

PA Polyamide PBPT Polybutylene terephthalate

Standard version for general use, e.g. on intermediate ceilings and partition walls.  
Clamping height 9 mm – with spacer 13 mm.  
Fastening hole: 6 mm Ø.

### Pressure clip for 8 cables, connectable

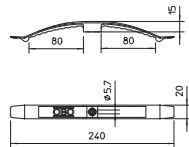


Type	No. of conductors NYM 3 x 1.5	Colour	Pack.		Weight kg/100	Item No.
			pcs	pcs.		
<b>2032 AS</b>	8	Light grey	50	1.300		<b>2205052</b>

PA Polyamide

Version suitable for fixing with gas pressure nail gun (i.e. by SPIT), for example for use on intermediate ceilings and partition walls.  
Clamping height: 9 mm, with spacer 13 mm.  
Fastening hole: 7 mm Ø.

### Pressure clip for 16 cables

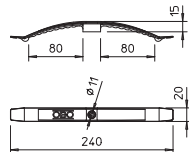


Type	No. of conductors NYM 3 x 1.5	Colour	Pack.		Weight kg/100	Item No.
			pcs	pcs.		
<b>2033</b>	16	Light grey	25	2.077		<b>2205033</b>
<b>2033 SP</b>	16	Light grey	100	2.077		<b>2204983</b>
<b>2033 F</b>	16	Stone grey	25	2.588		<b>2204916</b>

PA Polyamide PBPT Polybutylene terephthalate

Standard version for general use, e.g. on intermediate ceilings and partition walls.  
Clamping height 9 mm – with spacer 13 mm.  
Fastening hole: 6 mm Ø.

### Pressure clip for 16 cables, connectable



Type	No. of conductors NYM 3 x 1.5	Colour	Pack.		Weight kg/100	Item No.
			pcs	pcs.		
<b>2033 AS</b>	16	Light grey	25	2.100		<b>2205053</b>

PA Polyamide

Version suitable for fixing with gas pressure nail gun (i.e. by SPIT), for example for use on intermediate ceilings and partition walls.  
Clamping height: 9 mm, with spacer 13 mm.  
Fastening hole: 7 mm Ø.



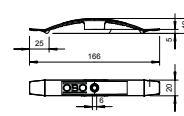
## Pressure clip for 10 cables



Type	No. of conductors		Pack. pcs.	Weight		Item No.
	NYM 3 x 1.5	Colour		kg/100 pcs.	pcs.	
<b>2034</b>	10	Light grey	50	1.169	<b>2205041</b>	
<b>2034 SP</b>	10	Light grey	100	1.169	<b>2204991</b>	
<b>2034 F</b>	10	Stone grey	50	0.808	<b>2204924</b>	

PA Polyamide PBPT Polybutylene terephthalate

Standard version for general use, e.g. on intermediate ceilings and partition walls.  
Clamping height 9 mm – with spacer 13 mm.  
Fastening hole: 6 mm Ø.



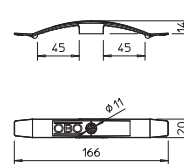
## Pressure clip for 10 cables, connectable



Type	No. of conductors		Pack. pcs.	Weight		Item No.
	NYM 3 x 1.5	Colour		kg/100 pcs.	pcs.	
<b>2034 AS</b>	10	Light grey	50	1.130	<b>2205054</b>	

PA Polyamide

Version suitable for fixing with gas pressure nail gun (i.e. by SPIT), for example for use on intermediate ceilings and partition walls.  
Clamping height: 9 mm, with spacer 13 mm.  
Fastening hole: 7 mm Ø.



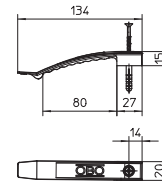
## Pressure clip with knock-in anchor, for 8 cables



Type	No. of conductors		Pack. pcs.	Weight		Item No.
	NYM 3 x 1.5	Colour		kg/100 pcs.	pcs.	
<b>2032 SD</b>	8	Light grey	50	1.791	<b>2204800</b>	
<b>2032 SD SP</b>	8	Light grey	100	1.791	<b>2204851</b>	

PA Polyamide

With pre-mounted knock-in anchor, 6 mm Ø.  
Required drill hole depth 50 mm.  
Clamping height 9 mm – with spacer 13 mm.  
Fastening hole 6 mm Ø.



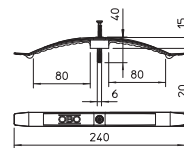
## Pressure clip with knock-in anchor, for 16 cables



Type	No. of conductors		Pack. pcs.	Weight		Item No.
	NYM 3 x 1.5	Colour		kg/100 pcs.	pcs.	
<b>2033 SD</b>	16	Light grey	25	2.515	<b>2204819</b>	
<b>2033 SD SP</b>	16	Light grey	100	2.515	<b>2204878</b>	

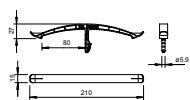
PA Polyamide

With pre-mounted knock-in anchor, 6 mm Ø.  
Required drill hole depth 50 mm.  
Clamping height 9 mm – with spacer 13 mm.  
Fastening hole 6 mm Ø.



## Pressure clip

### Pressure clip with push-fit anchor

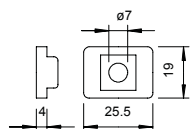


Type	No. of conductors	NYM 3 x 1.5	Colour	Pack.		Weight	Item No.
				pcs	kg/100 pcs.		
<b>2033 STD</b>	16		Light grey	25	1.037		<b>2204541</b>

PA Polyamide

With moulded push fit plug, 6 mm Ø.

### Spacer

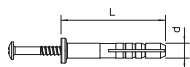


Type	Colour	Pack.		Weight	Item No.
		pcs	kg/100 pcs.		
<b>2033 D 25x19</b>	Light grey	100	0.173		<b>2205092</b>

PS Polystyrene

To increase the clamping height of pressure clips from 10 to 13 mm for thicker cables, impact-resistant polystyrene.

### Knock-in anchor



Type	Dowel Ø	Length	Shipping box	Pack.		Weight	Item No.
				pcs	kg/100 pcs.		
<b>910 SD 6X35</b>	6	35	1200	100	0.310		<b>2351056</b>
<b>910 SD 6X40</b>	6	40	1000	100	0.555		<b>2351064</b>

PA Polyamide

Knock-in anchor: steel, electrogalvanised and transparently passivated.

## Series pressure clip, light grey



Type	Clamping range D mm	Colour	Pack.		Item No.
			pcs	kg/100 pcs.	
<b>2037 3-7 LGR</b>	3 - 7	Light grey	100	0.260	<b>2250071</b>
<b>2037 6-13 LGR</b>	6 - 13	Light grey	100	0.359	<b>2250136</b>
<b>2037 12-20 LGR</b>	12 - 20	Light grey	50	0.572	<b>2250209</b>
<b>2037 16-24 LGR</b>	16 - 24	Light grey	50	0.838	<b>2250241</b>
<b>2037 18-30 LGR</b>	18 - 30	Light grey	25	0.997	<b>2250306</b>
<b>2037 27-43 LGR</b>	27 - 43	Light grey	25	1.615	<b>2250438</b>

PA Polyamide

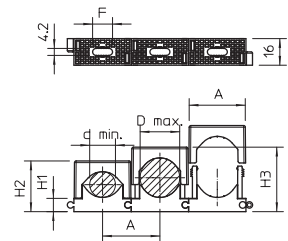
Universal clip for the single fastening of cables and pipes, all sizes can be seamlessly expanded among each other, with adhesive foot, slot and for screwing to M6 thread.

To stick the polyamide clips to masonry and concrete, use Impu-Fix ribbon conductor quick adhesive, type 509.

\*Sizes 3–7 are not suitable for nail guns.



Type	Clamping range D mm	Dimension A mm	Dimension H1 mm	Dimension H2 mm	Dimension H3 mm	Dimension d min. mm	Dimension d max. mm	Dimension F mm	Dimension F mm
<b>2037 3-7 LGR</b>	3 - 7	14.5	7.5	15.5	19.5	3	7	6	6
<b>2037 6-13 LGR</b>	6 - 13	20	8.5	20	27	6	13	13	13
<b>2037 12-20 LGR</b>	12 - 20	28	8.5	26	34	12	20	14	14
<b>2037 16-24 LGR</b>	16 - 24	34.5	8.5	31	39	16	24	12	12
<b>2037 18-30 LGR</b>	18 - 30	40	9	34	46	18	30	12	12
<b>2037 27-43 LGR</b>	27 - 43	55	10.5	46	62	27	43	15	15



## Pressure ISO clip 3050, single



Type	Clamping range D mm	Colour	Pack.		Item No.
			pcs	kg/100 pcs.	
<b>3050 LGR</b>	6 - 16	Light grey	100	0.400	<b>2101017</b>
<b>3051 LGR</b>	14 - 24	Light grey	50	0.720	<b>2101033</b>
<b>3052 LGR</b>	24 - 34	Light grey	25	1.290	<b>2101068</b>

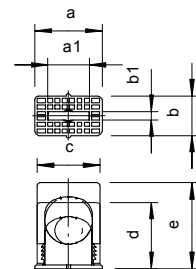
PS Polystyrene

With adhesive base, slot and for screwing to M6 thread.

Use the Impu-Fix ribbon conductor quick adhesive, type 509, to stick the polystyrene clips to masonry and concrete.



Type	Clamping range D mm	Dimension a1 mm	Dimension b1 mm	Dimension a mm	Dimension b mm	Dimension c mm	Dimension d mm	Dimension e mm	Dimension e mm
<b>3050 LGR</b>	6 - 16	13	4	28	18	22.5	25	34	34
<b>3051 LGR</b>	14 - 24	21	4.2	34	20	32	33	43	43
<b>3052 LGR</b>	24 - 34	16	4.2	45	24	43	43	57	57



## Pressure ISO clip, double

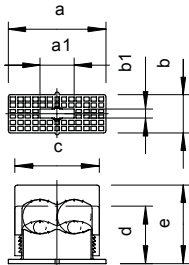


Type	Clamping range D mm	Colour	Weight		Item No.
			Pack. pcs	kg/100 pcs	
<b>3050 2 6-16</b>	6 - 16	Light grey	25	1.044	<b>2115018</b>

**PS** Polystyrene

For two cables, with adhesive base, slot and for screwing to M6 thread.

Use the Impu-Fix ribbon conductor quick adhesive, type 509, to stick the polystyrene clips to masonry and concrete.



Type	Clamping range D mm	Dimension a1 mm	Dimension b1 mm	Dimension a mm	Dimension b mm	Dimension c mm	Dimension d mm	Dimension e mm
<b>3050 2 6-16</b>	6 - 16	26	3.8	46	18	40	26	35

## Grip ISO clip, single

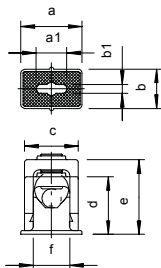


Type	Clamping range D mm	Colour	Weight		Item No.
			Pack. pcs	kg/100 pcs	
<b>3040 LGR</b>	6 - 16	Light grey	100	0.532	<b>2105012</b>
<b>3041 LGR</b>	16 - 24	Light grey	50	1.168	<b>2105039</b>
<b>3042 LGR</b>	24 - 34	Light grey	25	2.488	<b>2105055</b>

**PS** Polystyrene

Solid cable fastening through clamping screws, with adhesive base, slot and for screwing to M6 thread.

Use the Impu-Fix ribbon conductor quick adhesive, type 509, to stick the polystyrene clips to masonry and concrete.



Type	Clamping range D mm	Dimension a1 mm	Dimension b1 mm	Dimension a mm	Dimension b mm	Dimension c mm	Dimension d mm	Dimension e mm	Dimension f mm
<b>3040 LGR</b>	6 - 16	13.5	4	28	18	24.5	28	35	20
<b>3041 LGR</b>	16 - 24	20	4.2	35	22	37	36	44	31
<b>3042 LGR</b>	24 - 34	14	4.2	50	22	48	49	59	40



## Grip ISO clip, double

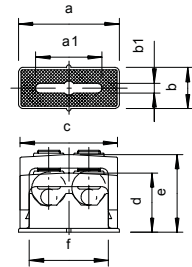
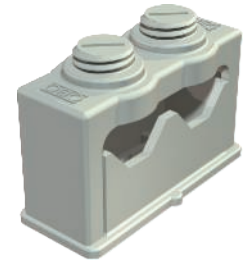


Type	Clamping range D mm	Colour	Pack. pcs	Weight kg/100 pcs	Item No.
<b>3041 2</b>	16 - 24	Light grey	25	1.948	<b>2107031</b>

PS Polystyrene

Solid cable fastening through clamping screws, with adhesive base, slot and for screwing to M6 thread. Use the Impu-Fix ribbon conductor quick adhesive, type 509, to stick the polystyrene clips to masonry and concrete.

Type	Clamping range D mm	Dimension a1 mm	Dimension b1 mm	Dimension a mm	Dimension b mm	Dimension c mm	Dimension d mm	Dimension e mm	Dimension f mm
<b>3040 2</b>	6 - 16	16	4.2	44	18	43	28	35	38
<b>3041 2</b>	16 - 24	46	4.5	63	22	61	37	46	55



## Grip ISO clip, triple

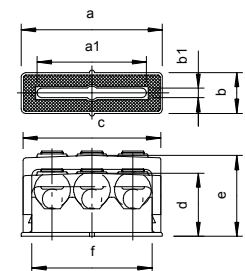
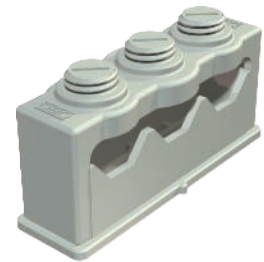


Type	Clamping range D mm	Colour	Pack. pcs	Weight kg/100 pcs	Item No.

PS Polystyrene

Solid cable fastening through clamping screws, with adhesive base, slot and for screwing to M6 thread. Use the Impu-Fix ribbon conductor quick adhesive, type 509, to stick the polystyrene clips to masonry and concrete.

Type	Clamping range D mm	Dimension a1 mm	Dimension b1 mm	Dimension a mm	Dimension b mm	Dimension c mm	Dimension d mm	Dimension e mm	Dimension f mm
<b>3040 3</b>	6 - 16	48	4	62	18	61	31	38	55





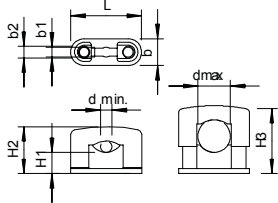
## SOM clip, single



Type	Clamping range D mm	Colour	Pack. pcs	Weight		Item No.
				kg/100 pcs.		
3079 LGR	5 - 14	Light grey	50	0.431		2124149
3080 LGR	6 - 17	Light grey	50	0.926		2124173
3081 LGR	15 - 25	Light grey	25	1.860		2124254
3082 LGR	22 - 34	Light grey	25	2.055		2124343

PS Polystyrene

With plastic screws, so corrosion-protected, with slot for fastening with wood screws or 5 mm knock-in anchors.



Type	Clamping range D mm	Dimension L mm	Dimension d min. mm	Dimension d max. mm	Dimension H1 mm	Dimension H2 mm	Dimension H3 mm	Dimension b mm	Dimension b1 mm	Bolt
3079 LGR	5 - 14	31	5	13	10.5	20	29	12	4.2	M5 x 14
3080 LGR	6 - 17	37	6	17	11	24.5	35.5	14	4	M6 x 18
3081 LGR	15 - 25	51	14	25	11.5	33	44	17	5	M8 x 23
3082 LGR	22 - 34	62	22	34	11	40	52	18	5.2	M8 x 23

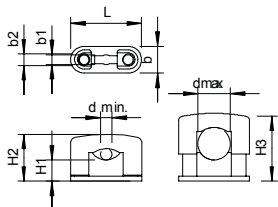
## SOM clip, hardly flammable



Type	Clamping range D mm	Colour	Pack. pcs	Weight		Item No.
				kg/100 pcs.		
3083 LGR	32 - 45	Light grey	20	5.840		2124459

UF Duroplast, Aminoplast, type 131.5

With plastic screws, so corrosion-protected, with slot for fastening with wood screws or 5 mm knock-in anchors. Hardly inflammable.



## ISO base clip



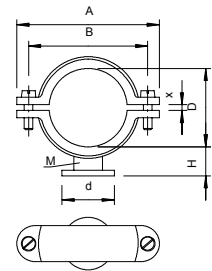
Type	Clamping range D mm	Colour	Pack. pcs.	Weight kg/100 pcs.	Item No.
2960 11 M6 LGR	9 - 11	Light grey	50	0.549	2130114
2960 12 M6 LGR	12 - 13	Light grey	50	0.480	2130122
2960 15 M6 LGR	15 - 17	Light grey	50	0.510	2130157
2960 18 M6 LGR	16.5 - 18	Light grey	50	0.791	2130181
2960 22 M6 LGR	20.5 - 22	Light grey	50	0.951	2130211
2960 25 M6 LGR	22.5 - 25	Light grey	25	1.221	2130254
2960 28 M6 LGR	25.5 - 28	Light grey	25	1.341	2130289
2960 35 M6 LGR	31.5 - 35	Light grey	25	1.761	2130351
2960 40 M6 LGR	36.5 - 40	Light grey	20	3.017	2130408
2960 43 M6 LGR	40.5 - 43	Light grey	20	3.098	2130432
2960 47 M6 LGR	45.5 - 47	Light grey	15	4.235	2130475
2960 54 M6 LGR	50.5 - 54	Light grey	15	4.524	2130548

PS Polystyrene

Can be screwed onto M6 thread.



Type	Clamping range D mm	Dimension A mm	Dimension B mm	Dimension x mm	Dimension H mm	Dimension d mm	Thread
2960 11 M6 LGR	9 - 11	35	25	2.2	11.6	17	M6
2960 12 M6 LGR	12 - 13	35	25	1	10	17	M6
2960 15 M6 LGR	15 - 17	38	28	0	11.5	18	M6
2960 18 M6 LGR	16.5 - 18	46	34	2	12	20	M6
2960 22 M6 LGR	20.5 - 22	50	38	2	14	21	M6
2960 25 M6 LGR	22.5 - 25	55	43	3	16	23	M6
2960 28 M6 LGR	25.5 - 28	58	46	3	17.5	24	M6
2960 35 M6 LGR	31.5 - 35	66	54	4	18.5	28	M6
2960 40 M6 LGR	36.5 - 40	80	66	4	23	34	M6
2960 43 M6 LGR	40.5 - 43	80	66	3	21	34	M6
2960 47 M6 LGR	45.5 - 47	98	82	2	22.5	36	M6
2960 54 M6 LGR	50.5 - 54	98	82	4	20	36	M6



## Lightning ISO clip



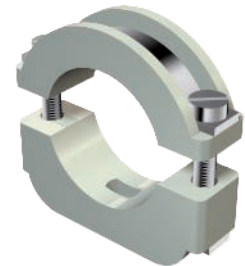
Type	Clamping range D mm	Colour	Pack. pcs.	Weight kg/100 pcs.	Item No.
3015 12 LGR	6 - 12	Light grey	50	1.600	2157128
3015 17 LGR	10 - 17	Light grey	50	1.742	2157179
3015 24 LGR	17 - 24	Light grey	50	2.542	2157241
3015 34 LGR	24 - 34	Light grey	25	3.620	2157349

PS Polystyrene

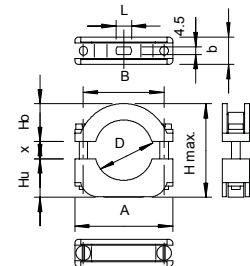
Lightning ISO clips: plastic clip with metal insert, therefore also suitable for heavy-duty applications; metal parts made of electrogalvanised steel.

3015 with 4.5 mm slot.

\*Sizes 6–12 and 10–17 not suitable for bolt-firing device.



Type	Clamping range D mm	Dimension A mm	Dimension B mm	Dimension H mm	Dimension Ho mm	Dimension Hu mm	Dimension L mm	Dimension b mm	Bolt
3015 12 LGR	6 - 12	34	24	30	9.5	13.5	7.5	14	M4 x 22
3015 17 LGR	10 - 17	38	28	36.5	12	14	7.5	14	M4 x 25
3015 24 LGR	17 - 24	47.5	37	43	16	18	10	15	M4 x 30
3015 34 LGR	24 - 34	57	47	54.4	22	22	9	16	M5 x 35



Lightning ISO clip, screw-on



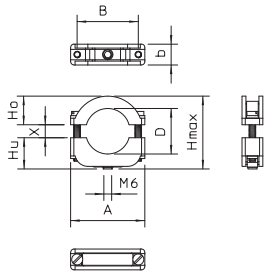
Type	Clamping range D mm	Colour	Pack. pcs	Weight kg/100 pcs	Item No.
3019 M6 LGR	6 - 12	Light grey	50	1.564	2158124
3020 LGR	10 - 17	Light grey	50	1.588	2158175
3021 LGR	17 - 24	Light grey	25	2.632	2158248
3022 LGR	24 - 34	Light grey	25	3.623	2158345

PS Polystyrene

Lightning ISO clips: plastic clip with metal insert, therefore also suitable for heavy-duty applications; metal parts made of electrogalvanised steel.

Can be screwed onto M6 thread.

\*Sizes 6–12 and 10–17 not suitable for bolt-firing device.



Type	Clamping range D mm	Dimension A mm	Dimension b mm	Dimension B mm	Dimension H mm	Dimension Ho mm	Dimension Hu mm	Dimension x mm	Bolt
3019 M6 LGR	6 - 12	34	14	24	32.5	9.5	13.5	6	M4 x 22
3020 LGR	10 - 17	38	14	28	36	12	14	7	M4 x 25
3021 LGR	17 - 24	47.5	15	37	44	16	18	8	M4 x 30
3022 LGR	24 - 34	57	16	47	56	22	22	10	M5 x 35

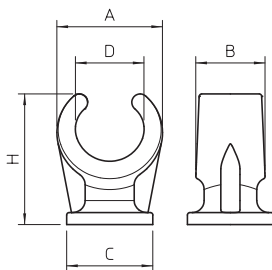
Base clamp clip, single



Type	Size	Colour	Pack. pcs	Weight kg/100 pcs	Item No.
2962 6 LGR	6	Light grey	100	0.080	2140063
2962 8 LGR	8	Light grey	100	0.106	2140071
2962 10 LGR	10	Light grey	100	0.136	2140101
2962 12 LGR	12	Light grey	100	0.182	2140128
2962 15 LGR	14-15	Light grey	100	0.277	2140152
2962 18 LGR	16-18	Light grey	100	0.377	2140187
2962 22 LGR	19-22	Light grey	50	0.514	2140233
2962 28 LGR	25-28	Light grey	25	0.948	2140284
2962 35 LGR	32-35	Light grey	25	1.295	2140357
2962 42 LGR	40-42	Light grey	25	1.709	2140411

PP Polypropylene

Can be screwed onto M6 thread.



Type	Clamping range D mm	Dimension A mm	Dimension B mm	Dimension C mm	Dimension H mm
2962 6 LGR	6	11.5	10	13.5	17
2962 8 LGR	8	14	11	14	19
2962 10 LGR	10	16.5	12	15	20.5
2962 12 LGR	12	19	13	16	23
2962 15 LGR	14 - 15	22	14.5	18	28
2962 18 LGR	16 - 18	24.5	15.5	20	30
2962 22 LGR	19 - 22	29.2	17	22	34
2962 28 LGR	25 - 28	38.8	20	25	41
2962 35 LGR	32 - 35	47	22	29	51
2962 42 LGR	40 - 42	54	23	32	58

## Base clamp clip, double

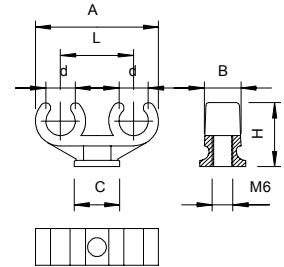


Type	Size	Colour	Pack. pcs.	Weight kg/100 pcs.	Item No.
2962 2X10	10 + 10	Light grey	100	0.283	2140608
2962 2x16	15/16 + 15/16	Light grey	50	0.809	2140683
2962 2x22	18/22 + 18/22	Light grey	25	1.064	2140721

PP Polypropylene

Can be screwed onto M6 thread.

Type	Clamping range D mm	Dimension A mm	Dimension B mm	Dimension C mm	Dimension L mm	Dimension H mm
2962 2X10	10	40.5	12	Ø 15	24	21
2962 2x16	15 - 16	57.5	15.5	20 x 33	33	30
2962 2x22	18 - 22	67	17	22 x 38	38	34



## Fastening clip

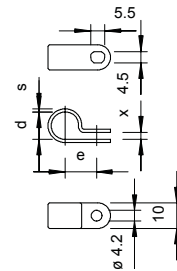


Type	For cable Ø mm	Colour	Pack. pcs.	Weight kg/100 pcs.	Item No.
255 3.2 LGR	3.2	Light grey	100	0.031	2222035
255 5.2 LGR	5.2	Light grey	100	0.038	2222051
255 6.5 LGR	6.5	Light grey	100	0.045	2222078
255 8 LGR	8	Light grey	100	0.054	2222086
255 9.5 LGR	9.5	Light grey	100	0.063	2222094
255 11 LGR	11	Light grey	100	0.073	2222116
255 12.5 LGR	12.5	Light grey	100	0.078	2222124
255 14 LGR	14	Light grey	100	0.103	2222140
255 16 LGR	16	Light grey	100	0.126	2222167
255 17.5 LGR	17.5	Light grey	100	0.123	2222175

PA Polyamide

Fastening clip for secure all-round fixing of cables.

Type	For cable Ø mm	Dimension d mm	Dimension e mm	Dimension s mm	Dimension x mm
255 3.2 LGR	3.2	3	8.5	1	1.8
255 5.2 LGR	5.2	5	9.5	1	1.8
255 6.5 LGR	6.5	6.3	10	1	2.2
255 8 LGR	8	7.8	10	1.2	2.2
255 9.5 LGR	9.5	9.3	11	1.2	2.2
255 11 LGR	11	10.8	13	1.2	2.8
255 12.5 LGR	12.5	12.3	14	1.2	2.8
255 14 LGR	14	13.8	15	1.5	3.2
255 16 LGR	16	15.8	16	1.5	3.2
255 17.5 LGR	17.5	17.2	17	1.5	3.2



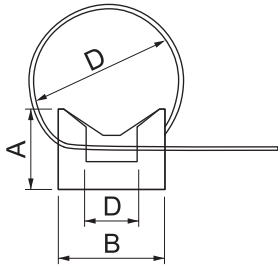
## CTC cable tie clip



Type	Dimension mm	Max. bundle Ø mm	Minimum breaking load kN	Colour	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>CTC 7,5x180 LGR</b>	16 - 32	32	0.36	Light grey	100	0.600	<b>2332790</b>
<b>CTC 7,5x280 LGR</b>	40 - 63	63	0.36	Light grey	100	0.900	<b>2332794</b>

**PA** Polyamide

With the cable tie clip from OBO Bettermann, you can profit from faster and more reliable fastening of cables and pipes. The internally toothed cable tie ensures a secure hold and can be adapted to up to 4 pipe sizes. The CTC cable tie clip is made of halogen-free polyamide and can thus be used easily in interiors and protected external areas.



Type	Length mm	Width mm	Height mm
<b>CTC 7,5x180 LGR</b>	180	7.5	1.5
<b>CTC 7,5x280 LGR</b>	281	7.5	1.5

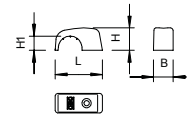


### ISO nail clamp 4028 2-4

Type	For cable Ø mm	Colour	Pack. pcs.	Weight kg/100 pcs.	Item No.
4028	2 - 4	Light grey	100	0.025	2215047
4029	4 - 7	Light grey	100	0.028	2215071
4030	7 - 11	Light grey	100	0.053	2215101
4031 10-14	10 - 14	Light grey	100	0.104	2215144
4031 14-17	14 - 17	Light grey	100	0.155	2215179
4032	16 - 20	Light grey	100	0.214	2215209

PP Polypropylene

OBO makes various fastening systems available for fastening cables securely on different substrates. Starting with the adhesive clip or ISO nail clips for fastening, e.g. on wooden beams, up to the Nail-Fix for fixing in masonry slits, OBO can offer a wide range of clips for nail fastening, suitable for steel nails 2 mm.



#### Dimensions

Type	For cable Ø mm	Dimen- sion B mm	Dimen- sion L mm	Dimen- sion H mm	Dimen- sion H1 mm
4028	2 - 4	7	14.5	4.5	1.5

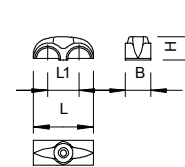
### Double ISO nail clip



Type	For cable Ø mm	Colour	Pack. pcs.	Weight kg/100 pcs.	Item No.
3030 2	7 - 11	Light grey	100	0.084	2213117

PS Polystyrene

Nail clips to fasten two cables.



#### Dimensions

Type	For cable Ø mm	Dimen- sion B mm	Dimen- sion L mm	Dimen- sion H mm
3030 2	7 - 11	9	27	10.5

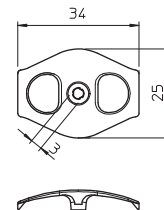
### Nail-Fix, without nail



Type	For nail Ø x l mm	Colour	Pack. pcs.	Weight kg/100 pcs.	Item No.
1996 O	3,0 - 3,5	Transparent	100	0.053	2222809

PP Polypropylene

Without nails for refitting Ø 3 mm and 3.5 mm steel nails to fix cables in masonry slots and on masonry for one or two cables NYM 3 x 1.5/2.5 mm<sup>2</sup> or one or two cables NYM 5 x 1.5/2.5 mm<sup>2</sup>.



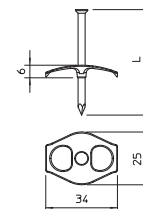
### Nail-Fix, with nail



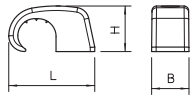
Type	For nail Ø x l mm	Colour	Pack. pcs.	Weight kg/100 pcs.	Item No.
1996 40	3 x 40	Transparent	100	0.267	2222833
1996 50	3,5 x 50	Transparent	100	0.380	2222841
1996 60	3,5 x 60	Transparent	100	0.443	2222868
1996 70	3,5 x 70	Transparent	100	0.773	2222876

PP Polypropylene

With pre-mounted, galvanised steel nail Ø 3 mm or 3.5 mm to fix cables in masonry slots and on masonry for one or two cables NYM 3 x 1.5/2.5 mm<sup>2</sup> or one or two cables NYM 5 x 1.5/2.5 mm<sup>2</sup>.



### Adhesive clip 4039, no nail

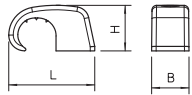


Type	For nail Ø x l mm	For cable Ø mm	Colour	Dimen- sion L mm	Dimen- sion B mm	Dimen- sion H mm	Pack. pcs.	Weight kg/100 pcs.	Item No.
<b>4039</b>	2	4 - 7	Light grey	14.5	7.2	7.1	100	0.028	<b>2215306</b>
<b>4039 SP</b>	2	4 - 7	Light grey	14.5	7.2	7.1	200	0.028	<b>2214873</b>

PP Polypropylene

Adhesive clip, for clamping to the cable, suitable for steel nails 2 mm.

### Adhesive clip 4040, without nail

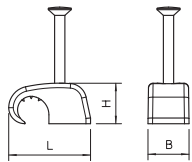


Type	For nail Ø x l mm	For cable Ø mm	Colour	Dimen- sion L mm	Dimen- sion B mm	Dimen- sion H mm	Pack. pcs.	Weight kg/100 pcs.	Item No.
<b>4040</b>	2	7 - 12	Light grey	19.1	8.3	10.1	100	0.053	<b>2215314</b>
<b>4040 SP</b>	2	7 - 12	Light grey	19.1	8.3	10.1	200	0.053	<b>2214881</b>

PP Polypropylene

Adhesive clip, for clamping to the cable, suitable for steel nails 2 mm.

### Adhesive clip 2026, pure white

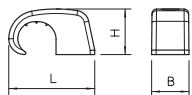


Type	For nail Ø x l mm	For cable Ø mm	Colour	Dimen- sion L mm	Dimen- sion B mm	Dimen- sion H mm	Pack. pcs.	Weight kg/100 pcs.	Item No.
<b>2026 25 RW</b>	2,0 x 25	7 - 12	Pure white	19.1	8.3	10.1	100	0.111	<b>2228422</b>
<b>2026 18 RW</b>	2,0 x 18	7 - 12	Pure white	19.1	8.3	10.1	100	0.097	<b>2228420</b>

PP Polypropylene

Adhesive clip, for clamping to the cable.

### Adhesive clip, without nail

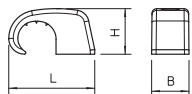


Type	For nail Ø x l mm	For cable Ø mm	Colour	Dimen- sion L mm	Dimen- sion B mm	Dimen- sion H mm	Pack. pcs.	Weight kg/100 pcs.	Item No.
<b>4041</b>	2	10 - 14	Light grey	28	10	13.3	100	0.106	<b>2215349</b>

PP Polypropylene

Adhesive clip, for clamping to the cable, suitable for steel nails 2 mm.

### Adhesive clip 4042, without nail



Type	For nail Ø x l mm	For cable Ø mm	Colour	Dimen- sion L mm	Dimen- sion B mm	Dimen- sion H mm	Pack. pcs.	Weight kg/100 pcs.	Item No.
<b>4042</b>	2	14 - 17	Light grey	32	12	17.8	100	0.181	<b>2215322</b>

PP Polypropylene

Adhesive clip, for clamping to the cable, suitable for steel nails 2 mm.

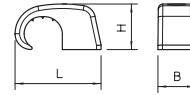
## Adhesive clip 4043, without nail



Type	For nail cable Ø x l		Colour	Dimen-	Dimen-	Dimen-	Pack.	Weight	Item No.
	mm	mm		sion L	sion B	sion H			
4043	2	17 - 21	Light grey	38	12	21.6	100	0.268	2215330

PP Polypropylene

Adhesive clip, for clamping to the cable, suitable for steel nails 2 mm.



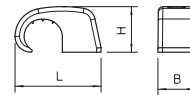
## Adhesive clip 4044, without nail



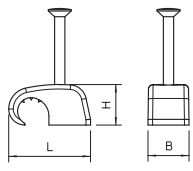
Type	For nail cable Ø x l		Colour	Dimen-	Dimen-	Dimen-	Pack.	Weight	Item No.
	mm	mm		sion L	sion B	sion H			
4044	2	21 - 25	Light grey	45	15	26.7	50	0.399	2215357

PP Polypropylene

Adhesive clip, for clamping to the cable, suitable for steel nails 2 mm.



### Adhesive clip 2025, light grey



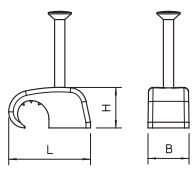
Type	For nail Ø x l mm	For cable Ø mm	Colour	Dimen- sion L mm	Dimen- sion B mm	Dimen- sion H mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>2025 18 LGR</b>	2 x 18	4 - 7	Light grey	14.5	7.2	7.1	100	0.072	<b>2228610</b>
<b>2025 25 LGR</b>	2 x 25	4 - 7	Light grey	14.5	7.2	7.1	100	0.086	<b>2228629</b>

PP Polypropylene

Adhesive clip, for clamping to the cable.

#### Dimensions

### Adhesive clip, pure white



Type	For nail Ø x l mm	For cable Ø mm	Colour	Dimen- sion L mm	Dimen- sion B mm	Dimen- sion H mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>2025 18 RW</b>	2,0 x 18	4 - 7	Pure white	14.5	7.2	7.1	100	0.072	<b>2228686</b>
<b>2025 25 RW</b>	2,0 x 25	4 - 7	Pure white	14.5	7.2	7.1	100	0.086	<b>2228688</b>

PP Polypropylene

Adhesive clip, for clamping to the cable.

#### Dimensions



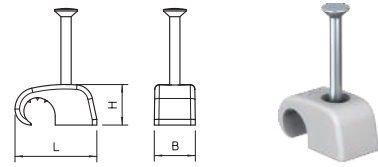
## Adhesive clip 2026, light grey



Type	For nail Ø x l mm	For cable Ø mm	Colour	Dimen- sion L mm	Dimen- sion B mm	Dimen- sion H mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>2026 18 LGR</b>	2 x 18	7 - 12	Light grey	19.1	8.3	10.1	100	0.097	<b>2228718</b>
<b>2026 25 LGR</b>	2 x 25	7 - 12	Light grey	19.1	8.3	10.1	100	0.110	<b>2228726</b>
<b>2026 25 LGR SP</b>	2 x 25	7 - 12	Light grey	19.1	8.3	10.1	200	0.111	<b>2228432</b>
<b>2026 35 LGR</b>	2 x 35	7 - 12	Light grey	19.1	8.3	10.1	100	0.135	<b>2228734</b>
<b>2026 35 LGR SP</b>	2 x 35	7 - 12	Light grey	19.1	8.3	10.1	200	0.135	<b>2228440</b>
<b>2026 45 LGR</b>	2 x 45	7 - 12	Light grey	19.1	8.3	10.1	100	0.156	<b>2228750</b>

PP Polypropylene

Adhesive clip, for clamping to the cable.



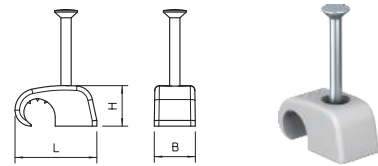
## Adhesive clip 2027, light grey



Type	For nail Ø x l mm	For cable Ø mm	Colour	Dimen- sion L mm	Dimen- sion B mm	Dimen- sion H mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>2027 25 LGR</b>	2,0 x 25	10 - 14	Light grey	28	10	13.3	100	0.161	<b>2228823</b>
<b>2027 30 LGR</b>	2,0 x 30	10 - 14	Light grey	28	10	13.3	100	0.172	<b>2228831</b>
<b>2027 40 LGR</b>	2,0 x 40	10 - 14	Light grey	28	10	13.3	100	0.196	<b>2228858</b>

PP Polypropylene

Adhesive clip, for clamping to the cable.



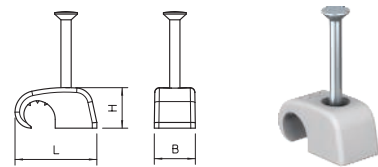
## Adhesive clip 2028, light grey



Type	For nail Ø x l mm	For cable Ø mm	Colour	Dimen- sion L mm	Dimen- sion B mm	Dimen- sion H mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>2028 40 LGR</b>	2,0 x 40	14 - 17	Light grey	32	15	17.8	100	0.270	<b>2228904</b>

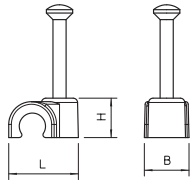
PP Polypropylene

Adhesive clip, for clamping to the cable.





### ISO nail clip 2007, black

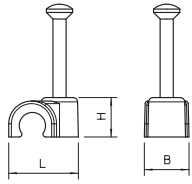


Type	For cable Ø mm	For nail Ø x l mm	Dimension L mm	Dimension B mm	Dimension H mm	Colour	Pack. pcs	Weight kg/100 pcs.	Item No.
2007 25 SW	7	2,0x25	13.7	8	9.4	Jet black	100	0.097	2232146
2008 25 SW	8	2,0x25	15	8	10.6	Jet black	100	0.104	2232170
2009 25 SW	9	2,0x25	16.1	8	11.6	Jet black	100	0.109	2232219
2010 25 SW	10	2,0x25	17.7	8	12.7	Jet black	100	0.123	2232235
2012 35 SW	12	2,0x35	19.8	9	14.8	Jet black	100	0.169	2232316

PP Polypropylene

ISO nail clip, short design

### ISO nail clip 2004, light grey



Type	For cable Ø mm	For nail Ø x l mm	Dimension L mm	Dimension B mm	Dimension H mm	Colour	Pack. pcs	Weight kg/100 pcs.	Item No.
2004 18 LGR	4	2,0x18	9.6	6	6.1	Light grey	200	0.057	2227223
2004 25 LGR	4	2,0x25	9.6	6	6.1	Light grey	200	0.071	2227231
2005 18 LGR	5	2,0x18	10.8	7.1	7.1	Light grey	100	0.063	2227347
2005 25 LGR	5	2,0x25	10.8	7.1	7.1	Light grey	100	0.077	2227339
2006 25 LGR	6	2,0x25	12.5	8	8.1	Light grey	100	0.089	2227428
2006 35 LGR	6	2,0x35	12.5	8	8.1	Light grey	100	0.113	2227436
2007 25 LGR	7	2,0x25	13.7	8	9.4	Light grey	100	0.083	2227517
2007 35 LGR	7	2,0x35	13.7	8	9.4	Light grey	100	0.121	2227525
2008 25 LGR	8	2,0x25	15	8	10.6	Light grey	100	0.103	2227614
2008 35 LGR	8	2,0x35	15	8	10.6	Light grey	100	0.127	2227622
2008 45 LGR	8	2,0x45	15	8	10.6	Light grey	100	0.148	2227630
2009 25 LGR	9	2,0x25	16.1	8	11.6	Light grey	100	0.109	2227711
2009 35 LGR	9	2,0x35	16.1	8	11.6	Light grey	100	0.134	2227738
2009 35 LGR SP	9	2,0x35	16.1	8	11.6	Light grey	200	0.132	2227762
2009 45 LGR	9	2,0x45	16.1	8	11.6	Light grey	100	0.153	2227746
2009 45 LGR SP	9	2,0x45	16.1	8	11.6	Light grey	200	0.155	2227797
2010 25 LGR	10	2,0x25	17.7	8	12.7	Light grey	100	0.122	2227800
2010 35 LGR	10	2,0x35	17.7	8	12.7	Light grey	100	0.146	2227819
2010 45 LGR	10	2,0x45	17.7	8	12.7	Light grey	100	0.167	2227827
2011 35 LGR	11	2,0x35	19	9	14	Light grey	100	0.162	2227916
2011 45 LGR	11	2,0x45	19	9	14	Light grey	100	0.183	2227924
2012 35 LGR	12	2,0x35	19.8	9	14.8	Light grey	100	0.165	2228025
2012 45 LGR	12	2,0x45	19.8	9	14.8	Light grey	100	0.189	2228033
2014 40 LGR	14	2,0x40	24	11	18	Light grey	50	0.466	2228114
2014 50 LGR	14	2,0x50	24	11	18	Light grey	50	0.336	2228122
2016 40 LGR	16	2,0x40	26	12	20	Light grey	50	0.402	2228211
2016 50 LGR	16	2,0x50	26	12	20	Light grey	50	0.361	2228238
2018 40 LGR	18	2,0x40	28	13	22	Light grey	25	0.548	2228300
2018 50 LGR	18	2,0x50	28	13	22	Light grey	25	0.700	2228319
2020 40 LGR	20	2,0x40	31	14	24.5	Light grey	25	0.418	2228408
2020 50 LGR	20	2,0x50	31	14	24.5	Light grey	25	0.463	2228416

PP Polypropylene

ISO nail clip, short design



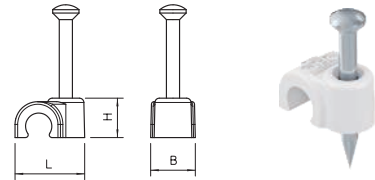
ISO nail clip 2004, white



Type	For cable Ø mm	For nail Ø x l mm	Dimension L mm	Dimension B mm	Dimension H mm	Colour	Pack. pcs	Weight kg/100 pcs.	Item No.
2004 18 RW	4	2,0x18	9.6	6	6.1	Pure white	200	0.057	2225220
2004 25 RW	4	2,0x25	9.6	6	6.1	Pure white	200	0.071	2225239
2005 18 RW	5	2,0x18	10.8	7.1	7.1	Pure white	100	0.064	2225379
2005 25 RW	5	2,0x28	10.8	7.1	7.1	Pure white	100	0.078	2225344
2006 18 RW	6	2,0x18	12.5	8	8.1	Pure white	100	0.075	2225409
2006 25 RW	6	2,0x25	12.5	8	8.1	Pure white	100	0.089	2225417
2006 35 RW	6	2,0x35	12.5	8	8.1	Pure white	100	0.113	2225425
2007 18 RW	7	2,0x18	13.7	8	9.4	Pure white	100	0.083	2225506
2007 25 RW	7	2,0x25	13.7	8	9.4	Pure white	100	0.097	2225514
2007 35 RW	7	2,0x35	13.7	8	9.4	Pure white	100	0.121	2225522
2008 25 RW	8	2,0x25	15	8	10.6	Pure white	100	0.104	2225611
2008 35 RW	8	2,0x35	15	8	10.6	Pure white	100	0.128	2225638
2009 25 RW	9	2,0x25	16.1	8	11.6	Pure white	100	0.107	2225719
2009 35 RW	9	2,0x35	16.1	8	11.6	Pure white	100	0.131	2225727
2010 25 RW	10	2,0x25	17.7	8	12.7	Pure white	100	0.123	2225808
2010 35 RW	10	2,0x35	17.7	8	12.7	Pure white	100	0.147	2225816
2011 25 RW	11	2,0x25	19	9	14	Pure white	100	0.138	2225905
2011 35 RW	11	2,0x35	19	9	14	Pure white	100	0.162	2225913
2012 25 RW	12	2,0x25	19.8	9	14.8	Pure white	100	0.145	2226014
2012 35 RW	12	2,0x35	19.8	9	14.8	Pure white	100	0.169	2226022
2014 30 RW	14	2,0x30	24	11	18	Pure white	50	0.432	2226103
2014 40 RW	14	2,0x40	24	11	18	Pure white	50	0.303	2226111
2016 40 RW	16	2,0x40	26	12	20	Pure white	50	0.320	2226219
2018 40 RW	18	2,0x40	28	13	22	Pure white	25	0.548	2226308
2020 40 RW	20	2,0x40	31	14	24.5	Pure white	25	0.419	2226405

PP Polypropylene

ISO nail clip, short design



Type	Colour	Pack. pcs	Weight kg/100 pcs.	Item No.
507	Light grey	100	1.200	2327104

PS Polystyrene

Self-adhesive

Cable clip







## Cable/pipe fastening systems, metal

	<b>Quick Clip, aluminium</b>	301
	<b>Cable tidy</b>	303
	<b>Pressure clip</b>	305
	<b>Cable and pipe spacer clip</b>	307
	<b>Fastening clip</b>	315
	<b>Strain relief clip</b>	327



# Be on the safe side.

OBO's metal clip range for pipe and cable fastening offers users a wide range of fastening and routing options. Users are completely free in the design of their systems. The metal clips from OBO Bettermann are impressively sturdy and are available in a very wide range of materials and finishes.

Corrosive environments present little problem, for example, for clips made from A4 quality stainless steel. In addition, many products are approved for installations tested for the maintenance of electrical functionality, so fulfil very tough requirements regarding stability, service life and, above all, resistance to fire loads.

The metal clips protect cables optimally during both installation and subsequent operation.

- ✓ Unique product range
- ✓ Wide range of application options
- ✓ Diverse materials from aluminium to steel and stainless steel
- ✓ Products tested for maintenance of electrical function



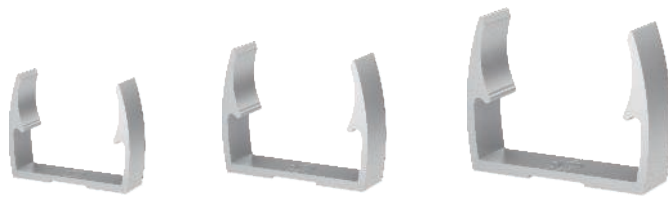


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Always indicate the item number when ordering.

**Quick clip, aluminium**

- Modern design
- High holding forces

**Grip M cable tidy**

- Practical handling
- Tested for maintenance of electrical function
- Wall and ceiling mounting

**Pressure clip**

- Tested for maintenance of electrical function
- Retroinstallation possible

**Cable and pipe spacer clip**

- Sturdy
- Can be used individually
- Tested for maintenance of electrical function

**Cable and pipe spacer clip**

- Sturdy
- Can be used individually
- Tested for maintenance of electrical function

**Fastening clip, light-duty, single-lobe**

- Light-duty version
- Wide variety of sizes

**Fastening clip, medium-duty, single-lobe**

- Medium-duty version
- Wide variety of sizes



### Fastening clip, heavy-duty, single-lobe

- Heavy-duty design
- Wide variety of sizes



### Fastening clip, medium-duty, double-lobe

- Medium-duty version
- Wide variety of sizes



### Fastening clip, heavy-duty, double-lobe

- Heavy-duty design
- Wide variety of sizes





## Quick clip, aluminium

- Strong clip holding forces thanks to optimised geometry
- Centre mark around slot for easy alignment
- Pipe centring aids for easy insertion of the pipe
- Modern, attractive design



The perfect match for the aluminium pipe range

OBO's aluminium Quick clip offers installers a high-quality means of fastening electrical installation pipes. The ingenious design of this product allows fast, easy installa-

tion on walls and ceilings. The clip boasts impressively high holding forces.

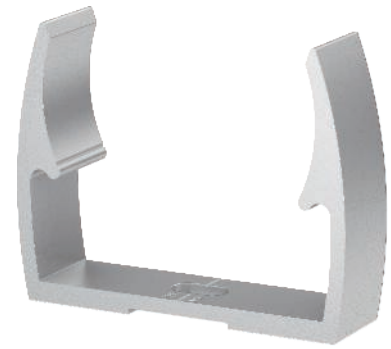
## Quick clip, aluminium

Type	Nominal size	Pack. pcs.	Weight		Item No.
			kg/100	pcs.	
<b>ALQ M16</b>	16	100	0.780		<b>2149916</b>
<b>ALQ M20</b>	20	100	0.900		<b>2149920</b>
<b>ALQ M25</b>	25	100	1.110		<b>2149925</b>
<b>ALQ M32</b>	32	50	1.600		<b>2149932</b>
<b>ALQ M40</b>	40	50	2.400		<b>2149940</b>
<b>ALQ M50</b>	50	25	2.730		<b>2149950</b>
<b>ALQ M63</b>	63	20	3.340		<b>2149963</b>

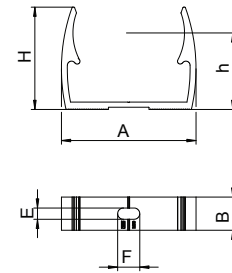
Alu Aluminium

OBO Quick clip, type ALQ M, for all metric ALU pipe systems, as well as light-duty and heavy-duty insulation pipes. Suitable for mounting the OBO pipe system, material: aluminium. Pipe centring aids allow optimal attachment of the pipe and automatically turn the clip into the correct position. Slot for side alignment during mounting with wood screw or knock-in anchor. Recommended fastening spacing 50–60 cm.

Type	Dimension A mm	Dimension B mm	Dimension E mm	Dimension F mm	Dimension H mm	Dimension h mm
<b>ALQ M16</b>	22	18	5.1	9.5	25	18.5
<b>ALQ M20</b>	25	18	5.1	9.5	27.5	20
<b>ALQ M25</b>	31	18	5.1	9.5	30	22
<b>ALQ M32</b>	39	18	5.1	9.5	35	26
<b>ALQ M40</b>	50	18	6.1	12	42	30.5
<b>ALQ M50</b>	60	18	6.1	12	46.5	33.5
<b>ALQ M63</b>	73	18	6.1	12	55.5	41.5



## Dimensions

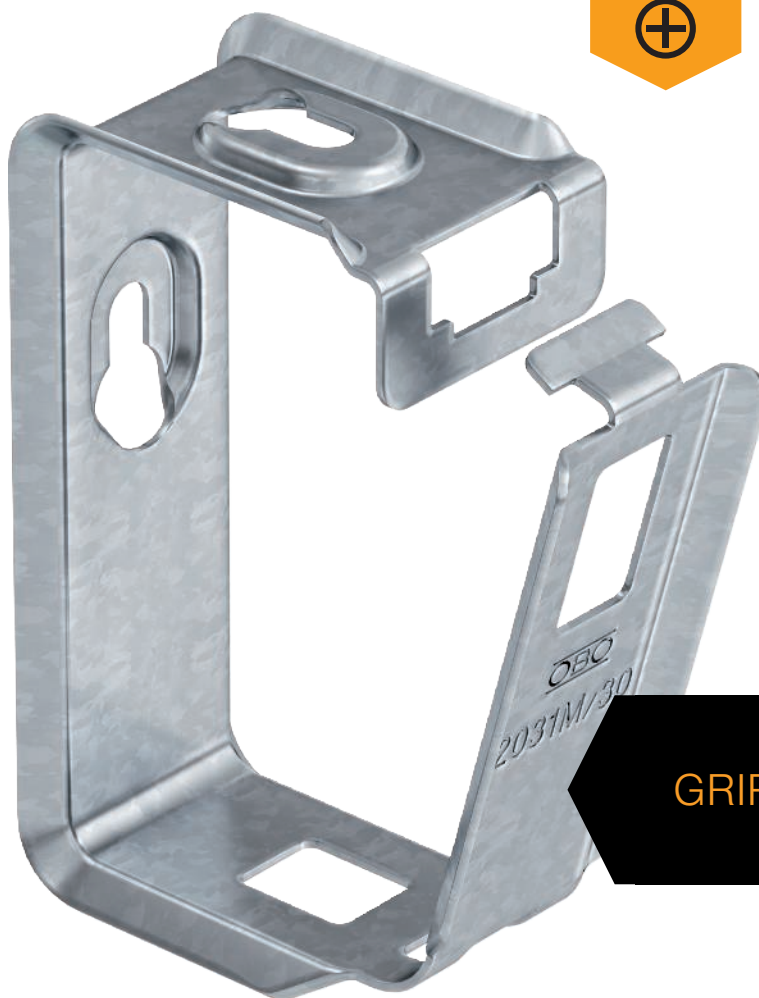






## Grip cable tidy, metal

- Ingenious design means both wall and ceiling mounting are possible
- Easy cable insertion
- Extremely sturdy click-in connector means re-installing cables is no problem
- UL-tested quality
- Also available in stainless steel qualities A2 and A4
- Tested for the maintenance of electrical functionality
- Halogen and fire load-free



E30

E90

GRIP M 30

The movable closing strap means that the Grip cable tidy can be opened and closed again and again with just the application of light pressure. This means that you

can remove a cable easily and at any time from fixed wall and ceiling installations, or also install a new cable at a later date.



Type	No. of conductors NYM 3 x 1.5	Shipping box pcs	Pack. pcs	Weight kg/100 pcs	Item No.
<b>2031 M 15 FS</b>	15	50	50	3.700	<b>2207028</b>
<b>2031 M 15 A2</b>	15	50	50	3.000	<b>2207080</b>
<b>2031 M 15 A4</b>	15	50	50	3.000	<b>2207132</b>

St Steel V2A Stainless steel, A2 V4A Stainless steel, A4

FS Strip-galvanised

Metal cable tidy for high mechanical stability, even in case of fire. Suitable for safe mounting above fire protection ceilings. Also approved as a cable-specific variant for the maintenance of electrical function to DIN 4102 part 12. For wall and ceiling mounting. Lock can be opened without tools. Detailed information on the approved routing variants can be found in the appropriate testing documentation.



Type	No. of conductors NYM 3 x 1.5	Shipping box pcs	Pack. pcs	Weight kg/100 pcs	Item No.
<b>2031 M 30 FS</b>	30	25	25	6.200	<b>2207036</b>
<b>2031 M 30 A2</b>	30	25	25	6.500	<b>2207088</b>
<b>2031 M 30 A4</b>	30	25	25	6.500	<b>2207140</b>

St Steel V2A Stainless steel, A2 V4A Stainless steel, A4

FS Strip-galvanised

Metal cable tidy for high mechanical stability, even in case of fire. Suitable for safe mounting above fire protection ceilings. Also approved as a cable-specific variant for the maintenance of electrical function to DIN 4102 part 12. For wall and ceiling mounting. Lock can be opened without tools. Detailed information on the approved routing variants can be found in the appropriate testing documentation.



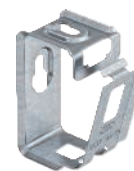
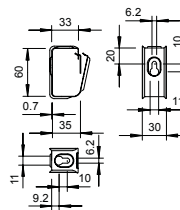
Type	No. of conductors NYM 3 x 1.5	Shipping box pcs	Pack. pcs	Weight kg/100 pcs	Item No.
<b>2031 M 70 FS</b>	70	10	10	34.500	<b>2207060</b>
<b>2031 M 70 A2</b>	70	10	10	37.000	<b>2207112</b>
<b>2031 M 70 A4</b>	70	10	10	37.000	<b>2207164</b>

St Steel V2A Stainless steel, A2 V4A Stainless steel, A4

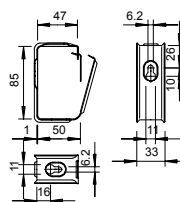
FS Strip-galvanised

Metal cable tidy for high mechanical stability, even in case of fire. Suitable for safe mounting above fire protection ceilings. Also approved as a cable-specific variant for the maintenance of electrical function to DIN 4102 part 12. For wall and ceiling mounting. Lock can be opened without tools. Detailed information on the approved routing variants can be found in the appropriate testing documentation.

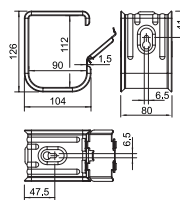
## GRIP "M" 15



## GRIP "M" 30



## GRIP "M" 70





## Metal pressure clip

- Easy ceiling installation, tested for the maintenance of electrical functionality
- Simple retroinstallation of cables
- 3 sizes to fit either 8, 10 or 16 cables (NYM 3x1.5 mm<sup>2</sup>)
- Halogen and fire load-free



E30

E90

Tested to DIN 4102

The German fire protection regulations governing public areas have been tightened once again, and now no plastic products can be used when installing cables above suspended fire protection ceilings in emergency and escape routes. Thanks to OBO, you are fully equipped to accommodate this change without needing to make

any major adjustments. That is because we now offer our proven pressure clips in metal, too – in the sizes 2033 M (2 x 8 NYM cables 3 x 1.5 mm<sup>2</sup>) and 2034 M (2 x 5 NYM cables 3 x 1.5 mm<sup>2</sup>). Both of these pressure clips comply with the latest fire protection standard for this installation location. The mechanical

load capacity in case of fire was successfully confirmed by a test to DIN 4102. The new metal pressure clip series is absolutely the state of the art – as you will have come to expect from OBO, the leading manufacturer of fastening products.

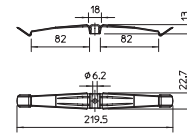
### Pressure clip for 16 cables



Type	No. of conductors NYM 3 x 1.5	Weight		Item No.
		Pack. pcs	kg/100 pcs	
<b>2033 M A2</b>	16	25	2.310	<b>2204000</b>

V2A Stainless steel, A2

The metal pressure clip is halogen- and fire load-free, and maintains a good mechanical stability even in fires. The pressure clip is also approved as a cable-specific variant for electrical function maintenance to DIN 4102 Part 12. In pressure clips with larger cross-sections, the spacer 2033 D 15 x 3 G (must be ordered separately) increases the clamping height from 10 to 13 mm. The pressure clips are suitable for fireproof mounting above suspended fire protection ceilings in accordance with DIN 4102.



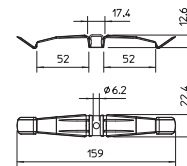
### Pressure clip for 10 cables



Type	No. of conductors NYM 3 x 1.5	Weight		Item No.
		Pack. pcs	kg/100 pcs	
<b>2034 M A2</b>	10	50	1.860	<b>2204010</b>

V2A Stainless steel, A2

The metal pressure clip is halogen- and fire load-free, and maintains a good mechanical stability even in fires. The pressure clip is also approved as a cable-specific variant for electrical function maintenance to DIN 4102 Part 12. In pressure clips with larger cross-sections, the spacer 2033 D 15 x 3 G (must be ordered separately) increases the clamping height from 10 to 13 mm. The pressure clips are suitable for fireproof mounting above suspended fire protection ceilings in accordance with DIN 4102.



### Spacer

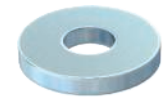
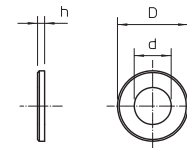


Type	Dimension D mm	Dimension d mm	Dimension h mm	Weight		Item No.
				Pack. pcs	kg/100 pcs	
<b>2033 D 15x3 G</b>	15	6.4	3	50	0.340	<b>2205097</b>

St Steel

G Electrogalvanised

To increase the clamping height of pressure clips from 10 to 13 mm for large cable cross-sections.

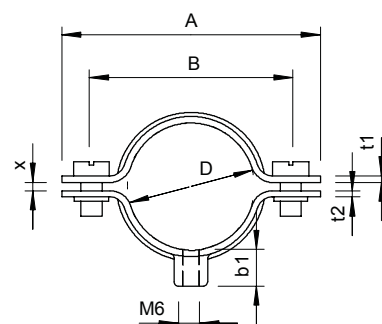


## Cable and pipe spacer clip 732 with M6 threaded connection

- Safe fastening of cables and pipe systems on walls, on floors and on ceilings
- The distance from the fastening substrate can be adjusted variably using the thread on the screw or a custom-length threaded rod
- M6 bolt ties, angler anchors or Sprint screws (to be ordered separately) are required for fastening
- Tested and approved in systems for maintaining electrical functionality of classes E30 to E90 according to DIN 4102 Part 12



With M6 thread



E30

E90

D	A	P	x	b1	t1	t2	M
mm	mm	mm	mm	mm	mm	mm	
5-6	35	23	1	8	1	1.25	M5 x 10
7-8	34	22	1	8	1	1.25	M5 x 10
9-10	36	24	1	8	1	1.25	M5 x 12
10.5-12	38	26	1.5	8	1	1.25	M5 x 12
12.5-14	40	28	1.5	8	1	1.25	M5 x 12
13.5-15	41	29	1.5	8	1	1.25	M5 x 12
14.5-16	42	30	1.5	8	1	1.25	M5 x 12
16.5-18	44	22	1	8	1	1.25	M5 x 12
18.5-20	46	34	1.5	8	1	1.25	M5 x 12
20-22	48	36	2	8	1	1.25	M5 x 12
22-24	50	38	2	8	1	1.25	M5 x 12
24-26	52	40	2	8	1	1.25	M5 x 12

D	A	P	x	b1	t1	t2	M
mm	mm	mm	mm	mm	mm	mm	
26-28	59	45	2	8.5	1.5	1.5	M5 x 12
28-30	61	47	2	8.5	1.5	1.5	M5 x 12
31-33	64	50	2	8.5	1.5	1.5	M5 x 12
33-35	66	52	2	8.5	1.5	1.5	M5 x 12
36-38	69	55	2	8.5	1.5	1.5	M5 x 12
38-40	71	57	2	8.5	1.5	1.5	M5 x 12
40-42	73	59	2	8.5	1.5	1.5	M5 x 12
43-45	76	62	2	8.5	1.5	1.5	M5 x 12
46-48	79	65	2	8.5	1.5	1.5	M5 x 12
48-50	81	67	2	8.5	1.5	1.5	M5 x 14
58-60	91	77	2	8.5	1.5	1.5	M5 x 14
61-63	94	80	2	9.2	1.5	1.5	M5 x 14



## Cable and pipe spacer clip 732 with threaded connection

E30 E90

Type	Clamping range D mm	Pack. pcs	Weight kg/100 pcs.		Item No.
			pcs	kg/100	
732 6 GTP	5 - 6	100	1.160	1360051	
732 8 GTP	7 - 8	100	1.310	1360086	
732 10 GTP	9 - 10	100	1.360	1360108	
732 12 GTP	10.5 - 12	100	1.460	1360124	
732 14 GTP	12.5 - 14	100	1.480	1360140	
732 15 GTP	13.5 - 15	100	1.530	1360159	
732 16 GTP	14.5 - 16	100	1.590	1360167	
732 18 GTP	16.5 - 18	100	1.620	1360183	
732 20 GTP	18.5 - 20	50	1.730	1360205	
732 22 GTP	20 - 22	50	1.780	1360221	
732 24 GTP	22 - 24	50	1.840	1360248	
732 26 GTP	24 - 26	50	1.920	1360264	
732 28 GTP	26 - 28	50	2.840	1360280	
732 30 GTP	28 - 30	50	3.040	1360302	
732 33 GTP	31 - 33	25	3.120	1360337	
732 35 GTP	33 - 35	25	3.280	1360353	
732 38 GTP	36 - 38	25	3.490	1360388	
732 40 GTP	38 - 40	25	3.600	1360396	
732 42 GTP	40 - 42	25	3.840	1360426	
732 45 GTP	43 - 45	25	3.990	1360450	
732 48 GTP	46 - 48	25	4.040	1360485	
732 50 GTP	48 - 50	25	4.160	1360507	
732 60 GTP	58 - 60	25	4.960	1360604	
732 63 GTP	61 - 63	25	5.000	1360639	

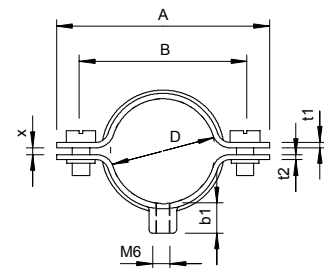
St Steel

GTP Electrogalvanised, transparently passivated

Mounting with screw-in spacer clips. Spacer clips and screw-in spacer clips are available in various materials: in V2A stainless steel, in electrogalvanised, hot-dip galvanised steel or in aluminium. Fastening can take place with bolt ties or angler anchors and Sprint screws. Depending on the design, the clips can be "shot" using a bolt-firing tool or nail device.



Dimensions



## Cable and pipe spacer clip 732 with threaded connection V4A

E30 E90

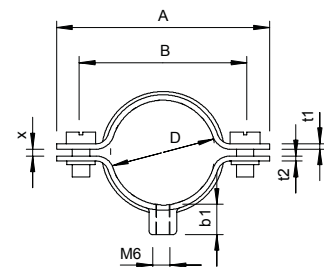
Type	Clamping range D mm	Pack. pcs	Weight kg/100 pcs.		Item No.
			pcs	kg/100	
732 6 A4	5 - 6	100	1.364	1360644	
732 8 A4	7 - 8	100	1.376	1360646	
732 10 A4	9 - 10	100	1.467	1360648	
732 12 A4	10.5 - 12	100	1.622	1360650	
732 14 A4	12.5 - 14	100	1.710	1360652	
732 15 A4	13.5 - 15	100	1.791	1360654	
732 16 A4	14.5 - 16	100	1.845	1360656	
732 18 A4	16.5 - 18	100	1.889	1360658	
732 20 A4	18.5 - 20	50	1.960	1360660	
732 22 A4	20 - 22	50	1.999	1360662	
732 24 A4	22 - 24	50	2.062	1360664	
732 26 A4	24 - 26	50	2.083	1360666	
732 28 A4	26 - 28	50	2.923	1360668	
732 30 A4	28 - 30	50	3.047	1360670	
732 33 A4	31 - 33	25	3.186	1360672	
732 38 A4	36 - 38	25	3.453	1360676	
732 40 A4	38 - 40	25	3.554	1360678	
732 42 A4	40 - 42	25	3.650	1360680	
732 45 A4	43 - 45	25	3.810	1360682	
732 48 A4	46 - 48	25	3.972	1360684	
732 50 A4	48 - 50	25	4.045	1360686	
732 60 A4	58 - 60	25	4.582	1360688	
732 63 A4	61 - 63	25	4.712	1360690	

V4A Stainless steel, A4

Mounting with screw-in spacer clips. Spacer clips and screw-in spacer clips are available in various materials: in V2A stainless steel, in electrogalvanised, hot-dip galvanised steel or in aluminium. Fastening can be take place with bolt ties or Angler anchors and Sprint screws. Depending on the design, the clips can be "shot" using a bolt-firing tool or nail device.



Dimensions



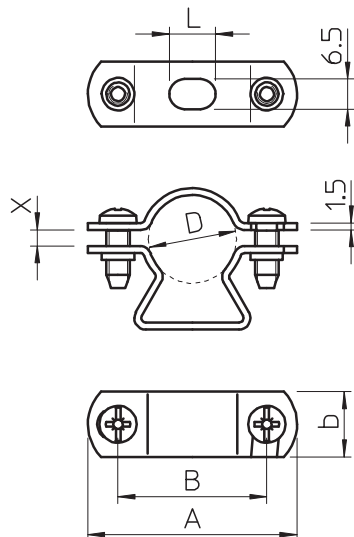
## Cable and pipe spacer clip 733

- Closed cable and pipe spacer clip 733 with slot
- Safe fastening of cables and pipe systems on walls, on floors and on ceilings
- Tested and approved in systems for maintaining electrical functionality of classes E30 to E90 according to DIN 4102 Part 12



**E30** **E90**

With slot



D	A	B	L	b	x
mm	mm	mm	mm	mm	mm
11 - 13	39	26	10	14	2,5
14 - 16	43	30	10	14	3
17 - 19	45	32	10	14	3,5
19-21	50	37	10	14	2
21- 23	52	39	10	14	2,5
24 - 29	58	42	10	16	7
30 - 38	70	54	10	16	10
39 - 48	80	64	14	16	12,5
48 - 54	86	68	14	18	7,5
53 - 61	96	78	14	18	10
63	101	83	18	16	3

### Cable and pipe spacer clip 733



Type	Clamping range D mm	Weight kg/100		Item No.
		Pack. pcs	pcs.	
733 13 G	11 - 13	50	2.310	1361139
733 16 G	14 - 16	50	2.430	1361163
733 19 G	17 - 19	50	2.500	1361198
733 21 G	19 - 21	50	2.730	1361201
733 23 G	21 - 23	50	2.870	1361236
733 29 G	24 - 29	50	3.480	1361295
733 38 G	30 - 38	25	4.040	1361384
733 48 G	39 - 48	25	4.810	1361481
733 54 G	48 - 54	25	5.800	1361511
733 61 G	53 - 61	20	6.370	1361619
733 63 G	63	20	6.940	1361635

Sl Steel

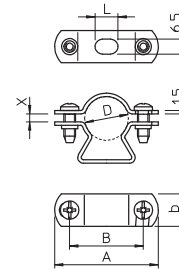
G Electrogalvanised

\* Size M16 is not suitable for nail device

\* Sizes M16 - PG16 are not suitable for bolt-firing tool



#### Dimensions



### Cable and pipe spacer clip 733



Type	Clamping range D mm	Weight kg/100		Item No.
		Pack. pcs	pcs.	
733 13 FT	11 - 13	50	2.310	1361091
733 16 FT	14 - 16	50	2.430	1361094
733 19 FT	17 - 19	50	2.500	1361097
733 21 FT	19 - 21	50	2.730	1361100
733 23 FT	21 - 23	50	2.870	1361103
733 29 FT	24 - 29	50	3.480	1361106
733 38 FT	30 - 38	25	4.040	1361109
733 48 FT	39 - 48	25	4.810	1361112
733 54 FT	48 - 54	25	5.400	1361117
733 61 FT	53 - 61	20	6.100	1361115
733 63 FT	63	20	7.250	1361118

Sl Steel

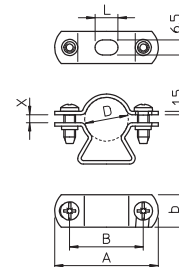
FT Hot-dip galvanised

\* Size M16 is not suitable for nail device.

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



#### Dimensions



## Cable and pipe spacer clip 733 V2A



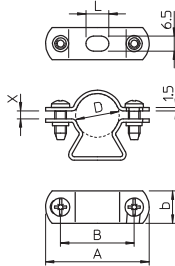
Type	Clamping range D mm	Pack. pcs	Weight		Item No.
			kg/100	pcs.	
733 16 A2	14 - 16	50	2.430		1362011
733 19 A2	17 - 19	50	2.800		1362038
733 21 A2	19 - 21	50	2.740		1362046
733 23 A2	21 - 23	50	2.800		1362054
733 29 A2	24 - 29	50	3.475		1362062
733 38 A2	30 - 38	25	4.500		1362070
733 48 A2	39 - 48	25	5.200		1362089
733 54 A2	48 - 54	25	5.800		1362097
733 61 A2	53 - 61	20	6.800		1362100
733 63 A2	63	20	6.940		1362127

V2A Stainless steel, A2

\* Size M16 is not suitable for nail device

\* Sizes M16 - PG16 are not suitable for bolt-firing tool

### Dimensions



## Cable and pipe spacer clip 733 V4A



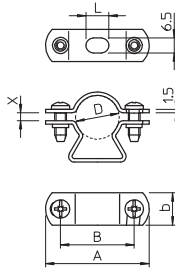
Type	Clamping range D mm	Pack. pcs	Weight		Item No.
			kg/100	pcs.	
733 13 A4	11 - 13	50	2.310		1361643
733 16 A4	14 - 16	50	2.430		1361647
733 19 A4	17 - 19	50	2.500		1361651
733 21 A4	19 - 21	50	2.730		1361655
733 23 A4	21 - 23	50	2.710		1361659
733 29 A4	24 - 29	50	3.420		1361663
733 38 A4	30 - 38	25	4.040		1361667
733 48 A4	39 - 48	25	4.810		1361671
733 54 A4	48 - 54	25	5.800		1361675
733 61 A4	53 - 61	20	6.370		1361679
733 63 A4	63	20	6.940		1361683

V4A Stainless steel, A4

\* Size M16 is not suitable for nail device.

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

### Dimensions



Cable and pipe spacer clip 733 aluminium



Type	Clamping range D mm	Pack.		Weight kg/100 pcs.	Item No.
		pcs	pcs.		
733 16 ALU	14 - 16	50	0.980	1362526	
733 19 ALU	17 - 19	50	1.020	1362534	
733 21 ALU	19 - 21	50	1.100	1362542	
733 29 ALU	24 - 29	50	1.390	1362569	
733 38 ALU	30 - 38	25	1.620	1362577	
733 48 ALU	39 - 48	25	1.950	1362585	
733 54 ALU	48 - 54	25	2.320	1362593	
733 63 ALU	63	20	2.990	1362615	

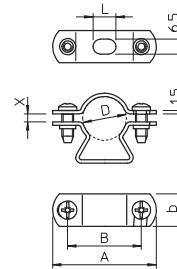
Alu Aluminium

\* Size M16 is not suitable for nail device.

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

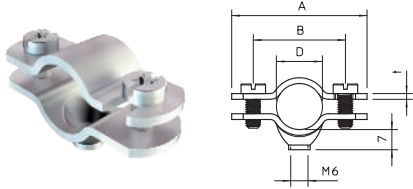


Dimensions





### Screw-in spacer clip



Type	Clamping range D mm	Bolt	Pack. pcs	Weight		Item No.
				kg/100 pcs.		
<b>731 W 12 G</b>	8 - 12	M5 x 12	50	2.470		<b>1366122</b>
<b>731 W 16 G</b>	12 - 16	M5 x 12	50	2.816		<b>1366165</b>
<b>731 W 20 G</b>	16 - 20	M5 x 14	50	3.124		<b>1366203</b>
<b>731 W 25 G</b>	20 - 25	M5 x 14	50	3.480		<b>1366254</b>
<b>731 W 30 G</b>	25 - 30	M5 x 14	25	4.060		<b>1366300</b>
<b>731 W 35 G</b>	30 - 35	M5 x 18	25	4.344		<b>1366351</b>

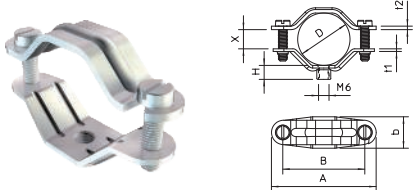
**Sl** Steel  
**G** Electrogalvanised

With M6 thread.

#### Dimensions

D mm	A mm	B mm	t mm
8-12	43	28	2
12-16	47	32	2
16-20	51	36	2
20-25	58	43	2
25-30	64	49	2
30-35	65	50	18

### Screw-in spacer clip, universal



Type	Clamping range D mm	Bolt	Shipping box pcs	Weight		Item No.
				Pack. pcs	kg/100 pcs.	
<b>2070 M6 G</b>	12 - 20	M5 x 14	500	50	2.300	<b>1380028</b>
<b>2071 M6 G</b>	20 - 30	M5 x 20	600	50	3.310	<b>1380222</b>
<b>2072 M6 G</b>	30 - 44	M5 x 22	300	25	5.990	<b>1380427</b>
<b>2073 M6 G</b>	44 - 60	M6 x 25	240	20	9.660	<b>1380729</b>

**Sl** Steel  
**G** Electrogalvanised

With M6 thread.

Universal clip with large tensioning area.

#### Dimensions

D mm	A mm	B mm	b mm	t1 mm	t2 mm	H mm	x mm	M
12-20	48	35	14	1.5	1.5	9	9	M5 x 14
20-30	60	47	14	1.5	2	7.5	11	M5 x 20
30-44	79	64	16	2	2	8	15	M5 x 22
44-60	102	86	18	2	2	8	18	M6 x 25



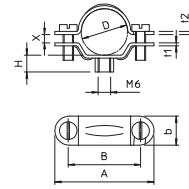
### Screw-in spacer clip, universal

Type	Clamping range D mm	Size	Bolt	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
2900 M6 13-16 G	13.5 - 16	M16	M5 x 14	500	50	2.280	1383094
2900 M6 16-19 G	16.5 - 19	Pg 11	M5 x 14	500	50	2.320	1383116
2900 M6 18-21 G	18 - 21	M20	M5 x 14	500	50	2.340	1383132
2900 M6 19-23 G	19 - 23	Pg 16	M5 x 14	500	50	2.400	1383167
2900 M6 24-29 G	24 - 29	M25	M5 x 14	400	50	3.320	1383213
2900 M6 33-38 G	33 - 38	Pg 29	M5 x 14	250	25	5.830	1383310
2900 M6 30-34 G	30 - 34	M32	M5 x 14	50	50	4.950	1383299
2900 M6 39-42 G	39 - 42	M40	M5 x 16	300	25	5.490	1383418
2900 M6 43-48 G	43 - 48	Pg 36	M5 x 14	240	20	6.330	1383361
2900 M6 49-55 G	49 - 55	M50	M6 x 15	240	20	9.300	1383426
2900 M6 54-60 G	54 - 60	Pg 48	M6 x 15	240	20	8.970	1383485
2900 M6 61-64 G	61 - 64	M63	M6 x 16	240	20	8.090	1383507

St Steel

G Electrogalvanised

With M6 thread.



#### Dimensions

G	D mm	A mm	B mm	b mm	t1 mm	t2 mm	H mm	x mm	M
M16	13.5-16	48	35	14	1.5	1.5	9	2.2	M5 x 14
Pg 11	16.5-19	48	35	14	1.5	1.5	9	2.6	M5 x 14
M20	18-21	48	35	14	1.5	1.5	9	2.9	M5 x 14
Pg 16	19-23	48	35	14	1.5	1.5	9	4	M5 x 14
M25	24-29	60	47	14	1.5	2	7.5	4.6	M5 x 14
M32	30-34	68	54	16	2	2	8	5	M5 x 14
Pg 29	33-38	79	64	16	2	2	8	5	M5 x 14
M40	39-42	79	64	16	2	2	8	5	M5 x 16
Pg 36	43-48	79	64	16	2	2	8	5	M5 x 14
M50	49-55	102	86	18	2	2	8	5.5	M6 x 15
Pg 48	54-60	102	86	18	2	2	8	6.3	M6 x 15
M63	61-64	106.5	90.5	18	2	2	6.5	6	M6 x 16

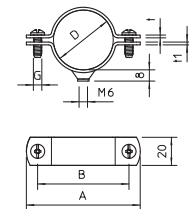
### Screw-in spacer clip, heavy-duty version M6

Type	Clamping range D mm	Size	For pipe Ø mm	Pack. pcs	Weight kg/100 pcs.	Item No.
2900WM6 13.5 FT	12.5 - 13.5	1/4"	—	25	2.860	1385003
2900WM6 17 FT	16 - 17	3/8"	M16	25	4.912	1385011
2900WM6 21.5 FT	19 - 21.5	1/2"	M20	25	5.104	1385038
2900WM6 27 FT	24.5 - 27	3/4"	M25	25	5.600	1385054
2900WM6 33.5 FT	30.5 - 33.5	1"	M32	25	6.144	1385062
2900WM6 42.5 FT	39.5 - 42.5	1 1/4"	M40	25	7.644	1385089
2900WM6 48.5 FT	45.5 - 48.5	1 1/2"	M50	25	8.872	1385119
2900WM6 54 FT	51 - 54	1 3/4"	—	20	10.400	1385127
2900WM6 60 FT	56 - 60	2"	M63	15	11.720	1385135

St Steel

FT Hot-dip galvanised

Can be screwed onto M6 thread. Size 27 FT is suitable for M25. Size 42.5 FT is suitable for M40. Size 48.5 FT is suitable for M50. Size 60 FT is suitable for M63.



#### Dimensions

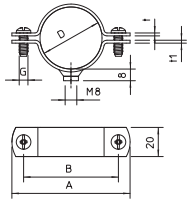
D mm	A mm	B mm	t mm	t1 mm	x mm	G
12.5-13.5	48	32	2	2	1	M6 x 16
16.0-17.0	52	36	2	2	1	M6 x 16
19.0-21.5	56	40	2	2	2.5	M6 x 16
24.5-27.0	62	46	2	2	2.5	M6 x 16
30.5-33.5	70	54	2	2	3	M6 x 16
39.5-42.5	83	67	2	2	3	M6 x 18
45.5-48.5	88	72	2	2.5	3	M6 x 18
51.0-54.0	96	80	2.5	2.5	3	M6 x 18
56.0-60.0	105	89	2.5	2.5	4	M6 x 18

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Cable and pipe fastening systems, metal



## Screw-in spacer clip, heavy-duty version M8



Type	Clamping range D mm	Size	For pipe Ø mm	Pack. pcs	Weight kg/100 pcs.	Item No.
2900WM8 17 FT	16 - 17	3/8"	M16	25	5.040	1387014
2900WM8 21.5 FT	19 - 21.5	1/2"	M20	25	5.768	1387030
2900WM8 27 FT	24.5 - 27	3/4"	M25	25	6.144	1387057
2900WM8 33.5 FT	30.5 - 33.5	1"	M32	25	6.864	1387065
2900WM8 42.5 FT	39.5 - 42.5	1 1/4"	M40	25	9.000	1387081
2900WM8 48.5 FT	45.5 - 48.5	1 1/2"	M50	25	9.284	1387111
2900WM8 60 FT	56 - 60	2"	M63	15	11.346	1387138
2900WM8 75.5 FT	71.5 - 75.5	2 1/2"	—	50	21.000	1387154
2900WM8 88 FT	83 - 88	3"	—	50	23.800	1387170

St Steel

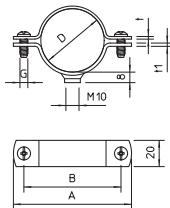
FT Hot-dip galvanised

Can be screwed onto M8 thread. Size 27 FT is suitable for M25. Size 42.5 FT is suitable for M40. Size 48.5 FT is suitable for M50. Size 60 FT is suitable for M63.

### Dimensions

D mm	A mm	B mm	t mm	t1 mm	x mm	M
16.0–17.0	52	36	2	2.5	1	M6 x 16
19.0–21.5	56	40	2	2.5	2.5	M6 x 16
24.5–27.0	62	46	2	2.5	2.5	M6 x 16
30.5–33.5	70	54	2	2.5	3	M6 x 16
39.5–42.5	81	65	2	2.5	3	M6 x 18
45.5–48.5	88	72	2	2.5	3	M6 x 18
56.0–60.0	105	89	2.5	2.5	4	M6 x 18
71.5–75.5	125	105	3	3	4	M6 x 20
83.0–88.0	138	118	3	3	5	M6 x 20

## Screw-in spacer clip, heavy-duty version M10



Type	Clamping range D mm	Size	For pipe Ø mm	Pack. pcs	Weight kg/100 pcs.	Item No.
2900WM10 21.5 FT	19 - 21.5	1/2"	M20	25	5.768	1388037
2900WM10 27 FT	24.5 - 27	3/4"	M25	25	6.144	1388053
2900WM10 33.5 FT	30.5 - 33.5	1"	M32	25	6.864	1388061
2900WM10 48.5 FT	45.5 - 48.5	1 1/2"	M50	25	9.284	1388118
2900WM10 60 FT	56 - 60	2"	M63	15	11.346	1388134

St Steel

FT Hot-dip galvanised

Can be screwed onto M10 thread. Size 27 FT is suitable for M25. Size 48.5 FT is suitable for M50. Size 60 FT is suitable for M63.

### Dimensions

D mm	A mm	B mm	t mm	t1 mm	x mm	G
19.0–21.5	56	40	2	2.5	2.5	M6 x 16
24.5–27.0	62	46	2	2.5	2.5	M6 x 16
30.5–33.5	70	54	2	2.5	3	M6 x 16
45.5–48.5	88	72	2	2.5	3	M6 x 18
56.0–60.0	105	89	2.5	2.5	4	M6 x 18

## Fastening clip 604, light-duty



Type	For Ø mm	Hole size mm	Material thickness mm	Weight		Item No.
				Pack. pcs	kg/100 pcs.	
604 3 G	3	4,5 x 6	0.7	100	0.052	1003038
604 4 G	4	4,5 x 6	0.7	100	0.067	1003046
604 5 G	5	4,5 x 6	0.7	100	0.084	1003054
604 6 G	6	4,5 x 6	0.7	100	0.099	1003062
604 7 G	7	4,5 x 6	0.7	100	0.120	1003070
604 8 G	8	4,5 x 6	0.7	100	0.123	1003089
604 9 G	9	4,5 x 6	0.7	100	0.139	1003097
604 10 G	10	4,5 x 6	0.7	100	0.150	1003100
604 11 G	11	4,5 x 6	1	100	0.270	1003119
604 12 G	12	4,5 x 6	0.7	100	0.240	1003127
604 13 G	13	4,5 x 6	1	100	0.280	1003135
604 16 G	16	4,5 x 6	1	100	0.348	1003178
604 19 G	19	4,5 x 6	1	100	0.411	1003194
604 20 G	20	4,5 x 6	1	100	0.431	1003208
604 21 G	21	4,5 x 6	1	100	0.447	1003216
604 23 G	23	4,5 x 6	1	100	0.490	1003232
604 25 G	25	4,5 x 6	1	100	0.900	1003259
604 28 G	28	4,5 x 6	1	100	0.874	1003283
604 32 G	32	4,5 x 6	1	100	1.462	1003321
604 35 G	35	5,5 x 7	1.5	100	1.355	1003356
604 37 G	37	5,5 x 7	1.5	100	1.567	1003372
604 40 G	40	5,5 x 7	1.5	100	1.860	1003402
604 47 G	47	5,5 x 7	1.5	50	2.484	1003461

St. Steel

G Electrogalvanised

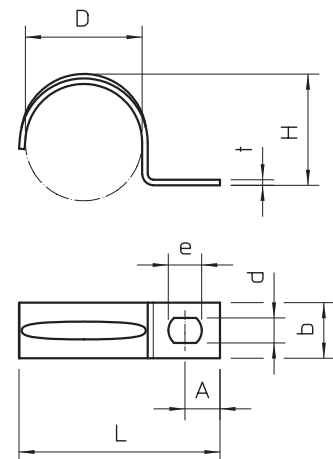
Single-lobe fastening clip for cables and pipes.

\* Sizes 3 and 4 are not suitable for nail device

\* Sizes 3 to 21 are not suitable for bolt-firing tool

D mm	L mm	H mm	b mm	t mm	d mm	e mm	A mm
3	12	2.4	7	0.7	4.5	6	4
4	14	3.3	7	0.7	4.5	6	4
5	16.5	4.5	7	0.7	4.5	6	5
6	17.5	5.2	8	0.7	4.5	6	5
7	19.5	6.5	8	0.7	4.5	6	5
8	21	7	8	0.7	4.5	6	5.5
9	21.5	8	8	0.7	4.5	6	5.75
10	22	9	8	0.7	4.5	6	5
11	24	10	10	1	4.5	6	5.5
12	27	11	10	0.7	4.5	6	6.5
13	27	11.5	10	1	4.5	6	6
16	31	14.5	10	1	4.5	6	6.5
19	33	17	10	1	4.5	6	6.5
20	35	18	10	1	4.5	6	6.3
21	36	19	10	1	4.5	6	6.3
23	39	21.5	10	1	4.5	6	7
25	41.3	23	15	1	4.5	6	7
28	45	24.8	15	1	4.5	6	7
32	48.8	30	15	1.5	5.5	7	8
35	54	30	14	1.5	5.5	7	8.75
37	56	34	14	1.5	5.5	7	7.5
40	63	38	14	1.5	5.5	7	10.5
47	69	43.8	14	1.5	5.5	7	10

## Dimensions



## Fastening clip 1015, medium-duty



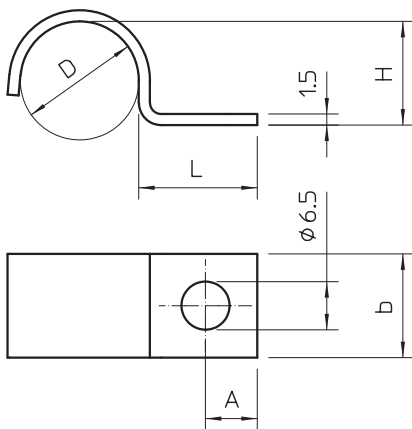
Type	For Ø mm	Hole size mm	Material thickness mm	Pack. pcs	Weight		Item No.
					kg/100	pcs.	
1015 5 G	5	6,5	1.5	100	0.325		1009028
1015 6 G	6	6,5	1.5	100	0.385		1009036
1015 7 G	7	6,5	1.5	100	0.418		1009044
1015 8 G	8	6,5	1.5	100	0.428		1009052
1015 9 G	9	6,5	1.5	100	0.468		1009060
1015 10 G	10	6,5	1.5	100	0.560		1009079
1015 11 G	11	6,5	1.5	100	0.632		1009087
1015 12 G	12	6,5	1.5	100	0.672		1009109
1015 13 G	13	6,5	1.5	100	0.683		1009117
1015 14 G	14	6,5	1.5	100	0.710		1009168
1015 15 G	15	6,5	1.5	100	0.744		1009184
1015 16 G	16	6,5	1.5	100	0.753		1009192
1015 17 G	17	6,5	1.5	100	0.764		1009206
1015 18 G	18	6,5	1.5	100	0.835		1009214
1015 20 G	20	6,5	1.5	100	0.921		1009230
1015 25 G	25	6,5	1.5	100	1.150		1009427
1015 28 G	28	6,5	1.5	100	1.250		1009362

St Steel

G Electrogalvanised

Single-lobe fastening clip for cables and pipes with

## Dimensions



D mm	L mm	H mm	b mm	A mm
5	16	4	12	7
6	16	5	12	7
7	16	6	12	7
8	16	7	12	7
9	16	8	12	7
10	16	9	12	7
11	16	10	14	7
12	16	11	14	7
13	16	12	14	7
14	16	12.5	14	7
15	16	13.5	14	7
16	16	14	14	7
17	16	15	14	7
18	16	16	14	7





## Fastening clip 822, heavy-duty



Type	For Ø mm	Hole size mm	Material thickness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
822 6 FT	6	6,5 x 10	2	100	0.885	1014005
822 10 FT	10	6,5 x 10	2	100	1.075	1014013
822 12 FT	12	6,5 x 10	2	100	1.450	1014021
822 14 FT	14	6,5 x 10	2	100	1.600	1014048
822 16 FT	15,2	6,5 x 10	2	100	1.733	1014099
822 18 FT	18,6	6,5 x 10	2	100	1.946	1014110
822 20 FT	20	6,5 x 10	2	100	2.125	1014137
822 22.5 FT	22.5	6,5 x 10	2	50	2.338	1014161
822 25 FT	25	6,5 x 10	2	50	2.400	1014501
822 28.3 FT	28.3	6,5 x 10	2	50	4.420	1014218
822 32 FT	32	6,5 x 10	2	100	5.490	1014528
822 37 FT	37	6,5 x 10	2	100	7.100	1014293
822 40 FT	40	6,5 x 10	2	100	6.590	1014536
822 47 FT	47	6,5 x 10	3	100	8.500	1014366
822 50 FT	50	6,5 x 10	3	100	7.690	1014544
822 63 FT	63	6,5 x 10	3	100	9.260	1014552

St Steel

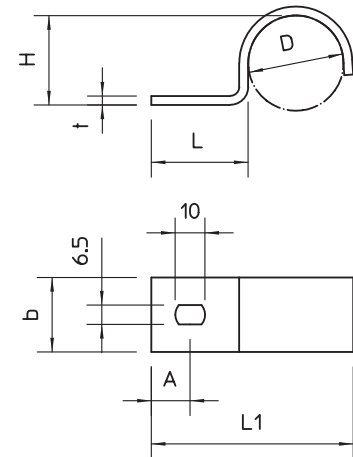
FT Hot-dip galvanised

Single-lobe fastening clip for cables and pipes.

D mm	L mm	L1 mm	H mm	b mm	t mm	A mm
6	23.5	32	5	20	2	10
10	23.5	36	9	20	2	10
12	23.5	38.5	11	20	2	10
14	23.5	40.5	13	20	2	10
15.2	23.5	42	14	20	2	10
18.6	23.5	45	17	20	2	10
20	23.5	48	19.5	20	2	10
22.5	23.5	49	21	20	2	11
25	25.5	53	23.5	20	2	11
28.3	27	60	26.5	20	3	11
32	32.5	68	30	25	3	13
37	30	70	35	25	3	13
40	32.5	76	38	25	3	13
47	30	81	45	25	3	13
50	32.5	86	47	25	3	15
63	33.5	100	60	25	3	15



## Dimensions



## Fastening clip 822, heavy-duty, V4A

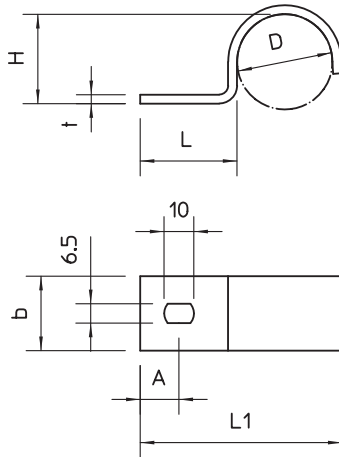


Type	For Ø mm	Hole size mm	Material thickness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
822 6 A4	6	6,5 x 10	2	100	0.885	1013861
822 10 A4	10	6,5 x 10	2	100	1.075	1013865
822 12 A4	12	6,5 x 10	2	100	1.450	1013869
822 14 A4	14	6,5 x 10	2	100	1.600	1013873
822 16 A4	15,2	6,5 x 10	2	100	1.733	1013877
822 18 A4	18,6	6,5 x 10	2	100	1.946	1013881
822 20 A4	20	6,5 x 10	2	100	2.125	1013885
822 22.5 A4	22,5	6,5 x 10	2	50	2.338	1013889
822 25 A4	25	6,5 x 10	2	50	2.400	1013893
822 32 A4	32	6,5 x 10	2	100	5.490	1013903
822 40 A4	40	6,5 x 10	2	100	6.590	1013911
822 50 A4	50	6,5 x 10	3	100	7.690	1013921
822 63 A4	63	6,5 x 10	3	100	9.260	1013925

V4A Stainless steel, A4

Single-lobe fastening clip for cables and pipes.

## Dimensions



D mm	L mm	L1 mm	H mm	b mm	t mm	A mm
6	23.5	32	5	20	2	10
10	23.5	36	9	20	2	10
12	23.5	38.5	11	20	2	10
14	23.5	40.5	13	20	2	10
15.2	23.5	42	14	20	2	10
18.6	23.5	45	17	20	2	10
20	23.5	48	19.5	20	2	10
22.5	23.5	49	21	20	2	11
25	25.5	53	23.5	20	2	11
32	32.5	68	30	25	3	13
40	32.5	76	38	25	3	13
50	32.5	86	47	25	3	15
63	33.5	100	60	25	3	15



## Fastening clip, plant standard 7855, single-lobe



Type	For Ø mm	Hole size mm	Material thickness mm	Pack. pcs	Weight kg/100 pcs	Item No.
WN 7855 A 2	2	3,2	0,8	100	0,039	1043013
WN 7855 A 2.5	2,5	3,2	0,8	100	0,041	1043021
WN 7855 A 4	4	3,2	1	100	0,062	1043064
WN 7855 A 4.5	4,5	3,2	1	100	0,079	1043072
WN 7855 A 5	5	3,2	1	100	0,090	1043080
WN 7855 A 6	6	3,2	1	100	0,097	1043102
WN 7855 A 7	7	3,2	1	100	0,120	1043129
WN 7855 A 8	8	3,2	1	100	0,159	1043145
WN 7855 A 9	9	3,2	1,5	100	0,168	1043161
WN 7855 A 10	10	3,2	1,5	100	0,170	1043196
WN 7855 A 12	12	4,3	1,5	100	0,530	1043226
WN 7855 A 14	14	4,3	1,5	100	0,579	1043242

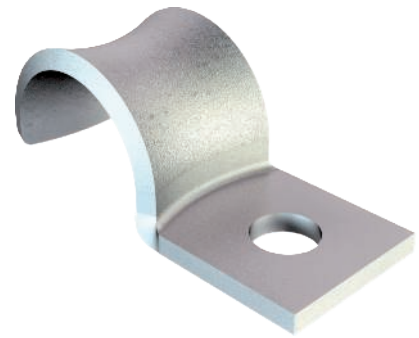
St. Steel

GTP Electrogalvanised, transparently passivated

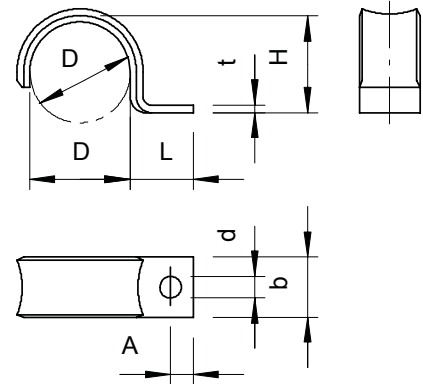
Dimensions to Siemens standard SN 78550, shape A, with strongly rounded edges, thus particularly suitable for sensitive cables.

\* Sizes 2 to 10 not suitable for bolt-firing tool and nail device.

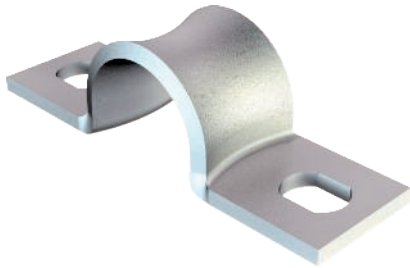
D mm	L mm	H mm	b mm	t mm	d mm	A mm
2	8,5	1,5	6	0,8	3,2	3
2.5	5,25	2	6	0,8	3,2	3
4	7,5	3,5	6	0,8	3,2	3
4.5	8,25	4	6	1	3,2	3
5	8	4,5	6	1	3,2	3
6	7,5	5,5	6	1	3,2	3
7	10	6	8	1	3,2	4
8	9,5	7	8	1	3,2	4
9	9	8	8	1	3,2	4
10	8,5	9	8	1	3,2	4
12	13,5	10	12	1,5	4,3	4,5
14	12,5	12	12	1,5	4,3	4,5



## Dimensions



## Fastening clip, plant standard 7855, double-lobe



Type	For Ø mm	Hole size mm	Material thickness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
WN 7855 B 3	3	3,2 x 4	0.8	100	0.080	1044044
WN 7855 B 4	4	3,2 x 4	0.8	100	0.082	1044060
WN 7855 B 4.5	4.5	3,2 x 4	1	100	0.097	1044079
WN 7855 B 5	5	3,2 x 4	1	100	0.118	1044087
WN 7855 B 6	6	3,2 x 4	1	100	0.128	1044109
WN 7855 B 7	7	3,2 x 4	1	100	0.200	1044125
WN 7855 B 8	8	3,2 x 4	1	100	0.218	1044141
WN 7855 B 9	9	3,2 x 4	1.5	100	0.222	1044176
WN 7855 B 10	10	3,2 x 4	1.5	100	0.223	1044192
WN 7855 B 12	12	4,3 x 5	1.5	100	0.675	1044214
WN 7855 B 14	14	4,3 x 5	1.5	100	0.733	1044230
WN 7855 B 16	16	4,3 x 5	1.5	100	0.742	1044257

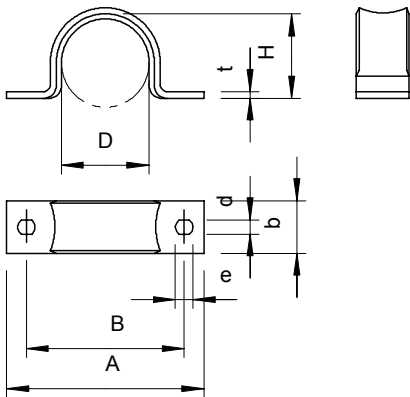
St Steel

GTP Electrogalvanised, transparently passivated

Dimensions to Siemens standard SN 78550, shape B, with strongly rounded edges, thus particularly suitable for sensitive cables.

\* Sizes 3 to 10 not suitable for nail device.

## Dimensions



D mm	A mm	B mm	H mm	b mm	t mm	d mm	e mm
3	21	14	2.5	6	0.8	3.2	4
4	21	14	3.5	6	1	3.2	4
4.5	24	16	4	6	1	3.2	4
5	24	16	4.5	6	1	3.2	4
6	24	16	5.5	6	1	3.2	4
7	28	20	6	8	1	3.2	4
8	28	20	7	8	1	3.2	4
9	28	20	8	8	1	3.2	4
10	28	20	9	8	1	3.2	4
12	39	30	10	12	1.5	4.3	5
14	39	30	12	12	1.5	4.3	5
16	39	30	14	12	1.5	4.3	5



## Heavy-duty cable clip

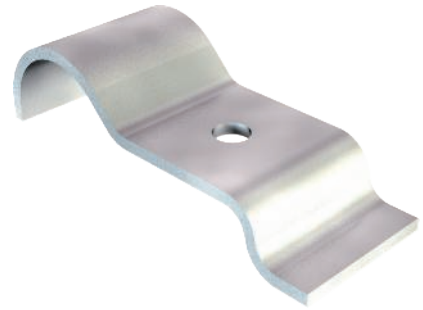


Type	For cable			Material	Colour	Pack. pcs.	Weight kg/100 pcs.	Item No.
	Ø mm	Hole size mm	thickness mm					
<b>1594 22 G</b>	22	6	2	Stone grey		100	3.300	<b>1310925</b>

**S** Steel

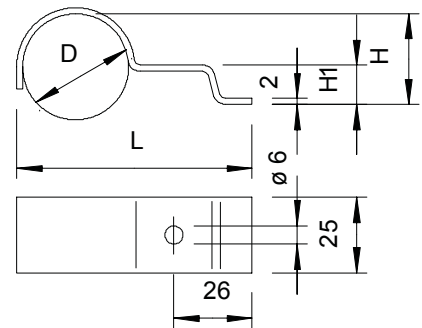
**G** Electrogalvanised

For earthing cable fastening to house connection boxes.  
Levanisit coated.



D mm	L mm	H mm	H1 mm
22	65	18	11

## Dimensions





## Fastening clip 605, medium-duty



Type	For Ø mm	Hole size mm	Material thickness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
605 7 G	7	4,5 x 6	1	100	0.183	1018078
605 8 G	8	4,5 x 6	1	100	0.203	1018086
605 9 G	9	4,5 x 6	1	100	0.246	1018094
605 10 G	10	4,5 x 6	1	100	0.432	1018108
605 11 G	11	4,5 x 6	1	100	0.462	1018116
605 12 G	12	4,5 x 6	1	100	0.485	1018124
605 13 G	13	4,5 x 6	1	100	0.532	1018132
605 14 G	14	4,5 x 6	1	100	0.560	1018140
605 15 G	15	4,5 x 6	1	100	0.584	1018159
605 16 G	16	4,5 x 6	1	100	0.585	1018167
605 17 G	17	4,5 x 6	1	100	0.604	1018175
605 18 G	18	4,5 x 6	1	100	0.640	1018183
605 19 G	19	4,5 x 6	1	100	0.671	1018191
605 20 G	20	4,5 x 6	1	100	0.664	1018205
605 21 G	21	4,5 x 6	1	100	0.678	1018213
605 23 G	23	4,5 x 6	1	100	0.826	1018221
605 25 G	25	4,5 x 6	1	100	0.960	1018256
605 26 G	26	4,5 x 6	1	100	0.975	1018264
605 28 G	28	4,5 x 6	1	100	1.067	1018280
605 30 G	30	4,5 x 6	1	100	1.150	1018302
605 32 G	32	4,5 x 6	1	100	1.260	1018337
605 35 G	35	5,5 x 7	1.5	100	1.921	1018353
605 37 G	37	5,5 x 7	1.5	100	2.007	1018361

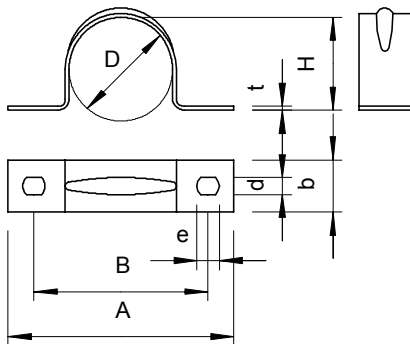
St Steel

G Electrogalvanised

Two lobe fastening clips for cables and pipes.

\* Sizes 7 to 12 not suitable for bolt-firing tool.

## Dimensions



D mm	A mm	B mm	H mm	b mm	t mm	d mm	e mm
7	32	21	6	10	1	4.5	6
8	33	22	7	10	1	4.5	6
9	34	23	8	10	1	4.5	6
10	37	25	9	12	1	4.5	6
11	38	26	10	12	1	4.5	6
12	39	27	11	12	1	4.5	6
13	41	29	12	12	1	4.5	6
14	42	30	13	12	1	4.5	6
15	43	31	13.5	12	1	4.5	6
16	44	32	14.5	12	1	4.5	6
17	45	33	15.5	12	1	4.5	6
18	46	34	16.5	12	1	4.5	5
19	47	35	17.5	12	1	4.5	6
20	49	37	18.5	12	1	4.5	6
21	50	38	19.5	12	1	4.5	6
23	52	40	21	12	1	4.5	6
25	58	44	23	14	1	4.5	6
26	59	45	24	14	1	4.5	6
28	61	47	26	14	1	4.5	6
30	63	49	28	14	1	4.5	6
33	66	52	30	14	1	4.5	6
35	70	56	32	14	1.5	5.5	7
37	72	58	34	14	1.5	5.5	7



## Fastening clip 605, medium-duty



Type	For Ø mm	Hole size mm	Material thickness mm	Weight		Item No.
				Pack. pcs	kg/100 pcs.	
<b>605 40 G</b>	40	5,5 x 7	1,5	50	1.900	<b>1018396</b>
<b>605 43 G</b>	43	5,5 x 7	1,5	50	2.324	<b>1018434</b>
<b>605 47 G</b>	47	5,5 x 7	1,5	50	2.366	<b>1018477</b>
<b>605 50 G</b>	50	5,5 x 7	1,5	25	2.770	<b>1018507</b>
<b>605 55 G</b>	55	5,5 x 7	1,5	25	3.840	<b>1018558</b>
<b>605 60 G</b>	60	5,5 x 7	1,5	25	3.800	<b>1018604</b>
<b>605 63 G</b>	63	5,5 x 7	1,5	25	3.670	<b>1018639</b>

St Steel

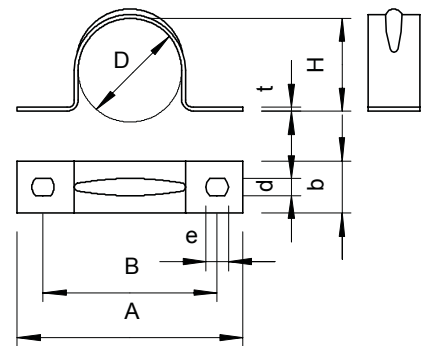
G Electrogalvanised

Two lobe fastening clips for cables and pipes.

\* Sizes 7 to 12 not suitable for bolt-firing tool.

D mm	A mm	B mm	H mm	b mm	t mm	d mm	e mm
40	75	61	37	14	1,5	5,5	7
43	78	64	40	14	1,5	5,5	7
47	82	68	44	14	1,5	5,5	7
50	88	74	46	16	1,5	5,5	7
55	94	78	51	16	1,5	5,5	7
60	99	83	56	16	1,5	5,5	7
63	112	98	59	16	1,5	5,5	7

## Dimensions



## Fastening clip 605, medium-duty

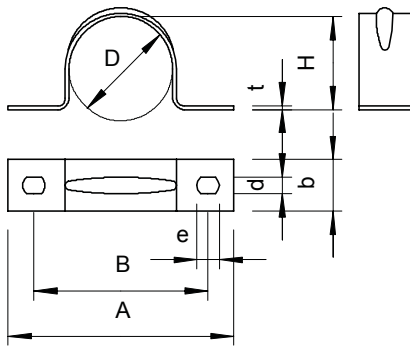


Type	For Ø mm	Hole size mm	Material thickness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
605 16 ALU	16	4,5 x 6	1	100	0.218	1017799
605 20 ALU	20	4,5 x 6	1	100	0.228	1017837
605 25 ALU	25	4,5 x 6	1	100	0.330	1017861
605 32 ALU	32	4,5 x 6	1	100	0.433	1017926
605 40 ALU	40	5,5 x 7	1	50	0.650	1017950
605 50 ALU	50	5,5 x 7	1.5	25	0.952	1017980
605 63 ALU	63	5,5 x 7	1.5	25	1.260	1017997

Alu Aluminium

Two lobe fastening clips for cables and pipes.

## Dimensions



D mm	A mm	B mm	H mm	b mm	t mm	d mm	e mm
16	44	32	14.5	12	1	4.5	6
20	49	37	18.5	12	1	4.5	6
25	58	44	23	14	1	4.5	6
32	95	71	29	25	1	4.5	6
40	75	61	37	14	1.5	5.5	7
50	110	86	46	25	1.5	5.5	7
63	120	96	59	25	1.5	5.5	7



## Fastening clip 605, medium-duty, V4A



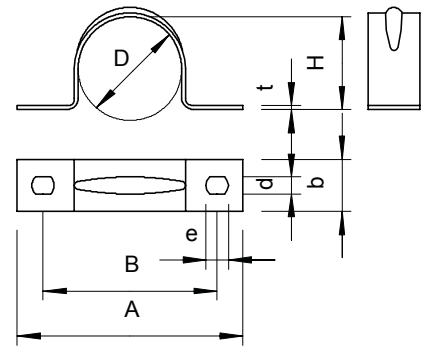
Type	For Ø mm	Hole size mm	Material thickness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
605 12 A4	12	4,5 x 6	1	100	0.485	1018653
605 16 A4	16	4,5 x 6	1	100	0.585	1018661
605 20 A4	20	4,5 x 6	1	100	0.664	1018669
605 25 A4	25	4,5 x 6	1	100	0.992	1018679
605 32 A4	32	4,5 x 6	1	100	1.260	1018693
605 40 A4	40	5,5 x 7	1.5	50	1.900	1018705
605 50 A4	50	5,5 x 7	1.5	25	2.770	1018717
605 63 A4	63	5,5 x 7	1.5	25	3.670	1018729

V4A Stainless steel, A4

Two lobe fastening clips for cables and pipes.

D mm	A mm	B mm	H mm	b mm	t mm	d mm	e mm
12	39	27	11	12	1	4.5	6
16	44	32	14.5	12	1	4.5	6
20	49	37	18.5	12	1	4.5	6
25	58	44	23	14	1	4.5	6
32	66	52	30	14	1	4.5	6
40	75	61	37	14	1.5	5.5	7
50	88	74	46	16	1.5	5.5	7
63	112	98	59	16	1.5	5.5	7

## Dimensions



## Fastening clip 823, heavy-duty



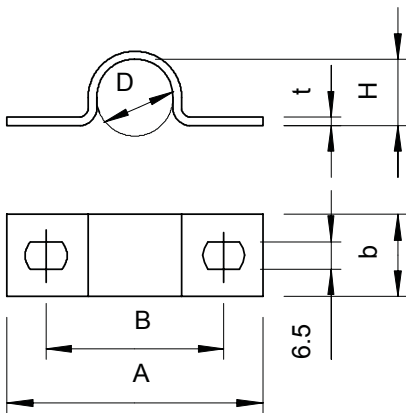
Type	For Ø mm	Hole size mm	Material thickness mm	Pack. pcs	Weight kg/100 pcs.	Item No.
823 16 FT	16	6,5 x 10	2	50	2.260	1015095
823 18.3 FT	18.6	6,5 x 10	2	50	2.446	1015117
823 20 FT	20	6,5 x 10	2	50	2.662	1015133
823 22.5 FT	22.5	6,5 x 10	2	50	2.988	1015168
823 25 FT	25	6,5 x 10	3	25	6.770	1015494
823 28.3 FT	28.3	6,5 x 10	3	25	5.208	1015214
823 32 FT	32	6,5 x 10	3	100	7.469	1015496
823 37 FT	37	6,5 x 10	3	100	8.700	1015303
823 40 FT	40	6,5 x 10	3	100	8.460	1015498
823 47 FT	47	6,5 x 10	3	100	10.120	1015362
823 54 FT	54	6,5 x 10	3	100	10.760	1015427
823 59.3 FT	59.3	6,5 x 10	3	100	11.800	1015486
823 50 FT	50	6,5 x 10	3	100	9.050	1015500
823 63 FT	63	6,5 x 10	3	100	10.700	1015508

St Steel

FT Hot-dip galvanised

Two lobe fastening clips for cables and pipes.

## Dimensions



D mm	A mm	B mm	H mm	b mm	t mm	e mm
15.2	59	40	13	20	2	10
18.6	62	43	16	20	2	10
20.4	64	45	18	20	2	10
22.5	67	48	20	20	2	10
25	79	60	23.5	25	3	10
28.3	75	56	25.5	20	3	10
32	95	71	29	25	3	10
37	93	69	34	25	3	10
40	100	76	36	25	3	10
47	103	79	43	25	3	10
54	110	86	50	25	3	10
59.3	116	92	55	25	3	10
50	110	86	46	25	3	10
63	120	96	59	25	3	10





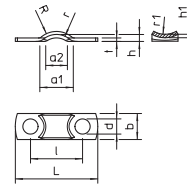
## Strain relief clip 7901

Type	For cable	Hole	Material	Pack.	Weight	Item No.
	Ø	size	thickness		kg/100	
	mm	mm	mm	pcs	pcs.	
<b>7901 5 G</b>	5	3,5	0,8	100	0.063	<b>1435019</b>
<b>7901 6.5 G</b>	6.5	3,2	1	100	0.115	<b>1435027</b>

St Steel

G Electrogalvanised

Fastening clip for strain relief of cables.



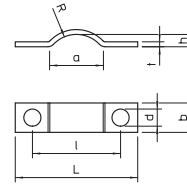
## Strain relief clip 7902

Type	For cable	Hole	Material	Pack.	Weight	Item No.
	Ø	size	thickness		kg/100	
	mm	mm	mm	pcs	pcs.	
<b>7902 6 G</b>	6.5	3,5	1	100	0.096	<b>1436015</b>
<b>7902 8 G</b>	8	4	1	100	0.159	<b>1436023</b>

St Steel

G Electrogalvanised

Fastening clip for strain relief of cables.



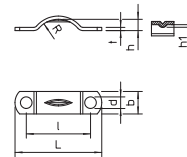
## Strain relief clip 7903

Type	For cable	Hole	Material	Pack.	Weight	Item No.
	Ø	size	thickness		kg/100	
	mm	mm	mm	pcs	pcs.	
<b>7903 6 G</b>	6	2,5	0,5	100	0.105	<b>1437003</b>
<b>7903 8 G</b>	8	3,6	0,8	100	0.130	<b>1437011</b>
<b>7903 9 G</b>	9	4,5	1	100	0.274	<b>1437038</b>

St Steel

G Electrogalvanised

Fastening clip for strain relief of cables.



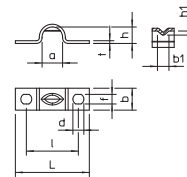
## Strain relief clip 7904

Type	For cable	Hole	Material	Pack.	Weight	Item No.
	Ø	size	thickness		kg/100	
	mm	mm	mm	pcs	pcs.	
<b>7904 6 G</b>	6	3,5x4	1	100	0.185	<b>1438018</b>

St Steel

G Electrogalvanised

Fastening clip for strain relief of cables.



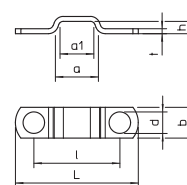
## Strain relief clip 7905

Type	For cable	Hole	Material	Pack.	Weight	Item No.
	Ø	size	thickness		kg/100	
	mm	mm	mm	pcs	pcs.	
<b>7905 5 G</b>	5	3,5	0,8	100	0.054	<b>1439014</b>

St Steel

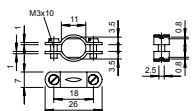
G Electrogalvanised

Fastening clip for strain relief of cables.



## Strain relief clip

## Strain relief clip 7908



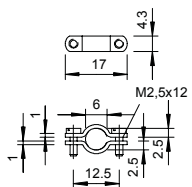
Type	For cable		Material thickness	Pack. pcs	Weight		Item No.
	Ø	mm			kg/100 pcs.		
<b>7908 11 G</b>	11	1		100	0.433	<b>1442015</b>	

**Sl** Steel

**G** Electrogalvanised

Fastening clip for strain relief of cables.

## Strain relief clip 7909



Type	For cable		Material thickness	Pack. pcs	Weight		Item No.
	Ø	mm			kg/100 pcs.		
<b>7909 6 G</b>	6	1		100	0.198	<b>1443011</b>	

**Sl** Steel

**G** Electrogalvanised

Fastening clip for strain relief of cables.







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## Cable routing and mounting systems

	<b>Cable tie</b>	334
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# Jack of all trades

Bundling cables



Suspend and secure



Mounting and fastening



### Cable tie

- Large variety
- UV-resistant



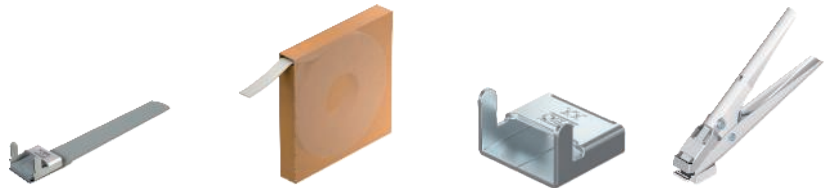
### Ribbon clips

- UV-resistant
- Single and double lock
- Stainless steel version



### Tightening straps

- High load capacity
- Coils and fixed lengths
- Special tool available



### Tensioning wire

- High loading capacity
- Diverse range



### Installation strip

- Wide range of application options
- Convenient packaging
- Various materials



## Cable ties

### Cable tie, white



Type	Dimension B mm	Dimension L mm	Dimension t mm	Tensile strength N	Max. bundle Ø mm	Colour	Pack. pcs.	Weight kg/100 pcs.	Item No.
565 2.5x75 WS	2.5	75	1	80	15	White	100	0.020	2331800
565 2.5x100 WS	2.5	100	1	80	22	White	100	0.025	2331810
565 2.5x150 WS	2.5	150	1.3	80	39	White	100	0.047	2331816
565 2.5x200 WS	2.5	200	1.3	80	55	White	100	0.062	2331822
565 3.6x150 WS	3.6	150	1.4	180	36	White	100	0.070	2331830
565 3.6x200 WS	3.6	200	1.4	180	52	White	100	0.104	2331836
565 3.6x290 WS	3.6	290	1.4	180	82	White	100	0.140	2331842
565 3.6x365 WS	3.6	365	1.4	180	105	White	100	0.183	2331848
565 4.8x120 WS	4.8	120	1.5	220	27	White	100	0.089	2331860
565 4.8x160 WS	4.8	160	1.6	220	39	White	100	0.120	2331866
565 4.8x200 WS	4.8	200	1.6	220	52	White	100	0.149	2331872
565 4.8x300 WS	4.8	300	1.5	220	83	White	100	0.201	2331878
565 4.8x365 WS	4.8	365	1.5	220	105	White	100	0.251	2331884
565 4.8x430 WS	4.8	430	1.5	220	125	White	100	0.288	2331890
565 7.6x200 WS	7.6	200	1.8	530	52	White	100	0.287	2331910
565 7.6x300 WS	7.6	300	1.6	530	80	White	100	0.334	2331916
565 7.6x380 WS	7.6	380	1.8	530	105	White	100	0.533	2331922
565 7.6x450 WS	7.6	450	2	530	128	White	100	0.717	2331934
565 9x760 WS	9	760	2	800	227	White	100	1.311	2331944

PA Polyamide

Cable ties are used for quick, uncomplicated fixing or bundling of cables and pipes to cable support systems or other mounting structures.

### Cable tie, black, UV and weather-resistant



Type	Dimension B mm	Dimension L mm	Dimension t mm	Tensile strength N	Max. bundle Ø mm	Colour	Pack. pcs.	Weight kg/100 pcs.	Item No.
565 2.5x75 SWUV	2.5	75	1	80	15	Black	100	0.020	2331802
565 2.5x100 SWUV	2.5	100	1	80	22	Black	100	0.025	2331812
565 2.5x150 SWUV	2.5	150	1.3	80	39	Black	100	0.047	2331818
565 2.5x200 SWUV	2.5	200	1.3	80	55	Black	100	0.062	2331824
565 3.6x150 SWUV	3.6	150	1.4	180	36	Black	100	0.070	2331832
565 3.6x200 SWUV	3.6	200	1.4	180	52	Black	100	0.104	2331838
565 3.6x290 SWUV	3.6	290	1.4	180	82	Black	100	0.140	2331844
565 3.6x365 SWUV	3.6	365	1.4	180	105	Black	100	0.183	2331850
565 4.8x120 SWUV	4.8	120	1.5	220	27	Black	100	0.089	2331862
565 4.8x160 SWUV	4.8	160	1.6	220	39	Black	100	0.120	2331868
565 4.8x200 SWUV	4.8	200	1.6	220	52	Black	100	0.149	2331874
565 4.8x300 SWUV	4.8	300	1.5	220	83	Black	100	0.201	2331880
565 4.8x365 SWUV	4.8	365	1.5	220	105	Black	100	0.251	2331886
565 4.8x430 SWUV	4.8	430	1.5	220	125	Black	100	0.288	2331892
565 7.6x200 SWUV	7.6	200	1.8	530	52	Black	100	0.287	2331912
565 7.6x300 SWUV	7.6	300	1.6	530	80	Black	100	0.334	2331918
565 7.6x380 SWUV	7.6	380	1.8	530	105	Black	100	0.533	2331924
565 7.6x450 SWUV	7.6	450	2	530	128	Black	100	0.717	2331936
565 9x760 SWUV	9	760	2	800	227	Black	100	1.311	2331946

PA Polyamide

Cable ties are used for quick, uncomplicated fixing or bundling of cables and pipes to cable support systems or other mounting structures.

## Metal strip clips, narrow

Type	Length mm	Width mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>MBS 030</b>	300	7	100	0.399	<b>7203102</b>
<b>MBS 045</b>	450	7	50	0.602	<b>7203104</b>
<b>MBS 061</b>	610	7	50	0.806	<b>7203106</b>

V2A Stainless steel, grade 304

Metal strip clip in ladder form with single lock. For high-temperature and weatherproof fixing.



## Metal strip clips, wide

Type	Length mm	Width mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>MBS 100</b>	1000	12	25	3.000	<b>7203110</b>
<b>MBS 120</b>	1200	12	25	3.600	<b>7203112</b>
<b>MBS 150</b>	1500	12	25	4.400	<b>7203114</b>

V2A Stainless steel, grade 304

Metal strip clip in ladder form with single lock. For high-temperature and weatherproof fixing.



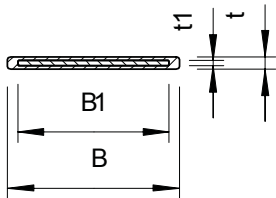
## Tightening strap

### Tightening strap



Type	Ø breaking load kN	Colour	Pack.		Weight kg/100 m	Item No.
			m	pcs.		
<b>SBR 8 A2K</b>	1.16	Jet black	50	2.840		<b>6490192</b>
<b>SBR 8 A4K</b>	1.09	Chestnut brown	50	2.840		<b>6490194</b>
<b>V2A</b>	Stainless steel, A2					
<b>V4A</b>	Stainless steel, A4					
<b>K</b>	Plastic-coated					

Tightening strap made of rustproof steel with plastic jacketing to fasten cables on cable support systems.



### Tightening strap lock



Type	Pack. pcs.	Weight		Item No.
		kg/100	pcs.	
<b>SBV 8 FS</b>	100	0.250		<b>6490940</b>
<b>SBV 8 A2</b>	100	0.250		<b>6490942</b>
<b>SBV 8 A4</b>	100	0.250		<b>6490944</b>
<b>St</b>	Steel			
<b>V2A</b>	Stainless steel, A2			
<b>V4A</b>	Stainless steel, A4			
<b>FS</b>	Strip-galvanised			

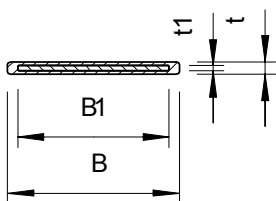
Tightening strap lock made of strip-galvanised steel, suitable for portfolio with 8 mm width.

### Tightening strap

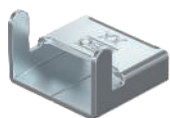


Type	Ø breaking load kN	Colour	Pack.		Weight kg/100 m	Item No.
			m	pcs.		
<b>SBR 15 FSK</b>	2.5	Stone grey	25	7.628		<b>6490280</b>
<b>SBR 15 A2K</b>	4.19	Jet black	25	7.628		<b>6490282</b>
<b>SBR 15 A4K</b>	3.93	Chestnut brown	25	7.628		<b>6490284</b>
<b>St</b>	Steel					
<b>V2A</b>	Stainless steel, A2					
<b>V4A</b>	Stainless steel, A4					
<b>FSK</b>	Strip galvanised/plastic-coated					
<b>K</b>	Plastic-coated					

Tightening strap made of strip-galvanised steel with plastic jacketing to fasten cables on cable support systems.



### Tightening strap lock



Type	Pack. pcs.	Weight		Item No.
		kg/100	pcs.	
<b>SBV 15 FS</b>	100	0.560		<b>6490950</b>
<b>SBV 15 A2</b>	100	0.560		<b>6490964</b>
<b>SBV 15 A4</b>	100	0.560		<b>6490972</b>
<b>St</b>	Steel			
<b>V2A</b>	Stainless steel, A2			
<b>V4A</b>	Stainless steel, A4			
<b>FS</b>	Strip-galvanised			

Tightening strap lock made of strip-galvanised steel, suitable for portfolio with 15 mm width.



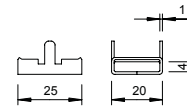
## Tightening strap lock

Type	Shipping box pcs	1200	Pack. pcs	Weight		Item No.
				kg/100	pcs.	
<b>192 DD</b>			100	0.900		<b>6490905</b>

St Steel

DD Strip galvanised zinc/aluminium, double dip

Tightening strap lock for mounting under deck.

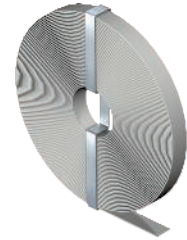


## Tightening strap

Type	Dimension mm	Minimum breaking load kN	Colour	Pack. m	Weight		Item No.
					kg/100 m	pcs.	
<b>574 03 LBL</b>	17 x 1,2	2.25	Light blue	25	5.680		<b>6490034</b>
<b>574 05 PGN</b>	17 x 1,2	3.5	Patina green	25	7.120		<b>6490050</b>

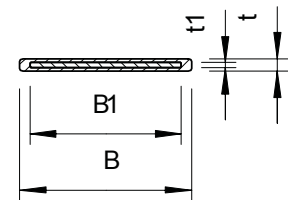
V2A Stainless steel, A2

Tightening strap made of Stainless steel and with plastic covering for fastening on cable trays and ladders.



## Dimensions

Type	B	t	B1	t1
	mm	mm	mm	mm
<b>574 03 BR</b>	17	1	15,5	0,3
<b>574 03 SW</b>	17	1,2	15,5	0,3
<b>574 03 LBL</b>	17	1,2	15,5	0,3
<b>574 05 PGN</b>	17	1,2	14,5	0,5

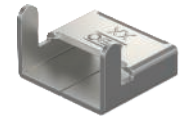
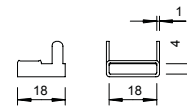


## Tightening strap lock

Type	Pack. pcs	Weight		Item No.
		kg/100	pcs.	
<b>SBV 15 A2</b>	100	0.560		<b>6490964</b>

V2A Stainless steel, A2

Tightening strap lock made of rustproof steel, suitable for portfolio with 15 mm width.



### Tightening strap in fixed lengths

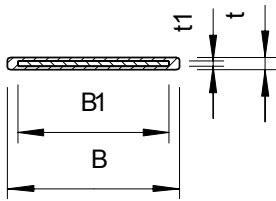


Type	Length mm	Ø breaking load kN	Colour	Weight		Item No.
				Pack. pcs	kg/100 pcs.	
<b>SBF 8-200 A2K</b>	200	1.16	Jet black	25	0.700	<b>6490210</b>
<b>SBF 8-300 A2K</b>	300	1.16	Jet black	25	1.000	<b>6490214</b>
<b>SBF 8-400 A2K</b>	400	1.16	Jet black	25	1.300	<b>6490218</b>
<b>SBF 8-500 A2K</b>	500	1.16	Jet black	25	1.600	<b>6490222</b>
<b>SBF 8-600 A2K</b>	600	1.16	Jet black	25	1.800	<b>6490226</b>
<b>SBF 8-200 A4K</b>	200	1.09	Chestnut brown	25	0.700	<b>6490240</b>
<b>SBF 8-300 A4K</b>	300	1.09	Chestnut brown	25	1.000	<b>6490244</b>
<b>SBF 8-400 A4K</b>	400	1.09	Chestnut brown	25	1.300	<b>6490248</b>
<b>SBF 8-500 A4K</b>	500	1.09	Chestnut brown	25	1.600	<b>6490252</b>
<b>SBF 8-600 A4K</b>	600	1.09	Chestnut brown	25	1.800	<b>6490256</b>

V2A Stainless steel, A2 V4A Stainless steel, A4

K Plastic-coated

Pre-terminated tightening strap made of rustproof steel with plastic jacketing and tightening strap lock.



### Tightening strap in fixed lengths

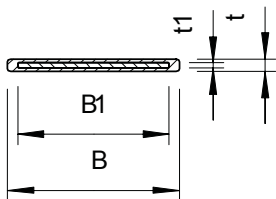


Type	Length mm	Ø breaking load kN	Colour	Weight		Item No.
				Pack. pcs	kg/100 pcs.	
<b>SBF 15-300 FSK</b>	300	2.5	Stone grey	25	2.600	<b>6490300</b>
<b>SBF 15-400 FSK</b>	400	2.5	Stone grey	25	3.300	<b>6490304</b>
<b>SBF 15-500 FSK</b>	500	2.5	Stone grey	25	4.100	<b>6490308</b>
<b>SBF 15-600 FSK</b>	600	2.5	Stone grey	25	4.800	<b>6490312</b>
<b>SBF 15-700 FSK</b>	700	2.5	Stone grey	25	5.500	<b>6490316</b>
<b>SBF 15-800 FSK</b>	800	2.5	Stone grey	25	6.200	<b>6490320</b>
<b>SBF 15-900 FSK</b>	900	2.5	Stone grey	25	6.900	<b>6490324</b>
<b>SBF 15-1000 FSK</b>	1000	2.5	Stone grey	25	7.600	<b>6490328</b>
<b>SBF 15-300 A2K</b>	300	4.19	Jet black	25	2.600	<b>6490340</b>
<b>SBF 15-500 A2K</b>	500	4.19	Jet black	25	4.100	<b>6490348</b>
<b>SBF 15-600 A2K</b>	600	4.19	Jet black	25	4.800	<b>6490352</b>
<b>SBF 15-700 A2K</b>	700	4.19	Jet black	25	5.500	<b>6490356</b>
<b>SBF 15-800 A2K</b>	800	4.19	Jet black	25	6.200	<b>6490360</b>
<b>SBF 15-900 A2K</b>	900	4.19	Jet black	25	6.900	<b>6490364</b>
<b>SBF 15-1000 A2K</b>	1000	4.19	Jet black	25	7.600	<b>6490368</b>
<b>SBF 15-300 A4K</b>	300	3.93	Chestnut brown	25	2.600	<b>6490380</b>
<b>SBF 15-400 A4K</b>	400	3.93	Chestnut brown	25	3.300	<b>6490384</b>
<b>SBF 15-500 A4K</b>	500	3.93	Chestnut brown	25	4.100	<b>6490388</b>
<b>SBF 15-600 A4K</b>	600	3.93	Chestnut brown	25	4.800	<b>6490392</b>
<b>SBF 15-700 A4K</b>	700	3.93	Chestnut brown	25	5.500	<b>6490396</b>
<b>SBF 15-800 A4K</b>	800	3.93	Chestnut brown	25	6.200	<b>6490400</b>
<b>SBF 15-900 A4K</b>	900	3.93	Chestnut brown	25	6.900	<b>6490404</b>
<b>SBF 15-1000 A4K</b>	1000	3.93	Chestnut brown	25	7.600	<b>6490408</b>

St Steel V2A Stainless steel, A2 V4A Stainless steel, A4

FSK Strip galvanised/plastic-coated K Plastic-coated

Pre-terminated tightening strap made of strip-galvanised steel with plastic jacketing and tightening strap lock.



## Tightening strap

Type	Dimension mm	Length mm	Minimum breaking load kN	Colour	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>574 03 30 LBL</b>	17 x 1,2	300	2.25	Light blue	25	2.410	<b>6490107</b>
<b>574 03 45 LBL</b>	17 x 1,2	450	2.25	Light blue	25	3.260	<b>6490123</b>
<b>574 05 55 PGN</b>	17 x 1,2	550	3.5	Patina green	25	4.660	<b>6490158</b>
<b>574 05 65 PGN</b>	17 x 1,2	650	3.5	Patina green	25	5.370	<b>6490174</b>

V2A Stainless steel, A2

Tightening strap, 574, completely pre-assembled with tightening strap lock.

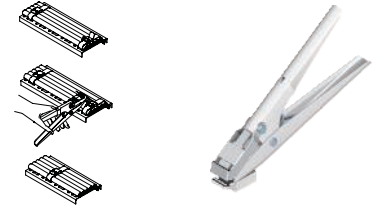


## Spring chuck

Type	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>575</b>	1	29.700	<b>6498019</b>

St Steel

Clamping tool for all OBO tightening straps in conjunction with appropriate tightening strap locks. Simple spring chuck without ratchet function and shortening unit. With ergonomically shaped grips.

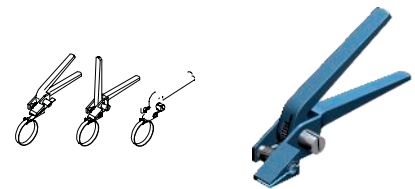


## Spring chuck

Type	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>576</b>	1	132.000	<b>6498027</b>

St Steel

Clamping tool for all OBO tightening straps in conjunction with appropriate tightening strap locks. With high clamping force, ratchet function, shortening unit and round grips for pleasant handling.



## Slotted steel strap

### Slotted steel strap in strips



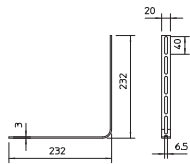
Type	Dimension mm	Hole size mm	Length mm	Pack. m	Weight kg/100 m	Item No.
<b>OSS 20x3 3M FT</b>	20 x 3	6,5 x 40	3000	60	35.000	<b>1465767</b>
<b>OSS 30x3 3M FT</b>	30 x 3	8,5 x 60	3000	30	72.000	<b>1465805</b>
<b>OSS 40x4 3M FT</b>	40 x 4	8,5 x 70	3000	30	101.000	<b>1465821</b>

**St** Steel

**FT** Hot-dip galvanised

Perforated slotted steel strap in strips.

### Slotted steel strap, bent



Type	Dimension mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>OSG 20X3 FT</b>	20x3	25	15.800	<b>6017371</b>

**St** Steel

**FT** Hot-dip galvanised

Bent slotted steel strap for creation of bends and tees.

### Slotted steel strap, rings



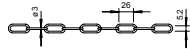
Type	Dimension mm	Pack. m	Weight kg/100 m	Item No.
<b>OSR 20x1.5 FS</b>	20 x 1,5	200	18.000	<b>1465600</b>

**St** Steel

**BK** Bright

In rings.

### Suspension chain



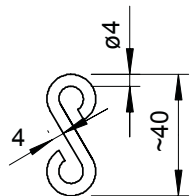
Type	Breaking load kN	Pack. m	Weight kg/100 m	Item No.
<b>K-C30 G</b>	0.7	25	10.000	<b>1488201</b>

**St** Steel

**G** Electrogalvanised

To suspend luminaire supports or other components.

### S hook



Type	Breaking load kN	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>SH 40 G</b>	0.5	100	0.800	<b>1488252</b>

**St** Steel

**G** Electrogalvanised

Connecting book of support clamps and suspension chains.

Solvent mixture

Type	Contents	Pack.	Weight		Item No.
	ml		pcs	kg/100	
508	1000	1	105.000	2341107	



Thinning.

Solvent mixture to create an optimum processing consistency of Impu-Fix ribbon conductor quick adhesive and to clean the working material.

Impu-Fix ribbon conductor quick adhesive

Type	Contents	Pack.	Weight		Item No.
	kg		pcs	kg/100	
509	0.65	1	70.000	2341018	



Impu-Fix ribbon conductor bonding agent to stick clips and ribbon conductors to masonry and concrete.

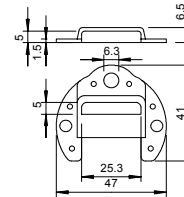
Ceiling outlet



Type	Colour	Pack.	Weight		Item No.
			pcs	kg/100	
510	Light grey	100	0.290	2236028	

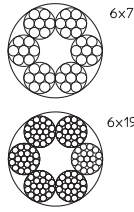
PS Polystyrene

To fasten ribbon conductors.





## Steel wire tensioning rope



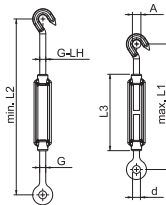
Type	Cable diameter mm	Breaking load kN	In rings m	Pack. m	Weight kg/100 m	Item No.
957 2 G	2	2.35	50	50	1.430	5303202
957 3 G	3	5.29	50	50	3.220	5303206
957 4 G	4	9.41	50	50	5.720	5303214
957 5 G	5	14.7	50	50	8.940	5303222
957 6 G	6	21.1	50	50	12.900	5303230
957 8 G	8	34.8	50	50	22.900	5303257
957 10 G	10	54.4	50	50	35.700	5303265
957 2 A4	2	2.35	50	50	1.430	5303179
957 3 A4	3	5.29	50	50	3.220	5303182
957 4 A4	4	9.41	50	50	5.720	5303185
957 5 A4	5	14.7	50	50	8.940	5303188
957 6 A4	6	21.1	50	50	12.900	5303191
957 8 A4	8	34.8	50	50	22.900	5303194
957 10 A4	10	54.4	50	50	35.700	5303197

St Steel V4A Stainless steel, A4

G Electrogalvanised

Steel wire tensioning rope, galvanised with fibre inlay (hemp core).  
 Cable Ø 2–6 mm: round-stranded cable 6 x 7 according to DIN 3055.  
 Cable Ø 8–10 mm: round-stranded cable 6 x 19 according to DIN 3060.  
 Minimum break force 1770 N/mm<sup>2</sup>.

## Tension jack



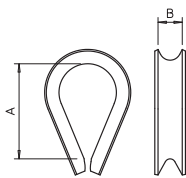
Type	Thread	Dimension A mm	Dimension B mm	Dimension C mm	Breaking load kN	Pack. pcs.	Weight kg/100 pcs.	Item No.
945 M6 G	M6	9	8.5	110	2.25	5	13.050	5300037
945 M10 G	M10	14	13.5	125	7	5	33.650	5300053
945 M12 G	M12	16	15.5	125	7.5	5	53.000	5300061
945 M16 G	M16	22	19	170	12	5	84.000	5300088
945 M6 A4	M6	9	8.5	110	2.25	5	10.500	5300120
945 M10 A4	M10	14	13.5	125	7	5	28.000	5300124
945 M12 A4	M12	16	15.5	125	7.5	5	42.000	5300127
945 M16 A4	M16	22	19	170	12	5	100.000	5300132

St Steel V4A Stainless steel, A4

G Electrogalvanised

With hook and eye, to DIN 1480.

## Cable eye stiffener



Type	For rope-Ø mm	Dimension A mm	Dimension B mm	Pack. pcs.	Weight kg/100 pcs.	Item No.
946 3 G	3	23.5	3.5	25	0.210	5301033
946 4 G	4	28.5	5	25	0.390	5301041
946 5 G	5	30	6	25	0.660	5301009
946 6 G	6	33	7	25	0.840	5301068
946 8 G	8	39	9	10	1.880	5301084
946 10 FT	10	47.5	11	10	2.900	5301106
946 3 A4	3	23.5	3.5	25	0.210	5301170
946 4 A4	4	28.5	5	25	0.390	5301172
946 5 A4	5	30	6	25	0.660	5301174
946 6 A4	6	33	7	25	0.840	5301176
946 8 A4	8	39	9	10	1.880	5301180
946 10 A4	10	47.5	11	10	2.900	5301184

St Steel V4A Stainless steel, A4

G Electrogalvanised FT Hot-dip galvanised

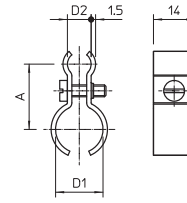
Cable eye stiffener to DIN 65457.

### Tensioning wire clip

Type	Clamping range D mm	Pack. pcs	Weight kg/100 pcs.	Item No.
1020 11-16 G	11 - 16	50	1.420	1404164
1020 14-18 G	14 - 18	50	1.650	1404180
1020 18-28 G	19 - 28	50	2.000	1404288
1020 11-16 A4	11 - 16	50	1.420	1404168
1020 14-18 A4	14 - 18	50	1.650	1404184
1020 18-28 A4	19 - 28	50	2.000	1404292

St Steel V4A Stainless steel, A4  
G Electrogalvanised

To fasten cables to tensioning cables. With bolt M4x13.



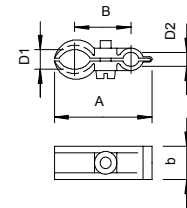
### Tensioning wire clip, polystyrene



Type	Clamping range D mm	Pack. pcs	Weight kg/100 pcs.	Item No.
4024 9-16	9 - 16	100	0.460	2305151
4024 16-23	16 - 23	50	0.930	2305232

PS Polystyrene

Bolt, steel, electrogalvanised, light grey.



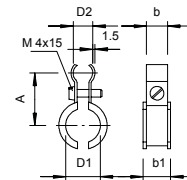
### Fix ISO tensioning wire clip



Type	Clamping range D mm	Pack. pcs	Weight kg/100 pcs.	Item No.
4021 K 6-13	6 - 13	100	1.295	2307618
4021 K 9-16	9 - 16	100	1.457	2307634
4021 K 6-13 A4	6 - 13	100	1.295	2307622
4021 K 9-16 A4	9 - 16	100	1.457	2307638

St Steel V4A Stainless steel, A4  
FS Strip-galvanised

Metal clip with plastic insert, steel, electrogalvanised, polyethylene inserts.

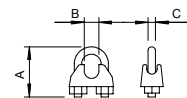


### Wire cable clamp

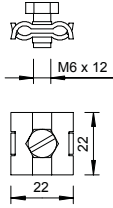
Type	For rope-Ø mm	Dimension A mm	Dimension B mm	Dimension C mm	Pack. pcs	Weight kg/100 pcs.	Item No.
947 3 G	3	20	4	4	25	1.100	5302021
947 5 G	5	24	6	5	25	1.400	5302056
947 6 G	6	28	8	5	25	1.700	5302064
947 8 G	8	34	9	6	10	3.100	5302080
947 10 G	10	42	11	8	10	6.500	5302102
947 3 A4	3	20	4	4	25	1.090	5302170
947 5 A4	5	24	6	5	25	1.500	5302174
947 6 A4	6	28	8	5	25	2.080	5302178
947 8 A4	8	34	9	6	10	3.390	5302182
947 10 A4	10	42	11	8	10	6.310	5302188

St Steel V4A Stainless steel, A4  
G Electrogalvanised

Wire cable clamp for fastening steel wire tensioning ropes.



## Wire cable clamp

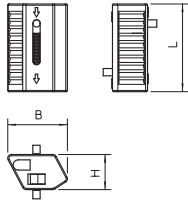


Type	For rope-Ø		Bolt	Weight		Item No.
	mm			Pack. pcs	kg/100 pcs.	
<b>261 3-6 G</b>	3 - 6		M6x12	100	1.498	<b>5305012</b>
<b>261 3-6 A4</b>	3 - 6		M6x12	100	1.498	<b>5305016</b>

**St** Steel **V4A** Stainless steel, A4  
**G** Electrogalvanised

Wire cable clamp for fastening steel wire tensioning ropes.

## Cable lock



Type	For rope-Ø mm	Dimen- sion L mm	Dimen- sion B mm	Dimen- sion H mm	Breaking load kN	Weight		Item No.
						Pack. pcs	kg/100 pcs.	
<b>944 RZS 2 G</b>	2 - 2.5	26.6	17.1	12.5	0.6	25	2.130	<b>5300015</b>
<b>944 RZS 3 G</b>	2.5 - 3.5	36.4	24.3	14.9	1.2	25	5.120	<b>5300019</b>

**Zn** Die-cast zinc

Cable lock for the flexible and easily readjustable suspension with steel wire tensioning rope, type 957. The system allows suspensions in different angles.

# Loads, installation strip

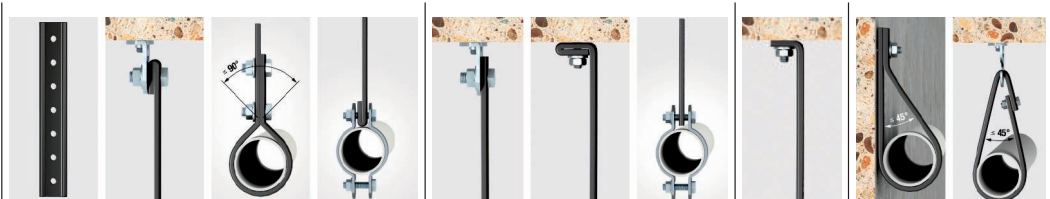
When two loads are combined, the value of the worst case applies. In addition, the table values only apply under the following conditions:

- In perforated strip 5055, loads may only be applied in the round holes.
- If placing a bolt in the last hole, always ensure that there is one full bar left above the hole.

- The right sizes of bolt for the perforated strip must be used (M5 for size I, M6 for size II, M8 for size III).
- The bolts must be tightened. The user of smaller or loose bolts causes a strong drop in the breaking load.



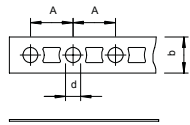
## Breaking loads



Type	Art.-No.	Load 1	Load 2	Load 3	Load 4
5055	1470 12 4	2150 N	1850 N	1650 N	3700 N
	1470 17 5	3050 N	2000 N	1800 N	4000 N
	1470 26 4	6750 N	6750 N	3300 N	13500 N
5055/L	1471 12 0	1150 N	1400 N	1200 N	2800 N
	1471 17 1	2200 N	1500 N	1300 N	3000 N
	1471 26 0	5350 N	2800 N	2400 N	5600 N
5055/ L PE	1473 22 0	1500 N	1500 N	1300 N	3000 N
	1473 27 1	2300 N	2300 N	1700 N	4600 N
	1473 36 0	4700 N	4250 N	4000 N	8500 N
5062	1475 12 6	1600 N	1600 N	2150 N	3200 N
	1475 17 7	2350 N	2350 N	3050 N	4700 N
	1475 26 6	4700 N	4700 N	3700 N	9400 N
5062/L	1475 62 2	1300 N	1300 N	1300 N	2600 N
	1475 67 3	1650 N	1650 N	1300 N	3300 N
	1475 76 2	3800 N	3800 N	3200 N	7600 N



## Perforated steel strap



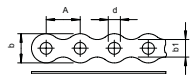
Type	Dimension mm	Dimension d mm	Dimension A mm	Dimension per roll m	Pack. pcs.	Weight kg/100 pcs.	Item No.
5055 I12 FS	12 x 1	5.2	14.4	10	1	73.000	1470124
5055 II17 FS	17 x 1	6.5	20	10	1	106.000	1470175
5055 III26 FS	26 x 1,2	8.5	25	10	1	204.500	1470264
5055 LI12 FS	12 x 0,75	5.2	14.4	10	1	59.000	1471120
5055 LII17 FS	17 x 0,75	6.5	20	10	1	84.200	1471171
5055 LIII26 FS	26 x 1	8.5	25	10	1	172.300	1471260

SI Steel

FS Strip-galvanised

Perforated steel strap, in practical uncoiling box.

## Perforated steel strap, ridged



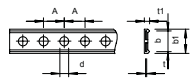
Type	Dimension mm	Dimension d mm	Dimension A mm	Dimension per roll m	Pack. pcs.	Weight kg/100 pcs.	Item No.
5062 I12 FS	12 x 1	5	14	10	1	69.000	1475126
5062 II17 FS	17 x 1	7	20	10	1	98.500	1475177
5062 III26 FS	26 x 1,2	9	25	10	1	183.000	1475266
5062 LI12 FS	12 x 0,75	5	14	10	1	57.000	1475622
5062 LII17 FS	17 x 0,75	7	20	10	1	73.000	1475673
5062 LIII26 FS	26 x 1	9	25	10	1	153.000	1475762

SI Steel

FS Strip-galvanised

Perforated strap with wavy edges, in practical uncoiling box.

## Perforated steel strap, plastic-coated



Type	Dimension mm	Dimension d mm	Dimension A mm	Dimension per roll m	Pack. pcs.	Weight kg/100 pcs.	Item No.
5055 L PE I 14	14 x 3	5.2	12	10	1	70.000	1473220
5055 L PE II 19	19 x 3	6.5	15	10	1	100.500	1473271
5055 L PE III 28	28 x 3,7	8.5	20	10	1	167.500	1473360

SI Steel

FSK Strip galvanised/plastic-coated

Perforated steel strap with PE plastic jacketing.














738  
1420  
48-34

OBO

OBO

## Pipe systems

	<b>Steel pipe, electrogalvanised</b>	354
	<b>Steel pipe, black, powder-coated</b>	356
	<b>Steel pipe, hot galvanised</b>	358
	<b>Stainless steel pipe</b>	360
	<b>Aluminium pipe</b>	362
	<b>System accessories</b>	365
	<b>Quick pipe system</b>	369



# IEC classification in accordance with DIN EN 61386-1

The OBO Bettermann pipe systems are machined and tested according to DIN EN 61386 (Electrical installation pipe systems for electrical energy and information) and DIN EN 60423 (External diameters of electrical installation

pipes and thread for electrical installation pipes and their accessories).

### Numeric code

DIN EN 61386-1 classifies installation pipes using a 12-digit numeric

code, which provides information on the pressure resistance, impact resistance or use temperatures. You can find the first five digits in the product descriptions of the pipe systems.



**First digit**  
Compression resistance

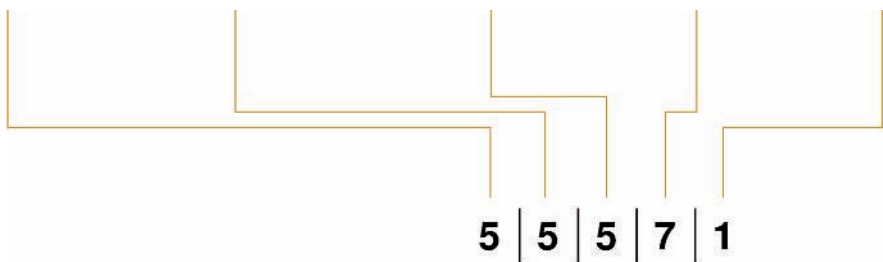
**Second digit**  
Impact resistance

**Third digit**  
Minimum use temperature

**Fourth digit**  
Maximum use temperature

**Fifth digit**  
Bending resistance

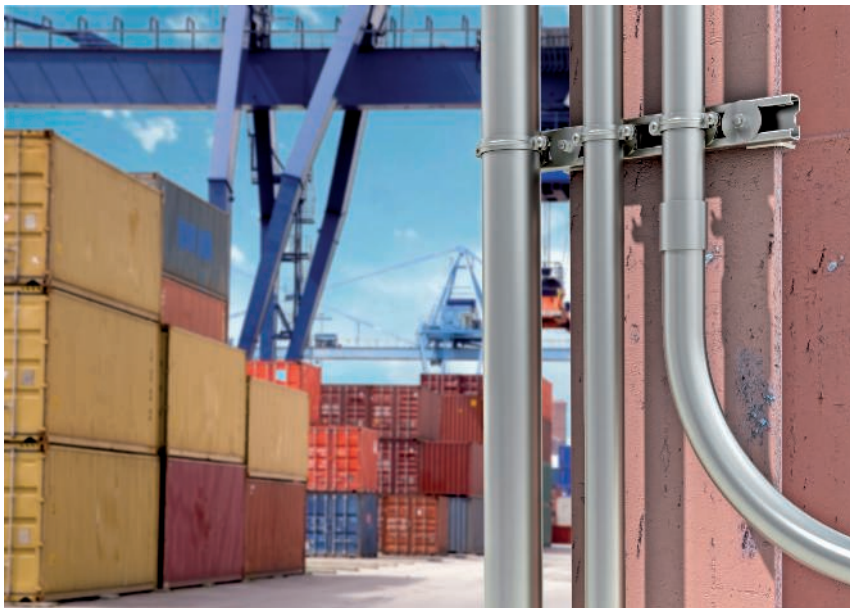
	First digit		Second digit		Third digit		Fourth digit		Fifth digit
	Pressure resistance		Impact resistance		Minimum use temperature		Maximum use temperature		Bending behaviour
1	Very light (125 N)	1	Very light (0.5 kg/100 mm)	1	+ 5 °C	1	+ 60 °C	1	Rigid
2	Light (320 N)	2	Light (1.0 kg/100 mm)	2	- 5 °C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



# Electrical installation pipes

## Classification according to IEC EN 61386-1: Corrosion protection

9th digit	Resistance against corrosion	Suitable surfaces
1	Low protection, inside and outside	
2	Medium protection, inside and outside	<ul style="list-style-type: none"> <li>• Painted black (SW)</li> <li>• Electrogalvanised (G)</li> <li>• Strip galvanised (FS)</li> </ul>
3	Medium protection inside, high protection outside	
4	High protection, inside and outside	<ul style="list-style-type: none"> <li>• Hot-dip galvanised (FT)</li> <li>• Stainless steel (V2A, V4A)</li> </ul>



### Protection against mechanical loads

OBO metal pipes are particularly suited to use under tough industrial conditions. They provide reliable protection against very heavy mechanical loads during cable routing.

The different material and surface qualities, from galvanised to painted, allow perfect adaptation to the requirements of the appropriate environment.

### Maintenance of electrical function to E30/E90

Our steel pipes guarantee the maintenance of electrical function to E30/E90. They are thus ideal for the connection of safety-relevant equipment, such as fire alarm systems.





**Electrogalvanised threaded pipe**

- VDE-tested
- Trimmed weld
- Internally galvanised

**Electrogalvanised plug-in pipe**

- VDE-tested
- Trimmed weld
- Galvanised inside

**Black, powder-coated Threaded pipe**

- VDE-tested
- Trimmed weld

**Black, powder-coated Plug-in pipe**

- VDE-tested
- Trimmed weld

**Hot galvanised threaded pipe**

- VDE-tested
- Trimmed weld
- High corrosion protection
- Zinc/nickel sleeve

**Hot galvanised plug-in pipe**

- VDE-tested
- Trimmed weld
- High corrosion protection

**Stainless steel pipe, V2A**

- VDE-tested
- Brushed surface



### Stainless steel plug-in pipe, V4A

- VDE-tested
- Brushed surface



### Aluminium threaded pipe

- VDE-tested



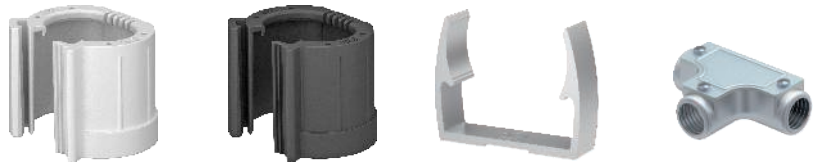
### Aluminium plug-in pipe

- VDE-tested



### Accessories

- Wide range of application options

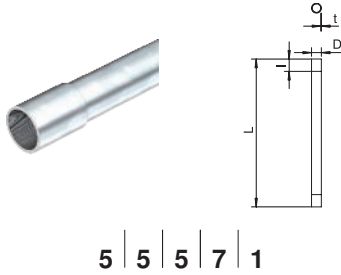


### Quick pipe

- Innovative system
- VDE-tested
- Reclosable



## Electrogalvanised steel pipe, with thread



Type	Thread	Dimension D mm	Dimension L mm	Dimension I mm	Dimension t mm	Pack. m	Weight kg/100 m	Item No.
<b>SM16W G</b>	M16x1,5	16	3000	13	1.3	30	50.390	<b>2046861</b>
<b>SM20W G</b>	M20x1,5	20	3000	13	1.5	30	66.667	<b>2046862</b>
<b>SM25W G</b>	M25x1,5	25	3000	18	1.5	30	92.290	<b>2046863</b>
<b>SM32W G</b>	M32x1,5	32	3000	18	1.5	21	120.000	<b>2046864</b>
<b>SM40W G</b>	M40x1,5	40	3000	20.5	1.5	15	151.450	<b>2046865</b>
<b>SM50W G</b>	M50x1,5	50	3000	25	1.5	15	190.000	<b>2046866</b>
<b>SM63W G</b>	M63x1,5	63	3000	25	1.7	9	287.700	<b>2046867</b>

**St** Steel  
**G** Electrogalvanised

Electrical installation pipe according to EN 61386-1 with threaded ends to EN 60423 for mechanical protection of cables.

With burr-free inner wall. One coupling is already screwed onto each pipe.

## Electrogalvanised steel bend, with thread



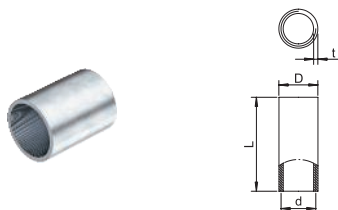
Type	Thread	Dimension A mm	Dimension B mm	Dimension D mm	Dimension I mm	Dimension R mm	Dimension t mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>SBNM16 G</b>	M16x1,5	45	103	16	13	50	1.4	15	10.400	<b>2046778</b>
<b>SBNM20 G</b>	M20x1,5	55	155	20	13	90	1.6	25	21.000	<b>2046779</b>
<b>SBNM25 G</b>	M25x1,5	68	190	25	18	110	1.6	25	33.000	<b>2046780</b>
<b>SBNM32 G</b>	M32x1,5	88	254	32	18	150	1.6	20	56.600	<b>2046781</b>
<b>SBNM40 G</b>	M40x1,5	89	279	40	20.5	170	1.6	15	77.600	<b>2046782</b>
<b>SBNM50 G</b>	M50x1,5	133	358	50	25	200	1.6	5	125.800	<b>2046783</b>
<b>SBNM63 G</b>	M63x1,5	165	446	63	25	250	1.8	3	227.000	<b>2046784</b>

**St** Steel  
**G** Electrogalvanised

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

One connection sleeve is already screwed onto each pipe bend.

## Electrogalvanised steel sleeve, with thread



Type	Thread	Dimension D mm	Dimension d mm	Dimension L mm	Dimension t mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>SVM16W G</b>	M16x1,5	18.5	16	26	2	25	2.110	<b>2046875</b>
<b>SVM20W G</b>	M20x1,5	22.5	20	30	2	50	3.400	<b>2046876</b>
<b>SVM25W G</b>	M25x1,5	27.5	25	40	2	50	5.030	<b>2046877</b>
<b>SVM32W G</b>	M32x1,5	35.5	32	40	2.5	50	8.800	<b>2046878</b>
<b>SVM40W G</b>	M40x1,5	43.5	40	45	2.5	25	11.370	<b>2046879</b>
<b>SVM50W G</b>	M50x1,5	53.5	50	54	2.5	10	16.970	<b>2046880</b>
<b>SVM63W G</b>	M63x1,5	68	63	60	3.2	5	30.670	<b>2046881</b>

**St** Steel  
**G** Electrogalvanised

Accessory part: coupling with thread according to EN 60423 to connect electrical installation pipes and 90° bends.

## Armoured steel pipe without thread, electrogalvanised

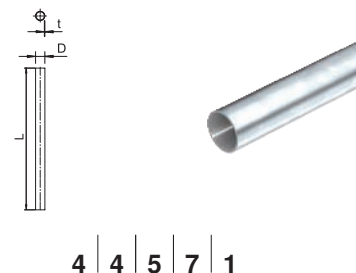
E30 E90 

Type	Dimension D mm	Dimension L mm	Dimension t mm	Pack. m	Weight kg/100 m	Item No.
<b>S16W G</b>	16	3000	1	30	37.000	<b>2046840</b>
<b>S20W G</b>	20	3000	1	30	44.700	<b>2046841</b>
<b>S25W G</b>	25	3000	1.2	30	70.400	<b>2046842</b>
<b>S32W G</b>	32	3000	1.2	21	91.200	<b>2046843</b>
<b>S40W G</b>	40	3000	1.2	15	139.700	<b>2046844</b>
<b>S50W G</b>	50	3000	1.2	15	176.000	<b>2046845</b>
<b>S63W G</b>	63	3000	1.2	9	223.000	<b>2046846</b>

St Steel

G Electrogalvanised

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



4 | 4 | 5 | 7 | 1

## Electrogalvanised steel bend, without thread

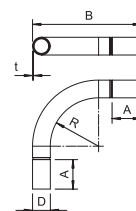
E30 E90 

Type	Dimension A mm	Dimension B mm	Dimension D mm	Dimension l mm	Dimension R mm	Dimension t mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>SBN16 G</b>	43.7	103	18.6	25	50	1	15	7.200	<b>2046808</b>
<b>SBN20 G</b>	53.7	155	22.6	30	90	1	25	13.300	<b>2046809</b>
<b>SBN25 G</b>	66.5	190	28	40	110	1.2	25	24.400	<b>2046810</b>
<b>SBN32 G</b>	86.5	254	35.1	40	150	1.2	20	41.000	<b>2046811</b>
<b>SBN40 G</b>	87.2	279	43.7	50	170	1.5	15	70.200	<b>2046812</b>
<b>SBN50 G</b>	131	358	54	60	200	1.5	5	111.800	<b>2046813</b>
<b>SBN63 G</b>	163	446	67	90	250	1.5	3	174.200	<b>2046814</b>

St Steel

G Electrogalvanised

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



## Armoured steel pipe connection sleeve without thread, electrogalvanised

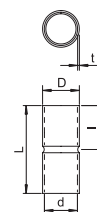
E30 E90 

Type	Dimension D mm	Dimension d mm	Dimension L mm	Dimension l mm	Dimension t mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>SV16W G</b>	18.6	16.6	50	25	1	25	2.400	<b>2046854</b>
<b>SV20W G</b>	23.1	20.7	60	30	1.2	50	4.000	<b>2046855</b>
<b>SV25W G</b>	28.1	25.7	60	30	1.2	50	5.200	<b>2046856</b>
<b>SV32W G</b>	35.2	32.8	70	35	1.2	50	7.200	<b>2046857</b>
<b>SV40W G</b>	43.8	43.8	80	40	1.5	25	13.200	<b>2046858</b>
<b>SV50W G</b>	54	51	100	50	1.5	10	20.000	<b>2046859</b>
<b>SV63W G</b>	67	64	100	50	1.5	5	28.000	<b>2046860</b>

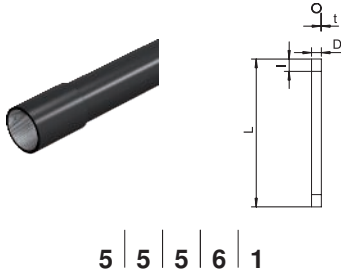
St Steel

G Electrogalvanised

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



## Armoured steel pipe with thread, black



Type	Thread	Dimension D mm	Dimension L mm	Dimension I mm	Dimension t mm	Colour	Pack. m	Weight kg/100 m	Item No.
SM16W SW	M16x1,5	16	3000	13	1.3	Jet black	30	50.000	2046500
SM20W SW	M20x1,5	20	3000	13	1.5	Jet black	30	73.000	2046501
SM25W SW	M25x1,5	25	3000	18	1.5	Jet black	30	92.000	2046502
SM32W SW	M32x1,5	32	3000	18	1.5	Jet black	21	120.000	2046503
SM40W SW	M40x1,5	40	3000	20.5	1.5	Jet black	15	152.000	2046505
SM50W SW	M50x1,5	50	3000	25	1.5	Jet black	15	190.700	2046506
SM63W SW	M63x1,5	63	3000	25	1.7	Jet black	9	287.700	2046507

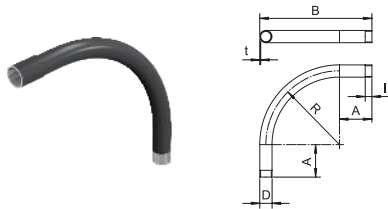
SI Steel

PE50 PES50 - Polyester/epoxy

Electrical installation pipe according to EN 61386-1 with threaded ends to EN 60423 for mechanical protection of cables.

With burr-free inner wall. One coupling is already screwed onto each pipe.

## Black powder-coated steel bend, with thread



Type	Thread	Dimension B mm	Dimension D mm	Dimension R mm	Colour	Pack. pcs	Weight kg/100 pcs.	Item No.
SBNM16 SW	M16x1,5	103	16	50	Jet black	15	10.400	2046793
SBNM20 SW	M20x1,5	155	20	90	Jet black	25	21.000	2046794
SBNM25 SW	M25x1,5	190	25	110	Jet black	25	33.000	2046795
SBNM32 SW	M32x1,5	254	32	150	Jet black	20	56.600	2046796
SBNM40 SW	M40x1,5	279	40	170	Jet black	15	77.600	2046797
SBNM50 SW	M50x1,5	358	50	200	Jet black	5	125.800	2046798
SBNM63 SW	M63x1,5	446	63	250	Jet black	3	227.000	2046799

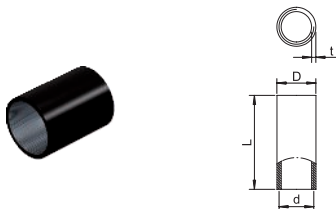
SI Steel

PE50 PES50 - Polyester/epoxy

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

One connection sleeve is already screwed onto each pipe bend.

## Black powder-coated steel sleeve, with thread



Type	Thread	Dimension D mm	Dimension d mm	Dimension L mm	Dimension t mm	Colour	Pack. pcs	Weight kg/100 pcs.	Item No.
SVM16W SW	M16x1,5	18.5	16	26	2	Jet black	25	2.100	2046522
SVM20W SW	M20x1,5	22.5	20	30	2	Jet black	50	3.400	2046523
SVM25W SW	M25x1,5	27.5	25	40	2	Jet black	50	5.000	2046524
SVM32W SW	M32x1,5	35.5	32	40	2.5	Jet black	50	8.800	2046525
SVM40W SW	M40x1,5	43.5	40	45	2.5	Jet black	25	11.400	2046526
SVM50W SW	M50x1,5	53.5	50	54	2.5	Jet black	10	17.000	2046527
SVM63W SW	M63x1,5	68	63	60	3.2	Jet black	5	30.700	2046528

SI Steel

PE50 PES50 - Polyester/epoxy

Accessory part: coupling with thread according to EN 60423 to connect electrical installation pipes and 90° bends.



### Armoured steel pipe without thread, black



Type	Dimension D mm	Dimension L mm	Dimension t mm	Colour	Pack. m	Weight kg/100 m	Item No.
S16W SW	16	3000	1	Jet black	30	37.000	2046565
S20W SW	20	3000	1	Jet black	30	44.700	2046566
S25W SW	25	3000	1.2	Jet black	30	70.400	2046567
S32W SW	32	3000	1.2	Jet black	21	91.200	2046568
S40W SW	40	3000	1.2	Jet black	15	139.700	2046569
S50W SW	50	3000	1.2	Jet black	15	176.000	2046570
S63W SW	63	3000	1.2	Jet black	9	223.000	2046571



4 | 4 | 5 | 6 | 1

St Steel

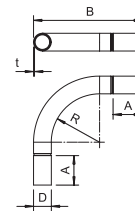
PE50 PES50 - Polyester/epoxy

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

### Black powder-coated steel bend, without thread



Type	Dimension B mm	Dimension D mm	Dimension R mm	Colour	Pack. pcs	Weight kg/100 pcs.	Item No.
SBN16 SW	103	16.6	50	Jet black	15	7.200	2046824
SBN20 SW	155	20.6	90	Jet black	25	13.300	2046825
SBN25 SW	190	25.6	110	Jet black	25	24.400	2046826
SBN32 SW	254	32.7	150	Jet black	20	41.000	2046827
SBN40 SW	279	40.7	170	Jet black	15	68.900	2046828
SBN50 SW	358	51	200	Jet black	5	111.800	2046829
SBN63 SW	446	64	250	Jet black	3	174.200	2046830



St Steel

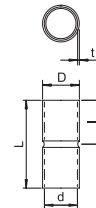
PE50 PES50 - Polyester/epoxy

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

### Armoured steel pipe connection sleeve without thread, black



Type	Dimension D mm	Dimension d mm	Dimension L mm	Dimension l mm	Dimension t mm	Colour	Pack. pcs	Weight kg/100 pcs.	Item No.
SV16W SW	18.6	16.6	50	25	1	Jet black	25	2.400	2046582
SV20W SW	23.1	20.7	60	30	1.2	Jet black	50	3.200	2046583
SV25W SW	28.1	25.7	60	30	1.2	Jet black	50	5.200	2046584
SV32W SW	35.2	32.8	70	35	1.2	Jet black	50	7.200	2046585
SV40W SW	43.8	40.8	80	40	1.5	Jet black	25	13.200	2046586
SV50W SW	54	51	100	50	1.5	Jet black	10	20.000	2046587
SV63W SW	67	64	100	50	1.5	Jet black	5	28.000	2046588

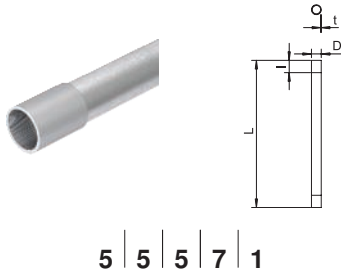


St Steel

PE50 PES50 - Polyester/epoxy

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

### Hot-dip galvanised steel pipe, with thread



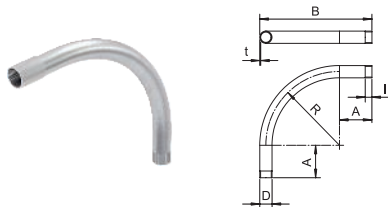
Type	Thread	Dimension D mm	Dimension L mm	Dimension I mm	Dimension t mm	Pack. m	Weight kg/100 m	Item No.
<b>SM16W FT</b>	M16x1,5	16	3000	13	1.3	30	54.000	<b>2046533</b>
<b>SM20W FT</b>	M20x1,5	20	3000	13	1.5	30	79.000	<b>2046534</b>
<b>SM25W FT</b>	M25x1,5	25	3000	18	1.5	30	99.000	<b>2046535</b>
<b>SM32W FT</b>	M32x1,5	32	3000	18	1.5	21	130.000	<b>2046536</b>
<b>SM40W FT</b>	M40x1,5	40	3000	20.5	1.5	15	164.000	<b>2046537</b>
<b>SM50W FT</b>	M50x1,5	50	3000	25	1.5	15	206.000	<b>2046538</b>
<b>SM63W FT</b>	M63x1,5	63	3000	26	1.8	9	324.700	<b>2046540</b>

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

Electrical installation pipe according to EN 61386-1 with threaded ends to EN 60423 for mechanical protection of cables.

With burr-free inner wall. Corrosion protection class 4 (high). One coupling is already screwed onto each pipe.

### Hot-dip galvanised steel bend, with thread



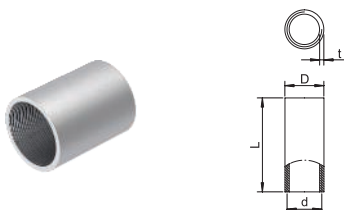
Type	Thread	Dimension A mm	Dimension B mm	Dimension D mm	Dimension I mm	Dimension R mm	Dimension t mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>SBNM16 FT</b>	M16x1,5	45	103	16	13	50	1.4	15	10.400	<b>2046786</b>
<b>SBNM20 FT</b>	M20x1,5	55	155	20	13	90	1.6	25	21.000	<b>2046787</b>
<b>SBNM25 FT</b>	M25x1,5	68	190	25	18	110	1.6	25	33.000	<b>2046788</b>
<b>SBNM32 FT</b>	M32x1,5	88	254	32	18	150	1.6	20	56.600	<b>2046789</b>
<b>SBNM40 FT</b>	M40x1,5	89	279	40	20.5	170	1.6	15	77.600	<b>2046790</b>
<b>SBNM50 FT</b>	M50x1,5	133	358	50	25	200	1.6	5	125.800	<b>2046791</b>
<b>SBNM63 FT</b>	M63x1,5	165	446	63	25	250	1.8	3	227.000	<b>2046792</b>

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

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

One connection sleeve is already screwed onto each pipe bend.

### Zinc-nickel coated steel sleeve, with thread



Type	Thread	Dimension D mm	Dimension d mm	Dimension L mm	Dimension t mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>SVM16W DN</b>	M16x1,5	18.5	16	26	2	25	2.100	<b>2046553</b>
<b>SVM20W DN</b>	M20x1,5	22.5	20	30	2	50	3.400	<b>2046554</b>
<b>SVM25W DN</b>	M25x1,5	27.5	25	40	2	50	3.986	<b>2046556</b>
<b>SVM32W DN</b>	M32x1,5	35.5	32	40	2.5	50	8.800	<b>2046557</b>
<b>SVM40W DN</b>	M40x1,5	43.5	40	45	2.5	25	11.400	<b>2046558</b>
<b>SVM50W DN</b>	M50x1,5	53.5	50	54	2.5	10	17.000	<b>2046559</b>
<b>SVM63W DN</b>	M63x1,5	68	63	60	3.2	5	30.700	<b>2046560</b>

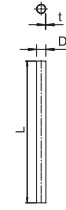
**St** Steel  
**DN** Zinc / nickel-coated

Accessory part: coupling with thread according to EN 60423 to connect electrical installation pipes and 90° bends.

### Hot-dip galvanised steel pipe, without thread



Type	Dimension D mm	Dimension L mm	Dimension t mm	Pack. m	Weight kg/100 m	Item No.
<b>S16W FT</b>	16	3000	1	30	37.000	<b>2046593</b>
<b>S20W FT</b>	20	3000	1	30	44.700	<b>2046594</b>
<b>S25W FT</b>	25	3000	1.2	30	70.400	<b>2046595</b>
<b>S32W FT</b>	32	3000	1.2	21	91.200	<b>2046596</b>
<b>S40W FT</b>	40	3000	1.2	15	139.700	<b>2046597</b>
<b>S50W FT</b>	50	3000	1.2	15	176.000	<b>2046598</b>
<b>S63W FT</b>	63	3000	1.2	9	223.000	<b>2046599</b>



4 | 4 | 5 | 7 | 1

St Steel

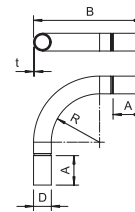
FT Hot-dip galvanised

Electrical installation pipe without threaded ends according to EN 61386-1 for mechanical protection of cables. With burr-free inner wall. Corrosion protection class 4 (high).

### Hot-dip galvanised steel bend, without thread



Type	Dimension A mm	Dimension B mm	Dimension D mm	Dimension I mm	Dimension R mm	Dimension t mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>SBN16 FT</b>	43.7	103	16.6	25	50	1	15	7.200	<b>2046816</b>
<b>SBN20 FT</b>	53.7	155	20.6	30	90	1	25	13.300	<b>2046817</b>
<b>SBN25 FT</b>	66.5	190	25.6	40	110	1.2	25	24.400	<b>2046818</b>
<b>SBN32 FT</b>	86.5	254	32.7	40	150	1.2	20	41.000	<b>2046819</b>
<b>SBN40 FT</b>	87.2	279	40.7	50	170	1.5	15	68.900	<b>2046820</b>
<b>SBN50 FT</b>	131	358	51	60	200	1.5	5	111.800	<b>2046821</b>
<b>SBN63 FT</b>	163	446	64	90	250	1.5	3	174.200	<b>2046822</b>



St Steel

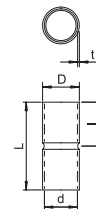
FT Hot-dip galvanised

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

### Hot-dip galvanised steel sleeve, without thread



Type	Dimension D mm	Dimension d mm	Dimension L mm	Dimension I mm	Dimension t mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>SV16W FT</b>	18.6	16.6	50	25	1	25	2.200	<b>2046620</b>
<b>SV20W FT</b>	23.1	20.7	60	30	1.2	50	3.200	<b>2046621</b>
<b>SV25W FT</b>	28.1	25.7	60	30	1.2	50	5.600	<b>2046622</b>
<b>SV32W FT</b>	35.2	32.8	70	35	1.2	50	7.800	<b>2046623</b>
<b>SV40W FT</b>	43.8	40.8	80	40	1.5	25	14.400	<b>2046624</b>
<b>SV50W FT</b>	54	51	100	50	1.5	10	22.000	<b>2046625</b>
<b>SV63W FT</b>	67	63	100	50	1.5	5	28.000	<b>2046626</b>

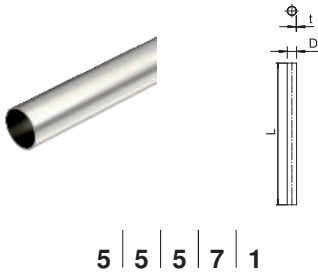


St Steel

FT Hot-dip galvanised

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

### Stainless steel pipe, V2A



**E30** **E90**

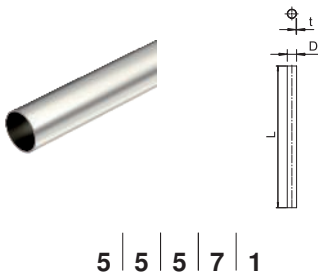
Type	Dimension D mm	Dimension L mm	Dimension t mm	Pack. m	Weight kg/100 m	Item No.
<b>S16W A2</b>	16	3000	1	30	37.000	<b>2046720</b>
<b>S20W A2</b>	20	3000	1	30	46.900	<b>2046721</b>
<b>S25W A2</b>	25	3000	1	30	59.200	<b>2046722</b>
<b>S32W A2</b>	32	3000	1.2	21	91.200	<b>2046723</b>
<b>S40W A2</b>	40	3000	1.2	15	114.800	<b>2046724</b>
<b>S50W A2</b>	50	3000	1.5	15	179.400	<b>2046725</b>
<b>S63W A2</b>	63	3000	1.5	9	227.500	<b>2046726</b>

V2A Stainless steel, A2

GEB Brushed

Electrical installation pipe without threaded ends to EN 61386-1 for mechanical protection of cables. With burr-free inner wall. Corrosion protection class 4 (high).  
Classification according to DIN EN 61386-1: 555711404010

### Stainless steel pipe, V4A



**E30** **E90**

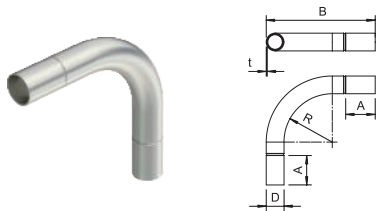
Type	Dimension D mm	Dimension L mm	Dimension t mm	Pack. m	Weight kg/100 m	Item No.
<b>S16W A4</b>	16	3000	1	15	37.000	<b>2046750</b>
<b>S20W A4</b>	20	3000	1	15	46.900	<b>2046751</b>
<b>S25W A4</b>	25	3000	1	15	59.200	<b>2046752</b>
<b>S32W A4</b>	32	3000	1.2	15	91.200	<b>2046753</b>
<b>S40W A4</b>	40	3000	1.2	9	114.800	<b>2046754</b>
<b>S50W A4</b>	50	3000	1.5	9	179.400	<b>2046755</b>
<b>S63W A4</b>	63	3000	1.5	9	227.500	<b>2046756</b>

V4A Stainless steel, A4

GEB Brushed

Electrical installation pipe without threaded ends to EN 61386-1 for mechanical protection of cables. With burr-free inner wall. Corrosion protection class 4 (high).

### Stainless steel pipe bend, V4A



**E30** **E90**

Type	Dimension A mm	Dimension B mm	Dimension D mm	Dimension I mm	Dimension R mm	Dimension t mm	Pack. pcs.	Weight kg/100 pcs.	Item No.
<b>SB16W A4</b>	54	104	18.2	25	50	1	5	7.200	<b>2046760</b>
<b>SB20W A4</b>	66	156	22.2	30	90	1	10	13.300	<b>2046761</b>
<b>SB25W A4</b>	81.5	194	27.2	30	112.5	1	10	20.400	<b>2046762</b>
<b>SB32W A4</b>	104	250	34.7	35	146	1.25	10	42.000	<b>2046763</b>
<b>SB40W A4</b>	129	294	42.7	40	165	1.25	5	61.200	<b>2046764</b>
<b>SB50W A4</b>	158	408	52.7	50	250	1.25	5	79.500	<b>2046765</b>
<b>SB63W A4</b>	198	448	65.7	50	250	1.25	3	144.600	<b>2046766</b>

V4A Stainless steel, A4

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

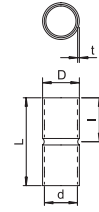
## Stainless steel sleeve V4A

E30 E90

Type	Dimension D mm	Dimension d mm	Dimension L mm	Dimension l mm	Dimension t mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>SV16W A4</b>	18.2	16.2	50	25	1	10	2.100	<b>2046770</b>
<b>SV20W A4</b>	22.2	20.2	60	30	1	15	3.200	<b>2046771</b>
<b>SV25W A4</b>	27.2	25.2	60	30	1	15	3.900	<b>2046772</b>
<b>SV32W A4</b>	34.7	32.2	70	35	1.25	15	7.300	<b>2046773</b>
<b>SV40W A4</b>	42.7	40.2	80	40	1.25	10	10.300	<b>2046774</b>
<b>SV50W A4</b>	52.8	50.2	100	50	1.3	5	16.700	<b>2046775</b>
<b>SV63W A4</b>	65.8	63.2	100	50	1.3	3	20.900	<b>2046776</b>

V4A Stainless steel, A4

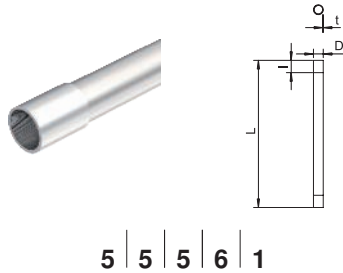
Accessory part: plug-in sleeve for the connections between electrical installation pipes. With burr-free inner wall.





## Aluminium pipe

### Aluminium pipe, with thread



M

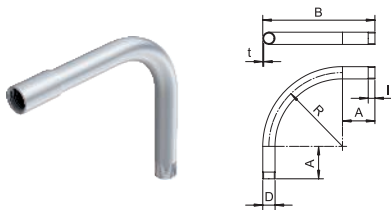
Type	Thread	Dimension D mm	Dimension L mm	Dimension t mm	Pack. m	Weight kg/100 m	Item No.
<b>SM16W ALU</b>	M16x1,5	16	3000	1.6	30	19.543	<b>2046032</b>
<b>SM20W ALU</b>	M20x1,5	20	3000	1.9	30	29.170	<b>2046033</b>
<b>SM25W ALU</b>	M25x1,5	25	3000	1.9	30	37.230	<b>2046034</b>
<b>SM32W ALU</b>	M32x1,5	32	3000	1.9	30	48.510	<b>2046035</b>
<b>SM40W ALU</b>	M40x1,5	40	3000	1.9	15	61.403	<b>2046036</b>
<b>SM50W ALU</b>	M50x1,5	50	3000	2.1	15	85.323	<b>2046037</b>
<b>SM63W ALU</b>	M63x1,5	63	3000	2.1	15	108.480	<b>2046038</b>

Alu Aluminium

Electrical installation pipe to EN 61386-1 with threaded ends to DIN EN 60423 for mechanical protection of cables.

With burr-free inner wall. One connection sleeve is already screwed onto each pipe.

### Aluminium pipe bend, with thread



M

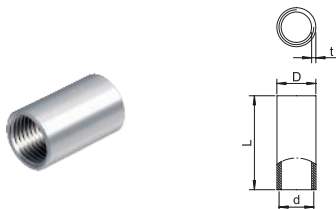
Type	Thread	Dimension A mm	Dimension B mm	Dimension D mm	Dimension I mm	Dimension R mm	Dimension t mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>SBM16W ALU</b>	M16x1,5	78	150	16	15	64	1.6	15	3.300	<b>2046042</b>
<b>SBM20W ALU</b>	M20x1,5	80	170	20	15	80	1.9	25	7.300	<b>2046043</b>
<b>SBM25W ALU</b>	M25x1,5	93	208	25	20	102.5	1.9	25	11.500	<b>2046044</b>
<b>SBM32W ALU</b>	M32x1,5	105	252	32	20	131	1.9	20	20.000	<b>2046045</b>
<b>SBM40W ALU</b>	M40x1,5	115	300	40	20	165	1.9	15	27.300	<b>2046046</b>
<b>SBM50W ALU</b>	M50x1,5	128	358	50	25	205	2.1	5	49.500	<b>2046047</b>
<b>SBM63W ALU</b>	M63x1,5	135	423	63	25	256.5	2.1	3	78.400	<b>2046048</b>

Alu Aluminium

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

One connection sleeve is already screwed onto each pipe bend.

### Aluminium sleeve, with thread



M

Type	Thread	Dimension D mm	Dimension d mm	Dimension L mm	Dimension t mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>SVM16W ALU</b>	M16x1,5	18.5	16	35	2.25	50	1.080	<b>2046052</b>
<b>SVM20W ALU</b>	M20x1,5	22.5	20	35	2.25	50	1.100	<b>2046053</b>
<b>SVM25W ALU</b>	M25x1,5	28	25	45	2.5	50	2.430	<b>2046054</b>
<b>SVM32W ALU</b>	M32x1,5	35	32	45	2.5	50	3.100	<b>2046055</b>
<b>SVM40W ALU</b>	M40x1,5	43.5	40	45	2.75	20	4.270	<b>2046056</b>
<b>SVM50W ALU</b>	M50x1,5	53.5	50	55	2.75	20	6.510	<b>2046057</b>
<b>SVM63W ALU</b>	M63x1,5	66.5	63	55	2.8	20	8.320	<b>2046058</b>

Alu Aluminium

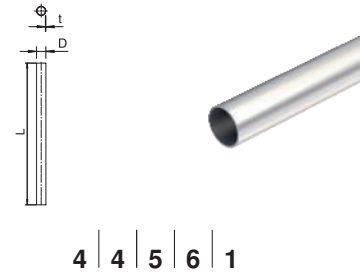
Accessory part: coupling with thread according to EN 60423 to connect electrical installation pipes and 90° bends.

## Aluminium pipe, without thread

Type	Dimension D mm	Dimension L mm	Dimension t mm	Pack. m	Weight kg/100 m	Item No.
<b>S16W ALU</b>	16	3000	1.2	30	15.065	<b>2046002</b>
<b>S20W ALU</b>	20	3000	1.2	30	19.134	<b>2046003</b>
<b>S25W ALU</b>	25	3000	1.3	30	26.134	<b>2046004</b>
<b>S32W ALU</b>	32	3000	1.3	30	33.853	<b>2046005</b>
<b>S40W ALU</b>	40	3000	1.4	15	45.839	<b>2046006</b>
<b>S50W ALU</b>	50	3000	1.4	15	57.714	<b>2046007</b>
<b>S63W ALU</b>	63	3000	1.7	15	88.394	<b>2046008</b>

Alu Aluminium

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



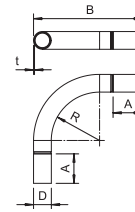
4 | 4 | 5 | 6 | 1

## Aluminium pipe bend, without thread

Type	Dimension A mm	Dimension B mm	Dimension D mm	Dimension I mm	Dimension R mm	Dimension t mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>SB16W ALU</b>	78	151	16	28	64	1.2	15	2.350	<b>2046012</b>
<b>SB20W ALU</b>	80	171	20	30	80	1.2	25	5.500	<b>2046013</b>
<b>SB25W ALU</b>	93	209	25	38	102.5	1.3	25	9.000	<b>2046014</b>
<b>SB32W ALU</b>	105	253	32	40	131	1.3	20	14.100	<b>2046015</b>
<b>SB40W ALU</b>	115	302	40	50	165	1.4	15	22.400	<b>2046016</b>
<b>SB50W ALU</b>	128	360	50	63	205	1.4	5	35.400	<b>2046017</b>
<b>SB63W ALU</b>	135	425	63	70	256.5	1.7	3	59.500	<b>2046018</b>

Alu Aluminium

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

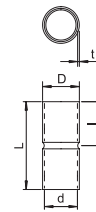


## Aluminium sleeve, without thread

Type	Dimension D mm	Dimension d mm	Dimension L mm	Dimension I mm	Dimension t mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>SV16W ALU</b>	18.6	16.2	40	20	1.2	50	0.700	<b>2046022</b>
<b>SV20W ALU</b>	22.6	20.2	50	25	1.2	50	1.300	<b>2046023</b>
<b>SV25W ALU</b>	27.6	25.2	60	30	1.2	50	1.900	<b>2046024</b>
<b>SV32W ALU</b>	34.6	32.2	70	35	1.2	50	2.400	<b>2046025</b>
<b>SV40W ALU</b>	43	40.2	70	35	1.4	20	4.000	<b>2046026</b>
<b>SV50W ALU</b>	53	50.2	90	45	1.4	20	6.100	<b>2046027</b>
<b>SV63W ALU</b>	66.2	63.2	110	55	1.5	20	9.000	<b>2046028</b>

Alu Aluminium

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



## Separable pipe end cap 129 TB

- For installation, repairs or reinstallation
- Protects cables against sharp-edged pipe ends
- Draining holes against frost damage through condensation build-up
- Possible reinstallation through locking snap closure
- UV-stable and halogen-free thanks to high-quality plastic
- 2 colours
- For metric pipes and PG sizes



Small problem – major work: Re-mounting of defective pipe end caps on metal pipes has always been an unpopular and costly task. Now, the separable pipe end cap means that this is no longer the case. Open, plug it on, push it together – and you're done!

Without any need to dismantle the installation. Of course, the splitable pipe end cap can also be used simply, safely and quickly for the first installation.

One pipe end cap for every application.



## Pipe end cap, splittable, light grey

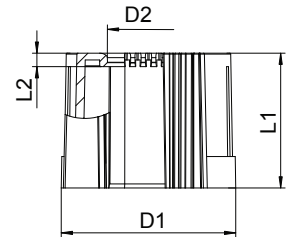


Type	Size	Dimension D1 mm	Dimension D2 mm	Dimension L1 mm	Dimension L2 mm	Colour	Pack. pcs	Weight kg/100 pcs.	Item No.
129 TB M16	M16	20	10	30	3	Light grey	50	0.400	2047812
129 TB M20	M20	24	13.4	30	3	Light grey	50	0.440	2047831
129 TB M25	M25	30	18.4	30	3	Light grey	50	0.500	2047839
129 TB M32	M32	36	25.4	30	3	Light grey	50	0.656	2047855
129 TB M40	M40	44	33.4	30	3	Light grey	30	0.790	2047863
129 TB M50	M50	53	43	30	3	Light grey	30	0.935	2047890
129 TB M63	M63	67	56	30	3	Light grey	20	1.140	2047898
129 TB M16 SW	M16	20	10	30	3	Black	50	0.400	2047936
129 TB M20 SW	M20	24	13.4	30	3	Black	50	0.440	2047944
129 TB M25 SW	M25	30	18.4	30	3	Black	50	0.500	2047952
129 TB M32 SW	M32	36	25.4	30	3	Black	50	0.656	2047971
129 TB M40 SW	M40	44	33.4	30	3	Black	30	0.790	2047979
129 TB M50 SW	M50	53	43	30	3	Black	30	0.935	2047987
129 TB M63 SW	M63	67	56	30	3	Black	20	1.140	2047995
129 TB PG9	PG9	20	10	30	3	Light grey	50	0.400	2044509
129 TB PG11	PG11	24	12.5	30	3	Light grey	50	0.430	2044511
129 TB PG13,5	PG13,5	26	15	30	3	Light grey	50	0.460	2044513
129 TB PG16	PG16	28	16	30	3	Light grey	50	0.500	2044516
129 TB PG21	PG21	34	21.5	30	3	Light grey	50	0.590	2044521
129 TB PG29	PG29	38	30	30	3	Light grey	50	0.700	2044529
129 TB PG36	PG36	48	40.5	30	3	Light grey	30	0.870	2044536
129 TB PG42	PG42	60	47.5	30	3	Light grey	30	0.980	2044542
129 TB PG48	PG48	66	52	30	3	Light grey	20	1.060	2044548

PE Polyethylene

Separable pipe end cap to slot onto metric electrical installation pipes.

The separable pipe end cap can be used for repairs on existing installations according to regulations. It is not necessary to disconnect the cables, allowing quick mounting.



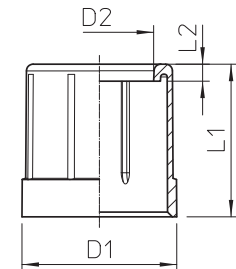
## Pipe end cap, metric, lightgrey



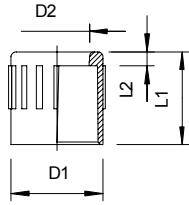
Type	Size	Dimension D1 mm	Dimension D2 mm	Dimension L1 mm	Dimension L2 mm	Colour	Pack. pcs	Weight kg/100 pcs.	Item No.
129 M16	M16	19.4	12.5	18	2	Light grey	100	0.104	2047810
129 M20	M20	23.4	16	22.5	2.5	Light grey	100	0.205	2047829
129 M25	M25	28.4	21	27.5	2.5	Light grey	50	0.235	2047837
129 M32	M32	35.4	27.5	34	3	Light grey	50	0.440	2047853
129 M40	M40	43.4	35	41	3	Light grey	50	0.650	2047861
129 M50	M50	53.4	44.5	48	3	Light grey	25	1.000	2047888
129 M63	M63	66.4	55	59	4	Light grey	25	1.900	2047896
129 M16 SW	M16	19.4	12.5	18	2	Black	100	0.104	2047934
129 M20 SW	M20	23.4	16	22.5	2.5	Black	100	0.205	2047942
129 M25 SW	M25	28.4	21	27.5	2.5	Black	50	0.235	2047950
129 M32 SW	M32	35.4	27.5	34	3	Black	50	0.440	2047969
129 M40 SW	M40	43.4	35	41	3	Black	50	0.650	2047977
129 M50 SW	M50	53.4	44.5	48	3	Black	25	1.000	2047985
129 M63 SW	M63	66.4	55	59	4	Black	25	1.900	2047993

PE Polyethylene

Pipe end sleeve to slot onto electrical installation pipes, metric.



## Pipe end cap, PG



Type	Size	Colour	Dimension D1 mm	Dimension D2 mm	Dimension L1 mm	Dimension L2 mm	Pack. pcs	Weight kg/100 pcs.	Item No.
129 PG11	Pg 11	Light grey	21.7	15	22	4	100	0.276	2044110
129 PG13.5	Pg 13,5	Light grey	23.5	16	24	4	100	0.326	2044137
129 PG16	Pg 16	Light grey	25.6	18	26	4	100	0.400	2044161
129 PG29	Pg 29	Light grey	40.3	32.5	38	4	50	1.070	2044293
129 PG36	Pg 36	Light grey	50.8	40	44	4	50	1.444	2044366
129 PG42	Pg 42	Light grey	58.2	46	50	4	25	2.176	2044420
129 PG48	Pg 48	Light grey	63.9	50	56	4	25	2.808	2044471

PE Polyethylene

Pipe end cap to slot onto electrical installation pipes, PG.

## Quick clip, aluminium



Type	Nominal size	Pack. pcs	Weight kg/100 pcs.	Item No.
ALQ M16	16	100	0.780	2149916
ALQ M20	20	100	0.900	2149920
ALQ M25	25	100	1.110	2149925
ALQ M32	32	50	1.600	2149932
ALQ M40	40	50	2.400	2149940
ALQ M50	50	25	2.730	2149950
ALQ M63	63	20	3.340	2149963

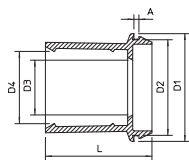
Alu Aluminium

OBO Quick clip, type ALQ M, for all metric ALU pipe systems, as well as light-duty and heavy-duty insulation pipes. Suitable for mounting the OBO pipe system, material: aluminium. Pipe centring aids allow optimal attachment of the pipe and automatically turn the clip into the correct position. Slot for side alignment during mounting with wood screw or knock-in anchor. Recommended fastening spacing 50–60 cm.

### Dimensions

Type	Dimension A mm	Dimension B mm	Dimension E mm	Dimension F mm	Dimension H mm	Dimension h mm
ALQ M16	22	18	5.1	9.5	25	18.5
ALQ M20	25	18	5.1	9.5	27.5	20
ALQ M25	31	18	5.1	9.5	30	22
ALQ M32	39	18	5.1	9.5	35	26
ALQ M40	50	18	6.1	12	42	30.5
ALQ M50	60	18	6.1	12	46.5	33.5
ALQ M63	73	18	6.1	12	55.5	41.5

## Plug-in seal for pipes, T-series junction box, light grey



Type	Size	Colour	Pack. pcs	Weight kg/100 pcs.	Item No.
EDR 25 16-20 LGR	M25	Light grey	50	0.520	2011506
EDR 25 20-25 LGR	M25	Light grey	50	0.680	2011514
EDR 32 25-32 LGR	M32	Light grey	50	1.170	2011530
EDR 40 32-40 LGR	M40	Light grey	25	2.200	2011546

PVC Polyvinylchloride

Plug-in seal for junction boxes for direct insertion of metric pipes





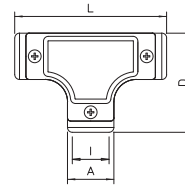
## Control T piece without thread

IP  
54

Type	Size	Dimension D mm	Dimension L mm	Pack. pcs	Weight kg/100 pcs.	Item No.
SKT16W ALU	16	47.5	72	5	6.900	2047588
SKT20W ALU	20	65	102	5	12.900	2047589
SKT25W ALU	25	75	115	5	21.500	2047590
SKT32W ALU	32	96	156	4	45.300	2047591
SKT40W ALU	40	96	156	4	32.800	2047592
SKT50W ALU	50	124.5	194	2	53.100	2047593

AIG Cast aluminium

Die-cast aluminium T piece, for mounting in pipe sections as a junction.  
Removable cover for easier cable routing and later checking.



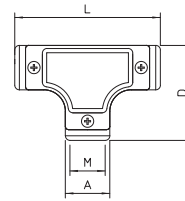
## Control T piece with thread

M IP  
54

Type	Size	Dimension D mm	Dimension L mm	Pack. pcs	Weight kg/100 pcs.	Item No.
SKTM16W ALU	16	47.5	72	5	7.200	2047604
SKTM20W ALU	20	65	102	5	13.500	2047605
SKTM25W ALU	25	75	115	5	22.000	2047606
SKTM32W ALU	32	96	156	4	46.600	2047607
SKTM40W ALU	40	96	156	4	34.000	2047608
SKTM50W ALU	50	124.5	194	2	56.300	2047609

AIG Cast aluminium

Die-cast aluminium T piece, with internal thread, for mounting in pipe sections as a junction.  
Removable cover for easier cable routing and later checking.



## Quick pipe

- 4 sizes – M16-M32
- Two colours: White and grey
- Simple installation
- Retroinstallation possible
- VDE-approved



Click, insert, twist

The Quick pipe system combines the benefits of cable duct and conventional electrical installation pipes to produce a single, intelligent system for surface-mounted installations. Cables are inserted in the open Quick pipe electrical installation pipes in the same way as with open cable ducting. After the

cable is inserted, the Quick pipe is twisted in the Quick clip to securely lock it in place. Retroinstallation is also no problem, because a twist is all it takes to open the Quick pipe again. All Quick pipe system components such as 90° bends, T pieces and connection sleeves are available in the four

metric sizes M16, M20, M25 and M32. You can order Quick pipe electrical installation pipe separately in 2 metre lengths – or in a handy complete set including the matching Quick clips.

## Quick pipe, light grey



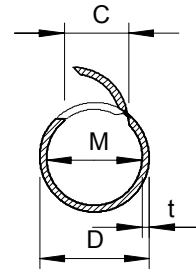
Type	Size	Colour	Length mm	Dimen- sion t mm	Dimen- sion C mm	Pack. m	Weight kg/100 m	Item No.
2953 M16 LGR	M16	Light grey	2000	1.2	8.2	50	7.000	2153904
2953 M20 LGR	M20	Light grey	2000	1.5	10	40	11.500	2153912
2953 M25 LGR	M25	Light grey	2000	1.6	13.6	30	16.000	2153920
2953 M32 LGR	M32	Light grey	2000	1.6	17	20	21.500	2153939
2953 M16 RW	M16	Pure white	2000	1.2	8.2	50	7.700	2153960
2953 M20 RW	M20	Pure white	2000	1.5	10	40	11.500	2153963
2953 M25 RW	M25	Pure white	2000	1.6	13.6	30	16.000	2153966
2953 M32 RW	M32	Pure white	2000	1.6	17	20	21.500	2153969

PVC Polyvinylchloride

Quick Pipe combines the advantages of cable duct and installation pipe in an intelligent system. This system allows tidy and safe surface-mounted installation of all kinds of cables on walls and ceilings. Quick pipe is available in four metric sizes: M16, M20, M25 and M32. The stock length is 2 m.

The system is VDE-tested and achieves a protection rating of IP44. The Quick Pipe can be used in the temperature range between -25 and +60 °C and is resistant against impact energy of 5 J.

The fittings are a component part of the system. The smallest shipped quantity is one shipping box.



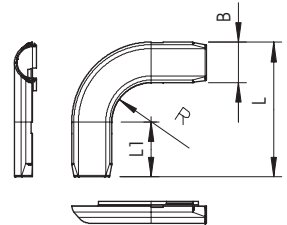
## 90° Quick pipe bend, light grey



Type	Size	Colour	Dimen- sion B mm	Dimen- sion L mm	Pack. pcs.	Weight kg/100 pcs.	Item No.
2953 B M16 LGR	M16	Light grey	20.4	68.4	5	1.057	2153864
2953 B M20 LGR	M20	Light grey	25.5	82.5	5	1.871	2153866
2953 B M25 LGR	M25	Light grey	31.2	91.2	5	2.565	2153868
2953 B M32 LGR	M32	Light grey	38.7	102.7	5	3.917	2153870
2953 B M16 RW	M16	Pure white	20.4	68.4	5	1.057	2153980
2953 B M20 RW	M20	Pure white	25.5	82.5	5	1.871	2153982
2953 B M25 RW	M25	Pure white	31.2	91.2	5	2.565	2153984
2953 B M32 RW	M32	Pure white	38.7	102.7	5	3.917	2153986

PVC Polyvinylchloride

The Quick Pipe bends 90° are VDE-tested and consist of two interconnectable half shells, which can be closed around the Quick Pipe.



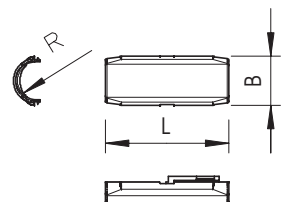
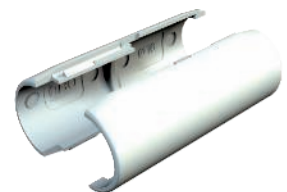
## Quick pipe connecting sleeve, light grey



Type	Size	Colour	Dimen- sion L mm	Dimen- sion B mm	Pack. pcs.	Weight kg/100 pcs.	Item No.
2953 M M16 LGR	M16	Light grey	52	20.4	10	0.538	2153829
2953 M M20 LGR	M20	Light grey	65	25.5	10	1.015	2153831
2953 M M25 LGR	M25	Light grey	72	31.2	10	1.348	2153833
2953 M M32 LGR	M32	Light grey	80	38.7	10	2.084	2153835
2953 M M16 RW	M16	Pure white	52	20.4	10	0.538	2153971
2953 M M20 RW	M20	Pure white	65	25.5	10	1.015	2153973
2953 M M25 RW	M25	Pure white	72	31.2	10	1.348	2153975
2953 M M32 RW	M32	Pure white	80	38.7	10	2.084	2153977

PVC Polyvinylchloride

The Quick Pipe connection sleeves are VDE-tested and consist of two interconnectable half shells, which can be closed around the Quick Pipe.



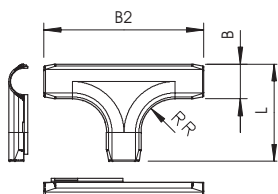
## Quick pipe T piece, light grey



Type	Size	Colour	Dimension L mm	Dimension B mm	Dimension B2 mm	Pack. pcs	Weight kg/100 pcs	Item No.
2953 T M16 LGR	M16	Light grey	57.4	20.4	94.4	5	1.421	2153872
2953 T M20 LGR	M20	Light grey	67.5	25.5	109.5	5	2.340	2153874
2953 T M25 LGR	M25	Light grey	77.2	31.2	123.2	5	3.203	2153876
2953 T M32 LGR	M32	Light grey	86.7	38.7	134.7	5	4.639	2153878
2953 T M16 RW	M16	Pure white	57.4	20.4	94.4	5	1.421	2153992
2953 T M20 RW	M20	Pure white	67.5	25.5	109.5	5	2.340	2153994
2953 T M25 RW	M25	Pure white	77.2	31.2	123.2	5	3.203	2153996
2953 T M32 RW	M32	Pure white	86.7	38.7	134.7	5	4.639	2153998

PVC Polyvinylchloride

The Quick Pipe T pieces are VDE-tested and consist of two interconnectable half shells, which can be closed around the Quick Pipe.



## Set made of Quick clip and Quick pipe



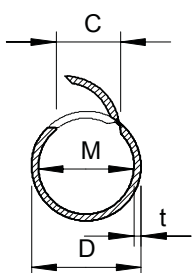
Type	Size	Colour	Set consisting of	Pack. pcs	Weight kg/100 pcs	Item No.
2954 M16 LGR	M16	Light grey	50 m Quick pipe and 156x OBO Quick clip	1	444.000	2154501
2954 M20 LGR	M20	Light grey	40 m Quick pipe and 120x OBO Quick clip	1	508.000	2154528
2954 M25 LGR	M25	Light grey	30 m Quick pipe and 96x OBO Quick clip	1	517.000	2154536
2954 M32 LGR	M32	Light grey	20 m Quick pipe and 60x OBO Quick clip	1	479.000	2154544

PVC Polyvinylchloride

Convenient set consisting of Quick clip and Quick pipe.

The Quick pipe combines the advantages of cable duct and installation pipe into an intelligent system. This system allows tidy and safe surface-mounted installation of all kinds of cables on walls and ceilings. Quick pipe is available in four metric sizes: M16, M20, M25 and M32 and the stock length is 2 m.

The system is VDE-tested and achieves a protection rating of IP44. The Quick pipe can be used in the temperature range from -25 to +60 °C and is resistant to an impact energy of 5 J.



## Quick clip



Type	Nominal size	Colour	Pack. pcs	Weight kg/100 pcs	Item No.
2955 M16	M16	Light grey	100	0.252	2149004
2955 M20	M20	Light grey	100	0.325	2149010
2955 M25	M25	Light grey	100	0.433	2149016
2955 M32	M32	Light grey	50	0.630	2149022
2955 M40	M40	Light grey	50	0.835	2149028
2955 M50	M50	Light grey	25	1.454	2149034
2955 M63	M63	Light grey	20	2.203	2149040

PP Polypropylene

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

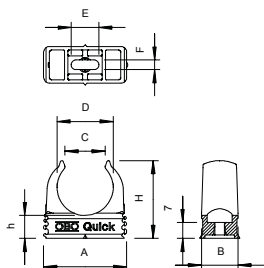
Pipe centring aids allow optimal attachment of the pipe and automatically turn the clip into the correct position.

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

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

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

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



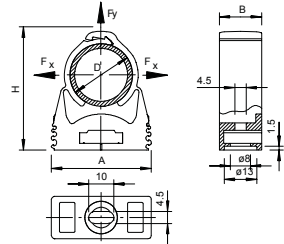
## Quick clip, black



Type	Nominal size	Clamping range D mm	Breaking load kN	Colour	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>SQ-20 SW</b>	20-23	19.5 - 23.5	0.8	Jet black	50	0.848	<b>2146164</b>

PP Polypropylene

Cable brackets for isCon® conductors for mounting on the building structure. Can also be used in the first 1.5 m. Can be arranged next to each other. Made from a UV and weather-resistant polyamide.



## Quick pipe shears

IP 44 M

Type	Cutting area mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>SQ 1632</b>	16 - 32	1	40.000	<b>2153572</b>

For exact, burr-free cutting of the Quick pipe of Ø 16-32 mm.









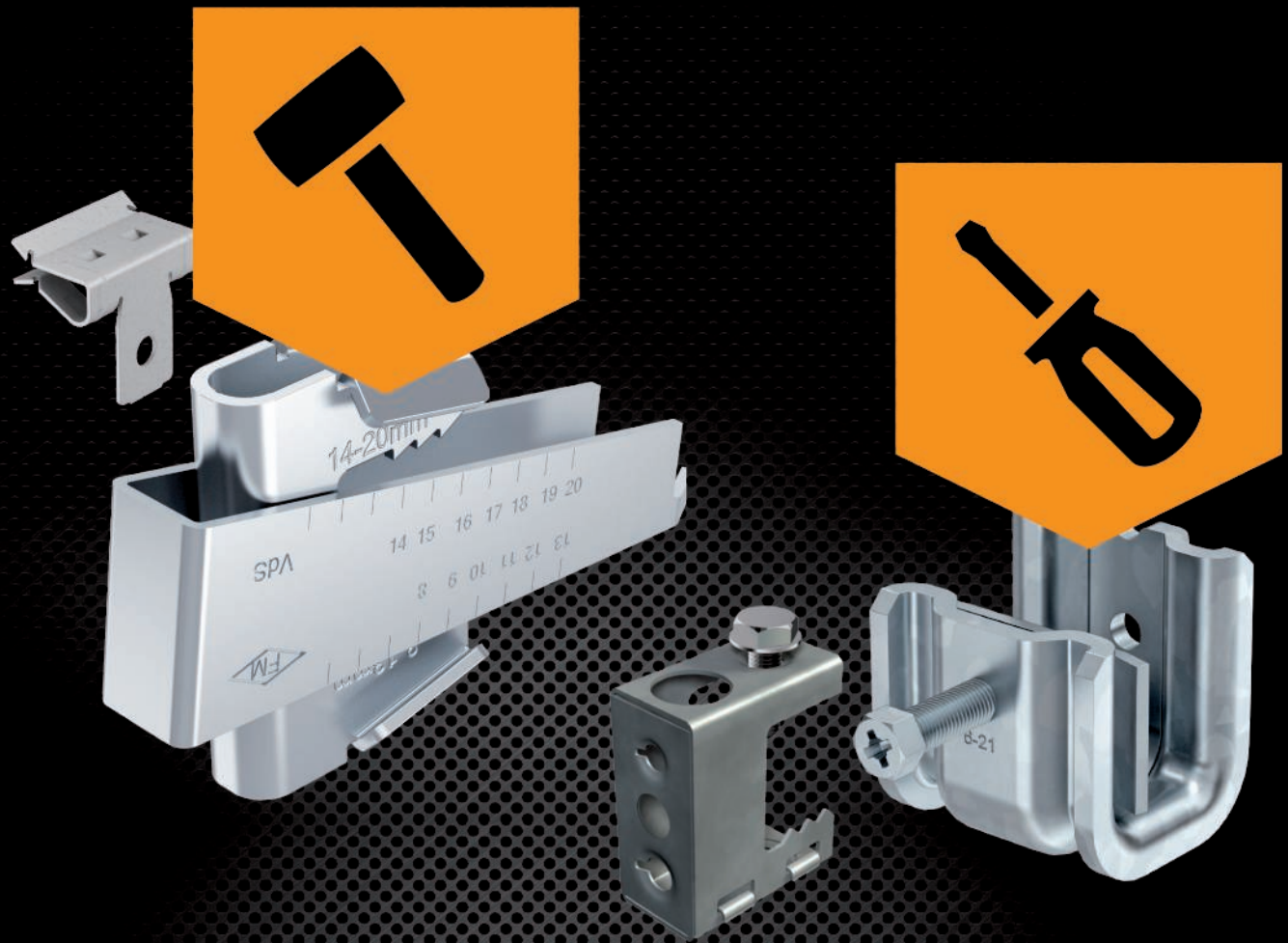
## Beam clamp systems

	<b>Beam clamps for knocking in, light-duty</b>	376
	<b>Beam clamps for knocking in, heavy-duty</b>	382
	<b>Beam clamps for screwing in, light-duty</b>	383
	<b>Beam clamps for screwing in, heavy-duty</b>	386
	<b>Special beam clamps</b>	387





# Beam clamp systems



The wide range of beam clamps available allows a very wide range of components to be fastened to steel girder structures of different flange thicknesses. With the knocking in variant of the beam clamps, the beam clamps grab the metal, whilst, with the screw-on variant, the bolt clamps the flange to the beam clamp.

**Special**



**Beam clamp  
for knocking in, light-duty**



**Beam clamp  
for knocking in, heavy-duty**



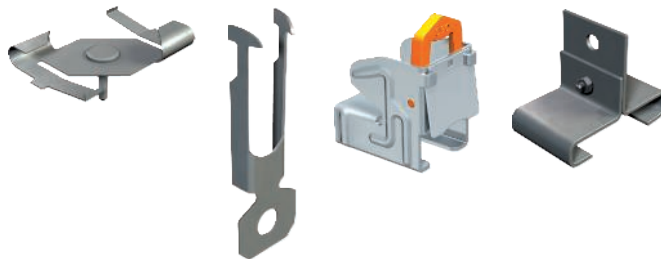
**Beam clamp  
for screwing on, light-duty**



**Beam clamp  
for screwing on, heavy-duty**



**Special beam clamps**



### Beam clamp, with fastening hole

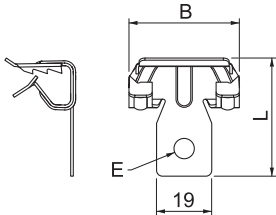


Type	Flange thickness mm	Fastening hole mm	Breaking load N	Weight		Item No.
				Pack. pcs	kg/100 pcs.	
<b>BCVH 2-4</b>	2 - 4	6.5	450	100	1.350	<b>1483601</b>
<b>BCVH 4-8</b>	4 - 8	6.5	950	100	1.660	<b>1483603</b>
<b>BCVH 8-14</b>	8 - 14	6.5	950	100	1.800	<b>1483605</b>
<b>BCVH 14-20</b>	14 - 20	6.5	950	100	1.950	<b>1483607</b>

**St** Steel

**ZL** Zinc scale

Beam clamp for knocking in with fastening hole as individual fastening solution on the beam.



### Beam clamp, with threaded bolt

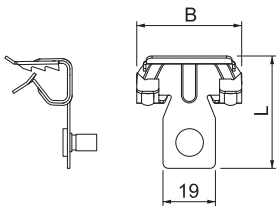


Type	Flange thickness mm	Thread	Breaking load N	Weight		Item No.
				Pack. pcs	kg/100 pcs.	
<b>BCVTB 2-4 M6</b>	2 - 4	M6 x 9mm	450	100	0.900	<b>1483611</b>
<b>BCVTB 4-8 M6</b>	4 - 8	M6 x 9mm	450	100	1.600	<b>1483613</b>
<b>BCVTB 8-14 M6</b>	8 - 14	M6 x 9mm	450	100	1.800	<b>1483615</b>
<b>BCVTB 14-20 M6</b>	14 - 20	M6 x 9mm	450	100	2.000	<b>1483617</b>

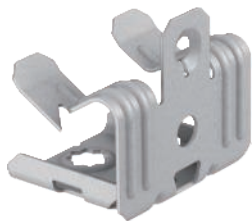
**St** Steel

**ZL** Zinc scale

Beam clamp for knocking in with threaded bolt as individual fastening solution on the beam.



### Beam clamp, with female thread

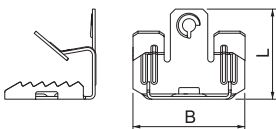


Type	Flange thickness mm	Thread	Fastening hole mm	Breaking load N	Weight		Item No.
					Pack. pcs	kg/100 pcs.	
<b>BCUIT 3-7 M6</b>	3 - 7	M6	7	350	100	2.100	<b>1483621</b>
<b>BCUIT 8-12,5 M6</b>	8 - 12	M6	7	500	100	2.450	<b>1483623</b>
<b>BCUIT 14-20 M6</b>	14 - 20	M6	7	500	100	2.700	<b>1483625</b>

**St** Steel

**ZL** Zinc scale

Beam clamp for knocking in with internal thread as individual fastening solution on the beam.





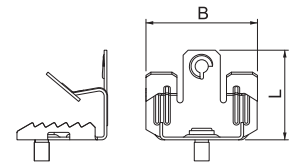
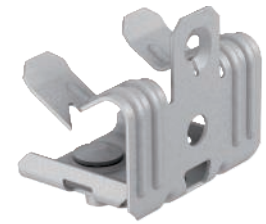
### Beam clamp, with threaded bolt

Type	Flange		Breaking load N	Pack. pcs.	Weight	
	thickness mm	Thread			kg/100 pcs.	Item No.
<b>BCUTB 3-7 M6</b>	3 - 7	M6 x 9 mm	350	100	2.850	<b>1483631</b>
<b>BCUTB 8-12,5 M6</b>	8 - 12.5	M6 x 9 mm	500	100	2.900	<b>1483633</b>
<b>BCUTB 14-20 M6</b>	14 - 20	M6 x 9 mm	500	100	3.200	<b>1483635</b>

St Steel

ZL Zinc scale

Beam clamp for knocking in with threaded bolt as individual fastening solution on the beam.



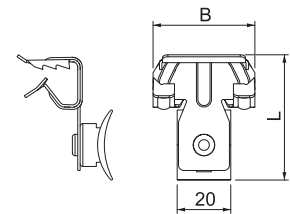
### Beam clamp, with cable tie

Type	Flange thickness mm	Cable strip		Breaking load N	Pack. pcs.	Weight	
		length mm	Max. D Ø			kg/100 pcs.	Item No.
<b>BCCT 2-4 L240</b>	2 - 4	240	70	220	50	1.600	<b>1483641</b>
<b>BCCT 4-8 L240</b>	4 - 8	240	70	220	50	1.900	<b>1483643</b>
<b>BCCT 4-8 L365</b>	4 - 8	365	110	220	50	2.000	<b>1483645</b>
<b>BCCT 8-14 L240</b>	8 - 14	240	70	220	50	2.100	<b>1483647</b>
<b>BCCT 8-14 L365</b>	8 - 14	365	110	220	50	2.200	<b>1483649</b>
<b>BCCT 14-20 L240</b>	14 - 20	240	70	220	50	2.250	<b>1483651</b>
<b>BCCT 14-20 L365</b>	14 - 20	365	110	220	50	2.250	<b>1483653</b>

St Steel

ZL Zinc scale

Knock-on beam clamp with cable tie as an individual fastening solution at the beam.



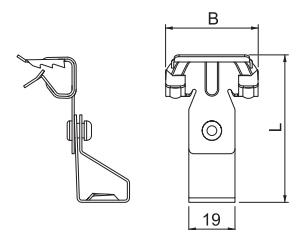
### Beam clamp, for threaded rod

Type	Flange		Breaking load		Pack. pcs.	Weight	
	thickness mm	Thread	N	N		kg/100 pcs.	Item No.
<b>BCTR 4-8 M6</b>	4 - 8	M6	650		50	3.100	<b>1483661</b>
<b>BCTR 8-14 M6</b>	8 - 14	M6	650		50	3.300	<b>1483663</b>
<b>BCTR 4-8 M8</b>	4 - 8	M8	700		50	3.100	<b>1483665</b>
<b>BCTR 8-14 M8</b>	8 - 14	M8	700		50	3.100	<b>1483667</b>
<b>BCTR 4-8 M10</b>	4 - 8	M10	750		50	3.100	<b>1483669</b>
<b>BCTR 8-14 M10</b>	8 - 14	M10	750		50	3.200	<b>1483671</b>

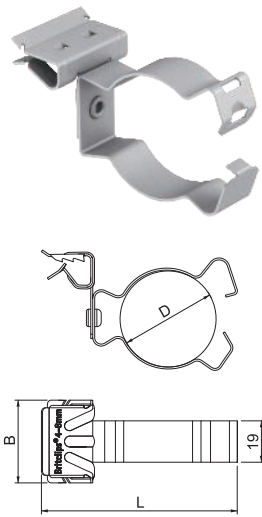
St Steel

ZL Zinc scale

Beam clamp for knocking in with threaded rod seat as individual fastening solution on the beam.



Beam clamp, for pipes



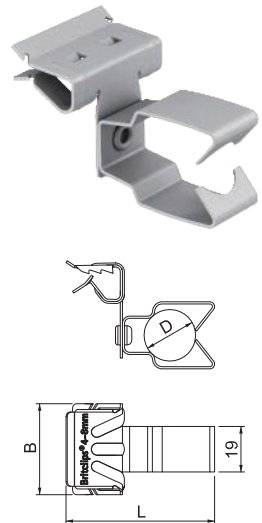
Type	Flange thickness mm	Clamping range D mm	Breaking load N	Pack. pcs.	Weight	
					kg/100 pcs.	Item No.
BCHPC 2-4 D20	2 - 4	18 - 24	450	50	2.900	1483681
BCHPC 2-4 D25	2 - 4	22 - 26	450	50	3.200	1483683
BCHPC 2-4 D32	2 - 4	30 - 32	450	50	3.850	1483685
BCHPC 4-8 D20	4 - 8	18 - 24	450	50	3.400	1483687
BCHPC 4-8 D25	4 - 8	22 - 26	450	50	3.600	1483689
BCHPC 4-8 D32	4 - 8	30 - 32	450	50	3.900	1483691
BCHPC 4-8 D40	4 - 8	36 - 40	450	50	4.800	1483693
BCHPC 8-14 D20	8 - 14	18 - 24	450	50	3.800	1483701
BCHPC 8-14 D25	8 - 14	22 - 26	450	50	3.800	1483703
BCHPC 8-14 D32	8 - 14	30 - 32	450	50	4.200	1483705
BCHPC 8-14 D40	8 - 14	36 - 40	450	50	4.500	1483707
BCHPC 14-20 D20	14 - 20	18 - 24	450	50	3.500	1483711
BCHPC 14-20 D25	14 - 20	22 - 26	450	50	4.100	1483713
BCHPC 14-20 D32	14 - 20	30 - 32	450	50	4.700	1483715
BCHPC 14-20 D40	14 - 20	36 - 40	450	50	5.600	1483717

St Steel

ZL Zinc scale

Beam clamp for knocking in with closed pipe seat as individual fastening solution on the beam.

Beam clamp, for pipes



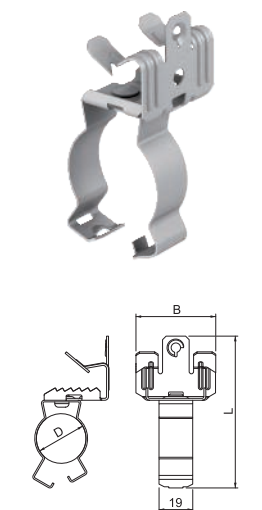
Type	Flange thickness mm	Pipe size D mm	Breaking load N	Pack. pcs.	Weight	
					kg/100 pcs.	Item No.
BCHPO 2-4 D20	2 - 4	20	110	50	2.950	1483811
BCHPO 2-4 D25	2 - 4	25	110	50	2.000	1483813
BCHPO 2-4 D32	2 - 4	32	110	50	2.400	1483815
BCHPO 4-8 D20	4 - 8	20	110	50	3.000	1483821
BCHPO 4-8 D25	4 - 8	25	110	50	3.200	1483823
BCHPO 4-8 D32	4 - 8	32	110	50	3.000	1483825
BCHPO 8-14 D20	8 - 14	20	110	50	3.200	1483831
BCHPO 8-14 D25	8 - 14	25	110	50	3.100	1483833
BCHPO 8-14 D32	8 - 14	32	110	50	3.300	1483835
BCHPO 14-20 D20	14 - 20	20	110	50	3.200	1483841
BCHPO 14-20 D25	14 - 20	25	110	50	3.100	1483843
BCHPO 14-20 D32	14 - 20	32	110	50	3.300	1483845

St Steel

ZL Zinc scale

Beam clamp for knocking in with open pipe seat as individual fastening solution on the beam.

Beam clamp, for pipes



Type	Flange thickness mm	Clamping range D mm	Breaking load N	Pack. pcs.	Weight	
					kg/100 pcs.	Item No.
BCVPC 3-7 D20	3 - 7	19 - 22	350	50	4.100	1483781
BCVPC 3-7 D25	3 - 7	23 - 25	450	50	4.500	1483783
BCVPC 3-7 D32	3 - 7	26 - 32	450	50	4.700	1483785
BCVPC 3-7 D40	3 - 7	33 - 40	450	50	5.600	1483787
BCVPC 8-12,5 D20	8 - 12,5	19 - 22	350	50	4.200	1483791
BCVPC 8-12,5 D25	8 - 12,5	23 - 25	450	50	4.700	1483793
BCVPC 8-12,5 D32	8 - 12,5	26 - 32	450	50	4.900	1483795
BCVPC 8-12,5 D40	8 - 12,5	33 - 40	450	50	5.800	1483797
BCVPC 14-20 D20	14 - 20	19 - 22	350	50	4.600	1483801
BCVPC 14-20 D25	14 - 20	23 - 25	450	50	5.200	1483803
BCVPC 14-20 D32	14 - 20	26 - 32	450	50	5.400	1483805
BCVPC 14-20 D40	14 - 20	33 - 40	450	50	6.300	1483807

St Steel

ZL Zinc scale

Beam clamp for knocking in with closed pipe seat as individual fastening solution on the beam.

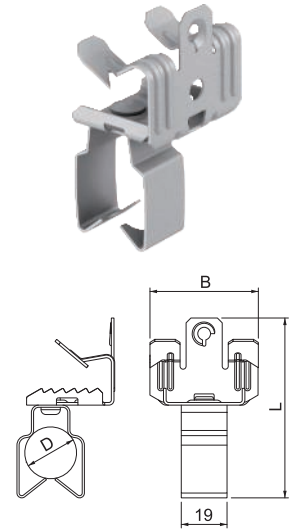
## Beam clamp, for pipes

Type	Flange		Pipe size D mm	Breaking load N	Pack. pcs.	Weight kg/100 pcs.	Item No.
	thickness mm						
<b>BCVPO 3-7 D20</b>	3 - 7		20	110	50	3.400	<b>1483751</b>
<b>BCVPO 3-7 D25</b>	3 - 7		25	110	50	3.500	<b>1483753</b>
<b>BCVPO 3-7 D32</b>	3 - 7		32	110	50	3.800	<b>1483757</b>
<b>BCVPO 8-12,5 D20</b>	8 - 12,5		20	110	50	4.100	<b>1483761</b>
<b>BCVPO 8-12,5 D25</b>	8 - 12,5		25	110	50	4.100	<b>1483763</b>
<b>BCVPO 8-12,5 D32</b>	8 - 12,5		32	110	50	4.100	<b>1483765</b>
<b>BCVPO 14-20 D20</b>	14 - 20		20	110	50	4.000	<b>1483771</b>
<b>BCVPO 14-20 D25</b>	14 - 20		25	110	50	4.250	<b>1483773</b>
<b>BCVPO 14-20 D32</b>	14 - 20		32	110	50	4.300	<b>1483775</b>

Sl Steel

ZL Zinc scale

Beam clamp for knocking in with open pipe seat as individual fastening solution on the beam.



## Beam clamp, for pipes

Type	Flange thickness mm	Clamping range D mm	Pack. pcs.	Weight kg/100 pcs.	Item No.
<b>BCC 2-4 D7</b>	2 - 4	6 - 7	100	0.400	<b>1483903</b>
<b>BCC 2-4 D9</b>	2 - 4	7 - 9	100	0.450	<b>1483905</b>
<b>BCC 2-4 D11</b>	2 - 4	10 - 12	100	0.500	<b>1483907</b>
<b>BCC 2-4 D14</b>	2 - 4	12 - 14	100	0.550	<b>1483911</b>
<b>BCC 2-4 D18</b>	2 - 4	15 - 18	100	0.700	<b>1483915</b>
<b>BCC 2-4 D24</b>	2 - 4	19 - 24	100	0.800	<b>1483919</b>
<b>BCC 2-4 D30</b>	2 - 4	25 - 30	100	0.900	<b>1483923</b>
<b>BCC 4-7 D5,5</b>	4 - 7	4.5 - 5.5	100	0.500	<b>1483931</b>
<b>BCC 4-7 D7</b>	4 - 7	6 - 7	100	0.550	<b>1483933</b>
<b>BCC 4-7 D9</b>	4 - 7	7 - 9	100	0.600	<b>1483935</b>
<b>BCC 4-7 D11</b>	4 - 7	10 - 11	100	0.700	<b>1483937</b>
<b>BCC 4-7 D14</b>	4 - 7	12 - 14	100	0.700	<b>1483941</b>
<b>BCC 4-7 D18</b>	4 - 7	15 - 18	100	0.800	<b>1483945</b>
<b>BCC 4-7 D24</b>	4 - 7	19 - 24	100	0.900	<b>1483951</b>
<b>BCC 4-7 D30</b>	4 - 7	25 - 30	100	1.100	<b>1483955</b>
<b>BCC 8-12 D5,5</b>	8 - 12	4.5 - 5.5	100	0.500	<b>1483960</b>
<b>BCC 8-12 D7</b>	8 - 12	6 - 7	100	0.600	<b>1483961</b>
<b>BCC 8-12 D9</b>	8 - 12	7 - 9	100	0.700	<b>1483963</b>
<b>BCC 8-12 D11</b>	8 - 12	10 - 11	100	0.700	<b>1483965</b>
<b>BCC 8-12 D14</b>	8 - 12	12 - 14	100	0.800	<b>1483969</b>
<b>BCC 8-12 D18</b>	8 - 12	15 - 18	100	0.900	<b>1483973</b>
<b>BCC 8-12 D24</b>	8 - 12	19 - 24	100	1.100	<b>1483977</b>
<b>BCC 8-12 D30</b>	8 - 12	25 - 30	100	1.100	<b>1483981</b>

Sl Steel

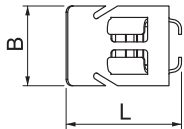
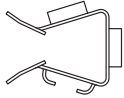
ZL Zinc scale

Beam clamp for knocking in for cables as individual fastening solution on the beam.



## Beam clamps for knocking in, light-duty

### Beam clamp, for pipes



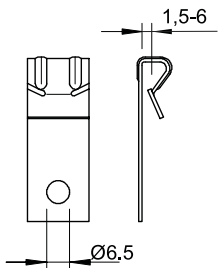
Type	Flange thickness mm	Pack. pcs	Weight		Item No.
			kg/100	pcs.	
<b>BCCA</b>	12 - 20	100	1.700		<b>1483999</b>

**St** Steel

**ZL** Zinc scale

Beam clamp adapter for knocking in. Seat for BCC beam clamps for flange thicknesses of 2 - 4 mm.

### Profile suspensions



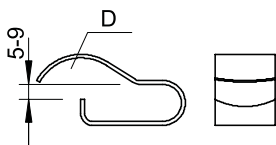
Type	Flange thickness mm	Height mm	Width mm	Breaking load kN	Pack. pcs	Weight		Item No.
						kg/100	pcs.	
<b>TKL 4</b>	1.5 - 4	52	10	0.72	100	0.860		<b>1485105</b>
<b>TKL 6</b>	4 - 6	54	12	0.72	100	1.090		<b>1485113</b>

**St** Steel

**ZL** Zinc scale

Profile suspension with drill hole to accept S hooks.

### Support clip



Type	Flange thickness mm	Pipe size D mm	Pack. pcs	Weight		Item No.
				kg/100	pcs.	
<b>BCCF 8-9 D20</b>	8 - 9	20	100	1.100		<b>1483985</b>

**St** Steel

**ZL** Zinc scale



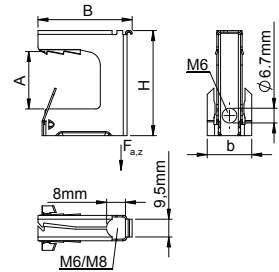
## Beam clamp, multifunctional

Type	Flange		Width mm	Breaking load kN	Weight		Item No.
	thickness mm	Height mm			Pack. pcs	kg/100 pcs.	
<b>TK MULTI 8</b>	2 - 8	30	30	1.2	100	0.100	<b>1485140</b>
<b>TK MULTI 16</b>	8 - 16	38	32	1.2	100	0.120	<b>1485144</b>
<b>TK MULTI 24</b>	16 - 24	48	42	1.2	50	0.170	<b>1485148</b>

**St** Steel

**ZDM** Galvanised, MAGNI 565

The multifunctional beam clamp is suitable for fastening cables, protective pipes and cable sections on steel girders of any size (one clip for every application). Here, the beam clamp is very versatile thanks to various fastening options. Mounting of the beam clamp is quick and efficient, with no need for welding or drilling. It is simply mounted by hammering or pushing into place. The beam clamp can be used in both internal and external areas.





## Beam clamp TKM Chock



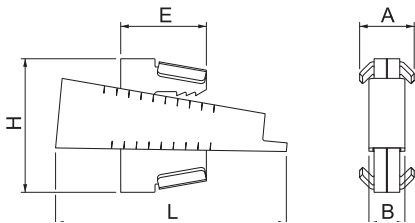
Type	Flange thickness mm	For threaded rod	Breaking load kN	Pack. pcs.	Weight kg/100 pcs.	Item No.
<b>TKM Chock 1 FS</b>	8 - 20	M6 / M8	2	25	16.100	<b>1480850</b>
<b>TKM Chock 2 FS</b>	8 - 20	M8 / M10	3.5	25	16.400	<b>1480852</b>
<b>TKM Chock 3 FS</b>	8 - 20	M12	5	25	16.800	<b>1480854</b>

**St** Steel

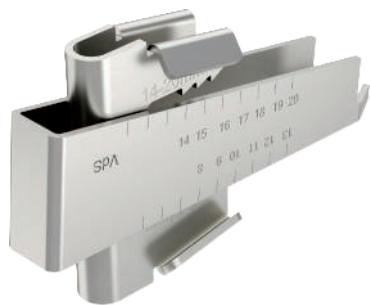
**FS** Strip-galvanised

Beam clamp for knocking in on the support with flange thicknesses of 8–20 mm. Suitable for parallel and inclined flanges. Maximum flange inclination: 14%

### Dimensions



## Beam clamp TKM Chock

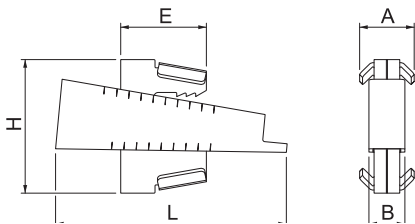


Type	Flange thickness mm	For threaded rod	Breaking load kN	Pack. pcs.	Weight kg/100 pcs.	Item No.
<b>TKM Chock 2 A4</b>	8 - 20	M8/M10	3.5	25	16.400	<b>1480882</b>

**V4A** Stainless steel, A4

Beam clamp for knocking in on the support with flange thicknesses of 8–20 mm. Suitable for parallel and inclined flanges. Maximum flange inclination: 14%

### Dimensions



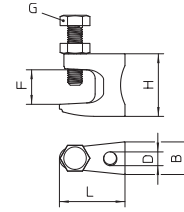
### Screw-in beam clamp, with gland hole



Type	Flange thickness mm	Height mm	Fastening hole mm	Breaking load kN	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>FL 1 TG</b>	0 - 18	35	9	1.2	50	8.500	<b>1488015</b>
<b>FL 2 TG</b>	0 - 20	42	11	2.5	50	14.000	<b>1488023</b>
<b>FL 3 TG</b>	0 - 26	54	13	3.5	25	18.000	<b>1488031</b>

TG Cast iron

With gland hole.



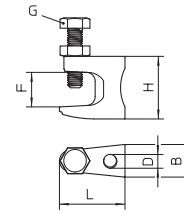
### Screw-in beam clamp, with thread



Type	Flange thickness mm	Height mm	For threaded rod mm	Breaking load kN	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>FL1-G M8 TG</b>	0 - 18	35	M8	1.2	50	8.500	<b>1488074</b>
<b>FL2-G M10 TG</b>	0 - 20	42	M10	2.5	50	14.000	<b>1488082</b>
<b>FL3-G M12 TG</b>	0 - 26	54	M12	3.5	25	18.000	<b>1488090</b>

TG Cast iron

With thread.



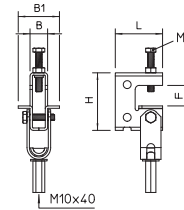
### Screw-in beam clamp, with hinge

Type	Flange thickness mm	For threaded rod mm	Breaking load kN	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>TK FL G</b>	0 - 24	M10	0,9 - 2,8	10	34.000	<b>1488111</b>

St Steel

ZL Zinc scale

Two-hinge beam clamp for fastening on beams without welding and drilling. The maximum load is dependent on the load direction.



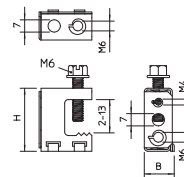
### Screw-in beam clamp, universal

Type	Flange thickness mm	Height mm	Width mm	Breaking load kN	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>TK 213</b>	2 - 13	35	—	1.35	100	2.720	<b>1484702</b>

St Steel

ZL Zinc scale

Various fastening options (horizontal and vertical).



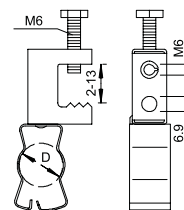
### Screw-in beam clamp, for pipes and cables

Type	Flange thickness mm	Clamping range D mm	Breaking load kN	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>TKS 213-25</b>	2 - 17	23 - 25	0.45	50	3.990	<b>1484818</b>
<b>TKS 213-32</b>	2 - 17	26 - 32	0.45	50	4.170	<b>1484826</b>

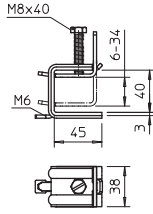
St Steel

ZL Zinc scale

With rotating clip to accept pipes and cables, lockable.



### Beam clamp for screwing on, light-duty



Flange  
thickness  
mm

**Type**  
**339 2** | 6 - 34

**St** Steel

**G** Electrogalvanised

Pack. pair	Weight kg/100 pairs	Item No.
5	37.000	1408534

For rapid fastening on steel profiles during the mounting of cable tracks, clamp clips, luminaire suspensions, etc. A complete system consists of two beam clamps and a piece of C profile rail of any length, as well as two protective caps.



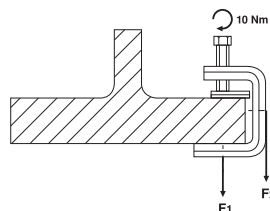
## Beam clamp SSP

- High load capacity
- 2 clamping ranges (6–21 mm and 20–40 mm)
- 2 thread variants (M6 and M8)
- 3 materials (FT, V2A, V4A)
- BET-tested



Heavy loads.

The SSP beam clamps are used for fastening a wide range of components, including electrical installations, to load-bearing profiles. Their main benefit is their high load-bearing capacity.



	SSP 6-21	SSP 20-40
<b>F1</b>	1.75 kN	1.4 kN
<b>F2</b>	1.5 kN	1.3 kN



## Beam clamp SSP 6-21

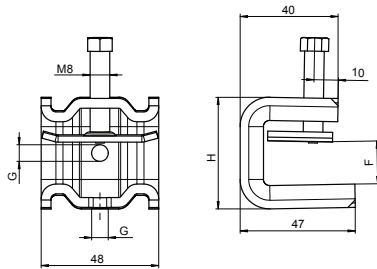


Type	Flange thickness mm	For threaded rod	Breaking load F1 kN	Breaking load F2 kN	Pack. pcs.	Weight kg/100 pcs.	Item No.
SSP 6-21 M6 FT	6 - 21	M6	1.75	1.5	25	23.900	1486232
SSP 6-21 M6 A2	6 - 21	M6	1.75	1.5	25	23.200	1486234
SSP 6-21 M6 A4	6 - 21	M6	1.75	1.5	25	23.200	1486236
SSP 6-21 M8 FT	6 - 21	M8	1.75	1.5	25	23.900	1486282
SSP 6-21 M8 A2	6 - 21	M8	1.75	1.5	25	23.200	1486284
SSP 6-21 M8 A4	6 - 21	M8	1.75	1.5	25	23.200	1486286

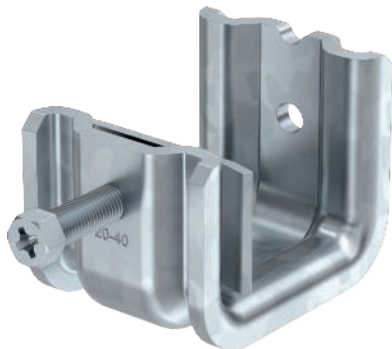
SI Steel   
 V2A Stainless steel, A2   
 V4A Stainless steel, A4  
FT Hot-dip galvanised

This type of beam clamp is pushed onto the support and fixed to the girder or flat iron using a pressure trough and bolt (M8). The hexagonal bolt has a WAF of 10 mm. In the clip element, two additional M6 threads are also incorporated, to fix threaded rods, for example.

### Dimensions



## Beam clamp SSP 20-40

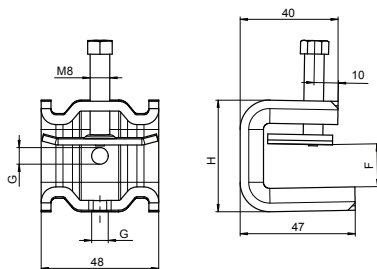


Type	Flange thickness mm	For threaded rod	Breaking load F1 kN	Breaking load F2 kN	Pack. pcs.	Weight kg/100 pcs.	Item No.
SSP 20-40 M6 FT	20 - 40	M6	1.4	1.3	25	27.700	1486238
SSP 20-40 M6 A2	20 - 40	M6	1.4	1.3	25	27.700	1486242
SSP 20-40 M6 A4	20 - 40	M6	1.4	1.3	25	27.700	1486244
SSP 20-40 M8 FT	20 - 40	M8	1.4	1.3	25	27.800	1486288
SSP 20-40 M8 A2	20 - 40	M8	1.4	1.3	25	27.800	1486292
SSP 20-40 M8 A4	20 - 40	M8	1.4	1.3	25	27.800	1486294

SI Steel   
 V2A Stainless steel, A2   
 V4A Stainless steel, A4  
FT Hot-dip galvanised

This type of beam clamp is pushed onto the support and fixed to the girder or flat iron using a pressure trough and bolt (M8). The hexagonal bolt has a WAF of 10 mm. In the clip element, two additional M6 threads are also incorporated, to fix threaded rods, for example.

### Dimensions



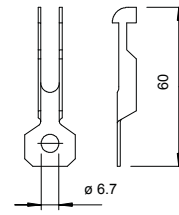


### Profile ceiling suspensions

Type	Height mm	Fastening hole mm	Breaking load kN	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>TKT</b>	60	6.7	0.45	100	0.900	<b>1486861</b>

- St Steel
- ZL Zinc scale

Push-through fastening, with opening to accept S hooks or bolt and nut.

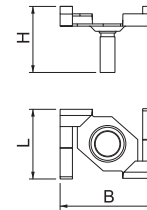


### Ceiling profile clamp - CPC

Type	Thread	Breaking load N	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>CPC M6x11</b>	M6 x 11mm	220	100	1.000	<b>1483991</b>
<b>CPC M6x16</b>	M6 x 16 mm	220	100	1.150	<b>1483993</b>
<b>CPC M6x25</b>	M6 x 25 mm	220	100	1.250	<b>1483995</b>

- St Steel
- ZL Zinc scale

Ceiling profile clamp with threaded bolt

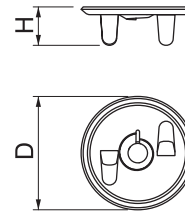


### Locknut - CPCN

Type	Thread	Breaking load N	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>CPCN M6</b>	M6	220	100	0.650	<b>1483997</b>

- St Steel
- ZL Zinc scale

Locknut for ceiling profile clamp CPC

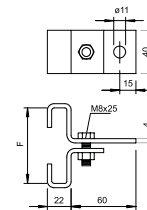


### Beam clamp

Type	Flange thickness mm	Height mm	Fastening hole mm	Breaking load kN	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>325 70 FT</b>	70	60	11	10	25	27.900	<b>5327075</b>
<b>325 80 FT</b>	80	60	11	10	25	32.000	<b>5327083</b>
<b>325 100 FT</b>	100	60	11	9	25	33.500	<b>5327105</b>
<b>325 130 FT</b>	130	60	11	8	25	36.500	<b>5327121</b>

- St Steel
- FT Hot-dip galvanised

The two brackets are clamped to the flange.  
For individual component suspension.

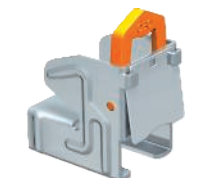
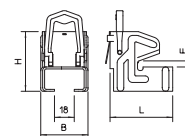


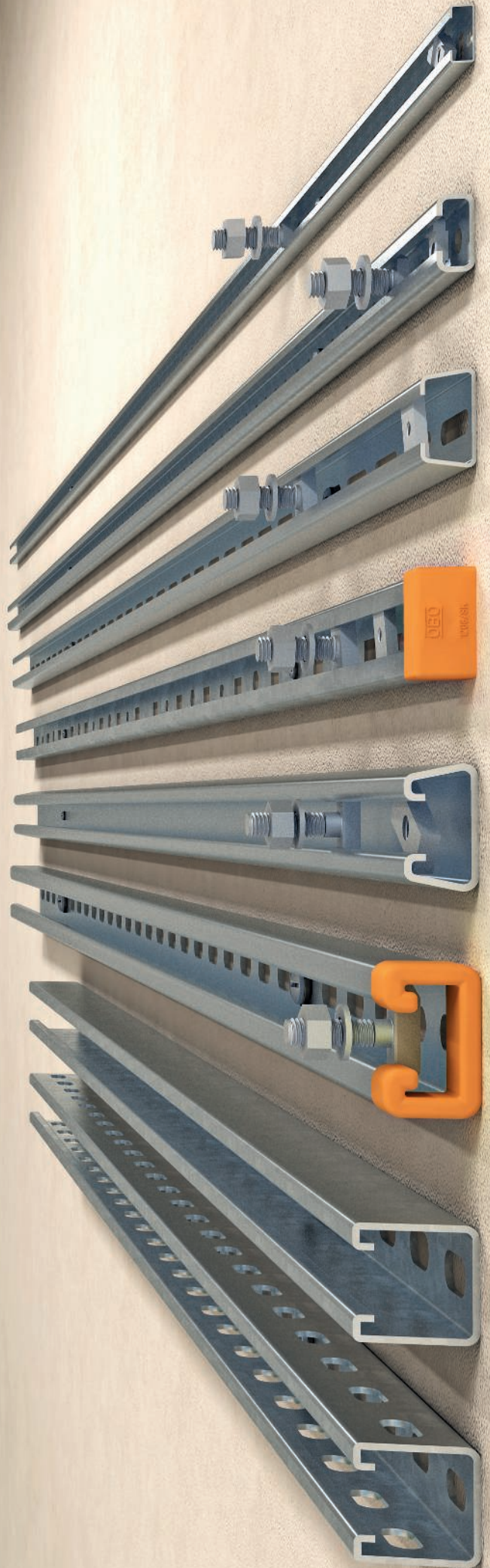
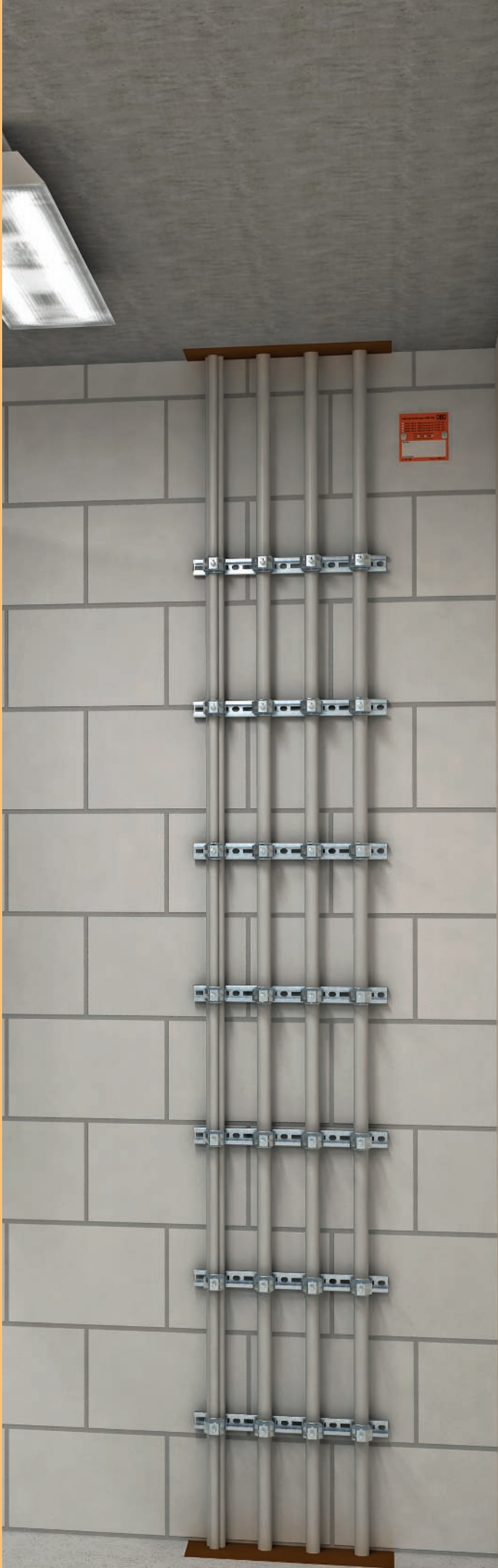
### Beam clamp, for profile rail CM3518

Type	Flange thickness mm	Height mm	Width mm	Length mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>328 1</b>	5 - 11	54.3	39.5	57	50	10.800	<b>1408011</b>
<b>328 2</b>	10 - 19	54.3	39.5	67	50	12.500	<b>1408046</b>

- St Steel
- ZL Zinc scale

Screwless rustproof coated beam clamp, with blocking spring, suitable for profile rail, type CML3518 and CMS3518. For rapid fastening to steel profiles when installing cable tracks, clamp clips, light mounts, etc. A complete system consists of 2 beam clamps and one piece of C profile rail of any length, and 2 protective caps.





## Rail systems

	<b>Profile rail, light-duty</b>	396
	<b>Profile rail, medium-duty</b>	403
	<b>Profile rail, heavy-duty</b>	418
	<b>Hat profile rail</b>	441





# Three load classes for easy product selection

OBO's tried-and-tested rail system is now more logically structured than ever. It is now easy to choose the right product at a glance from the three load classes: light-duty, medium-duty and heavy-duty. The accessories are also right there in the selection aids. So choosing perfectly matching products is a breeze.



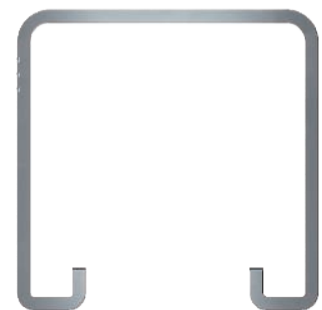
**Light-duty**



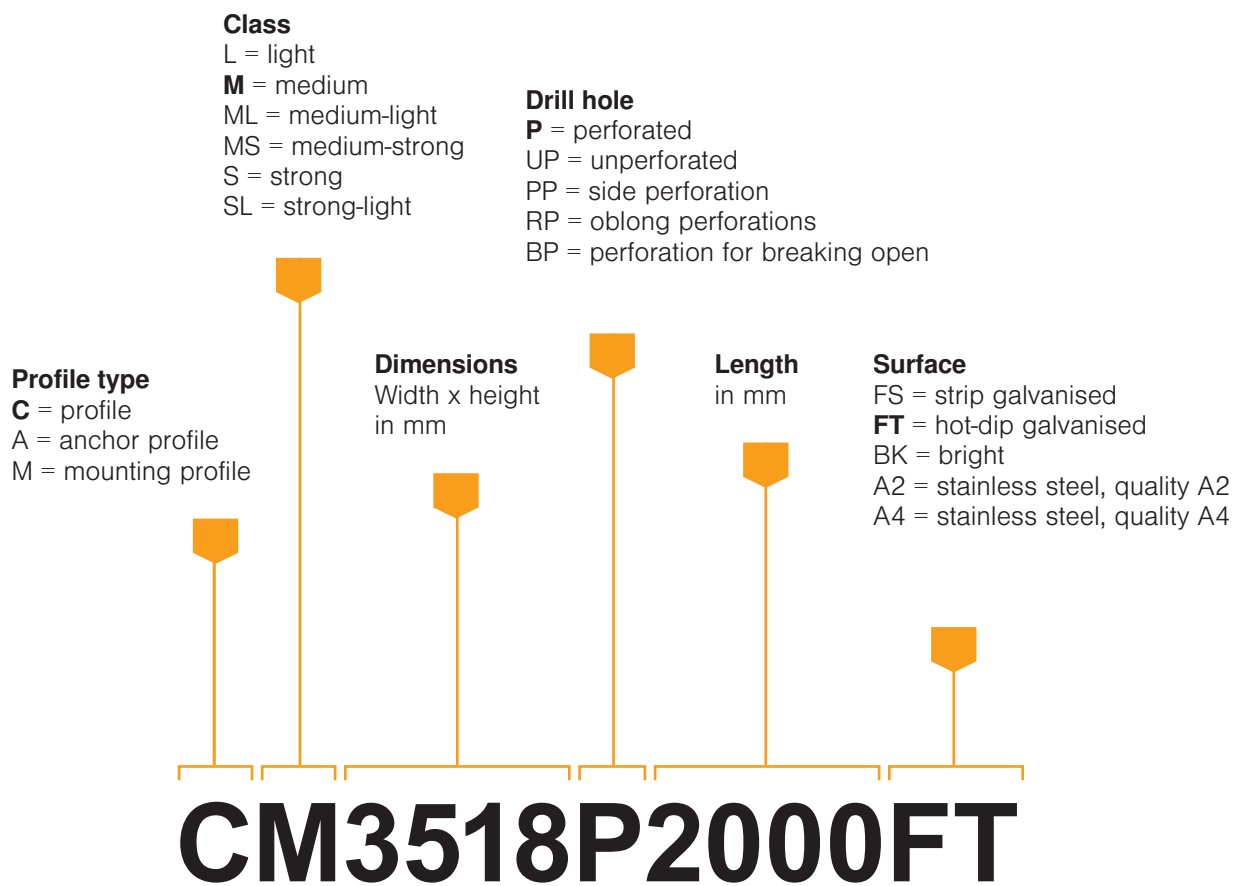
**Medium-duty**



**Heavy-duty**



# Explanation of model codes



## Example

- Rail with C profile
- Load class: medium-duty
- 35 mm width, 18 mm height
- Perforated
- Length 2,000 mm
- FT hot-dip galvanised





# Rail systems and accessories

light

medium

Type	<b>Type CL2008</b> C profile	<b>Type CL2712</b> C profile
Material	<b>FS</b>	<b>FS FT</b>
Material thickness	0.75 mm	2 mm
Hole pattern		
Cross-section		





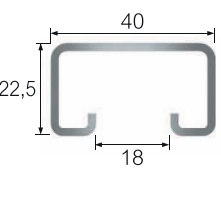
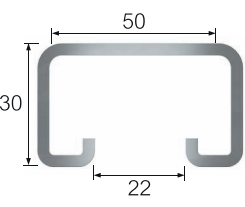
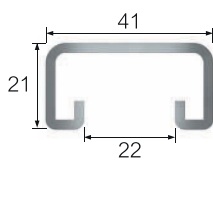
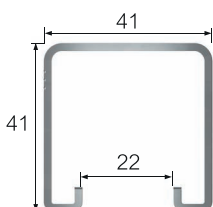












Type	<b>Type CM3015</b> C profile	<b>Type AM3518</b> Anchor profile	<b>Type CM3518</b> C profile
Material	<b>FS FT V2A</b>	<b>FS FT V2A V4A</b>	<b>FS FT V2A V4A</b>
Material thickness	1.75 mm	1.5 mm /2mm	1.25 mm /1.75 mm
Hole pattern			
Cross-section			

Slide nuts		
Hammer-head bolt/Hook head bolt		
Clamp clip		
Series clip		
Series terminal clip		
Impact clip		

Slide nuts			
Hammer-head bolt/Hook head bolt			
Clamp clip			
Series clip			
Series terminal clip	-	-	-
Impact clip	-	-	-

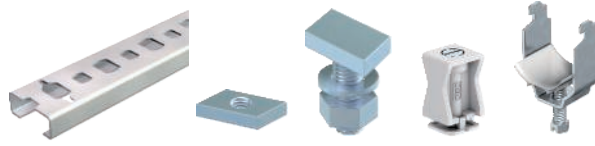


strong

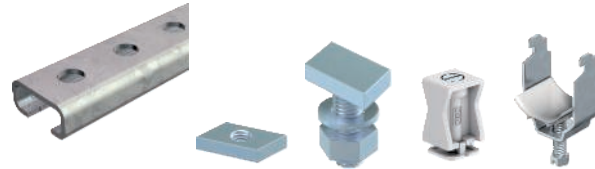
Type MS4022 Mounting profile	Type MS5030 Mounting profile	Type MS4121 Mounting profile	Type MS4141 Mounting profile
FT V2A V4A	FT V2A V4A	FS FT V2A V4A	FS FT V2A V4A
2 mm	3 mm	2 mm	2 mm / 2,5 mm
			
			
			
			
			



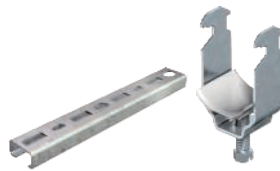
**CL2008 profile rail, light-duty**



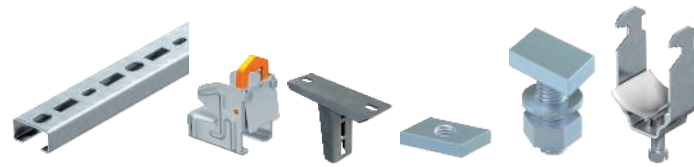
**CL2712 profile rail, light-duty**



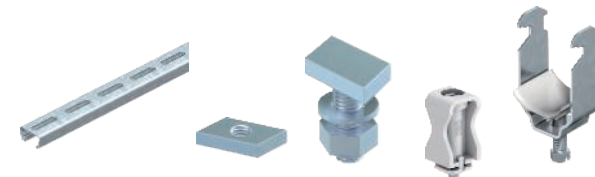
**CM3015 profile rail, medium-duty**



**CM3518 profile rail, medium-duty**



**AML3518 profile rail, medium-duty**



**MS4022 mounting rail, heavy-duty**



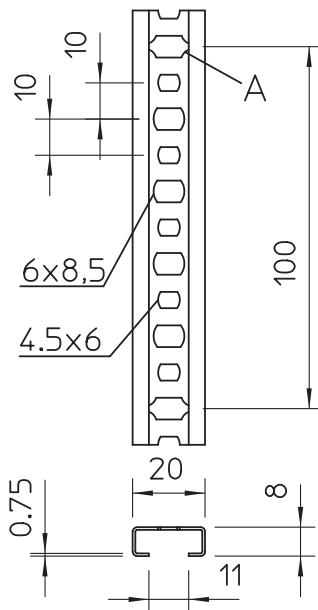
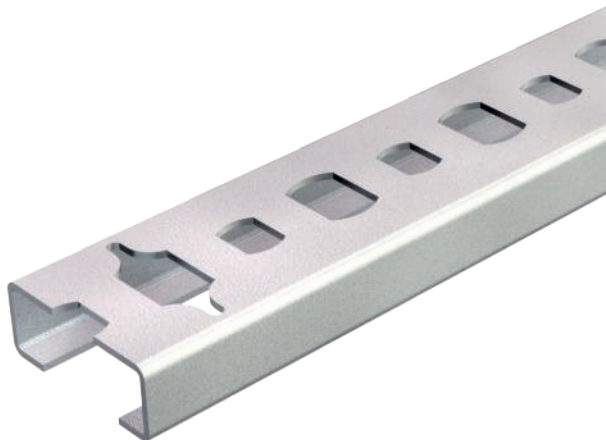
**MS5030 mounting rail, heavy-duty**



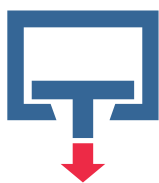
**MS4121 mounting rail, strong**



# CL2008 profile rail, light-duty

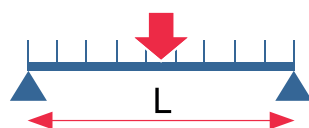


## Permissible individual load



**0.13 kN**

## Permissible total load at distance between supports of L



L [mm]	100	200	300	400	500	600	700	800	1,000
$F_{perm.}$ [kN]	0.13	0.13	0.10	0.07	0.06	0.05	0.04	0.03	0.02
$q_{perm.}$ [kN/m]	3.42	1.48	0.66	0.37	0.24	0.15	0.09	0.06	0.03

- The carrying capacities indicated are valid for the hole pattern shown.
- The carrying capacity of the rail lip was determined on the basis of loading at the rail end, for the shortest rail variant. The fastenings were placed in the last holes. The value given for the permissible individual load is valid where both lips are loaded equally.
- Note: clamp clips with N and U bases only exert a load on one rail lip, hence only 50% of the permissible individual load may be exerted.

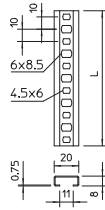
01\_VBS\_Produkteinheitenkatalog\_EX\_2018 / en / 2018/11/26 09:27:20 (LLExpert\_02231) / 2018/11/26 09:29:57 09:29:57

Rail systems



## CL2008 profile rail, light-duty

### CL2008 profile rail, slot 11 mm, perforated, breakable



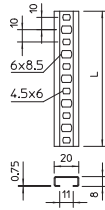
Type	Length mm	Dimension W x H mm	Material thickness mm	Dimension L mm	Pack. m	Weight kg/100 m	Item No.
CL2008BP1000FS	1000	20 x 8	0.75	1000	10	21.500	1105906
CL2008BP2000FS	2000	20 x 8	0.75	2000	50	21.100	1106120
CL2008BP2000BK	2000	20 x 8	0.75	2000	50	20.000	1106023

Si Steel

FS Strip-galvanised BK Bright

Light-duty C profile rail for cable routing, in conjunction with series clips or clamp clips with N foot. Can also be used in building of control cabinets.

### CL2008 profile rail, slot 11 mm, perforated



Type	Length mm	Dimension W x H mm	Material thickness mm	Dimension L mm	Pack. m	Weight kg/100 m	Item No.
CL2008P2000FS	2000	20 x 8	0.75	2000	50	20.000	1106627
CL2008P2000A2	2000	20 x 8	0.75	2000	50	21.400	1106628
CL2008UP2000FS	2000	20 x 8	0.75	2000	50	20.000	1105124
CL2008UP2000A2	2000	20 x 8	0.75	2000	50	23.550	1105125

Si Steel V2A Stainless steel, A2

FS Strip-galvanised

Light-duty C profile rail for cable routing, in conjunction with series clips or clamp clips with N foot. Can also be used in building of control cabinets.





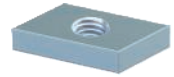
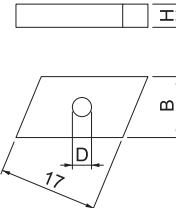
Slide nut

Type	Length	Width	Height	Thread	Pack. pcs.	Weight	Item No.
	mm	mm	mm			kg/100 pcs.	
CL20SN M4 ZL	17	10.5	4	M4	100	0.580	1147008
CL20SN M5 ZL	17	10.5	4	M5	100	0.550	1147012
CL20SN M6 ZL	17	10.5	4	M6	100	0.530	1147016

St Steel

ZL Zinc scale

Slide nut for use with CL2008 profile rail



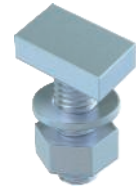
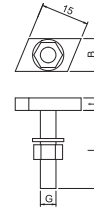
Hammer-head bolt

Type	Length	Width	Height	Thread	Pack. pcs.	Weight	Item No.
	mm	mm	mm			kg/100 pcs.	
CL20HB M5x25 ZL	21.1	10.5	4	M5x25mm	50	1.100	1148008
CL20HB M6x25 ZL	21.1	10.5	4	M6x25mm	50	1.420	1148012
CL20HB M8x25 ZL	21.1	10.5	4	M8x25mm	50	2.150	1148016

St Steel

ZL Zinc scale

Hammer-head bolt for use with CL2008 profile rail



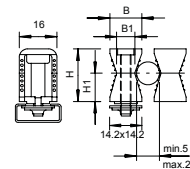
Series clip



Type	Clamping range D	Bolt	Colour	Pack. pcs.	Weight	Item No.
	mm				kg/100 pcs.	
2050 5-25 LGR	5 - 25	M4 x 27	Light grey	100	0.631	2254026
2050 5-25 RW	5 - 25	M4 x 27	Pure white	100	0.631	2254522
2051 8-36 LGR	8 - 36	M4 x 37.5	Light grey	100	0.851	2254034

PS Polystyrene

Also suitable for rails of 11 - 12 mm slot width; polystyrene clip element, impact resistant, halogen-free, light grey RAL 7035; metal parts: electrogalvanised steel.



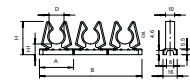
Series terminal clip



Type	Clamping range D	Colour	Number of clips per strip	Pack. pcs.	Weight	Item No.
	mm				kg/100 pcs.	
2036 4-7 LGR	4 - 7	Light grey	4	25	0.160	2259079
2036 10-15 LGR	10 - 15	Light grey	4	25	1.700	2259141

PE Polyethylene

Individually separable, for pushing into profile rails.



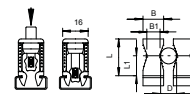
Impact clip



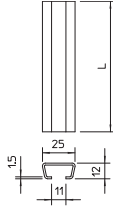
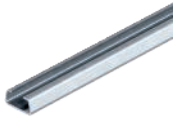
Type	Clamping range D	Colour	Pack. pcs.	Weight	Item No.
	mm			kg/100 pcs.	
2047 5-25 LGR	5 - 25	Light grey	100	0.320	2251256

PS Polystyrene

Series clip without metallic parts, thus protected against corrosion.  
Use: lock the clip in the profile rail and fix it by hitting it with a hammer.



Profile rail CL2512, slot 11 mm, unperforated



Type	Length mm	Dimension W x H mm	Material thickness mm	Dimen- sion L mm	Pack. m	Weight kg/100 m	Item No.
CL2512UP2000FT	2000	25 x 12	1.5	2000	20	65.000	1117025
CL2512UP2000FS	2000	25 x 12	1.5	2000	20	58.300	1117033

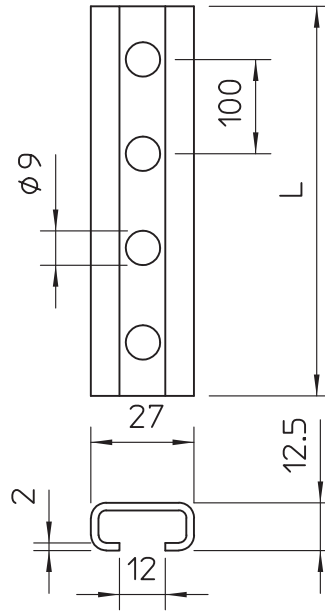
SI Steel

FS Strip-galvanised FT Hot-dip galvanised

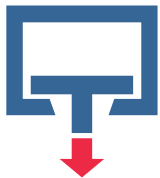
Light-duty C profile rail for cable routing, in conjunction with series clips or clamp clips with N foot. Can also be used in building of control cabinets.



# CL2712 profile rail, light-duty

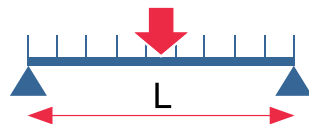


## Permissible individual load



**0.87 kN**

## Permissible total load at distance between supports of L



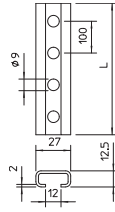
L [mm]	200	300	400	500	600	700	800	1,000
$F_{perm.}$ [kN]	0.78	0.52	0.39	0.31	0.26	0.22	0.2	0.15
$q_{perm.}$ [kN/m]	7.85	3.49	1.96	1.26	0.87	0.64	0.47	0.24

- The carrying capacities indicated are valid for the hole pattern shown.
- The carrying capacity of the rail lip was determined on the basis of loading at the rail end, for the shortest rail variant. The fastenings were placed in the last holes. The value given for the permissible individual load is valid where both lips are loaded equally.
- Note: clamp clips with N and U bases only exert a load on one rail lip, hence only 50% of the permissible individual load may be exerted.



## CL2712 profile rail, light-duty

### CL2712 profile rail, slot 12 mm, perforated



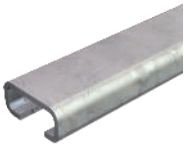
Type	Length mm	Dimension W x H mm	Material thickness mm	Dimen- sion L mm	Pack. m	Weight kg/100 m	Item No.
<b>CL2712P2000FS</b>	2000	27 x 12,5	2	2000	20	85.000	<b>1109525</b>
<b>CL2712P2000FT</b>	2000	27 x 12,5	2	2000	20	89.500	<b>1109529</b>

**SI** Steel

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

Light-duty C profile rail for cable routing, in conjunction with series clips or clamp clips with N foot. Can also be used in building of control cabinets.

### Profile rail CL2712, slot 12 mm, unperforated



Type	Length mm	Dimension W x H mm	Material thickness mm	Dimen- sion L mm	Pack. m	Weight kg/100 m	Item No.
<b>CL2712UP2000FT</b>	2000	27 x 12,5	2	2000	20	90.000	<b>1109022</b>
<b>CL2712UP2000BK</b>	2000	27 x 12,5	2	2000	20	90.000	<b>1109014</b>

**SI** Steel

**BK** Bright **FT** Hot-dip galvanised

Light-duty C profile rail for cable routing, in conjunction with series clips or clamp clips with N foot. Can also be used in building of control cabinets.



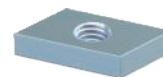
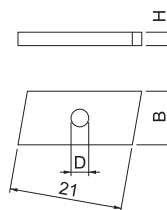
Slide nut

Type	Length mm	Width mm	Height mm	Thread	Pack. pcs	Weight kg/100 pcs.	Item No.
CL27SN M4 ZL	21	10	2.5	M4	100	0.400	1147020
CL27SN M5 ZL	24.5	13	4	M5	100	0.870	1147024
CL27SN M6 ZL	24.5	13	4	M6	100	0.850	1147028
CL27SN M8 ZL	24.5	13	4	M8	100	0.800	1147032

St Steel

ZL Zinc scale

Slide nut for use with CL2712 profile rail



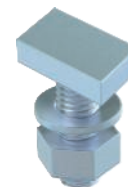
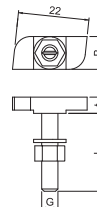
Hammer-head bolt

Type	Length mm	Width mm	Height mm	Thread	Pack. pcs	Weight kg/100 pcs.	Item No.
CL27HB M5x25 ZL	23	10.1	4	M5x25mm	50	1.250	1148020
CL27HB M6x25 ZL	23	10.1	4	M6x25mm	50	1.570	1148024
CL27HB M8x25 ZL	23	10.1	4	M8x25mm	50	2.300	1148028

St Steel

ZL Zinc scale

Hammer-head bolt for use with CL2712 profile rail



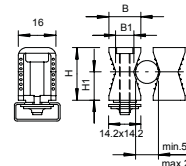
Series clip



Type	Clamping range D mm	Bolt	Colour	Pack. pcs	Weight kg/100 pcs.	Item No.
2050 5-25 LGR	5 - 25	M4 x 27	Light grey	100	0.631	2254026
2050 5-25 RW	5 - 25	M4 x 27	Pure white	100	0.631	2254522
2051 8-36 LGR	8 - 36	M4 x 37.5	Light grey	100	0.851	2254034

PS Polystyrene

Also suitable for rails of 11 - 12 mm slot width; polystyrene clip element, impact resistant, halogen-free, light grey RAL 7035; metal parts: electrogalvanised steel.



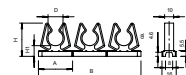
Series terminal clip



Type	Clamping range D mm	Colour	Number of clips per strip	Pack. pcs	Weight kg/100 pcs.	Item No.
2036 4-7 LGR	4 - 7	Light grey	4	25	0.160	2259079
2036 10-15 LGR	10 - 15	Light grey	4	25	1.700	2259141

PE Polyethylene

Individually separable, for pushing into profile rails.



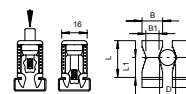
Impact clip



Type	Clamping range D mm	Colour	Pack. pcs	Weight kg/100 pcs.	Item No.
2047 5-25 LGR	5 - 25	Light grey	100	0.320	2251256

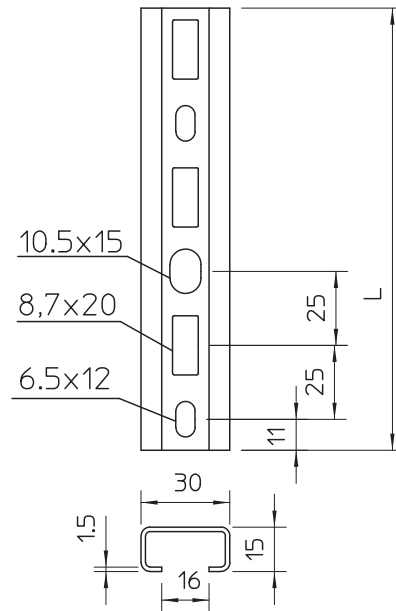
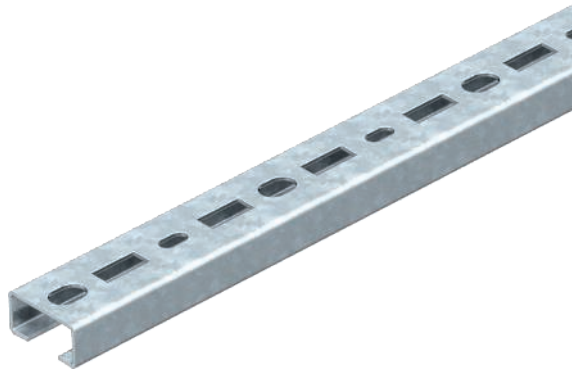
PS Polystyrene

Series clip without metallic parts, thus protected against corrosion.  
Use: lock the clip in the profile rail and fix it by hitting it with a hammer.

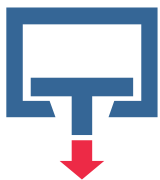




# CM3015 profile rail, medium-duty

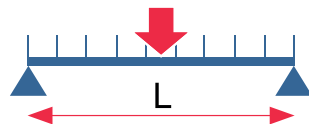


## Permissible individual load



**0.5 kN**

## Permissible total load at distance between supports of L



L [mm]	200	300	400	500	600	700	800	1,000
$F_{perm.}$ [kN]	0.50	0.50	0.40	0.32	0.27	0.23	0.20	0.16
$q_{perm.}$ [kN/m]	6.60	3.58	2.01	1.29	0.89	0.66	0.50	0.31

- The carrying capacities indicated are valid for the hole pattern shown.
- The carrying capacity of the rail lip was determined on the basis of loading at the rail end, for the shortest rail variant. The fastenings were placed in the last holes. The value given for the permissible individual load is valid where both lips are loaded equally.
- Note: clamp clips with N and U bases only exert a load on one rail lip, hence only 50% of the permissible individual load may be exerted.



CM3015 profile rail, slot 16 mm, perforated

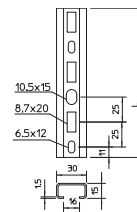


Type	Length mm	Dimension W x H mm	Material thickness mm	Dimen- sion L mm	Pack. m	Weight kg/100 m	Item No.
CM3015P2000FS	2000	30 x 15	1.5	2000	2	69.000	1110002
CM3015P1000FT	1000	30 x 15	1.5	1000	10	73.000	1109863
CM3015P2000FT	2000	30 x 15	1.5	2000	20	73.000	1109871
CM3015UP2000FS	2000	30 x 15	1.5	2000	20	75.500	1110004

Sl Steel

FS Strip-galvanised FT Hot-dip galvanised

Profile rail, perforated, slot width 16 mm.



CM3015 profile rail, slot 16 mm, perforated

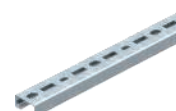
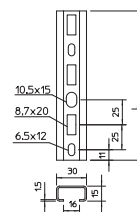


Type	Length mm	Dimension W x H mm	Material thickness mm	Dimen- sion L mm	Pack. pcs	Weight kg/100 pcs.	Item No.
CM3015P0200FT	200	30 x 15	1.5	200	25	15.000	1109782
CM3015P0300FT	300	30 x 15	1.5	300	25	22.000	1109790
CM3015P0400FT	400	30 x 15	1.5	400	10	30.000	1109804
CM3015P0500FT	500	30 x 15	1.5	500	10	37.000	1109812
CM3015P0600FT	600	30 x 15	1.5	600	10	44.000	1109820
CM3015P0700FT	700	30 x 15	1.5	700	10	50.000	1109839
CM3015P0800FT	800	30 x 15	1.5	800	10	56.000	1109847

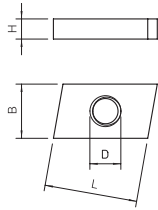
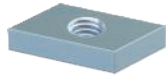
Sl Steel

FT Hot-dip galvanised

Profile rail, perforated, slot width 16 mm.



## Slide nut



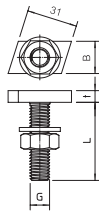
Type	Length mm	Width mm	Height mm	Thread	Pack. pcs.	Weight	
						kg/100 pcs.	Item No.
<b>ACMSN M6 ZL</b>	26	16.5	4	M6	100	1.740	<b>1147056</b>
<b>ACMSN M8 ZL</b>	26	16.5	4	M8	100	1.640	<b>1147060</b>
<b>ACMSN M10 ZL</b>	26	16.5	4	M10	100	1.300	<b>1147064</b>
<b>ACMSN M6 A4</b>	26	16.5	4	M6	100	1.650	<b>1147076</b>
<b>ACMSN M8 A4</b>	26	16.5	4	M8	100	1.600	<b>1147080</b>
<b>ACMSN M10 A4</b>	26	16.5	4	M10	100	1.500	<b>1147084</b>

**St** Steel **V4A** Stainless steel, A4

**ZL** Zinc scale

Slide nut for use with CM3015, CM3518 and AM3518 profile rails

## Hammer-head bolt



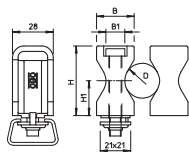
Type	Length mm	Width mm	Height mm	Thread	Pack. pcs.	Weight	
						kg/100 pcs.	Item No.
<b>ACMHB M6x30 ZL</b>	26	16.5	5	M6x30mm	50	2.600	<b>1148056</b>
<b>ACMHB M8x30 ZL</b>	26	16.5	5	M8x30mm	50	3.450	<b>1148060</b>
<b>ACMHB M8x60 ZL</b>	26	16.5	5	M8x60mm	25	4.650	<b>1148064</b>
<b>ACMHB M10x30 ZL</b>	26	16.5	5	M10x30mm	50	4.950	<b>1148068</b>
<b>ACMHB M10x60 ZL</b>	26	16.5	5	M10x60mm	25	6.750	<b>1148072</b>
<b>ACMHB M6x30 A4</b>	26	16.5	5	M6x30mm	50	2.600	<b>1148076</b>
<b>ACMHB M8x30 A4</b>	26	16.5	5	M8x30mm	50	3.450	<b>1148080</b>
<b>ACMHB M8x60 A4</b>	26	16.5	5	M8x60mm	25	4.650	<b>1148084</b>
<b>ACMHB M10x30 A4</b>	26	16.5	5	M10x30mm	50	4.950	<b>1148088</b>
<b>ACMHB M10x60 A4</b>	26	16.5	5	M10x60mm	25	6.750	<b>1148092</b>

**St** Steel **V4A** Stainless steel, A4

**ZL** Zinc scale

Hammer-head bolt for use with CM3015, CM3518 and AM3518 profile rails

## Series clip



Type	Clamping range D mm	Bolt	Colour	Pack. pcs.	Weight	
					kg/100 pcs.	Item No.
<b>2054 14-48 LGR</b>	14 - 48	M8 x 55	Light grey	25	5.120	<b>2255014</b>
<b>2055 24-72 LGR</b>	24 - 72	M8 x 75	Light grey	20	6.471	<b>2255022</b>

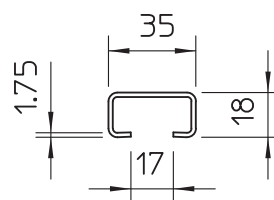
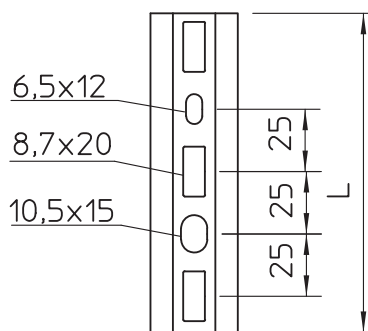
**PA** Polyamide

Heavy-duty version, also suitable for rails of 16 - 17 mm slot width; polyamide clip element, light grey RAL 7035.

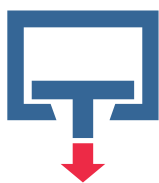
Metal parts: electrogalvanised steel.



# CMS3518 profile rail, medium-duty

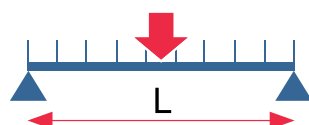


## Permissible individual load



**End: 0.73 kN**  
**Middle: 1.96 kN**

## Permissible total load at distance between supports of L



L [mm]	200	300	400	500	600	700	800	1,000
F <sub>perm.</sub> [kN]	1.59	1.06	0.79	0.64	0.53	0.45	0.40	0.32
q <sub>perm.</sub> [kN/m]	8.98	7.06	3.97	2.54	1.77	1.30	0.99	0.64

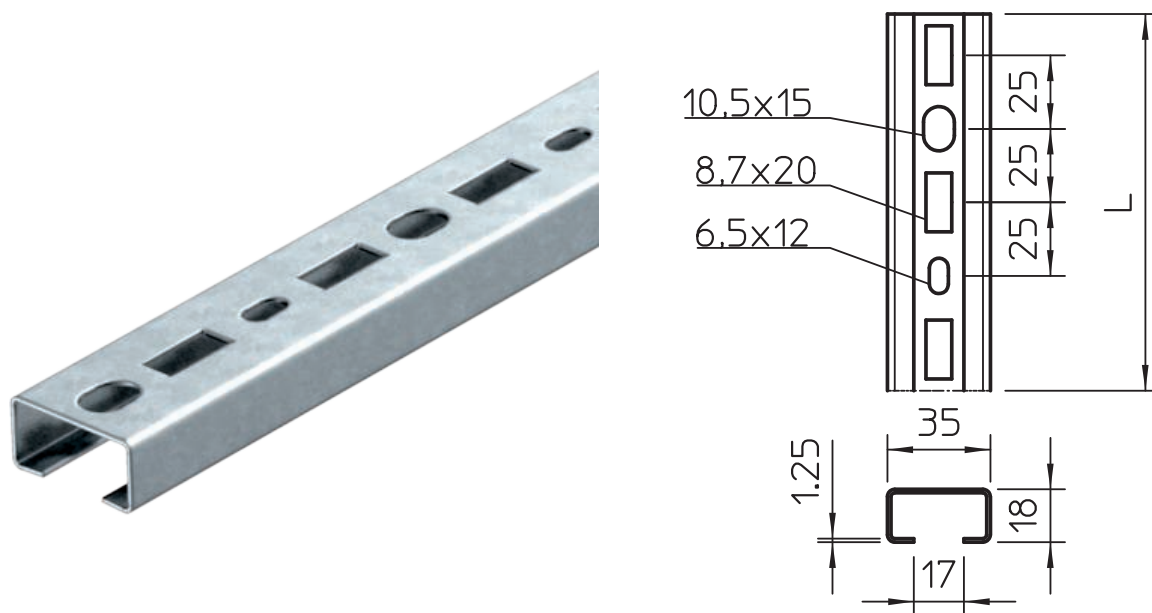
- The carrying capacities indicated are valid for the hole pattern shown.
- The carrying capacity of the rail lip was determined on the basis of loading at the rail end, for the shortest rail variant. The fastenings were placed in the last holes. The value given for the permissible individual load is valid where both lips are loaded equally.
- Note: clamp clips with N and U bases only exert a load on one rail lip, hence only 50% of the permissible individual load may be exerted.

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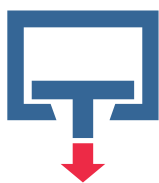
Rail systems



# CML3518 profile rail, medium-duty

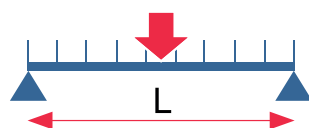


## Permissible individual load



**End: 0.38 kN**  
**Middle: 1.06 kN**

## Permissible total load at distance between supports of L

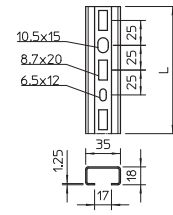


L [mm]	200	300	400	500	600	700	800	1,000
F <sub>perm.</sub> [kN]	0.92	0.82	0.62	0.49	0.41	0.35	0.31	0.25
q <sub>perm.</sub> [kN/m]	4.58	4.58	3.09	1.98	1.37	1.01	0.77	0.49

- The carrying capacities indicated are valid for the hole pattern shown.
- The carrying capacity of the rail lip was determined on the basis of loading at the rail end, for the shortest rail variant. The fastenings were placed in the last holes. The value given for the permissible individual load is valid where both lips are loaded equally.
- Note: clamp clips with N and U bases only exert a load on one rail lip, hence only 50% of the permissible individual load may be exerted.



CM3518 profile rail, slot 17 mm, perforated



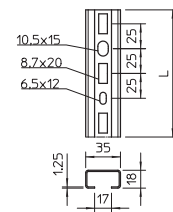
Type	Length mm	Dimension W x H mm	Material thickness mm	Dimen- sion L mm	Pack. pcs	Weight kg/100 pcs.	Item No.
CML3518P0150FS	150	35 x 18	1.25	150	25	10.600	1104241
CML3518P0200FS	200	35 x 18	1.25	200	25	14.200	1104268
CML3518P0300FS	300	35 x 18	1.25	300	25	21.300	1104284
CML3518P0400FS	400	35 x 18	1.25	400	10	28.400	1104292
CML3518P0500FS	500	35 x 18	1.25	500	10	35.500	1104306
CML3518P0600FS	600	35 x 18	1.25	600	10	42.600	1104310
CML3518P0700FS	700	35 x 18	1.25	700	10	49.700	1104315
CML3518P0800FS	800	35 x 18	1.25	800	10	56.800	1104320
CML3518P0900FS	900	35 x 18	1.25	900	10	63.900	1104325
CML3518P0150FT	150	35 x 18	1.25	150	25	11.400	1104550
CML3518P0200FT	200	35 x 18	1.25	200	25	15.300	1104552
CML3518P0300FT	300	35 x 18	1.25	300	25	22.900	1104554
CML3518P0400FT	400	35 x 18	1.25	400	10	30.500	1104556
CML3518P0500FT	500	35 x 18	1.25	500	10	38.200	1104558
CML3518P0600FT	600	35 x 18	1.25	600	10	45.800	1104560
CML3518P0700FT	700	35 x 18	1.25	700	10	53.400	1104562
CML3518P0800FT	800	35 x 18	1.25	800	10	61.100	1104564
CML3518P0900FT	900	35 x 18	1.25	900	10	68.700	1104566
CMS3518P0150FS	150	35 x 18	1.75	150	25	14.670	1104349
CMS3518P0200FS	200	35 x 18	1.75	200	25	19.560	1104357
CMS3518P0300FS	300	35 x 18	1.75	300	25	29.340	1104373
CMS3518P0400FS	400	35 x 18	1.75	400	10	39.120	1104391
CMS3518P0500FS	500	35 x 18	1.75	500	10	48.900	1104403
CMS3518P0600FS	600	35 x 18	1.75	600	10	58.680	1104411
CMS3518P0700FS	700	35 x 18	1.75	700	10	68.460	1104422
CMS3518P0800FS	800	35 x 18	1.75	800	10	78.240	1104427
CMS3518P0900FS	900	35 x 18	1.75	900	10	88.020	1104435
CMS3518P0150FT	150	35 x 18	1.75	150	25	15.435	1104581
CMS3518P0200FT	200	35 x 18	1.75	200	25	20.580	1104583
CMS3518P0300FT	300	35 x 18	1.75	300	25	30.870	1104585
CMS3518P0400FT	400	35 x 18	1.75	400	10	41.160	1104587
CMS3518P0500FT	500	35 x 18	1.75	500	10	51.450	1104589
CMS3518P0600FT	600	35 x 18	1.75	600	10	61.740	1104591
CMS3518P0700FT	700	35 x 18	1.75	700	10	72.030	1104593
CMS3518P0800FT	800	35 x 18	1.75	800	10	82.320	1104595
CMS3518P0900FT	900	35 x 18	1.75	900	10	92.610	1104597

Sl Steel

FS Strip-galvanised FT Hot-dip galvanised

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

CM3518 profile rail, slot 17 mm, perforated



Type	Length mm	Dimension W x H mm	Material thickness mm	Dimen- sion L mm	Pack. m	Weight kg/100 m	Item No.
CML3518P1000FS	1000	35 x 18	1.25	1000	1	71.000	1104497
CML3518P2000FS	2000	35 x 18	1.25	2000	2	71.000	1104500
CML3518P1000FT	1000	35 x 18	1.25	1000	10	73.600	1104568
CML3518P2000FT	2000	35 x 18	1.25	2000	20	73.600	1104570
CMS3518P1000FS	1000	35 x 18	1.75	1000	10	97.800	1104445
CMS3518P2000FS	2000	35 x 18	1.75	2000	2	97.800	1104454
CML3518P1000A2	1000	35 x 18	1.25	1000	10	71.000	1104498
CML3518P2000A2	2000	35 x 18	1.25	2000	20	71.000	1104501

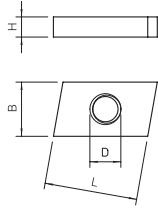
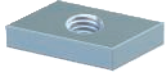
Sl Steel V2A Stainless steel, A2

FS Strip-galvanised FT Hot-dip galvanised

Central C profile rail for cable routing, in conjunction with clamp clips with a hammerhead foot. Can also be used as suspension construction for cable support systems.



### Slide nut



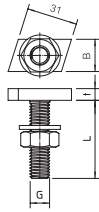
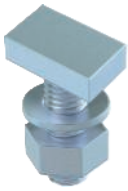
Type	Length mm	Width mm	Height mm	Thread	Pack. pcs	Weight kg/100 pcs.	Item No.
ACMSN M6 ZL	26	16.5	4	M6	100	1.740	1147056
ACMSN M8 ZL	26	16.5	4	M8	100	1.640	1147060
ACMSN M10 ZL	26	16.5	4	M10	100	1.300	1147064
ACMSN M6 A4	26	16.5	4	M6	100	1.650	1147076
ACMSN M8 A4	26	16.5	4	M8	100	1.600	1147080
ACMSN M10 A4	26	16.5	4	M10	100	1.500	1147084

Si Steel V4A Stainless steel, A4

ZL Zinc scale

Slide nut for use with CM3015, CM3518 and AM3518 profile rails

### Hammer-head bolt



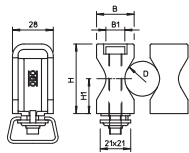
Type	Length mm	Width mm	Height mm	Thread	Pack. pcs	Weight kg/100 pcs.	Item No.
ACMHB M6x30 ZL	26	16.5	5	M6x30mm	50	2.600	1148056
ACMHB M8x30 ZL	26	16.5	5	M8x30mm	50	3.450	1148060
ACMHB M8x60 ZL	26	16.5	5	M8x60mm	25	4.650	1148064
ACMHB M10x30 ZL	26	16.5	5	M10x30mm	50	4.950	1148068
ACMHB M10x60 ZL	26	16.5	5	M10x60mm	25	6.750	1148072
ACMHB M6x30 A4	26	16.5	5	M6x30mm	50	2.600	1148076
ACMHB M8x30 A4	26	16.5	5	M8x30mm	50	3.450	1148080
ACMHB M8x60 A4	26	16.5	5	M8x60mm	25	4.650	1148084
ACMHB M10x30 A4	26	16.5	5	M10x30mm	50	4.950	1148088
ACMHB M10x60 A4	26	16.5	5	M10x60mm	25	6.750	1148092

Si Steel V4A Stainless steel, A4

ZL Zinc scale

Hammer-head bolt for use with CM3015, CM3518 and AM3518 profile rails

### Series clip



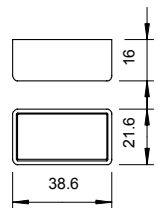
Type	Clamping range D mm	Bolt	Colour	Pack. pcs	Weight kg/100 pcs.	Item No.
2054 14-48 LGR	14 - 48	M8 x 55	Light grey	25	5.120	2255014
2055 24-72 LGR	24 - 72	M8 x 75	Light grey	20	6.471	2255022

PA Polyamide

Heavy-duty version, also suitable for rails of 16 - 17 mm slot width; polyamide clip element, light grey RAL 7035.

Metal parts: electrogalvanised steel.

### Protective cap

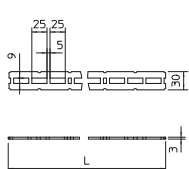


Type	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
CM3518 SK	Pastel orange	500	50	0.384	1124502

PE Polyethylene

Protective cap for profile rail types CM3518 and AM3518.

### Self-build profile



Type	Length mm	Pack. m	Weight kg/100 m	Item No.
CMCP3000FT	3000	30	55.000	6350208

Si Steel

FT Hot-dip galvanised

Flat iron with slots for individual mounting.

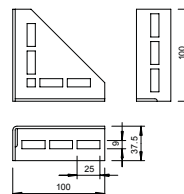
## Triangular node

Type	Pack. pcs.	Weight kg/100 pcs.	Item No.
<b>CM3518 KD FT</b>	25	22.000	<b>6350100</b>

St Steel

FT Hot-dip galvanised

For stable corner fastening of individual mountings.



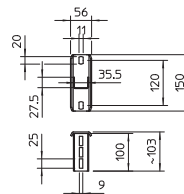
## Head plate

Type	Pack. pcs.	Weight kg/100 pcs.	Item No.
<b>CM3518 KP FT</b>	25	42.000	<b>6350054</b>

St Steel

FT Hot-dip galvanised

For wall and ceiling fastening of individual mountings.



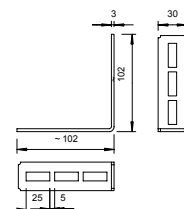
## 90° mounting bracket

Type	Pack. pcs.	Weight kg/100 pcs.	Item No.
<b>CMW90FT</b>	25	11.000	<b>6350151</b>

St Steel

FT Hot-dip galvanised

For stable 90° angle fastening of individual mountings.



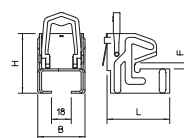
## Beam clamp, for profile rail CM3518

Type	Flange				Pack. pcs.	Weight kg/100 pcs.	Item No.
	thickness mm	Height mm	Width mm	Length mm			
<b>328 1</b>	5 - 11	54.3	39.5	57	50	10.800	<b>1408011</b>
<b>328 2</b>	10 - 19	54.3	39.5	67	50	12.500	<b>1408046</b>

St Steel

ZL Zinc scale

Screwless rustproof coated beam clamp, with blocking spring, suitable for profile rail, type CML3518 and CMS3518. For rapid fastening to steel profiles when installing cable tracks, clamp clips, light mounts, etc. A complete system consists of 2 beam clamps and one piece of C profile rail of any length, and 2 protective caps.



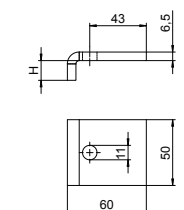
## Clamping angle KL

Type	Height mm	Pack. pcs.	Weight kg/100 pcs.	Item No.
<b>KL1 10 S FT</b>	10	10	22.500	<b>6354106</b>
<b>KL1 15 S FT</b>	15	10	24.000	<b>6354114</b>
<b>KL1 20 S FT</b>	20	10	25.000	<b>6354122</b>

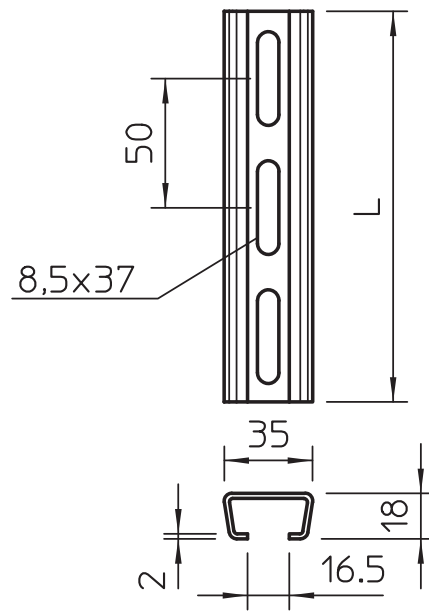
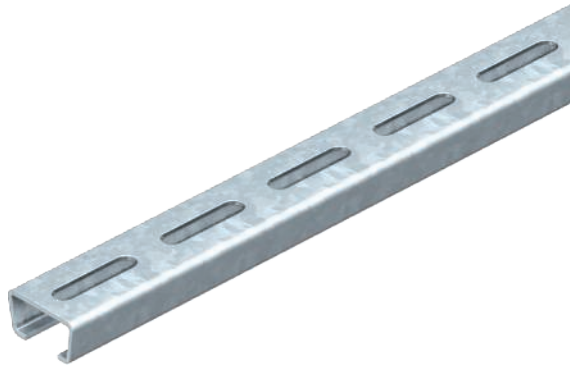
St Steel

FT Hot-dip galvanised

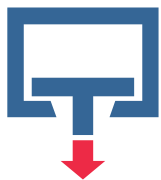
Clamping lug, type KL1, to fasten light support structures to steel girder flanges.



# AMS3518 profile rail, medium-duty

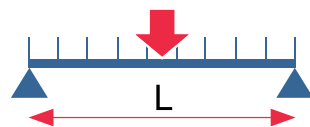


## Permissible individual load



**1.17 kN**

## Permissible total load at distance between supports of L

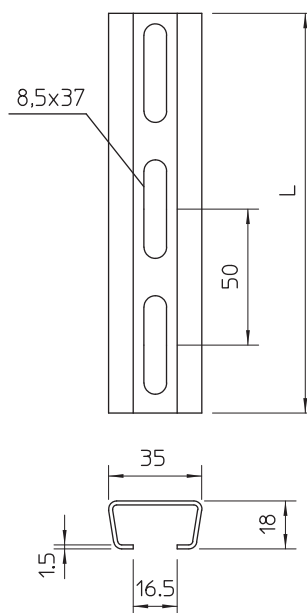
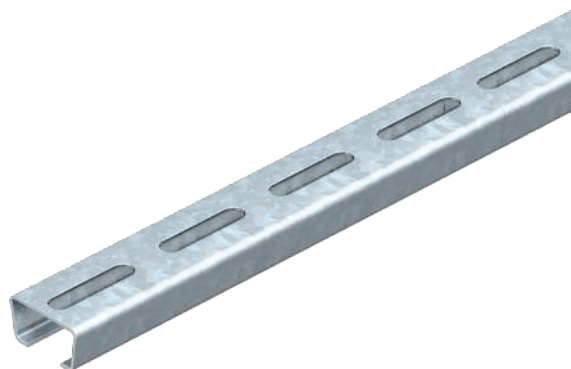


L [mm]	200	300	400	500	600	700	800	1,000
$F_{perm.}$ [kN]	1.17	1.12	0.84	0.67	0.59	0.48	0.42	0.34
$q_{perm.}$ [kN/m]	8.16	7.49	4.21	2.70	1.87	1.38	1.05	0.67

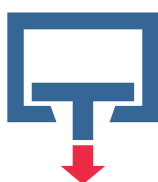
- The carrying capacities indicated are valid for the hole pattern shown.
- The carrying capacity of the rail lip was determined on the basis of loading at the rail end, for the shortest rail variant. The fastenings were placed in the last holes. The value given for the permissible individual load is valid where both lips are loaded equally.
- Note: clamp clips with N and U bases only exert a load on one rail lip, hence only 50% of the permissible individual load may be exerted.



# AML3518 profile rail, medium-duty

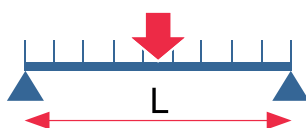


## Permissible individual load



**0.68 kN**

## Permissible total load at distance between supports of L

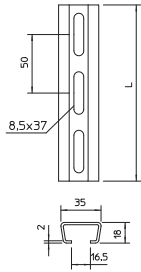
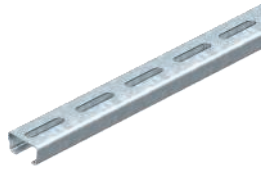


L [mm]	200	300	400	500	600	700	800	1,000
$F_{perm.}$ [kN]	0.68	0.68	0.65	0.52	0.43	0.37	0.32	0.26
$q_{perm.}$ [kN/m]	4.60	4.60	3.24	2.07	1.44	1.06	0.81	0.52

- The carrying capacities indicated are valid for the hole pattern shown.
- The carrying capacity of the rail lip was determined on the basis of loading at the rail end, for the shortest rail variant. The fastenings were placed in the last holes. The value given for the permissible individual load is valid where both lips are loaded equally.
- Note: clamp clips with N and U bases only exert a load on one rail lip, hence only 50% of the permissible individual load may be exerted.



Profile rail 2068, slot width 16.5, perforated



Type	Length mm	Dimension W x H mm	Material thickness mm	Dimen- sion L mm	Pack. m	Weight kg/100 m	Item No.
AML3518P1000FS	1000	35 x 18	1.5	1000	10	82.000	1119646
AML3518P2000FS	2000	35 x 18	1.5	2000	2	82.500	1119648
AML3518P2000FT	2000	35 x 18	1.5	2000	20	89.000	1119656
AML3518P1000FT	1000	35 x 18	1.5	1000	10	89.000	1119672
AMS3518P1000FS	1000	35 x 18	2	1000	10	115.000	1112735
AMS3518P1000FT	1000	35 x 18	2	1000	10	122.000	1112755
AML3518P1000A2	1000	35 x 18	1.5	1000	10	82.000	1119700
AML3518P2000A2	2000	35 x 18	1.5	2000	20	80.000	1119702
AML3518P6000A2	6000	35 x 18	1.5	6000	6	80.000	1119729

St Steel V2A Stainless steel, A2

FS Strip-galvanised FT Hot-dip galvanised

Central C profile rail for cable routing, in conjunction with clamp clips with a hammerhead foot. Can also be used as suspension construction for cable support systems.





## Anchor rail AM3518, slot 16.5 mm, unperforated

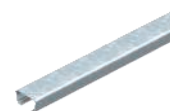
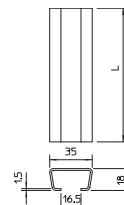


Type	Length mm	Dimension W x H mm	Material thickness mm	Dimen- sion L mm	Pack. m	Weight kg/100 m	Item No.
AML3518UP2000FS	2000	35 x 18	1.5	2000	20	90.000	1118226
AML3518UP2000FT	2000	35 x 18	1.5	2000	20	89.400	1118129
AML3518UP6000FT	6000	35 x 18	1.5	6000	6	94.840	1118153
AML3518UP2000BK	2000	35 x 18	1.5	2000	20	90.000	1118021
AML3518UP2000A2	2000	35 x 18	1.5	2000	20	90.000	1112007
AMS3518UP2000A2	2000	35 x 18	2	2000	20	116.000	1110005
AMS3518UP2000FS	2000	35 x 18	2	2000	20	116.000	1112120
AMS3518UP6000FS	6000	35 x 18	2	6000	6	116.000	1112139
AMS3518UP2000FT	2000	35 x 18	2	2000	20	121.350	1112228
AMS3518UP6000FT	6000	35 x 18	2	6000	6	111.167	1112244
AMS3518UP2000BK	2000	35 x 18	2	2000	20	116.000	1112023
AMS3518UP6000BK	6000	35 x 18	2	6000	6	116.000	1112074

Sl Steel V2A Stainless steel, A2

FS Strip-galvanised BK Bright FT Hot-dip galvanised

Central C profile rail for cable routing, in conjunction with clamp clips with a hammerhead foot. Can also be used as suspension construction for cable support systems.



## Anchor rail AML3518, slot 16.5 mm, perforated

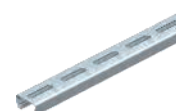
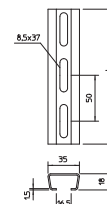


Type	Length mm	Dimension W x H mm	Material thickness mm	Dimen- sion L mm	Pack. pcs	Weight kg/100 pcs.	Item No.
AML3518P0200FT	200	35 x 18	1.5	200	25	17.800	1119696
AML3518P0300FT	300	35 x 18	1.5	300	25	26.700	1119693
AML3518P0400FT	400	35 x 18	1.5	400	10	35.600	1119690
AML3518P0500FT	500	35 x 18	1.5	500	10	44.500	1119687
AML3518P0600FT	600	35 x 18	1.5	600	10	53.400	1119684
AML3518P0700FT	700	35 x 18	1.5	700	10	62.300	1119681
AML3518P0800FT	800	35 x 18	1.5	800	10	71.200	1119678

Sl Steel

FT Hot-dip galvanised

Central C profile rail for cable routing, in conjunction with clamp clips with a hammerhead foot. Can also be used as suspension construction for cable support systems.



## Profile rail 2068, slot width 16.5, perforated

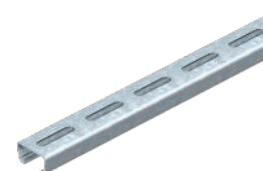
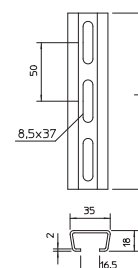


Type	Length mm	Dimension W x H mm	Material thickness mm	Dimen- sion L mm	Pack. m	Weight kg/100 m	Item No.
AMS3518P1000FS	1000	35 x 18	2	1000	10	115.000	1112735
AMS3518P2000FS	2000	35 x 18	2	2000	2	115.000	1112708
AMS3518P1000FT	1000	35 x 18	2	1000	10	122.000	1112755
AMS3518P2000FT	2000	35 x 18	2	2000	20	122.000	1112759
AMS3518P1000A2	1000	35 x 18	2	1000	10	107.000	1118421
AMS3518P2000A2	2000	35 x 18	2	2000	20	107.000	1112709

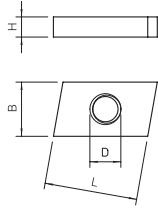
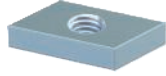
Sl Steel V2A Stainless steel, A2

FS Strip-galvanised FT Hot-dip galvanised

Central C profile rail for cable routing, in conjunction with clamp clips with a hammerhead foot. Can also be used as suspension construction for cable support systems.



### Slide nut



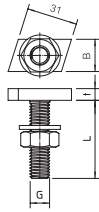
Type	Length mm	Width mm	Height mm	Thread	Pack. pcs	Weight kg/100 pcs.	Item No.
ACMSN M6 ZL	26	16.5	4	M6	100	1.740	1147056
ACMSN M8 ZL	26	16.5	4	M8	100	1.640	1147060
ACMSN M10 ZL	26	16.5	4	M10	100	1.300	1147064
ACMSN M6 A4	26	16.5	4	M6	100	1.650	1147076
ACMSN M8 A4	26	16.5	4	M8	100	1.600	1147080
ACMSN M10 A4	26	16.5	4	M10	100	1.500	1147084

Si Steel V4A Stainless steel, A4

ZL Zinc scale

Slide nut for use with CM3015, CM3518 and AM3518 profile rails

### Hammer-head bolt



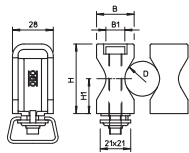
Type	Length mm	Width mm	Height mm	Thread	Pack. pcs	Weight kg/100 pcs.	Item No.
ACMHB M6x30 ZL	26	16.5	5	M6x30mm	50	2.600	1148056
ACMHB M8x30 ZL	26	16.5	5	M8x30mm	50	3.450	1148060
ACMHB M8x60 ZL	26	16.5	5	M8x60mm	25	4.650	1148064
ACMHB M10x30 ZL	26	16.5	5	M10x30mm	50	4.950	1148068
ACMHB M10x60 ZL	26	16.5	5	M10x60mm	25	6.750	1148072
ACMHB M6x30 A4	26	16.5	5	M6x30mm	50	2.600	1148076
ACMHB M8x30 A4	26	16.5	5	M8x30mm	50	3.450	1148080
ACMHB M8x60 A4	26	16.5	5	M8x60mm	25	4.650	1148084
ACMHB M10x30 A4	26	16.5	5	M10x30mm	50	4.950	1148088
ACMHB M10x60 A4	26	16.5	5	M10x60mm	25	6.750	1148092

Si Steel V4A Stainless steel, A4

ZL Zinc scale

Hammer-head bolt for use with CM3015, CM3518 and AM3518 profile rails

### Series clip



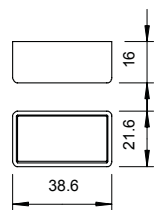
Type	Clamping range D mm	Bolt	Colour	Pack. pcs	Weight kg/100 pcs.	Item No.
2054 14-48 LGR	14 - 48	M8 x 55	Light grey	25	5.120	2255014
2055 24-72 LGR	24 - 72	M8 x 75	Light grey	20	6.471	2255022

PA Polyamide

Heavy-duty version, also suitable for rails of 16 - 17 mm slot width; polyamide clip element, light grey RAL 7035.

Metal parts: electrogalvanised steel.

### Protective cap

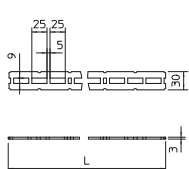


Type	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
CM3518 SK	Pastel orange	500	50	0.384	1124502

PE Polyethylene

Protective cap for profile rail types CM3518 and AM3518.

### Self-build profile



Type	Length mm	Pack. m	Weight kg/100 m	Item No.
CMCP3000FT	3000	30	55.000	6350208

Si Steel

FT Hot-dip galvanised

Flat iron with slots for individual mounting.

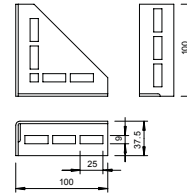
### Triangular node

Type	Pack. pcs	Weight kg/100 pcs	Item No.
<b>CM3518 KD FT</b>	25	22.000	<b>6350100</b>

St Steel

FT Hot-dip galvanised

For stable corner fastening of individual mountings.



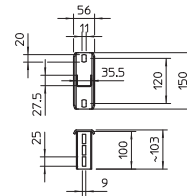
### Head plate

Type	Pack. pcs	Weight kg/100 pcs	Item No.
<b>CM3518 KP FT</b>	25	42.000	<b>6350054</b>

St Steel

FT Hot-dip galvanised

For wall and ceiling fastening of individual mountings.



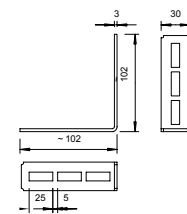
### 90° mounting bracket

Type	Pack. pcs	Weight kg/100 pcs	Item No.
<b>CMW90FT</b>	25	11.000	<b>6350151</b>

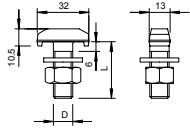
St Steel

FT Hot-dip galvanised

For stable 90° angle fastening of individual mountings.



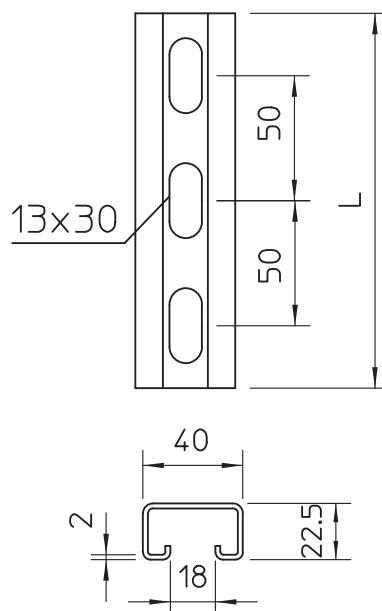
## Hook head screw 5023



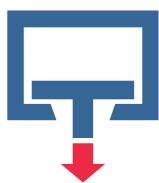
Type	Thread	Dimen- sion L mm	Dimen- sion D mm	Washer Ø mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>5023 M12x50 G</b>	M12	50	12	24	25	7.840	<b>1153641</b>
<b>St</b> Steel							
<b>G</b> Electrogalvanised							



# MS4022 mounting rail, heavy-duty

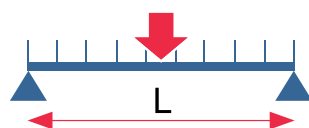


## Permissible individual load



**End: 1.18 kN**  
**Middle: 3.21 kN**

## Permissible total load at distance between supports of L



L [mm]	200	300	400	500	600	700	800	1,000
$F_{perm.}$ [kN]	2.76	1.94	1.46	1.16	0.97	0.83	0.73	0.58
$q_{perm.}$ [kN/m]	13.82	12.93	7.28	4.66	3.23	2.38	1.82	1.16

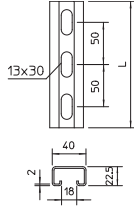
- The carrying capacities indicated are valid for the hole pattern shown.
- The carrying capacity of the rail lip was determined on the basis of loading at the rail end, for the shortest rail variant. The fastenings were placed in the last holes. The value given for the permissible individual load is valid where both lips are loaded equally.
- Note: clamp clips with N and U bases only exert a load on one rail lip, hence only 50% of the permissible individual load may be exerted.

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## MS4022 mounting rail, heavy-duty

### MS4022 mounting rail, heavy-duty, slot 18 mm, perforated



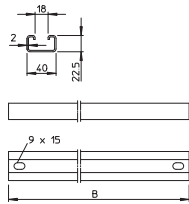
Type	Length mm	Dimension W x H mm	Material thickness mm	Dimen- sion L mm	Pack. m	Weight kg/100 m	Item No.
<b>MS4022P2000FT</b>	2000	40 x 22,5	2	2000	10	152.500	<b>1121979</b>
<b>MS4022P6000FT</b>	6000	40 x 22,5	2	6000	6	152.500	<b>1121898</b>
<b>MS4022P2000A2</b>	2000	40 x 22,5	2	2000	10	152.500	<b>1121960</b>
<b>MS4022P6000A2</b>	6000	40 x 22,5	2	6000	6	152.500	<b>1121901</b>
<b>MS4022P2000A4</b>	2000	40x22,5	2	2000	10	147.600	<b>1121963</b>
<b>MS4022P6000A4</b>	6000	40x22,5	2	6000	6	147.600	<b>1121903</b>

**St** Steel **V2A** Stainless steel, A2 **V4A** Stainless steel, A4

**FT** Hot-dip galvanised

Heavy-duty C profile rail for individual installation of support constructions, e.g. for cable trays or as a panel for switchgear cabinets. Can also be used for cable routing, in conjunction with clamp clips with a U foot.

### MS4022 profile rail, heavy-duty, slot 18 mm



Type	Material thickness mm	Length mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>MS4022P0492FT</b>	2	492	10	81.500	<b>6007244</b>
<b>MS4022P0592FT</b>	2	592	10	96.000	<b>6007252</b>
<b>MS4022P0692FT</b>	2	692	10	113.000	<b>6007260</b>
<b>MS4022P0792FT</b>	2	792	10	130.000	<b>6007279</b>
<b>MS4022P0892FT</b>	2	892	10	145.000	<b>6007287</b>
<b>MS4022P0992FT</b>	2	992	10	162.000	<b>6007295</b>
<b>MS4022P1092FT</b>	2	1092	10	178.000	<b>6007309</b>
<b>MS4022P1192FT</b>	2	1192	10	197.500	<b>6007317</b>

**St** Steel

**FT** Hot-dip galvanised

Profile rail MS4022 for use as rung in heavy-duty ladders.



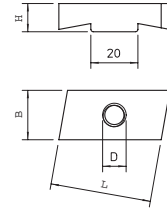


Slide nut

Type	Length mm	Width mm	Height mm	Thread	Pack. pcs	Weight kg/100 pcs.	Item No.
MS40SN M6 ZL	35	17	10	M6	50	3.750	1147106
MS40SN M8 ZL	35	17	10	M8	50	3.600	1147110
MS40SN M10 ZL	35	17	10	M10	50	3.400	1147114
MS40SN M12 ZL	35	17	10	M12	50	3.160	1147118
MS40SN M6 A4	35	17	10	M6	50	3.750	1147126
MS40SN M8 A4	35	17	10	M8	50	3.600	1147130
MS40SN M10 A4	35	17	10	M10	50	3.400	1147134
MS40SN M12 A4	35	17	10	M12	50	3.160	1147138

St Steel V4A Stainless steel, A4  
ZL Zinc scale

Slide nut for use with MS4022 profile rail

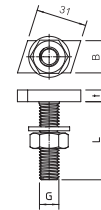


Hook-head screw

Type	Length mm	Width mm	Height mm	Thread	Pack. pcs	Weight kg/100 pcs.	Item No.
MS40HB M6x30 ZL	35	17	10	M6x30mm	50	4.800	1148106
MS40HB M8x30 ZL	35	17	10	M8x30mm	50	5.650	1148110
MS40HB M8x60 ZL	35	17	10	M8x60mm	25	6.850	1148114
MS40HB M10x30 ZL	35	14	7.5	M10x30mm	50	6.000	1148118
MS40HB M10x60 ZL	35	14	7.5	M10x60mm	25	7.850	1148122
MS40HB M12x30 ZL	35	14	7.5	M12x30mm	50	7.550	1148126
MS40HB M12x60 ZL	35	14	7.5	M12x60mm	25	10.250	1148130
MS40HB M6x30 A4	35	17	10	M6x30mm	50	4.800	1148146
MS40HB M8x30 A4	35	17	10	M8x30mm	50	5.650	1148150
MS40HB M8x60 A4	35	17	10	M8x60mm	25	6.850	1148154
MS40HB M10x30 A4	35	14	7.5	M10x30mm	50	6.000	1148160
MS40HB M10x60 A4	35	14	7.5	M10x60mm	25	7.850	1148164
MS40HB M12x30 A4	35	14	7.5	M12x30mm	50	7.550	1148168
MS40HB M12x60 A4	35	14	7.5	M12x60mm	25	10.250	1148170

St Steel V4A Stainless steel, A4  
ZL Zinc scale

Hook-head screw for use with MS4022 profile rail



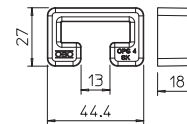
Protective cap



Type	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
MS4022 SK	Pastel orange	300	25	0.675	1124555

PE Polyethylene

Protective caps for profile rail, type MS4022.

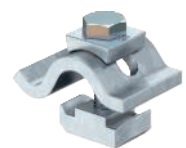
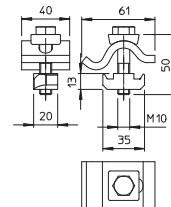


Chuck jaw, light-duty TKH

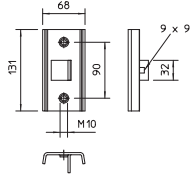
Type	Height mm	F in kN kN	Pack. pair	Weight kg/100 pairs	Item No.
TKH-L-25 FT	25	10	10	46.000	6355812

St Steel  
FT Hot-dip galvanised

Light-duty tensioning claw with slide nut for fixing mounting rails to steel girder flanges.



## Rung seat for steel supports



**Type**

**SAA MS4022 FT**

**SI** Steel

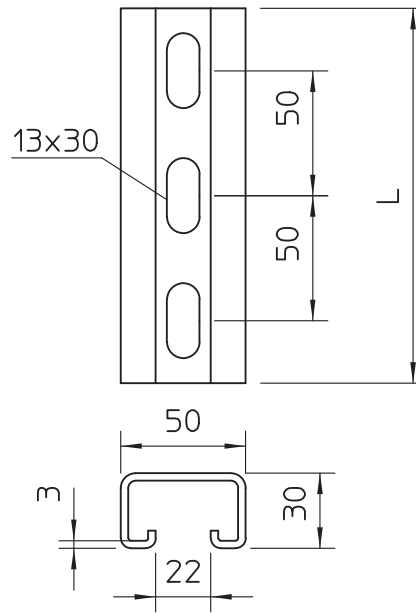
**FT** Hot-dip galvanised

Rung seat for fastening rungs of type MS4022 to steel girders.

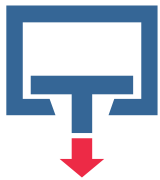
	Pack.	Weight	Item No.
	pair	kg/100 pairs	
<b>SAA MS4022 FT</b>	5	82.600	<b>6007498</b>



# MS5030 mounting rail, heavy-duty

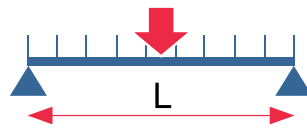


## Permissible individual load



**End: 3.08 kN**  
**Middle: 7.87 kN**

## Permissible total load at distance between supports of L

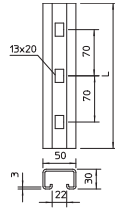


L [mm]	200	300	400	500	600	700	800	1,000
$F_{perm.}$ [kN]	6.15	6.38	4.78	3.83	3.19	2.73	2.39	1.91
$q_{perm.}$ [kN/m]	30.76	30.76	23.91	15.31	10.63	7.81	5.98	3.83

- The carrying capacities indicated are valid for the hole pattern shown.
- The carrying capacity of the rail lip was determined on the basis of loading at the rail end, for the shortest rail variant. The fastenings were placed in the last holes. The value given for the permissible individual load is valid where both lips are loaded equally.
- Note: clamp clips with N and U bases only exert a load on one rail lip, hence only 50% of the permissible individual load may be exerted.



MS5030 mounting rail, slot 22 mm, perforated

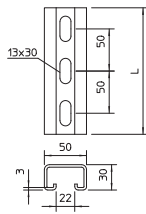


Type	Length mm	Dimension W x H mm	Material thickness mm	Dimen- sion L mm	Pack. pcs	Weight kg/100 pcs.	Item No.
MS5030RP0220FT	220	50 x 30	3	220	1	69.000	6349404
MS5030RP0260FT	260	50 x 30	3	260	1	81.500	6349412
MS5030RP0300FT	300	50 x 30	3	300	1	94.000	6349439
MS5030RP0340FT	340	50 x 30	3	340	1	107.000	6349447
MS5030RP0380FT	380	50 x 30	3	380	1	119.000	6349463

St Steel  
FT Hot-dip galvanised

Heavy-duty C profile rail for individual installation of support constructions, e.g. for cable trays or as a panel for switchgear cabinets. Can also be used for cable routing, in conjunction with clamp clips with a U foot.

MS5030 mounting rail, slot 22 mm, perforated

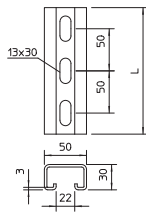


Type	Length mm	Dimension W x H mm	Material thickness mm	Dimen- sion L mm	Pack. m	Weight kg/100 m	Item No.
MS5030P1000FT	1000	50 x 30	3	1000	1	282.500	1121448
MS5030P2000FT	2000	50 x 30	3	2000	2	282.500	1121464
MS5030P3000FT	3000	50 x 30	3	3000	3	308.100	1121466
MS5030P6000FT	6000	50 x 30	3	6000	6	282.500	1121472
MS5030P2000A2	2000	50 x 30	3	2000	2	282.500	1121480
MS5030P6000A2	6000	50 x 30	3	6000	6	282.500	1121499
MS5030P2000A4	2000	50 x 30	3	2000	2	285.000	1121465
MS5030P6000A4	6000	50 x 30	3	6000	6	285.000	1121473
MS5030UP2000FT	6000	50x30	3	6000	20	307.000	1121524
MS5030UP6000FT	6000	50x30	3	6000	6	307.000	1121529

St Steel V2A Stainless steel, A2 V4A Stainless steel, A4  
FT Hot-dip galvanised

Heavy-duty C profile rail for individual installation of support constructions, e.g. for cable trays or as a panel for switchgear cabinets. Can also be used for cable routing, in conjunction with clamp clips with a U foot.

MS5030 mounting rail, slot 22 mm, perforated



Type	Length mm	Dimension W x H mm	Material thickness mm	Dimen- sion L mm	Pack. pcs	Weight kg/100 pcs.	Item No.
MS5030P0200FT	200	50 x 30	3	200	1	57.000	1121391
MS5030P0300FT	300	50 x 30	3	300	1	85.000	1121243
MS5030P0400FT	400	50 x 30	3	400	1	113.000	1121278
MS5030P0500FT	500	50 x 30	3	500	1	141.000	1121405
MS5030P0600FT	600	50 x 30	3	600	1	170.000	1121294
MS5030P0700FT	700	50 x 30	3	700	1	198.000	1121332
MS5030P0800FT	800	50 x 30	3	800	1	235.000	1121308
MS5030P0900FT	900	50 x 30	3	900	1	255.000	1121336
MS5030P1500FT	1500	50 x 30	3	1500	1	424.000	1121363

St Steel  
FT Hot-dip galvanised

Heavy-duty C profile rail for individual installation of support constructions, e.g. for cable trays or as a panel for switchgear cabinets. Can also be used for cable routing, in conjunction with clamp clips with a U foot.

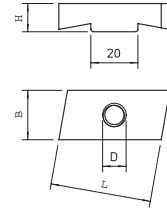


Slide nut

Type	Length mm	Width mm	Height mm	Thread	Pack. pcs	Weight kg/100 pcs.	Item No.
MS50SN M6 ZL	43	21	12	M6	50	6.700	1147156
MS50SN M8 ZL	43	21	12	M8	50	6.550	1147160
MS50SN M10 ZL	43	21	12	M10	50	6.350	1147164
MS50SN M12 ZL	43	21	12	M12	50	6.100	1147168
MS50SN M6 A4	43	21	12	M6	50	6.700	1147172
MS50SN M8 A4	43	21	12	M8	50	6.550	1147186
MS50SN M10 A4	43	21	12	M10	50	6.350	1147190
MS50SN M12 A4	43	21	12	M12	50	6.100	1147194

St Steel V4A Stainless steel, A4  
ZL Zinc scale

Slide nut for use with MS5030 profile rail

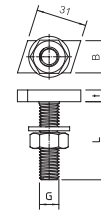


Hook-head screw

Type	Length mm	Width mm	Height mm	Thread	Pack. pcs	Weight kg/100 pcs.	Item No.
MS50HB M6x30 ZL	43	21	12	M6x30mm	50	7.800	1148206
MS50HB M8x30 ZL	43	21	12	M8x30mm	50	8.700	1148210
MS50HB M8x60 ZL	43	21	12	M8x60mm	25	9.900	1148214
MS50HB M10x30 ZL	43.3	13	10	M10x30mm	50	7.700	1148218
MS50HB M10x60 ZL	43.3	13	10	M10x60mm	25	9.450	1148222
MS50HB M12x30 ZL	43.3	13	10	M12x30mm	50	9.000	1148226
MS50HB M12x60 ZL	43.3	13	10	M12x60mm	25	11.650	1148230
MS50HB M6x30 A4	43	21	12	M6x30mm	50	7.800	1148256
MS50HB M8x30 A4	43	21	12	M8x30mm	50	8.700	1148260
MS50HB M8x60 A4	43	21	12	M8x60mm	25	9.900	1148264
MS50HB M10x30 A4	43.3	13	10	M10x30mm	50	7.700	1148268
MS50HB M10x60 A4	43.3	13	10	M10x60mm	25	9.450	1148272
MS50HB M12x30 A4	43.3	13	10	M12x30mm	50	9.000	1148276
MS50HB M12x60 A4	43.3	13	10	M12x60mm	25	11.650	1148280

St Steel V4A Stainless steel, A4  
ZL Zinc scale

Hook-head screw for use with MS5030 profile rail



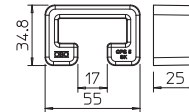
Protective cap



Type	Colour	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
MS5030 SK	Pastel orange	300	25	1.260	1124563

PE Polyethylene

Protective caps for profile rail, type MS5030.

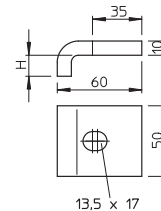


Clamping angle KWH

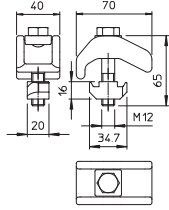
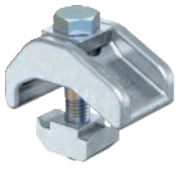
Type	Height mm	F in kN kN	Pack. pair	Weight kg/100 pairs	Item No.
KWH 5 FT	5	5.7	10	67.000	6355021
KWH 10 FT	10	5.7	10	73.000	6355048
KWH 15 FT	15	5.7	10	76.000	6355056
KWH 20 FT	20	5.7	10	82.000	6355064
KWH 25 FT	25	5.7	10	87.000	6355072

St Steel FT Hot-dip galvanised

Clamping profile, with hook-head bolt, type KWH, for fastening in the mounting rail, type MS5030.



## Chuck jaw, heavy-duty TKH



Type	Height F in kN		Pack. pair	Weight kg/100 pairs	Item No.
	mm	kN			
<b>TKH-S-30 FT</b>	30	21	10	81.000	<b>6355804</b>

**St** Steel

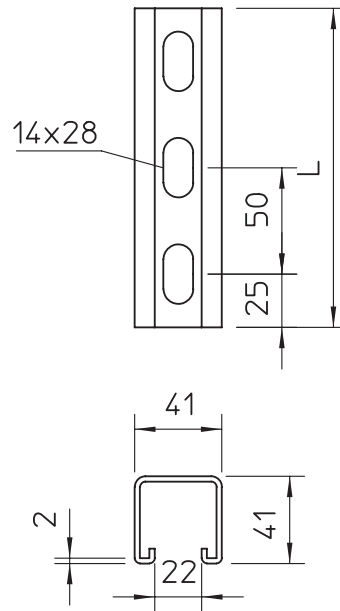
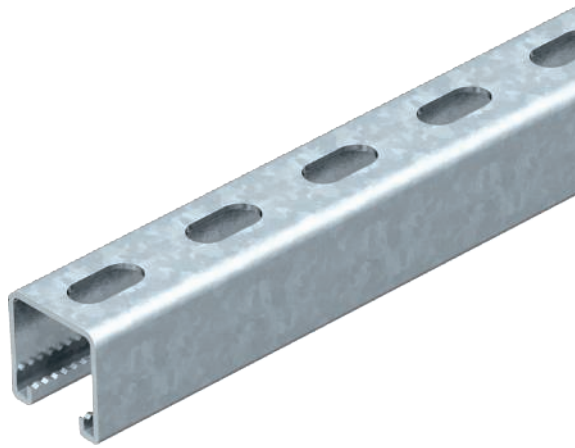
**FT** Hot-dip galvanised

Heavy-duty chuck jaw with slide nut for fastening profile rails to steel girders.

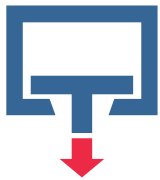




# MSL4141 mounting rail, strong

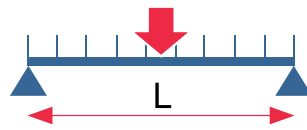


## Permissible individual load



**End: 1.41 kN**  
**Middle: 3.67 kN**

## Permissible total load at distance between supports of L

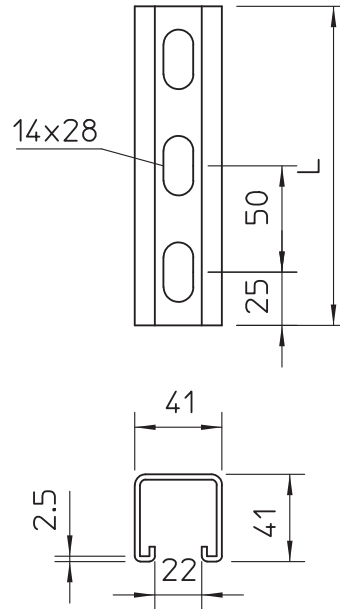
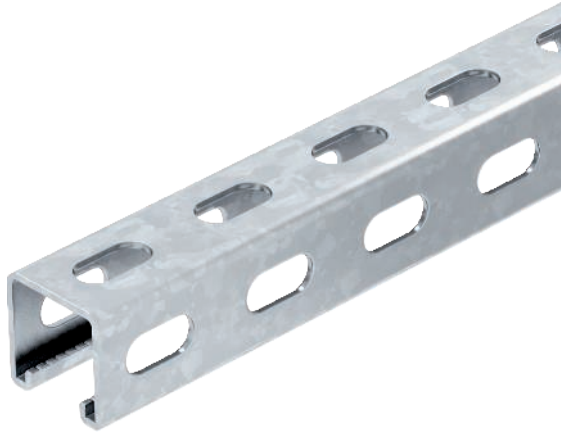


L [mm]	200	300	400	500	600	700	800	1,000
$F_{perm.}$ [kN]	2.53	3.76	3.35	2.68	2.24	1.92	1.68	1.34
$q_{perm.}$ [kN/m]	12.66	12.47	9.35	7.48	6.23	5.34	4.19	2.68

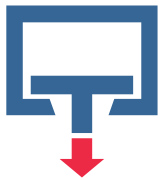
- The carrying capacities indicated are valid for the hole pattern shown.
- The carrying capacity of the rail lip was determined on the basis of loading at the rail end, for the shortest rail variant. The fastenings were placed in the last holes. The value given for the permissible individual load is valid where both lips are loaded equally.
- Note: clamp clips with N and U bases only exert a load on one rail lip, hence only 50% of the permissible individual load may be exerted.



# MS4141 mounting rail, heavy-duty

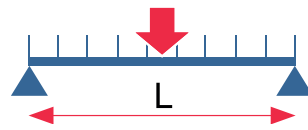


## Permissible individual load



**End: 1.66 kN**  
**Middle: 5.60 kN**

## Permissible total load at distance between supports of L

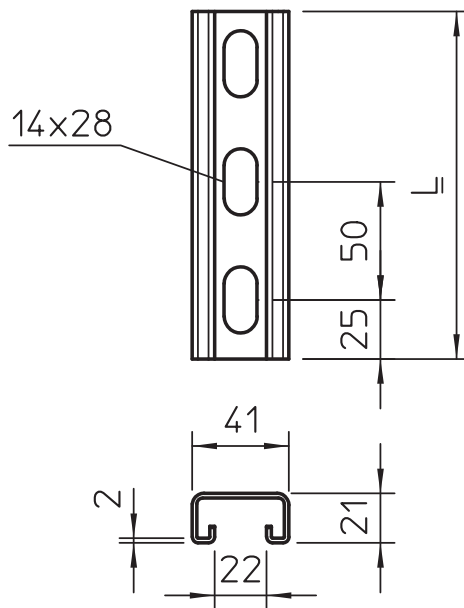
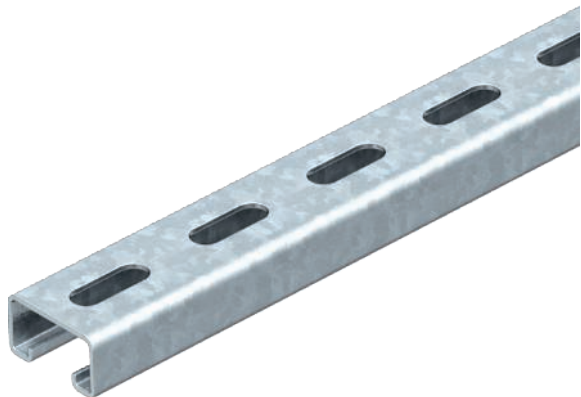


L [mm]	200	300	400	500	600	700	800	1,000
$F_{perm.}$ [kN]	3.88	5.29	3.97	3.17	2.64	2.27	1.98	1.59
$q_{perm.}$ [kN/m]	19.38	19.38	14.75	11.80	8.81	6.47	4.96	3.17

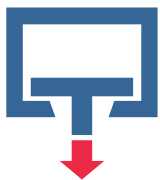
- The carrying capacities indicated are valid for the hole pattern shown.
- The carrying capacity of the rail lip was determined on the basis of loading at the rail end, for the shortest rail variant. The fastenings were placed in the last holes. The value given for the permissible individual load is valid where both lips are loaded equally.
- Note: clamp clips with N and U bases only exert a load on one rail lip, hence only 50% of the permissible individual load may be exerted.



# MS4121 mounting rail, strong

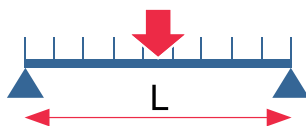


## Permissible individual load



**End: 1.41 kN**  
**Middle: 3.67 kN**

## Permissible total load at distance between supports of L

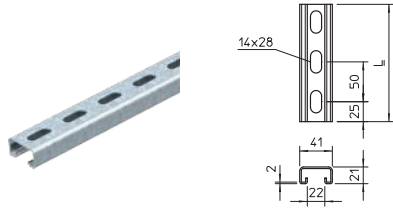


L [mm]	200	300	400	500	600	700	800	1,000
$F_{perm.}$ [kN]	2.53	1.72	1.29	1.03	0.86	0.74	0.64	0.52
$q_{perm.}$ [kN/m]	12.66	11.46	6.45	4.13	2.87	2.11	1.61	1.03

- The carrying capacities indicated are valid for the hole pattern shown.
- The carrying capacity of the rail lip was determined on the basis of loading at the rail end, for the shortest rail variant. The fastenings were placed in the last holes. The value given for the permissible individual load is valid where both lips are loaded equally.
- Note: clamp clips with N and U bases only exert a load on one rail lip, hence only 50% of the permissible individual load may be exerted.



### MS4121 mounting rail, slot width 22 mm, perforated



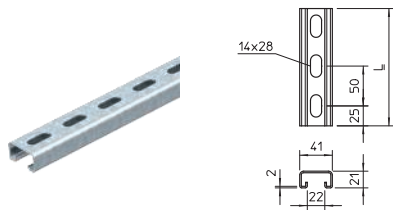
Type	Length mm	Dimension W x H mm	Material thickness mm	Dimen- sion L mm	Pack. m	Weight kg/100 m	Item No.
MS4121P2000FS	2000	41x21	2	2000	2	175.000	1122918
MS4121P3000FS	3000	41x21	2	3000	3	141.900	1122920
MS4121P6000FS	6000	41x21	2	6000	6	141.900	1122922
MS4121P2000FT	2000	41x21	2	2000	2	183.000	1122923
MS4121P3000FT	3000	41x21	2	3000	3	151.300	1122924
MS4121P6000FT	6000	41x21	2	6000	6	184.000	1122926
MS4121P2000A2	2000	41x21	2	2000	2	175.000	1122925
MS4121P3000A2	3000	41x21	2	3000	3	185.340	1122928
MS4121P6000A2	6000	41x21	2	6000	6	172.670	1122929
MS4121P2000A4	2000	41x21	2	2000	2	175.000	1122476
MS4121P3000A4	3000	41x21	2	3000	3	172.670	1122931
MS4121P6000A4	6000	41x21	2	6000	6	172.670	1122932

St Steel V2A Stainless steel, A2 V4A Stainless steel, A4

FS Strip-galvanised FT Hot-dip galvanised

Heavy-duty C profile rail for individual installation of support constructions, e.g. for cable trays or as a panel for switchgear cabinets. Can also be used for cable routing, in conjunction with clamp clips with a U foot.

### MS4121 mounting rail, slot width 22 mm, perforated



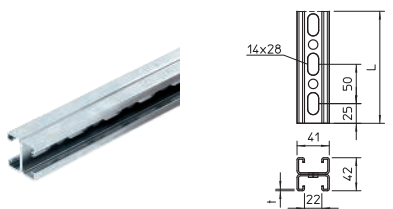
Type	Length mm	Dimension W x H mm	Material thickness mm	Dimen- sion L mm	Pack. pcs	Weight kg/100 pcs.	Item No.
MS4121P0200FS	200	41x21	2	200	1	35.000	1122950
MS4121P0300FS	300	41x21	2	300	1	52.500	1122951
MS4121P0400FS	400	41x21	2	400	1	70.000	1122953
MS4121P0500FS	500	41x21	2	500	1	87.500	1122955
MS4121P0600FS	600	41x21	2	600	1	105.000	1122956
MS4121P0700FS	700	41x21	2	700	1	122.500	1122958
MS4121P0800FS	800	41x21	2	800	1	134.000	1122957
MS4121P0900FS	900	41x21	2	900	1	157.500	1122959
MS4121P0200FT	200	41x21	2	200	1	35.100	1122933
MS4121P0300FT	300	41x21	2	300	1	53.000	1122934
MS4121P0400FT	400	41x21	2	400	1	70.000	1122935
MS4121P0500FT	500	41x21	2	500	1	87.000	1122936
MS4121P0600FT	600	41x21	2	600	1	105.000	1122937
MS4121P0700FT	700	41x21	2	700	1	123.000	1122938
MS4121P0800FT	800	41x21	2	800	1	140.000	1122939
MS4121P0900FT	900	41x21	2	900	1	158.000	1122940

St Steel

FS Strip-galvanised FT Hot-dip galvanised

Heavy-duty C profile rail for individual installation of support constructions, e.g. for cable trays or as a panel for switchgear cabinets. Can also be used for cable routing, in conjunction with clamp clips with a U foot.

### MS4121 mounting rail, slot width 22 mm, double, perforated



Type	Length mm	Dimension W x H mm	Material thickness mm	Dimen- sion L mm	Pack. m	Weight kg/100 m	Item No.
MS4142P3000FS	3000	41x42	2	3000	3	303.000	1122947
MS4142P6000FS	6000	41x42	2	6000	6	303.000	1122948
MS4142P3000FT	3000	41x42	2	3000	3	303.000	1122944
MS4142P6000FT	6000	41x42	2	6000	6	303.000	1122945
MS4142P6000A2	6000	41x42	2	6000	6	283.800	1122954

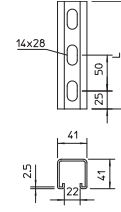
St Steel V2A Stainless steel, A2

FS Strip-galvanised FT Hot-dip galvanised

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



### MS4141 mounting rail, slot width 22 mm, perforated

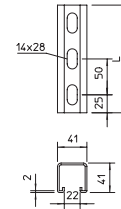


Type	Length mm	Dimension W x H mm	Material thickness mm	Dimen- sion L mm	Pack. m	Weight kg/100 m	Item No.
MS4141P1000FS	1000	41x41	2.5	1000	1	247.500	1122908
MS4141P3000FS	3000	41x41	2.5	3000	3	247.500	1122910
MS4141P6000FS	6000	41x41	2.5	6000	6	247.500	1122912
MS4141P1000FT	1000	41x41	2.5	1000	1	261.400	1122606
MS4141P3000FT	3000	41x41	2.5	3000	3	261.400	1122622
MS4141P6000FT	6000	41x41	2.5	6000	6	260.670	1122657
MS4141P3000A4	3000	41x41	2.5	3000	3	247.500	1123049
MS4141P6000A4	6000	41x41	2.5	6000	6	247.500	1123051

St Steel V4A Stainless steel, A4  
FS Strip-galvanised FT Hot-dip galvanised

Heavy-duty C profile rail for individual installation of support constructions, e.g. for cable trays or as a panel for switchgear cabinets. Can also be used for cable routing, in conjunction with clamp clips with a U foot.

### MS4141 mounting rail, slot width 22 mm, perforated

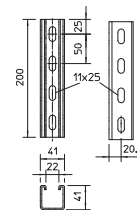


Type	Length mm	Dimension W x H mm	Material thickness mm	Dimen- sion L mm	Pack. m	Weight kg/100 m	Item No.
MSL4141P1000FS	1000	41x41	2	1000	1	201.100	1122970
MSL4141P3000FS	3000	41x41	2	3000	3	201.100	1122972
MSL4141P6000FS	6000	41x41	2	6000	6	201.100	1122974
MSL4141P1000FT	1000	41x41	2	1000	1	214.700	1122962
MSL4141P3000FT	3000	41x41	2	3000	3	214.700	1122964
MSL4141P6000FT	6000	41x41	2	6000	6	214.700	1122966
MSL4141P1000A2	1000	41x41	2	1000	1	201.100	1122978
MSL4141P3000A2	3000	41x41	2	3000	3	201.100	1122980
MSL4141P6000A2	6000	41x41	2	6000	6	201.100	1122982
MSL4141P1000A4	1000	41x41	2	1000	1	201.100	1122988
MSL4141P3000A4	3000	41x41	2	3000	3	201.100	1122990
MSL4141P6000A4	6000	41x41	2	6000	6	201.100	1122992

St Steel V2A Stainless steel, A2 V4A Stainless steel, A4  
FS Strip-galvanised FT Hot-dip galvanised

Heavy-duty C profile rail for individual installation of support constructions, e.g. for cable trays or as a panel for switchgear cabinets. Can also be used for cable routing, in conjunction with clamp clips with a U foot.

### MSL4141 mounting rail, slot width 22 mm, perforated



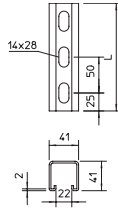
Type	Length mm	Dimension W x H mm	Material thickness mm	Dimen- sion L mm	Pack. pcs	Weight kg/100 pcs	Item No.
MSL4141P0200FS	200	41x41	2	200	1	40.400	1123262
MSL4141P0300FS	300	41x41	2	300	1	60.600	1123264
MSL4141P0400FS	400	41x41	2	400	1	80.800	1123266
MSL4141P0500FS	500	41x41	2	500	1	101.000	1123268
MSL4141P0600FS	600	41x41	2	600	1	121.000	1123270
MSL4141P0700FS	700	41x41	2	700	1	141.000	1123272
MSL4141P0800FS	800	41x41	2	800	1	162.000	1123274
MSL4141P0900FS	900	41x41	2	900	1	182.000	1123276

St Steel  
FS Strip-galvanised

Heavy-duty C profile rail for individual installation of support constructions, e.g. for cable trays or as a panel for switchgear cabinets. Can also be used for cable routing, in conjunction with clamp clips with a U foot.



### MS4141 mounting rail, slot width 22 mm, side-perforated



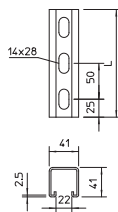
Type	Length mm	Dimension W x H mm	Material thickness mm	Dimension L mm	Pack. m	Weight kg/100 m	Item No.
<b>MSL4141PP1000FS</b>	1000	41x41	2	1000	1	179.400	<b>1123008</b>
<b>MSL4141PP3000FS</b>	3000	41x41	2	3000	3	179.400	<b>1123010</b>
<b>MSL4141PP6000FS</b>	6000	41x41	2	6000	6	179.400	<b>1123012</b>
<b>MSL4141PP1000FT</b>	1000	41x41	2	1000	1	191.500	<b>1123001</b>
<b>MSL4141PP3000FT</b>	3000	41x41	2	3000	3	191.500	<b>1123003</b>
<b>MSL4141PP6000FT</b>	6000	41x41	2	6000	6	191.500	<b>1123005</b>
<b>MSL4141PP1000A2</b>	1000	41x41	2	1000	1	179.400	<b>1123014</b>
<b>MSL4141PP3000A2</b>	3000	41x41	2	3000	3	179.400	<b>1123016</b>
<b>MSL4141PP6000A2</b>	6000	41x41	2	6000	6	179.400	<b>1123018</b>
<b>MSL4141PP1000A4</b>	1000	41x41	2	1000	1	179.400	<b>1123021</b>
<b>MSL4141PP3000A4</b>	3000	41x41	2	3000	3	179.400	<b>1123023</b>
<b>MSL4141PP6000A4</b>	6000	41x41	2	6000	6	179.400	<b>1123025</b>

St Steel V2A Stainless steel, A2 V4A Stainless steel, A4

FS Strip-galvanised FT Hot-dip galvanised

Heavy-duty C profile rail for individual installation of support constructions, e.g. for cable trays or as a panel for switchgear cabinets. Can also be used for cable routing, in conjunction with clamp clips with a U foot.

### MS4141 mounting rail, slot width 22 mm, perforated



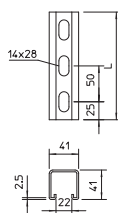
Type	Length mm	Dimension W x H mm	Material thickness mm	Dimension L mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>MS4141P0200FT</b>	200	41x41	2.5	200	1	52.400	<b>1122509</b>
<b>MS4141P0300FT</b>	300	41x41	2.5	300	1	78.500	<b>1122517</b>
<b>MS4141P0400FT</b>	400	41x41	2.5	400	1	104.700	<b>1122525</b>
<b>MS4141P0500FT</b>	500	41x41	2.5	500	1	130.800	<b>1122533</b>
<b>MS4141P0600FT</b>	600	41x41	2.5	600	1	156.900	<b>1122541</b>
<b>MS4141P0700FT</b>	700	41x41	2.5	700	1	183.000	<b>1122568</b>
<b>MS4141P0800FT</b>	800	41x41	2.5	800	1	209.200	<b>1122576</b>
<b>MS4141P0900FT</b>	900	41x41	2.5	900	1	235.300	<b>1122584</b>

St Steel

FT Hot-dip galvanised

Heavy-duty C profile rail for individual installation of support constructions, e.g. for cable trays or as a panel for switchgear cabinets. Can also be used for cable routing, in conjunction with clamp clips with a U foot.

### MS4141 mounting rail, slot width 22 mm, side-perforated



Type	Length mm	Dimension W x H mm	Material thickness mm	Dimension L mm	Pack. m	Weight kg/100 m	Item No.
<b>MS4141PP1000FS</b>	1000	41x41	2.5	1000	1	281.000	<b>1122481</b>
<b>MS4141PP3000FS</b>	3000	41x41	2.5	3000	3	218.000	<b>1122914</b>
<b>MS4141PP6000FS</b>	6000	41x41	2.5	6000	6	218.340	<b>1122916</b>
<b>MS4141PP1000FT</b>	1000	41x41	2.5	1000	1	225.000	<b>1122479</b>
<b>MS4141PP3000FT</b>	3000	41x41	2.5	3000	3	233.340	<b>1122483</b>
<b>MS4141PP6000FT</b>	6000	41x41	2.5	6000	6	225.000	<b>1122487</b>

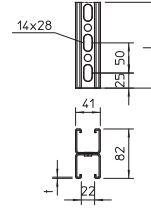
St Steel

FS Strip-galvanised FT Hot-dip galvanised

Heavy-duty C profile rail for individual installation of support constructions, e.g. for cable trays or as a panel for switchgear cabinets. Can also be used for cable routing, in conjunction with clamp clips with a U foot.



## MS4141 mounting rail, slot width 22 mm, double, perforated



Type	Length mm	Dimension W x H mm	Material thickness mm	Dimen- sion L mm	Pack. m	Weight kg/100 m	Item No.
<b>MS4182P3000FS</b>	3000	41x82	2	3000	3	402.200	<b>1122676</b>
<b>MS4182P6000FS</b>	6000	41x82	2	6000	6	402.200	<b>1122678</b>
<b>MS4182P3000FT</b>	3000	41x82	2	3000	3	402.200	<b>1122671</b>
<b>MS4182P6000FT</b>	6000	41x82	2	6000	6	402.200	<b>1122673</b>
<b>MS4182P3000A2</b>	3000	41x82	2	3000	3	402.200	<b>1122682</b>
<b>MS4182P6000A2</b>	6000	41x82	2	6000	6	402.200	<b>1122684</b>

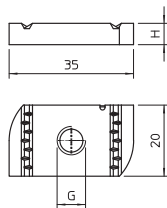
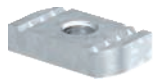
**St** Steel **V2A** Stainless steel, A2

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

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



### Slide nut



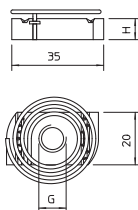
Type	Length mm	Width mm	Height mm	Thread	Pack. pcs	Weight kg/100 pcs.	Item No.
MS41SN M6 ZL	35	20	6	M6	50	2.880	1147206
MS41SN M8 ZL	35	20	6	M8	50	2.800	1147210
MS41SN M10 ZL	35	20	8	M10	50	3.650	1147214
MS41SN M12 ZL	35	20	9.5	M12	50	4.200	1147218
MS41SN M6 A4	35	20	6	M6	50	2.880	1147226
MS41SN M8 A4	35	20	6	M8	50	2.800	1147230
MS41SN M10 A4	35	20	8	M10	50	3.650	1147234
MS41SN M12 A4	35	20	9.5	M12	50	4.200	1147238

Si Steel V4A Stainless steel, A4

ZL Zinc scale

Slide nut for use with MS4121 und MS4141 profile rails

### Slide nut with spring



Type	Length mm	Width mm	Height mm	Thread	Pack. pcs	Weight kg/100 pcs.	Item No.
MS41SNF M6 F	35	20	6	M6	50	3.200	1147306
MS41SNF M8 F	35	20	6	M8	50	3.150	1147310
MS41SNF M10 F	35	20	8	M10	50	4.000	1147314
MS41SNF M12 F	35	20	9.5	M12	50	4.550	1147318
MS41SNF M6 A4	35	20	6	M6	50	3.200	1147336
MS41SNF M8 A4	35	20	6	M8	50	3.150	1147340
MS41SNF M10 A4	35	20	8	M10	50	4.000	1147344
MS41SNF M12 A4	35	20	9.5	M12	50	4.550	1147348

Si Steel V4A Stainless steel, A4

F Hot-dip galvanised

Slide nut with spring for use with MS4121 und MS4141 profile rails

### Hammer-head bolt



Type	Length mm	Width mm	Height mm	Thread	Pack. pcs	Weight kg/100 pcs.	Item No.
MS41HB M6x30 ZL	35	20	6	M6x30	50	4.000	1148306
MS41HB M8x30 ZL	35	20	6	M8x30	50	4.850	1148310
MS41HB M8x60 ZL	35	20	6	M8x60	25	6.000	1148314
MS41HB M8x100 ZL	35	20	6	M8x100	20	7.600	1148318
MS41HB M10x30 ZL	35	20	8	M10x30	50	7.400	1148322
MS41HB M10x60 ZL	35	20	8	M10x60	25	9.250	1148326
MS41HB M10x100ZL	35	20	8	M10x100	20	11.700	1148330
MS41HB M12x30 ZL	35	20	9.5	M12x30	50	9.750	1148334
MS41HB M12x60 ZL	35	20	9.5	M12x60	25	12.400	1148338
MS41HB M12x100ZL	35	20	9.5	M12x100	20	15.950	1148342
MS41HB M6x30 A4	35	20	6	M6x30	50	4.000	1148406
MS41HB M8x30 A4	35	20	6	M8x30	50	4.800	1148410
MS41HB M8x60 A4	35	20	6	M8x60	25	6.000	1148414
MS41HB M8x100 A4	35	20	6	M8x100	20	7.550	1148418
MS41HB M10x30 A4	35	20	8	M10x30	50	7.350	1148422
MS41HB M10x60 A4	35	20	8	M10x60	25	9.200	1148426
MS41HB M10x100A4	35	20	8	M10x100	20	11.650	1148430
MS41HB M12x30 A4	35	20	9.5	M12x30	50	9.700	1148434
MS41HB M12x60 A4	35	20	9.5	M12x60	25	12.400	1148438
MS41HB M12x100A4	35	20	9.5	M12x100	20	15.900	1148442

Si Steel V4A Stainless steel, A4

ZL Zinc scale

Hammer-head bolt for use with MS4121 und MS4141 profile rails

### Hammer-head bolt with spring

Type	Length mm	Width mm	Height mm	Thread	Pack. pcs	Weight		Item No.
						kg/100	pcs.	
MS41HBF M8x30 F	35	20	6	M8x30	50	5.200	1148376	
MS41HBF M8x60 F	35	20	6	M8x60	25	6.300	1148380	
MS41HBF M10x30 F	35	20	8	M10x30	50	7.700	1148384	
MS41HBF M10x60 F	35	20	8	M10x60	25	9.550	1148388	
MS41HBF M12x30 F	35	20	9.5	M12x30	50	10.000	1148392	
MS41HBF M12x60 F	35	20	9.5	M12x60	25	12.700	1148396	
MS41HBF M8x30 A4	35	20	6	M8x30	50	4.800	1148476	
MS41HBF M8x60 A4	35	20	6	M8x60	25	5.950	1148480	
MS41HBF M10x30A4	35	20	8	M10x30	50	7.350	1148484	
MS41HBF M10x60A4	35	20	8	M10x60	25	9.200	1148488	
MS41HBF M12x30A4	35	20	9.5	M12x30	50	9.700	1148492	
MS41HBF M12x60A4	35	20	9.5	M12x60	25	12.400	1148496	

St Steel V4A Stainless steel, A4

F Hot-dip galvanised

Hammer-head bolt with spring for use with MS4121 und MS4141 profile rails



### Wall, floor and ceiling bracket with 3 holes

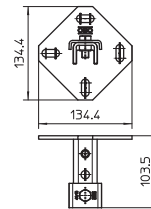
Type	Version	Dimension		Material	Length mm	Pack. pcs	Weight		Item No.
		W x H mm	thickness mm				kg/100	pcs.	
WBDHE 41 FT	Perforated	134x110	5	V4A	102	10	73.000	1123191	
WBDHE 41 A2	Perforated	134x110	5	V4A	102	10	73.000	1123195	
WBDHE 41 A4	Perforated	134x110	5	V4A	102	10	73.000	1123197	

St Steel V2A Stainless steel, A2 V4A Stainless steel, A4

FT Hot-dip galvanised

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

Also suitable for stand and frame construction in conjunction with the mounting rails MS4141.



### Rail connector SV with 3 holes

Type	Version	Dimension		Material	Length mm	Pack. pcs	Weight		Item No.
		W x H mm	thickness mm				kg/100	pcs.	
SVE 41 FT	Perforated	47x39,4	4	V4A	100	10	42.000	1123121	
SVE 41 A2	Perforated	47x39,4	4	V4A	100	10	42.000	1123126	
SVE 41 A4	Perforated	47x39,4	4	V4A	100	10	42.000	1123128	

St Steel V2A Stainless steel, A2 V4A Stainless steel, A4

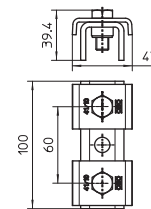
FT Hot-dip galvanised

The rail connector is used to extend the mounting rail MS4141. The connection can be made simply and securely on the construction site or prefabricated in the workshop.

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

Scope of delivery:

Retaining plates, type 4141, and suitable hexagonal bolts included loosely.



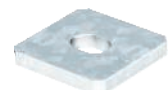
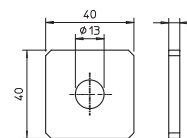
### Connection plate with 1 hole

Type	Material thickness mm	Pack. pcs	Weight		Item No.
			kg/100	pcs.	
GMS 1 VP FT	5	10	7.120	1124643	
GMS 1 VP A2	4	10	4.450	1124683	
GMS 1 VP A4	4	10	4.450	1124723	

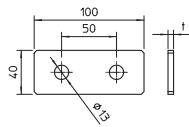
St Steel V2A Stainless steel, A2 V4A Stainless steel, A4

FT Hot-dip galvanised

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



### Connection plate with 2 holes

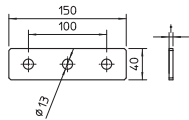
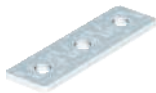


Type	Material thickness mm	Pack. pcs.	Weight		Item No.
			kg/100 pcs.	kg/100 pcs.	
<b>GMS 2 VP FT</b>	5	10	14.000		<b>1124645</b>
<b>GMS 2 VP A2</b>	4	10	11.500		<b>1124685</b>
<b>GMS 2 VP A4</b>	4	10	11.500		<b>1124725</b>

St Steel    V2A Stainless steel, A2    V4A Stainless steel, A4  
FT Hot-dip galvanised

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

### Connection plate with 3 holes

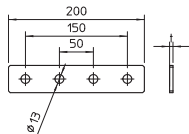


Type	Material thickness mm	Pack. pcs.	Weight		Item No.
			kg/100 pcs.	kg/100 pcs.	
<b>GMS 3 VP FT</b>	5	20	24.010		<b>1124647</b>
<b>GMS 3 VP A2</b>	4	20	17.200		<b>1124687</b>
<b>GMS 3 VP A4</b>	4	20	17.200		<b>1124727</b>

St Steel    V2A Stainless steel, A2    V4A Stainless steel, A4  
FT Hot-dip galvanised

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

### Connection plate with 4 holes

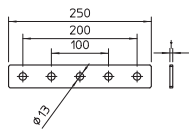


Type	Material thickness mm	Pack. pcs.	Weight		Item No.
			kg/100 pcs.	kg/100 pcs.	
<b>GMS 4 VP FT</b>	5	10	35.580		<b>1124649</b>
<b>GMS 4 VP A2</b>	4	10	23.300		<b>1124689</b>
<b>GMS 4 VP A4</b>	4	10	23.300		<b>1124729</b>

St Steel    V2A Stainless steel, A2    V4A Stainless steel, A4  
FT Hot-dip galvanised

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

### Connection plate with 5 holes

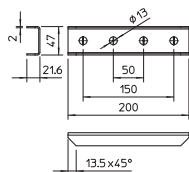
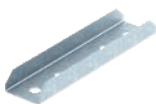


Type	Material thickness mm	Pack. pcs.	Weight		Item No.
			kg/100 pcs.	kg/100 pcs.	
<b>GMS 5 VP FT</b>	5	10	40.000		<b>1124651</b>
<b>GMS 5 VP A2</b>	4	10	28.900		<b>1124691</b>
<b>GMS 5 VP A4</b>	4	10	28.900		<b>1124731</b>

St Steel    V2A Stainless steel, A2    V4A Stainless steel, A4  
FT Hot-dip galvanised

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

### Connector



Type	Version	Pack. pcs.	Weight		Item No.
			kg/100 pcs.	kg/100 pcs.	
<b>GVMS 4 ASV FT</b>	With continuous perforation 13 mm	10	44.040		<b>1124641</b>
<b>GVMS 4 ASV A2</b>	With continuous perforation 13 mm	10	24.900		<b>1124681</b>
<b>GVMS 4 ASV A4</b>	With continuous perforation 13 mm	10	24.900		<b>1124715</b>

St Steel    V2A Stainless steel, A2    V4A Stainless steel, A4  
FT Hot-dip galvanised

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



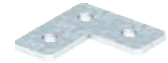
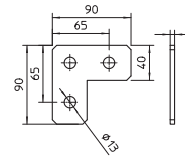
### Connection plate, L-shaped

Type	Material thickness mm	Pack. pcs	Weight		Item No.
			kg/100 pcs.	pcs.	
GMS 3 VP L FT	5	10	25.000		1124653
GMS 3 VP L A2	4	10	15.900		1124693
GMS 3 VP L A4	4	10	15.900		1124733

St Steel V2A Stainless steel, A2 V4A Stainless steel, A4

FT Hot-dip galvanised

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



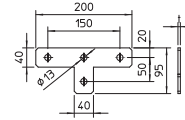
### Connection plate, T-shaped

Type	Material thickness mm	Pack. pcs	Weight		Item No.
			kg/100 pcs.	pcs.	
GMS 4 VP T FT	5	10	41.000		1124655
GMS 4 VP T A2	4	10	30.200		1124695
GMS 4 VP T A4	4	10	30.200		1124735

St Steel V2A Stainless steel, A2 V4A Stainless steel, A4

FT Hot-dip galvanised

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



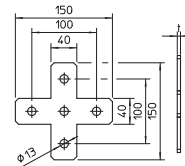
### Connection plate, X-shaped

Type	Material thickness mm	Pack. pcs	Weight		Item No.
			kg/100 pcs.	pcs.	
GMS 5 VP X FT	5	10	48.000		1124657
GMS 5 VP X A2	4	10	29.600		1124697
GMS 5 VP X A4	4	10	29.600		1124737

St Steel V2A Stainless steel, A2 V4A Stainless steel, A4

FT Hot-dip galvanised

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



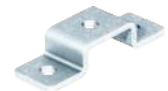
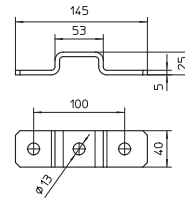
### Omega clamp

Type	Material thickness mm	Pack. pcs	Weight		Item No.
			kg/100 pcs.	pcs.	
GMS 3 O 4121 FT	5	10	26.800		1124671
GMS 3 O 4121 A2	5	10	20.900		1124711
GMS 3 O 4121 A4	5	10	20.900		1124751

St Steel V2A Stainless steel, A2 V4A Stainless steel, A4

FT Hot-dip galvanised

Fastening clip with 3 holes for cross-wise connection of profile rails 41 x 21 mm.



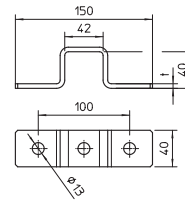
### Omega clamp

Type	Material thickness mm	Pack. pcs	Weight		Item No.
			kg/100 pcs.	pcs.	
GMS 3 O 4141 FT	5	10	35.000		1124673
GMS 3 O 4141 A2	5	10	25.400		1124713
GMS 3 O 4141 A4	5	10	25.400		1124753

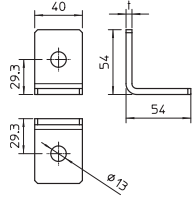
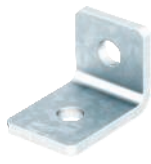
St Steel V2A Stainless steel, A2 V4A Stainless steel, A4

FT Hot-dip galvanised

Fastening clip with 3 holes for cross-wise connection of profile rails 41 x 41 mm.



### Mounting bracket, 90° with 2 holes

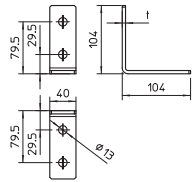


Type	Version	Pack. pcs.	Weight		Item No.
			kg/100 pcs.		
<b>GMS 2 VW 90 FT</b>	90° angle	10	14.000		<b>1124659</b>
<b>GMS 2 VW 90 A2</b>	90° angle	10	11.500		<b>1124699</b>
<b>GMS 2 VW 90 A4</b>	90° angle	10	11.500		<b>1124739</b>

**St** Steel    **V2A** Stainless steel, A2    **V4A** Stainless steel, A4  
**FT** Hot-dip galvanised

Mounting bracket with two holes to connect profile rails 41 x 41 mm and 41 x 21 mm at an angle of 90°.

### Mounting bracket, 90° with 4 holes

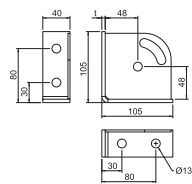


Type	Version	Pack. pcs.	Weight		Item No.
			kg/100 pcs.		
<b>GMS 4 VW 90 FT</b>	90° angle	10	32.000		<b>1124663</b>
<b>GMS 4 VW 90 A2</b>	90° angle	10	23.300		<b>1124703</b>
<b>GMS 4 VW 90 A4</b>	90° angle	10	23.300		<b>1124743</b>

**St** Steel    **V2A** Stainless steel, A2    **V4A** Stainless steel, A4  
**FT** Hot-dip galvanised

Mounting bracket with two holes to connect profile rails 41 x 41 mm and 41 x 21 mm at an angle of 90°.

### Mounting bracket, 90° with 6 holes

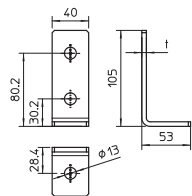


Type	Version	Pack. pcs.	Weight		Item No.
			kg/100 pcs.		
<b>GMS 6 KD FT</b>	90° bracket	10	50.900		<b>1124792</b>
<b>GMS 6 KD A2</b>	90° bracket	10	48.800		<b>1124796</b>
<b>GMS 6 KD A4</b>	90° bracket	10	48.800		<b>1124798</b>

**St** Steel    **V2A** Stainless steel, A2    **V4A** Stainless steel, A4  
**FT** Hot-dip galvanised

Reinforced mounting bracket with 6 holes to connect profile rails 41 x 41 mm and 41 x 21 mm at an angle of 90°. Additional fastening option for a strut at an angle of 45° with an adjusting range of +/- 30°. Can be used for angles between 15° and 75°.

### Mounting bracket, 90° with 3 holes

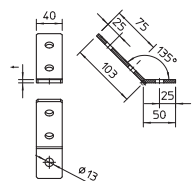


Type	Version	Pack. pcs.	Weight		Item No.
			kg/100 pcs.		
<b>GMS 3 VW 90 FT</b>	90° angle	10	25.910		<b>1124661</b>
<b>GMS 3 VW 90 A2</b>	90° angle	10	17.700		<b>1124701</b>
<b>GMS 3 VW 90 A4</b>	90° angle	10	17.700		<b>1124741</b>

**St** Steel    **V2A** Stainless steel, A2    **V4A** Stainless steel, A4  
**FT** Hot-dip galvanised

Installation profile with three holes to connect profile rails 41 x 41 mm and 41 x 21 mm at an angle of 90°.

### Mounting bracket, 45° with 3 holes



Type	Version	Pack. pcs.	Weight		Item No.
			kg/100 pcs.		
<b>GMS 3 VW 45 FT</b>	45° angle	10	24.010		<b>1124667</b>
<b>GMS 3 VW 45 A2</b>	45° angle	10	17.200		<b>1124707</b>
<b>GMS 3 VW 45 A4</b>	45° angle	10	17.200		<b>1124747</b>

**St** Steel    **V2A** Stainless steel, A2    **V4A** Stainless steel, A4  
**FT** Hot-dip galvanised

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

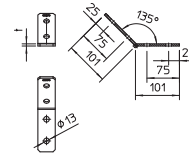




### Mounting bracket, 45° with 4 holes

Version		Pack.	Weight	Item No.
Type		pcs	kg/100 pcs.	
<b>GMS 4 VW 45 FT</b>	45° angle	10	32.000	<b>1124669</b>
<b>GMS 4 VW 45 A2</b>	45° angle	10	23.300	<b>1124709</b>
<b>GMS 4 VW 45 A4</b>	45° angle	10	23.300	<b>1124749</b>

St Steel   
 V2A Stainless steel, A2   
 V4A Stainless steel, A4  
FT Hot-dip galvanised

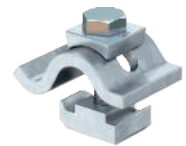
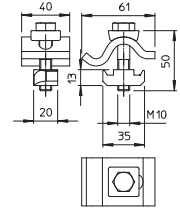


Mounting bracket with four holes to connect profile rails 41 x 41 mm and 41 x 21 mm at an angle of 45°.

### Chuck jaw, light-duty TKH

Type	Height		Pack.	Weight	Item No.
	mm	F in kN			
<b>TKH-L-25 FT</b>	25	10	10	46.000	<b>6355812</b>

St Steel  
FT Hot-dip galvanised

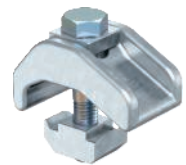
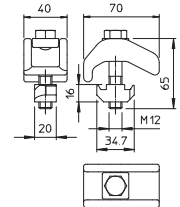


Light-duty tensioning claw with slide nut for fixing mounting rails to steel girder flanges.

### Chuck jaw, heavy-duty TKH

Type	Height		Pack.	Weight	Item No.
	mm	F in kN			
<b>TKH-S-30 FT</b>	30	21	10	81.000	<b>6355804</b>

St Steel  
FT Hot-dip galvanised

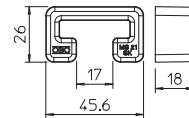


Heavy-duty chuck jaw with slide nut for fastening profile rails to steel girders.

### Protective cap MS4121

Type	Colour	Shipping box pcs	Pack.	Weight		Item No.
				pcs	kg/100 pcs.	
<b>MS4121 SK</b>	Pastel orange	300	25	0.650		<b>1122902</b>

PE Polyethylene

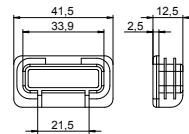


Protective caps for profile rail, type MS4121.

### End cap MS4121

Type	Colour	Pack.	Weight		Item No.
			pcs	kg/100 pcs.	
<b>MS4121 EK</b>	Pastel orange	50	0.645		<b>1122904</b>

PE Polyethylene

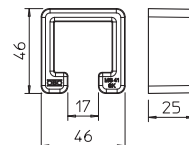


End cap for profile rail, type MS4121.

### Protective cap MS4141

Type	Colour	Shipping box pcs	Pack.	Weight		Item No.
				pcs	kg/100 pcs.	
<b>MS4141 SK</b>	Pastel orange	300	25	1.320		<b>1122900</b>

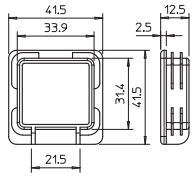
PE Polyethylene



Protective caps for profile rail, type MS4141.



## End cap MS4141



Colour

Pack. Weight  
pcs kg/100

Type

**MS4141 EK** Pastel orange

50

0.670

Item No.

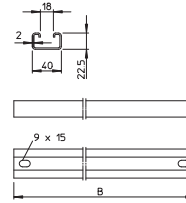
**1122906**

PE Polyethylene

End cap for profile rail, type MS4141.



## MS4022 profile rail, heavy-duty, slot 18 mm



Type	Material thickness mm	Length mm	Pack. pcs	Weight kg/100 pcs.	Item No.
MS4022P0192FT	2	192	10	31.800	6007201
MS4022P0292FT	2	292	10	44.700	6007228
MS4022P0392FT	2	392	10	60.100	6007236
MS4022P0492FT	2	492	10	81.500	6007244
MS4022P0592FT	2	592	10	96.000	6007252
MS4022P0692FT	2	692	10	113.000	6007260
MS4022P0792FT	2	792	10	130.000	6007279
MS4022P0892FT	2	892	10	145.000	6007287
MS4022P0992FT	2	992	10	162.000	6007295
MS4022P1092FT	2	1092	10	178.000	6007309
MS4022P1192FT	2	1192	10	197.500	6007317

**St** Steel

**FT** Hot-dip galvanised

Profile rail MS4022 for use as rung in heavy-duty ladders.



## Information on hat profile rails



The OBO hat/G support rails are machined according to DIN EN 60715. According to the standard IEC 60947-7-2, steel support rails are approved as a protective conductor busbar (PE function), however not as a PEN function!

Article type	Material (material thickness)	Short-circuit resistant $\wedge = E$ CU cable (mm <sup>2</sup> )	Short-time withstand current 1 s
46277 GTP	Steel (1 mm)	10 mm <sup>2</sup>	1.2 kA
46277 GTPL	Steel (1 mm)	10 mm <sup>2</sup>	1.2 kA
2069	Steel (1 mm)	16 mm <sup>2</sup>	1.92 kA
2069S	Steel (1 mm)	16 mm <sup>2</sup>	1.90 kA
2069 GTP	Steel (1 mm)	16 mm <sup>2</sup>	1.92 kA
2069 GTPL	Steel (1 mm)	16 mm <sup>2</sup>	1.90 kA
2069/15 GTP	Steel (1 mm)	16 mm <sup>2</sup>	1.92 kA
2069/15 GTPL	Steel (1 mm)	16 mm <sup>2</sup>	1.90 kA
2069/15 GTP	Steel (1.5 mm)	35 mm <sup>2</sup>	4.2 kA
2069/15 GTPL	Steel (1.5 mm)	35 mm <sup>2</sup>	4.1 kA
2069/15 GTP	Steel (2.25 mm)	50 mm <sup>2</sup>	5.9 kA
2069/15 GTPL	Steel (2.25 mm)	50 mm <sup>2</sup>	5.8 kA
2064 GTP	Steel (1.5 mm)	35 mm <sup>2</sup>	4.2 kA
2064 GTPL	Steel (1.5 mm)	35 mm <sup>2</sup>	4.1 kA
(Rounded values)	Cross-sections calculated according to IEC 60439-1/EN 60439-1/VDE 0660-500 Table 3.	Relevant cross-section range according to DIN VDE 0100-540 Table 54.3.	



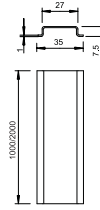
Hat profile rail, unperforated



Type	Version	Material thickness mm	Length mm	Bundle m	Weight kg/100 m	Item No.
2069 2M BK	Unperforated	1	2000	50	36.040	1115618
2069 3M BK	Unperforated	1	3000	—	36.034	1115855

- Sl Steel
- BK Bright

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



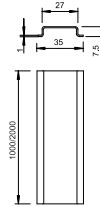
Hat profile rail, unperforated



Type	Version	Material thickness mm	Length mm	Bundle m	Weight kg/100 m	Item No.
2069 1M FS	Unperforated	1	1000	25	36.020	1115677
2069 2M FS	Unperforated	1	2000	50	36.033	1115626

- Sl Steel
- FS Strip-galvanised

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



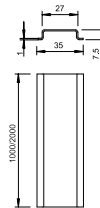
Hat profile rail, unperforated



Type	Version	Material thickness mm	Length mm	Bundle m	Weight kg/100 m	Item No.
2069 1M GTP	Unperforated	1	1000	25	36.020	1115685
2069 2M GTP	Unperforated	1	2000	50	36.040	1115650

- Sl Steel
- GTP Electrogalvanised, transparently passivated

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



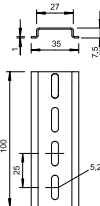
Hat profile rail, perforated



Type	Version	Material thickness mm	Length mm	Bundle m	Weight kg/100 m	Item No.
2069 2M GTP L	Perforated	1	2000	50	33.280	1115669

- Sl Steel
- GTP Electrogalvanised, transparently passivated

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



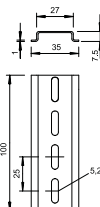
Hat profile rail, perforated



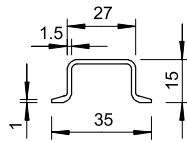
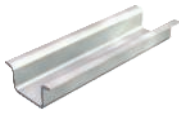
Type	Version	Material thickness mm	Length mm	Bundle m	Weight kg/100 m	Item No.
2069 L 2M FS	Perforated	1	2000	50	33.280	1115804

- Sl Steel
- FS Strip-galvanised

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



### Hat profile rail, unperforated



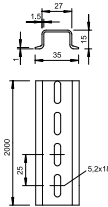
Type	Version	Material thickness mm	Length mm	Bundle m	Weight kg/100 m	Item No.
<b>2069 15 1.5 GTP</b>	Unperforated	1.5	2000	20	66.000	<b>1115421</b>

St Steel

GTP Electrogalvanised, transparently passivated

Hat profile rail 35 x 15 mm similar to DIN EN 60715 (formerly DIN EN 50022), but with material thickness 1.5 mm.

### Hat profile rail, perforated



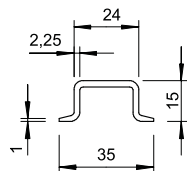
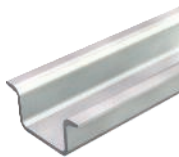
Type	Version	Material thickness mm	Length mm	Bundle m	Weight kg/100 m	Item No.
<b>2069 15 1.5 FS</b>	Perforated	1.5	2000	20	66.000	<b>1115460</b>
<b>2069 15 1.5 GTP</b>	Perforated	1.5	2000	20	66.000	<b>1115456</b>

St Steel

FS Strip-galvanised GTP Electrogalvanised, transparently passivated

Hat profile rail 35 x 15 mm similar to DIN EN 60715 (formerly DIN EN 50022), but with material thickness 1.5 mm.

### Hat profile rail, unperforated



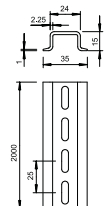
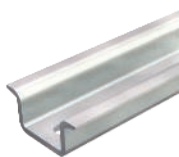
Type	Version	Material thickness mm	Length mm	Bundle m	Weight kg/100 m	Item No.
<b>2069 15 2.2 GTP</b>	Unperforated	2.25	2000	20	97.000	<b>1115553</b>

St Steel

GTP Electrogalvanised, transparently passivated

Hat profile rail 35 x 15 mm to DIN EN 60715 (formerly DIN EN 50022).

### Hat profile rail, perforated



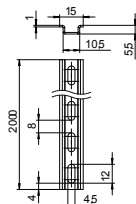
Type	Version	Material thickness mm	Length mm	Bundle m	Weight kg/100 m	Item No.
<b>2069 15 2.2 GTP</b>	Perforated	2.25	2000	20	97.000	<b>1115596</b>

St Steel

GTP Electrogalvanised, transparently passivated

Hat profile rail 35 x 15 mm to DIN EN 60715 (formerly DIN EN 50022).

### Hat profile rail unperforated



Type	Version	Material thickness mm	Length mm	Bundle m	Weight kg/100 m	Item No.
<b>46277 GTP</b>	Unperforated	1	2000	50	12.400	<b>1115332</b>
<b>46277 GTP</b>	Perforated	1	2000	50	12.400	<b>1115359</b>

St Steel

GTP Electrogalvanised, transparently passivated

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





### Support rail

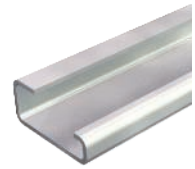
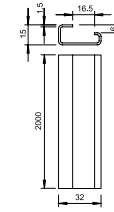


Type	Version	Material thickness mm	Length mm	Bundle m	Weight kg/100 m	Item No.
<b>2064 GTP 2M</b>	Unperforated	1.5	2000	20	70.000	<b>1115057</b>

Sl Steel

GTP Electrogalvanised, transparently passivated

G rail G32 to DIN EN 60715 (previously DIN EN 50035).



### Support rail perforated

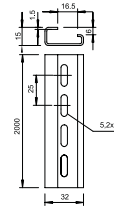


Type	Version	Material thickness mm	Length mm	Bundle m	Weight kg/100 m	Item No.
<b>2064 GTP 2M</b>	Perforated	1.5	2000	20	69.000	<b>1115065</b>

Sl Steel

GTP Electrogalvanised, transparently passivated

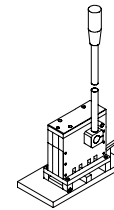
G rail G32 to DIN EN 60715 (previously DIN EN 50035).



### Hat and support rail cutting unit









Type	Pack.	Weight kg/100 pcs.	Item No.
<b>HTS 35</b>	1	2,000.000	<b>1125036</b>

With the HTS 35 hat and support rail cutting device, you can cut the four most common hat and support rail profiles (types 2069..., 46277... and 2064...) to fit and without burring in accordance with DIN 50022 and DIN 50035.



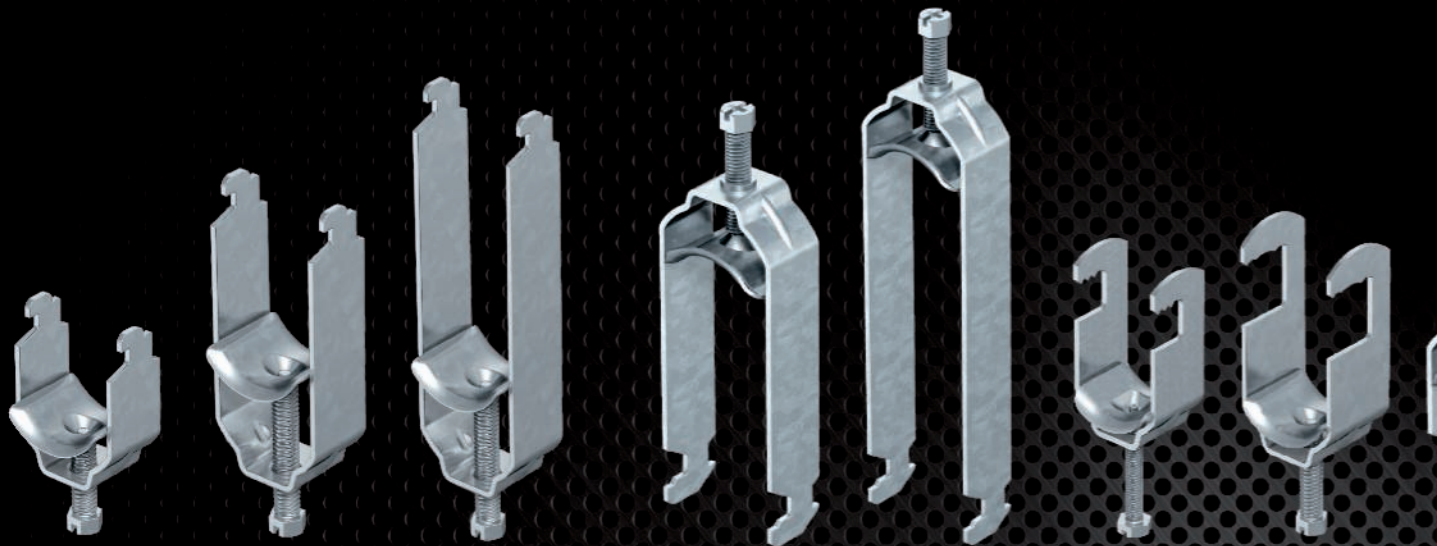


## Clamp clip systems

	<b>Clamp clips, N base</b>	450
	<b>Clamp clips, hammer-head base</b>	452
	<b>Clamp clips, U base</b>	458
	<b>Fastening to flat steel</b>	462
	<b>Fastening to angular steel</b>	464
	<b>Clamp clip, special application</b>	466
	<b>Bundle clip</b>	467
	<b>Clamp clips, system accessories</b>	468







# Where quality and quantity meet. OBO clamp clips

Clamp clips allow cables and pipes to be fastened to profile rails and cable ladders. Clamp clips are available in three standard base shapes, but OBO even offers suitable clamp clips for mounting on angular or flat steel and round profiles. There are special versions of BBS clips available for bundling multiple installation cables and fixing single-wire cables in rotary current systems.





- ✓ Quick mounting thanks to double-start thread
- ✓ Wide range of base shapes for all conceivable applications
- ✓ Various materials and finishes
- ✓ Wide range of special clips
- ✓ Comprehensive accessories



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18/11/26 09:29:57 09:29:57



**Clamp clips with N base**

- Slot width 11–12 mm
- Large clamping range
- Large variety, single, double version
- FT, AL, VA

**Clamp clips with hammer-head base**

- Slot width 16–17 mm
- Large clamping range
- Single, double and triple versions
- FT, AL, VA

**Clamp clips with U base**

- Slot width 18–22 mm
- Large clamping range
- Single, double and triple versions
- FT, AL, VA

**Clamp clips with F base**

- Base clamping width: 4–12 mm
- Large clamping range
- Single and double versions
- FT, AL, VA

**Clamp clips with W base**

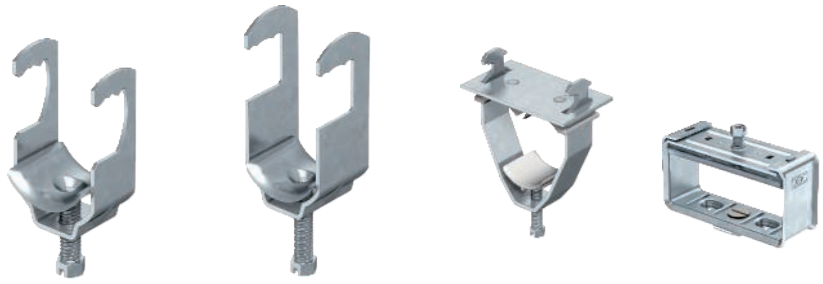
- Angular steel up to 40 mm limb length
- Large clamping range
- Single and double versions
- FT, AL, VA





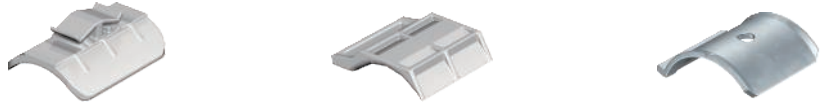
### Cable tidys for special applications

- Wide range of possibilities
- Solution-oriented



### Counter-troughs, single

- Improved cable protection
- Universally applicable



### Counter-trough, double

- Improved cable protection
- Universally usable



## Clamp clip, single, plastic pressure trough



Type	Clamping range D mm	Pack. pcs	Weight kg/100 pcs.	Item No.
2056N 12 FT	8 - 12	100	2.500	1163124
2056N 16 FT	12 - 16	100	2.750	1163167
2056N 22 FT	16 - 22	100	3.100	1163221
2056N 28 FT	22 - 28	100	4.600	1163280
2056N 34 FT	28 - 34	100	5.900	1163345
2056N 40 FT	34 - 40	100	5.970	1163396
2056N 46 FT	40 - 46	100	6.640	1163469
2056N 52 FT	46 - 52	100	7.270	1163523
2056N 58 FT	52 - 58	50	10.560	1163582
2056N 64 FT	58 - 64	50	11.200	1163647
2056N 70 FT	64 - 70	50	12.330	1163701
2056N 12 ALU	8 - 12	50	0.900	1183605
2056N 16 ALU	12 - 16	50	1.090	1183613
2056N 22 ALU	16 - 22	50	1.200	1183621
2056N 28 ALU	22 - 28	50	1.700	1183648
2056N 34 ALU	28 - 34	50	2.200	1183656
2056N 40 ALU	34 - 40	50	2.350	1183664
2056N 46 ALU	40 - 46	50	2.550	1183672
2056N 52 ALU	46 - 52	50	2.880	1183680
2056N 58 ALU	52 - 58	50	4.100	1183699

St Steel Alu Aluminium

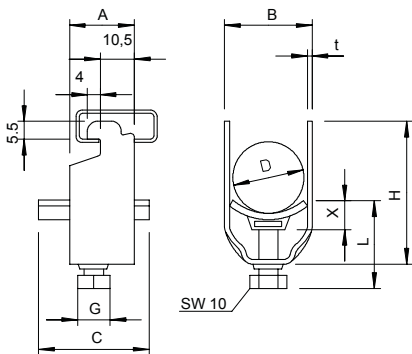
FT Hot-dip galvanised

Suitable for all C profile rails with slot width 11–12 mm; at least 6.5 mm clear internal height and at least 18.5 mm clear internal width.

Clip and bolt made of hot-dip galvanised steel.

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

### Dimensions



Type	Clamping range D mm	Dimension A mm	Dimension B mm	Dimension C mm	Dimension G mm	Dimension t mm	Dimension x mm	Dimension H mm	Dimension L mm	Max. tightening torque Nm
2056N 12 FT	8 - 12	20	16	34	M6	1.5	5	34	34	3
2056N 16 FT	12 - 16	20	20	34	M6	1.5	5	38	34	3
2056N 22 FT	16 - 22	20	27	34	M6	1.5	5	44	34	3
2056N 28 FT	22 - 28	20	33	34	M6	2	5	51	34	3
2056N 34 FT	28 - 34	20	39	34	M8	2	5.5	59	37.5	5
2056N 40 FT	34 - 40	20	45	34	M8	2	5.5	66	37.5	5
2056N 46 FT	40 - 46	20	51	40	M8	2	5.5	72	37.5	5
2056N 52 FT	46 - 52	20	57	40	M8	2	6.5	79	37.5	5
2056N 58 FT	52 - 58	23	64	40	M8	2.5	6.5	86	45.5	5
2056N 64 FT	58 - 64	23	70	40	M8	2.5	6.5	92	45.5	5
2056N 70 FT	64 - 70	23	76	40	M8	2.5	6.5	99	45.5	5

### Clamp clip, single, metal pressure trough

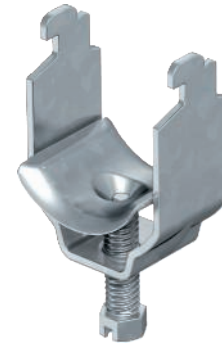


Type	Clamping range D mm	Pack. pcs	Weight kg/100 pcs	Item No.
2056N M 12 FT	8 - 12	100	2.450	1155407
2056N M 16 FT	12 - 16	100	2.800	1155415
2056N M 22 FT	16 - 22	100	3.150	1155423
2056N M 28 FT	22 - 28	100	4.900	1155431
2056N M 34 FT	28 - 34	100	6.400	1155458
2056N M 40 FT	34 - 40	100	7.000	1155466
2056N M 46 FT	40 - 46	100	8.500	1155474
2056N M 52 FT	46 - 52	100	9.150	1155482
2056N M 58 FT	52 - 58	100	12.100	1155490

Si Steel

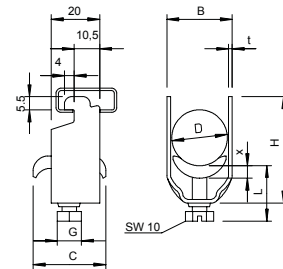
FT Hot-dip galvanised

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



Type	Clamping range D mm	Dimension A mm	Dimension B mm	Dimension C mm	Dimension G	Dimension t mm	Dimension x mm	Dimension H mm	Dimension L mm	Max. tightening torque Nm
2056N M 12 FT	8 - 12	20	16	30	M6	1.5	3.5	34	32.5	3
2056N M 16 FT	12 - 16	20	20	30	M6	1.5	3.5	38	32.5	3
2056N M 22 FT	16 - 22	20	27	30	M6	1.5	4.5	44	33.5	3
2056N M 28 FT	22 - 28	20	33	30	M6	2	4.5	51	33.5	3
2056N M 34 FT	28 - 34	20	39	35	M8	2	4.5	59	37	5
2056N M 40 FT	34 - 40	20	45	35	M8	2	5	66	37	5
2056N M 46 FT	40 - 46	20	51	35	M8	2	5	72	37	5
2056N M 52 FT	46 - 52	20	57	35	M8	2	5	79	37	5
2056N M 58 FT	52 - 58	23	64	35	M8	2.5	5	89	37	5

#### Dimensions



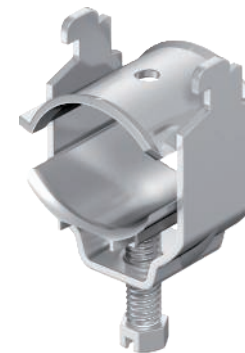
### Clamp clips for screen connection



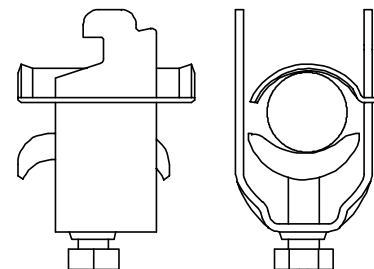
Type	Clamping range D mm	Pack. pcs	Weight kg/100 pcs	Item No.
2056N SAS 8 A2	4 - 8	50	2.900	1167006
2056N SAS 12 A2	8 - 12	50	3.700	1167014
2056N SAS 16 A2	12 - 16	50	4.200	1167022
2056N SAS 22 A2	16 - 22	50	4.850	1167030
2056N SAS 28 A2	22 - 28	50	6.600	1167049

V2A Stainless steel, A2

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



#### Dimensions



Clamp clip, single, plastic pressure trough



Type	Clamping range D mm	Pack. pcs	Weight kg/100 pcs	Item No.
2056 12 FT	8 - 12	100	3.540	1160125
2056 16 FT	12 - 16	100	3.820	1160168
2056 22 FT	16 - 22	100	4.508	1160222
2056 28 FT	22 - 28	100	6.240	1160281
2056 34 FT	28 - 34	100	7.680	1160346
2056 40 FT	34 - 40	100	8.260	1160400
2056 46 FT	40 - 46	100	10.900	1160451
2056 52 FT	46 - 52	100	11.900	1160524
2056 58 FT	52 - 58	100	14.300	1160583
2056 64 FT	58 - 64	100	15.600	1160648
2056 70 FT	64 - 70	50	18.200	1160702
2056 76 FT	70 - 76	25	20.600	1160761
2056 82 FT	76 - 82	25	22.000	1160826
2056 90 FT	82 - 90	25	26.200	1160907
2056 100 FT	90 - 100	25	27.800	1160990
2056 12 A2	8 - 12	50	3.300	1159518
2056 16 A2	12 - 16	50	3.600	1159526
2056 22 A2	16 - 22	50	4.200	1159534
2056 28 A2	22 - 28	50	6.500	1159542
2056 34 A2	28 - 34	50	7.400	1159550
2056 40 A2	34 - 40	25	8.000	1159569
2056 46 A2	40 - 46	25	10.900	1159577
2056 52 A2	46 - 52	25	11.400	1159585
2056 58 A2	52 - 58	25	14.500	1159593
2056 64 A2	58 - 64	15	15.600	1159607
2056 70 A2	64 - 70	15	18.200	1159615
2056 76 A2	70 - 76	10	20.800	1159623
2056 12 ALU	8 - 12	100	0.750	1183206
2056 16 ALU	12 - 16	100	0.900	1183214
2056 22 ALU	16 - 22	100	1.050	1183222
2056 28 ALU	22 - 28	100	1.500	1183230
2056 34 ALU	28 - 34	100	2.300	1183249
2056 40 ALU	34 - 40	100	2.700	1183257
2056 46 ALU	40 - 46	100	3.600	1183265
2056 52 ALU	46 - 52	100	3.900	1183273
2056 58 ALU	52 - 58	50	4.200	1183281
2056 64 ALU	58 - 64	50	4.500	1183303
2056 70 ALU	64 - 70	50	5.400	1183311
2056 76 ALU	70 - 76	25	5.850	1183338

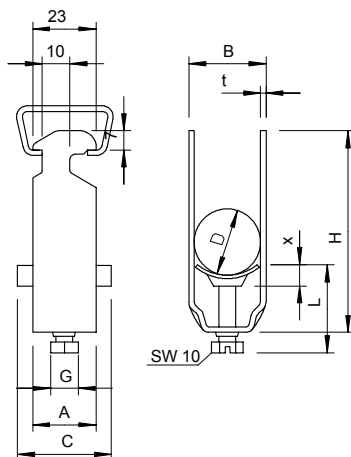
St Steel Alu Aluminium V2A Stainless steel, A2

FT Hot-dip galvanised

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

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

Dimensions



Type	Clamping range D mm	Dimension A mm	Dimension B mm	Dimension C mm	Dimension G mm	Dimension t mm	Dimension x mm	Dimension H mm	Dimension L mm	Max. tightening torque Nm
2056 12 FT	8 - 12	23	16	34	M6	1.5	5	40	34	3
2056 16 FT	12 - 16	23	20	34	M6	1.5	5	44	34	3
2056 22 FT	16 - 22	23	27	34	M6	1.5	5	50	34	3
2056 28 FT	22 - 28	23	33	34	M6	2	5	58	34	3
2056 34 FT	28 - 34	23	39	34	M8	2	5.5	66	34	5
2056 40 FT	34 - 40	23	45	34	M8	2	5.5	72	37.5	5
2056 46 FT	40 - 46	23	51	40	M8	2	5.5	79	44.5	5
2056 52 FT	46 - 52	23	57	40	M8	2	6.5	86	44.5	5
2056 58 FT	52 - 58	23	64	40	M8	2.5	6.5	93	45.5	5
2056 64 FT	58 - 64	23	70	40	M8	2.5	6.5	99	45.5	5
2056 70 FT	64 - 70	23	76	40	M8	2.5	6.5	106	45.5	5
2056 76 FT	70 - 76	25	82	40	M8	2.5	6.5	114	45.5	5
2056 82 FT	76 - 82	25	88	40	M8	2.5	6.5	121	45.5	5
2056 90 FT	82 - 90	25	97	40	M8	3	6.5	130	57.5	5
2056 100 FT	90 - 100	25	107	40	M8	3	6.5	140	57.5	5

## Clamp clip, double, plastic pressure trough



Type	Clamping range D mm	Pack. pcs	Weight kg/100 pcs	Item No.
2056 2 12 FT	8 - 12	50	4.100	1161121
2056 2 16 FT	12 - 16	50	4.650	1161164
2056 2 22 FT	16 - 22	50	5.120	1161229
2056 2 28 FT	22 - 28	50	7.700	1161288
2056 2 34 FT	28 - 34	50	10.200	1161342
2056 2 40 FT	34 - 40	50	11.450	1161407
2056 2 46 FT	40 - 46	50	14.900	1161466
2056 2 52 FT	46 - 52	50	16.700	1161520
2056 2 58 FT	52 - 58	50	21.400	1161571
2056 2 64 FT	58 - 64	50	24.250	1161644
2056 2 22 A2	16 - 22	50	5.150	1161822
2056 2 28 A2	22 - 28	50	7.700	1161830
2056 2 34 A2	28 - 34	50	10.200	1161849
2056 2 40 A2	34 - 40	25	14.350	1161857
2056 2 46 A2	40 - 46	25	14.950	1161865
2056 2 52 A2	46 - 52	25	16.700	1161873
2056 2 58 A2	52 - 58	25	21.400	1161881
2056 2 64 A2	58 - 64	15	24.250	1161903
2056 2 12 ALU	8 - 12	50	1.000	1183389
2056 2 16 ALU	12 - 16	50	1.250	1183397
2056 2 22 ALU	16 - 22	50	1.500	1183400
2056 2 28 ALU	22 - 28	50	2.000	1183419
2056 2 34 ALU	28 - 34	50	3.200	1183427
2056 2 40 ALU	34 - 40	50	3.750	1183435
2056 2 46 ALU	40 - 46	50	4.850	1183443
2056 2 52 ALU	46 - 52	50	5.300	1183451
2056 2 58 ALU	52 - 58	50	6.000	1183478

St Steel Alu Aluminium V2A Stainless steel, A2

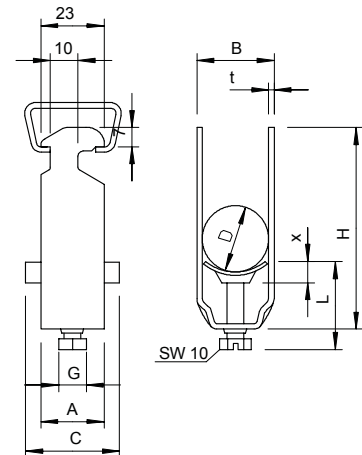
FT Hot-dip galvanised

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

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

Type	Clamping range D mm	Dimension A mm	Dimension B mm	Dimension C mm	Dimension G mm	Dimension t mm	Dimension x mm	Dimension H mm	Dimension L mm	Max. tightening torque Nm
2056 2 12 FT	8 - 12	23	16	34	M6	1.5	4.5	52	34	3
2056 2 16 FT	12 - 16	23	20	34	M6	1.5	4.5	61	34	3
2056 2 22 FT	16 - 22	23	27	34	M6	1.5	5	73	47	3
2056 2 28 FT	22 - 28	23	33	34	M6	2	5	87	47	3
2056 2 34 FT	28 - 34	23	39	34	M8	2	6	101	44.5	5
2056 2 40 FT	34 - 40	23	45	34	M8	2	6	114	44.5	5
2056 2 46 FT	40 - 46	23	51	40	M8	2	6	129	44.5	5
2056 2 52 FT	46 - 52	23	57	40	M8	2	6.5	129	45.5	5
2056 2 58 FT	52 - 58	23	64	40	M8	2.5	6.5	154	45.5	5
2056 2 64 FT	58 - 64	23	70	40	M8	2.5	6.5	167	44.5	5

### Dimensions



## Clamp clip, triple, plastic pressure trough



Type	Clamping range D mm	Pack. pcs	Weight kg/100 pcs	Item No.
2056 3 12 FT	8 - 12	50	4.900	1162128
2056 3 16 FT	12 - 16	50	6.200	1162160
2056 3 22 FT	16 - 22	50	7.100	1162225
2056 3 28 FT	22 - 28	50	10.650	1162284
2056 3 34 FT	28 - 34	50	13.100	1162349
2056 3 40 FT	34 - 40	50	14.350	1162403
2056 3 46 FT	40 - 46	25	19.800	1162462
2056 3 22 ALU	16 - 22	50	2.050	1183524
2056 3 28 ALU	22 - 28	50	2.900	1183532
2056 3 34 ALU	28 - 34	50	4.200	1183540

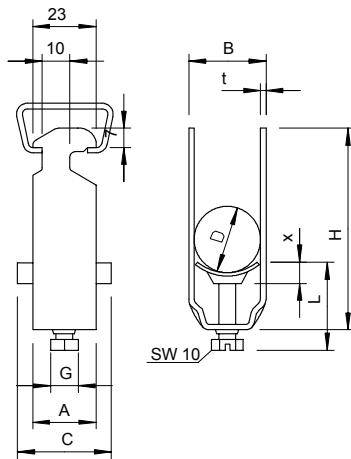
St Steel Alu Aluminium

FT Hot-dip galvanised

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

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

### Dimensions



Type	Clamping range D mm	Dimension A mm	Dimension B mm	Dimension C mm	Dimension G	Dimension t mm	Dimension x mm	Dimension H mm	Dimension L mm	Max. tightening torque Nm
2056 3 12 FT	8 - 12	23	16	34	M6	1.5	5	70	47	3
2056 3 16 FT	12 - 16	23	20	34	M6	1.5	5	82	47	3
2056 3 22 FT	16 - 22	23	27	34	M6	1.5	5	101	47	3
2056 3 28 FT	22 - 28	23	33	34	M6	2	5	121	47	3
2056 3 34 FT	28 - 34	23	39	34	M8	2	6	142	56.5	5
2056 3 40 FT	34 - 40	23	45	34	M8	2	6	162	56.5	5
2056 3 46 FT	40 - 46	23	51	40	M8	2	6	184	56.5	5





### Clamp clip, single, metal pressure trough



Type	Clamping range D mm	Pack. pcs	Weight kg/100		Item No.
			pcs	Weight	
2056 M 12 FT	8 - 12	100	3.200	1156004	
2056 M 16 FT	12 - 16	100	3.500	1156012	
2056 M 22 FT	16 - 22	100	4.400	1156020	
2056 M 28 FT	22 - 28	100	6.100	1156039	
2056 M 34 FT	28 - 34	100	7.700	1156047	
2056 M 40 FT	34 - 40	100	8.600	1156055	
2056 M 46 FT	40 - 46	100	9.600	1156063	
2056 M 52 FT	46 - 52	100	10.400	1156071	
2056 M 58 FT	52 - 58	100	13.100	1156098	
2056 M 64 FT	58 - 64	100	14.500	1156101	
2056 M 70 FT	64 - 70	50	16.100	1156128	
2056 M 76 FT	70 - 76	25	18.300	1156136	
2056 M 82 FT	76 - 82	25	19.100	1156144	
2056 M 90 FT	82 - 90	25	23.300	1156152	
2056 M 100 FT	90 - 100	25	24.500	1156160	
2056 M 12 A2	8 - 12	50	3.200	1159712	
2056 M 16 A2	12 - 16	50	3.500	1159716	
2056 M 22 A2	16 - 22	50	4.400	1159722	
2056 M 28 A2	22 - 28	25	6.100	1159728	
2056 M 34 A2	28 - 34	25	7.700	1159734	
2056 M 40 A2	34 - 40	25	8.600	1159740	
2056 M 46 A2	40 - 46	25	9.600	1159746	
2056 M 52 A2	46 - 52	25	10.400	1159752	
2056 M 58 A2	52 - 58	15	13.100	1159758	
2056 M 64 A2	58 - 64	15	14.500	1159764	
2056 M 70 A2	64 - 70	15	16.100	1159770	
2056 M 76 A2	70 - 76	10	18.300	1159776	

St Steel V2A Stainless steel, A2

FT Hot-dip galvanized

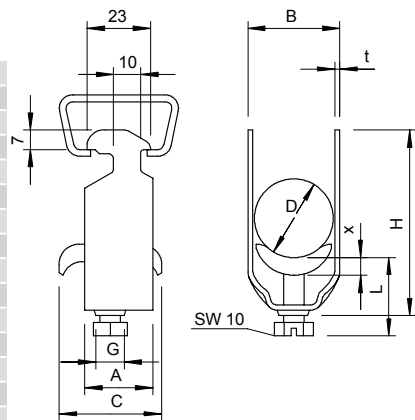
Suitable for all C profile rails with slot width 16–17 mm.

Clip, bolt and pressure trough made of hot-dip galvanized steel.



Type	Clamping range D mm	Dimensions								Max. tightening torque Nm
		Dimension A mm	Dimension B mm	Dimension C mm	Dimension G mm	Dimension t mm	Dimension x mm	Dimension H mm	Dimension L mm	
2056 M 12 FT	8 - 12	23	16	30	M6	1.5	3.5	40	32.5	3
2056 M 16 FT	12 - 16	23	20	30	M6	1.5	3.5	44	32.5	3
2056 M 22 FT	16 - 22	23	27	30	M6	1.5	4.5	50	46.5	3
2056 M 28 FT	22 - 28	23	33	30	M6	2	4.5	58	46.5	3
2056 M 34 FT	28 - 34	23	39	35	M8	2	5	66	44	5
2056 M 40 FT	34 - 40	23	45	35	M8	2	5	72	44	5
2056 M 46 FT	40 - 46	23	51	35	M8	2	5	79	44	5
2056 M 52 FT	46 - 52	23	57	35	M8	2	5	86	44	5
2056 M 58 FT	52 - 58	23	64	35	M8	2.5	5	93	44	5
2056 M 64 FT	58 - 64	23	70	35	M8	2.5	5	99	56	5
2056 M 70 FT	64 - 70	25	76	35	M8	2.5	5	106	56	5
2056 M 76 FT	70 - 76	25	82	40	M8	2.5	5	114	56	5
2056 M 82 FT	76 - 82	25	88	40	M8	2.5	5	121	56	5
2056 M 90 FT	82 - 90	25	97	40	M8	3	5	130	56	5
2056 M 100 FT	90 - 100	25	107	40	M8	3	5	140	56	5

#### Dimensions



## Clamp clip, double, metal pressure trough

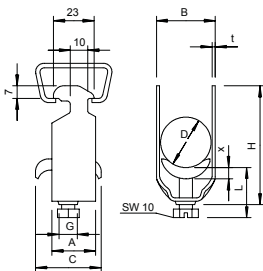


Type	Clamping range D mm	Pack. pcs	Weight kg/100 pcs	Item No.
2056 M2 12 FT	8 - 12	50	3.980	1156179
2056 M2 16 FT	12 - 16	50	4.750	1156187
2056 M2 22 FT	16 - 22	50	6.900	1156195
2056 M2 28 FT	22 - 28	50	7.800	1156209

St Steel  
FT Hot-dip galvanised

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

### Dimensions



Type	Clamping range D mm	Dimension A mm	Dimension B mm	Dimension C mm	Dimension G mm	Dimension t mm	Dimension x mm	Dimension H mm	Dimension L mm	Max. tightening torque Nm
2056 M2 12 FT	8 - 12	23	16	34	M6	1.5	5	52	34	3
2056 M2 16 FT	12 - 16	23	20	34	M6	1.5	5	61	34	3
2056 M2 22 FT	16 - 22	23	27	34	M6	1.5	5	73	47	3
2056 M2 28 FT	22 - 28	23	33	34	M6	2	5	87	47	3

## Clamp clip, triple, metal pressure trough

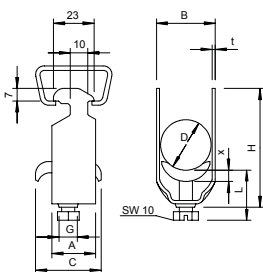


Type	Clamping range D mm	Pack. pcs	Weight kg/100 pcs	Item No.
2056 M3 12 FT	8 - 12	50	4.050	1156241
2056 M3 16 FT	12 - 16	50	5.800	1156268
2056 M3 22 FT	16 - 22	50	6.500	1156276
2056 M3 28 FT	22 - 28	50	9.500	1156284

St Steel  
FT Hot-dip galvanised

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

### Dimensions



Type	Clamping range D mm	Dimension A mm	Dimension B mm	Dimension C mm	Dimension G mm	Dimension t mm	Dimension x mm	Dimension H mm	Dimension L mm	Max. tightening torque Nm
2056 M3 12 FT	8 - 12	23	16	34	M6	1.5	5	70	47	3
2056 M3 16 FT	12 - 16	23	20	34	M6	1.5	5	82	47	3
2056 M3 22 FT	16 - 22	23	27	34	M6	1.5	5	101	47	3
2056 M3 28 FT	22 - 28	23	33	34	M6	2	5	121	47	3



### Clamp clip, fastening earthing strips



Type	For rail with slot width mm	Pack. pcs	Weight kg/100 pcs	Item No.
<b>2056 BE FT</b>	16 - 17	25	4.700	<b>1174053</b>

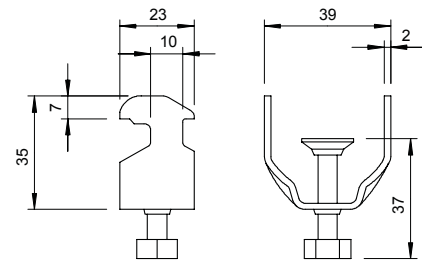
**St** Steel

**FT** Hot-dip galvanised

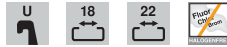
To fasten earthing strips with widths of up to 30 mm to profile rails, suitable for all C profile rails with 16–17 mm slot width.



#### Dimensions



## Clamp clip, single, plastic pressure trough



Type	Clamping range D mm	Pack. pcs	Weight kg/100 pcs	Item No.
2056U 12 FT	8 - 12	100	3.150	1175122
2056U 16 FT	12 - 16	100	3.600	1175165
2056U 22 FT	16 - 22	100	3.223	1175211
2056U 28 FT	22 - 28	100	4.344	1175289
2056U 34 FT	28 - 34	100	7.500	1175343
2056U 40 FT	34 - 40	100	8.100	1175408
2056U 46 FT	40 - 46	100	10.000	1175467
2056U 52 FT	46 - 52	100	11.200	1175521
2056U 58 FT	52 - 58	100	13.400	1175580
2056U 64 FT	58 - 64	100	14.300	1175645
2056U 70 FT	64 - 70	50	15.250	1175696
2056U 76 FT	70 - 76	25	20.600	1175769
2056U 82 FT	76 - 82	25	22.000	1175823
2056U 90 FT	82 - 90	25	26.200	1175904
2056U 100 FT	90 - 100	25	30.000	1175998
2056U 12 A2	8 - 12	50	3.000	1178504
2056U 16 A2	12 - 16	50	3.200	1178512
2056U 22 A2	16 - 22	50	3.800	1178520
2056U 28 A2	22 - 28	50	5.350	1178539
2056U 34 A2	28 - 34	50	7.200	1178547
2056U 40 A2	34 - 40	25	8.100	1178555
2056U 46 A2	40 - 46	25	9.900	1178563
2056U 52 A2	46 - 52	25	11.200	1178571
2056U 58 A2	52 - 58	25	13.400	1178598
2056U 64 A2	58 - 64	15	14.300	1178601
2056U 70 A2	64 - 70	15	20.500	1178628
2056U 76 A2	70 - 76	10	19.100	1178636
2056U 12 ALU	8 - 12	50	1.100	1184407
2056U 16 ALU	12 - 16	50	1.200	1184415
2056U 22 ALU	16 - 22	50	1.350	1184423
2056U 28 ALU	22 - 28	50	1.950	1184431
2056U 34 ALU	28 - 34	50	2.550	1184458
2056U 40 ALU	34 - 40	50	2.800	1184466
2056U 46 ALU	40 - 46	50	3.600	1184474
2056U 52 ALU	46 - 52	50	3.950	1184482
2056U 58 ALU	52 - 58	50	4.900	1184490
2056U 64 ALU	58 - 64	50	5.250	1184504
2056U 70 ALU	64 - 70	50	5.600	1184539
2056U 76 ALU	70 - 76	50	7.050	1184512

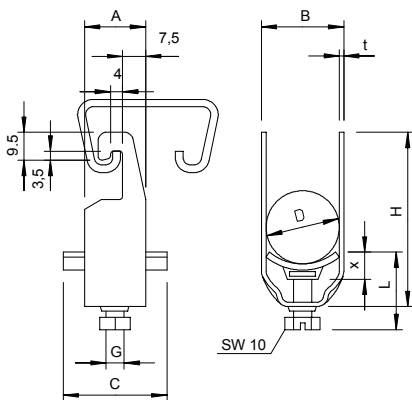
St Steel Alu Aluminium V2A Stainless steel, A2

FT Hot-dip galvanised

Suitable for all C profile rails with slot width 18 mm and 22 mm.

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

### Dimensions



Type	Clamping range D mm	Dimension A mm	Dimension B mm	Dimension C mm	Dimension G mm	Dimension t mm	Dimension x mm	Dimension H mm	Dimension L mm	Max. tightening torque Nm
2056U 12 FT	8 - 12	20	16	34	M6	1.5	5	42	34	3
2056U 16 FT	12 - 16	20	20	34	M6	1.5	5	46	34	3
2056U 22 FT	16 - 22	20	27	34	M6	1.5	5	53	34	3
2056U 28 FT	22 - 28	20	33	34	M6	2	5	59	34	3
2056U 34 FT	28 - 34	20	39	34	M8	2	5.5	67	37.5	5
2056U 40 FT	34 - 40	20	45	34	M8	2	5.5	73	37.5	5
2056U 46 FT	40 - 46	20	51	40	M8	2	5.5	79	37.5	5
2056U 52 FT	46 - 52	20	57	40	M8	2	6.5	85	38.5	5
2056U 58 FT	52 - 58	23	64	40	M8	2.5	6.5	91	38.5	5
2056U 64 FT	58 - 64	23	70	40	M8	2.5	6.5	97	38.5	5
2056U 70 FT	64 - 70	23	76	40	M8	2.5	6.5	103	38.5	5
2056U 76 FT	70 - 76	25	82	40	M8	2.5	6.5	110	45.5	5
2056U 82 FT	76 - 82	25	88	40	M8	2.5	6.5	116	45.5	5
2056U 90 FT	82 - 90	25	97	40	M8	3	6.5	125	45.5	5
2056U 100 FT	90 - 100	25	107	40	M8	3	6.5	135	45.5	5

### Clamp clip, double, plastic pressure trough



Type	Clamping range D mm	Pack. pcs	Weight kg/100 pcs	Item No.
2056U 2 12 FT	8 - 12	50	2.850	1176129
2056U 2 16 FT	12 - 16	50	3.050	1176161
2056U 2 22 FT	16 - 22	50	4.950	1176226
2056U 2 28 FT	22 - 28	50	6.940	1176285
2056U 2 34 FT	28 - 34	50	9.500	1176331
2056U 2 40 FT	34 - 40	50	11.350	1176404
2056U 2 46 FT	40 - 46	50	11.350	1176463
2056U 2 52 FT	46 - 52	50	15.050	1176528
2056U 2 58 FT	52 - 58	50	19.800	1176587

**St** Steel

**FT** Hot-dip galvanised

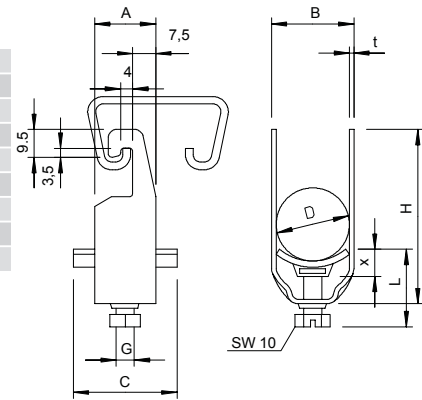
Suitable for all C profile rails with slot width 18 mm and 22 mm.

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

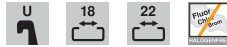


#### Dimensions

Type	Clamping range D mm	Dimension A mm	Dimension B mm	Dimension C mm	Dimension G mm	Dimension t mm	Dimension x mm	Dimension H mm	Dimension L mm	Max. tightening torque Nm
2056U 2 12 FT	8 - 12	20	16	34	M6	1.5	5	56	34	3
2056U 2 16 FT	12 - 16	20	20	34	M6	1.5	5	64	34	3
2056U 2 22 FT	16 - 22	20	27	34	M6	1.5	5	77	47	3
2056U 2 28 FT	22 - 28	20	33	34	M6	2	5	89	47	3
2056U 2 34 FT	28 - 34	20	39	34	M8	2	5.5	103	44.5	5
2056U 2 40 FT	34 - 40	20	45	34	M8	2	5.5	115	44.5	5
2056U 2 46 FT	40 - 46	23	51	40	M8	2	5.5	128	44.5	5
2056U 2 52 FT	46 - 52	23	57	40	M8	2	6.5	140	45.5	5
2056U 2 58 FT	52 - 58	23	64	40	M8	2.5	6.5	152	45.5	5



## Clamp clip, triple, plastic pressure trough



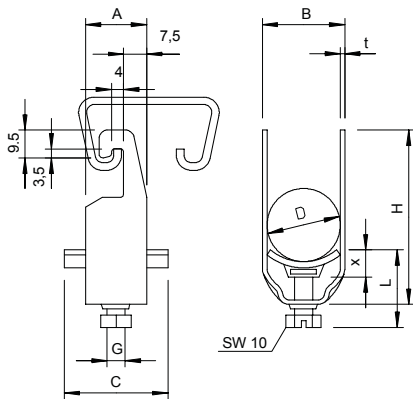
Type	Clamping range D mm	Pack. pcs	Weight		Item No.
			kg/100	pcs.	
2056U 3 12 FT	8 - 12	50	4.750		1177125
2056U 3 16 FT	12 - 16	50	4.850		1177168
2056U 3 22 FT	16 - 22	50	6.600		1177222
2056U 3 28 FT	22 - 28	50	10.500		1177281
2056U 3 34 FT	28 - 34	50	13.250		1177346
2056U 3 40 FT	34 - 40	50	14.400		1177400
2056U 3 46 FT	40 - 46	50	18.950		1177451

St Steel

FT Hot-dip galvanised

Suitable for all C profile rails with slot width 18 mm and 22 mm.  
Polypropylene pressure sleeve, halogen-free, colour light grey RAL 7035.

### Dimensions



Type	Clamping range D mm	Dimension							Max. tightening torque Nm	
		A mm	B mm	C mm	Dimension G	t mm	x mm	H mm		L mm
2056U 3 12 FT	8 - 12	20	16	34	M6	1.5	5	70	47	3
2056U 3 16 FT	12 - 16	20	20	34	M6	1.5	5	82	47	3
2056U 3 22 FT	16 - 22	20	27	34	M6	1.5	5	101	47	3
2056U 3 28 FT	22 - 28	20	33	34	M6	2	5	119	47	3
2056U 3 34 FT	28 - 34	20	39	34	M8	2	5.5	139	44.5	5
2056U 3 40 FT	34 - 40	20	45	34	M8	2	5.5	157	44.5	5
2056U 3 46 FT	40 - 46	23	51	40	M8	2	5.5	177	56.5	5



## Clamp clip, single, metal pressure trough



Type	Clamping range D mm	Pack. pcs	Weight kg/100 pcs	Item No.
2056U M 12 FT	8 - 12	100	3.300	1158007
2056U M 16 FT	12 - 16	100	3.520	1158015
2056U M 22 FT	16 - 22	100	3.960	1158023
2056U M 28 FT	22 - 28	100	5.890	1158031
2056U M 34 FT	28 - 34	100	7.650	1158058
2056U M 40 FT	34 - 40	100	8.360	1158066
2056U M 46 FT	40 - 46	100	10.890	1158074
2056U M 52 FT	46 - 52	100	11.660	1158082
2056U M 58 FT	52 - 58	100	14.740	1158090
2056U M 64 FT	58 - 64	100	15.730	1158104
2056U M 70 FT	64 - 70	50	18.200	1158112
2056U M 76 FT	70 - 76	25	20.600	1158120
2056U M 12 A4	8 - 12	100	3.300	1158207
2056U M 16 A4	12 - 16	100	3.520	1158211
2056U M 22 A4	16 - 22	100	3.960	1158215
2056U M 28 A4	22 - 28	100	5.890	1158219
2056U M 34 A4	28 - 34	100	7.650	1158223
2056U M 40 A4	34 - 40	100	8.360	1158227
2056U M 46 A4	40 - 46	100	10.890	1158231
2056U M 52 A4	46 - 52	100	11.660	1158235
2056U M 58 A4	52 - 58	100	14.740	1158239
2056U M 64 A4	58 - 64	100	15.730	1158243
2056U M 70 A4	64 - 70	50	18.200	1158247
2056U M 76 A4	70 - 76	25	20.600	1158251

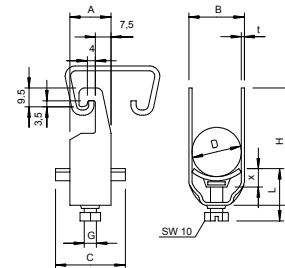
St Steel V4A Stainless steel, A4

FT Hot-dip galvanised

Suitable for all C profile rails with slot width 18 mm and 22 mm.

## Dimensions

Type	Clamping range D mm	Dimension A mm	Dimension B mm	Dimension C mm	Dimension G mm	Dimension t mm	Dimension x mm	Dimension H mm	Dimension L mm	Max. tightening torque Nm
2056U M 12 FT	8 - 12	20	16	34	M6	1.5	5	42	34	3
2056U M 16 FT	12 - 16	20	20	34	M6	1.5	5	46	34	3
2056U M 22 FT	16 - 22	20	27	34	M6	1.5	5	53	34	3
2056U M 28 FT	22 - 28	20	33	34	M6	2	5	59	34	3
2056U M 34 FT	28 - 34	20	39	34	M8	2	5.5	67	37.5	5
2056U M 40 FT	34 - 40	20	45	34	M8	2	5.5	73	37.5	5
2056U M 46 FT	40 - 46	20	51	40	M8	2	5.5	79	37.5	5
2056U M 52 FT	46 - 52	20	57	40	M8	2	6.5	85	38.5	5
2056U M 58 FT	52 - 58	23	64	40	M8	2.5	6.5	91	38.5	5
2056U M 64 FT	58 - 64	23	70	40	M8	2.5	6.5	97	38.5	5
2056U M 70 FT	64 - 70	23	76	40	M8	2.5	6.5	103	38.5	5
2056U M 76 FT	70 - 76	25	82	40	M8	2.5	6.5	110	45.5	5



## Clamp clip, single, plastic pressure trough FT



Type	Clamping range D mm	Pack. pcs	Weight		Item No.
			kg/100 pcs	pcs.	
2056F 12 FT	8 - 12	100	3.700		1169122
2056F 16 FT	12 - 16	100	3.900		1169165
2056F 22 FT	16 - 22	100	4.500		1169211
2056F 28 FT	22 - 28	100	6.000		1169289
2056F 34 FT	28 - 34	100	8.740		1169343
2056F 40 FT	34 - 40	100	8.500		1169408
2056F 46 FT	40 - 46	100	10.600		1169467
2056F 52 FT	46 - 52	100	11.700		1169521
2056F 58 FT	52 - 58	50	13.050		1169580
2056F 64 FT	58 - 64	50	14.800		1169645

St Steel

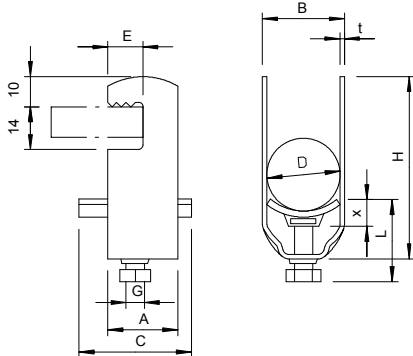
FT Hot-dip galvanised

Suitable for flat, bracket and U irons of 4–12 mm material thickness.

Clip and bolt made of hot-dip galvanised steel.

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

### Dimensions



Type	Clamping range D mm	Dimension A mm	Dimension B mm	Dimension C mm	Dimension G mm	Dimension t mm	Dimension x mm	Dimension H mm	Dimension L mm	Max.
										tightening torque Nm
2056F 12 FT	8 - 12	23	16	34	M6	1.5	5	43	34	3
2056F 16 FT	12 - 16	23	20	34	M6	1.5	5	47	34	3
2056F 22 FT	16 - 22	23	27	34	M6	1.5	5	54	34	3
2056F 28 FT	22 - 28	23	33	34	M6	2	5	60	34	3
2056F 34 FT	28 - 34	23	39	34	M8	2	5.5	68	37.5	5
2056F 40 FT	34 - 40	23	45	34	M8	2	5.5	74	37.5	5
2056F 46 FT	40 - 46	25	51	40	M8	2	5.5	80	37.5	5
2056F 52 FT	46 - 52	25	57	40	M8	2	6.5	86	38.5	5
2056F 58 FT	52 - 58	25	64	40	M8	2.5	6.5	92	38.5	5
2056F 64 FT	58 - 64	25	70	40	M8	2.5	6.5	98	38.5	5



### Clamp clip, double, plastic pressure trough



Type	Clamping range D mm	Pack. pcs	Weight kg/100 pcs	Item No.
2056F 2 12 FT	8 - 12	50	4.250	1170120
2056F 2 16 FT	12 - 16	50	4.550	1170163
2056F 2 22 FT	16 - 22	50	5.200	1170228
2056F 2 28 FT	22 - 28	50	7.900	1170287
2056F 2 34 FT	28 - 34	50	9.900	1170341
2056F 2 40 FT	34 - 40	50	10.672	1170406
2056F 2 46 FT	40 - 46	50	12.050	1170465
2056F 2 52 FT	46 - 52	50	16.600	1170511

St Steel

FT Hot-dip galvanised

Suitable for flat, bracket and U irons of 4–12 mm material thickness.

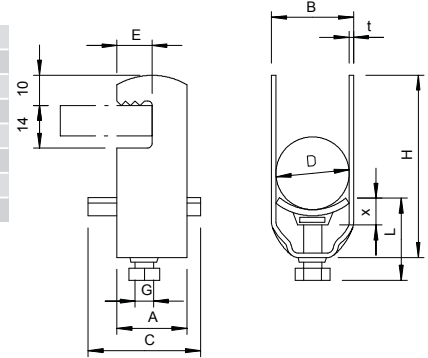
Clip and bolt made of hot-dip galvanised steel.

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



#### Dimensions

Type	Clamping range D mm	Dimension A mm	Dimension B mm	Dimension C mm	Dimension G mm	Dimension t mm	Dimension x mm	Dimension H mm	Dimension L mm	Max. tightening torque Nm
2056F 2 12 FT	8 - 12	23	16	34	M6	1.5	4.5	57	25	3
2056F 2 16 FT	12 - 16	23	20	34	M6	1.5	4.5	65	25	3
2056F 2 22 FT	16 - 22	23	27	34	M6	1.5	5	78	38	3
2056F 2 28 FT	22 - 28	23	33	34	M6	2	5	90	38	3
2056F 2 34 FT	28 - 34	23	39	34	M8	2	6	104	33	5
2056F 2 40 FT	34 - 40	23	45	34	M8	2	6	116	33	5
2056F 2 46 FT	40 - 46	25	51	40	M8	2	6	128	33	5
2056F 2 52 FT	46 - 52	25	57	40	M8	2	6.5	140	33	5



### Clamp clip, single, metal pressure trough



Type	Clamping range D mm	Pack. pcs	Weight kg/100 pcs	Item No.
2056F M 12 FT	8 - 12	100	3.700	1156802
2056F M 16 FT	12 - 16	100	3.900	1156810
2056F M 22 FT	16 - 22	100	4.550	1156829
2056F M 28 FT	22 - 28	100	6.000	1156837

St Steel

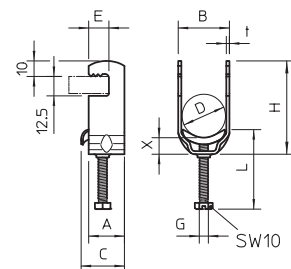
FT Hot-dip galvanised

The metal troughs have strongly rounded edges on all sides, so that there is no risk of cable damage.



#### Dimensions

Type	Clamping range D mm	Dimension A mm	Dimension B mm	Dimension C mm	Dimension G mm	Dimension t mm	Dimension x mm	Dimension H mm	Dimension L mm	Max. tightening torque Nm
2056F M 12 FT	8 - 12	23	16	34	M6	1.5	5	43	34	3
2056F M 16 FT	12 - 16	23	20	34	M6	1.5	5	47	34	3
2056F M 22 FT	16 - 22	23	27	34	M6	1.5	5	54	34	3
2056F M 28 FT	22 - 28	23	33	34	M6	2	5	60	34	3



## Clamp clip, single, plastic pressure trough



Type	Clamping range D mm	Pack. pcs	Weight kg/100 pcs.	Item No.
2056W 12 FT	8 - 12	100	4.450	1180126
2056W 16 FT	12 - 16	100	4.890	1180169
2056W 22 FT	16 - 22	100	5.700	1180223
2056W 28 FT	22 - 28	100	7.800	1180282
2056W 34 FT	28 - 34	100	9.400	1180347
2056W 40 FT	34 - 40	100	10.000	1180401
2056W 46 FT	40 - 46	100	12.800	1180460
2056W 52 FT	46 - 52	100	13.600	1180525
2056W 58 FT	52 - 58	50	17.100	1180584
2056W 64 FT	58 - 64	50	18.600	1180649
2056W 70 FT	64 - 70	50	18.500	1180681
2056W 22 A2	16 - 22	50	5.700	1185438
2056W 28 A2	22 - 28	50	7.800	1185446
2056W 34 A2	28 - 34	50	9.400	1185454
2056W 40 A2	34 - 40	25	10.000	1185462
2056W 46 A2	40 - 46	25	12.800	1185470
2056W 52 A2	46 - 52	25	13.600	1185489
2056W 58 A2	52 - 58	25	17.100	1185497
2056W 22 ALU	16 - 22	50	1.900	1184024
2056W 28 ALU	22 - 28	50	2.550	1184032
2056W 34 ALU	28 - 34	50	3.200	1184040
2056W 40 ALU	34 - 40	50	3.500	1184059
2056W 46 ALU	40 - 46	50	4.550	1184067
2056W 52 ALU	46 - 52	50	4.800	1184075
2056W 58 ALU	52 - 58	50	5.850	1184083
2056W 64 ALU	58 - 64	50	6.450	1184091

St Steel Alu Aluminium V2A Stainless steel, A2

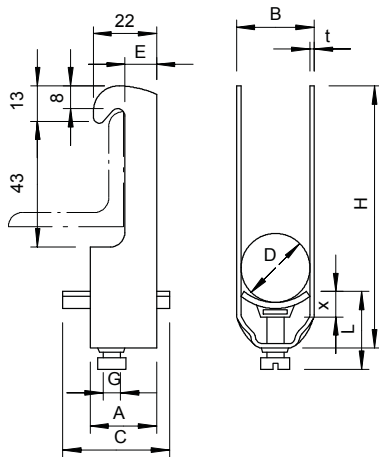
FT Hot-dip galvanised

Suitable for angular steel of 40 mm limb length.

Clip and bolt made of hot-dip galvanised steel.

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

### Dimensions



Type	Clamping range D mm	Dimension A mm	Dimension B mm	Dimension C mm	Dimension G	Dimension t mm	Dimension x mm	Dimension H mm	Dimension L mm	Max. tightening torque Nm
2056W 12 FT	8 - 12	23	16	34	M6	1.5	5	74	27	3
2056W 16 FT	12 - 16	23	20	34	M6	1.5	5	78	27	3
2056W 22 FT	16 - 22	23	27	34	M6	1.5	5	85	27	3
2056W 28 FT	22 - 28	23	33	34	M6	2	5	91	27	3
2056W 34 FT	28 - 34	23	39	34	M8	2	5.5	99	31.5	5
2056W 40 FT	34 - 40	23	45	34	M8	2	5.5	105	31.5	5
2056W 46 FT	40 - 46	25	51	40	M8	2	5.5	111	31.5	5
2056W 52 FT	46 - 52	25	57	40	M8	2	6.5	117	32.5	5
2056W 58 FT	52 - 58	25	64	40	M8	2.5	6.5	123	32.5	5
2056W 64 FT	58 - 64	25	70	40	M8	2.5	6.5	130	32.5	5
2056W 70 FT	64 - 70	25	76	40	M8	2.5	6.5	136	32.5	5

## Clamp clip, double, plastic pressure trough



Type	Clamping range D mm	Pack. pcs	Weight kg/100 pcs	Item No.
2056W 2 16 FT	12 - 16	50	5.700	1181165
2056W 2 22 FT	16 - 22	50	7.050	1181211
2056W 2 28 FT	22 - 28	50	10.350	1181289
2056W 2 34 FT	28 - 34	50	11.600	1181343
2056W 2 40 FT	34 - 40	25	12.700	1181408
2056W 2 46 FT	40 - 46	25	16.750	1181467
2056W 2 52 FT	46 - 52	25	18.200	1181521
2056W 2 58 FT	52 - 58	25	23.000	1181580

St Steel

FT Hot-dip galvanised

Suitable for angular steel of 40 mm limb length.

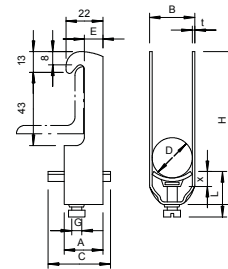
Clip and bolt made of hot-dip galvanised steel.

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



Type	Clamping range D mm	Dimension A mm	Dimension B mm	Dimension C mm	Dimension G mm	Dimension t mm	Dimension x mm	Dimension H mm	Dimension L mm	Max. tightening torque Nm
2056W 2 16 FT	12 - 16	23	20	34	M6	1.5	5	96	34	3
2056W 2 22 FT	16 - 22	23	27	34	M6	1.5	5	109	34	3
2056W 2 28 FT	22 - 28	23	33	34	M6	2	5	121	34	3
2056W 2 34 FT	28 - 34	23	39	34	M8	2	5.5	135	37.5	5
2056W 2 40 FT	34 - 40	23	45	34	M8	2	5.5	147	37.5	5
2056W 2 46 FT	40 - 46	25	51	40	M8	2	5.5	160	37.5	5
2056W 2 52 FT	46 - 52	25	57	40	M8	2	6.5	172	38.5	5
2056W 2 58 FT	52 - 58	25	64	40	M8	2.5	6.5	185	38.5	5

### Dimensions



## Clamp clip, single, metal pressure trough, round profiles/pipes



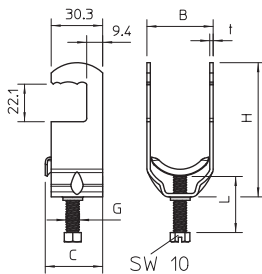
Type	Clamping range D mm	Pack. pcs	Weight kg/100 pcs	Item No.
2056RS M 16 FT	12 - 16	100	4.000	1158305
2056RS M 22 FT	16 - 22	100	5.200	1158309
2056RS M 28 FT	22 - 28	100	7.500	1158313
2056RS M 34 FT	28 - 34	100	9.000	1158317
2056RS M 40 FT	34 - 40	100	10.000	1158321
2056RS M 46 FT	40 - 46	100	10.900	1158325
2056RS M 52 FT	46 - 52	100	12.200	1158329
2056RS M 58 FT	52 - 58	100	15.000	1158333
2056RS M 64 FT	58 - 64	100	16.500	1158337

St Steel

FT Hot-dip galvanised

Suitable for all round profile irons or pipes of diameters to 22 mm; clip, pressure trough and bolt made of steel, hot-dip galvanised; the metal troughs have strongly rounded edges on all sides, so that no damage to the cables need be feared.

### Dimensions



Type	Clamping range D mm	Dimension B mm	Dimension C mm	Dimension G mm	Dimension t mm	Dimension H mm	Dimension L mm	Max. tightening torque Nm
2056RS M 16 FT	12 - 16	20	28	M6	1.5	57	26	3
2056RS M 22 FT	16 - 22	27	28	M6	1.5	69	30	3
2056RS M 28 FT	22 - 28	33	28	M6	2	73	38	3
2056RS M 34 FT	28 - 34	39	33	M8	2	79	33	5
2056RS M 40 FT	34 - 40	45	33	M8	2	86	33	5
2056RS M 46 FT	40 - 46	51	33	M8	2	92	33	5
2056RS M 52 FT	46 - 52	57	33	M8	2	97	33	5
2056RS M 58 FT	52 - 58	64	33	M8	2.5	103	33	5
2056RS M 64 FT	58 - 64	70	33	M8	2.5	112	33	5

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



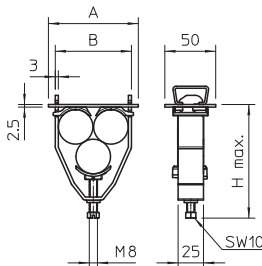
Type	Clamping range D mm	Pack. pcs	Weight kg/100 pcs	Item No.
2056 E 31 FT	28 - 31	25	19.500	1174606
2056 E 37 FT	34 - 37	25	24.600	1174614
2056 E 44 FT	40 - 44	25	28.300	1174630

St Steel

FT Hot-dip galvanised

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

### Dimensions



Type	Clamping range D mm	Dimension A mm	Dimension B mm	Dimension H mm	Max. tightening torque Nm
2056 E 31 FT	28 - 31	83	69	107	5
2056 E 37 FT	34 - 37	95	81	118	5
2056 E 44 FT	40 - 44	109	95	143	5



## Clamp clip, U base, 3x single-wire connection



Type	Clamping range D mm	Pack. pcs	Weight kg/100 pcs	Item No.
2056U-E28 FT	25 - 28	25	20.000	1174509
2056U-E31 FT	28 - 31	25	19.500	1174541
2056U-E34 FT	31 - 34	25	23.000	1174517
2056U-E37 FT	34 - 37	25	24.600	1174568
2056U-E40 FT	37 - 40	25	26.000	1174525
2056U-E44 FT	40 - 44	25	28.300	1174576

Sl Steel

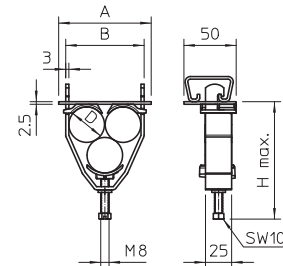
FT Hot-dip galvanised

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



### Dimensions

Type	Clamping range D mm	Dimension A mm	Dimension B mm	Dimension H mm	Max. tightening torque Nm
2056U-E28 FT	25 - 28	77	63	101	5
2056U-E31 FT	28 - 31	83	69	107	5
2056U-E34 FT	31 - 34	89	75	112	5
2056U-E37 FT	34 - 37	95	81	118	5
2056U-E40 FT	37 - 40	101	87	123	5
2056U-E44 FT	40 - 44	109	95	143	5



## Bundle clip



Type	Height x Width mm	Dimension H mm	Dimension B mm	Pack. pcs	Weight kg/100 pcs	Item No.
2056 B 35 FT	35 x 50	35	50	100	16.000	1194054
2056 B 40 FT	40 x 100	40	100	50	32.700	1194046
2056 B 80 FT	80 x 100	80	100	25	38.300	1194089
2056 B 80 A2	80 x 100	80	100	25	38.300	1194372

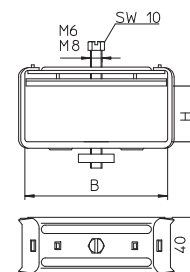
Sl Steel V2A Stainless steel, A2

FT Hot-dip galvanised

Clip and bolt made of hot-dip galvanised steel, countersunk head bolt made of rustproof stainless steel, slide nut made of electrogalvanised stainless steel.



### Dimensions

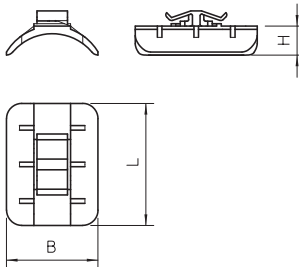


## Counter-trough, plastic 16–17 mm slot width



Type	Clamping range D mm	Dimension L mm	Dimension B mm	Dimension H mm	Colour	Pack. pcs	Weight kg/100 pcs	Item No.
2058 12 LGR	8 - 12	34	12	5.4	Light grey	100	0.146	1195123
2058 16 LGR	12 - 16	34	15.5	6	Light grey	100	0.162	1195166
2058 22 LGR	16 - 22	34	20	6.7	Light grey	100	0.172	1195220
2058 28 LGR	22 - 28	34	25	8.1	Light grey	100	0.200	1195271
2058 34 LGR	28 - 34	40	30	9.5	Light grey	100	0.302	1195344
2058 40 LGR	34 - 40	40	35	10.8	Light grey	100	0.331	1195409
2058 46 LGR	40 - 46	40	40	12.2	Light grey	100	0.385	1195468
2058 52 LGR	46 - 52	40	42	11	Light grey	100	0.391	1195522
2058 58 LGR	52 - 58	40	45	11.5	Light grey	100	0.430	1195581
2058 64 LGR	58 - 64	40	48	11.8	Light grey	50	0.432	1195646
2058 70 LGR	64 - 70	40	50	11.5	Light grey	50	0.453	1195700

### Dimensions



PP Polypropylene

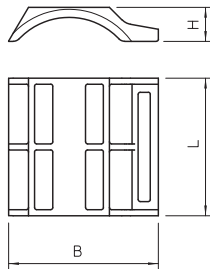
Area of use rails with slot width 16–17 mm. Counter-trough is clamped into the slot width as protection between the cable and rail.

## Counter-trough, plastic, universal



Type	Clamping range D mm	Dimension L mm	Dimension B mm	Dimension H mm	Pack. pcs	Weight kg/100 pcs	Item No.
2058FW 12 LGR	8 - 12	34	16.5	5	100	0.102	1197126
2058FW 16 LGR	12 - 16	34	20	5	100	0.131	1197169
2058FW 22 LGR	16 - 22	34	25.5	5.8	100	0.164	1197223
2058FW 28 LGR	22 - 28	34	31.5	7.2	100	0.206	1197282
2058FW 34 LGR	28 - 34	34	37	8.4	100	0.289	1197347
2058FW 40 LGR	34 - 40	34	42.5	9.7	100	0.311	1197401
2058FW 46 LGR	40 - 46	40	48	11	100	0.416	1197460
2058FW 52 LGR	46 - 52	40	51.5	9.8	100	0.420	1197525
2058FW 58 LGR	52 - 58	40	57	10.6	100	0.444	1197584
2058FW 64 LGR	58 - 64	40	61.2	10.4	50	0.500	1197649
2058FW 70 LGR	64 - 70	40	67.2	10.4	50	0.536	1197703
2058FW 76 LGR	70 - 76	40	71.4	11	25	0.637	1197762
2058FW 82 LGR	76 - 82	40	75.6	11	25	0.641	1197827
2058FW 90 LGR	82 - 90	40	82.6	12	25	0.870	1197908
2058FW 100 LGR	90 - 100	40	89.5	12	25	0.900	1197991

### Dimensions



PP Polypropylene

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

## Counter-trough, metal, universal



Type	Clamping range D mm	Dimension L mm	Dimension B mm	Dimension H mm	Pack. pcs	Weight kg/100 pcs	Item No.
2058FW M 12 FT	8 - 12	35	17.5	6.5	100	0.940	1199846
2058FW M 16 FT	12 - 16	35	21.5	7.7	100	1.100	1199854
2058FW M 22 FT	16 - 22	35	28	8.8	100	1.200	1199862
2058FW M 28 FT	22 - 28	35	34	10.4	100	1.400	1199870
2058FW M 34 FT	28 - 34	35	40	13.5	100	2.160	1199889
2058FW M 40 FT	34 - 40	35	46	15.1	100	2.490	1199897
2058FW M 46 FT	40 - 46	35	52	17.2	100	3.270	1199900
2058FW M 52 FT	46 - 52	35	58	19.2	50	3.460	1199919
2058FW M 58 FT	52 - 58	35	64	20.3	50	3.620	1199927
2058FW M 64 FT	58 - 64	35	70	22.4	50	4.280	1199935
2058FW M 70 FT	64 - 70	35	76	24.5	50	4.590	1199943
2058FW M 8 A2	4 - 8	35	13	2.25	100	0.249	1197096
2058FW M 12 A2	8 - 12	35	17.5	6.5	100	0.567	1197134
2058FW M 16 A2	12 - 16	35	21.5	7.7	100	0.770	1197177
2058FW M 22 A2	16 - 22	35	28	8.8	100	1.062	1197231
2058FW M 28 A2	22 - 28	35	34	10.4	100	1.356	1197290
2058FW M 34 A2	28 - 34	35	40	13.5	100	2.187	1197355
2058FW M 40 A2	34 - 40	35	46	15.1	100	2.576	1197428
2058FW M 46 A2	40 - 46	35	52	17.2	100	3.005	1197479
2058FW M 52 A2	46 - 52	35	58	19.2	50	3.425	1197533
2058FW M 58 A2	52 - 58	35	64	20.3	50	3.776	1197592
2058FW M 64 A2	58 - 64	35	70	24.5	50	4.203	1197606

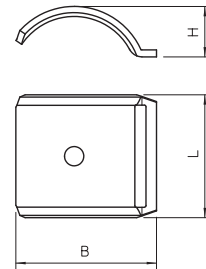
St Steel V2A Stainless steel, A2

FT Hot-dip galvanised

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



Dimensions



## Double trough, plastic



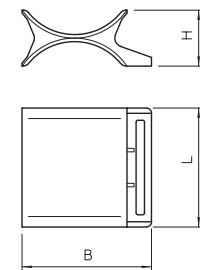
Type	Clamping range D mm	Dimension L mm	Dimension B mm	Dimension H mm	Colour	Pack. pcs	Weight kg/100 pcs	Item No.
2058 2 12 LGR	8 - 12	34	16.5	7	Light grey	50	0.126	1196111
2058 2 16 LGR	12 - 16	34	20	9	Light grey	50	0.166	1196162
2058 2 22 LGR	16 - 22	34	25.5	11	Light grey	50	0.210	1196227
2058 2 28 LGR	22 - 28	34	31.5	14	Light grey	50	0.278	1196286
2058 2 34 LGR	28 - 34	34	37	16	Light grey	50	0.336	1196340
2058 2 40 LGR	34 - 40	34	42	18	Light grey	50	0.427	1196405
2058 2 46 LGR	40 - 46	40	47.5	20	Light grey	50	0.676	1196464
2058 2 52 LGR	46 - 52	40	53	22	Light grey	50	0.775	1196529
2058 2 58 LGR	52 - 58	40	58	24	Light grey	50	0.832	1196588

PP Polypropylene

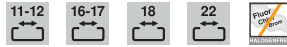
Clamp clips allows both cables and pipes to be fastened to profile rails. The clamp clips are hooked into the appropriate slot widths of the profile rails and the component to be fastened is pressed onto the profile rail with the pressure trough of the clamp clip and held in place.



Dimensions



## Double trough, metal

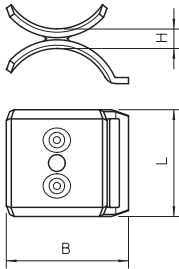


Type	Clamping range D mm	Dimension L mm	Dimension B mm	Dimension H mm	Pack. pcs	Weight kg/100 pcs.	Item No.
2058 M2 12 FT	8 - 12	35	17.6	5.4	100	1.360	1199706
2058 M2 16 FT	12 - 16	35	21.5	5.4	50	1.800	1199714
2058 M2 22 FT	16 - 22	35	28	5.4	50	2.300	1199722
2058 M2 28 FT	22 - 28	35	34	5.4	50	3.100	1199730
2058 M2 34 FT	28 - 34	35	40	6.4	50	3.760	1199749
2058 M2 40 FT	34 - 40	35	46	6.4	50	5.600	1199757
2058 M2 22 A2	16 - 22	35	28	5.4	50	2.300	1196597
2058 M2 28 A2	22 - 28	35	34	5.4	50	3.100	1196599
2058 M2 34 A2	28 - 34	35	40	6.4	50	3.760	1196601

St Steel V2A Stainless steel, A2

FT Hot-dip galvanised

### Dimensions



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







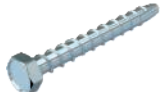







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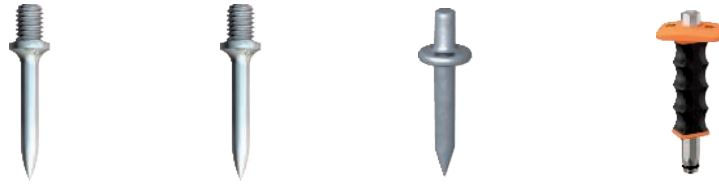
## Screw-in and knock-in systems

	<b>Steel nail</b>	475
	<b>OBO anchor</b>	477
	<b>Anchor technology, light-duty fastening</b>	478
	<b>Heavy-duty anchor</b>	482
	<b>Bolt tie</b>	491
	<b>Special application</b>	492
	<b>Wood screws</b>	495
	<b>Metric bolts and accessories</b>	499

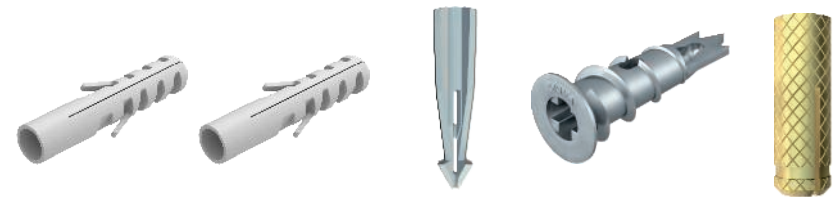
**Steel nails**



**OBO anchors**



**Anchor technology, light-duty fastening**



**Anchor technology, heavy-duty fastening**



**Bolt tie**



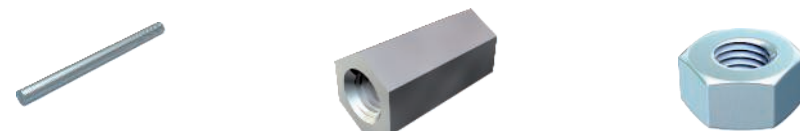
**Special applications**



**Wood screws**



**Metric bolts and accessories**



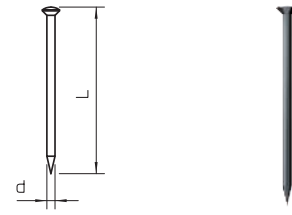
## Steel nail

Type	Dimension L mm	Dimension d mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>362 16 BK</b>	16	2	100	0.044	<b>3353168</b>
<b>362 18 BK</b>	18	2	100	0.049	<b>3353184</b>
<b>362 23 BK</b>	23	2	100	0.061	<b>3353230</b>
<b>362 30 BK</b>	30	2	100	0.080	<b>3353303</b>
<b>362 40 BK</b>	40	2	100	0.103	<b>3353400</b>
<b>362 50 BK</b>	50	2	100	0.128	<b>3353508</b>
<b>362 60 BK</b>	60	2	100	0.150	<b>3353605</b>

St. Steel

BK Bright

Hardened steel, blue tempered, with bead head.



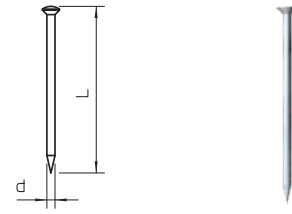
## Steel nail

Type	Dimension L mm	Dimension d mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>362 Z 16 G</b>	16	2	100	0.044	<b>3354164</b>
<b>362 Z 18 G</b>	18	2	100	0.049	<b>3354180</b>
<b>362 Z 23 G</b>	23	2	100	0.061	<b>3354237</b>
<b>362 Z 30 G</b>	30	2	100	0.078	<b>3354296</b>
<b>362 Z 40 G</b>	40	2	100	0.103	<b>3354407</b>
<b>362 Z 50 G</b>	50	2	100	0.128	<b>3354504</b>
<b>362 Z 60 G</b>	60	2	100	0.150	<b>3354601</b>

St. Steel

G Electrogalvanised

Hardened steel, electrogalvanised, with bead head.



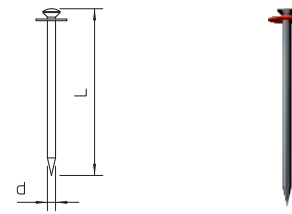
## Impu steel nail

Type	Dimension L mm	Dimension d mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>500 12</b>	12	2	100	0.040	<b>3360121</b>
<b>500 16</b>	16	2	100	0.046	<b>3360164</b>
<b>500 18</b>	18	2	100	0.055	<b>3360180</b>
<b>500 23</b>	23	2	100	0.062	<b>3360237</b>
<b>500 30</b>	30	2	100	0.081	<b>3360296</b>
<b>500 40</b>	40	2	100	0.108	<b>3360407</b>
<b>500 50</b>	50	2	100	0.128	<b>3360504</b>
<b>500 60</b>	60	2	100	0.150	<b>3360601</b>

St. Steel

BK Bright

Hardened steel, blue tempered, with vulcanised fibre disc.



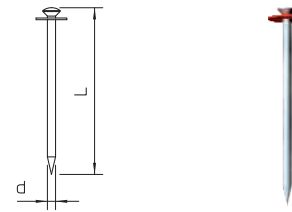
## Impu steel nail

Type	Dimension L mm	Dimension d mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>500 Z 12</b>	12	2	100	0.040	<b>3361128</b>
<b>500 Z 16</b>	16	2	100	0.046	<b>3361160</b>
<b>500 Z 18</b>	18	2	100	0.058	<b>3361187</b>
<b>500 Z 23</b>	23	2	100	0.068	<b>3361233</b>
<b>500 Z 30</b>	30	2	100	0.085	<b>3361306</b>
<b>500 Z 40</b>	40	2	100	0.108	<b>3361403</b>
<b>500 Z 50</b>	50	2	100	0.128	<b>3361500</b>
<b>500 Z 60</b>	60	2	100	0.150	<b>3361608</b>

St. Steel

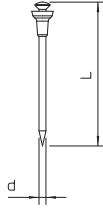
G Electrogalvanised

Hardened steel, electrogalvanised, with vulcanised fibre disc.



## Steel nails

### Siko nail



Type	Dimension L mm	Dimension d mm	Pack. pcs	Weight kg/100 pcs.	Item No.
511 12	12	2	100	0.042	3366111
511 16	16	2	100	0.049	3366162
511 18	18	2	100	0.052	3366189
511 23	23	2	100	0.064	3366235
511 30	30	2	100	0.081	3366308
511 40	40	2	100	0.104	3366405
511 50	50	2	100	0.134	3366502
511 60	60	2	100	0.154	3366596

Sl Steel

BK Bright

Hardened steel, blue tempered, with polyethylene safety head.

### Hook nail



Type	Dimension L mm	Dimension d mm	Dimension B mm	Pack. pcs	Weight kg/100 pcs.	Item No.
1101 3x40	40	3	18	250	0.290	3341046
1101 3x50	50	3	18	250	0.344	3341054
1101 3x60	60	3	18	250	0.404	3341062
1101 3x70	70	3	18	250	0.466	3341070
1101 3.4x50	50	3.4	18	250	0.451	3341496
1101 3.4x60	60	3.4	18	250	0.548	3341607
1101 3.4x70	70	3.4	18	250	0.672	3341704
1101 3.4x80	80	3.4	18	250	0.682	3341801
1101 3.4x90	90	3.4	18	250	0.757	3341909
1101 3.4x100	100	3.4	18	250	0.820	3341992

Sl Steel

BK Bright

Steel, with 18 mm hook on the head.

### Hook nail



Type	Dimension L mm	Dimension d mm	Dimension B mm	Pack. pcs	Weight kg/100 pcs.	Item No.
1101 Z 40 G	40	3	18	250	0.288	3342042
1101 Z 50 G	50	3	18	250	0.360	3342050
1101 Z 60 G	60	3	18	250	0.404	3342069
1101 Z 70 G	70	3	18	250	0.474	3342077
1101 Z3.4x50 G	50	3.4	18	250	0.464	3342506
1101 Z3.4x60 G	60	3.4	18	250	0.548	3342603
1101 Z3.4x70 G	70	3.4	18	250	0.600	3342700
1101 Z3.4x80 G	80	3.4	18	250	0.674	3342808

Sl Steel

G Electrogalvanised

Steel, galvanised, with 18 mm hook on the head.

### Steel wall hook



Type	Dimension L mm	Dimension d mm	Dimension B mm	Pack. pcs	Weight kg/100 pcs.	Item No.
716 3X50 BK	50	3	18	100	0.415	3347052
716 3X60 BK	60	3	18	100	0.489	3347060
716 3X70 BK	70	3	18	100	0.553	3347079

Sl Steel

BK Bright

Steel, bright (St), hardened, blue tempered, made of square bar steel.

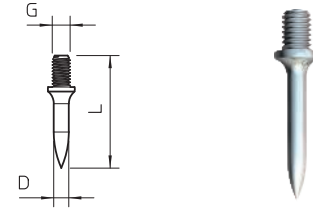
Type	Shank length mm	Dimension L mm	Dimension D Ø mm	Dimension G mm	Pack. pcs.	Weight kg/100 pcs.	Item No.
<b>903 15 G</b>	15	23	4	M6	100	0.330	<b>3100154</b>
<b>903 18 G</b>	18	26	4	M6	100	0.360	<b>3100189</b>
<b>903 25 G</b>	25	33	4	M6	100	0.404	<b>3100251</b>
<b>903 30 G</b>	30	38	4	M6	100	0.470	<b>3100308</b>
<b>903 40 G</b>	40	48	4	M6	100	0.571	<b>3100405</b>

**St** Steel

**G** Electrogalvanised

Hardened steel, electrogalvanised with M6 x 8 mm thread.

OBO anchor

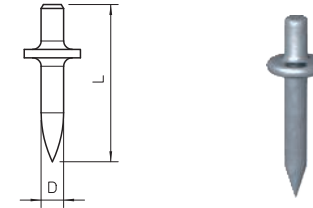


Type	Shank length mm	Dimension L mm	Dimension D Ø mm	Pack. pcs.	Weight kg/100 pcs.	Item No.
<b>903 RB 15</b>	15	21	4	200	0.295	<b>3105016</b>
<b>903 RB 18</b>	18	24	4	200	0.348	<b>3105024</b>
<b>903 RB 22</b>	22	30	4	200	0.325	<b>3105032</b>

**St** Steel

Hardened steel, shiny without thread.

OBO anchor

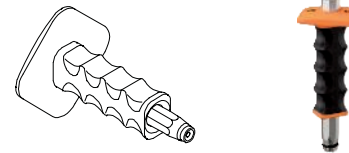


Flattener with hand protection

Type	Pack. pcs.	Weight kg/100 pcs.	Item No.
<b>915 RBS M4</b>	1	52.000	<b>3031500</b>

**St** Steel

Flattener with hand protection for OBO anchors 903/RB Ø 4 mm and also for OBO anchors 904 with M4 thread.



Type	Dimension L mm	Dimension D mm	Size	Pack. pcs.	Weight kg/100 pcs.	Item No.
<b>915 S M6</b>	135	14	M6	1	17.000	<b>3031012</b>

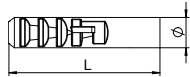
**St** Steel

Flattener for OBO anchors 903 with M6 thread.

Flattener



## Angler spreading anchor

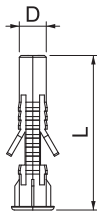


Type	Dowel Ø mm	Dimen- sion L mm	Wood screws Ø mm	Pull- out value N	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>910 N 5x25 GRW</b>	5	25	2,5-4	2100	100	0.051	<b>2349043</b>
<b>910 N 6x30 GRW</b>	6	30	3,5-5	3300	100	0.052	<b>2349051</b>
<b>910 N 6x60 GRW</b>	6	60	3,5-5	3300	100	0.079	<b>2349078</b>
<b>910 N 8x40 GRW</b>	8	40	4,5-6	4500	100	0.140	<b>2349086</b>
<b>910 N 10x50 GRW</b>	10	50	6-8	9400	50	0.306	<b>2349108</b>
<b>910 N 12x60 GRW</b>	12	60	8-10	11600	25	0.459	<b>2349124</b>

PA Polyamide

Required minimum bolt length = anchor length + component thickness + 1 x bolt Ø.  
Withdrawal force applies to wood screws of the largest bolt diameter in concrete of class B25.  
Our safety value recommendation: 5x

## Multipurpose anchor

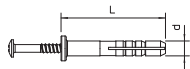


Type	Dowel Ø mm	Dimen- sion L mm	Wood screws Ø mm	Pull- out value N	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>910 MZ 5x25</b>	5	30	2,5-4	800	100	0.036	<b>2347523</b>
<b>910 MZ 6x35</b>	6	35	4-5	1000	100	0.063	<b>2347539</b>
<b>910 MZ 8x42</b>	8	50	5-6	1600	100	0.158	<b>2347547</b>
<b>910 MZ 10x60</b>	10	60	6-8	1900	50	0.276	<b>2347555</b>
<b>910 MZ 12x60</b>	12	60	8-10	2500	25	0.330	<b>2347570</b>

PA Polyamide

Also suitable as a cavity anchor, with collars to prevent slipping. 3 tabs take up the torque.  
Required minimum bolt length = anchor length + component thickness + 1 x bolt Ø.  
Withdrawal force applies to wood screws of the largest bolt diameter in concrete of class B25.  
Our safety value recommendation: 5x

## Knock-in anchor

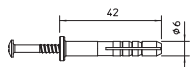


Type	Dowel Ø mm	Length mm	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>910 SD 5X35</b>	5	35	1200	100	0.360	<b>2351021</b>
<b>910 SD 6X35</b>	6	35	1200	100	0.310	<b>2351056</b>
<b>910 SD 6X40</b>	6	40	1000	100	0.555	<b>2351064</b>
<b>910 SD 8X55</b>	8	55	500	50	1.070	<b>2351099</b>

PA Polyamide

Knock-in anchor: steel, electrogalvanised and transparently passivated.

## Knock-in anchor



Type	Dowel Ø mm	Length mm	Shipping box pcs	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>910 SD-Q 6x40</b>	6	40	1200	100	0.480	<b>2351218</b>

PA Polyamide

Knock-in anchor for Quick clips type 2955.  
Knock-in anchor: steel, tempered, electrogalvanised and transparently passivated.



## Knock-in anchor

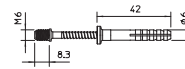


Type	Dowel		Shipping box pcs	Pack. pcs	Weight		Item No.
	Ø mm	Length mm			kg/100 pcs	pcs.	
<b>910 SDM M6</b>	6	40	1200	100	0.480		<b>2350807</b>

PA Polyamide

With M6 thread.

Knock-in anchor: steel, tempered, electrogalvanised and transparently passivated.



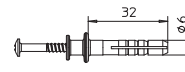
## Double-flange anchor



Type	Dowel		Bore hole depth mm	Shipping box pcs	Pack. pcs	Weight		Item No.
	Ø mm	Length mm				kg/100 pcs.	pcs.	
<b>910 DF 6x35</b>	6	35	40	1200	100	0.425		<b>2347407</b>

PA Polyamide

Knock-in anchor: steel, tempered, electrogalvanised and transparently passivated.



## Gas concrete anchor



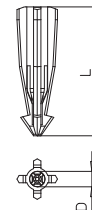
Type	Dimension D mm	Dimension L mm	Colour	Pack. pcs	Weight		Item No.
					kg/100 pcs.	pcs.	
<b>910 GD 6x35</b>	6	35	Light grey	100	0.094		<b>2347229</b>
<b>910 GD 8x50</b>	8	50	Light grey	50	0.263		<b>2347261</b>

PA Polyamide

The anchor can be knocked directly into the porous concrete (gas concrete resistance class G2).

With a resistance class of G4 or greater, a 5 or 6 mm hole should be pre-drilled.

Screw length: Component thickness + 40 mm (6 mm) / 55 mm (8 mm).



## Plasterboard anchor

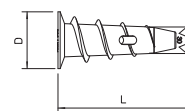
Type	Dimension D mm	Dimension L mm	Perm. load range, tension zone kN	Pack. pcs	Weight		Item No.
					kg/100 pcs.	pcs.	
<b>910 GKDM 12x30</b>	12	30	0.04	100	0.400		<b>3483214</b>

Zn Die-cast zinc

To fasten components to plasterboard or fibre composite plates.

Minimum plate thickness: 12 mm

for Ø 4.5 Golden Sprint or Sprint screws.



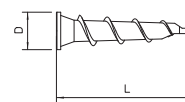
## Plasterboard anchor

Type	Dimension D mm	Dimension L mm	Perm. load range, tension zone kN	Pack. pcs	Weight		Item No.
					kg/100 pcs.	pcs.	
<b>910 GKSM 6x25</b>	7.5	26.4	0.04	100	0.160		<b>3483239</b>

Zn Die-cast zinc

To fasten components to plasterboard or fibre composite plates.

Min. plate thickness: 5 mm.



## Anchor, light-duty fastening

### Insulation plug

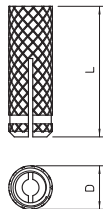


Type	Length mm	Dowel Ø mm	Wood screws Ø mm	Breaking load kN	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>Thermo 60</b>	63.5	9	4 - 5	0.05	10	0.658	<b>2347601</b>

PA Polyamide

Thermo insulation anchor for universal lightweight fastening in plastered heat composite systems. The self-tapping point makes pre-drilling almost superfluous.

### Brass spreading anchor

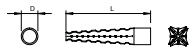


Type	Thread	Bore hole depth mm	Length mm	Bore hole Ø mm	Pull- out value N	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>865 M6x24</b>	M6	32	24	8	6000	100	0.442	<b>3483061</b>
<b>865 M8x30</b>	M8	41	30	11	7000	100	0.867	<b>3483088</b>
<b>865 M10x34</b>	M10	53	34	12	9000	100	1.315	<b>3483096</b>

CuZn Brass

Areas of application: full brick, concrete, wood. Ideally suited for areas exposed to high temperatures.

### Metal spreading anchor



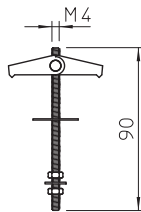
Type	Dimen- sion D mm	Dimen- sion L mm	Bore hole Ø mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>MD 5 GTP</b>	5	30	5 - 7	200	0.190	<b>3484602</b>
<b>MD 6 GTP</b>	6	32	7 - 9	100	0.250	<b>3484629</b>

St Steel

GTP Electrogalvanised, transparently passivated

Areas of application: gas concrete, lightweight concrete, Poroton, pumice, plaster, hollow brick and full brick. Can be knocked into porous concrete (gas concrete) of low resistance without drilling. Superbly suited for areas subjected to high temperatures.

### Sprung hinged anchor



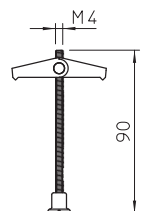
Type	Thread	Length mm	Bore hole Ø mm	Minimum cavity depth mm	Breaking load kN	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>450 M4x95 G</b>	M4	95	14	35	0.2	50	1.750	<b>3481611</b>

St Steel

G Electrogalvanised

With threaded rod, washer and hexagonal nut; brass axle.

### Sprung hinged anchor



Type	Thread	Length mm	Minimum cavity depth mm	Breaking load kN	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>451 M4x95 G</b>	M4	95	35	0.2	50	1.700	<b>3481662</b>

St Steel

G Electrogalvanised

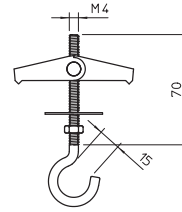
With threaded rod and slotted brass nut; brass axle.

**Sprung hinged anchor**

Type	Thread	Length mm	Bore hole Ø mm	Minimum cavity depth mm	Breaking load kN	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>452 M4x70 G</b>	M4	70	14	35	0.4	50	1.950	<b>3481778</b>

- St** Steel
- G** Electrogalvanised

With ceiling hook, washer and hexagonal nut; brass axle.

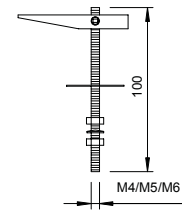


**Tilting anchor**

Type	Thread	Length mm	Bore hole Ø mm	Breaking load kN	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>458 M4x100 G</b>	M4	100	13	0.5	50	3.310	<b>3482154</b>
<b>456 M5x100 G</b>	M5	100	13	0.8	50	3.810	<b>3482103</b>
<b>453 M6x100 G</b>	M6	100	16	1.3	50	5.250	<b>3482014</b>

- St** Steel
- G** Electrogalvanised

Two washers and two hexagonal nuts, with threaded shank.

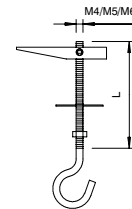


**Tilting anchor**

Type	Thread	Dimension L mm	Bore hole Ø mm	Hook-Ø mm	Breaking load kN	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>457 M4x55 G</b>	M4	55	13	14	0.25	50	3.250	<b>3482138</b>
<b>455 M5x65 G</b>	M5	65	13	16	0.4	50	3.850	<b>3482057</b>
<b>455 M5x100 G</b>	M5	100	13	16	0.4	50	4.250	<b>3482073</b>
<b>454 M6x100 G</b>	M6	100	16	16	0.8	25	6.000	<b>3482030</b>

- St** Steel
- G** Electrogalvanised

One washer and one hexagonal nut, with ceiling hook.  
Note: Reckon with 5x safety for luminaire suspensions.

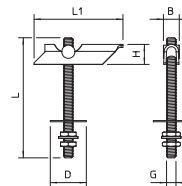


**Tilting anchor**

Type	Thread	Dimension L mm	Bore hole Ø mm	Breaking load kN	Minimum cavity depth mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>KD 8 100</b>	M8	100	22	2.4	75	25	11.200	<b>3482707</b>
<b>KD 10 100</b>	M10	100	25	2.4	75	25	11.200	<b>3482758</b>

- St** Steel
- G** Electrogalvanised

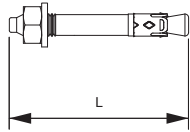
Including nut and large washer.  
The universal heavy-duty fastening for stressed concrete, hollow steel profiles, metal sheets and plates.  
Use: heating, ventilation and air conditioning technology, cooling systems, sprinkler systems, pipes, cable tracks, etc.  
\* Dependent on the thickness of the ceiling profile.



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Screw-in and knock-in systems

### Nail anchor N with thread



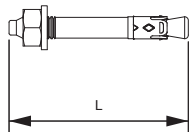
Type	Thread	Bore hole Ø mm	Bore hole depth mm	Clamping range mm	Dimension L mm	Pack. pcs.	Weight kg/100 pcs.	Item No.
<b>N 6-5-10/49</b>	M6	6	40	5 - 10	49	100	1.160	<b>3498396</b>

- Si** Steel
- G** Electrogalvanised

The nail anchor N can be used for multiple fastenings of non-load-bearing systems and in cracked and non-cracked concrete, thereby combining the benefits of a bolt tie with even easier mounting. The nail tie only needs to be hammered into the drill hole. It is not necessary to apply torque subsequently. When the load occurs, the nail tie spreads itself and bolts itself in the drill hole.

European technical approval ETA-11/0240, including characteristic values under fire exposure to fire resistance R 120.

### Nail anchor N with thread, V4A



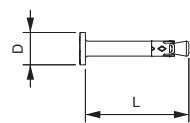
Type	Thread	Bore hole Ø mm	Bore hole depth mm	Fixture thickness mm	Dimension L mm	Pack. pcs.	Weight kg/100 pcs.	Item No.
<b>N 6-5/49 A4</b>	M6	6	40	5	49	50	1.200	<b>3498399</b>

**V4A** Stainless steel, A4

The nail anchor N can be used for multiple fastenings of non-load-bearing systems, indoors and outdoors, in cracked and non-cracked concrete, thereby combining the benefits of a bolt tie with an even easier mounting. The nail anchor only needs to be hammered into the drill hole. It is not necessary to apply torque subsequently. When the load occurs, the nail anchor spreads itself and bolts itself in the drill hole.

European technical approval ETA-11/0240, including characteristic values under fire exposure to fire resistance R 120.

### Nail anchor N-K with nail head



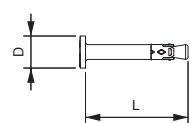
Type	Thread	Bore hole Ø mm	Bore hole depth mm	Clamping range mm	Dimension L mm	Dimension D mm	Pack. pcs.	Weight kg/100 pcs.	Item No.
<b>N-K 6-5-10/44</b>	M6	6	40	5 - 10	44	13	100	1.135	<b>3498390</b>

- Si** Steel
- G** Electrogalvanised

The nail anchor N-K can be used for multiple fastenings of non-load-bearing systems and in cracked and non-cracked concrete, thereby combining the benefits of a bolt tie with an even easier mounting. The nail anchor only needs to be hammered into the drill hole. When the load occurs, the nail anchor spreads itself and bolts itself in the drill hole.

European technical approval ETA-11/0240, including characteristic values under fire exposure to fire resistance R 120.

### Nail anchor N-K with nail head, V4A



Type	Thread	Bore hole Ø mm	Bore hole depth mm	Fixture thickness mm	Dimension L mm	Dimension D mm	Pack. pcs.	Weight kg/100 pcs.	Item No.
<b>N-K 6-5/44 A4</b>	M6	6	40	5	44	13	50	1.140	<b>3498393</b>

**V4A** Stainless steel, A4

The nail anchor N can be used for multiple fastenings of non-load-bearing systems, indoors and outdoors, in cracked and non-cracked concrete, thereby combining the benefits of a bolt tie with an even easier mounting. The nail anchor only needs to be hammered into the drill hole. When the load occurs, the nail anchor spreads itself and bolts itself in the drill hole.

European technical approval ETA-11/0240, including characteristic values under fire exposure to fire resistance R 120.

## Bolt tie BZ

Type	Thread	Dimension L mm	Weight		Item No.
			Pack. pcs.	kg/100 pcs.	
<b>BZ10-100-120/180</b>	M10	180	25	10.320	<b>3498342</b>
<b>BZ 12-15-35/110</b>	M12	110	25	10.320	<b>3498350</b>
<b>BZ 16-15-35/135</b>	M16	135	20	21.600	<b>3498360</b>

St Steel

G Electrogalvanised

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.

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.



Load

## Standard anchoring depth

Loads and Characteristics	Anchoring depth	Bore hole Ø	Bore hole depth	Clamping strength	Approved load area, tension zone
	mm	mm	mm	mm	kN
M 8-100/165	46	8	60	100	2.4
M 10-75/155	60	10	75	75	4.3
M 10-100/180	60	10	75	100	4.3
M 10-150/230	60	10	75	150	4.3
M 12-15/110	70	12	90	15	7.6
M 12-85/180	70	12	90	85	7.6
M 12-105/200	70	12	90	105	7.6
M 12-160/255	70	12	90	160	7.6
M 16-15/135	85	16	110	15	11.9

## Reduced anchoring depth

Loads and Characteristics	Anchoring depth	Bore hole Ø	Bore hole depth	Clamping strength	Approved load area, tension zone
	mm	mm	mm	mm	kN
M 8-111/165	35	8	49	111	2.4
M 10-95/155	40	10	55	95	3.6
M 10-120/180	40	10	55	120	3.6
M 12-35/110	50	12	70	35	6.1
M 12-105/180	50	12	70	105	6.1
M 12-125/200	50	12	70	125	6.1
M 16-35/135	65	16	90	35	9.0

## Bolt tie BZ

Type	Thread	Dimension L mm	Weight		Item No.
			Pack. pcs.	kg/100 pcs.	
<b>BZ12-15-35/110A4</b>	M12	110	25	10.440	<b>3498352</b>

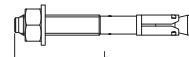
V4A Stainless steel, A4

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.

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.



Load

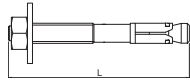
## Standard anchoring depth

Loads and Characteristics	embedment depth	Bore hole Ø	Bore hole depth	Clamping strength	Approved load area, tension zone
	mm	mm	mm	mm	kN
M 12-15/110	70	12	90	15	7,6

## Reduced anchoring depth

Loads and Characteristics	embedment depth	Bore hole Ø	Bore hole depth	Clamping strength	Approved load area, tension zone
	mm	mm	mm	mm	kN
M 12-35/110	50	12	70	35	6.1

## Bolt tie BZ-U



Type	Thread	Dimension L mm	Weight		Item No.
			Pack. pcs	kg/100 pcs.	
<b>BZ-U 8-10-21/75</b>	M8	75	50	3.460	<b>3498320</b>
<b>BZ-U 8-30-41/95</b>	M8	95	50	4.010	<b>3498326</b>
<b>BZ-U 10-10-30/90</b>	M10	90	50	6.720	<b>3498334</b>
<b>BZ-U10-30-50/110</b>	M10	110	25	7.900	<b>3498340</b>

**St** Steel

**G** Electrogalvanised

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. 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.

## Load

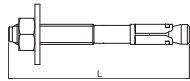
## Standard anchoring depth

Loads and Characteristics	Anchoring depth	Bore hole Ø	Bore hole depth	Clamping strength	Approved load area, tension zone
	mm	mm	mm	mm	kN
M 8-10/75	46	8	60	10	2,4
M 8-30/75	46	8	60	30	2,4
M 10-10/90	60	10	75	10	4,3
M 10-30/110	60	10	75	30	4,3

## Reduced anchoring depth

Loads and Characteristics	Anchoring depth	Bore hole Ø	Bore hole depth	Clamping strength	Approved load area, tension zone
	mm	mm	mm	mm	kN
M 8-21/75	35	8	49	21	2,4
M 8-41/95	35	8	49	41	2,4
M 10-30/90	40	10	55	30	3,6
M 10-50/110	40	10	55	50	3,6

## Bolt tie BZ-U



Type	Thread	Dimension L mm	Weight		Item No.
			Pack. pcs	kg/100 pcs.	
<b>BZ-U8-10-21/75A4</b>	M8	75	50	3.460	<b>3498322</b>
<b>BZ-U8-30-41/95A4</b>	M8	95	50	4.090	<b>3498328</b>
<b>BZU10-10-30/90A4</b>	M10	90	50	6.740	<b>3498336</b>

**V4A** Stainless steel, A4

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.

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.

## Load

## Standard anchoring depth

Loads and Characteristics	Anchoring depth	Bore hole Ø	Bore hole depth	Clamping strength	Approved load area, tension zone
	mm	mm	mm	mm	kN
M 8-10/75	46	8	60	10	2,4
M 8-30/75	46	8	60	30	2,4
M 10-10/90	60	10	75	10	4,3

## Reduced anchoring depth

Loads and Characteristics	Anchoring depth	Bore hole Ø	Bore hole depth	Clamping strength	Approved load area, tension zone
	mm	mm	mm	mm	kN
M 8-21/75	35	8	49	21	2,4
M 8-41/95	35	8	49	41	2,4
M 10-30/90	40	10	55	30	3,6



## Bolt tie BZ-IG

Type	Thread	Bore		Dimen- sion L mm	Perm. load range, tension zone kN	Pack. pcs.	Weight kg/100 pcs.	Item No.
		hole mm	depth mm					
<b>BZ-IG M 6-0</b>	M6	8	60	50	2	20	1.830	<b>3498370</b>
<b>BZ-IG M 8-0</b>	M8	10	75	62	3.6	20	3.333	<b>3498372</b>
<b>BZ-IG M 10-0</b>	M10	12	90	70	4.8	20	5.700	<b>3498374</b>
<b>BZ-IG M 12-0</b>	M12	16	105	86	7.9	20	12.000	<b>3498376</b>

St Steel

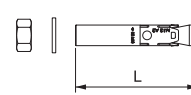
G Electrogalvanised

Bolt tie BZ-IG with internal thread 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. Undercutting the drill holes is not necessary.

The fastening of the component is possible with hexagonal screws or with countersunk head screws as well as with a system of nut and washer and a standard threaded rod.

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

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



## Tool set BZ-IG

Type	Thread	Pack. pcs.	Weight kg/100 pcs.	Item No.
<b>BZ-IGS M 8V</b>	M8	1	38.300	<b>3498382</b>
<b>BZ-IGS M 10V</b>	M10	1	40.600	<b>3498384</b>
<b>BZ-IGS M 12V</b>	M12	1	42.100	<b>3498386</b>

St Steel

G Electrogalvanised

Setting tool BZ-IGS for push-through installation.



## High-load anchor SZ-B

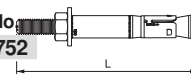
Type	Thread	Bore		Dimen- sion L mm	Fixture thickness mm	Perm. load range, tension zone kN	Pack. pcs.	Weight kg/100 pcs.	Item No.
		hole mm	depth mm						
<b>SZ-B 18/0x142</b>	M12	18	105	142	30	12.3	20	21.123	<b>3498752</b>

St Steel

G Electrogalvanised

The high-load anchor SZ is a heavy-duty push-through anchor system with a threefold expanding special sleeve which facilitates very high approved loads with small axial spacings and edge distances. The plastic press ring secures the permanent tightening of the fastening piece against the ground.

Due to the special design with an elongated thread and a shortened anchor sleeve, this special version is not approved to the European technical norm ETA.



## Drop-in anchor E

Type	Thread	Screw-in depth min.-max. mm	Bore		Dimen- sion L mm	Perm. load range, tension zone kN	Pack. pcs.	Weight kg/100 pcs.	Item No.
			hole mm	depth mm					
<b>E M 6x30</b>	M6	7 - 13	8	30	30	1.2	100	0.840	<b>3492900</b>
<b>E M 8x40</b>	M8	9 - 20	10	40	40	2	100	1.490	<b>3492910</b>
<b>E M 10x40</b>	M10	11 - 15	12	40	40	2	50	2.140	<b>3492920</b>
<b>E M 12x50</b>	M12	13 - 18	15	50	50	2.4	50	4.420	<b>3492930</b>

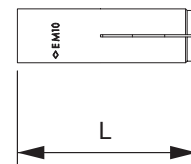
St Steel

G Electrogalvanised

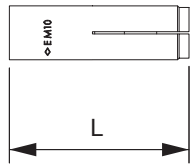
The drop-in anchor E can be used for single fixings in non-cracked concrete as well as for multiple fixings in cracked concrete of non-load-bearing systems.

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.

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.



## Drop-in anchor E A4



Type	Thread	Screw-in depth min.-max. mm	Bore hole Ø mm	Bore hole depth mm	Dimension L mm	Perm. load range, tension zone kN	Pack. pcs.	Weight kg/100 pcs.	Item No.
<b>E M 8x40 A4</b>	M8	9 - 20	10	40	40	2	50	1.490	<b>3492912</b>
<b>E M 10x40 A4</b>	M10	11 - 15	12	40	40	2	50	2.160	<b>3492922</b>
<b>E M 12x50 A4</b>	M12	13 - 18	15	50	50	2.4	50	4.380	<b>3492932</b>

V4A Stainless steel, A4

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.

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.

## Setting tool for drop-in anchor



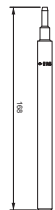
Type	Length mm	Thread	Pack. pcs.	Weight kg/100 pcs.	Item No.
<b>E-MSH 8x40</b>	235	M8	1	38.000	<b>3492970</b>
<b>E-MSH 10x40</b>	235	M10	1	45.000	<b>3492974</b>
<b>E-MSH 12x50</b>	235	M12	1	47.000	<b>3492978</b>

St Steel

G Electrogalvanised

Setting tool with hand protection for drop-in anchor of the type E.

## Setting tool for drop-in anchor



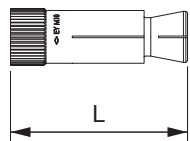
Type	Length mm	Thread	Pack. pcs.	Weight kg/100 pcs.	Item No.
<b>E-SW 6x30</b>	168	M6	1	51.000	<b>3492990</b>

St Steel

G Electrogalvanised

Setting tool for drop-in anchor of the type E. With the standard version there is no marking made on the anchor sleeve.

## Hollow core anchor Easy



Type	Thread	Bore hole Ø mm	Dimension L mm	Pack. pcs.	Weight kg/100 pcs.	Item No.
<b>Easy M8</b>	M8	12	44	25	1.500	<b>3498770</b>
<b>Easy M10</b>	M10	16	53	25	3.320	<b>3498774</b>
<b>Easy M12</b>	M12	18	58	25	4.230	<b>3498776</b>

St Steel

G Electrogalvanised

Hollow core anchor "Easy" for mounting in prestressed hollow concrete slabs. When the screw or the nut is tightened, the cone 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.

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.

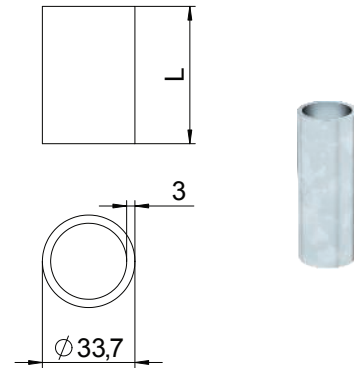
## Spacer sleeve for insulated ceilings

Type	Dimension L mm	Pack. pcs.	Weight		Item No.
			kg/100	pcs.	
DHI 050	50	30	11.600	7205900	
DHI 060	60	24	14.000	7205901	
DHI 070	70	20	16.200	7205902	
DHI 080	80	20	18.200	7205903	
DHI 090	90	14	20.800	7205904	
DHI 100	100	14	23.400	7205905	
DHI 110	110	12	24.600	7205906	
DHI 120	120	12	27.600	7205907	
DHI 130	130	12	30.400	7205908	
DHI 140	140	12	32.800	7205909	
DHI 150	150	12	35.000	7205910	

St Steel

FT Hot-dip galvanised

Spacer sleeve for mounting suspension components under insulated ceilings. They prevent the insulation from pushing in when the fastening screws are tightened.  
Burr arm, galvanised internally and externally.



## Injection mortar in cartridge, 280 ml

Type	Contents ml	Pack. pcs.	Weight		Item No.
			kg/100	pcs.	
VMU plus 280	280	1	56.000	3497800	

The injection mortar VMU is a 2-component mortar, which sticks the anchor rods and internal thread sleeves in concrete or masonry without any spreading pressure. Depending on the size of the means of fastening, loads of different magnitudes can be fastened to the anchor rods or internal thread sleeves.

The injection mortar possesses a European technical approval (ETA) for cracked and uncracked concrete, as well as for masonry of full or hollow brick. It is earthquake-proof according to performance category C1 and has fire protection approvals for concrete and masonry with a fire resistance class up to 120 minutes.



## Injection mortar in cartridge, 420 ml

Type	Contents ml	Pack. pcs.	Weight		Item No.
			kg/100	pcs.	
VMU plus 420	420	1	83.000	3497803	

Styrene-free, vinyl ester composite mortar for spread-free anchoring of high loads with threaded anchor rods. Coaxial cartridge, including one mixing tube, to be worked with the pressing gun, type VM-P 380 Profi.

European Technical Assessment for cracked and uncracked concrete, as well as for masonry of full and hollow brick. Earthquake-proof in concrete according to Category C1. Fire protection approval for concrete and masonry with fire resistance classes up to 120 minutes.

Substrate temperature during processing  $-10\text{ }^{\circ}\text{C}$  to  $+40\text{ }^{\circ}\text{C}$  (concrete), ambient temperature after complete hardening  $-40\text{ }^{\circ}\text{C}$  to  $+120\text{ }^{\circ}\text{C}$  (in concrete). If stored in a dark, cool and dry place, will keep for at least 18 months.



## Pressing gun for 280 ml and side-by-side cartridges

Type	Pack. pcs.	Weight		Item No.
		kg/100	pcs.	
VM-P 345 Profi	1	100.000	3497906	

Plastic

Side-by-side cartridge pistol for the use of standard cartridges or side-by-side cartridges. The cartridge pistol is suitable for the injection mortar VMU plus 280 and can also be used with normal 300 ml cartridges.



## Pressing gun for 10:1 coaxial cartridges

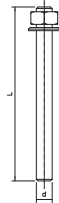


Type	Pack. pcs	Weight		Item No.
		kg/100 pcs.	pcs.	
<b>VM-P 380 Profi</b>	1	110.000		<b>3497909</b>

Plastic

High-quality 2-component cartridge pistol. The parallel movement of the outlet to the holding grip ensures easy working. Suitable for the injection mortar type VMU plus 420.

## Anchor rod



Type	Dimension L mm	Dimension d mm	Thread	SW mm	Pack. pcs	Weight		Item No.
						kg/100 pcs.	pcs.	
<b>VMU-A 8-110vz</b>	110	6.5	M8	13	10	4.350		<b>3497820</b>
<b>VMU-A 10-130vz</b>	130	8.2	M10	17	10	8.150		<b>3497822</b>
<b>VMU-A 10-150vz</b>	150	8.2	M10	17	10	9.150		<b>3497824</b>
<b>VMU-A 12-155vz</b>	155	9.9	M12	19	10	13.850		<b>3497826</b>
<b>VMU-A 8-110A4</b>	110	6.5	M8	13	10	4.350		<b>3497830</b>
<b>VMU-A 10-130A4</b>	130	8.2	M10	17	10	8.150		<b>3497832</b>
<b>VMU-A 12-155A4</b>	155	9.9	M12	19	10	13.850		<b>3497834</b>

**St** Steel

**G** Electrogalvanised

With the anchor rod and matching plastic wire sleeve, loads are fastened without spreading pressure in masonry walls using the VMS plus injection mortar. The system is also used for fastening in concrete ceilings. On concrete and full brick walls, the anchor rod is only mounted with the injection mortar VMU plus, without a wire sleeve.

The anchor rod VMU-A 8x110 mm is mounted using the plastic wire sleeve VM-SH 12x80 or VM-SH 16x85.

The anchor rod VMU-A 10x130 mm is mounted using the plastic wire sleeve VM-SH 16x85.

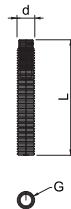
The anchor rod VMU-A 10x150 mm is mounted using the plastic wire sleeve VM-SH 16x85 or VM-SH 16x130.

The anchor rod VMU-A 12x155 mm is mounted using the plastic wire sleeve VM-SH 20x85.

Use the wire sleeve VMU-SH 12x50 for the anchor rods M6 (L=65 mm) and M8 (L=65 mm).

Should the anchor rods M8 (L=120 mm), M10 (L=140 mm), M10 (L=160 mm) and M12 (L=165 mm) be used, then use the wire sleeve VMU-SH 18x95.

## Metallic internal thread sleeve



Type	Pack. pcs	Weight		Item No.
		kg/100 pcs.	pcs.	
<b>VMU-IG M6x80vz</b>	10	3.350		<b>3497840</b>
<b>VMU-IG M8x80vz</b>	10	4.650		<b>3497842</b>
<b>VMU-IG M10x80vz</b>	10	8.750		<b>3497844</b>
<b>VMU-IG M6x80A4</b>	10	3.350		<b>3497850</b>
<b>VMU-IG M8x80A4</b>	10	4.650		<b>3497852</b>
<b>VMU-IG M10x80A4</b>	10	8.750		<b>3497854</b>

**St** Steel

**G** Electrogalvanised

With the internal thread sleeve and matching plastic wire sleeve, loads are fastened without spreading pressure in concrete and masonry walls and ceilings using the VMS plus injection mortar.

The internal thread sleeve VMU-IG M6x80 mm is mounted using the plastic wire sleeve VM-SH 16x85.

The internal thread sleeves VMU-IG M8x80 and VMU-IG M10x80 mm are mounted using the plastic wire sleeve VM-SH 20x85.

## Plastic wire sleeve

Type	Dimension L mm	Dimension d mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>VMU-SH 12x80</b>	80	12	10	0.200	<b>3497860</b>
<b>VMU-SH 16x85</b>	85	16	10	0.300	<b>3497862</b>
<b>VMU-SH 16x130</b>	130	16	10	0.400	<b>3497864</b>
<b>VMU-SH 20x85</b>	85	20	10	0.400	<b>3497866</b>

**PA** Polyamide

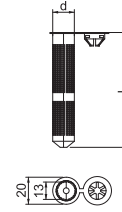
The plastic wire sleeve is a supplement to the anchor rod or internal thread sleeve and is used to mount loads on masonry.

The plastic wire sleeve VMU-SH 12x80 is mounted with the anchor rod VMU-A 8x110.

The plastic wire sleeve VMU-SH 16x85 is mounted with the anchor rods VMU-A 10x130 and VMU-A 10x150 or the internal thread sleeve VMU-IG M6x80.

The plastic wire sleeve VMU-SH 16x130 is mounted with the anchor rod VMU-A 10x150.

The plastic wire sleeve VMU-SH 20x85 is mounted with the anchor rod VMU-A 12x155 or the internal thread sleeve VMU-IG M8x80 and VMU-IG M10x80.

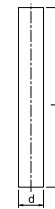


## Perforated sleeve, metal

Type	Dimension L mm	Dimension d mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>VM-SH 12x1000</b>	1000	12	1	6.000	<b>3497972</b>
<b>VM-SH 16x1000</b>	1000	16	1	7.000	<b>3497975</b>
<b>VM-SH 22x1000</b>	1000	22	1	10.000	<b>3497978</b>

**St** Steel

Metal wire sleeve for use in hollow brick and stones in combination with injection mortar system VMU plus.



## Blow pump for drill holes

Type	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>VM-AP 360</b>	1	27.000	<b>3497912</b>

Plastic

Manual pump with 750 ml air volume to blowing out drill holes according to anchor approval.



## Steel cleaning brush for drill holes

Type	Diameter mm	Length mm	Thread	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>RB 10 M 6</b>	10	130	M6	1	5.000	<b>3497870</b>
<b>RB 12 M 6</b>	12	140	M6	1	5.000	<b>3497872</b>
<b>RB 14 M 6</b>	14	180	M6	1	5.000	<b>3497874</b>
<b>RB 16 M 6</b>	16	190	M6	1	5.000	<b>3497875</b>
<b>RB 18 M 6</b>	18	200	M6	1	5.000	<b>3497876</b>
<b>RB 20 M 6</b>	20	220	M6	1	5.000	<b>3497878</b>

**St** Steel

**G** Electrogalvanised

Using the steel wire brush, drill holes must be mechanically cleaned according to the anchor approval, in order to obtain a clean adhesion substrate for the injection mortar.

The steel wire brush is fixed to an SDS adapter with a threaded connection, in order to clean the drill holes with a drill.



## SDS adapter

Type	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>RBL M6 SDS</b>	1	6.000	<b>3497915</b>

**St** Steel

Adapter for accepting steel wire brushes for mechanical cleaning of drill holes according to the anchor approval. Suitable for drills with SDS seat.



## Anchor, heavy-duty fastening

### SDS extension



Type	Length mm	Pack. pcs	Weight		Item No.
			kg/100 pcs.	pcs.	
<b>RB-L 150 M6</b>	150	1	9.700		<b>3497932</b>
<b>St</b> Steel					

Extension with internal and external M6 thread for the connection of the SDS adapter with steel wire brush in difficult to access drill holes.

### Mixer pipe for mortar cartridge



Type	Pack. pcs	Weight		Item No.
		kg/100 pcs.	pcs.	
<b>VM-X</b>	12	1.000		<b>3497981</b>
<b>PA</b> Polyamide				

Mixing tubes for attachment to the cartridges of the VMU plus injection mortar system.

### Extension pipe



Type	Length mm	Pack. pcs	Weight		Item No.
			kg/100 pcs.	pcs.	
<b>VM-XE 10/200</b>	200	12	1.000		<b>3497984</b>
<b>VM-XE 10/500</b>	500	10	2.000		<b>3497987</b>
<b>PA</b> Polyamide					

Fixed length extension tube for use on the mixing tube tips in the VMU plus injection mortar system.



## Screw anchor

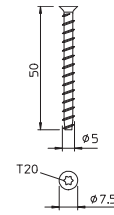


Type	Dimension mm	Anchor length mm	Bore hole Ø mm	Head Ø mm	Screw system	Pack. pcs	Weight		Item No.
							kg/100 pcs.	kg/100 pcs.	
<b>MMS-plus KS 5x50</b>	5 x 50	50	4	7.5	Torx	200	0.460		<b>3498204</b>

St Steel

G Electrogalvanised

Screw anchor with countersunk cone head for mounting without additional anchors. Drive T20, drill hole 4 mm. Fire protection-tested according to DIN 4102 for concrete and masonry. Fire resistance class to F90.



## Fire protection screw tie

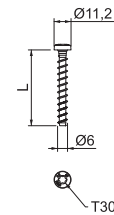


Type	Dimension mm	Anchor length mm	Bore hole Ø mm	Head Ø mm	Screw system	Pack. pcs	Weight		Item No.
							kg/100 pcs.	kg/100 pcs.	
<b>MMS-plus 6X50</b>	6 x 50	50	5	11.2	Torx	100	1.000		<b>3498108</b>

St Steel

G Electrogalvanised

Fire protection bolt tie with pan head for direct installation without additional anchors. Drive T30, drill hole 5 mm. Tested anchor according to ETAG 001 - Part 3. Fire resistance class to R120 for concrete and masonry.



## Bolt tie

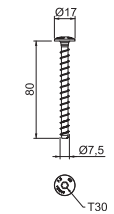


Type	Dimension mm	Anchor length mm	Bore hole Ø mm	Head Ø mm	Screw system	Pack. pcs	Weight		Item No.
							kg/100 pcs.	kg/100 pcs.	
<b>MMS-plus 7.5X80</b>	7,5 x 80	80	6	13.2	Torx	50	1.600		<b>3498272</b>

St Steel

G Electrogalvanised

Fire protection bolt tie with pan head for direct mounting without anchors. Drive T40, drill hole 6 mm. Tested anchor according to ETAG 001 - Part 3. Fire resistance class to R120 for concrete and masonry.



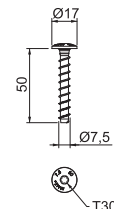
## Fire protection screw tie

Type	Dimension mm	Anchor length mm	Bore hole Ø mm	Head Ø mm	Screw system	Pack. pcs	Weight		Item No.
							kg/100 pcs.	kg/100 pcs.	
<b>MMS-plus 7.5X50</b>	7,5 x 50	50	6	17	Torx	100	1.500		<b>3498261</b>

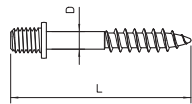
St Steel

G Electrogalvanised

Fire protection bolt tie with large pan head for direct mounting without additional anchors. Drive T30, drill hole 6 mm. Tested anchor according to ETAG 001 - Part 3. Fire resistance class to R120 for concrete and masonry.



### Screw-in anchor with M6 thread



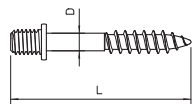
Type	Dimen- sion D mm	Dimen- sion L mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>985 M6 25</b>	4.3	25	100	0.412	<b>3133028</b>
<b>985 M6 35</b>	4.3	35	100	0.533	<b>3133036</b>

**St** Steel

**G** Electrogalvanised

With wood screw shank and M6 thread.

### Screw-in anchor with M8 thread



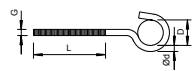
Type	Dimen- sion D mm	Dimen- sion L mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>985 M8 35</b>	5.2	35	100	1.288	<b>3133230</b>

**St** Steel

**G** Electrogalvanised

With wood screw shank and M8 thread.

### Ceiling hook



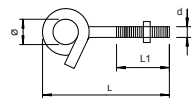
Type	Dimen- sion L mm	Breaking load kN	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>867 M5X125 G</b>	90	0.4	100	1.730	<b>3470148</b>
<b>867 M6X 95 G</b>	55	0.8	100	2.095	<b>3470210</b>
<b>867 M6X125 G</b>	85	0.8	100	2.760	<b>3470237</b>

**St** Steel

**G** Electrogalvanised

Ceiling hook with long metric thread.

### Ceiling hook



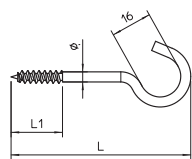
Type	Thread	Dimen- sion d mm	Dimen- sion L mm	Dimen- sion L1 mm	Dimen- sion d Ø mm	Washer Ø mm	Breaking load kN	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>948 TG6</b>	M6	6	70	46	13	18	1	25	5.000	<b>3453820</b>

**St** Steel

**G** Electrogalvanised

Tightly wound ceiling hook. Including two large washers and nuts.

### Ceiling hook



Type	Material	Ø mm	Dimen- sion L mm	Dimen- sion L1 mm	Breaking load kN	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>915 3.9x50 G</b>	Steel	3.9	50	20	0.15	100	0.724	<b>3450058</b>
<b>915 3.9x60 G</b>	Steel	3.9	60	20	0.15	100	0.800	<b>3450066</b>
<b>915 3.9x70 G</b>	Steel	3.9	70	20	0.15	100	0.879	<b>3450074</b>
<b>915 3.9x80 G</b>	Steel	3.9	80	20	0.15	100	0.913	<b>3450082</b>
<b>915 3.9x90 G</b>	Steel	3.9	90	20	0.15	100	1.076	<b>3450090</b>
<b>915 3.9x100 G</b>	Steel	3.9	100	20	0.15	100	1.187	<b>3450104</b>
<b>915 4.3x120 G</b>	Steel	4.3	120	24	0.2	100	1.662	<b>3450120</b>

**St** Steel

**G** Electrogalvanised

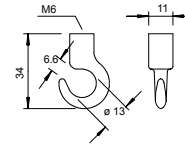
Ceiling hook with rolled wood screw thread.

Type	Thread	Breaking load kN	Pack. pcs	Weight kg/100 pcs	Item No.
<b>2081 M6 G</b>	M6	1.35	100	1.257	<b>3460169</b>

St Steel

G Electrogalvanised

Ceiling hook with metric internal thread.



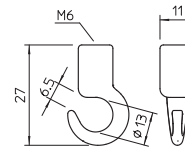
### Ceiling hook

Type	Thread	Breaking load kN	Pack. pcs	Weight kg/100 pcs	Item No.
<b>2081 K M6</b>	M6	1.6	100	0.899	<b>3460061</b>

St Steel

G Electrogalvanised

Ceiling hook with metric internal thread.



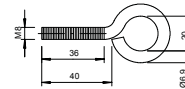
### Frame eyelet

Type	Thread	Length mm	Breaking load kN	Pack. pcs	Weight kg/100 pcs	Item No.
<b>869 M8X40 G</b>	M8	70	2	25	3.540	<b>3472086</b>

St Steel

G Electrogalvanised

Frame eyelet M8 x 40 mm.



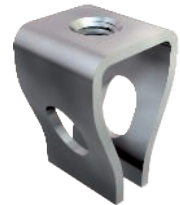
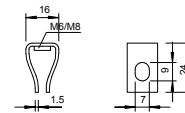
### Rabitz coupler

Type	Thread	Breaking load kN	Pack. pcs	Weight kg/100 pcs	Item No.
<b>2083 M6 G</b>	M6	4.5	100	1.090	<b>3462064</b>
<b>2083 M8 G</b>	M8	5.5	100	1.090	<b>3462080</b>

St Steel

G Electrogalvanised

Rabitz coupler with metric thread.



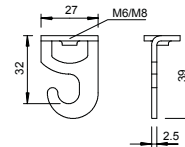
### TS ceiling hook

Type	Thread	Breaking load kN	Pack. pcs	Weight kg/100 pcs	Item No.
<b>2989 M6 G</b>	M6	1.5	50	2.540	<b>3460762</b>
<b>2989 M8 G</b>	M8	1.5	50	2.540	<b>3460789</b>

St Steel

G Electrogalvanised

TS ceiling hook with metric thread.



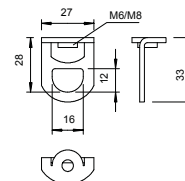
### TS suspension eyelet

Type	Thread	Breaking load kN	Pack. pcs	Weight kg/100 pcs	Item No.
<b>2990 M6 G</b>	M6	3.5	50	2.320	<b>3462862</b>
<b>2990 M8 G</b>	M8	3.5	50	2.320	<b>3462889</b>

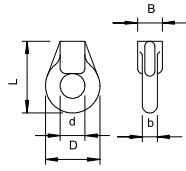
St Steel

G Electrogalvanised

Suspension eyelet with interior thread.



## Ring eyelet



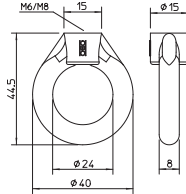
Type	Thread	Breaking load kN	Weight		Item No.
			Pack. pcs	kg/100 pcs.	
<b>2084 M6 G</b>	M6	1.15	100	2.200	<b>3463567</b>
<b>2084 M8 G</b>	M8	1.15	100	2.100	<b>3463583</b>
<b>2084 K M6</b>	M6	1.15	100	1.500	<b>3463060</b>

Zn Die-cast zinc

G Electrogalvanised

Ring eyelet with metric internal thread.

## Suspension eyelet



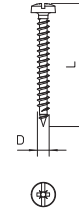
Type	Thread	Breaking load kN	Weight		Item No.
			Pack. pcs	kg/100 pcs.	
<b>2085 M6 G</b>	M6	1.1	50	3.900	<b>3464067</b>
<b>2085 M8 G</b>	M8	1.1	50	3.700	<b>3464083</b>

Zn Die-cast zinc

G Electrogalvanised

Suspension eyelet with metric thread.

## GOLDEN SPRINT, with Philips screw



Type	Dimension L mm	Dimension D mm	Head Ø mm	Pack. pcs	Weight	
					kg/100	Item No.
4758 3.5x15	15	3.5	6.5	200	0.070	3195007
4758 3.5x20	20	3.5	6.5	200	0.090	3195015
4758 3.5x25	25	3.5	6.5	200	0.120	3195023
4758 3.5x30	30	3.5	6.5	200	0.163	3195031
4758 3.5x35	35	3.5	6.5	200	0.170	3195058
4758 3.5x40	40	3.5	6.5	200	0.208	3195066
4758 3.5x45	45	3.5	6.5	200	0.220	3195074
4758 3.5x50	50	3.5	6.5	200	0.240	3195082
4758 4.0x15	15	4	7.5	200	0.100	3195201
4758 4.0x20	20	4	7.5	200	0.140	3195228
4758 4.0x25	25	4	7.5	200	0.177	3195236
4758 4.0x30	30	4	7.5	200	0.220	3195244
4758 4.0x35	35	4	7.5	200	0.250	3195252
4758 4.0x40	40	4	7.5	200	0.270	3195260
4758 4.0x45	45	4	7.5	200	0.280	3195279
4758 4.0x50	50	4	7.5	200	0.310	3195287
4758 4.5x25	25	4.5	8.2	200	0.237	3195422
4758 4.5x30	30	4.5	8.2	200	0.290	3195430
4758 4.5x35	35	4.5	8.2	200	0.300	3195449
4758 4.5x40	40	4.5	8.2	200	0.310	3195457
4758 4.5x45	45	4.5	8.2	200	0.350	3195465
4758 4.5x50	50	4.5	8.2	200	0.393	3195473
4758 5.0x30	30	5	9.5	200	0.376	3195635
4758 5.0x35	35	5	9.5	200	0.415	3195643
4758 5.0x40	40	5	9.5	200	0.454	3195651
4758 5.0x45	45	5	9.5	200	0.493	3195678
4758 5.0x50	50	5	9.5	200	0.533	3195686
4758 5.0x60	60	5	9.5	200	0.600	3195694
4758 6.0x30	30	6	12	200	0.600	3195910
4758 6.0x40	40	6	12	200	0.720	3195929
4758 6.0x50	50	6	12	200	0.830	3195937
4758 6.0x60	60	6	12	200	0.960	3195945

St. Steel

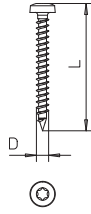
GGP Electrogalvanised, yellow passivated

Hardened steel, electrogalvanised and yellow passivated, as well as Hostaflon-coated, pan head with combined Philips and slotted head (Pozidrive size 2 except Ø 6 mm Pozidrive size 3).

The use of Sprint screws leads to considerably reduced screw-in times compared with standard screws. This noticeable advantage comes from the point with the first thread, which leads on to the double thread beyond.

Areas of use: wood, chipboard, Rigips panels, plastic anchors.

## GOLDEN SPRINT, with Torx



Type	Dimension L mm	Dimension D mm	Head Ø mm	Pack. pcs	Weight kg/100 pcs.	Item No.
4758T 3.5x15	15	3.5	6.5	200	0.070	3198016
4758T 3.5x20	20	3.5	6.5	200	0.110	3198018
4758T 3.5x25	25	3.5	6.5	200	0.133	3198020
4758T 3.5x30	30	3.5	6.5	200	0.163	3198022
4758T 3.5x35	35	3.5	6.5	200	0.170	3198024
4758T 3.5x40	40	3.5	6.5	200	0.208	3198026
4758T 4.0x15	15	4	7.5	200	0.120	3198030
4758T 4.0x20	20	4	7.5	200	0.159	3198032
4758T 4.0x25	25	4	7.5	200	0.187	3198034
4758T 4.0x30	30	4	7.5	200	0.214	3198036
4758T 4.0x35	35	4	7.5	200	0.246	3198038
4758T 4.0x40	40	4	7.5	200	0.265	3198040
4758T 4.0x45	45	4	7.5	200	0.290	3198042
4758T 4.0x50	50	4	7.5	200	0.323	3198044
4758T 4.5x30	30	4.5	8.2	200	0.260	3198054
4758T 4.5x35	35	4.5	8.2	200	0.300	3198056
4758T 4.5x40	40	4.5	8.2	200	0.329	3198058
4758T 4.5x45	45	4.5	8.2	200	0.355	3198060
4758T 4.5x50	50	4.5	8.2	200	0.393	3198062
4758T 5.0x30	30	5	9.5	200	0.370	3198073
4758T 5.0x35	35	5	9.5	200	0.410	3198075
4758T 5.0x40	40	5	9.5	200	0.450	3198077
4758T 5.0x45	45	5	9.5	200	0.490	3198079
4758T 5.0x50	50	5	9.5	200	0.530	3198081

**St** Steel

**GGP** Electrogalvanised, yellow passivated

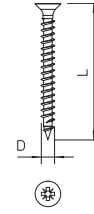
Hardened steel, electrogalvanised and yellow passivated, as well as Hostafon-coated, pan head with T bit (Allen head), sizes Ø 3 mm T10, Ø 3.5 mm T15, Ø 4 and 4.5 mm T20, Ø 5 mm T25.

The use of Sprint screws leads to considerably reduced screw-in times compared with standard screws. This noticeable advantage comes from the point with the first thread, which leads on to the double thread beyond.

Areas of use: wood, chipboard, Rigips panels, plastic anchors.



## Sprint screw, with Philips slot



Type	Dimension L mm	Dimension D mm	Head Ø mm	Pack. pcs	Weight kg/100 pcs.	Item No.
4759 3.5x25	25	3.5	6.5	200	0.105	3192113
4759 3.5x30	30	3.5	6.5	200	0.120	3192121
4759 3.5x35	35	3.5	6.5	200	0.140	3192148
4759 3.5x40	40	3.5	6.5	200	0.160	3192156
4759 3.5x45	45	3.5	6.5	200	0.180	3192164
4759 3.5x50	50	3.5	6.5	200	0.205	3192172
4759 4.0x25	25	4	7.5	200	0.153	3192210
4759 4.0x30	30	4	7.5	200	0.167	3192229
4759 4.0x35	35	4	7.5	200	0.192	3192237
4759 4.0x40	40	4	7.5	200	0.210	3192245
4759 4.0x45	45	4	7.5	200	0.236	3192253
4759 4.0x50	50	4	7.5	200	0.262	3192261
4759 4.5x30	30	4.5	8.3	200	0.237	3192334
4759 4.5x35	35	4.5	8.3	200	0.270	3192342
4759 4.5x40	40	4.5	8.3	200	0.300	3192350
4759 4.5x45	45	4.5	8.3	200	0.320	3192369
4759 4.5x50	50	4.5	8.3	200	0.363	3192377
4759 5.0x30	30	5	9.2	200	0.304	3192415
4759 5.0x35	35	5	9.2	200	0.356	3192423
4759 5.0x40	40	5	9.2	200	0.380	3192431
4759 5.0x45	45	5	9.2	200	0.430	3192458
4759 5.0x50	50	5	9.2	200	0.480	3192466
4759 6.0x40	40	6	11	200	0.570	3192628
4759 6.0x50	50	6	11	200	0.680	3192636
4759 6.0x60	60	6	11	200	0.790	3192644

**St** Steel

**GGP** Electrogalvanised, yellow passivated

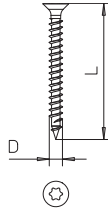
Hardened steel, electrogalvanised and yellow passivated, as well as Hostaflon-coated, counter-sunk head with Philips head (Pozidrive size 2 except Ø 6 mm Pozidrive size 3).

The use of Sprint screws leads to considerably reduced screw-in times compared with standard screws. This noticeable benefit is achieved by the point with the first thread, which leads onto the double thread beyond.

Areas of use: wood, chipboard, Rigips panels, plastic anchors.



## Sprint screw, with Torx



Type	Dimension L mm	Dimension D mm	Head Ø mm	Pack. pcs	Weight kg/100 pcs.	Item No.
4759T 3.0x15	15	3	5.6	200	0.048	3198193
4759T 3.0x25	25	3	5.6	200	0.085	3198197
4759T 3.0x30	30	3	5.6	200	0.097	3198199
4759T 3.5x15	15	3.5	6.5	200	0.070	3198219
4759T 3.5x20	20	3.5	6.5	200	0.094	3198221
4759T 3.5x25	25	3.5	6.5	200	0.106	3198223
4759T 3.5x30	30	3.5	6.5	200	0.126	3198225
4759T 3.5x35	35	3.5	6.5	200	0.138	3198227
4759T 3.5x40	40	3.5	6.5	200	0.163	3198229
4759T 3.5x50	50	3.5	6.5	200	0.205	3198231
4759T 4.0x15	15	4	7.5	200	0.120	3198237
4759T 4.0x20	20	4	7.5	200	0.126	3198239
4759T 4.0x25	25	4	7.5	200	0.151	3198241
4759T 4.0x30	30	4	7.5	200	0.176	3198243
4759T 4.0x35	35	4	7.5	200	0.197	3198245
4759T 4.0x40	40	4	7.5	200	0.226	3198247
4759T 4.0x45	45	4	7.5	200	0.244	3198249
4759T 4.0x50	50	4	7.5	200	0.275	3198251
4759T 4.5x30	30	4.5	8.2	200	0.214	3198260
4759T 4.5x35	35	4.5	8.2	200	0.265	3198262
4759T 4.5x40	40	4.5	8.2	200	0.271	3198264
4759T 4.5x45	45	4.5	8.2	200	0.308	3198266
4759T 4.5x50	50	4.5	8.2	200	0.340	3198268
4759T 5.0x30	30	5	9.2	200	0.304	3198276
4759T 5.0x35	35	5	9.2	200	0.330	3198278
4759T 5.0x40	40	5	9.2	200	0.380	3198280
4759T 5.0x45	45	5	9.2	200	0.430	3198282
4759T 5.0x50	50	5	9.2	200	0.480	3198284

St Steel

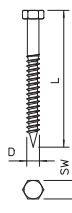
GGP Electrogalvanised, yellow passivated

Hardened steel, electrogalvanised and yellow passivated, as well as Hostaflon-coated, counter-sunk head with T bit (Allen head), sizes Ø 3 mm T10, Ø 3.5 mm T15, Ø 4 and 4.5 mm T20, Ø 5 mm T25.

The use of Sprint screws leads to considerably reduced screw-in times compared with standard screws. This noticeable benefit is achieved by the point with the first thread, which leads onto the double thread.

Areas of use: wood, chipboard, Rigips panels, plastic anchors.

## Hexagonal wood screw DIN 571



Type	Dimension L mm	Dimension D mm	SW mm	Pack. pcs	Weight kg/100 pcs.	Item No.
HHWS 6x40 G	40	6	10	50	0.825	3188043
HHWS 6x50 G	50	6	10	50	0.960	3188051
HHWS 6x60 G	60	6	10	50	1.120	3188078
HHWS 6x80 G	80	6	10	50	1.375	3188094
HHWS 8x40 G	40	8	13	50	1.560	3188140
HHWS 8x50 G	50	8	13	50	1.820	3188159
HHWS 8x60 G	60	8	13	50	2.100	3188167
HHWS 8x70 G	70	8	13	50	2.360	3188175
HHWS 8x80 G	80	8	13	50	2.650	3188183
HHWS 8x100 G	100	8	13	50	3.200	3188205
HHWS 10x60 G	60	10	17	25	3.650	3188256
HHWS 10x70 G	70	10	17	25	4.050	3188272
HHWS 10x80 G	80	10	17	25	4.510	3188280
HHWS 10x100 G	100	10	17	25	5.400	3188302
HHWS 12x70 G	70	12	19	20	5.750	3188361
HHWS 12x80 G	80	12	19	20	6.430	3188388

St Steel

G Electrogalvanised

Hexagonal screw to DIN 571 with wood thread. Suitable for anchors, type 910.

## Threaded rod

Type	Thread	Dimension d mm	Dimension L mm	Pack. pcs	Weight kg/100 pcs.	Item No.
TR M6 1M G	M6	6	1000	10	18.300	3141047
TR M8 1M G	M8	8	1000	10	30.000	3141128
TR M10 1M G	M10	10	1000	10	49.000	3141209
TR M12 1M G	M12	12	1000	10	62.000	3141306
TR M6 2M G	M6	6	2000	10	36.600	3141048
TR M8 2M G	M8	8	2000	10	60.000	3141136
TR M10 2M G	M10	10	2000	10	98.000	3141140
TR M12 2M G	M12	12	2000	10	140.000	3141144

St Steel

G Electrogalvanised

Threaded rod to DIN 976.



## Threaded rod A2

Type	Thread	Dimension d mm	Dimension L mm	Pack. pcs	Weight kg/100 pcs.	Item No.
TR M6 1M A2	M6	6	1000	10	18.300	3141327
TR M8 1M A2	M8	8	1000	10	30.000	3141310
TR M10 1M A2	M10	10	1000	10	49.000	3141312
TR M12 1M A2	M12	12	1000	10	70.000	3141314
TR M6 2M A2	M6	6	2000	10	36.600	3141328
TR M8 2M A2	M8	8	2000	10	60.000	3141330
TR M10 2M A2	M10	10	2000	10	98.000	3141339
TR M12 2M A2	M12	12	2000	10	140.000	3141316
TR M6 1M A4	M6	6	1000	50	18.300	3141482
TR M8 1M A4	M8	8	1000	50	30.000	3141492
TR M10 1M A4	M10	10	1000	25	49.000	3141502
TR M12 1M A4	M12	12	1000	20	70.000	3141512
TR M6 2M A4	M6	6	2000	25	36.600	3141484
TR M8 2M A4	M8	8	2000	25	60.000	3141494
TR M10 2M A4	M10	10	2000	20	98.000	3141504
TR M12 2M A4	M12	12	2000	10	140.000	3141514

V2A Stainless steel, A2 V4A Stainless steel, A4

Threaded rod to DIN 976.



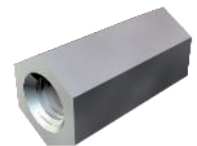
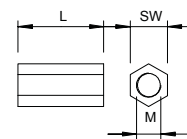
## Spacer sleeve

Type	Thread	Dimension L mm	SW mm	Pack. pcs	Weight kg/100 pcs.	Item No.
965 M6X20 G	M6	20	10	100	0.900	3415031
965 M6X25 G	M6	25	10	100	1.000	3415066
965 M6X30 G	M6	30	10	100	1.200	3415082
965 M6X40 G	M6	40	10	100	1.500	3415104
965 M6X50 G	M6	50	10	100	2.000	3415120
965 M8X20 G	M8	20	13	100	1.200	3415147
965 M8X30 G	M8	30	13	100	1.800	3415163

Zn Die-cast zinc

G Electrogalvanised

Continuous internal thread.



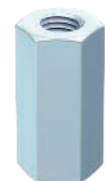
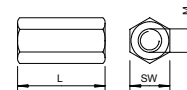
## Connection sleeve

Type	Thread	Dimension L mm	SW mm	Pack. pcs	Weight kg/100 pcs.	Item No.
CSTR M8 G	M8	30	13	50	2.000	6410081
CSTR M10 G	M10	40	17	50	6.000	6410103
CSTR M12 G	M12	40	19	25	7.000	6410111

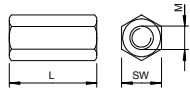
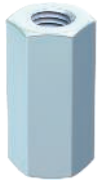
St Steel

G Electrogalvanised

Connection sleeve with continuous internal thread.



### Connection sleeve

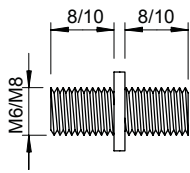


Type	Thread	Dimension		Pack.	Weight		Item No.
		L mm	SW mm		pcs	kg/100 pcs.	
<b>CSTR M8 A2</b>	M8	30	13	50	2.000		<b>6410154</b>
<b>CSTR M10 A2</b>	M10	40	17	50	6.000		<b>6410162</b>

V2A Stainless steel, A2

Connection sleeve with continuous internal thread.

### Double nipple



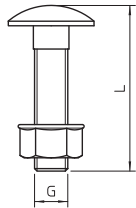
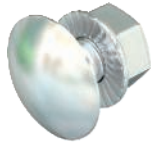
Type	Thread	Thread length mm	Pack.	Weight		Item No.
				pcs	kg/100 pcs.	
<b>3100 M6 G</b>	M6	8	100	0.355		<b>3131068</b>
<b>3100 M8 G</b>	M8	10	100	0.680		<b>3131084</b>

St Steel

G Electrogalvanised

Double nipple with metric thread.

### Truss-head bolt with combination nut, V2A

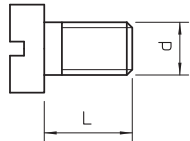


Type	Dimension mm	Dimension D mm	Dimension L mm	Pack.	Weight		Item No.
					pcs	kg/100 pcs.	
<b>FRSB M8x35 A2</b>	M8 x 35	8	35	50	2.570		<b>3175608</b>
<b>FRSB M10x20 A2</b>	M10 x 20	10	20	50	3.000		<b>3175620</b>
<b>FRSB M10x25 A2</b>	M10 x 25	10	25	50	3.700		<b>3175625</b>

V2A Stainless steel, A2

Truss-head bolt with square neck and combination nut.

### Cylinder head bolt



Type	Thread	Length mm	Pack.	Weight		Item No.
				pcs	kg/100 pcs.	
<b>341 M6x10 G</b>	M6	10	100	0.392		<b>3153096</b>
<b>341 M6x16 G</b>	M6	16	100	0.479		<b>3153150</b>
<b>341 M6x20 G</b>	M6	20	100	0.569		<b>3153207</b>

St Steel

G Electrogalvanised

Cylinder head bolt according to ISO 1207 with metric thread

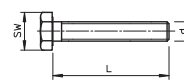
## Hexagonal bolt ISO 4017

Type	Thread	Dimension mm	Dimension L mm	Dimension d mm	SW mm	Pack. pcs.	Weight kg/100 pcs.	Item No.
HHS M6x16 G	M6	M6 x 16	16	6	10	100	0.494	3156141
HHS M6x20 G	M6	M6 x 20	20	6	10	100	0.580	3156206
HHS M6x25 G	M6	M6 x 25	25	6	10	100	0.665	3156257
HHS M6x30 G	M6	M6 x 30	30	6	10	100	0.751	3156303
HHS M6x35 G	M6	M6 x 35	35	6	10	100	0.837	3156354
HHS M6x40 G	M6	M6 x 40	40	6	10	100	0.923	3156400
HHS M8x20 G	M8	M8 x 20	20	8	13	100	1.230	3158209
HHS M8x25 G	M8	M8 x 25	25	8	13	100	1.390	3158241
HHS M8x30 G	M8	M8 x 30	30	8	13	100	1.550	3158306
HHS M8x40 G	M8	M8 x 40	40	8	13	100	1.870	3158403
HHS M8x50 G	M8	M8 x 50	50	8	13	100	2.180	3158500
HHS M10x20 G	M10	M10 x 20	20	10	17	100	2.320	3160203
HHS M10x30 G	M10	M10 x 30	30	10	17	100	2.820	3160300
HHS M10x40 G	M10	M10 x 40	40	10	17	50	3.240	3160408
HHS M10x50 G	M10	M10 x 50	50	10	17	50	3.820	3160505
HHS M10x60 G	M10	M10 x 60	60	10	17	50	4.330	3160602
HHS M12x30 G	M12	M12 x 30	30	12	19	50	4.020	3162303
HHS M12x40 G	M12	M12 x 40	40	12	19	50	4.740	3162400
HHS M12x50 G	M12	M12 x 50	50	12	19	50	5.450	3162508

St Steel

G Electrogalvanised

Hexagonal bolt to ISO 4017 with metric thread

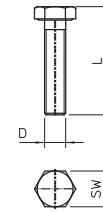


## Hexagonal bolt DIN 933 V2A

Type	Thread	Dimension mm	Dimension L mm	Dimension d mm	SW mm	Pack. pcs.	Weight kg/100 pcs.	Item No.
HHS M10x45 A2	M10	M10 x 45	45	10	17	50	3.370	3156040
HHS M12x45 A2	M12	M12 x 45	45	12	19	50	4.850	3156042
HHS M16x50 A2	M16	M16 x 50	50	16	24	50	10.300	3156044

V2A Stainless steel, A2

Hexagonal bolt according to DIN 933 with metric thread.

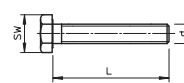


## Hexagonal bolt DIN 933 V4A

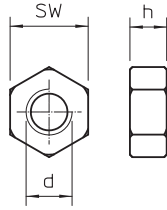
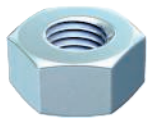
Type	Thread	Dimension mm	Dimension L mm	Dimension d mm	SW mm	Pack. pcs.	Weight kg/100 pcs.	Item No.
HHS M6x16 A4	M6	M6 x 16	16	6	10	100	0.511	3156016
HHS M6x20 A4	M6	M6 x 20	20	6	10	100	0.580	3156018
HHS M6x25 A4	M6	M6 x 25	25	6	10	100	0.665	3156019
HHS M6x30 A4	M6	M6 x 30	30	6	10	100	0.751	3156020
HHS M6x35 A4	M6	M6 x 35	35	6	10	100	0.837	3156021
HHS M6x40 A4	M6	M6 x 40	40	6	10	100	0.923	3156022
HHS M8x20 A4	M8	M8 x 20	20	8	13	100	1.230	3156024
HHS M8x25 A4	M8	M8 x 25	25	8	13	100	1.390	3156025
HHS M8x30 A4	M8	M8 x 30	30	8	13	100	1.550	3156026
HHS M8x40 A4	M8	M8 x 40	40	8	13	100	1.870	3156027
HHS M8x50 A4	M8	M8 x 50	50	8	13	100	2.180	3156028
HHS M10x20 A4	M10	M10 x 20	20	10	17	100	2.320	3156031
HHS M10x30 A4	M10	M10 x 30	30	10	17	100	2.620	3156032
HHS M10x40 A4	M10	M10 x 40	40	10	17	50	3.120	3156033
HHS M10x50 A4	M10	M10 x 50	50	10	17	50	3.620	3156034
HHS M10x60 A4	M10	M10 x 60	60	10	17	50	4.130	3156035
HHS M12x30 A4	M12	M12 x 30	30	12	19	50	3.770	3156036
HHS M12x40 A4	M12	M12 x 40	40	12	19	50	4.740	3156029
HHS M12x50 A4	M12	M12 x 50	50	12	19	50	5.200	3156037

V4A Stainless steel, A4

Hexagonal bolt M6 x 16 mm.



### Hexagonal nut DIN 934 G



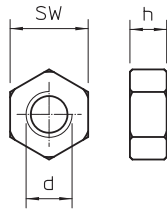
Type	Thread	SW mm	Dimen- sion h mm	Dimen- sion d mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>HN M4 G</b>	M4	7	3.2	4	100	0.081	<b>3400042</b>
<b>HN M5 G</b>	M5	8	4.7	5	100	0.123	<b>3400050</b>
<b>HN M6 G</b>	M6	10	5.2	6	100	0.225	<b>3400069</b>
<b>HN M8 G</b>	M8	13	6.8	8	100	0.474	<b>3400085</b>
<b>HN M10 G</b>	M10	17	8.4	10	100	1.084	<b>3400107</b>
<b>HN M12 G</b>	M12	19	10.8	12	100	1.730	<b>3400123</b>

**St** Steel

**G** Electrogalvanised

Hexagonal nut to DIN 934 with metric thread.

### Hexagonal nut DIN 934 V2A

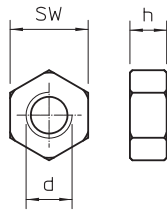


Type	Thread	SW mm	Dimen- sion h mm	Dimen- sion d mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>HN M6 A2</b>	M6	10	5.2	6	100	0.250	<b>3397068</b>
<b>HN M8 A2</b>	M8	13	6.8	8	100	0.520	<b>3397084</b>
<b>HN M10 A2</b>	M10	17	8.4	10	100	1.160	<b>3397106</b>
<b>HN M12 A2</b>	M12	19	10.8	12	100	1.730	<b>3397114</b>

**V2A** Stainless steel, A2

Hexagonal nut to DIN 934 with metric thread.

### Hexagonal nut DIN 934 V4A

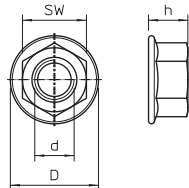


Type	Thread	SW mm	Dimen- sion h mm	Dimen- sion d mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>HN M6 A4</b>	M6	10	5.2	6	100	0.250	<b>3400173</b>
<b>HN M8 A4</b>	M8	13	6.8	8	100	0.520	<b>3400175</b>
<b>HN M10 A4</b>	M10	17	8.4	10	100	1.084	<b>3400177</b>
<b>HN M12 A4</b>	M12	19	10.8	12	100	1.730	<b>3397145</b>

**V4A** Stainless steel, A4

Hexagonal nut to DIN 934 with metric thread.

### Hexagonal nut with underhead tothing DIN 6923 V2A

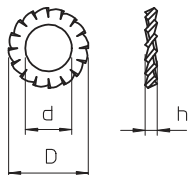


Type	Thread	SW mm	Dimen- sion h mm	Dimen- sion D mm	Dimen- sion d mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>KM M8 A2</b>	M8	13	8	17.9		100	0.800	<b>3156120</b>
<b>KM M10 A2</b>	M10	17	10	21.8		50	1.320	<b>3156122</b>
<b>KM M12 A2</b>	M12	19	12	26		50	2.100	<b>3156126</b>

**V2A** Stainless steel, A2

Combination nut with pressed washer in accordance with EN 1661.

### Serrated washer DIN 6798



Type	Thread	Dimen- sion d mm	Dimen- sion D mm	Dimen- sion h mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>SWS M5 G</b>	M5	5.3	10	1.8	100	0.022	<b>3404056</b>
<b>SWS M6 G</b>	M6	6.4	11	2.1	100	0.036	<b>3404064</b>
<b>SWS M8 G</b>	M8	8.4	15	2.4	100	0.080	<b>3404080</b>
<b>SWS M10 G</b>	M10	10.5	18	2.7	100	0.125	<b>3404102</b>
<b>SWS M12 G</b>	M12	13	20.5	3	100	0.160	<b>3404129</b>

**St** Steel

**G** Electrogalvanised

Serrated washer to DIN 6798, shape A.

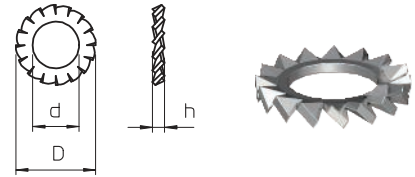


## Serrated washer DIN 6798 A4

Type	Thread	Dimension d mm	Dimension D mm	Dimension h mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>SWS M6 A4</b>	M6	6.4	11	2.1	100	0.036	<b>3404372</b>
<b>SWS M8 A4</b>	M8	8.4	15	2.4	100	0.080	<b>3404377</b>
<b>SWS M10 A4</b>	M10	10.5	18	2.7	100	0.125	<b>3404381</b>
<b>SWS M12 A4</b>	M12	13	20.5	3	100	0.170	<b>3404385</b>

V4A Stainless steel, A4

Serrated washer to DIN 6798, shape A.

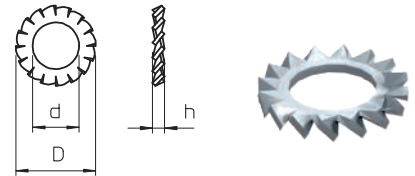


## Serrated washer DIN 6798 A2

Type	Thread	Dimension d mm	Dimension D mm	Dimension h mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>SWS M6 A2</b>	M6	6.4	11	2.1	100	0.040	<b>3404331</b>
<b>SWS M8 A2</b>	M8	8.4	15	2.4	100	0.080	<b>3404358</b>

V2A Stainless steel, A2

Serrated washer to DIN 6798, shape A.



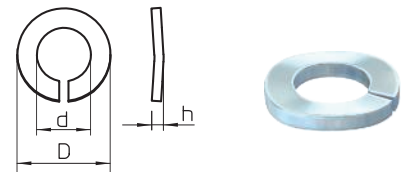
## Lock washer

Type	Thread	Dimension d mm	Dimension D mm	Dimension h mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>LWS M6 G</b>	M6	6.3	11.8	2.1	100	0.070	<b>3405060</b>
<b>LWS M8 G</b>	M8	8.3	14.8	2.6	100	0.130	<b>3405087</b>
<b>LWS M10 G</b>	M10	10.5	18.1	3	100	0.210	<b>3405109</b>
<b>LWS M12 G</b>	M12	12.5	21.1	3.5	100	0.320	<b>3405125</b>

St Steel

G Electrogalvanised

Lock washer according to DIN 128, shape A.

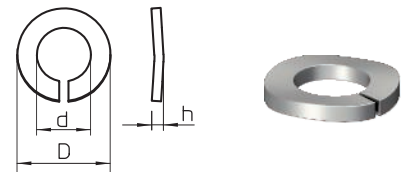


## Lock washer V4A

Type	Thread	Dimension d mm	Dimension D mm	Dimension h mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>LWS M6 A4</b>	M6	6.3	11.8	2.1	100	0.070	<b>3405062</b>
<b>LWS M8 A4</b>	M8	8.3	14.8	2.6	100	0.130	<b>3405089</b>
<b>LWS M10 A4</b>	M10	10.5	18.1	3	100	0.210	<b>3405111</b>
<b>LWS M12 A4</b>	M12	12.5	21.1	3.5	100	0.320	<b>3405127</b>

V4A Stainless steel, A4

Lock washer according to DIN 128, shape A.



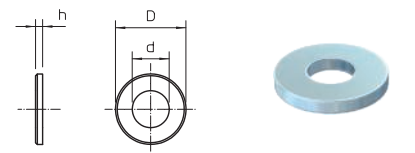
## Washer

Type	Thread	Dimension d mm	Dimension D mm	Dimension h mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>WS M4 D09 G</b>	M4	4.3	9	0.8	100	0.031	<b>3402045</b>
<b>WS M6 D12 G</b>	M6	6.4	12	1.6	100	0.114	<b>3402061</b>
<b>WS M8 D16 G</b>	M8	8.4	16	1.6	100	0.214	<b>3402088</b>
<b>WS M10 D20 G</b>	M10	10.5	20	2	100	0.408	<b>3402096</b>
<b>WS M12 D24 G</b>	M12	13	24	2.5	100	0.627	<b>3402126</b>

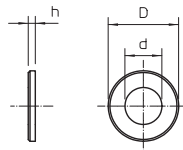
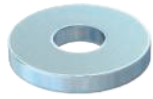
St Steel

G Electrogalvanised

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



### Washer ISO 7093



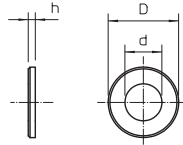
Type	Thread	Dimension d mm	Dimension D mm	Dimension h mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>WS M6 D28 G</b>	M6	6.5	28	2.5	100	1.150	<b>3402207</b>
<b>WS M8 D28 G</b>	M8	8.5	28	2.5	100	1.100	<b>3402215</b>
<b>WS M10 D28 G</b>	M10	11	28	2.5	100	1.020	<b>3402223</b>

**St** Steel

**G** Electrogalvanised

Washer of large outer diameter for universal use.

### Washer V2A

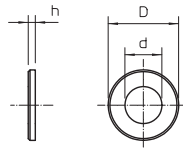


Type	Thread	Dimension d mm	Dimension D mm	Dimension h mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>WS M6 D12 A2</b>	M6	6.4	12	1.6	100	0.114	<b>3402304</b>
<b>WS M8 D16 A2</b>	M8	8.4	16	1.6	100	0.214	<b>3402312</b>
<b>WS M10 D20 A2</b>	M10	10.5	20	2	100	0.408	<b>3402320</b>
<b>WS M12 D24 A2</b>	M12	13	24	2.5	100	0.627	<b>3402339</b>

**V2A** Stainless steel, A2

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

### Washer V4A

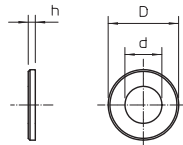
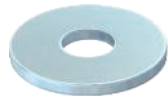


Type	Thread	Dimension d mm	Dimension D mm	Dimension h mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>WS M6 D12 A4</b>	M6	6.4	12	1.6	100	0.114	<b>3402306</b>
<b>WS M8 D16 A4</b>	M8	8.4	16	1.6	100	0.214	<b>3402314</b>
<b>WS M10 D20 A4</b>	M10	10.5	20	2	100	0.408	<b>3402322</b>
<b>WS M12 D24 A4</b>	M12	13	24	2.5	100	0.627	<b>3402345</b>

**V4A** Stainless steel, A4

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

### Large washer steel



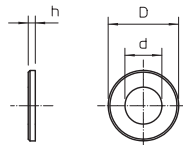
Type	Thread	Dimension d mm	Dimension D mm	Dimension h mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>WS M4 G15 G</b>	M4	4.3	15	1.2	100	0.156	<b>3403025</b>
<b>WS M5 G20 G</b>	M5	5.3	20	1.2	100	0.274	<b>3403041</b>
<b>WS M6 G25 G</b>	M6	6.4	25	1.2	100	0.415	<b>3403084</b>
<b>WS M6 G30 G</b>	M6	6.4	30	1.3	100	0.675	<b>3403092</b>
<b>WS M6 G20 G</b>	M6	6.4	20	1.5	100	0.262	<b>3403076</b>
<b>WS M8 G20 G</b>	M8	8.4	20	1.5	100	0.240	<b>3403122</b>
<b>WS M8 G25 G</b>	M8	8.4	25	1.2	100	0.370	<b>3403130</b>
<b>WS M10 G30 G</b>	M10	10.5	30	1.5	100	0.592	<b>3403165</b>

**St** Steel

**G** Electrogalvanised

Washer of particularly large outer diameter.

### Large washer, V2A



Type	Thread	Dimension d mm	Dimension D mm	Dimension h mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>WS M8 D20 A2</b>	M8	8.4	20	1.5	100	0.240	<b>3403125</b>
<b>WS M8 D25 A2</b>	M8	8.4	25	1.2	100	0.370	<b>3403135</b>
<b>WS M8 D40 A2</b>	M8	8.5	40	1.5	100	0.370	<b>3403145</b>
<b>WS M10 D30 A2</b>	M10	10.5	30	1.5	100	0.592	<b>3403155</b>
<b>WS M10 D40 A2</b>	M10	10.5	40	1.5	100	0.592	<b>3403175</b>

**V2A** Stainless steel, A2

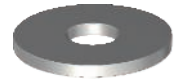
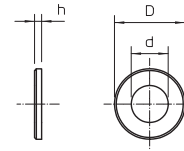
Washer of particularly large outer diameter. In the case of connections on the MS 41 mounting rail, we recommend the external diameter of 40 mm.

## Large washer, V4A

Type	Thread	Dimension d mm	Dimension D mm	Dimension h mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>WS M8 D20 A4</b>	M8	8.4	20	1.5	100	0.240	<b>3403127</b>
<b>WS M8 D25 A4</b>	M8	8.4	25	1.2	100	0.370	<b>3403137</b>
<b>WS M8 D40 A4</b>	M8	8.4	40	1.5	100	0.370	<b>3403147</b>
<b>WS M10 D30 A4</b>	M10	10.5	30	1.5	100	0.592	<b>3403163</b>
<b>WS M10 D40 A4</b>	M10	10.5	40	1.5	100	0.592	<b>3403177</b>

V4A Stainless steel, A4

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



## Pan head screw, steel

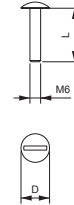


Type	Dimension mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>BS M6x30 G</b>	M6x30	100	0.800	<b>1148898</b>
<b>BS M6x30 A2</b>	M6x30	100	0.790	<b>1148896</b>

St Steel V2A Stainless steel, A2

G Electrogalvanised

The cup screw is used to connect two panels or to fasten cable sections on brackets. The flat, rounded head offers optimum cable protection.



## Flat-head screw with internal Torx, steel

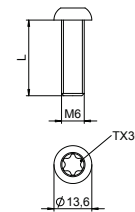


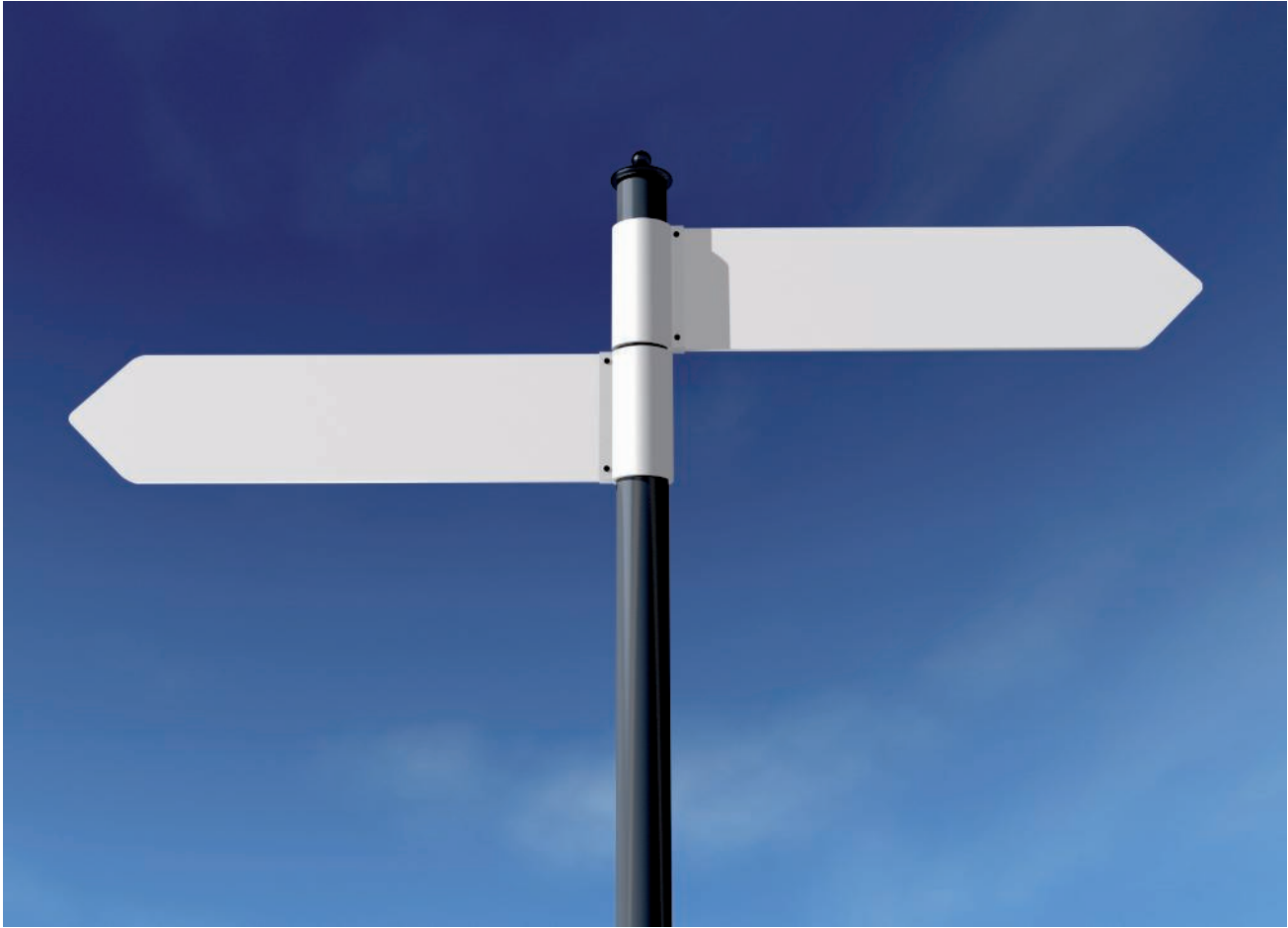
Type	Dimension mm	Screw system	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>7380T 6x20 G</b>	M6x20	Torx	100	0.570	<b>3164952</b>
<b>7380T 6x35 G</b>	M6x35	Torx	100	0.910	<b>3164956</b>
<b>7380T M6x20 A2</b>	M6x20	Torx	100	0.580	<b>3164972</b>
<b>7380T M6x35 A2</b>	M6x35	Torx	100	0.910	<b>3164976</b>

St Steel V2A Stainless steel, A2




G Electrogalvanised

Flat head screw with TX 30, according to ISO 7380-1, suitable for fastening cable routes on brackets as well as for the mounting of barrier strips. The rounded head shape provides optimum cable protection. The Torx drive offers optimum force transmission in the screw movement.





## Directories

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	<b>Terms and conditions of sale and delivery</b>	545

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5000792	1003038	315	5567790	1015498	326	5036791	1104320	407	5044291	1115057	443	5049517	1121529	422
5000853	1003046	315	5567851	1015500	326	5036852	1104325	407	5044352	1115065	443	5049937	1121898	418
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5001157	1003097	315	5449836	1017861	324	5038658	1104403	407	5898009	1115282	80	5050230	1121979	418
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GTIN	Art. no.	Page	GTIN	Art. no.	Page	GTIN	Art. no.	Page	GTIN	Art. no.	Page	GTIN	Art. no.	Page
5698142	price/100 1122970	429	5805236	/100 pc. 1124739	436	6489541	/100 pc. 1148146	419	5494898	/100 pc. 1156187	456	5065234	/100 pc. 1160907	452
5698159	1122972	429	5805243	1124741	436	6489558	1148150	419	5494959	1156195	456	5065296	1160990	452
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6502851	1483771	379	5150978	1488031	383	5032953	2003442	163	6582907	2005564	104	5615903	2007825	65
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6502912	1483785	378		price/100					6580705	2005598	101	5840640	2007835	78
6502929	1483787	378	5151210	1488201	340	5291909	2004634	158	6580712	2005602	101		/pc.	
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6503162	1483815	378	5820390	2000164	38	6582693	2005030	88	5470649	2007097	44	5885399	2007910	55
6503193	1483821	378	5707899	2000180	38	6582709	2005032	88	5246817	2007109	45	5885405	2007914	55
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	/pc.			/100 pc.			/100 pc.			/100 pc.			/100 pc.	
6465781	<b>2008860</b>	144	5515715	<b>2013015</b>	218	5896739	<b>2022902</b>	200	5447078	<b>2024764</b>	209	5167051	<b>2029103</b>	227
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6465880	<b>2008918</b>	150	5157878	<b>2013118</b>	250	5003946	<b>2022930</b>	202	6334520	<b>2024913</b>	206	5389941	<b>2029514</b>	215
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6614295	<b>2008931</b>	107	5157991	<b>2013169</b>	250	5004028	<b>2022935</b>	202	6334544	<b>2024919</b>	206	5389989	<b>2029520</b>	215
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	/100 pc.		5942825	<b>2016180</b>	79	5004141	<b>2022945</b>	201	6536863	<b>2024927</b>	207	6117529	<b>2029533</b>	215
6614325	<b>2009032</b>	107	5942832	<b>2016185</b>	79	5004158	<b>2022947</b>	201	6334599	<b>2024928</b>	207	5360582	<b>2029560</b>	214
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6622702	<b>2011398</b>	112	5160694	<b>2022605</b>	208	6474455	<b>2023044</b>	198	6536948	<b>2024990</b>	207	5167594	<b>2029707</b>	229
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5246985	<b>2011654</b>	77	5161110	<b>2022680</b>	208	5161899	<b>2023210</b>	223	5163152	<b>2025132</b>	222	5445395	<b>2029901</b>	226
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6478064	<b>2012350</b>	106	5532637	<b>2022843</b>	196	5843252	<b>2024233</b>	210				5376514	<b>2030024</b>	227
6478071	<b>2012354</b>	106	5532699	<b>2022845</b>	196	5843313	<b>2024241</b>	210	5164777	<b>2027070</b>	254	5376576	<b>2030028</b>	227
6478088	<b>2012358</b>	106	5532750	<b>2022847</b>	196	5839538	<b>2024284</b>	210	5164838	<b>2027097</b>	254	5377290	<b>2030032</b>	227
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5403999	<b>2030661</b>	224	5467953	<b>2035375</b>	216	5181996	<b>2046121</b>	247	5923992	<b>2046755</b>	360	5925002	<b>2046876</b>	354
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5434535	<b>2030772</b>	225	5172994	<b>2036428</b>	216	5781080	<b>2046503</b>	356	5924258	<b>2046771</b>	361	5957836	<b>2047592</b>	367
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5413899	<b>5301009</b>	342	6194292	<b>6354106</b>	409	5693390	<b>7203110</b>	335			
5413950	<b>5301033</b>	342	6194353	<b>6354114</b>	409	5693406	<b>7203112</b>	335			
5414018	<b>5301041</b>	342	6194414	<b>6354122</b>	409	5693413	<b>7203114</b>	335			
5414070	<b>5301068</b>	342									
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5414315	<b>5301106</b>	342	6194537	<b>6355048</b>	423	5811688	<b>7205432</b>	133			
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5901068	<b>5301172</b>	342	6194650	<b>6355064</b>	423	5980124	<b>7205436</b>	133			
5901075	<b>5301174</b>	342	6194650	<b>6355064</b>	423	6134946	<b>7205480</b>	132			
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5414551	<b>5302021</b>	343				5930167	<b>7205524</b>	131			
5414612	<b>5302056</b>	343	6202218	<b>6410081</b>	499	5930174	<b>7205528</b>	131			
5414674	<b>5302064</b>	343	6202270	<b>6410103</b>	499	6634286	<b>7205529</b>	120			
5414735	<b>5302080</b>	343	6202331	<b>6410111</b>	499	5993070	<b>7205530</b>	120			
5414797	<b>5302102</b>	343	6043569	<b>6410154</b>	500	5993087	<b>7205533</b>	120			
5901327	<b>5302170</b>	343	6043682	<b>6410162</b>	500	5993094	<b>7205536</b>	121			
5901358	<b>5302174</b>	343	6589685	<b>6490192</b>	336	5993100	<b>7205540</b>	123			
5901365	<b>5302178</b>	343	6589692	<b>6490194</b>	336	5993117	<b>7205543</b>	123			
5901372	<b>5302182</b>	343	6589708	<b>6490210</b>	338	5993124	<b>7205546</b>	124			
5901389	<b>5302188</b>	343	6589715	<b>6490214</b>	338	6002313	<b>7205550</b>	121			
5900658	<b>5303179</b>	342	6589722	<b>6490218</b>	338	6002375	<b>7205553</b>	121			
5900665	<b>5303182</b>	342	6589739	<b>6490222</b>	338	6330904	<b>7205556</b>	122			
5900696	<b>5303185</b>	342	6589746	<b>6490226</b>	338	6002443	<b>7205560</b>	124			
5900702	<b>5303188</b>	342	6589777	<b>6490240</b>	338	6002504	<b>7205563</b>	124			
5900719	<b>5303191</b>	342	6589784	<b>6490244</b>	338	6111169	<b>7205566</b>	125			
5900726	<b>5303194</b>	342	6589791	<b>6490248</b>	338	5993162	<b>7205570</b>	132			
5900764	<b>5303197</b>	342	6589807	<b>6490252</b>	338	5993131	<b>7205580</b>	127			
5464273	<b>5303202</b>	342	6589814	<b>6490256</b>	338	5993148	<b>7205583</b>	128			
5414971	<b>5303206</b>	342				6002528	<b>7205590</b>	128			
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5415152	<b>5303230</b>	342	6590889	<b>6490284</b>	336	6147939	<b>7205626</b>	126			
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5415336	<b>5303265</b>	342	6590896	<b>6490300</b>	338	6147946	<b>7205630</b>	126			
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5422778	<b>5327121</b>	387	6590957	<b>6490324</b>	338	6028269	<b>7205666</b>	132			
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107 F PG13.5 PE	5168379	2030136	228
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107 S VTEC PG42	5844037	2028980	214
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2036 10-15 LGR	5223092	2259141	397	2056 34 ALU	5077534	1183249	452
2036 10-15 LGR	5223092	2259141	401	2056 34 FT	5064695	1160346	452
2036 4-7 LGR	5222972	2259079	397	2056 40 A2	5063919	1159569	452
2036 4-7 LGR	5222972	2259079	401	2056 40 ALU	5077596	1183257	452
2037 12-20 LGR	5221418	2250209	279	2056 40 FT	5064756	1160400	452
2037 16-24 LGR	5221470	2250241	279	2056 46 A2	5063971	1159577	452
2037 18-30 LGR	5221531	2250306	279	2056 46 ALU	5077657	1183265	452
2037 27-43 LGR	5221593	2250438	279	2056 46 FT	5064817	1160451	452
2037 3-7 LGR	5221296	2250071	279	2056 52 A2	5064039	1159585	452
2037 6-13 LGR	5221357	2250136	279	2056 52 ALU	5077718	1183273	452
2047 5-25 LGR	5221654	2251256	397	2056 52 FT	5064879	1160524	452
2047 5-25 LGR	5221654	2251256	401	2056 58 A2	5064091	1159593	452
2050 5-25 LGR	5222132	2254026	397	2056 58 ALU	5077770	1183281	452
2050 5-25 LGR	5222132	2254026	401	2056 58 FT	5064930	1160583	452
2050 5-25 RW	5614890	2254522	397	2056 64 A2	5064152	1159607	452
2050 5-25 RW	5614890	2254522	401	2056 64 ALU	5077831	1183303	452
2051 8-36 LGR	5222194	2254034	397	2056 64 FT	5064992	1160648	452
2051 8-36 LGR	5222194	2254034	401	2056 70 A2	5064213	1159615	452
2054 14-48 LGR	5222798	2255014	404	2056 70 ALU	5435310	1183311	452
2054 14-48 LGR	5222798	2255014	408	2056 70 FT	5065050	1160702	452
2054 14-48 LGR	5222798	2255014	414	2056 76 A2	5064275	1159623	452
2055 24-72 LGR	5222859	2255022	404	2056 76 ALU	5435372	1183338	452
2055 24-72 LGR	5222859	2255022	408	2056 76 FT	5065111	1160761	452
2055 24-72 LGR	5222859	2255022	414	2056 82 FT	5065173	1160826	452
2056 100 FT	5065296	1160990	452	2056 90 FT	5065234	1160907	452
2056 12 A2	5063612	1159518	452	2056 B 35 FT	5081258	1194054	467
2056 12 ALU	5077299	1183206	452	2056 B 40 FT	5081197	1194046	467
2056 12 FT	5064459	1160125	452	2056 B 80 A2	5476771	1194372	467
2056 16 A2	5063674	1159526	452	2056 B 80 FT	5081319	1194089	467
2056 16 ALU	5077350	1183214	452	2056 BE FT	5072492	1174053	457
2056 16 FT	5064510	1160168	452	2056 E 31 FT	5500353	1174606	466
2056 2 12 ALU	5435495	1183389	453	2056 E 37 FT	5500414	1174614	466
2056 2 12 FT	5065357	1161121	453	2056 E 44 FT	5500476	1174630	466
2056 2 16 ALU	5435556	1183397	453	2056 M 100 FT	5063551	1156160	455
2056 2 16 FT	5065418	1161164	453	2056 M 12 A2	5668190	1159712	455
2056 2 22 A2	5066071	1161822	453	2056 M 12 FT	5062714	1156004	455
2056 2 22 ALU	5435617	1183400	453	2056 M 16 A2	5668206	1159716	455
2056 2 22 FT	5065470	1161229	453	2056 M 16 FT	5062776	1156012	455
2056 2 28 A2	5066132	1161830	453	2056 M 22 A2	5668213	1159722	455
2056 2 28 ALU	5435679	1183419	453	2056 M 22 FT	5062837	1156020	455
2056 2 28 FT	5065531	1161288	453	2056 M 28 A2	5668220	1159728	455
2056 2 34 A2	5066194	1161849	453	2056 M 28 FT	5062899	1156039	455
2056 2 34 ALU	5435730	1183427	453	2056 M 34 A2	5668268	1159734	455
2056 2 34 FT	5065593	1161342	453	2056 M 34 FT	5062950	1156047	455
2056 2 40 A2	5066255	1161857	453	2056 M 40 A2	5668275	1159740	455
2056 2 40 ALU	5435792	1183435	453	2056 M 40 FT	5063018	1156055	455
2056 2 40 FT	5065654	1161407	453	2056 M 46 A2	5668282	1159746	455
2056 2 46 A2	5066316	1161865	453	2056 M 46 FT	5063070	1156063	455
2056 2 46 ALU	5435853	1183443	453	2056 M 52 A2	5668299	1159752	455
2056 2 46 FT	5065715	1161466	453	2056 M 52 FT	5063131	1156071	455
2056 2 52 A2	5066378	1161873	453	2056 M 58 A2	5668305	1159758	455
2056 2 52 ALU	5435914	1183451	453	2056 M 58 FT	5063193	1156098	455
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2056 2 58 A2	5066439	1161881	453	2056 M 64 FT	5063254	1156101	455
2056 2 58 ALU	5435976	1183478	453	2056 M 70 A2	5668329	1159770	455
2056 2 58 FT	5065838	1161571	453	2056 M 70 FT	5063315	1156128	455
2056 2 64 A2	5066491	1161903	453	2056 M 76 A2	5668336	1159776	455
2056 2 64 FT	5065890	1161644	453	2056 M 76 FT	5063377	1156136	455
2056 22 A2	5063735	1159534	452	2056 M 82 FT	5063438	1156144	455
2056 22 ALU	5077411	1183222	452	2056 M 90 FT	5063490	1156152	455
2056 22 FT	5064572	1160222	452	2056 M2 12 FT	5494836	1156179	456
2056 28 A2	5063797	1159542	452	2056 M2 16 FT	5494898	1156187	456
2056 28 ALU	5077473	1183230	452	2056 M2 22 FT	5494959	1156195	456
2056 28 FT	5064633	1160281	452	2056 M2 28 FT	5958703	1156209	456
2056 3 12 FT	5066972	1162128	454	2056 M3 12 FT	5958765	1156241	456
2056 3 16 FT	5067030	1162160	454	2056 M3 16 FT	5958826	1156268	456
2056 3 22 ALU	5436218	1183524	454	2056 M3 22 FT	5958888	1156276	456
2056 3 22 FT	5067092	1162225	454	2056 M3 28 FT	5958949	1156284	456
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				2056F 2 22 FT	5071655	1170228	463
				2056F 2 28 FT	5071716	1170287	463
				2056F 2 34 FT	5071778	1170341	463
				2056F 2 40 FT	5071839	1170406	463
				2056F 2 46 FT	5071891	1170465	463
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2056F 34 FT	5070870	1169343	462
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2056F 46 FT	5070993	1169467	462
2056F 52 FT	5071051	1169521	462
2056F 58 FT	5071112	1169580	462
2056F 64 FT	5071174	1169645	462
2056F M 12 FT	5495192	1156802	463
2056F M 16 FT	5495253	1156810	463
2056F M 22 FT	5495314	1156829	463
2056F M 28 FT	5495376	1156837	463
2056N 12 ALU	5436515	1183605	450
2056N 12 FT	5067399	1163124	450
2056N 16 ALU	5436577	1183613	450
2056N 16 FT	5067450	1163167	450
2056N 22 ALU	5436638	1183621	450
2056N 22 FT	5067511	1163221	450
2056N 28 ALU	5436690	1183648	450
2056N 28 FT	5067573	1163280	450
2056N 34 ALU	5436751	1183656	450
2056N 34 FT	5067634	1163345	450
2056N 40 ALU	5436812	1183664	450
2056N 40 FT	5067696	1163396	450
2056N 46 ALU	5436874	1183672	450
2056N 46 FT	5067757	1163469	450
2056N 52 ALU	5436935	1183680	450
2056N 52 FT	5067818	1163523	450
2056N 58 ALU	5436997	1183699	450
2056N 58 FT	5067870	1163582	450
2056N 64 FT	5067931	1163647	450
2056N 70 FT	5067993	1163701	450
2056N M 12 FT	5060857	1155407	451
2056N M 16 FT	5060918	1155415	451
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2056N M 28 FT	5061038	1155431	451
2056N M 34 FT	5061090	1155458	451
2056N M 40 FT	5061151	1155466	451
2056N M 46 FT	5061212	1155474	451
2056N M 52 FT	5061274	1155482	451
2056N M 58 FT	5061335	1155490	451
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2056RS M 16 FT	5358411	1158305	466
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2056U 12 ALU	5439035	1184407	458
2056U 12 FT	5072737	1175122	458
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2056U 16 ALU	5439097	1184415	458
2056U 16 FT	5072799	1175165	458
2056U 2 12 FT	5073635	1176129	459
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2056U 2 22 FT	5073758	1176226	459
2056U 2 28 FT	5073819	1176285	459
2056U 2 34 FT	5073871	1176331	459
2056U 2 40 FT	5073932	1176404	459
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2056U 2 52 FT	5074052	1176528	459
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2056U 22 FT	5072850	1175211	458
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2056U 28 FT	5072911	1175289	458
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2056U 3 22 FT	5074298	1177222	460
2056U 3 28 FT	5074359	1177281	460
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2056U 40 ALU	5439332	1184466	458
2056U 40 FT	5073031	1175408	458
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2056U 46 ALU	5439394	1184474	458
2056U 46 FT	5073093	1175467	458
2056U 52 A2	5075011	1178571	458
2056U 52 ALU	5439455	1184482	458
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2056U 58 FT	5073215	1175580	458
2056U 64 A2	5075134	1178601	458
2056U 64 ALU	5439578	1184504	458
2056U 64 FT	5073277	1175645	458
2056U 70 A2	5075196	1178628	458
2056U 70 ALU	5439752	1184539	458
2056U 70 FT	5073338	1175696	458
2056U 76 A2	5075257	1178636	458
2056U 76 ALU	5439639	1184512	458
2056U 76 FT	5073390	1175769	458
2056U 82 FT	5073451	1175823	458
2056U 90 FT	5073512	1175904	458
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2056U M 58 FT	5498735	1158090	461
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2056W 12 FT	5075431	1180126	464
2056W 16 FT	5075493	1180169	464
2056W 2 16 FT	5076391	1181165	465
2056W 2 22 FT	5076452	1181211	465
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2056W 2 46 FT	5076698	1181467	465
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2056W 46 ALU	5438014	1184067	464
2056W 46 FT	5075790	1180460	464
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2058 2 58 LGR	5083054	1196588	469
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2058 40 LGR	5081678	1195409	468
2058 46 LGR	5081739	1195468	468
2058 52 LGR	5081791	1195522	468
2058 58 LGR	5081852	1195581	468
2058 64 LGR	5081913	1195646	468
2058 70 LGR	5081975	1195700	468
2058 M2 12 FT	5441434	1199706	470
2058 M2 16 FT	5441496	1199714	470
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2058 M2 28 A2	5847656	1196599	470
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2058 M2 40 FT	5441731	1199757	470
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2058FW 12 LGR	5083115	1197126	468
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2058FW M 12 A2	5514091	1197134	469
2058FW M 12 FT	5442035	1199846	469
2058FW M 16 A2	5514152	1197177	469
2058FW M 16 FT	5442097	1199854	469
2058FW M 22 A2	5514213	1197231	469
2058FW M 22 FT	5442158	1199862	469
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2058FW M 28 FT	5442219	1199870	469
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2058FW M 34 FT	5442271	1199889	469
2058FW M 40 A2	5860297	1197428	469
2058FW M 40 FT	5442332	1199897	469
2058FW M 46 A2	5844334	1197479	469
2058FW M 46 FT	5442394	1199900	469
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OSG 20X3 FT	6326112	6017371	340
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OSR 20x1.5 FS	5549079	1465600	340
OSS 20x3 3M FT	5137597	1465767	340
OSS 30x3 3M FT	5137771	1465805	340
OSS 40x4 3M FT	5137832	1465821	340
		/pc.	
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RB 12 M 6	6606955	3497872	489
RB 14 M 6	6606962	3497874	489
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RB-L 150 M6	6467884	3497932	490
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S16W ALU	5925743	2046002	363
S16W FT	5782148	2046593	359
S16W G	5924647	2046840	355
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S20W A4	5923923	2046751	360
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S32W A4	5923978	2046753	360
S32W ALU	5925804	2046005	363
S32W FT	5782209	2046596	359
S32W G	5924678	2046843	355
S32W SW	5782087	2046568	357
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S40W G	5924685	2046844	355
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S50W G	5924692	2046845	355
S50W SW	5782100	2046570	357
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S63W SW	5782131	2046571	357
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SAA MS4022 FT	5439479	6007498	420
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				SDB 05 PS	6465675	2008804	145
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				SDB 05L PS	6465712	2008824	145
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				SKT25W ALU	5957812	2047590	367
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SBN25 FT	6387991	2046818	359	SKT40W ALU	5957836	2047592	367
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SBN32 FT	6388004	2046819	359	SKTM16W ALU	5957737	2047604	367
SBN32 G	6387847	2046811	355	SKTM20W ALU	5957744	2047605	367
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SBN50 FT	6388028	2046821	359	SM16W ALU	5926092	2046032	362
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SBNM40 FT	6387649	2046790	358	SM40W ALU	5926153	2046036	362
SBNM40 G	6387533	2046782	354	SM40W FT	5781493	2046537	358
SBNM40 SW	6387762	2046797	356	SM40W G	5924890	2046865	354
SBNM50 FT	6387656	2046791	358	SM40W SW	5781127	2046505	356
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SBNM50 SW	6387779	2046798	356	SM50W ALU	5926160	2046037	362
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T 40 KL	5441175	2007432	49	TR M12 2M A4	6098507	3141514	499
		/pc.		TR M12 2M G	5123644	3141144	499
T 40 KVM	6440085	2363012	135	TR M6 1M A2	6096886	3141327	499
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T 40 M20	5885375	2007900	54	TR M6 1M G	5253211	3141047	499
T 40 M20 KL	5885382	2007904	54	TR M6 2M A2	6096893	3141328	499
T 40 OE	5246831	2007223	52	TR M6 2M A4	6098392	3141484	499
T 40 RO-LGR	5303244	2007630	43	TR M6 2M G	6096640	3141048	499
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T 60 KL	5441182	2007434	50	TR M8 2M G	5119982	3141136	499
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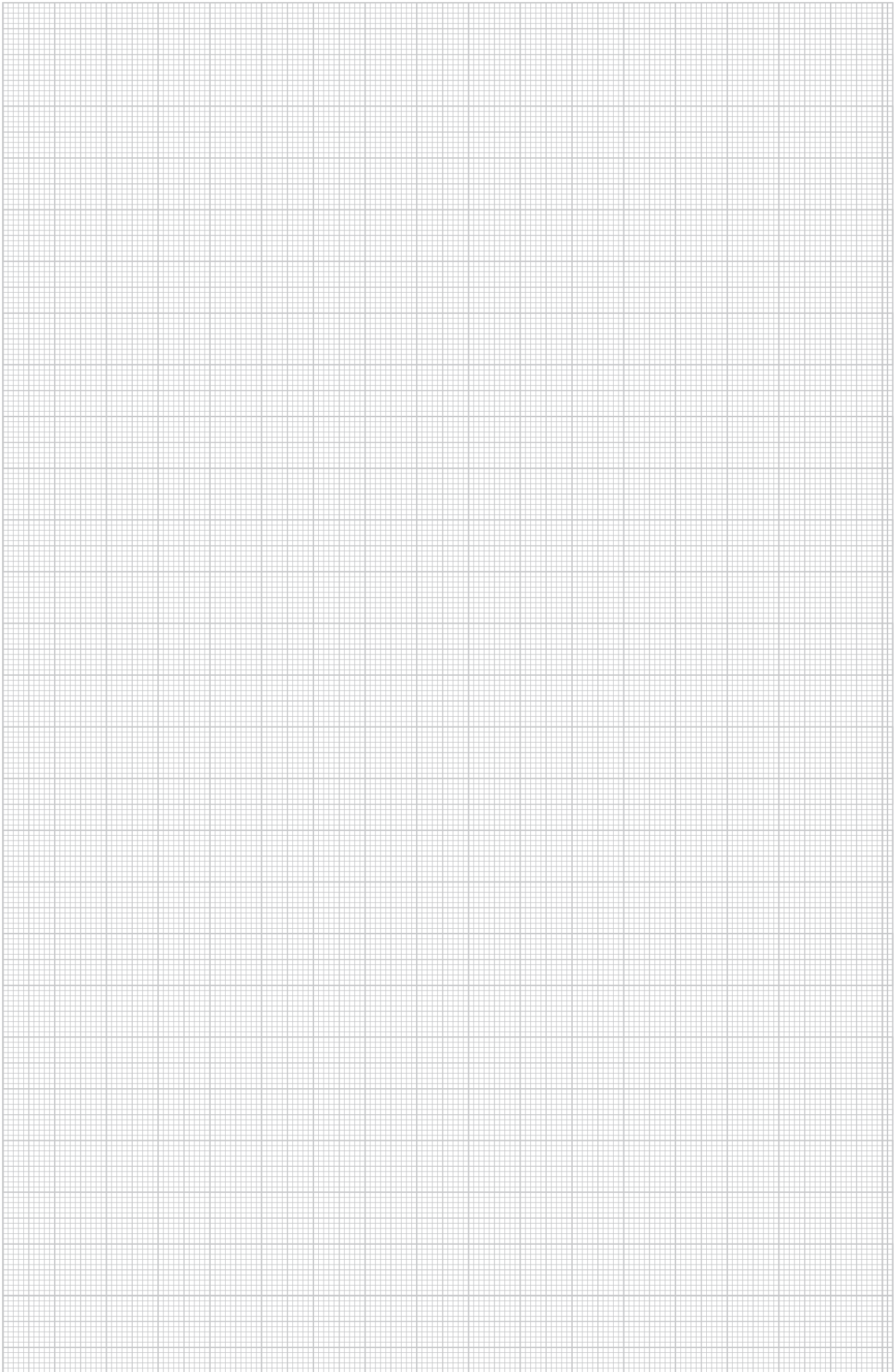
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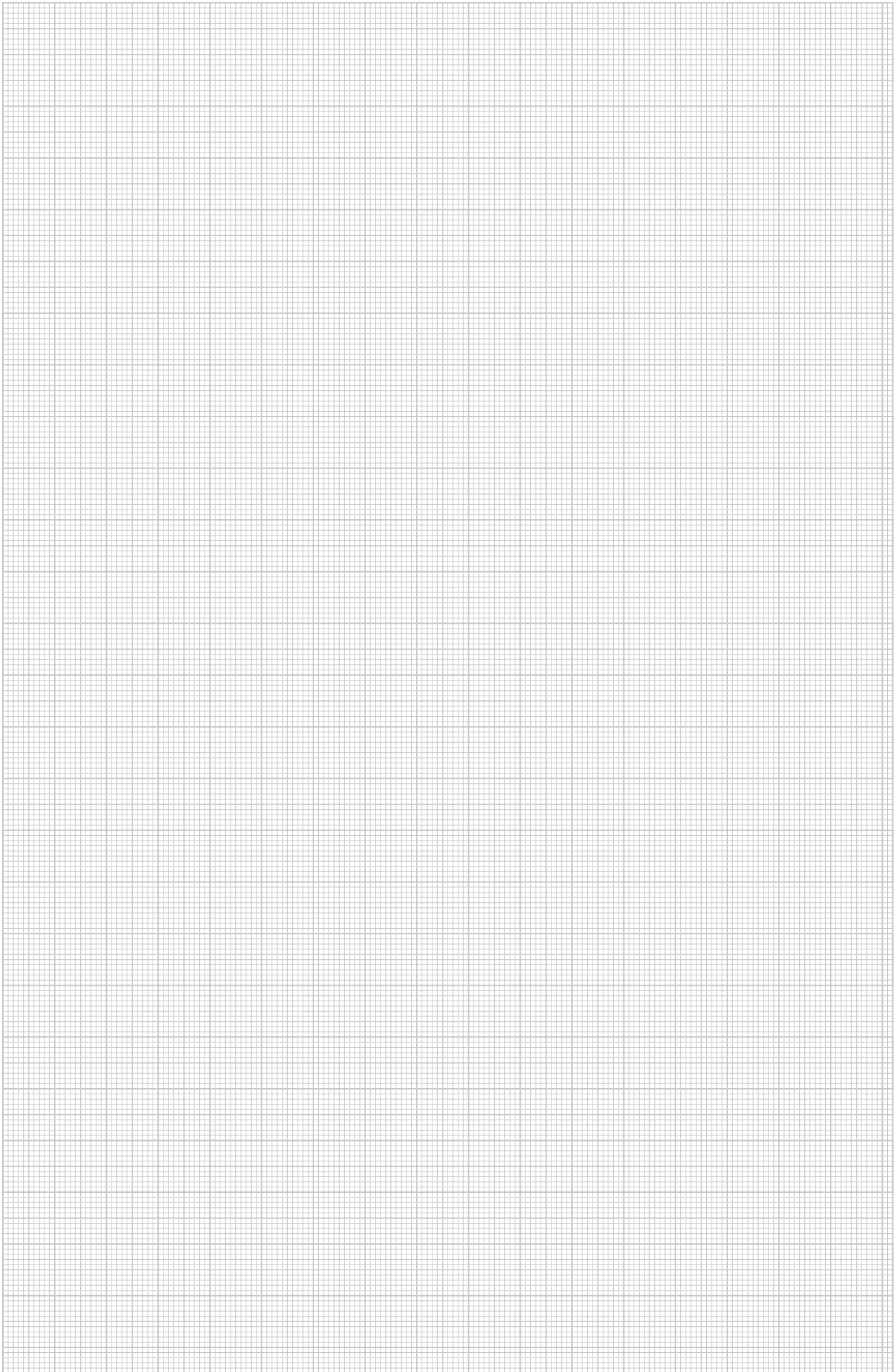


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WS M8 D28 G	5300373	3402215	504
WS M8 D40 A2	5946250	3403145	504
WS M8 D40 A4	5946267	3403147	505
WS M8 G20 G	5868217	3403122	504
WS M8 G25 G	5868279	3403130	504
X01 G M20 LGR	6582693	2005030	88
X01 LGR	6577361	2005000	85
X01 LGR-TR	6577460	2005050	85
X01 SW	6580439	2005110	85
X01 SW-RO	6580545	2005140	85
X01 T G M20 LGR	6584499	2005220	92
X01 T LGR	6584420	2005190	89
X01 UT G LGR	6584529	2005240	94
X01C LGR	6577569	2005450	100
X01C LGR-TR	6577712	2005520	100
X01C SW	6580682	2005590	100
X02 G M20 LGR	6582709	2005032	88
X02 LGR	6577378	2005004	86
X02 LGR-TR	6577477	2005054	86
X02 SW	6580484	2005114	86
X02 SW-RO	6580552	2005144	86
X02 T G M20 LGR	6584505	2005222	92
X02 T LGR	6584437	2005194	89

Type	GTIN	Art. no.	Page
		/100 pc.	
X02 UT G LGR	6584550	2005244	94
X02C LGR	6577606	2005454	101
X02C LGR-TR	6577729	2005524	101
X02C SW	6580699	2005594	101
X04 G M20 LGR	6582716	2005034	88
X04 LGR	6577385	2005008	86
X04 LGR-TR	6577484	2005058	86
X04 SW	6580491	2005118	86
X04 SW-RO	6580569	2005148	86
X04 T G M25 LGR	6584512	2005224	93
X04 T LGR	6584444	2005198	90
X04 UT G LGR	6584567	2005248	95
X04C LGR	6577613	2005458	101
X04C LGR-TR	6577736	2005528	101
X04C SW	6580705	2005598	101
X06 H25 GP4 LGR	6585847	2005304	98
X06 LGR	6577422	2005012	86
X06 LGR-TR	6577491	2005062	86
X06 R LGR-TR	6582723	2005092	96
X06 SW	6580507	2005122	86
X06 SW-RO	6580606	2005152	86
X06 T G M25 LGR	6617623	2005226	93
X06 T LGR	6584451	2005202	90
X06C LGR	6577620	2005462	101
X06C LGR-TR	6577743	2005532	101
X06C R LGR	6582822	2005490	103
X06C R LGR-TR	6582891	2005560	103
X06C SW	6580712	2005602	101
X10 H25 GNP5 LGR	6585854	2005308	98
X10 LGR	6577439	2005016	87
X10 LGR-TR	6577507	2005066	87
X10 R LGR-TR	6582761	2005096	96
X10 SW	6580514	2005126	87
X10 SW-RO	6580613	2005156	87
X10 T LGR	6584468	2005206	90
X10C LGR	6577668	2005466	102
X10C LGR-TR	6577781	2005536	102
X10C R LGR	6582839	2005494	104
X10C R LGR-TR	6582907	2005564	104
X10C SW	6580729	2005606	102
X16 H25 GNP5 LGR	6585861	2005312	99
X16 H35 GNP5 LGR	6585878	2005316	99
X16 LGR	6577446	2005020	87
X16 LGR-TR	6577545	2005070	87
X16 R LGR-TR	6582778	2005100	97
X16 SW	6580521	2005130	87
X16 SW-RO	6580620	2005160	87
X16 T LGR	6584475	2005210	90
X16C LGR	6577675	2005470	102
X16C LGR-TR	6577798	2005540	102
X16C R LGR	6582846	2005498	104
X16C R LGR-TR	6582945	2005568	104
X16C SW	6580736	2005610	102
X25 H35 GNP5 LGR	6585885	2005320	99
X25 H50 GNP5 LGR	6585892	2005324	99
X25 LGR	6577453	2005024	87
X25 LGR-TR	6577552	2005074	87
X25 R LGR-TR	6582785	2005104	97
X25 SW	6580538	2005134	87
X25 SW-RO	6580675	2005164	87
X25 T LGR	6584482	2005214	91
X25C LGR	6577682	2005474	102
X25C LGR-TR	6577804	2005544	102
X25C R LGR	6582884	2005502	105
X25C R LGR-TR	6582952	2005572	105
X25C SW	6580743	2005614	102









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