INDUSTRIAL INSTALLATIONS



Fastening materials

OBO BETTERMANN



Building Connections

Digitalisation, the Energiewende (energy transition), mobility – the future is gathering speed. At OBO Bettermann, we're proud to be a driving force. And as a facilitator, we make connections. Today, we are already developing the innovative electrical infrastructure systems and solutions of tomorrow. Reliably, flexibly, sustainably.

Already today, OBO is one of the leading manufacturers of installation systems for the electrical infrastructure in buildings and plants. When it comes to the friction-free flow of power, energy and data, engineers and tradespeople worldwide rely on the comprehensive range from OBO.





OBO applies its slogan "Building Connections" to around 30,000 high-quality branded electrical products and services, which are used in application solutions for projects in industry, business and infrastructure.

OBO operates a global network and employs more than 4,200 people in more than 60 countries. The headquarters of the family company, which was founded in 1911, is located in Menden, Germany. In addition, more than 40 subsidiaries are present in markets on all continents.



Industrielle Gallion - Befestigungsmaterial// en / 2023/07/13 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Improved structure, sharpened profile



Each of our products carries a benefit which only the OBO brand can offer. Products are developed, manufactured and tested with a high level of competence – from the idea through to the final check. From flawless logistics through to practical information – we can provide support at every level. We can offer additional security through certificates on the conformity of our products with the most important standards and directives. In a nutshell – OBO helps you more. In every location and in every phase of a project.

To maintain this, we continually challenge ourselves. Not as an end in itself but for the better processing of each customer's requests – fast, reliably and future-oriented. That is the reason we have not only established our three central application areas, but also reworked our catalogue structure. In this way, we can display our service offers more clearly, highlight the product benefits more effectively and illustrate the respective application areas more tangibly.

OBO Product Worlds



Industrial installations

- Cable support systems
- Connection and routing systems
- Fastening material



Building installations

- Cable routing systems
- Device installation ducts, trunking and poles
- Floor installation systems and underfloor applications
- Installation systems



Safety and protection installations

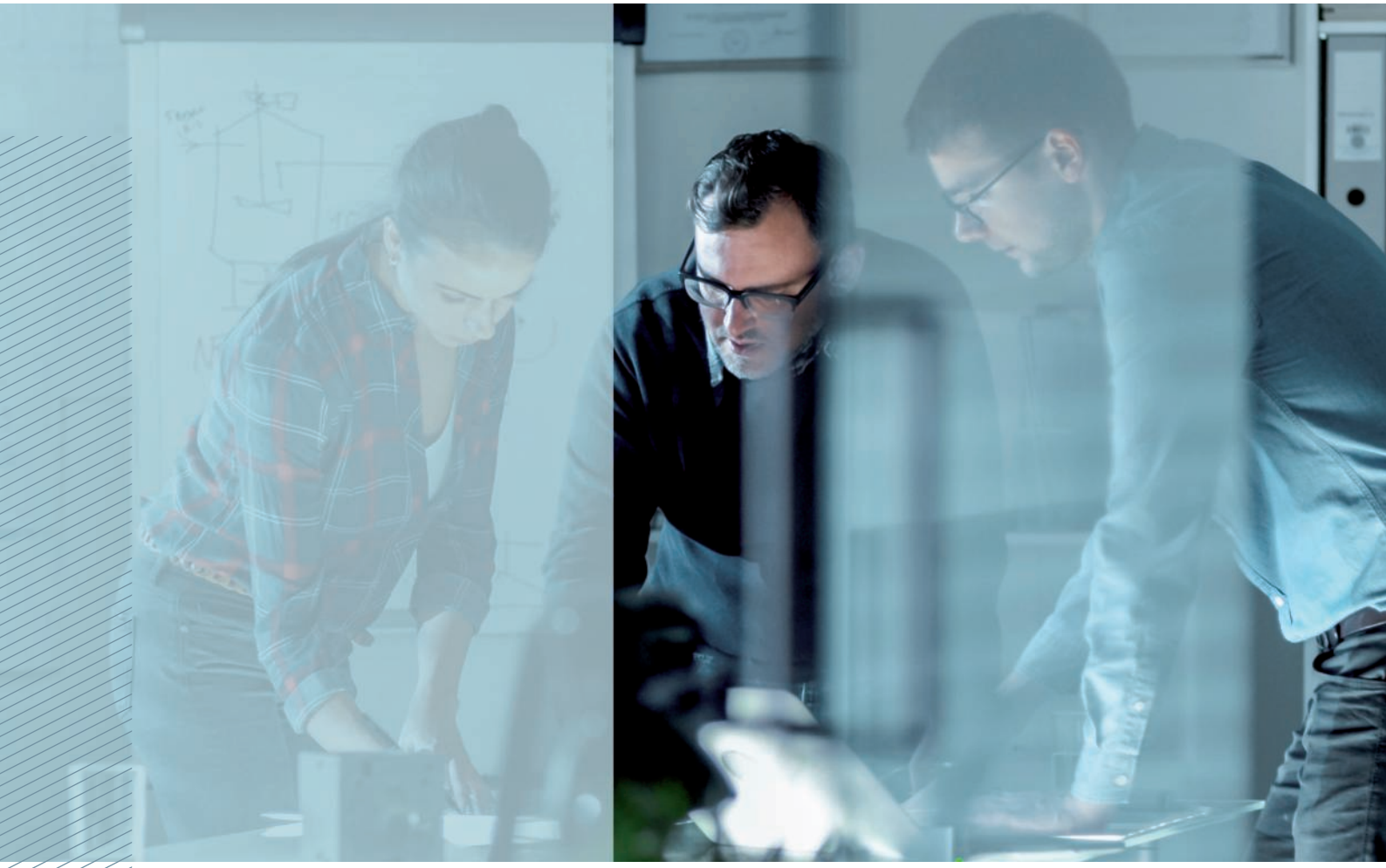
- Surge protection
- External lightning protection
- Equipotential bonding and earthing
- Insulation and cable bandages
- Fire-tested support and routing systems
- Fire protection ducts



It's your choice – from now on there's a catalogue for each OBO product category. Simply select the catalogues and order together with a collection case.

Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

OBO Support *& contact*



You have a problem? We have the solution!

OBO Bettermann is more than the sum of its products. In any situation, we are the reliable partner right buy your side. You have a problem? We have the solution!

It doesn't matter in which area of industry our support is needed – from industrial and plant engineering to private, public and administrative buildings, as well as in the areas of mobility and renewable energies – we have everything that you need.

OBO can not only provide the entire electro-technical infrastructure with the best possible products. We can also support you with sound expert knowledge and more than 100 years of experience, right from the planning phase through to the realisation of your projects. OBO – solutions you can rely on.

What is OBO Support?

Every OBO product carries a plus inside it, which only a branded product can offer. It is developed, manufactured and tested with a high level of competence, from the idea right through to the final check. In addition, our specialists are available for consultation and can offer you assistance and training courses for products at any time.

Together with you, we plan your project and help you choose the right products, and are also available to you at any time should you need us. From flawless logistics through to practical information – we can provide support at every level. We can offer security through certificates on the conformity of our products with the most important standards and directives.

We are as flexible as you are – because we know how practical people work and what is important to them. Each step is a plus – that is the OBO Support concept.

You can contact our Customer Service department on:

Customer Service

Tel.:+49 23 73 89 - 17 00

Monday–Thursday
07.30–17.00

Friday
07.30–15.00

export@obo.de



Service – OBO can help
Everywhere and in every project phase:
- Highly competent hotline
- Product and system information, digitally or printed
- Selection and planning aids on the web, as an app, as a CAD application or in printed form
- 2D and 3D product data for planning
- Field service, branch offices and subsidiaries in 60 countries
- Engineering services for major projects

Training courses from OBO
- Seminars and workshops
- Local consultation and training courses
- Planner days

Handling – OBO delivers reliably
With optimised delivery processes:
- Reliable logistics
- Practical transport systems and packaging
- Loading gear handling and disposal concepts

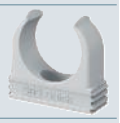
Certification and guarantee
OBO offers safety. Our products fulfil the most important country-specific regulations:
- Conformity (e.g. IEC, VDE, CE, KEMA, KEUR, UL)
- Certification (e.g. DIN EN, DGNB)
- 5-year guarantee for surge protection products
- Guarantee management

Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47



Planning aids Page 10 

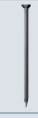
Anchors and ties Page 42 

Plastic fastening clips Page 74 

Metal fastening clips Page 140 

Mounting accessories Page 212 

Bolts and screws Page 224 

Nails Page 256 

Directories Page 260 

Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47



Industrieinstallation - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:25 08:19:25

Planning aids

Surfaces and corrosion	12
Properties of plastics	20
Protection ratings	24
Nominal values of electrical equipment	26
Zone division for explosive areas	27
Cable sizes	28
Basic values for the calculation of the cable volume	29
Fastening clips	30
Cable glands and the DIN EN 50262 standard	31
Information on cable fastening	32
Classification of installation pipes (according to DIN EN 61386-1)	33
Definition of electromagnetic compatibility (EMC)	35
Guaranteeing EMC	36
Standards, certifications and test marks	37
First-hand support and knowledge	39
Every test mark at a glance	40

Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Metal: corrosion and corrosion protection



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.

A large number of products used in industrial installations are made of metal. Metals are much tougher than many other materials and are less sensitive to mechanical loading. The OBO metal products are made of aluminium, die-cast zinc, stainless steel or steel.

Steel (St), the most commonly used material, is very strong and has good elasticity and chemical resistance. However, steel is susceptible to corrosion and must therefore be protected accordingly.

Stainless steels consist mainly of alloyed, very hard and rustproof steels. The stainless steels are divided into quality classes according to the percentage of alloys. These are indicated by the material number according to DIN EN 10027.

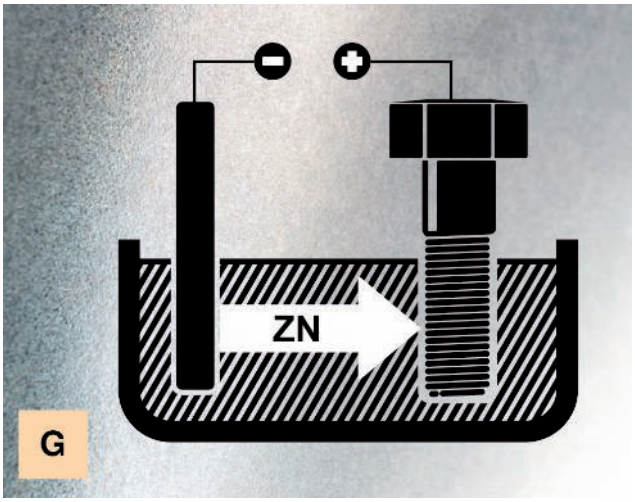
Aluminium (Al), as a light metal, has comparatively low strength but good electrical conductivity and high corrosion resistance.

Die-cast zinc components (Zn) are very strong and hard. The manufacturing process enables the production of very precise components with good corrosion resistance.

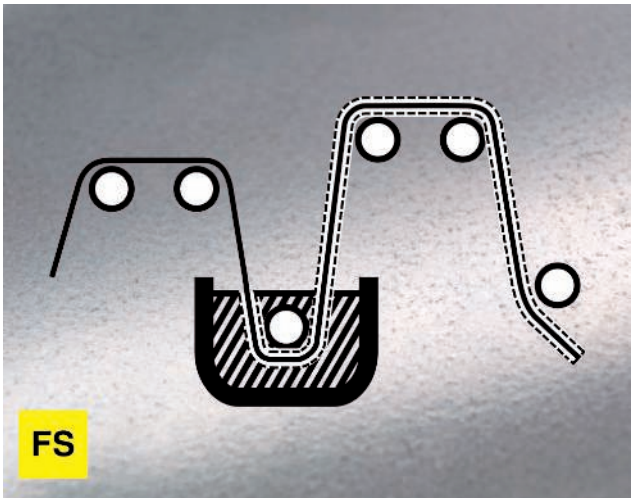
Corrosion protection
Corrosion protection means all steps taken to prevent corrosion damage to metallic components. It is impossible to prevent corrosion permanently, so corrosion protection measures generally aim to reduce the speed of corrosion so that the component is not damaged by corrosion for 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 covering
Zinc slat coverings are coatings applied in a non-electrolytic manner. They offer cathodic protection and thus have excellent corrosion protection, while at the same time, there is no risk of hydrogen-induced breakage. Due to these properties, this coating type is used for connection components with a high strength classification or structural parts with high tensile strength. The low layer thickness of the zinc slat covering allows a thin, homogeneous coating, which is particularly important for maintaining the accuracy of screw threads. This coating achieves a resistance of 480 hours in the salt spray test for the connection elements.

Galvanisation types



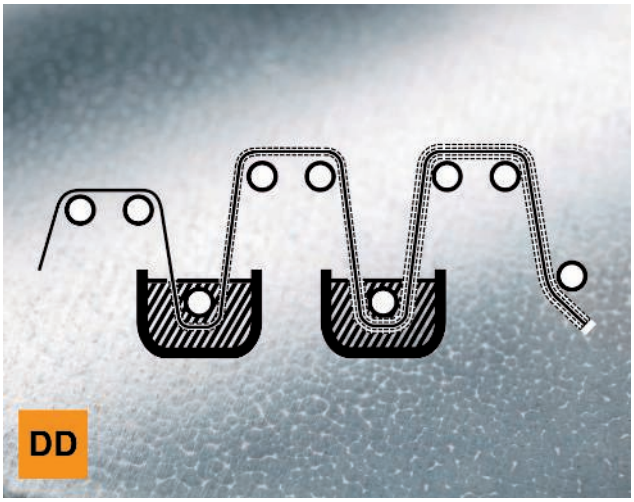
Electrogalvanisation – electrolytic galvanisation in accordance with DIN EN ISO 2081
In electrogalvanisation or electrolytic galvanisation, the component is coated by dipping it not in molten zinc, but in a zinc electrolyte, through which a direct electric current is passed.



Strip galvanising – hot galvanised according to the strip-galvanising method in accordance with DIN EN 10346 (formerly DIN EN 10147 and DIN EN 10142)
Strip galvanisation or Sendzimir galvanisation is where a continuous ribbon of steel is galvanised in a continuous line.



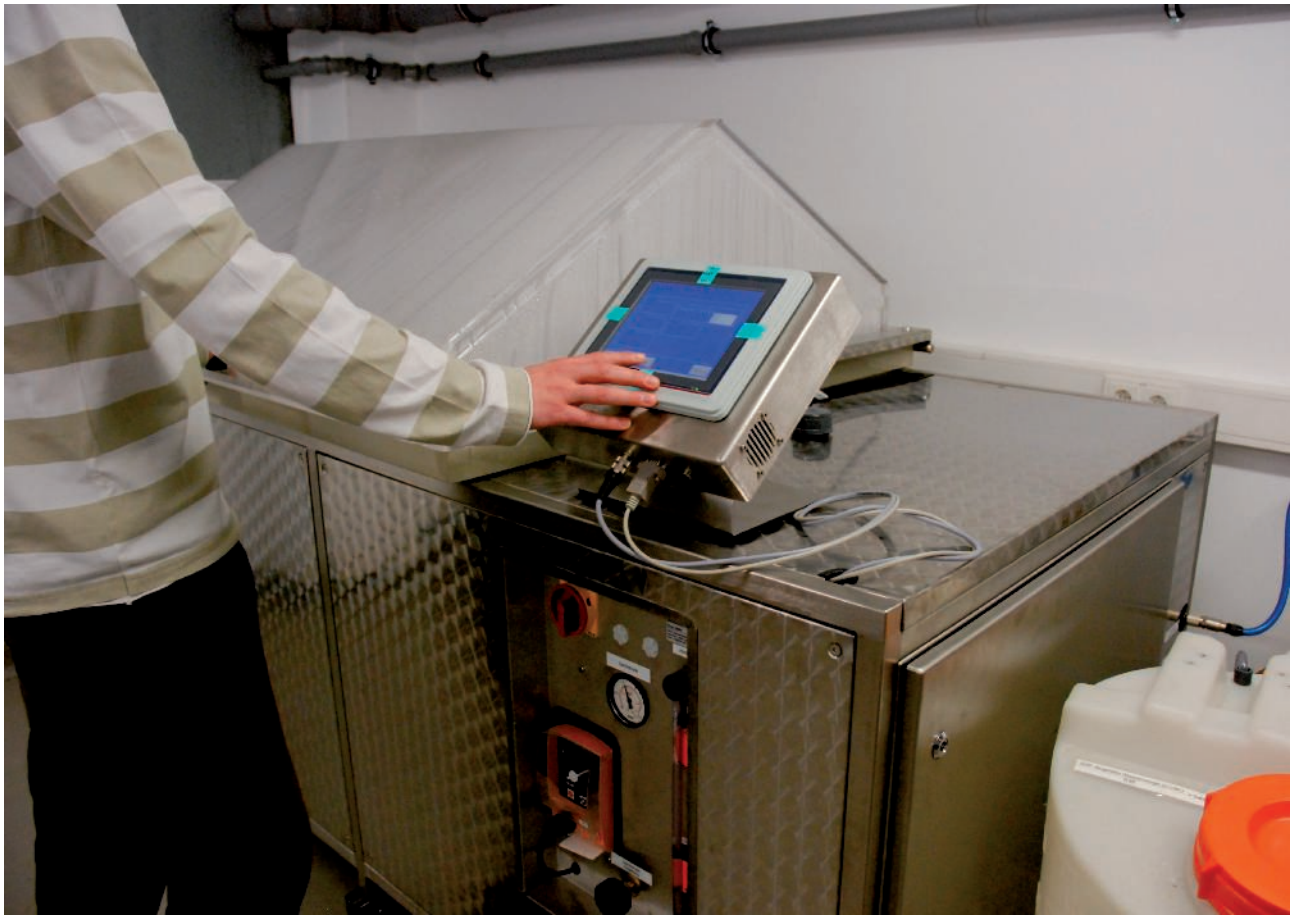
Hot-dip galvanisation – hot galvanisation using the dipping method according to DIN EN ISO 1461
Batch galvanisation is mainly used for galvanising prefabricated steel parts, by dipping them in molten zinc at a temperature of around 450 °C.



Hot-dip coating – zinc-aluminium coating in accordance with DIN EN 10346
In contrast to conventional coating systems, the material being galvanised in the double-dip process passes through two baths in succession: the first contains pure zinc, the second a zinc-aluminium alloy.

Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Surface testing and corrosion categories



Classification of corrosion resistance
All the system components must show sufficient resistance against corrosion in agreement with the standard DIN EN 61537. The minimum zinc layer thicknesses are determined through a measurement. The grouping into the appropriate class is detailed in the table “Classification of corrosion resistance”. The table “Corrosion categories according to DIN EN ISO 12944” shows the area of application and the zinc loss to be expected.

Classification of corrosion resistance
All components, depending on the environment, must show sufficient resistance against corrosion in agreement with the standard DIN EN 61537. This is how corrosion categories are determined, e.g. with a salt spray test. In this procedure, components are sprayed with salt for a certain time period. The resulting level of red rust is the basis for allocation to a corrosion category, i.e. in which environment the component is resistant to corrosion.

Classification of corrosion resistance according to EN 61537

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

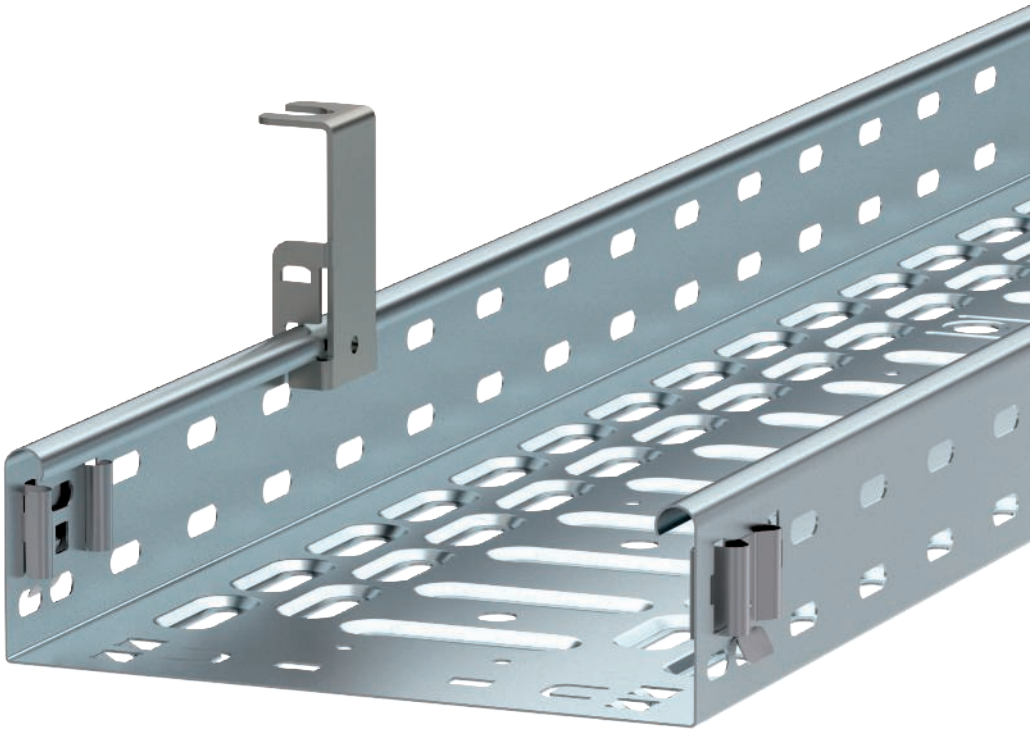
* For materials which do not have a declared corrosion resistance classification
** The end treatment process is used to improve the protection against crack corrosion and the contamination of other steels

Corrosion categories to DIN EN ISO 12944

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

Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Contact corrosion



If two different metals are conductively connected with each other, contact corrosion can occur. This poses a considerable risk to the load capacity and lifespan of the components used.

The level of contact corrosion is determined primarily 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 condensation, 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 active, 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.
- Different environments or atmospheres can increase or influence the risk of contact corrosion to varying degrees.

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 metal products are machined from high-quality sheet steel or steel wire and are available with various surfaces. Different hardening and coating methods ensure tailor-made corrosion protection, specially tailored to the appropriate application:

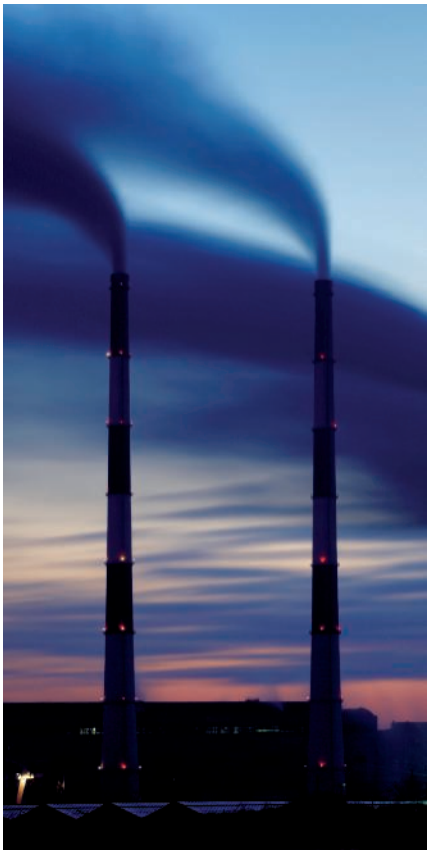
Application	Material	Surface protection
Indoors 	St Steel	L Painted/powder-coated
	St Steel	FS Strip galvanised DIN EN 10346
	St Steel	G Electrogalvanised DIN EN ISO 2081
Outdoors 	St Steel	FT Hot galvanised DIN EN ISO 1461
	St Steel	DD Hot galvanised DIN EN ISO 1461
	VA Stainless steel A2	
	VA Stainless steel A4	
Especially corrosive areas 	VA Stainless steel A2	
	VA Stainless steel A4	

Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Contact corrosion in different environments



Land climate



Industrial atmosphere



Sea climate

Small/large	Zn	FT	Al	Cu	VA	CuZn
Zn		✓	○	✗	✗	○
FT	✓		○	✗	✗	○
Al	✓	✓		✗	✗	○
Cu	✓	✓	✓		✓	✓
VA	✓	✓	✓	✓		✓
CuZn	✓	✓	✓	✓	✓	

✓	Little to no corrosion
○	Moderate corrosion
✗	Heavy corrosion

The precondition for corrosion is a conductive medium that connects the metal combination. The more damp and contaminated the atmosphere is, the more pronounced the contact corrosion.

Surfaces for special visual requirements or special environmental loads



Applications with specific optical requirements or special environmental conditions

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

Colour coatings for reasons of corrosion protection

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

Colour-coated systems are not specifically indicated in this Industrial installation product catalogue. You can obtain details of these systems by contacting our telephone hotline on +49 23 73 89 - 17 00.

Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

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. Duroplasts produce hard, glass-like (brittle) polymeric materials with a high thermo-mechanical strength.

Properties
The area of application for which plastic OBO products are suitable depends mainly on the properties of the material being used. The most important material properties are:
- Temperature resistance
- Risk of stress cracks
- Chemical resistance
- Halogen freedom
- UV resistance
- Flame resistance

		Material	Max. temperature resistance Permanent	Max. temperature resistance Short-time	Min. temperature resistance Static
Thermoplast	ABS/AVA	Acrylonitrile butadiene styrene	70 °C	85 °C	–25 °C
	EVA	Ethylene vinyl acetate	55 °C	70 °C	–15 °C
	PA	Polyamide	120 °C	150 °C	–25 °C
	PA/GF	Polyamide, fibreglass reinforced	120 °C	160 °C	–25 °C
	PBPT	Polybutylene terephthalate	120 °C	140 °C	–25 °C
	PC	Polycarbonate	110 °C	125 °C	–25 °C
	PE	Polyethylene	70 °C	90 °C	–25 °C
	PP	Polypropylene	90 °C	110 °C	–25 °C
	PS	Polystyrene	70 °C	80 °C	–15 °C
	PVC	Polyvinyl chloride	65 °C	80 °C	–25 °C
Elastomers	NBR SBR	Rubber mixture	100 °C	110 °C	–25 °C
	NBR	Nitrile rubber	100 °C	110 °C	–25 °C
Duroplast	UF	Duroplast, aminoplast, type 131.5	65 °C	90 °C	–25 °C
	MF	Duroplast, melamine resin, type 150	80 °C	110 °C	–25 °C

Plastic: stress crack risk and chemical resistance

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	○	!									✓			!
Sulphuric 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				○							!	○		
Seawater					✓	✓								
Diesel fuel							✓	✓	✓		○	○	!	
Ammoniac									○				!	

Resistance: ✓ Resistant ○ Limited resistance ! Not resistant

Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Plastic: material properties



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 must, or should, 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 event 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 materials are considered halogen-free when "the proportions of the halogens chlorine, bromine and iodine are ≤ 0.2% for chlorine and ≤ 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 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, regularity 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 a further 30 seconds at the latest, the object, if it has caught light, must have extinguished again, in order to specify the flame resistance.



Types of installation systems

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

Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

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.

Protection rating

First code digit	...against access to the hazardous parts	...against solid foreign bodies
0	Protected against access to hazardous parts with the back of the hand	Non-protected
1	Protected against access to hazardous parts with a finger	Protected against solid foreign bodies of 50 mm diameter and larger
2	Protected against access to hazardous parts with a tool	Protected against solid foreign bodies of 12.5 mm diameter and larger
3	Protected against access to hazardous parts with a wire	Protected against solid foreign bodies of 2.5 mm diameter and larger
4	Protected against access to hazardous parts with a wire	Protected against solid foreign bodies of 1.0 mm diameter and larger
5	Protected against access to hazardous parts with a wire	Dust-protected
6	Protected against access to hazardous parts with a wire	Dust-proof

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	Non-protected	-
1	Protected against water droplets	Droplets falling vertically must not have a damaging impact.
2	Protected against drip water when enclosure tilted up to 15°	Vertically falling drops must not have harmful effects when the enclosure is tilted at any angle up to 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 must not have any damaging impact.
4	Protected against spray water	Water spraying the housing from any direction must not have any damaging impact.
5	Protected against water jets	Jets of water pointing at the housing from any direction must not have any damaging impact.
6	Protected against strong water jets	Strong jets of water pointing at the housing from any direction must 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	Ingress of water in quantities causing harmful effects must not be possible when the housing is continuously immersed in water under conditions which shall be agreed between manufacturer and 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 stands 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

Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Nominal values of electrical equipment



When using junction boxes, connection sockets and connection terminals, the resources are assigned nominal values. In the designation, a distinction is made between the maximum approved voltage (nominal voltage), the maximum approved current (nominal current) and the maximum approved cross-section (nominal cross-section of the cables to be connected).



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



Nominal current
The nominal current is the highest permissible operating current that can be continuously passed through connections (e.g. terminals) marked with that value.

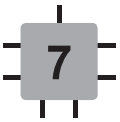


Nominal voltage
Greatest approved voltage at the connection point.

In addition to the nominal values, the number of entries for junction boxes and the number of poles of clamp connectors are also possible labels.

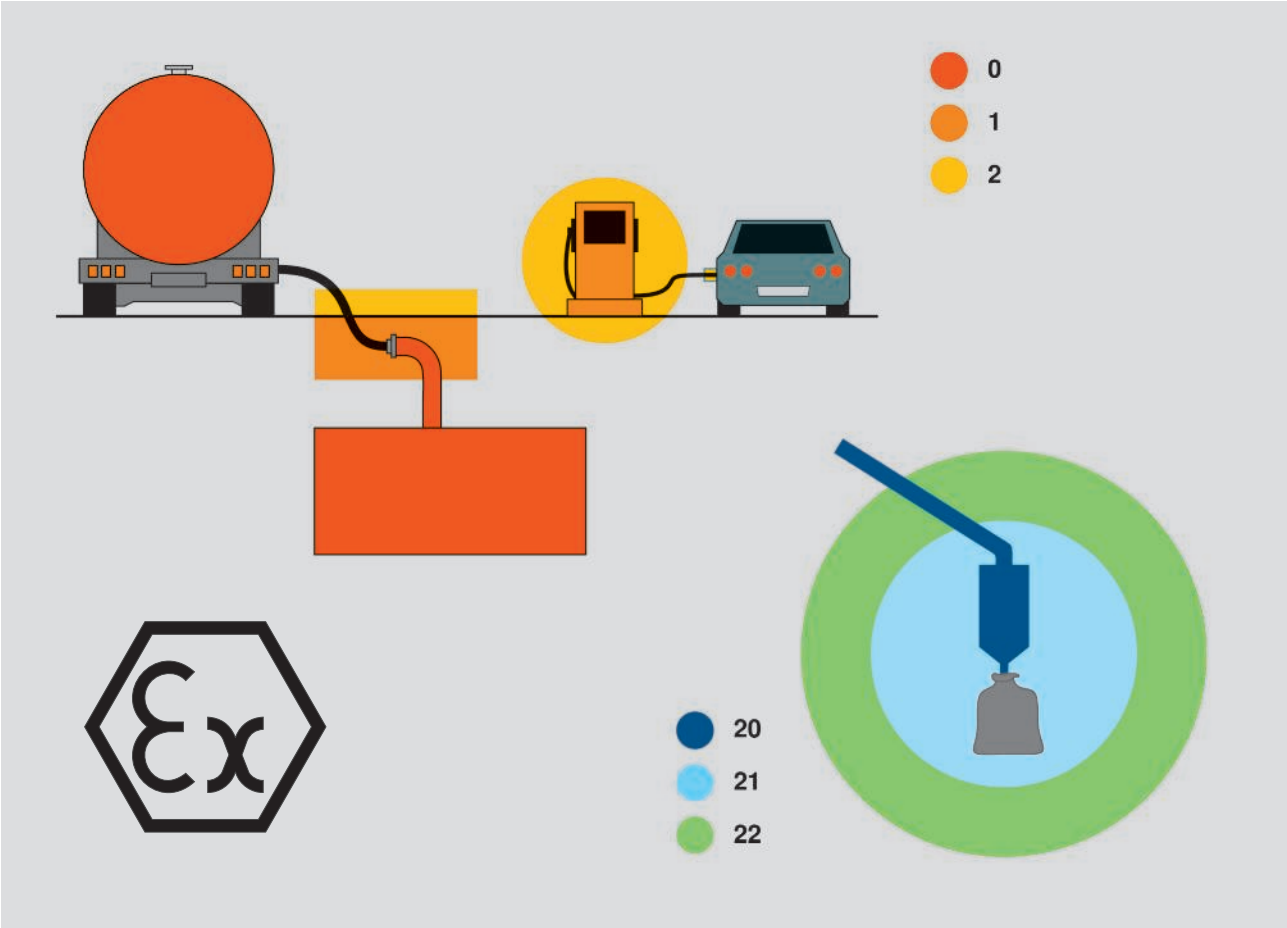


No. of poles
Number of connection points of the clamp connector.



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

Zone division for explosive areas



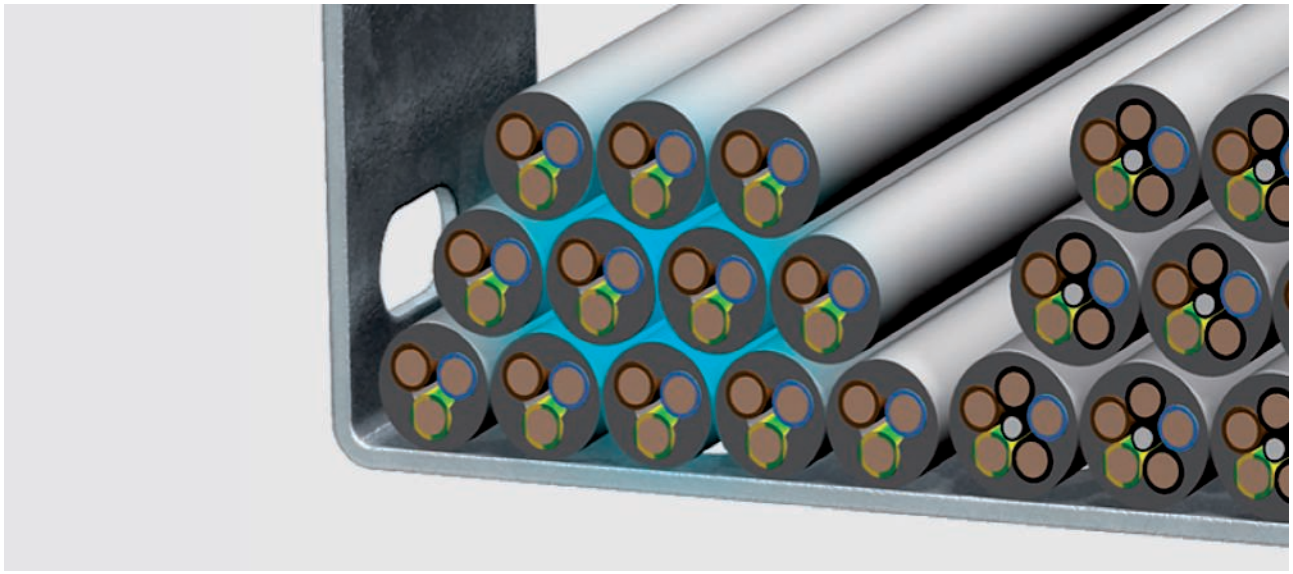
Products used in potentially explosive areas must comply with the ATEX directives. The ATEX workplace directive 1999/92/EC sets out the minimum requirements for improving the safety and health protection of workers at risk from potentially explosive atmospheres. The directive divides areas with dangerous, potentially explosive atmospheres into zones. Ex-tested products may be used in the respective zones in accordance with their approval.

Zone allocation of device group II (applied)

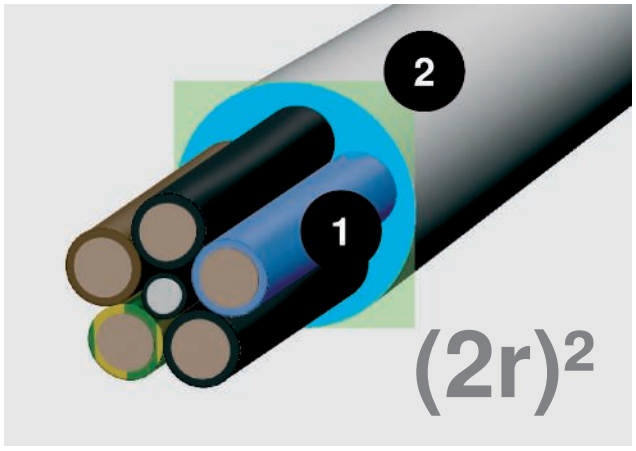
Gas	Dust
Explosive gas atmosphere, zone division to DIN EN 60079-10	**Explosive dust/air mixtures, zone division to DIN EN 61214-10**
Zone 0	Zone 20
An area in which it can be expected that, under normal conditions, an explosive atmosphere of gas occurs continuously or for long periods of time.	An area 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.

Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Cable sizes

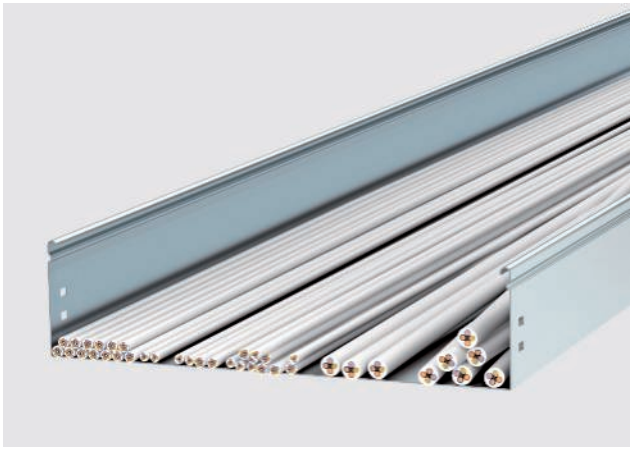


The term “cable” means a jacketed electrical cable for the transmission of electrical energy and data. Cables are given according to their nominal cross-section. The external diameter and usable cross-section depend on their nominal cross-section and the number of individual wires contained in the cable. When fastening clips or cable support systems are used, it is important to know the actual space requirements of the individual cables. It is not sufficient to take only the diameter as a basis for the calculation of the cable volume.



Circular area (1) and space required (2)

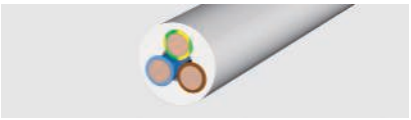
Calculation with the formula (2r)²
The diameter says little about the actual space required by a cable. Calculate: (2r)². This value reflects the realistic space requirements, including the compartments.



To save you work, we have listed the diameter and usable cross-section of the most important cable types below.

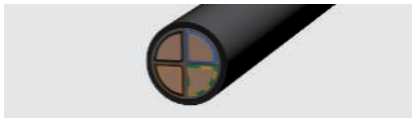
Important:
These values are average values, which may vary from manufacturer to manufacturer. Please refer to the manufacturer's specifications for the exact values.

Basic values for the calculation of the cable volume



Insulated power cables

Type	Diameter mm	Usable cross-section cm²
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 cm²
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 cm²
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 cm²
Cat. 5	8	0.64
Cat. 6	8	0.64



Coax cable (Standard)

Type	Diameter mm	Usable cross-section cm²
SAT/BK cable	6.8	0.48

Industrieinstallltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Selection of the correct fastening clip



Fastening clips are given with their maximum span distance as a nominal size in mm. This makes it easy to determine the appropriate clip for the planned cable volume. If the necessary clamping range is between two nominal sizes, e.g. 16 mm, we recommend using the smaller nominal size.

If cables are not fastened directly in the clip, but routed through an installation pipe for example, the relationship between the external diameter and metric or PG sizes must be observed when selecting the correct fastening clip. You will find more information on this in the table below.

Overview of external diameters, metric and PG sizes

External diameter in mm	Metric size	PG size
Up to 12	M12	PG 7
Up to 16	M16	PG 9/PG 11
Up to 20	M20	PG 13.5/PG 16
Up to 25	M25	PG 21
Up to 32	M32	PG 21
Up to 40	M40	PG 36
Up to 50	M50	PG 42/PG 48
Up to 63	M63	-

Cable glands and the DIN EN 62444 standard

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 indicates the extraction forces that these cable glands must withstand according to the standard. 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 mounting 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

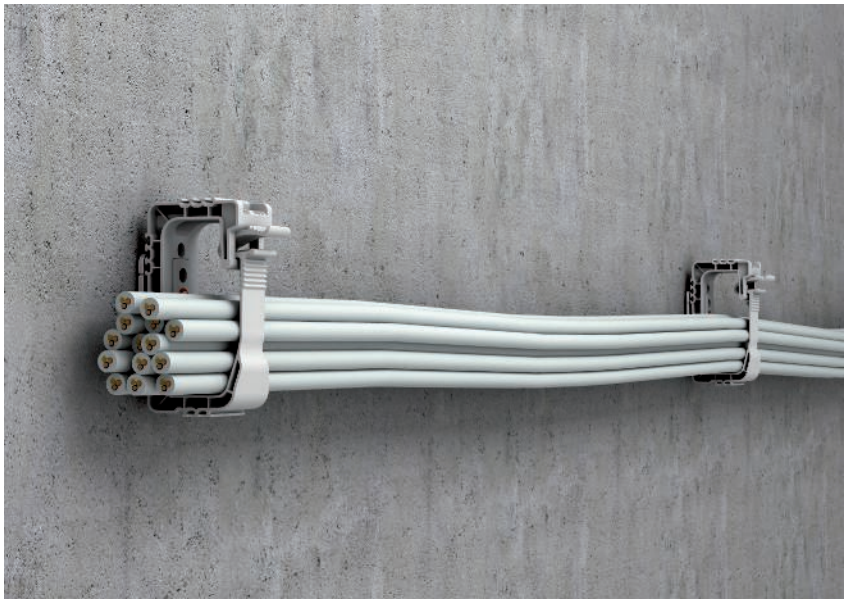
Cable diameter	Retaining capacity	Strain relief, version A
mm	N	N
to 4	5	–
>4 to 8	10	30
>8 to 11	15	42
>11 to 16	20	55
>16 to 23	25	70
>23 to 31	30	80
>31 to 43	45	90
>43 to 55	55	100
>55	70	115

Table 3

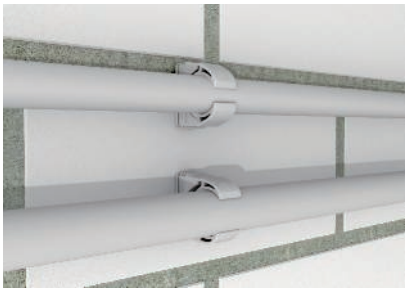
Cable diameter	Torque Version A and B
mm	Nm
>4 to 8	0.10
>8 to 11	0.15
>11 to 16	0.35
>16 to 23	0.60
>23 to 31	0.80
>31 to 43	0.90
>43 to 55	1.00
>55	1.20

Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Information on cable fastenings





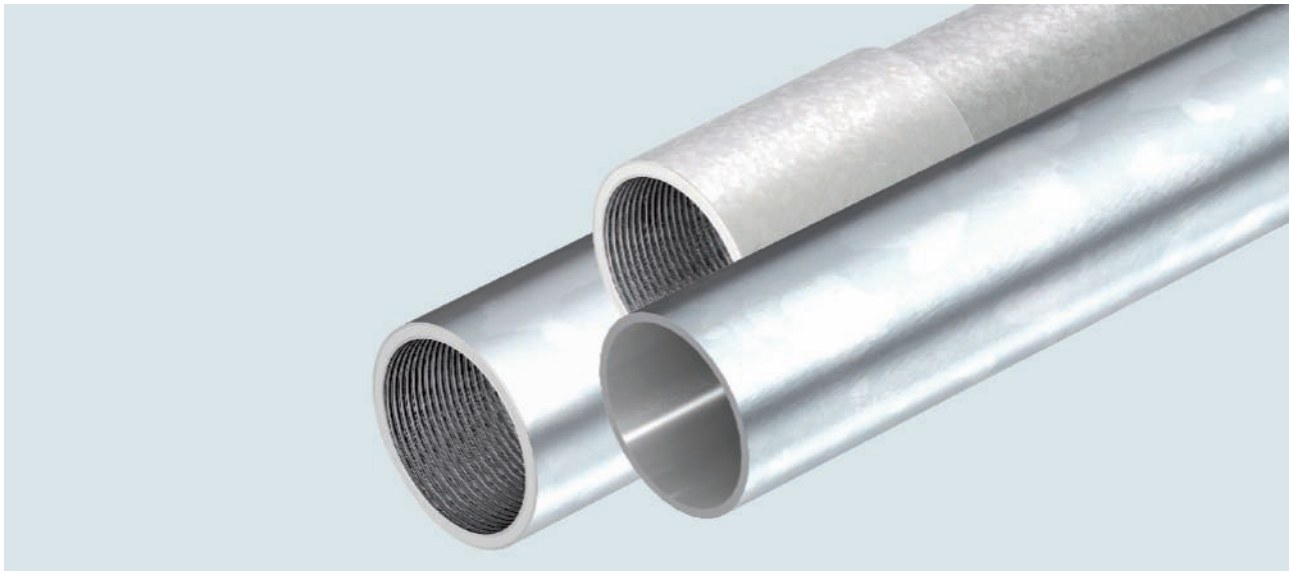


Cable fastening
The standard DIN EN 61914 "Cable holders for electrical installations" specifies that cable holders "must be able to accept cables or cable bundles of the diameter specified by the manufacturer or responsible retailer, without tearing or breaking or shearing off the threads of bolts".
During the installation of cables, the current national and international standard must be taken into account, such as DIN VDE 0100 520. “Suitable tools and methods, 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‘s or client‘s particular laying specifications can/must be taken into account.
The fastening spacing for cables is given in DIN VDE 0100-520, June 2013. 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 routing, 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 Industrial installation product catalogue, e.g. for bus holders or Quick clips, are guide values and can only be treated as such.

External diameter of the cables	Maximum spacing for horizontal fastening	Maximum spacing for vertical fastening
mm	mm	mm
D ≤ 9	250	400
9 < D ≤ 15	300	400
15 < D ≤ 20	350	450
20 < D ≤ 40	400	550

IEC classification in accordance with DIN EN 61386-1

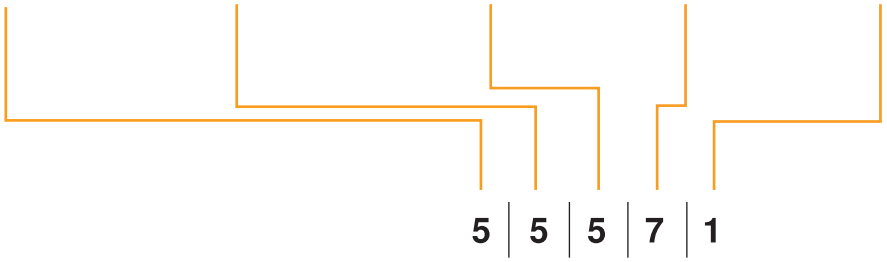


The OBO Bettermann pipe systems are machined and tested according to DIN EN 61386 (Electrical installation pipe systems for electrical energy and information) and DIN EN 60423 (External diameters of electrical installation pipes and thread for electrical installation pipes and their accessories).

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		Second digit		Third digit		Fourth digit		Fifth digit
	Pressure resistance		Impact resistance		Lower temperature range		Upper temperature range		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	Pliable, self-re-covering
4	Heavy (1,250 N)	4	Heavy (2.0 kg/300 mm)	4	–25 °C	4	+120 °C	4	Flexible
5	Very heavy (4,000 N)	5	Very heavy (6.8 kg/300 mm)	5	–45 °C	5	+150 °C		
						6	+250 °C		
						7	+400 °C		



Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Classification according to IEC EN 61386-1: Composition of the IP code

	7th digit		8th digit
	Ingress of solid bodies		Ingress of water
0		0	None declared
1		1	Protected against vertically falling water drops
2		2	Protected against vertically falling water drops, when the pipe system is tilted up to an angle of 15°
3	Protected against solid foreign objects of 2.5 mm Ø and greater	3	Protected against spraying water
4	Protected against solid foreign bodes of 1.0 mm Ø and larger	4	Protected against splashing water
5	Dust-protected	5	Protected against water jets
6	Dust-proof	6	Protection against powerful water jets
7		7	Protected against the effects of temporary immersion in water

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	• Black coated (SW) • Electrogalvanised (G) • Strip galvanised (FS)
3	Medium protection inside, high protection outside	
4	High protection inside and outside	• Hot-dip galvanised (FT) • Stainless steel (V2A, V4A)







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 smoke extraction systems.

Definition of electromagnetic compatibility (EMC)



Recent years have seen the use of electronic circuits increase continually. Whether in industrial systems, medicine, households, telecommunications systems or electrical building installations – we find powerful electrical equipment and systems everywhere, and these switch ever greater currents, achieve greater radio ranges and transport ever more power in smaller spaces.

However, the use of state-of-the-art technology means that the complexity of applications also increases. The consequence of this is that ever more opposing influences (electromagnetic interferences) can occur from system parts and cables, causing damage and economic losses.

Here, we talk of electromagnetic compatibility:
Electromagnetic compatibility (EMC) is the ability of an electrical unit to function satisfactorily in its electromagnetic environment, without inappropriately influencing this environment, to which other units also belong (VDE 0870-1). In terms of standardisation, electromagnetic compatibility is dealt with by the EMC Directive 2004/108/EC. This means that electrical resources emit electromagnetic interferences (emissions), which are picked up by other devices or units (immission) that act as receivers (interference sink). This in turn means that the function of an interference sink can be severely reduced and, in the worst-case scenario, result in total failure and economic losses. The interferences can then spread along cables or in the form of electromagnetic waves.

Path of faults

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

Industrieinstallltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Guarantee of EMC



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

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

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

Standards, specifications and certifications



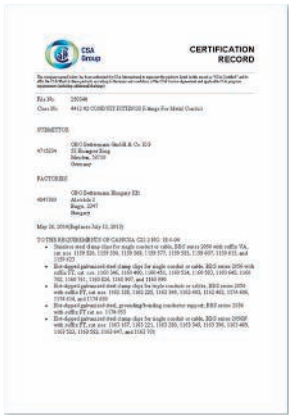














Standards

OBO offers products for professionals, made by professionals. Our products are manufactured and tested according to the respective specifications of the standards. For example, DIN EN 61537 describes all the relevant parameters for cable support systems, such as the area of application, test conditions, corrosion resistance and temperature classification. As a highly competent manufacturer, OBO subjects itself to these requirements on a daily basis. Comprehensive test procedures guarantee that systems which conform to standards function safely.

Specifications

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

Certifications

For OBO, product quality is closely connected to continuous testing and checking – which is why we manufacture almost all our products ourselves. This enormous depth of production is an expression of our demand for quality. From construction, and the materials used through production, right up to logistics, our employees personally guarantee the quality and availability of OBO products.

The multitude of approvals emphasise our high demand for quality and product functionality.

Our integrated quality management system forms the solid basis of our ISO 9001 certification, which we have held since 1994. The confirmation of suitability enables defined and workable processes in accordance with KTA 1401 and 10 CFR 50.

Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

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.

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.

First-hand support and knowledge



OBO seminars: First-hand knowledge
With a comprehensive programme of training courses and seminars, OBO supports its customers with first-hand specialist knowledge. Besides the theoretical principles, practical everyday implementation is also dealt with. Special calculation and application examples round off the comprehensive programme of knowledge transfer.

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

- Invitations to tender
- Product information
- Data sheets

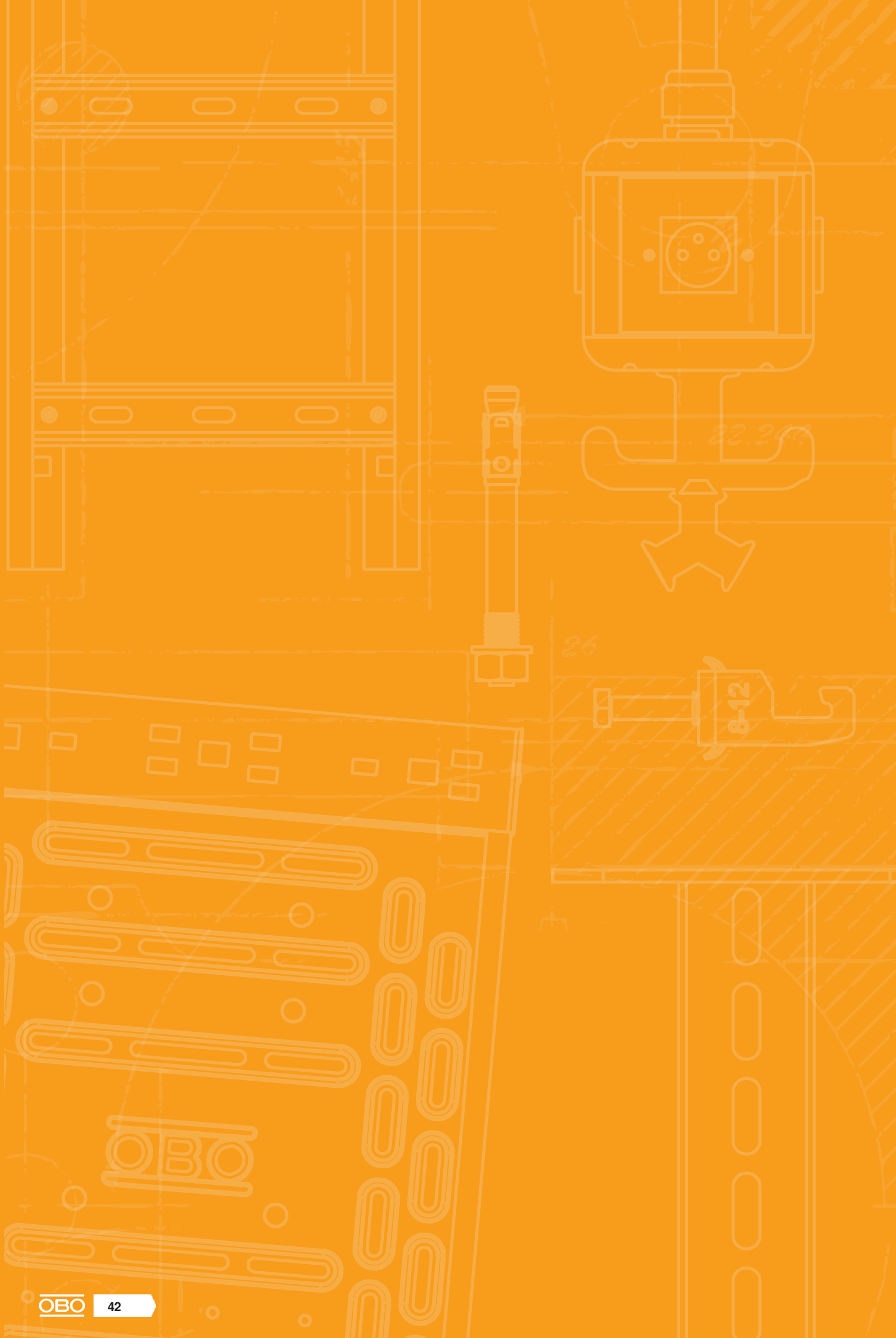
Invitations to tender on the Internet at www.ausschreiben.de
More than 10,000 entries from the different ranges can be called up free of charge. Regular updates and extensions mean that you always have a comprehensive overview of the OBO products. All the current file formats (PDF, DOC, GAEB, HTML, TEXT, XML, ÖNORM) are available.
www.ausschreiben.de

Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47 08:19:47

Test marks

	American Bureau of Shipping, USA
	AENOR, Producto Certificado, Spain
	STOWARZYSZENIE ELEKTRYKÓW POLSKICH, Poland
	Lightning current-tested
	Lightning current-tested, Class H (100 kA)
	CEBEC, Belgium
	Canadian Standards Association, Canada
	DEMKO, Danmarks Elektriske Materielkontrol, Denmark
DIBt	Deutsches Institut für Bautechnik Berlin, Germany
	Det Norske Veritas
	ENEC Austria
	ATEX certificate for explosive areas
	ELEKTROTECHNICKÝ ZKUŠEBNÌ ÚSTAV, Czech Republic
	FIMKO, Finland
	Forschungs- und Materialprüfungsanstalt, Germany
	Russia, GOST The State Committee for Standards
	Test marks for technical resources, VDE Prüf- und Zertifizierungsinstitut Offenbach, Germany
	Halogen-free; without chlorine, fluorine and bromine
	INMETRO, Brazil
	KEMA-KEUR, Netherlands
	Indication of metric products
	MAGYAR ELEKTROTECHNIKAI ELLENŐRZŐ INTÉZET Budapest, Hungary
	NEMKO, Norway
	AFNOR Quality symbol of the French standardisation institute

	Underwriters Laboratories Inc., USA + CSA, Canada
	Österreichischer Verband für Elektrotechnik, Austria
	INSTITUTO ITALIANO DEL MARCHO DI QUALITÁ, Italy
	RINA 1861, Ship Classification, Certification and Services
	Underwriters Laboratories Inc., USA
	SEMKO An Inchcape Testing Services Company, Sweden
	Eidgenössisches Starkstrominspektorat, Switzerland
	South African Bureau of Standards
	Shock-tested, Bundesamt für Zivilschutz, Germany
	Sähkötarkastuskeskus Elinspektionscentralen Electrical Inspectorate, Finland
	Underwriters Laboratories Inc., USA
	Underwriters Laboratories Inc., USA
	Verband der Elektrotechnik, Elektronik, Informationstechnik e.V., Germany
	German Association of Electricians, tested safety
	5-year warranty



Anchor and tie



Plastic anchors 44



Metal anchors 50



Injection anchors 68

Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Screw lock



The components listed below are now considered to be ineffective screw locks, as the corresponding standards have been withdrawn. They are therefore not permitted as the sole safety devices for strength classes ≥ 8.8.

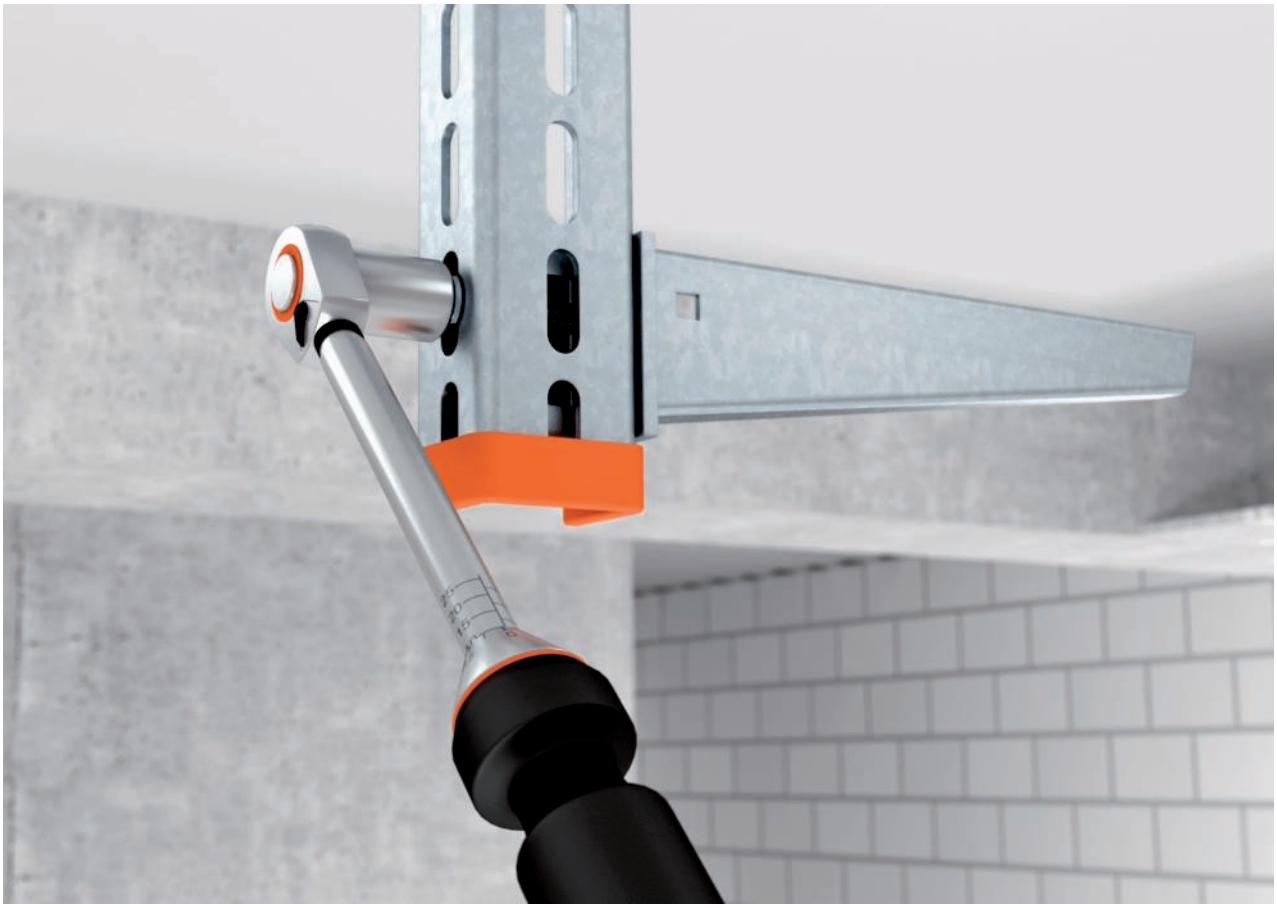
Withdrawn standards:
Spring lock washers (DIN 127, DIN 128 and DIN 6905)
Wave spring washers (DIN 137 and DIN 6904)
Toothed discs (DIN 6797)
Serrated washers (DIN 6798)
Locking plates (DIN 93, DIN 432 and DIN 463)
Safety cups (DIN 526)
Locking nuts (DIN 7967)
Castle nuts with split pin (DIN 937)

All specified standards have now been withdrawn, however these components can often still used as “captive prevention”. Captive prevention devices prevent a screw connection from being completely unscrewed, but not from loosening.

At OBO Bettermann, individual products – such as hexagonal bolts with washer and nut – continue to be sold as a complete package, as these are used for electrical contact to surrounding metallic components.

Our systems are generally not exposed to dynamic loads that require screw locking.

Tightening torques



Different tightening torques apply when mounting a cable support system. Please note that the specified torques are only intended as rough, non-binding guide values (see VDI 2230).

Tightening torques of bolts with metric thread made of steel

Thread	Tightness class 5.6	Tightness class 8.8
Friction coefficient 0.14	Friction coefficient 0.14	Friction coefficient 0.14
M6	4.80 Nm	4.80 Nm
M8	11.60 Nm	27.30 Nm
M10	23.10 Nm	54.00 Nm
M12	40.40 Nm	93.00 Nm
M14	64.70 Nm	148.00 Nm
M16	11.60 Nm	230.00 Nm

Tightening torques of bolts with metric thread made of stainless steel

Thread	Resistance grade 70	Resistance grade 80
Friction coefficient 0.14	Friction coefficient 0.14	Friction coefficient 0.14
M6	11.60 Nm	12.90 Nm
M8	23.60 Nm	31.50 Nm
M10	46.80 Nm	62.40 Nm
M12	81.00 Nm	108.00 Nm
M14	129.00 Nm	172.00 Nm
M16	201.00 Nm	269.00 Nm

Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Angler spreading anchor

Angler spreading anchor

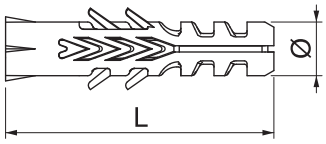
PA



Type	Dowel Ø mm	Dim. L mm	Wood screws Ø mm	Pack Piece	Weight kg/100 pc.	Item no.
910 F 5x25	5	25	2,5-4	100	0.042	**2349480**
910 F 6x30	6	30	3,5-5	100	0.075	**2349482**
910 F 8x40	8	40	4,5-6	100	0.132	**2349484**
910 F 10x50	10	50	6-8	50	0.225	**2349486**
910 F 12x60	12	60	8-10	25	0.380	**2349488**

Required minimum screw length = anchor length + component thickness + 1 x screw Ø.
Withdrawal force applies to wood screws of the largest screw diameter, required safety values must be taken into account.

Dimensions



Type	Concrete Frat N	Full brick Mz12 Frat N	Solid calcareous sandstone KSL12 Frat N	Porous concrete P2 Frat N	Porous concrete P4 Frat N	Hollow brick Hlz12 Frat N
910 F 5x25	230	240	330	40	40	90
910 F 6x30	310	380	370	50	60	120
910 F 8x40	340	460	430	70	70	130
910 F 10x50	770	790	780	100	100	220
910 F 12x60	1550	1570	1900	150	160	300

Multipurpose anchors

Universal anchor

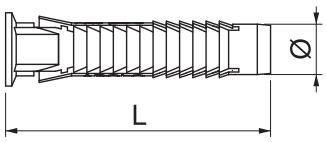
PE



Type	Dowel Ø mm	Dim. L mm	Wood screws Ø mm	Pack Piece	Weight kg/100 pc.	Item no.
910 FX 5x25	5	25	2,5-4	100	0.037	**2347580**
910 FX 6x30	6	30	3,5-5	100	0.065	**2347582**
910 FX 8x40	8	40	4,5-6	100	0.150	**2347584**
910 FX10x50	10	50	6-8	50	0.280	**2347586**
910 FX 12x60	12	60	8-10	25	0.400	**2347588**

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

Dimensions



Type	Concrete Frat N	Full brick Mz12 Frat N	Solid calcareous sandstone KSL12 Frat N	Porous concrete P2 Frat N	Porous concrete P4 Frat N	Hollow brick Hlz12 Frat N	Porous calcareous sandstone KSL12 Frat N
910 FX 5x25	200	210	210	30	50	150	230
910 FX 6x30	470	420	420	50	100	200	390
910 FX 8x40	520	500	500	100	140	230	670
910 FX10x50	1280	900	900	160	300	450	670
910 FX 12x60	1910	1100	1100	280	400	500	740

PA

Multipurpose anchor

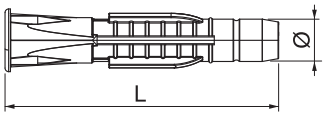
Type	Dowel Ø mm	Dim. L mm	Wood screws Ø mm	Pack Piece	Weight kg/100 pc.	Item no.
910 AZK 5x31	5	31	3-4	100	0.036	**2348120**
910 AZK 6x38	6	38	4-5	100	0.063	**2348122**
910 AZK 8x51	8	51	5-6	100	0.106	**2348124**
910 AZK 10x61	10	61	7-8	50	0.260	**2348126**
910 AZK 12x71	12	71	8-10	25	0.370	**2348128**



Also suitable as a cavity anchor, with collar to prevent slipping. 3 tabs take up the torque.
Required minimum screw length = anchor length + component thickness + 1 x screw Ø.
Withdrawal force applies to wood screws of the largest bolt diameter in concrete of class B25.
Our safety value recommendation: 5x

Type	Concrete Frat N	Full brick Mz12 Frat N	Solid calcareous sandstone KSL12 Frat N	Porous concrete P2 Frat N	Hollow brick Hlz12 Frat N	Porous calcareous sandstone KSL12 Frat N	Plasterboard 12.5 mm Fempf. N
910 AZK 5x31	160	160	170	30	210	170	70
910 AZK 6x38	230	190	–	50	230	340	90
910 AZK 8x51	460	270	–	60	320	310	90
910 AZK 10x61	1250	860	–	110	310	520	90
910 AZK 12x71	1470	910	–	200	350	480	–

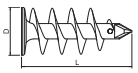
Dimensions



PA

Insulation anchor

Type	Length mm	Dowel Ø mm	Wood screws Ø mm	Break load kN	Pack Piece	Weight kg/100 pc.	Item no.
DSDT 60	58	8	4,5 - 5	0.05	10	0.720	**2347605**





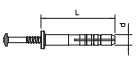
Insulation anchor for universal lightweight fastening in plastered heat composite systems. With self-tapping point.

Knock-in anchor

PA

Knock-in anchor

Type	Dowel Ø mm	Length mm	Pull-out force N min/concrete	Pack Piece	Weight kg/100 pc.	Item no.
910 SD 5X35	5	35	220	100	0.360	**2351021**
910 SD 6X35	6	35	260	100	0.310	**2351056**
910 SD 6X40	6	40	260	100	0.555	**2351064**
910 SD 8X55	8	55	350	50	1.070	**2351099**



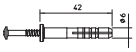


Knock-in anchor: steel, electrogalvanised and transparently passivated.

PA

Knock-in anchor

Type	Dowel Ø mm	Length mm	Pack Piece	Weight kg/100 pc.	Item no.
910 SD-Q 6x40	6	40	100	0.480	**2351218**





Knock-in anchor for Quick clips type 2955.
Knock-in anchor: steel, tempered, electrogalvanised and transparently passivated.

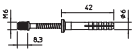
Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Knock-in anchor

Knock-in anchor

PA





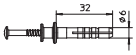
Type	Dowel Ø mm	Length mm	Pack Piece	Weight kg/100 pc.	Item no.
910 SDM M6	6	40	100	0.480	**2350807**

With M6 thread.
Knock-in anchor: steel, tempered, electrogalvanised and transparently passivated.

Double-flange anchor

PA





Type	Dowel Ø mm	Length mm	Drill hole depth mm	Pack Piece	Weight kg/100 pc.	Item no.
910 DF 6x35	6	35	40	100	0.425	**2347407**

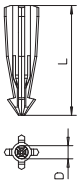
Knock-in anchor: steel, tempered, electrogalvanised and transparently passivated.

Gas concrete anchor

Gas concrete anchor

PA





Type	Dim. D mm	Dim. L mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
910 GD 6x35	6	35	Light grey	100	0.094	**2347229**
910 GD 8x50	8	50	Light grey	50	0.263	**2347261**

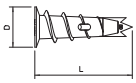
The anchor can be knocked directly into the porous concrete (gas concrete resistance class G2). With a resistance class of G4 or greater, a 5 or 6 mm hole should be pre-drilled.
Screw length: Component thickness + 40 mm (6 mm) / 55 mm (8 mm).

Plasterboard anchor

Plasterboard anchor

Zn





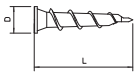
Type	Dim. D mm	Dim. L mm	Perm. load range, tension zone kN	Pack Piece	Weight kg/100 pc.	Item no.
910 GKDM 12x30	12	30	0.04	100	0.400	**3483214**

To fasten components to plasterboard or fibre composite plates.
Minimum plate thickness: 12 mm.
For Ø 4.5 Golden Sprint or Sprint screws.

Zn

Plasterboard anchor

Type	Dim. D mm	Dim. L mm	Perm. load range, tension zone kN		Pack Piece	Weight kg/100 pc.	Item no.
910 GKSM 6x25	7.5	26.4	0.04		100	0.160	**3483239**





To fasten components to plasterboard or fibre composite plates.
Min. plate thickness: 5 mm.

Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

System description



The majority of metal spreading anchors from OBO Bettermann have a European Technical Assessment ETA. Some versions have shock approval from the Federal Office for Civil Protection in Bern, Switzerland. Most metal spreading anchors have also been tested in terms of fire protection for a fire resistance time of up to 120 minutes. You can find detailed information regarding the permitted loads (also in the event of a fire) and the installation conditions that must be observed in the corresponding approvals.

System benefits:

- Wide range of application areas thanks to the variety of versions, load classes and material qualities
- Quick and easy mounting
- High-tensile loads and shear loads
- Small edge and axis spacings
- Can be used indoors and outdoors (depending on material)

Mounting aid



Drilling an anchor hole
Drilling of the anchor hole according to the anchor approval information for the drill hole diameter and the drill hole depth.



Blowing-out of the drill hole
Removing dust from the drill hole by blowing it out several times.



Drilling an anchor hole in the ceiling
Drilling of the anchor hole in the ceiling according to the anchor approval information for the drill hole diameter and the drill hole depth.



Blowing-out of the drill hole in the ceiling
Removing dust from the drill hole by blowing it out several times.



Placing the BZ IG bolt tie
The bolt tie BZ-IG is placed on the BZ-IGS setting tool. It must be ensured that the thread size of the setting tool fits to the corresponding bolt tie.



Knocking-in of the BZ-IG bolt tie
Knocking-in of the bolt tie BZ IG with the appropriate setting tool. Then the component to be mounted can be fastened.



Mounting of BZ IG threaded rod
Mounting of a threaded rod into the BZ-IG bolt tie. The direct mounting of a component with a hexagonal bolt is also possible.



Application of the BZ IG torque
Fastening of the threaded rod by tightening the hexagonal nut with the torque specified in the approval.

Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Mounting aid



Nail tie, type N, with threaded connection
Nail tie, type N, with M6 threaded connection, usable in cracked or non-cracked standard concrete C20/25 to C50/60.



Nail tie, type N-K, with drive-in head
Nail tie, type N-K with drive-in head, usable in cracked or non-cracked standard concrete C20/25 to C50/60.



Bolt tie, type BZ
Bolt tie, type BZ, for fastening heavy-duty anchorings in cracked or non-cracked standard concrete C20/25 to C50/60, suitable for push-through mounting, with M8, M10, M12 or M16 thread.



Drop-in anchor, type ES
Impact tie, type E, with M6, M8, M10, M12 internal thread. To accept small loads, approved for multiple fixings in cracked and non-cracked concrete of non-load-bearing systems.



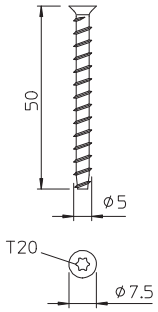
Hollow core anchor, type Easy
Hollow core anchor, type Easy, with M6, M8 and M10 internal thread, for use in stressed concrete core slab ceilings.

St G

MMS-plus KS countersunk head tie, for cable clip

Type	Dimension mm	Anchor length mm	Drill hole Ø mm	Head Ø mm	Screw system	Pack Piece	Weight kg/100 pc.	Item no.
MMS+ KS 5x50	5x50	50	4	7.5	Torx	200	0.460	**3498204**

Bolt tie for direct mounting without additional anchors in concrete and masonry. With small countersunk head to fasten cable clips through the threaded foot.
Load-bearing capacities under fire loads proven up to fire resistance class R120.



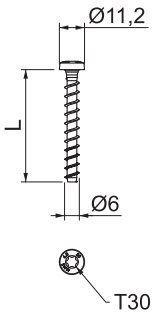


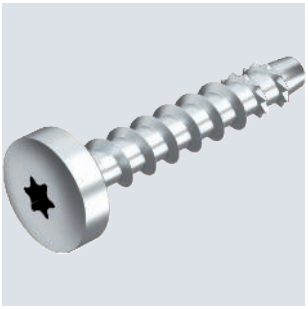
St G VZ ABZ

MMS-plus P round head tie, with panhead

Type	Dimension mm	Dim. L mm	Drill hole Ø mm	Head Ø mm	Screw system	Pack Piece	Weight kg/100 pc.	Item no.
MMS+ P 6x35	6x35	35	5	11.2	Torx	100	0.710	**3498103**
MMS+ P 6x40	6x40	40	5	11.2	Torx	100	1.000	**3498105**
MMS+ P 6x50	6x50	50	5	11.2	Torx	100	1.000	**3498108**

Bolt tie for direct mounting without additional anchors in cracked and uncracked concrete and masonry. With round head for universal fastenings. Torx drive T30.
Construction product tested according to EAD and CE mark, with European Technical Assessment (ETA) and proof of suitability. Load-bearing capacities under fire loads proven up to fire resistance class R120.



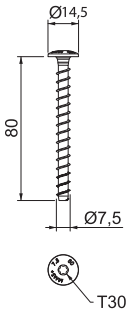


St G ABZ

MMS-plus P round head tie, with panhead

Type	Dimension mm	Anchor length mm	Drill hole Ø mm	Head Ø mm	Screw system	Pack Piece	Weight kg/100 pc.	Item no.
MMS+ P 7.5x80	7,5x80	80	6	14.5	Torx	50	1.600	**3498272**

Bolt tie for direct mounting without additional anchors in cracked and uncracked concrete and masonry. With round head for universal fastenings. Torx drive T30.
Construction product tested according to EAD and CE mark, with European Technical Assessment (ETA) and proof of suitability. Load-bearing capacities under fire loads proven up to fire resistance class R120.



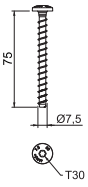


VA

MMS-plus P round head tie, with panhead, made of A4 stainless steel

Type	Dimension mm	Drill hole Ø mm	Head Ø mm	Screw system	Length mm	Pack Piece	Weight kg/100 pc.	Item no.
MMS+ P 7.5x75 A4	7,5x75	6	14.5	Torx	75	50	1.900	**3498274**

Stainless steel screw-in anchor for direct mounting without additional anchors in cracked and uncracked concrete and masonry. With round head for universal fastenings in wet rooms and outdoor areas. Torx drive T30.
Construction product tested according to EAD and CE mark, with European Technical Assessment (ETA) and proof of suitability. Load-bearing capacities under fire loads proven up to fire resistance class R120.



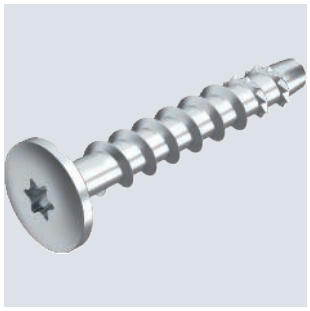


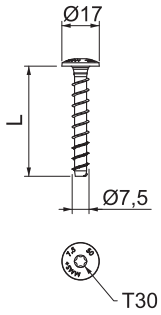
Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Fire protection anchors

MMS-plus MS mounting rail tie, with flat panhead

St G VZ ABZ



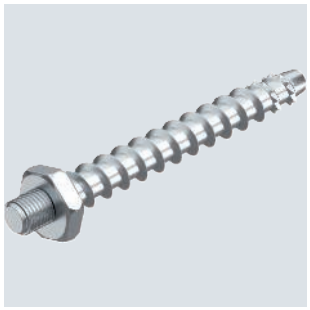


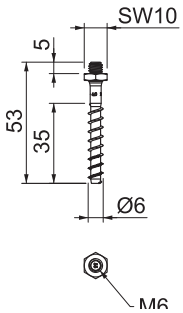
Type	Dimension mm	Dim. L mm	Drill hole Ø mm	Head Ø mm	Screw system	Pack Piece	Weight kg/100 pc.	Item no.
MMS+ MS 7.5x50	7,5x50	50	6	17	Torx	100	1.500	**3498261**
MMS+ MS 7.5x60	7,5x60	60	6	17	Torx	50	1.800	**3498262**

Bolt tie for direct mounting without additional anchors in cracked and uncracked concrete and masonry. With large round head to fasten mounting and profile rails. Torx drive T30. Construction product tested according to EAD and CE mark, with European Technical Assessment (ETA) and proof of suitability. Load-bearing capacities under fire loads proven up to fire resistance class R120.

MMS-plus ST push-in tie, with connection thread

St G ABZ





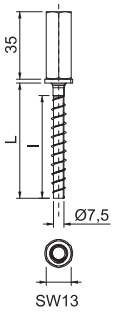
Type	Dimension mm	Drill hole Ø mm	Thread	SW mm	Pack Piece	Weight kg/100 pc.	Item no.
MMS+ ST 6x55	6x55	5	M6	10	100	1.030	**3498264**

Bolt tie for direct mounting without additional anchors in cracked and uncracked concrete and masonry. M6 connection thread for fastening clips with threaded foot. Construction product tested according to EAD and CE mark, with European Technical Assessment (ETA) and proof of suitability. Load-bearing capacities under fire loads proven up to fire resistance class R120.

MMS-plus I internal thread tie, with combination thread sleeve

St G ABZ





Type	Dimension mm	Dim. L mm	Drill hole Ø mm	Thread	SW mm	Pack Piece	Weight kg/100 pc.	Item no.
MMS+ I 7.5x40	7,5x40	40	6	M8/M10	13	40	3.810	**3498266**
MMS+ I 7.5x60	7,5x60	60	6	M8/M10	13	40	4.230	**3498268**

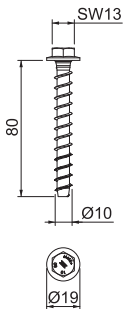
Bolt tie for direct mounting without additional anchors in cracked and uncracked concrete and masonry. With M8/M10 combination thread sleeve for fastening threaded rods. Construction product tested according to EAD and CE mark, with European Technical Assessment (ETA) and proof of suitability. Load-bearing capacities under fire loads proven up to fire resistance class R120.

St G
ABZ

MMS-plus SS hexagonal tie, with pressed washer

Type	Dimension mm	Dim. L mm	Drill hole Ø mm	SW mm	Pack Piece	Weight kg/100 pc.	Item no.
MMS+ SS 10x80	10x80	80	8	13	25	4.000	**3498124**
MMS+ SS 10x100	10x100	100	8	13	25	4.800	**3498159**

Bolt tie for direct mounting without additional anchors in cracked and uncracked concrete and masonry. With hex head drive and pressed washer to accept large loads. Suitable for fastening suspended loads from suspended supports and wall brackets.
Construction product tested according to EAD and CE mark, with European Technical Assessment (ETA) and proof of suitability. Load-bearing capacities under fire loads proven up to fire resistance class R120.



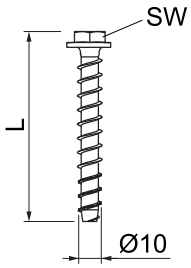


VA

MMS-plus SS hexagonal tie, with pressed washer, made of A4 stainless steel

Type	Dimension mm	Dim. L mm	Drill hole Ø mm	SW mm	Pack Piece	Weight kg/100 pc.	Item no.
MMS+ SS 10x75 A4	10x75	75	8	13	25	3.700	**3498126**
MMS+ SS 10x95 A4	10x95	95	8	13	25	4.600	**3498128**
MMS+ SS12x105 A4	12x105	105	10	15	25	8.200	**3498174**
MMS+ SS12x120 A4	12x120	120	10	15	25	9.400	**3498176**

Stainless steel screw-in anchor for direct mounting without additional anchors in cracked and uncracked concrete and masonry. With hex head drive and pressed washer to accept large loads. Suitable for fastening suspended loads from suspended supports and wall brackets in wet rooms and in outdoor areas.
Construction product tested according to EAD and CE mark, with European Technical Assessment (ETA) and proof of suitability. Load-bearing capacities under fire loads proven up to fire resistance class R120.



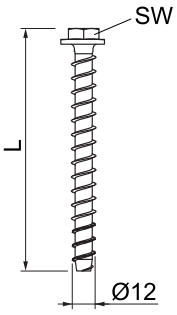


St VZ
ABZ

MMS-plus hexagonal tie, with pressed washer

Type	Dimension mm	Dim. L mm	Drill hole Ø mm	SW mm	Pack Piece	Weight kg/100 pc.	Item no.
MMS+ SS 12x100	12x100	100	10	15	25	7.800	**3498170**
MMS+ SS 12x120	12x120	120	10	15	25	8.900	**3498172**

Stainless steel screw-in anchor for direct mounting without additional anchors in cracked and uncracked concrete and masonry. With hex head drive and pressed washer to accept large loads. Suitable for fastening suspended loads from suspended supports and wall brackets in wet rooms and in outdoor areas.
Construction product tested according to EAD and CE mark, with European Technical Assessment (ETA) and proof of suitability. Load-bearing capacities under fire loads proven up to fire resistance class R120.



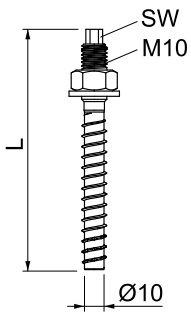


St VZ

MMS-plus V pre-push tie, with connection thread

Type	Dimension mm	Dim. L mm	Drill hole Ø mm	Thread	SW mm	Pack Piece	Weight kg/100 pc.	Item no.
MMS+ V 10x90	10x90	90	8	M10x20	7	25	5.500	**3498190**
MMS+ V 10x110	10x110	110	8	M10x40	7	25	6.660	**3498192**

Bolt tie for direct mounting without additional anchors in cracked and uncracked concrete and masonry. With connection thread and washer to accept large loads. Suitable for fastening suspended loads from suspended supports and wall brackets in push-through mounting.
Construction product tested according to EAD and CE mark, with European Technical Assessment (ETA) and proof of suitability. Load-bearing capacities under fire loads proven up to fire resistance class R120.





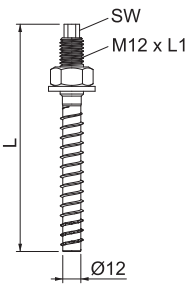
Industrieinstallation - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Fire protection anchors

MMS-plus V pre-push tie, with connection thread

St VZ





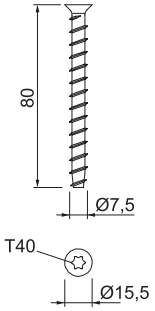
Type	Dimension mm	Dim. L mm	Drill hole Ø mm	Thread	SW mm	Pack Piece	Weight kg/100 pc.	Item no.
MMS+ V 12x110	12x110	110	10	M12x30	8	25	6.900	**3498196**

Bolt tie for direct mounting without additional anchors in cracked and uncracked concrete and masonry. With connection thread and washer to accept large loads. Suitable for fastening suspended loads from suspended supports and wall brackets in push-through mounting.
Construction product tested according to EAD and CE mark, with European Technical Assessment (ETA) and proof of suitability. Load-bearing capacities under fire loads proven up to fire resistance class R120.

MMS-plus F countersunk head tie

St VZ ABZ





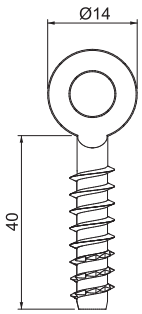
Type	Dimension mm	Drill hole Ø mm	Head Ø mm	Screw system	Pack Piece	Weight kg/100 pc.	Item no.
MMS+ F 7.5x80	7,5x80	6	15.5	Torx	50	2.000	**3498160**

Bolt tie for direct mounting without additional anchors in cracked and uncracked concrete and masonry. With countersunk head for universal fastenings. Torx drive T40.
Construction product tested according to EAD and CE mark, with European Technical Assessment (ETA) and proof of suitability. Load-bearing capacities under fire loads proven up to fire resistance class R120.

MMS-plus R ring tie, with setting tool

St VZ





Type	Dimension mm	Drill hole Ø mm	Head Ø mm	Pack Piece	Weight kg/100 pc.	Item no.
MMS+ R 6x40	6x40	5	14	200	0.790	**3498180**

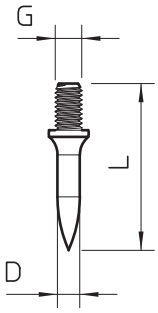
Bolt tie for direct mounting without additional anchors in cracked and uncracked concrete and masonry. With ring eyelet for universal fastenings. Setting tool contained in the scope of delivery.

St G

OBO anchor

Type	Shank length mm	Dim. L mm	Dim. D Ø mm	Dim. G mm	Pack Piece	Weight kg/100 pc.	Item no.
903 15 G	15	23	4	M6	100	0.330	**3100154**
903 18 G	18	26	4	M6	100	0.360	**3100189**
903 25 G	25	33	4	M6	100	0.404	**3100251**
903 30 G	30	38	4	M6	100	0.470	**3100308**
903 40 G	40	48	4	M6	100	0.571	**3100405**

Hardened steel, electrogalvanised with M6 x 8 mm thread.



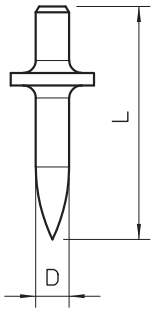


St

OBO anchor

Type	Shank length mm	Dim. L mm	Dim. D Ø mm	Pack Piece	Weight kg/100 pc.	Item no.
903 RB 15	15	21	4	200	0.295	**3105016**
903 RB 18	18	24	4	200	0.348	**3105024**
903 RB 22	22	30	4	200	0.325	**3105032**

Hardened steel, shiny without thread.



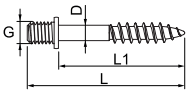


St G

Screw-in anchor with M6 thread

Type	Dim. G mm	Dim. D mm	Dim. L1 mm	Dim. L mm	Pack Piece	Weight kg/100 pc.	Item no.
985 M6 25	M6	4.3	25	35	100	0.412	**3133028**
985 M6 35	M6	4.3	35	45	100	0.533	**3133036**

With wood screw shank and M6 thread.



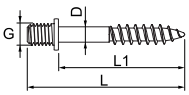


St G

Screw-in anchor with M8 thread

Type	Dim. G mm	Dim. D mm	Dim. L1 mm	Dim. L mm	Pack Piece	Weight kg/100 pc.	Item no.
985 M8 35	M8	5.2	35	47	100	0.950	**3133230**

With wood screw shank and M8 thread.





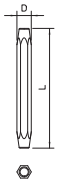
Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Knock-in anchors

Flattener

St





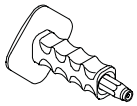
Type	Dim. L mm	Dim. D mm	Size	Pack Piece	Weight kg/100 pc.	Item no.
915 S M6	135	14	M6	1	17.000	**3031012**

Flattener for OBO anchors 903 with M6 thread.

Flattener with hand protection

St





Type	Pack Piece	Weight kg/100 pc.	Item no.
915 RBS M4	1	52.000	**3031500**

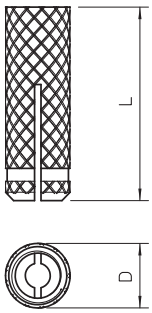
Flattener with hand protection for OBO anchors 903/RB Ø 4 mm and also for OBO anchors 904 with M4 thread.

Anchor, light-duty fastening

Brass spreading anchor

CuZn 37





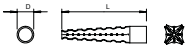
Type	Thread	Drill hole depth mm	Length mm	Drill hole Ø mm	Pull-out value N	Pack Piece	Weight kg/100 pc.	Item no.
865 M6x24	M6	32	24	8	6000	100	0.442	**3483061**
865 M8x30	M8	41	30	11	7000	100	0.867	**3483088**
865 M10x34	M10	53	34	12	9000	100	1.315	**3483096**

Areas of application: full brick, concrete, wood. Ideally suited for areas exposed to high temperatures.

Metal spreading anchor

St GTP





Type	Dim. D mm	Dim. L mm	Drill hole Ø mm	Pack Piece	Weight kg/100 pc.	Item no.
MD 5 GTP	5	30	5-7	200	0.190	**3484602**
MD 6 GTP	6	32	7-9	100	0.250	**3484629**

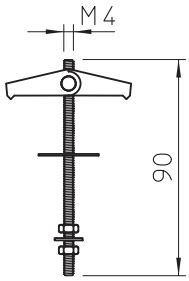
Areas of application: gas concrete, lightweight concrete, Poroton, pumice, plaster, hollow brick and full brick. Can be knocked into porous concrete (gas concrete) of low resistance without drilling. Superbly suited for areas subjected to high temperatures.

St G

Sprung hinged anchor

Type	Thread	Length mm	Drill hole Ø mm	Minimum cavity depth mm	Break load kN	Pack Piece	Weight kg/100 pc.	Item no.
450 M4x95 G	M4	90	14	35	0.2	50	1.750	**3481611**

With threaded rod, washer and hexagonal nut; brass axle.



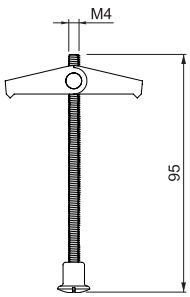


St G

Sprung hinged anchor

Type	Thread	Length mm	Drill hole Ø mm	Minimum cavity depth mm	Break load kN	Pack Piece	Weight kg/100 pc.	Item no.
451 M4x95 G	M4	95	14	35	0.2	50	1.700	**3481662**

With threaded rod and slotted brass nut; brass axle.



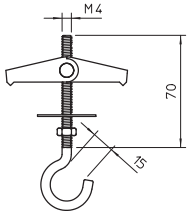


St G

Sprung hinged anchor

Type	Thread	Length mm	Drill hole Ø mm	Minimum cavity depth mm	Break load kN	Pack Piece	Weight kg/100 pc.	Item no.
452 M4x70 G	M4	70	14	35	0.4	50	1.950	**3481778**

With ceiling hook, washer and hexagonal nut; brass axle.



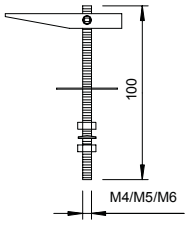


St G

Tilting anchor

Type	Thread	Length mm	Drill hole Ø mm	Break load kN	Pack Piece	Weight kg/100 pc.	Item no.
458 M4x100 G	M4	100	13	0.5	50	3.310	**3482154**
456 M5x100 G	M5	100	13	0.7	50	3.810	**3482103**
453 M6x100 G	M6	100	16	0.7	50	5.250	**3482014**

Two washers and two hexagonal nuts, with threaded shank.





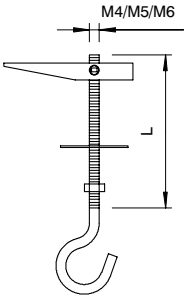
Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Anchor, light-duty fastening

Tilting anchor

St G



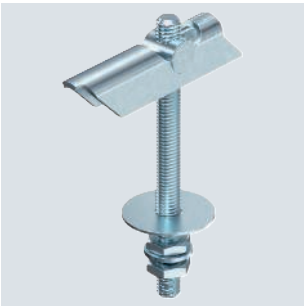


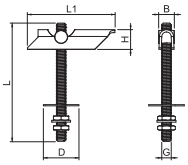
Type	Thread	Dim. L mm	Drill hole Ø mm	Hook-Ø mm	Break load kN	Pack Piece	Weight kg/100 pc.	Item no.
457 M4x55 G	M4	55	13	14	0.25	50	3.250	**3482138**
455 M5x65 G	M5	65	13	16	0.4	50	3.850	**3482057**
455 M5x100 G	M5	100	13	16	0.4	50	4.250	**3482073**
454 M6x100 G	M6	100	16	16	0.7	25	6.000	**3482030**

One washer and one hexagonal nut, with ceiling hook.
Note: Reckon with 5x safety for luminaire suspensions.

Tilting anchor

St G





Type	Thread	Dim. L mm	Drill hole Ø mm	Break load kN	Minimum cavity depth mm	Pack Piece	Weight kg/100 pc.	Item no.
KD 8 100	M8	100	22	2.4	75	25	11.200	**3482707**
KD 10 100	M10	100	25	2.4	75	25	11.200	**3482758**

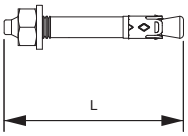
Including nut and large washer.
The universal heavy-duty fastening for stressed concrete, hollow steel profiles, metal sheets and plates.
Use: heating, ventilation and air conditioning technology, cooling systems, sprinkler systems, pipes, cable tracks, etc.
* Dependent on the thickness of the ceiling profile.

Anchor, heavy-duty fastening

Nail anchor N with thread

St G ABZ





Type	Thread	Drill hole Ø mm	Drill hole depth mm	Clamping range mm	Dim. L mm	Pack Piece	Weight kg/100 pc.	Item no.
N 6-5-10/49	M6	6	40	5-10	49	100	1.160	**3498396**

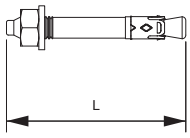
The nail anchor N can be used for multiple fastenings of non-load-bearing systems and in cracked and non-cracked concrete, thereby combining the benefits of a bolt tie with even easier mounting.
The nail tie only needs to be hammered into the drill hole. It is not necessary to apply torque subsequently. 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.

A4 2B

ABZ

Nail anchor N with thread, V4A

Type	Thread	Drill hole Ø mm	Drill hole depth mm	Fixture thickness mm	Dim. L mm	Pack Piece	Weight kg/100 pc.	Item no.
N 6-5/49 A4	M6	6	40	5	49	50	1.200	**3498399**





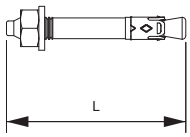
The nail anchor N can be used for multiple fastenings of non-load-bearing systems, indoors and outdoors, in cracked and non-cracked concrete, thereby combining the benefits of a bolt tie with even easier mounting. The nail anchor only needs to be hammered into the drill hole. It is not necessary to apply 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.

A5

Nail anchor N with thread, A5

Type	Thread	Drill hole Ø mm	Drill hole depth mm	Fixture thickness mm	Dim. L mm	Pack Piece	Weight kg/100 pc.	Item no.
N 6-5/49 HCR	M6	6	40	5	49	50	1.200	**3498398**





The nail anchor N can be used for multiple fastenings of non-load-bearing systems in areas with highly corrosive impacts in cracked and non-cracked concrete, thereby combining the benefits of a bolt tie with 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.

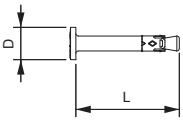
European technical approval ETA-11/0240, including characteristic values under fire exposure to fire resistance R 120.

St G

ABZ

Nail anchor N-K with nail head

Type	Drill hole Ø mm	Drill hole depth mm	Clamping range mm	Dim. L mm	Dim. D mm	Pack Piece	Weight kg/100 pc.	Item no.
N-K 6-5-10/44	6	40	5-10	44	13	100	1.135	**3498390**





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 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.

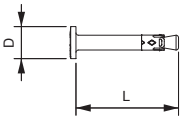
European Technical Approval ETA-11/0240, including characteristic values under fire exposure to fire resistance R 120.

A4 2B

ABZ

Nail anchor N-K with nail head, V4A

Type	Drill hole Ø mm	Drill hole depth mm	Fixture thickness mm	Dim. L mm	Dim. D mm	Pack Piece	Weight kg/100 pc.	Item no.
N-K 6-5/44 A4	6	40	5	44	13	50	1.100	**3498393**





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 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.

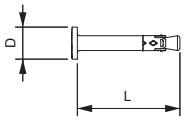
Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Anchor, heavy-duty fastening

Nail anchor N-K with nail head, A5

A5





Type	Drill hole Ø mm	Drill hole depth mm	Fixture thickness mm	Dim. L mm	Dim. D mm	Pack Piece	Weight kg/100 pc.	Item no.
N-K 6-5/44 HCR	6	40	5	44	13	50	1.135	**3498392**

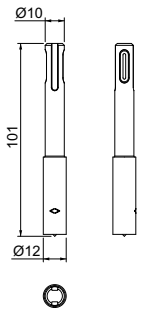
The nail anchor N can be used for multiple fastenings of non-load-bearing systems in areas with highly corrosive impacts in cracked and non-cracked concrete, thereby combining the benefits of a bolt tie with even easier mounting.
The nail anchor only needs to be hammered into the drill hole. When the 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.

Setting tool for nail anchor

St G





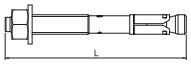
Type	Pack Piece	Weight kg/100 pc.	Item no.
N-K SWZ SDS	1	5.000	**3498314**

Setting tool for nail anchor, type N-K, with SDS plus seat.

Bolt tie BZ

St G





Type	Drill hole Ø mm	Drill hole depth mm	Thread	Dim. L mm	Pack Piece	Weight kg/100 pc.	Item no.
BZ 10-150/230	10	75	M10	230	25	13.600	**3498344**
BZ 12-160/255	12	90	M12	255	20	22.400	**3498358**

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.

Installation

Standard anchoring depth

Loads and characteristics	Anchoring depth mm	Drill hole Ø mm	Drill hole depth mm	Clamping strength mm	Approved load area, tension zone 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

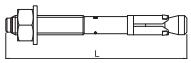
Reduced anchoring depth

Loads and characteristics	Anchoring depth mm	Drill hole Ø mm	Drill hole depth mm	Clamping strength mm	Approved load area, tension zone 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

A5

Bolt tie BZ A5

Type	Drill hole Ø mm	Drill hole depth mm	Thread	Dim. L mm	Pack Piece	Weight kg/100 pc.	Item no.
BZ 8-10-21/75HCR	8	60	M8	75	100	3.080	**3498516**
BZ10-10-30/90HCR	10	75	M10	90	50	6.040	**3498556**
BZ12-15-35/110HC	12	90	M12	110	25	10.200	**3498666**





Bolt tie BZ for the anchoring of medium-duty to heavy-duty loads in areas with highly corrosive impacts, 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.

Standard anchoring depth

Loads and characteristic values		M8-10/75	M 10-10/90	M 12-15/110
Standard anchoring depth	mm	46	60%	70
Drill hole Ø	mm	8	10th	12th
Drill hole depth	mm	60%	75	90
Clamping strength	mm	10th	10th	15
Permitted load area, tension zone	KN	2.4	4.3	7.6

Reduced anchoring depth

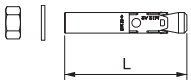
Loads and characteristic values		M 8-21/75	M 10-30/90	M 12-35/110
Reduced anchoring depth	mm	35	40	50
Drill hole Ø	mm	8	10	12
Drill hole depth	mm	49	55	70
Clamping strength	mm	21	30	35
App. load area, tension zone	KN	2.4	3.6	6.1

Installation

St G

Bolt tie BZ-IG

Type	Thread	Drill hole Ø mm	Drill hole depth mm	Dim. L mm	Pack Piece	Weight kg/100 pc.	Item no.
BZ-IG M 6-0	M6	8	60	50	20	1.830	**3498370**
BZ-IG M 8-0	M8	10	75	62	20	3.180	**3498372**
BZ-IG M 10-0	M10	12	90	70	20	5.550	**3498374**
BZ-IG M 12-0	M12	16	105	86	20	11.700	**3498376**





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.

St G

Impact tie, version with collar

Type	Thread	Drill hole Ø mm	Drill hole depth mm	Dim. L mm	Perm. load range, tension zone kN	Pack Piece	Weight kg/100 pc.	Item no.
ES M 10x30	M10	12	30	30	2	50	1.800	**3492032**
ES M 6x25	M6	8	25	25	1.7	100	0.600	**3492018**
ES M 8x25	M8	10	25	25	1.9	100	1.000	**3492020**
ES M 8x30	M8	10	30	30	1.7	100	1.100	**3492023**
ES M 10x25	M10	12	25	25	2.1	50	1.400	**3492022**
ES M 10x40	M10	12	40	40	2	50	2.100	**3492024**
ES M 12x25	M12	15	25	25	2.1	50	2.200	**3492025**
ES M 12x50	M12	15	50	50	2.4	50	4.100	**3492026**





Impact tie for single fastening of non-load-bearing systems in non-cracked concrete as well as for multiple fastening in cracked and non-cracked concrete.
Tested to fire protection standards, fire resistance class R 120 according to European Technical Approval ETA-02/0020 (option 7) and European Technical Approval ETA-05/0116.
Mounting with marking and setting tool.

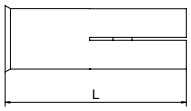
Industrieinstallation - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Anchor, heavy-duty fastening

Impact tie, version with collar

A4





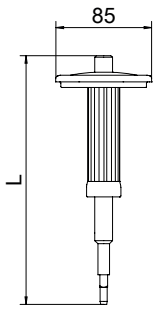
Type	Thread	Drill hole Ø mm	Drill hole depth mm	Dim. L mm	Perm. load range, tension zone kN	Pack Piece	Weight kg/100 pc.	Item no.
ES M 8x30 A4	M8	10	30	30	1.7	50	1.100	**3492003**
ES M 10x40 A4	M10	12	40	40	2	50	2.000	**3492008**
ES M 12x50 A4	M12	15	50	50	2.4	50	4.300	**3492012**

Impact tie for single fastening of non-load-bearing systems in non-cracked concrete as well as for multiple fastening in cracked and non-cracked concrete.
Tested to fire protection standards, fire resistance class R 120 according to European Technical Approval ETA-02/0020 (option 7) and European Technical Approval ETA-05/0116.
Mounting with marking and setting tool.

Marking spreading tool for drop-in anchors

St G



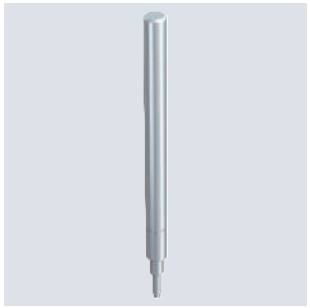


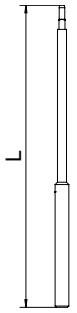
Type	Length mm	Thread	Pack Piece	Weight kg/100 pc.	Item no.
E-MSH 6x25	235	M6	1	41.300	**3492964**
E-MSH 8x25	235	M8	1	42.500	**3492966**
E-MSH 8x30	235	M8	1	43.100	**3492968**
E-MSH 10x25	235	M10	1	44.500	**3492971**
E-MSH 12x25	235	M12	1	48.000	**3492973**
E-MSH 10x40	235	M10	1	45.000	**3492974**
E-MSH 12x50	235	M12	1	47.000	**3492978**

Marking spreading tool with hand protection for drop-in anchors, type E

Setting tool for drop-in anchor

St G





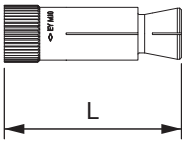
Type	Length mm	Thread	Pack Piece	Weight kg/100 pc.	Item no.
E-SW 8x30	168	M8	1	13.400	**3492030**
E-SW 10x30	168	M10	1	14.000	**3492029**

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

St G





Type	Thread	Drill hole Ø mm	Dim. L mm	Pack Piece	Weight kg/100 pc.	Item no.
Easy M6	M6	10	40	50	1.000	**3498768**
Easy M8	M8	12	44	25	1.500	**3498770**
Easy M10	M10	16	53	25	3.320	**3498774**
Easy M12	M12	18	58	25	4.230	**3498776**

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.

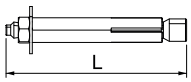
General type approval Z-21.1-1785 granted by the German Institute for civil engineering (DIBt), Berlin, including permissible loads when exposed to fire up to a fire resistance duration of 120 minutes.

St G

DIBt

Porous concrete anchor with external thread

Type	Thread	Fix-ture thick-ness mm	Dim. L mm	Pack Piece	Weight kg/100 pc.	Item no.
PBD M6x10	M6	10	86	25	4.900	**3497600**
PBD M8x10	M8	10	88	25	7.600	**3497608**
PBD M10x10	M10	10	90	25	11.400	**3497616**





Steel spreading anchor tested for fire protection properties and approved for use in porous concrete.

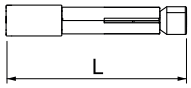
Version with external thread. Suitable for fire loads of up to 120 minutes, please refer to the general construction approval for the load values (applies to porous concrete of resistance classes of min. 3.3).
A setting tool is required for mounting.

St G

DIBt

Porous concrete anchor with internal thread

Type	Thread	Dim. L mm	Pack Piece	Weight kg/100 pc.	Item no.
PBD i M6	M6	82	25	4.500	**3497700**
PBD i M8	M8	82	25	6.200	**3497702**
PBD i M10	M10	92	25	9.300	**3497704**
PBD i M12	M12	92	25	8.900	**3497706**





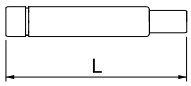
Steel spreading anchor tested for fire protection properties and approved for use in porous concrete.

Version with internal thread. Suitable for fire loads of up to 120 minutes, please refer to the general construction approval for the load values (applies to porous concrete of resistance classes of min. 3.3).
A setting tool is required for mounting.

St G

Setting tool for hand hammer

Type	Size	Pack Piece	Weight kg/100 pc.	Item no.
EWP 6x10	M6x10	1	32.500	**3497640**
EWP 8x10	M8x10	1	39.800	**3497648**
EWP 10x10	M10x10	1	47.600	**3497656**



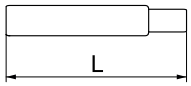


Setting tool PBD porous concrete anchors – for hand hammer.

St G

Setting tool for hand hammer

Type	Size	Pack Piece	Weight kg/100 pc.	Item no.
EWP 6 i	M6x10	1	30.000	**3497720**
EWP 8 i	M8x10	1	37.100	**3497722**
EWP 10 i/ 12 i	M10/M12x10	1	44.800	**3497724**





Setting tool for PBDi porous concrete anchors – for hand-hammer.

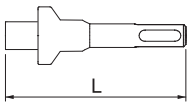
Industrieinstallation - Befestigungsmaterial / en / 2023/07/13 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Anchor, heavy-duty fastening

Setting tool for rotary hammer

St G





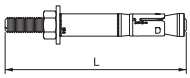
Type	Size	Pack Piece	Weight kg/100 pc.	Item no.
SDS-EWP 8x10	M8x10	1	26.000	**3497676**
SDS-EWP 10x10	M10x10	1	25.600	**3497684**

Setting tool for PBD porous concrete anchors – for rotary hammer with SDS seat.

High-load anchor SZ-B

St G



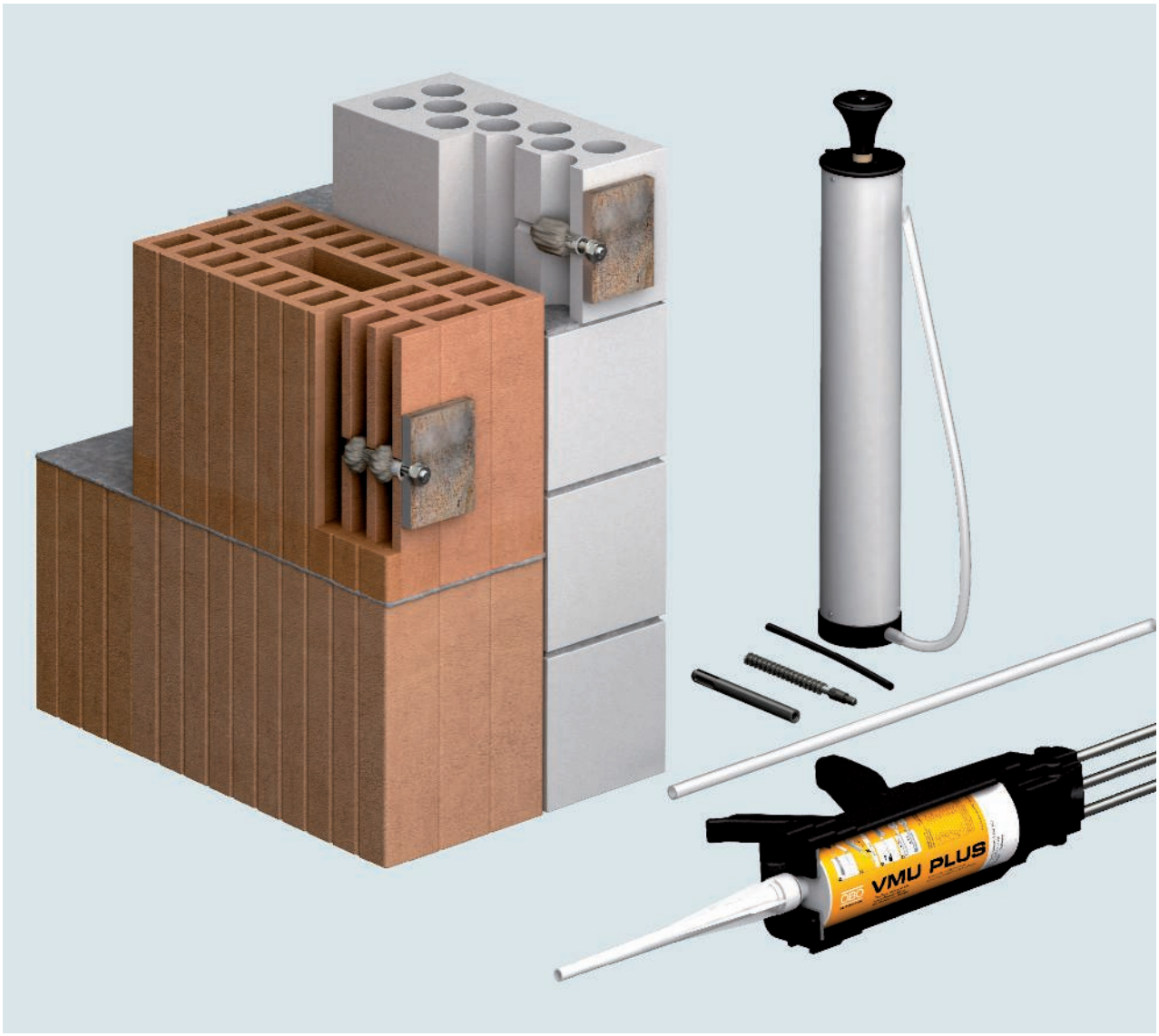


Type	Thread	Drill hole Ø mm	Drill hole depth mm	Dim. L mm	Fix-ture thick-ness mm	Perm. load range, tension zone kN	Pack Piece	Weight kg/100 pc.	Item no.
SZ-B 18/0x142	M12	18	105	142	30	12.3	20	21.123	**3498752**

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 .

System description



The VMS Plus injection mortar system is particularly suitable for fire protection fastening in hollow brick, concrete, calcareous limestone, sand-lime brick and masonry. The non-spreading connection is created through the use of the plastic wire sleeve and a threaded anchor rod. The components are tested and approved for a fire resistance period of 90 minutes.
The maximum load capacity depending on the fire resistance period and the fastening substrate is documented accordingly in the available fire protection certificate. Although the load capacity of the injection mortar system is below the load capacity when cold, it is completely sufficient for fireproof fastening of the various components of the different routing types.

System benefits

- Injection anchor tested and approved for fire
- Determined load capacity according to fire resistance period
- Use in calcareous limestone, masonry, hollow brick and sand-lime brick
- Various dimensions for the different routing components and applications
- Proven fastening with plastic wire sieves

Mounting aid



Drilling
Creation of a drill hole with a suitable diameter.



Cleaning of the drill hole
Blowing-out and cleaning the drill hole with a hand-held blower or compressed air.



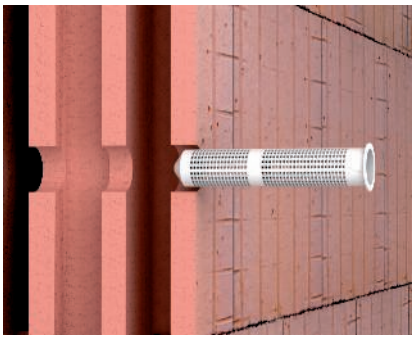
Cleaning with steel wire brush
Mechanical cleaning of the drill hole with steel wire brush. The cleaning process by blowing and brushing must be carried out twice.



Application of the injection mortar
Pressing of the injection mortar into the drill hole.



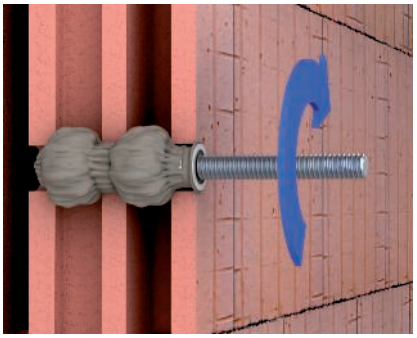
Use in hollow brick
Drill the hole in the hollow brick according to the selected anchor size and then clean it.



Mounting preparations
Insert the fitting plastic wire sleeve in the drill hole.



Applying the injection mortar
Press in the injection mortar from the cartridge from the base of the drill hole to the opening. In so doing, draw the point back slowly.



Inserting the anchor rod
Attach the anchor rod in the filled wire sleeve up to the set marking. The mortar pushes through the openings of the wire sleeve, forming a closure.



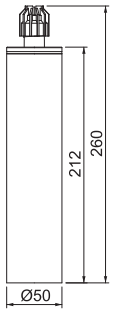
Mounted component, hollow brick wall
Mounting the component with a washer and nut on a hollow brick wall. Comply with the tightening torque according to the approval.

Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Anchor, heavy-duty fastening

Injection mortar in cartridge, 300 ml





Type	Contents ml		Pack Piece	Weight kg/100 pc.	Item no.
VMU plus 300	300		1	56.400	**3497806**

Styrene-free, vinyl ester composite mortar for spread-free anchoring of high loads with threaded anchor rods. Coaxial cartridge, including 1 mixing tube, to be worked with the standard cartridge gun or VM-P 345 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 °C to +40 °C (concrete), ambient temperature after complete hardening -40 °C to +120 °C (in concrete). Will keep for at least 18 months if stored in a dark, cool and dry place.

ABZ

Injection mortar in cartridge, 420 ml



Type	Contents ml		Pack Piece	Weight kg/100 pc.	Item no.
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 °C to +40 °C (concrete), ambient temperature after complete hardening –40 °C to +120 °C (in concrete). If stored in a dark, cool and dry place, will keep for at least 18 months.

Pressing gun for standard cartridges and side-by-side cartridges



Type		Pack Piece	Weight kg/100 pc.	Item no.
VM-P 345 Profi		1	100.000	**3497906**

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 Piece	Weight kg/100 pc.	Item no.
VM-P 380 Profi		1	110.000	**3497909**

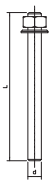
High-quality 2-component cartridge pistol. The parallel movement of the outlet to the holding grip ensures easy working. Suitable for the injection mortar type VMU plus 420.

St G

ABZ

Anchor rod

Type	Dim. L mm	Dim. d mm	Thread	SW mm	Pack Piece	Weight kg/100 pc.	Item no.
VMU-A 8-110vz	110	6.5	M8	13	10	4.350	**3497820**
VMU-A 10-130vz	130	8.2	M10	17	10	8.150	**3497822**
VMU-A 10-150vz	150	8.2	M10	17	10	9.150	**3497824**
VMU-A 12-155vz	155	9.9	M12	19	10	13.850	**3497826**
VMU-A 8-110A4	110	6.5	M8	13	10	4.350	**3497830**
VMU-A 10-130A4	130	8.2	M10	17	10	8.150	**3497832**
VMU-A 12-155A4	155	9.9	M12	19	10	13.850	**3497834**





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.

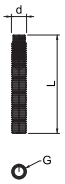
The anchor rod VMU-A 8x110 mm is mounted using the plastic wire sleeve VM-SH 12x80 or VM-SH 16x85.
The VMU-A 10x130 mm anchor rod is mounted using the VM-SH 16x85 plastic wire sleeve.
The VMU-A 10x150 mm anchor rod is mounted using the VM-SH 16x85 or VM-SH 16x130 plastic wire sleeve.
The VMU-A 12x155 mm anchor rod is mounted using the VM-SH 20x85 plastic wire sleeve.

St G

ABZ

Metallic internal thread sleeve

Type	Dim. L mm	Dim. d mm	Pack Piece	Weight kg/100 pc.	Item no.
VMU-IG M6x80vz	80	10	10	3.350	**3497840**
VMU-IG M8x80vz	80	12	10	4.650	**3497842**
VMU-IG M10x80vz	80	16	10	8.750	**3497844**
VMU-IG M6x80A4	80	10	10	3.350	**3497850**
VMU-IG M8x80A4	80	12	10	4.650	**3497852**
VMU-IG M10x80A4	80	16	10	8.750	**3497854**





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.

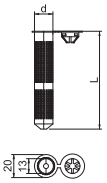
The internal thread sleeve VMU-IG M6x80 mm is mounted using the plastic wire sleeve VM-SH 16x85.
The internal thread sleeves VMU-IG M8x80 and VMU-IG M10x80 mm are mounted using the plastic wire sleeve VM-SH 20x85.

PA

ABZ

Plastic wire sleeve

Type	Dim. L mm	Dim. d mm	Pack Piece	Weight kg/100 pc.	Item no.
VMU-SH 12x80	80	12	10	0.200	**3497860**
VMU-SH 16x85	85	16	10	0.300	**3497862**
VMU-SH 16x130	130	16	10	0.400	**3497864**
VMU-SH 20x85	85	20	10	0.400	**3497866**





The plastic wire sleeve is a supplement to the anchor rod or internal thread sleeve and is used to install components on masonry.

The plastic wire sleeve VM-SH 12x80 is mounted with the anchor rod VMU-A 8x110.
The plastic wire sleeve VM-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 VM-SH 16x130 is mounted with the anchor rod VMU-A 10x150.
The plastic wire sleeve VM-SH 20x85 is mounted with the anchor rod VMU-A 12x155 or the internal thread sleeve VMU-IG M8x80 and VMU-IG M10x80.

Industrieinstallation - Befestigungsmaterial / en / 2023/07/13 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Anchor, heavy-duty fastening

Blow pump for drill holes



Type		Pack Piece	Weight kg/100 pc.	Item no.
VM-AP 360		1	27.000	**3497912**

Manual pump with 750 ml air volume for blowing out drill holes according to anchor approval.

Steel cleaning brush for drill holes

St G



Type	Dia-meter mm	Length mm	Thread		Pack Piece	Weight kg/100 pc.	Item no.
RB 10 M 6	10	130	M6		1	5.000	**3497870**
RB 12 M 6	12	140	M6		1	5.000	**3497872**
RB 14 M 6	14	180	M6		1	5.000	**3497874**
RB 16 M 6	16	190	M6		1	5.000	**3497875**
RB 18 M 6	18	200	M6		1	5.000	**3497876**
RB 20 M 6	20	220	M6		1	5.000	**3497878**

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

St



Type		Pack Piece	Weight kg/100 pc.	Item no.
RBL M6 SDS		1	6.000	**3497915**

Adapter for accepting steel wire brushes for mechanical cleaning of drill holes according to the anchor approval. Suitable for drills with SDS seat.

SDS extension

St



Type	Length mm		Pack Piece	Weight kg/100 pc.	Item no.
RB-L 150 M6	150		1	9.700	**3497932**

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

PA



Type		Pack Piece	Weight kg/100 pc.	Item no.
VM-X		12	1.000	**3497981**

Mixing tubes for attachment to the cartridges of the VMU plus injection mortar system.

PA

Extension pipe

Type	Length mm	Pack Piece	Weight kg/100 pc.	Item no.
VM-XE 10/200	200	12	1.000	3497984
VM-XE 10/500	500	10	2.000	3497987

Fixed length extension tube for use on the mixing tube tips in the VMU plus injection mortar system.

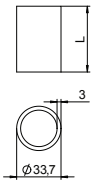


St FT

Spacer sleeve for insulated ceilings

Type	Dim. L mm	Pack Piece	Weight kg/100 pc.	Item no.
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

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.





St

Perforated sleeve, metal

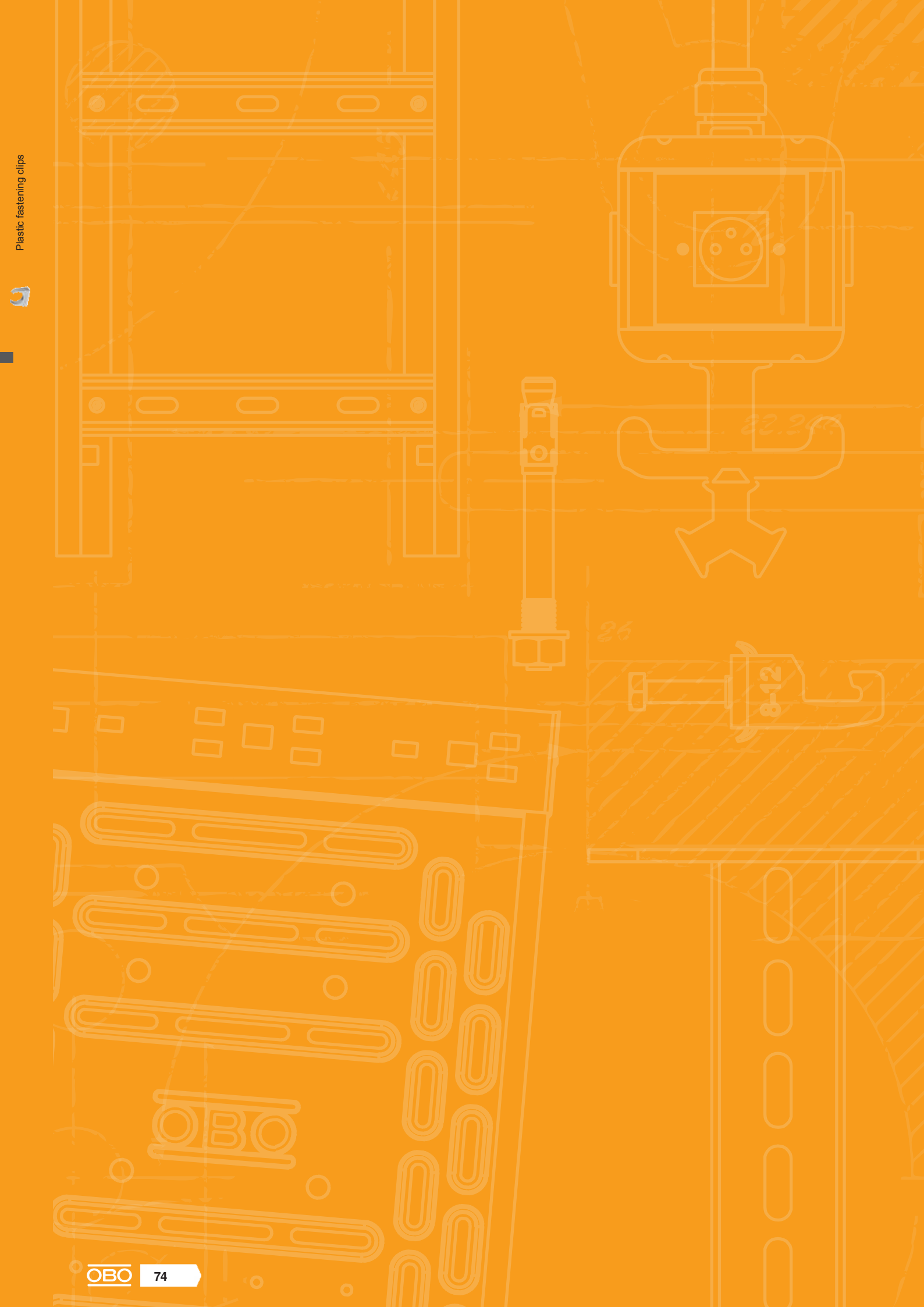
Type	Dim. L mm	Dim. d mm	Pack Piece	Weight kg/100 pc.	Item no.
VM-SH 12x1000	1000	12	1	6.000	3497972
VM-SH 16x1000	1000	16	1	7.000	3497975
VM-SH 22x1000	1000	22	1	10.000	3497978

Metal wire sleeve for use in hollow brick and stones in combination with injection mortar system VMU plus.





Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47



Plastic fastening clips


Quick clips 76


Push-fit clips 86


Cable tidies 90


Pressure clips 94


Fastening clips 98


Cable ties 136


Accessories, plastic fastening clips 138

Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

OBO Quick series

Arrangeable cable and pipe clips – available with infinitely adjustable clamping range or safety lock

starQuick clip
- Snap lock with patented safety system
- Can be lined up together up to size SQ28
- UV- and weatherproof polyamide
- Wall and ceiling mounting

HALOGEN FREE M



Quick clip – the high-speed clip
- Extreme loading capacity
- Insertion slopes
- Slot fastening
- Expandable above each other
- Latch-in hole/middle stopper

Multi-Quick clip
- One clip for multiple dimensions
- Universal application
- PG and metric

The OBO Quick series offers three different types of halogen-free pressure and pipe clips for the time-saving and secure fastening of cables and electrical installation pipes. The benefit from shorter mounting times when fastening installations on walls and ceilings, both indoors and outdoors.

All the clip types and sizes of the OBO Quick series can be interconnected easily, thanks to the shared arrangement contour. This means you can mount up to two clips with a single drill hole. The patented shape of the arrangement contour permits a particularly high carrying capacity.



Quick clip

The high-speed clip

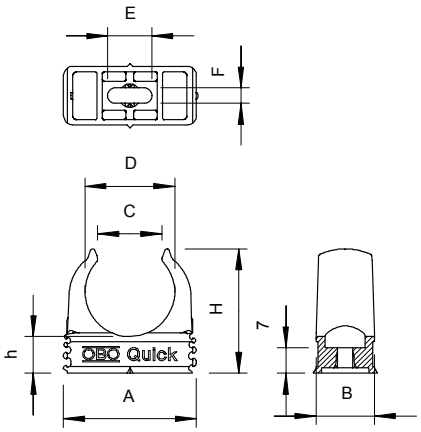
- Extreme loading capacity
- Maximum stability
- Extremely easy mounting
- Insertion slopes
- Slot fastening
- Suitable for lining up
- Latch-in hole/middle stopper



Industrieinstalltion - Befestigungsmaterial \ en \ 2023/07/13 08:19:25 08:19:25 (LExport_03289) / 2023/07/13 08:19:47 08:19:47

OBO Quick





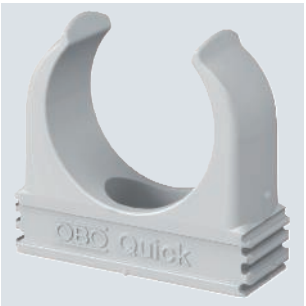
- OBO Quick clip for all metric steel armoured pipes, and light-duty and heavy-duty insulation pipes
- Suitable for OBO Quick Pipe
- Pipe centring aids allow optimal attachment of the pipe and automatically turn the clip into the correct position
- Patented
- Universal fastening option; can be arranged 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

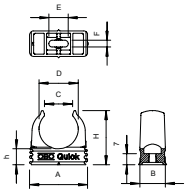
G	A	B	C	D	E	F	H	H	F (20 °C)
	mm	mm	mm	mm	mm	mm	mm	mm	N
M16	25.3	16	11.5	15.5	7	4.2	25	10	75
M20	30.3	16	14	19.4	9	4.2	29.5	10	90
M25	36.3	16	17.5	24.3	12	4.2	34	10	100
M32	46.3	16	22.4	31.4	12	4.2	42	11	120
M40	57.3	16	26	39.2	11	4.6	51	12	140
M50	70.3	18	32	49	12	6	63	14	165
M63	87.3	20	43	61.5	12	6	74.5	15	230

Quick clips

Quick clip

PP





Type	Nominal size	Colour	Shipping box Piece		Pack Piece	Weight kg/100 pc.	Item no.
2955 M16	M16	Light grey	1200		100	0.252	**2149004**
2955 M20	M20	Light grey	1200		100	0.325	**2149010**
2955 M25	M25	Light grey	1200		100	0.430	**2149016**
2955 M32	M32	Light grey	600		50	0.630	**2149022**
2955 M40	M40	Light grey	600		50	0.835	**2149028**
2955 M50	M50	Light grey	300		25	1.454	**2149034**
2955 M63	M63	Light grey	240		20	2.203	**2149040**

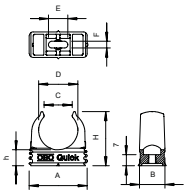
Flush-mounted clip to accept metric steel armoured pipes and heavy-duty insulating pipes, as well as Quick Pipe electrical installation pipes. Universal fastening options on walls and ceilings, both in indoor and protected outdoor areas. With slot for side alignment during mounting with wood screw or knock-in anchor. Toolless pipe mounting. Can also be arranged with OBO Multi-Quick or starQuick clip. M16 - M32 size 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.

PP

M

Quick clip, black

Type	Nominal size	Colour	Pack Piece	Weight kg/100 pc.	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	0.430	**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**





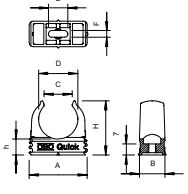
Flush-mounted clip to accept metric steel armoured pipes and heavy-duty insulating pipes, as well as Quick Pipe electrical installation pipes. Universal fastening options on walls and ceilings, both in indoor and protected outdoor areas. With slot for side alignment during mounting with wood screw or knock-in anchor. Toolless pipe mounting. Can also be arranged with OBO Multi-Quick or starQuick clip. M16 - M32 size 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.

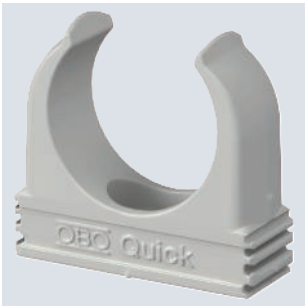
PP

M 960° M M

Quick Clip, flame-resistant, stone grey

Type	Nominal size	Colour	Pack Piece	Weight kg/100 pc.	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	0.430	**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**





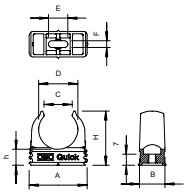
Flame-resistant, flush-mounted clip to accept metric steel armoured pipes and heavy-duty insulating pipes, as well as Quick Pipe electrical installation pipes. Universal fastening options on walls and ceilings, both in indoor and protected outdoor areas. With slot for side alignment during mounting with wood screw or knock-in anchor. Toolless pipe mounting. Can also be arranged with OBO Multi-Quick or starQuick clip. M16 - M32 size 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.

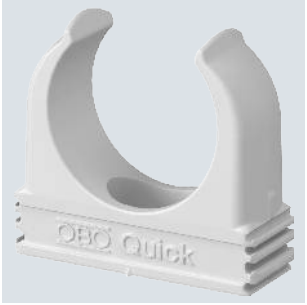
PP

M 750° M

Quick clip, flame-resistant, pure white

Type	Nominal size	Colour	Pack Piece	Weight kg/100 pc.	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	0.430	**2149363**
2955 F M32 RW	M32	Pure white	50	0.630	**2149369**
2955 F M40 RW	M40	Pure white	50	0.835	**2149375**





Flame-resistant, flush-mounted clip to accept metric steel armoured pipes and heavy-duty insulating pipes, as well as Quick Pipe electrical installation pipes. Universal fastening options on walls and ceilings, both in indoor and protected outdoor areas. With slot for side alignment during mounting with wood screw or knock-in anchor. Toolless pipe mounting. Can also be arranged with OBO Multi-Quick or starQuick clip. M16 - M32 size 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.

Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47



Multi-Quick clip

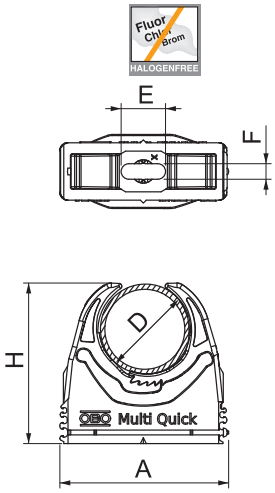
The universal clamp



- PG and metric
- Easy fastening
- Secure locking
- Radial arrangement
- Simplified storage
- Clamping ranges from 15–37 mm
- Universal application

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 CL2008

D	A	B	H	E	F
mm	mm	mm	mm	mm	mm
15–19	27.5	27.5	32	8	4,1
18.5–22.5	33	33	37	8	4,1
25–28.5	43	43	46	8	4,1
31–37	55	55	58	8	4,1

Multi-Quick clips

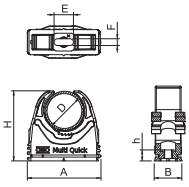
PA

Pg

Multi-Quick clip

Type	Clamping range D mm	Colour	Pack Piece	Weight kg/100 pc.	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

Flush-mounted clip to accept metric and PG pipes and Quick Pipe electrical installation pipes. Flexible clamping range of several millimetres. Universal fastening options on walls and ceilings and usable in a profile rail, both in indoor and protected outdoor areas. Toolless pipe mounting. Can also be arranged with OBO Quick clip or starQuick clip.





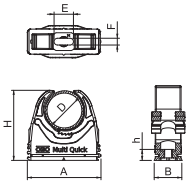
PA

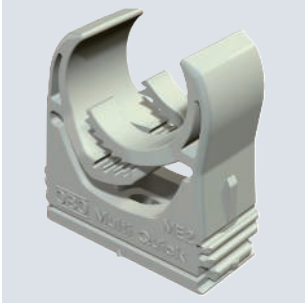
M

Multi-Quick clip, metric

Type	Clamping range D mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
M-Quick M20 LGR	16-20	Light grey	100	0.600	2153718
M-Quick M25 LGR	20-25	Light grey	50	0.930	2153726
M-Quick M32 LGR	25-32	Light grey	50	1.390	2153734

Flush-mounted clip to accept metric pipes and Quick Pipe electrical installation pipes. Flexible clamping range of several millimetres. Universal fastening options on walls and ceilings, both indoors and outdoors. Toolless pipe mounting. Can also be arranged with OBO Quick or starQuick clip.





Industrieinstallltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47



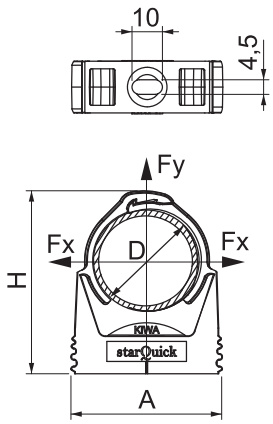
starQuick clip

The safety clamp

- Snap lock with patented safety system
- All sizes clip together, up to size SQ28
- UV- and weatherproof polyamide
- Wall and ceiling mounting







- 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

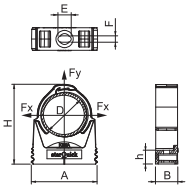
G	A	B	D	H	Fx	Fy
mm	mm	mm	mm	mm	N	N
10	29	17	9.5–12	31.6	500	500
12 14	29	17	11.5–15	34.5	550	550
15 16	29	17	14–16.5	35.7	600	600
17 19	29	17	16–20	39.8	700	700
20 23	29	17	19.5–23.5	49.5	800	800
25 28	40	17	24–28	49.5	850	850
28 32	40	17	27.5–32	52.8	900	900
32 35	43	17	31.2–35.8	65.8	1,000	1,000
35 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

starQuick clips

starQuick clip

PA

Type	Clamping range D mm	Colour	Dim. E mm	Dim. F mm	Dim. h mm	Pack Piece	Weight kg/100 pc.	Item no.
SQ-10 LGR	9.5-12	Light grey	10	4.5	10.5	100	0.568	2146053
SQ-12 LGR	11.5-15	Light grey	10	4.5	10.5	100	0.540	2146061
SQ-15 LGR	14-16.5	Light grey	10	4.5	10.5	100	0.584	2146096
SQ-17 LGR	16-20	Light grey	10	4.5	10.5	100	0.640	2146118
SQ-20 LGR	19.5-23.5	Light grey	10	4.5	10.5	50	0.670	2146134
SQ-25 LGR	24-28	Light grey	10	4.5	10.5	50	0.970	2146207
SQ-28 LGR	27.5-32	Light grey	10	4.5	10.5	50	1.070	2146215
SQ-32 LGR	31.2-35.8	Light grey	10	4.5	10.5	50	1.230	2146258
SQ-36 LGR	35-40.1	Light grey	10	4.5	10.5	25	1.510	2146290
SQ-40 LGR	39.3-44.5	Light grey	10	4.5	10.5	25	1.710	2146320
SQ-47 LGR	44-50	Light grey	10	4.5	10.5	25	1.980	2146363
SQ-51 LGR	48-55	Light grey	10	4.5	10.5	15	2.250	2146444
SQ-59 LGR	58.5-65	Light grey	10	4.5	10.5	15	3.300	2146487



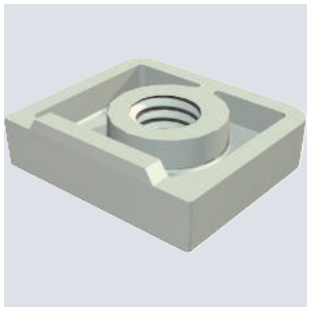


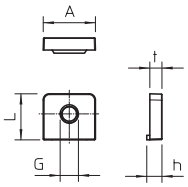
Highly stable clip to accept plastic and metal electrical and sanitary pipes, as well as the Quick Pipe electrical installation pipe. Universal fastening options on walls, ceilings and steel structures, both indoors and outdoors. Flexible clamping range of several millimetres. Toolless pipe mounting. Can be arranged to up to Ø 28 mm, also with OBO Quick starQuick clip. For high load values, can be combined with double bracket. Can be mounted on profile rails for variable spacings and numbers of clips.

Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

starQuick nut

PC





Type	Nominal size	Dim. A mm	Dim. L mm	Dim. h mm	Dim. t mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
SQ M6	M6	17	15	5	4	Light grey	100	0.070	**2146509**

Nut for insertion in starQuick clip, to mount the clip on an M6 thread.

starQuick double holder SWS

PA

IP 44 M



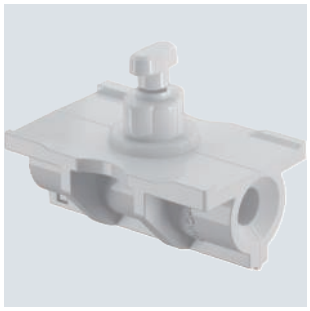
Type	Colour	Pack PU	Weight kg/100 PUs	Item no.
SQ 2 SWS	Signal white	1	0.650	**2147000**

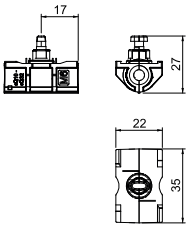
starQuick double holder 74.6x20.1

starQuick studding adapter for threaded rods

PA

IP 44 M





Type	Colour	Pack Piece	Weight kg/100 pc.	Item no.
SQ-SA M6	Light grey	100	0.600	**2147280**
SQ-SA M8	Light grey	100	0.505	**2147283**

Adapter for mounting starQuick clips on threaded rods.

PA

starQuick clip SWS

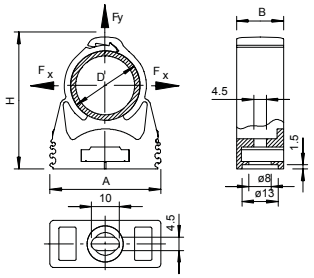
Type	Nominal size	Clamping range D mm	Break load kN	Colour	Pack PU	Weight kg/100 PUs	Item no.
SQ-10 T20 SWS	10	9.5 - 12	500	Signal white	1	11.360	**2146922**
SQ-12 T20 SWS	12-14	11.5 - 15	550	Signal white	1	12.000	**2146923**
SQ-15 T20 SWS	15-16	14 - 16.5	600	Signal white	1	11.680	**2146924**
SQ-17 T20 SWS	17-19	16 - 20	700	Signal white	1	12.820	**2146925**
SQ-20 T10 SWS	20-23	19.5 - 23.5	800	Signal white	1	6.700	**2146926**
SQ-25 T10 SWS	25-28	24 - 28	850	Signal white	1	9.610	**2146927**
SQ-28 T10 SWS	28-32	27.5 - 32	900	Signal white	1	10.700	**2146928**
SQ-32 T10 SWS	32-35	31.2 - 35.8	1000	Signal white	1	12.050	**2146929**



Highly stable clip to accept plastic and metal electrical and sanitary pipes, as well as the Quick Pipe electrical installation pipe. Universal fastening options on walls, ceilings and steel structures, both indoors and outdoors. Flexible clamping range of several millimetres. Toolless pipe mounting. Can be arranged to up to Ø 28 mm, also with OBO Quick clip or starQuick clip. For high load values, can be combined with double bracket. Can be mounted on profile rails for variable spacings and numbers of clips.

Type	Clamping range D mm	Dim. A mm	Dim. B mm	Dim. H mm	Break load kN
SQ-10 T20 SWS	9.5 - 12	29	17	33	500
SQ-12 T20 SWS	11.5 - 15	29	17	35	550
SQ-15 T20 SWS	14 - 16.5	29	17	35	600
SQ-17 T20 SWS	16 - 20	29	17	39	700
SQ-20 T10 SWS	19.5 - 23.5	29	17	41	800
SQ-25 T10 SWS	24 - 28	40	17	48	850
SQ-28 T10 SWS	27.5 - 32	40	17	53	900
SQ-32 T10 SWS	31.2 - 35.8	43.1	17	56	1000

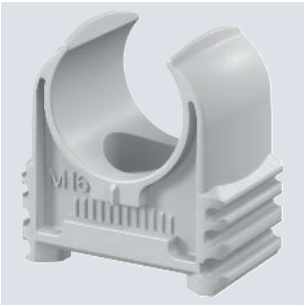
Dimensions



Industrieinstallation - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Push-fit anchor

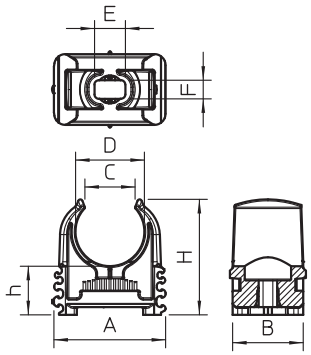
Quick clip, for push-fit anchors, light grey



Type	Nominal size	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2957 M16	M16	Light grey	100	0.315	**2149701**
2957 M19-20	M19-20	Light grey	100	0.403	**2149710**

Flush-mounted clip to accept metric steel armoured pipes and heavy-duty insulating pipes, as well as Quick Pipe electrical installation pipes. Universal fastening options on walls and ceilings, both in indoor and protected outdoor areas. With slot for side alignment during mounting with wood screw or knock-in anchor. Toolless pipe mounting. Can also be arranged with OBO Multi-Quick or starQuick clip. M16 - M32 size 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.

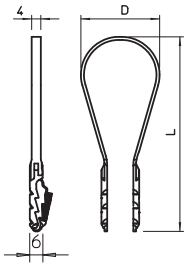
Dimensions



Type	Nominal size	Dim. A mm	Dim. B mm	Dim. C mm	Dim. D mm	Dim. E mm	Dim. F mm	Dim. H mm	Dim. h mm
2957 M16	M16	25.3	16	11,4	15.6	7	4.2	26	7
2957 M19-20	M19-20	30.3	16	13,3	18.6	9	4.2	30	7

BKS clamp clip

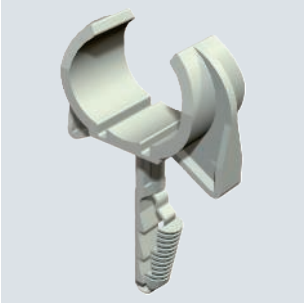


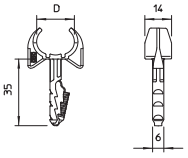


Type	Clamping range D mm	Dim. L mm	Dim. D mm	Pull-out value N	Colour	Pack Piece	Weight kg/100 pc.	Item no.
1973 3-13 LGR	3-13	52	13	500	Light grey	100	0.089	**2148803**
1973 8-28 LGR	8-28	70	27	500	Light grey	100	0.122	**2148846**
1973 20-40 LGR	20-40	89	36	500	Light grey	100	0.150	**2148862**

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	Drill hole depth mm	Colour	Pack Piece	Weight kg/100 pc.	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**

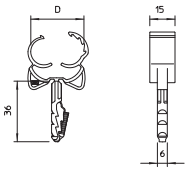
With moulded-on push-fit plug for rapid mounting in concrete walls and masonry.
Push plug into hole until the clip makes contact with the surface. When the pipe is pressed into the clip, the arms of the clip grip it.

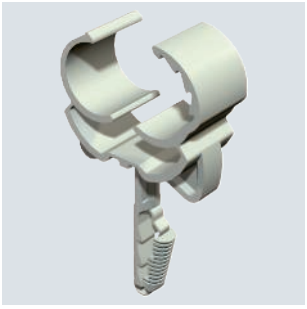
PA

Click-snap clip

Type	Clamping range D mm	Drill hole Ø mm	Drill hole depth mm	Breaking load for concrete B25 N	Colour	Pack Piece	Weight kg/100 pc.	Item no.
1976 12-15	12-15.5	6	40	190 N	Light grey	100	0.245	**2148501**
1976 16-21	16-21.5	6	40	500 N	Light grey	100	0.443	**2148528**
1976 22-28	22.5-28.5	6	40	500 N	Light grey	100	0.781	**2148536**

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.



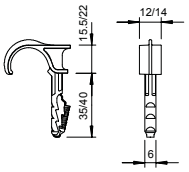


PA

Single push-fit clip

Type	Clamping range D mm	Drill hole Ø mm	Drill hole depth mm	Breaking load for concrete B25 N	Colour	Pack Piece	Weight kg/100 pc.	Item no.
1974 16-23	16-23	6	40	50	Light grey	100	0.263	**2197804**
1974 22-30	22-30	6	40	65	Light grey	100	0.446	**2197812**

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.



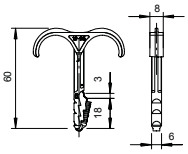


PA

Double push-fit clip

Type	Clamping range D mm	Drill hole Ø mm	Drill hole depth mm	Breaking load for concrete B25 N	Colour	Pack Piece	Item no.
1974 2X4-12	4-12	6	40	90	Light grey	100	**2197855**
1974 2X12-25	12-25	6	40	120	Light grey	100	**2197863**

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 double 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.



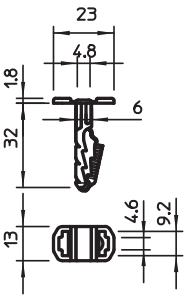


PA

Push-fit anchor for cable ties

Type	Drill hole depth mm	Breaking load for concrete B25 N	Colour	Pack Piece	Weight kg/100 pc.	Item no.
910 STK 6x30	35	260	Light grey	100	0.108	**2351609**

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 sandstone and brickwork as solid brick. Use in gas concrete masonry is possible, but reduced load capacities must be expected.





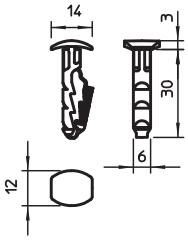
Industrieinstallation - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Push-fit anchor

Push-fit anchor with mushroom head

PA



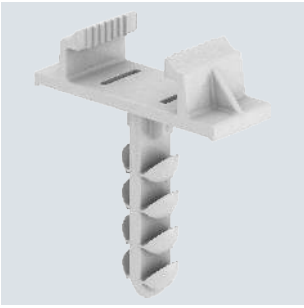


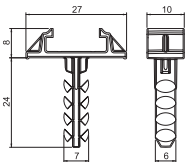
Type	Dowel Ø mm	Length mm	Drill hole depth mm	Breaking load for concrete B25 N		Pack Piece	Weight kg/100 pc.	Item no.
910 STP 6x30	6	30	35	250		100	0.101	**2351412**

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, type 2957

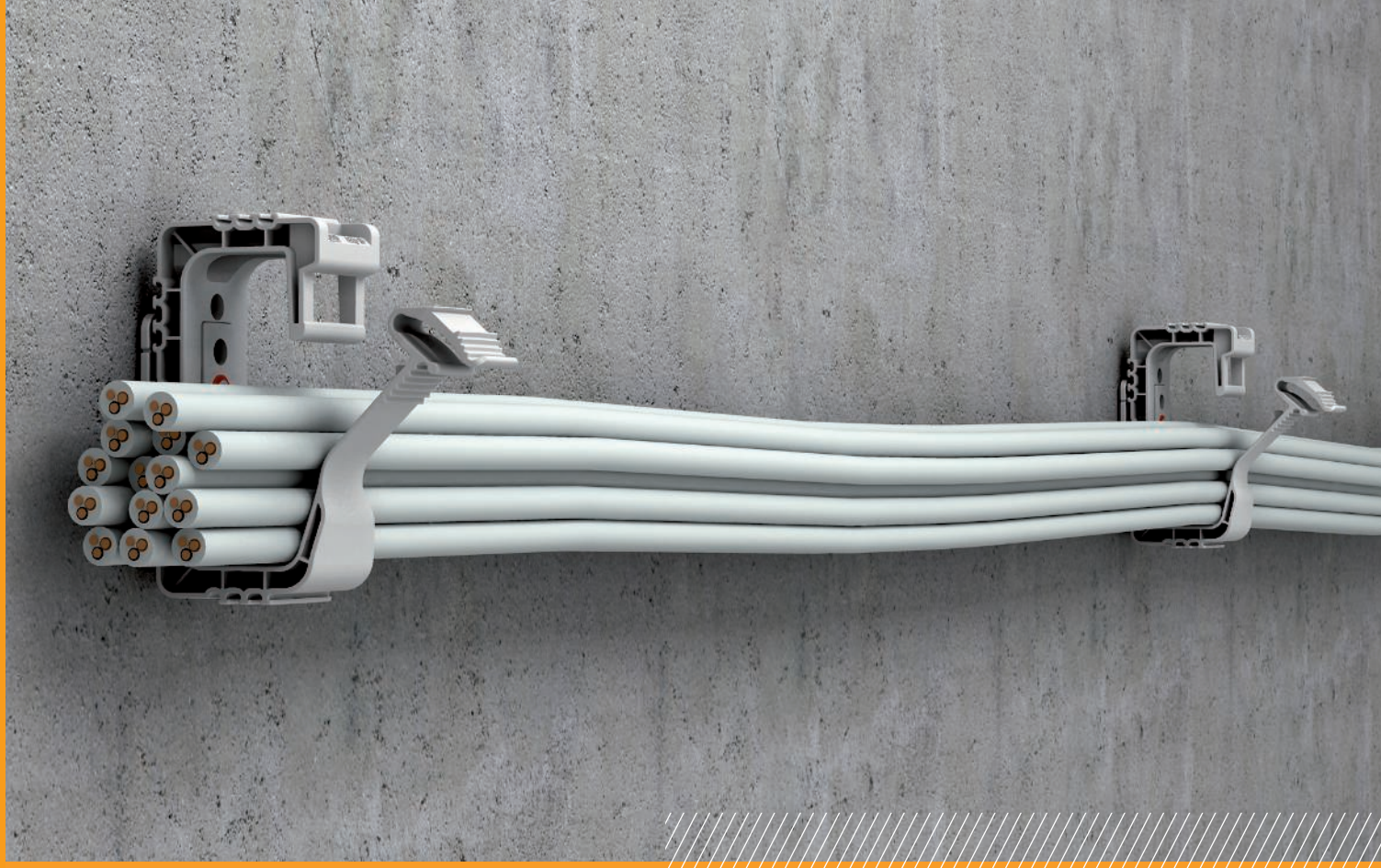
PA Ø6





Type	Dowel Ø mm	Length mm	Drill hole depth mm		Pack Piece	Weight kg/100 pc.	Item no.
910 STQS 6x26	6	26	30		100	0.110	**2351650**

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

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.



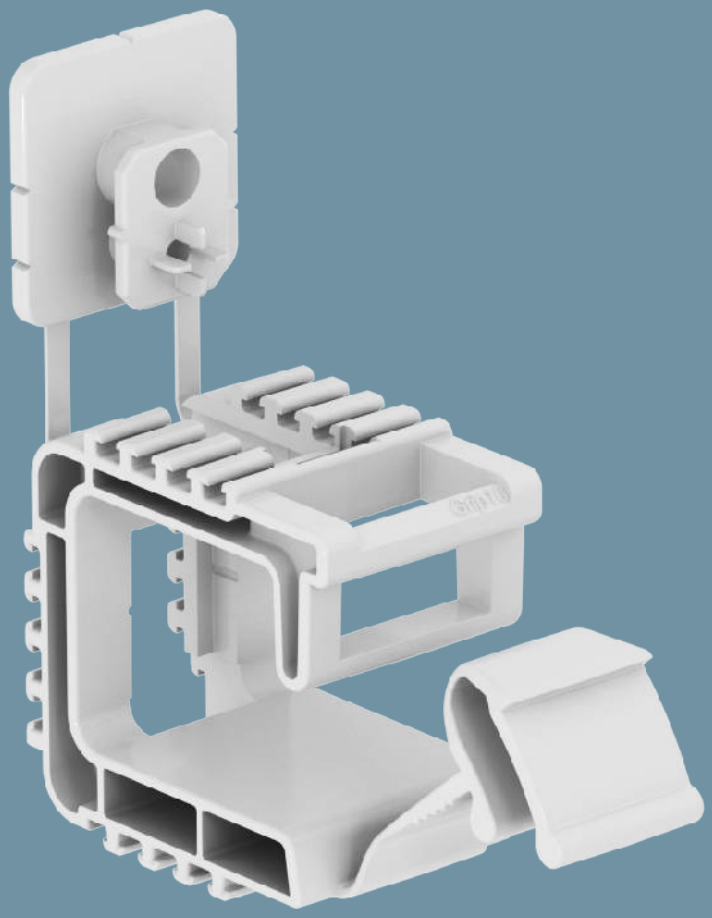
- Wall and ceiling mounting
- Can be joined together “back to back”
- For multiple cables
- Rapid mounting using the fastening element
- Ideal for retroinstallation
- Flame-resistant version, stone grey, to DIN EN 0471/DIN IEC 695 Part 2-1, test temperature 960 °C







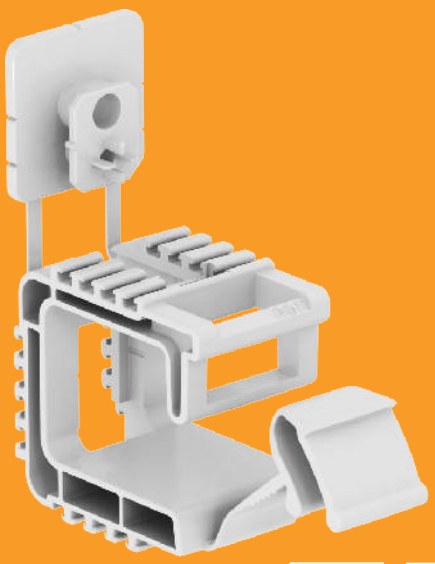




Grip 10 cable tidy

Cable tidy for general use, suitable for wall and ceiling mounting.

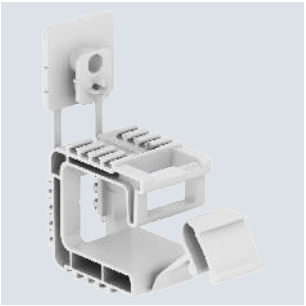
- Wall and ceiling mounting
- Can be joined together “back to back”
- For multiple cables
- Rapid mounting using the fastening element
- Ideal for retroinstallation
- Flame-resistant version, stone grey, to DIN EN 0471/DIN IEC 695 Part 2-1, test temperature 960 °C

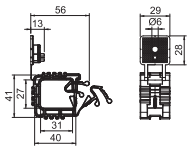


Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 06:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Grip cable tidies, plastic

Grip 10

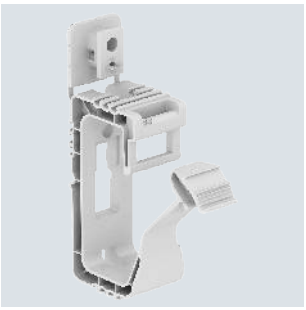


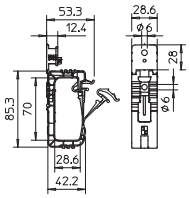


Type	No. of conductors NYM 3 x 1.5	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2031 10 SP	10	Light grey	100	1.410	**2205384**
2031 10	10	Light grey	50	1.410	**2205380**

Cable tidy with fastening holes of Ø 6 mm for mounting installation cables, suitable for wall and ceiling mounting. The moulded fastening element can be fastened using knock-in anchors or a gas pressure nail gun. The recommended fastening spacing when assigned fully is 250 to 400 mm.

Grip 20

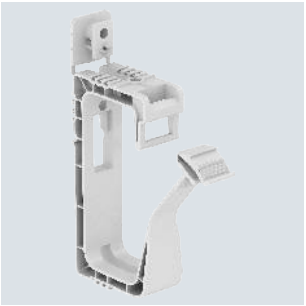


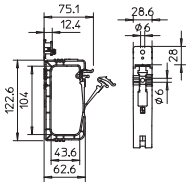


Type	No. of conductors NYM 3 x 1.5	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2031 20	20	Light grey	50	1.920	**2205404**
2031 20 SP	20	Light grey	100	1.920	**2205408**

Cable tidy for general use with fastening holes of Ø 6 mm, suitable for wall and ceiling mounting. The moulded fastening element can be fastened using knock-in anchors or a gas pressure nail gun. The recommended fastening spacing when assigned fully is 250–400 mm.

Grip 40

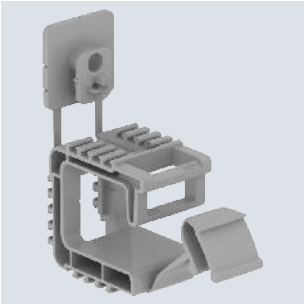


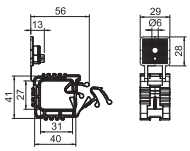


Type	No. of conductors NYM 3 x 1.5	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2031 40	40	Light grey	25	3.610	**2205416**
2031 40 SP	40	Light grey	50	3.280	**2205420**

Cable tidy for general use with fastening holes of Ø 6 mm, suitable for wall and ceiling mounting. The moulded fastening element can be fastened using knock-in anchors or a gas pressure nail gun. The recommended fastening spacing when assigned fully is 250–400 mm.

Grip 10 flame-resistant





Type	No. of conductors NYM 3 x 1.5	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2031 F 10	10	Stone grey	50	1.410	**2205388**

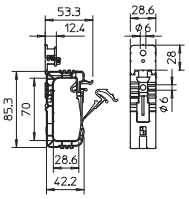
Cable tidy with fastening holes of Ø 6 mm for mounting installation cables, suitable for wall and ceiling mounting. The moulded fastening element can be fastened using knock-in anchors or a gas pressure nail gun. The recommended fastening spacing when assigned fully is 250 - 400 mm.
Flame-resistant version, stone grey, to DIN VDE 0471/DIN IEC 695 Part 2-1, test temperature 960 °C.

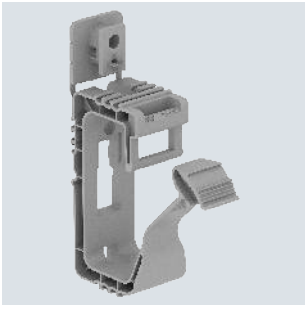
PP

Grip 20 flame-resistant

Type	No. of conductors NYM 3 x 1.5	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2031 F 20	20	Stone grey	50	1.920	**2205412**

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.
Flame-resistant version, stone grey, to DIN VDE 0471/DIN IEC 695 Part 2-1, test temperature 960 °C. The recommended fastening spacing when assigned fully is 250–400 mm.



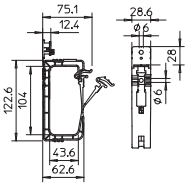


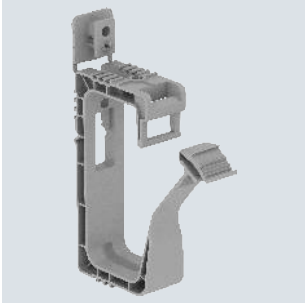
PP

Grip 40 flame-resistant

Type	No. of conductors NYM 3 x 1.5	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2031 F 40	40	Stone grey	25	3.610	**2205423**

Cable tidy for general use with fastening holes of Ø 6 mm, suitable for wall and ceiling mounting. The moulded fastening element can be fastened using knock-in anchors or a gas pressure nail gun. Flame-resistant version, stone grey, to DIN VDE 0471/DIN IEC 695 Part 2-1, test temperature 960 °C. The recommended fastening spacing when assigned fully is 250–400 mm.



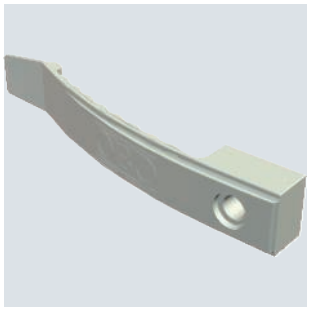


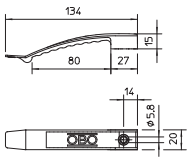
Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Pressure clips, plastic

Pressure clip for 8 cables

PA





Type	No. of conductors NYM 3 x 1.5	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2032	8	Light grey	50	1.371	**2205017**
2032 SP	8	Light grey	100	1.371	**2204975**

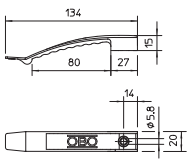
Standard version for general use, e.g. on intermediate ceilings and partition walls.
Clamping height 9 mm – with spacer 13 mm.
Fastening hole: 6 mm Ø.

Pressure clip for 8 cables, flame resistant

PBPT

960°





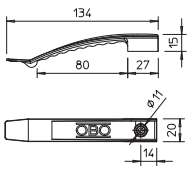
Type	No. of conductors NYM 3 x 1.5	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2032 F	8	Stone grey	50	1.412	**2204908**

Flame-resistant version, specially for use in suspended ceilings.
Thermoplast. Polyester, stone grey RAL 7030, flame-resistant to VDE 0471/DIN IEC 695 Part 2-1, Test temperature 960 °C, respectively V-O to UL 94, halogen-free.
Clamping height: 9 mm, with spacer 13 mm.
Fastening hole: 6 mm Ø.

Pressure clip for 8 cables, connectable

PA





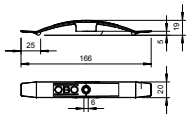
Type	No. of conductors NYM 3 x 1.5	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2032 AS	8	Light grey	50	1.300	**2205052**

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

PA





Type	No. of conductors NYM 3 x 1.5	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2034	10	Light grey	50	1.169	**2205041**
2034 SP	10	Light grey	100	1.169	**2204991**

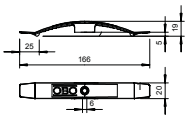
Standard version for general use, e.g. on intermediate ceilings and partition walls.
Clamping height 9 mm – with spacer 13 mm.
Fastening hole: 6 mm Ø.

PBPT

Pressure clip for 10 cables, flame resistant

Type	No. of conductors NYM 3 x 1.5	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2034 F	10	Stone grey	50	0.808	**2204924**

Flame-resistant version, specially for use in suspended ceilings.
Thermoplast. Polyester, stone grey RAL 7030, flame-resistant to VDE 0471/DIN IEC 695 Part 2-1, Test temperature 960 °C, respectively V-O to UL 94, halogen-free.
Clamping height: 9 mm, with spacer 13 mm.
Fastening hole: 6 mm Ø.



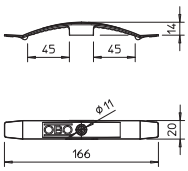


PA

Pressure clip for 10 cables, connectable

Type	No. of conductors NYM 3 x 1.5	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2034 AS	10	Light grey	50	1.130	**2205054**

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.



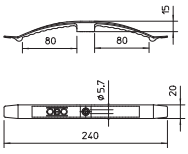


PA

Pressure clip for 16 cables

Type	No. of conductors NYM 3 x 1.5	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2033	16	Light grey	25	2.077	**2205033**
2033 SP	16	Light grey	100	2.077	**2204983**

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.



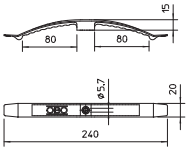


PBPT

Pressure clip for 16 cables, flame resistant

Type	No. of conductors NYM 3 x 1.5	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2033 F	16	Stone grey	25	2.588	**2204916**

Flame-resistant version, specially for use in suspended ceilings.
Thermoplast. Polyester, stone grey RAL 7030, flame-resistant to VDE 0471/DIN IEC 695 Part 2-1, Test temperature 960 °C, respectively V-O to UL 94, halogen-free.
Clamping height: 9 mm, with spacer 13 mm.
Fastening hole: 6 mm Ø.



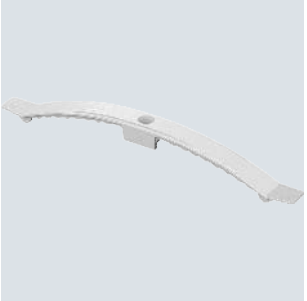


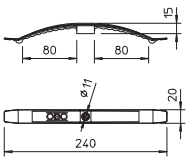
Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Pressure clips, plastic

Pressure clip for 16 cables, connectable

PA





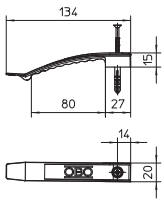
Type	No. of conductors NYM 3 x 1.5	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2033 AS	16	Light grey	25	2.100	**2205053**

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

PA





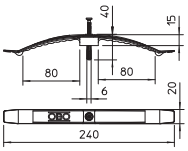
Type	No. of conductors NYM 3 x 1.5	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2032 SD	8	Light grey	50	1.791	**2204800**
2032 SD SP	8	Light grey	100	1.791	**2204851**

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

PA





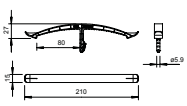
Type	No. of conductors NYM 3 x 1.5	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2033 SD	16	Light grey	25	2.515	**2204819**
2033 SD SP	16	Light grey	100	2.515	**2204878**

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 push-fit anchor

PA





Type	No. of conductors NYM 3 x 1.5	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2033 STD	16	Light grey	25	1.037	**2204541**

With moulded push-fit plug, 6 mm Ø.

Series pressure clip, light grey

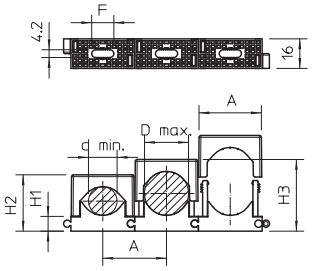
PA



Type	Clamping range D mm	Colour	Shipping box Piece	Pack Piece	Weight kg/100 pc.	Item no.
2037 3-7 LGR	3-7	Light grey	1000	100	0.260	**2250071**
2037 6-13 LGR	6-13	Light grey	1200	100	0.359	**2250136**
2037 12-20 LGR	12-20	Light grey	500	50	0.572	**2250209**
2037 16-24 LGR	16-24	Light grey	600	50	0.838	**2250241**
2037 18-30 LGR	18-30	Light grey	300	25	0.997	**2250306**
2037 27-43 LGR	27-43	Light grey	300	25	1.615	**2250438**

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.

Dimensions



Type	Clamping range D mm	Dim. A mm	Dim. H1 mm	Dim. H2 mm	Dim. H3 mm	Dim. d min. mm	Dim. d max. mm	Dim. F mm
2037 3-7 LGR	3-7	14.5	7.5	15.5	19.5	3	7	6
2037 6-13 LGR	6-13	20	8.5	20	27	6	13	13
2037 12-20 LGR	12-20	28	8.5	26	34	12	20	14
2037 16-24 LGR	16-24	34.5	8.5	31	39	16	24	12
2037 18-30 LGR	18-30	40	9	34	46	18	30	12
2037 27-43 LGR	27-43	55	10.5	46	62	27	43	15

Series pressure clip, light grey, special packaging

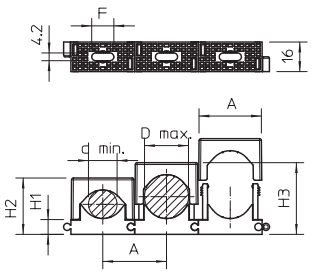
PA



Type	Clamping range D mm	Colour	Shipping box Piece	Pack Piece	Weight kg/100 pc.	Item no.
2037 12-20 LGR	12-20	Light grey	500	500	0.572	**2249952**

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 onto an M6 thread.
*Sizes 3–7 are not suitable for nail guns.

Dimensions



Type	Clamping range D mm	Dim. A mm	Dim. H1 mm	Dim. H2 mm	Dim. H3 mm	Dim. d min. mm	Dim. d max. mm	Dim. F mm
2037 12-20 LGR	12-20	28	8.5	26	34	12	20	14

PA

Series pressure clip 2037

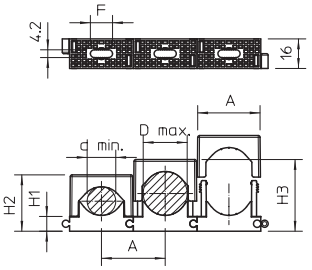
Type	Clamping range D mm	Colour	Shipping box Piece	Pack Piece	Weight kg/100 pc.	Item no.
2037 12-20 SW	12-20	Black	600	50	0.571	**2250527**

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 onto an M6 thread.
*Sizes 3–7 are not suitable for nail guns.



Type	Clamping range D mm	Dim. A mm	Dim. H1 mm	Dim. H2 mm	Dim. H3 mm	Dim. d min. mm	Dim. d max. mm	Dim. F mm
2037 12-20 SW	12-20	28	8.5	26	34	12	20	14

Dimensions



PA

Series pressure clip, cream white

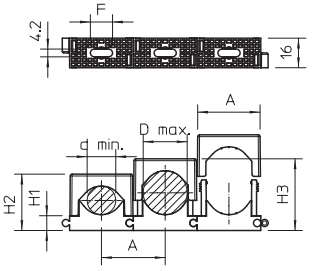
Type	Clamping range D mm	Colour	Shipping box Piece	Pack Piece	Weight kg/100 pc.	Item no.
2037 12-20 CW	12-20	Cream	600	50	0.586	**2250705**

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 onto an M6 thread.
*Sizes 3–7 are not suitable for nail guns.



Type	Clamping range D mm	Dim. A mm	Dim. H1 mm	Dim. H2 mm	Dim. H3 mm	Dim. d min. mm	Dim. d max. mm	Dim. F mm
2037 12-20 CW	12-20	28	8.5	26	34	12	20	14

Dimensions



Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Pressure ISO clips

Pressure ISO clip 3050, single, light grey

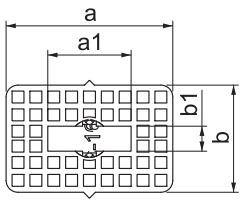
PS

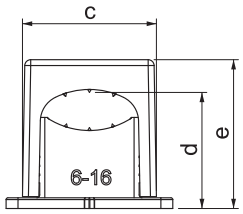


Type	Clamping range D mm	Colour	Shipping box Piece		Pack Piece	Weight kg/100 pc.	Item no.
3050 LGR	6-16	Light grey	1200		100	0.400	**2101017**

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.

Dimensions

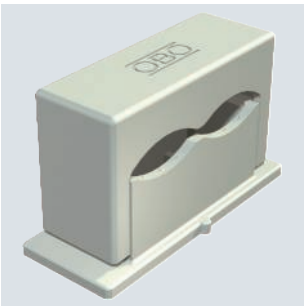




Type	Clamping range D mm	Dim. a1 mm	Dim. b1 mm	Dim. a mm	Dim. b mm	Dim. c mm	Dim. d mm	Dim. e mm
3050 LGR	6-16	13	4	28	18	22.5	25	34

Pressure ISO clip 3050, double, light grey

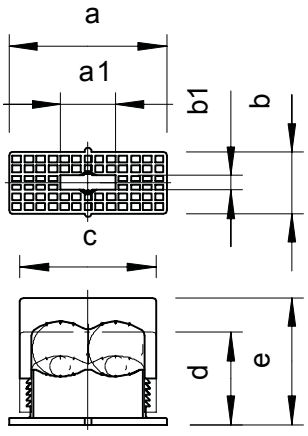
PS



Type	Clamping range D mm	Colour	Shipping box Piece		Pack Piece	Weight kg/100 pc.	Item no.
3050 2 6-16	6-16	Light grey	250		25	1.044	**2115018**

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.

Dimensions



Type	Clamping range D mm	Dim. a1 mm	Dim. b1 mm	Dim. a mm	Dim. b mm	Dim. c mm	Dim. d mm	Dim. e mm
3050 2 6-16	6-16	26	3.8	46	18	40	26	35

PS

Pressure ISO clip 3051, single, light grey

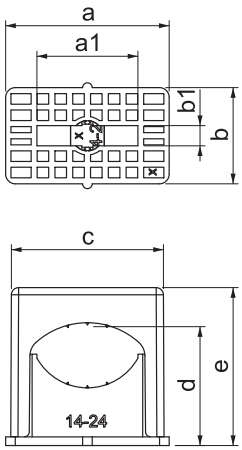
Type	Clamping range D mm	Colour	Shipping box Piece	Pack Piece	Weight kg/100 pc.	Item no.
3051 LGR	14-24	Light grey	600	50	0.720	**2101033**

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	Dim. a1 mm	Dim. b1 mm	Dim. a mm	Dim. b mm	Dim. c mm	Dim. d mm	Dim. e mm
3051 LGR	14-24	21	4.2	34	20	32	33	43

Dimensions



PS

Pressure ISO clip 3051, single, pure white

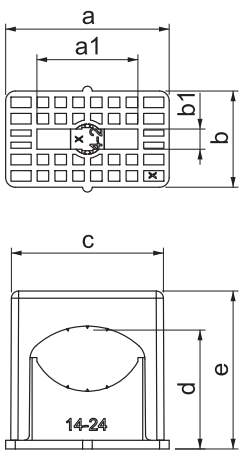
Type	Clamping range D mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
3051 RW	14-24	Pure white	50	0.720	**2102048**

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	Dim. a1 mm	Dim. b1 mm	Dim. a mm	Dim. b mm	Dim. c mm	Dim. d mm	Dim. e mm
3051 RW	14-24	21	4.2	34	20	32	33	43

Dimensions



Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Pressure ISO clip 3052, single, light grey

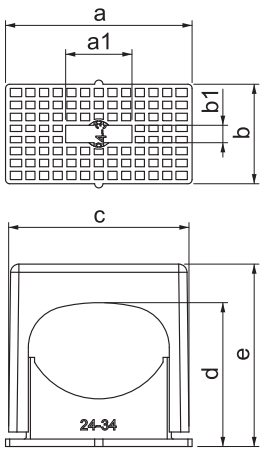
PS



Type	Clamping range D mm	Colour	Shipping box Piece		Pack Piece	Weight kg/100 pc.	Item no.
3052 LGR	24 - 34	Light grey	300		25	1.290	**2101068**

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.

Dimensions



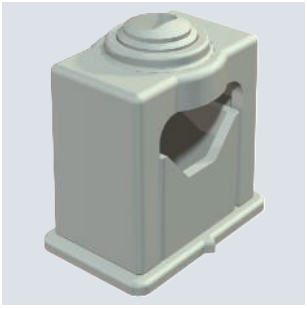
Type	Clamping range D mm	Dim. a1 mm	Dim. b1 mm	Dim. a mm	Dim. b mm	Dim. c mm	Dim. d mm	Dim. e mm
3052 LGR	24 - 34	16	4.2	45	24	43	43	57

PS

Grip ISO clip, single

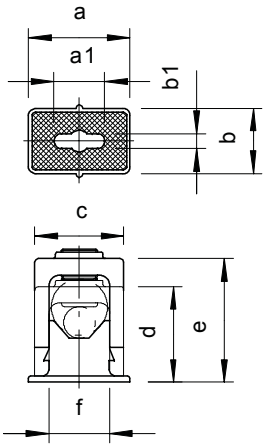
Type	Clamping range D mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
3040 LGR	6-16	Light grey	100	0.532	**2105012**
3041 LGR	16-24	Light grey	50	1.168	**2105039**
3042 LGR	24-34	Light grey	25	2.488	**2105055**

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	Dim. a1 mm	Dim. b1 mm	Dim. a mm	Dim. b mm	Dim. c mm	Dim. d mm	Dim. e mm	Dim. f mm
3040 LGR	6-16	13.5	4	28	18	24.5	28	35	20
3041 LGR	16-24	20	4.2	35	22	37	36	44	31
3042 LGR	24-34	14	4.2	50	22	48	49	59	40

Dimensions



PS

Grip ISO clip, double

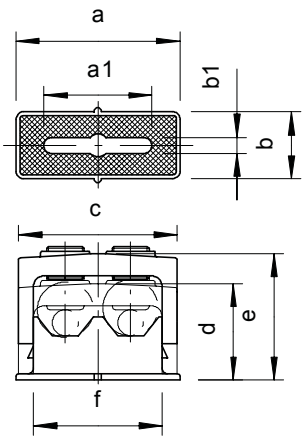
Type	Clamping range D mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
3040 2	6-16	Light grey	25	1.184	**2107015**
3041 2	16-24	Light grey	25	1.948	**2107031**

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	Dim. a1 mm	Dim. b1 mm	Dim. a mm	Dim. b mm	Dim. c mm	Dim. d mm	Dim. e mm	Dim. f mm
3040 2	6-16	16	4.2	44	18	43	28	35	38
3041 2	16-24	46	4.5	63	22	61	37	46	55

Dimensions

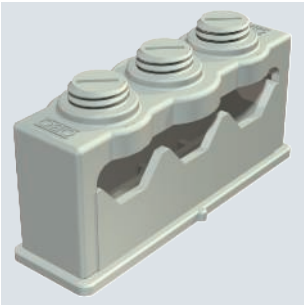


Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Grip ISO clips

Grip ISO clip, triple

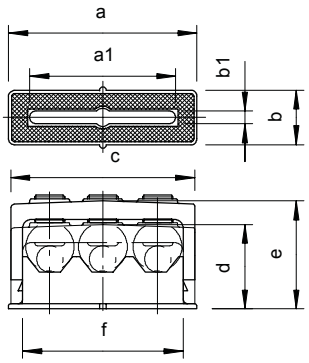
PS



Type	Clamping range D mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
3040 3	6 - 16	Light grey	25	1.508	**2109018**

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.

Dimensions



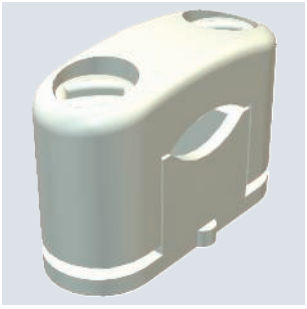
Type	Clamping range D mm	Dim. a1 mm	Dim. b1 mm	Dim. a mm	Dim. b mm	Dim. c mm	Dim. d mm	Dim. e mm	Dim. f mm
3040 3	6 - 16	48	4	62	18	61	31	38	55

PS

SOM clip, single

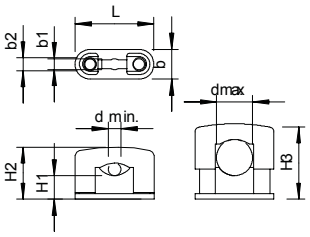
Type	Clamping range D mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
3079 LGR	5-14	Light grey	50	0.431	**2124149**
3080 LGR	6-17	Light grey	50	0.926	**2124173**
3081 LGR	15-25	Light grey	25	1.860	**2124254**
3082 LGR	22-34	Light grey	25	2.055	**2124343**

With plastic screws, so corrosion-protected, with slot for fastening with wood screws or 5 mm knock-in anchors.



Type	Clamping range D mm	Dim. L mm	Dim. d min. mm	Dim. d max. mm	Dim. H1 mm	Dim. H2 mm	Dim. H3 mm	Dim. b mm	Dim. b1 mm	Bolt
3079 LGR	5-14	31	5	13	10.5	20	29	12	4.2	M5x14
3080 LGR	6-17	37	6	17	11	24.5	35.5	14	4	M6x18
3081 LGR	15-25	51	14	25	11.5	33	44	17	5	M8x23
3082 LGR	22-34	62	22	34	11	40	52	18	5.2	M8x23

Dimensions

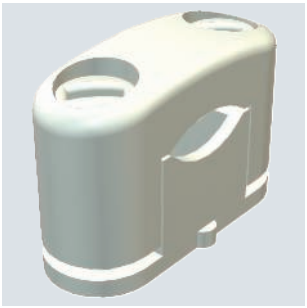


UF

SOM clip, single, hardly flammable

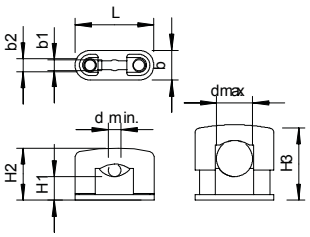
Type	Clamping range D mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
3083 LGR	32-45	Light grey	20	5.840	**2124459**

With plastic screws, so corrosion-protected, with slot for fastening with wood screws or 5 mm knock-in anchors.
Hardly flammable.



Type	Clamping range D mm	Dim. L mm	Dim. d min. mm	Dim. d max. mm	Dim. H1 mm	Dim. H2 mm	Dim. H3 mm	Dim. b mm	Dim. b1 mm	Bolt
3083 LGR	32-45	77	32	45	12	54	57	21	6.5	M8x40

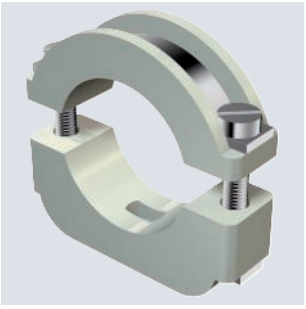
Dimensions



Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Lightning ISO clips

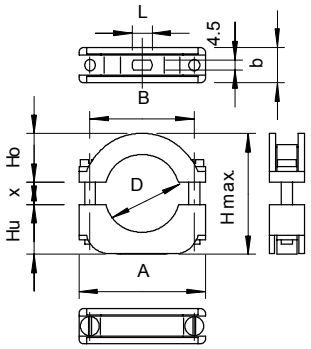
Lightning ISO clip



Type	Clamping range D mm	Colour	Pack Piece	Weight kg/100 pc.	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**

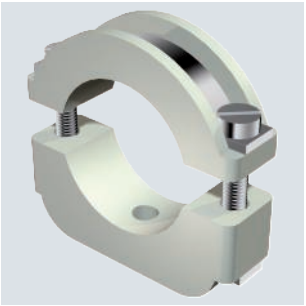
Lightning ISO clips: plastic clip with metal insert, therefore also suitable for heavy-duty applications; metal parts made of electrogalvanised steel.
3015 with 4.5 mm slot.
*Sizes 6–12 and 10–17 not suitable for bolt-firing device.

Dimensions



Type	Clamping range D mm	Dim. A mm	Dim. B mm	Dim. H mm	Dimension Ho mm	Dimension Hu mm	Dim. L mm	Dim. 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

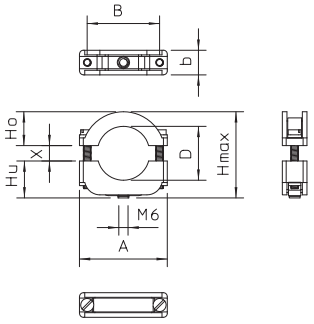
Lightning ISO clip, screw-on



Type	Clamping range D mm	Colour	Pack Piece	Weight kg/100 pc.	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**

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.

Dimensions



Type	Clamping range D mm	Dim. A mm	Dim. b mm	Dim. B mm	Dim. H mm	Dimension Ho mm	Dimension Hu mm	Dim. 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

PP

Base clamp clip, single

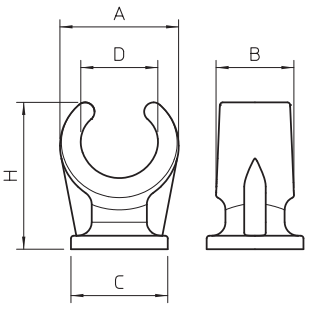
Type	Size	Colour	Shipping box Piece	Pack Piece	Weight kg/100 pc.	Item no.
2962 6 LGR	6	Light grey	1200	100	0.080	**2140063**
2962 8 LGR	8	Light grey	2000	100	0.106	**2140071**
2962 10 LGR	10	Light grey	2400	100	0.136	**2140101**
2962 12 LGR	12	Light grey	1200	100	0.182	**2140128**
2962 15 LGR	14-15	Light grey	1000	100	0.277	**2140152**
2962 18 LGR	16-18	Light grey	1200	100	0.377	**2140187**
2962 22 LGR	19-22	Light grey	500	50	0.514	**2140233**
2962 28 LGR	25-28	Light grey	250	25	0.948	**2140284**
2962 35 LGR	32-35	Light grey	300	25	1.295	**2140357**
2962 42 LGR	40-42	Light grey	300	25	1.709	**2140411**



Can be screwed onto M6 thread.

Type	Clamping range D mm	Dim. A mm	Dim. B mm	Dim. C mm	Dim. H mm
2962 6 LGR	6	11.5	10	15	17
2962 8 LGR	8	14	11	15	19
2962 10 LGR	10	16.5	12	15	20.5
2962 12 LGR	12	19	13	15	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	32	51
2962 42 LGR	40 - 42	54	23	32	58

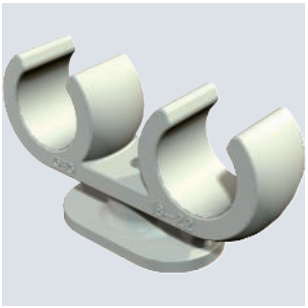
Dimensions



PP

Base clamp clip, double

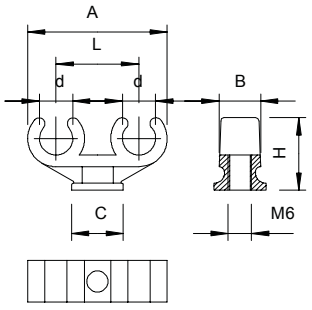
Type	Size	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2962 2X10	10 + 10	Light grey	100	0.283	**2140608**
2962 2x16	15/16 + 15/16	Light grey	50	0.809	**2140683**
2962 2x22	18/22 + 18/22	Light grey	25	1.064	**2140721**



Can be screwed onto M6 thread.

Type	Clamping range D mm	Dim. A mm	Dim. B mm	Dim. C mm	Dim. L mm	Dim. 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

Dimensions



Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Base clamp clips

ISO base clip

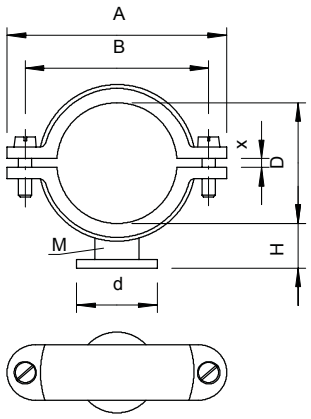
PS



Type	Clamping range D mm	Colour	Pack Piece	Weight kg/100 pc.	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 22 LGR SO	19-22	Light grey	50	1.296	**2136880**
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**

Can be screwed onto M6 thread.

Dimensions



Type	Clamping range D mm	Dim. A mm	Dim. B mm	Dim. x mm	Dim. H mm	Dim. 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 22 LGR SO	19-22	50	38	3.4	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

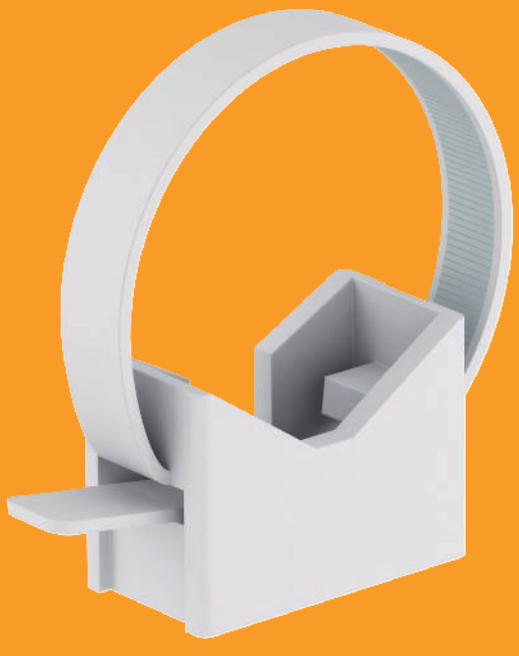
CTC cable tie clip

Fasten cables and up to four pipe sizes quickly, flexibly and reliably with only one cable tie clip.

- Pipe clip with cable tie with internal gear teeth
- Universally applicable for cables and pipes
- Fastening by means of knock-in anchor Ø 5 mm/Ø 6 mm



HALOGEN FREE









Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Cable tie clips

CTC cable tie clip

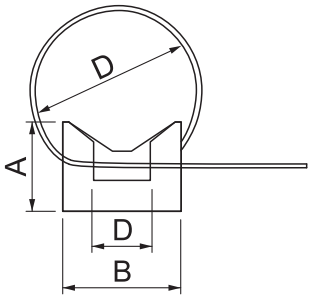
PA



Type	Dimension mm	Max. bundle Ø mm	Minimum breaking load kN	Colour	Pack Piece	Weight kg/100 pc.	Item no.
CTC 7,5x180 LGR	16-32	32	0.36	Light grey	100	0.600	**2332790**
CTC 7,5x280 LGR	40-63	63	0.36	Light grey	100	0.900	**2332794**

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.

Dimensions

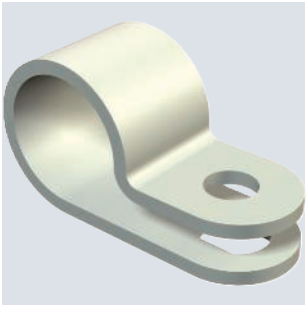


Type	Length mm	Width mm	Height mm
CTC 7,5x180 LGR	180	7.5	1.5
CTC 7,5x280 LGR	281	7.5	1.5

PA

Fastening clip

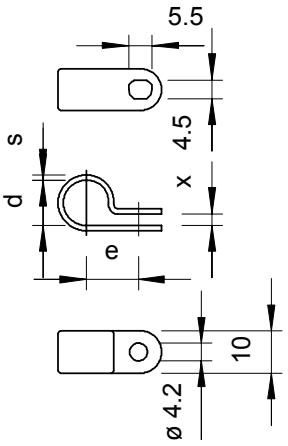
Type	For cable Ø mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
255 3.2 LGR	3.2	Light grey	100	0.039	**2222035**
255 5.2 LGR	5.2	Light grey	100	0.039	**2222051**
255 6.5 LGR	6.5	Light grey	100	0.047	**2222078**
255 8 LGR	8	Light grey	100	0.054	**2222086**
255 9.5 LGR	9.5	Light grey	100	0.063	**2222094**
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**



Fastening clip for secure all-round fixing of cables.

Type	For cable Ø mm	Dim. d mm	Dim. e mm	Dim. s mm	Dim. 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

Dimensions

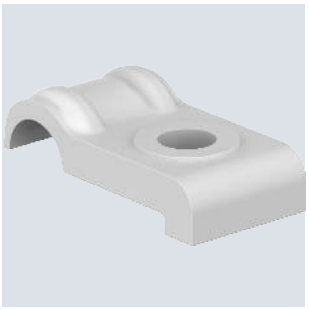


ISO nail clips

PP

ISO nail clip 4028 2-4

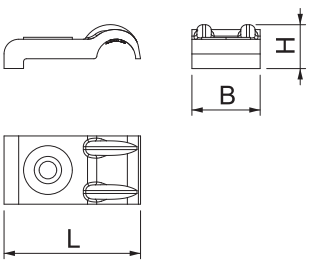
Type	For cable Ø mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
4028	2-4	Light grey	100	0.017	**2215047**



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.

Type	For cable Ø mm	Dim. B mm	Dim. L mm	Dim. H mm	Dim. H1 mm
4028	2-4	7	14.5	4.5	1.5

Dimensions



Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

ISO nail clip, type 4029 4-7

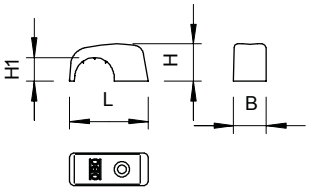
PP



Type	For cable Ø mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
4029	4-7	Light grey	100	0.028	**2215071**

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	Dim. B mm	Dim. L mm	Dim. H mm	Dim. H1 mm
4029	4-7	7.2	15	7	3.7

ISO nail clip 4030 7-11

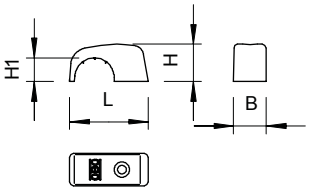
PP



Type	For cable Ø mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
4030	7-11	Light grey	100	0.053	**2215101**

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	Dim. B mm	Dim. L mm	Dim. H mm	Dim. H1 mm
4030	7-11	8.3	20	9.5	6

PP

ISO nail clip 4031 10-14

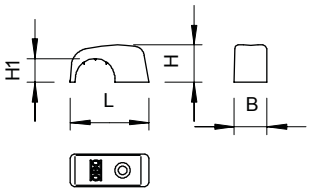
Type	For cable Ø mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
4031 10-14	10 - 14	Light grey	100	0.104	**2215144**

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.



Type	For cable Ø mm	Dim. B mm	Dim. L mm	Dim. H mm	Dim. H1 mm
4031 10-14	10 - 14	10	27	12.5	7.6

Dimensions



PP

ISO nail clip 4031 14-17

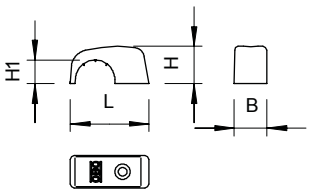
Type	For cable Ø mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
4031 14-17	14 - 17	Light grey	100	0.155	**2215179**

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.



Type	For cable Ø mm	Dim. B mm	Dim. L mm	Dim. H mm	Dim. H1 mm
4031 14-17	14 - 17	11	33	15.8	11

Dimensions



Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

ISO nail clips

ISO nail clip 4032 16-20

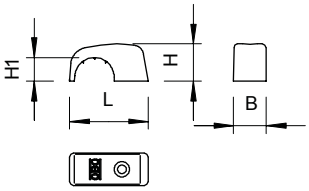
PP



Type	For cable Ø mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
4032	16-20	Light grey	100	0.214	**2215209**

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	Dim. B mm	Dim. L mm	Dim. H mm	Dim. H1 mm
4032	16-20	12	37	17.5	12

PS

Double ISO nail clip

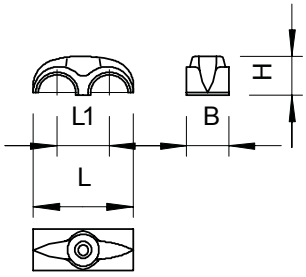
Type	For cable Ø mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
3030 2	7-11	Light grey	100	0.084	2213117

Nail clips to fasten two cables, suitable for steel nails 2 mm.



Type	For cable Ø mm	Dim. B mm	Dim. L1 mm	Dim. L mm	Dim. H mm
3030 2	7-11	9	14	27	10.5

Dimensions

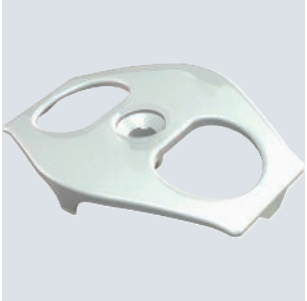


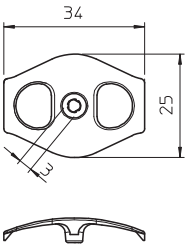
Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Nail clamp

Nail-Fix, without nail

PP





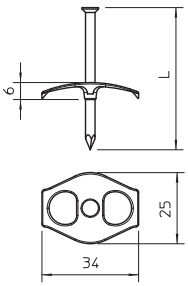
Type	For nail Ø x l mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
1996 O	3,0 - 3,5	Transparent	100	0.053	**2222809**

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 mm² or one or two cables NYM 5 x 1.5/2.5 mm².

Nail-Fix, with nail

PP





Type	For nail Ø x l mm	Colour	Shipping box Piece	Pack Piece	Weight kg/100 pc.	Item no.
1996 40	3 x 40	Transparent	1200	100	0.267	**2222833**
1996 50	3,5 x 50	Transparent	1200	100	0.380	**2222841**
1996 60	3,5 x 60	Transparent	1200	100	0.443	**2222868**
1996 70	3,5 x 70	Transparent	1200	100	0.773	**2222876**

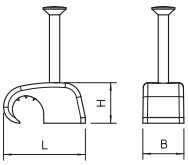
With pre-mounted, galvanised steel nail Ø 3 mm or 3.5 mm to fix cables in masonry slots and on masonry for one or two cables NYM 3 x 1.5/2.5 mm² or one or two cables NYM 5 x 1.5/2.5 mm².

Adhesive clips

Adhesive clip 2025, light grey

PP





Type	For nail Ø x l mm	For cable Ø mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2025 18 LGR	2 x 18	4 - 7	Light grey	100	0.072	**2228610**
2025 25 LGR	2 x 25	4 - 7	Light grey	100	0.086	**2228629**
2025 25 LGR SO	2 x 25	4 - 7	Light grey	300	0.086	**2232901**
2025 30 LGR	2 x 30	4 - 7	Light grey	100	0.097	**2228637**

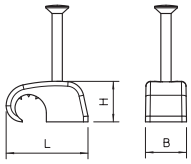
Adhesive clip, for clamping to the cable.

PP

Adhesive clip, pure white

Type	For nail Ø x l mm	For cable Ø mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2025 18 RW	2,0 x 18	4-7	Pure white	100	0.072	**2228686**
2025 25 RW	2,0 x 25	4-7	Pure white	100	0.086	**2228688**

Adhesive clip, for clamping to the cable.



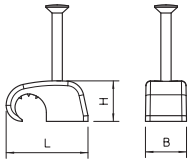


PP

Adhesive clip 2026, light grey

Type	For nail Ø x l mm	For cable Ø mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2026 18 LGR	2 x 18	7-12	Light grey	100	0.097	**2228718**
2026 25 LGR	2 x 25	7-12	Light grey	100	0.110	**2228726**
2026 25 LGR SP	2 x 25	7-12	Light grey	200	0.111	**2228432**
2026 25 LGR SO	2 x 25	7-12	Light grey	300	0.111	**2232928**
2026 35 LGR	2 x 35	7-12	Light grey	100	0.135	**2228734**
2026 35 LGR SP	2 x 35	7-12	Light grey	200	0.135	**2228440**
2026 35 LGR SO	2 x 35	7-12	Light grey	300	0.135	**2232930**
2026 45 LGR	2 x 45	7-12	Light grey	100	0.156	**2228750**
2026 45 LGR SP	2 x 45	7-12	Light grey	200	0.156	**2228467**

Adhesive clip, for clamping to the cable.



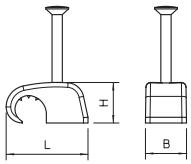


PP

Adhesive clip 2026, pure white

Type	For nail Ø x l mm	For cable Ø mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2026 25 RW	2,0 x 25	7-12	Pure white	100	0.111	**2228422**
2026 18 RW	2,0 x 18	7-12	Pure white	100	0.097	**2228420**

Adhesive clip, for clamping to the cable.



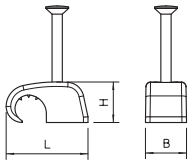


PP

Adhesive clip 2027, light grey

Type	For nail Ø x l mm	For cable Ø mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2027 25 LGR	2,0 x 25	10-14	Light grey	100	0.161	**2228823**
2027 30 LGR	2,0 x 30	10-14	Light grey	100	0.172	**2228831**
2027 40 LGR	2,0 x 40	10-14	Light grey	100	0.196	**2228858**

Adhesive clip, for clamping to the cable.





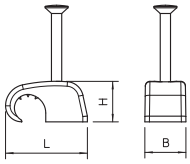
Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Adhesive clips

Adhesive clip 2027, light grey

PP





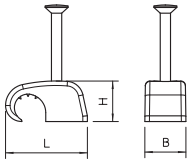
Type	For nail Ø x l mm	For cable Ø mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2027 30 LGR SO	2,0 x 30	10 - 14	Light grey	150	0.172	**2232936**
2027 40 LGR SO	2,0 x 40	10 - 14	Light grey	150	0.196	**2232940**

Adhesive clip, for clamping to the cable.

Adhesive clip, type 2028, light grey

PP





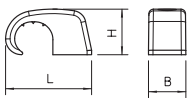
Type	For nail Ø x l mm	For cable Ø mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2028 40 LGR	2,0 x 40	14 - 17	Light grey	100	0.270	**2228904**

Adhesive clip, for clamping to the cable.

Adhesive clip, type 4039, without nail, light grey

PP





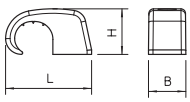
Type	For nail Ø x l mm	For cable Ø mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
4039	2	4 - 7	Light grey	100	0.028	**2215306**
4039 SP	2	4 - 7	Light grey	200	0.028	**2214873**

Adhesive clip, for clamping to the cable, suitable for steel nails 2 mm.

Adhesive clip 4040, without nail

PP





Type	For nail Ø x l mm	For cable Ø mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
4040	2	7 - 12	Light grey	100	0.053	**2215314**
4040 SP	2	7 - 12	Light grey	200	0.053	**2214881**

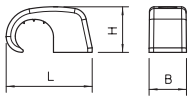
Adhesive clip, for clamping to the cable, suitable for steel nails 2 mm.

PP

Adhesive clip, without nail

Type	For nail Ø x l mm	For cable Ø mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
4041	2	10-14	Light grey	100	0.106	2215349

Adhesive clip, for clamping to the cable, suitable for steel nails 2 mm.



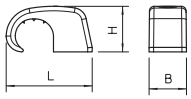


PP

Adhesive clip 4042, without nail

Type	For nail Ø x l mm	For cable Ø mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
4042	2	14-17	Light grey	100	0.181	2215322

Adhesive clip, for clamping to the cable, suitable for steel nails 2 mm.



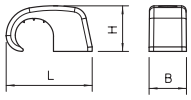


PP

Adhesive clip 4043, without nail

Type	For nail Ø x l mm	For cable Ø mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
4043	2	17-21	Light grey	100	0.268	2215330

Adhesive clip, for clamping to the cable, suitable for steel nails 2 mm.



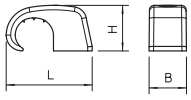


PP

Adhesive clip 4044, without nail

Type	For nail Ø x l mm	For cable Ø mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
4044	2	21-25	Light grey	50	0.399	2215357

Adhesive clip, for clamping to the cable, suitable for steel nails 2 mm.





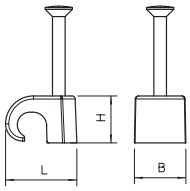
Industrieinstallation - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Adhesive clips

Adhesive clip 1985, natural

PP





Type	For nail Ø x l mm	For cable Ø mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
1985 16-19	2,5 x 40	16 - 19	Natural	100	0.156	**2228963**

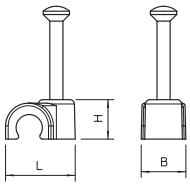
Adhesive clip, for clamping to the cable, short design

ISO nail clips

ISO nail clip 2004

PP





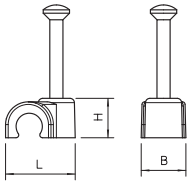
Type	For cable Ø mm	For nail Ø x l mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2004 18 LGR	4	2,0x18	Light grey	200	0.057	**2227223**
2004 25 LGR	4	2,0x25	Light grey	200	0.071	**2227231**

ISO nail clip, short design

ISO nail clip 2004

PP





Type	For cable Ø mm	For nail Ø x l mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2004 18 RW	4	2,0x18	Pure white	200	0.057	**2225220**
2004 25 RW	4	2,0x25	Pure white	200	0.071	**2225239**

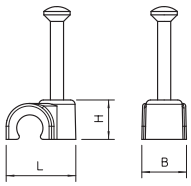
ISO nail clip, short design

PP

ISO nail clip 2005

Type	For cable Ø mm	For nail Ø x l mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2005 18 LGR	5	2,0x18	Light grey	100	0.063	**2227347**
2005 25 LGR	5	2,0x25	Light grey	100	0.077	**2227339**

ISO nail clip, short design



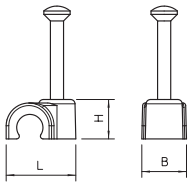


PP

ISO nail clip 2005

Type	For cable Ø mm	For nail Ø x l mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2005 18 RW	5	2,0x18	Pure white	100	0.064	**2225379**
2005 25 RW	5	2,0x28	Pure white	100	0.078	**2225344**

ISO nail clip, short design



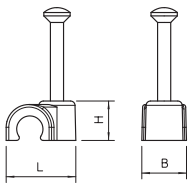


PP

ISO nail clip 2006

Type	For cable Ø mm	For nail Ø x l mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2006 25 LGR	6	2,0x25	Light grey	100	0.089	**2227428**
2006 35 LGR	6	2,0x35	Light grey	100	0.113	**2227436**

ISO nail clip, short design



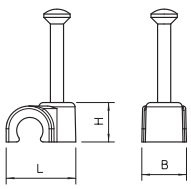


PP

ISO nail clip 2006

Type	For cable Ø mm	For nail Ø x l mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2006 25 LGR SP	6	2,0x25	Light grey	200	0.089	**2227460**
2006 35 LGR SP	6	2,0x35	Light grey	200	0.113	**2227371**

ISO nail clip, short design





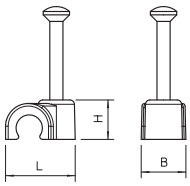
Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

ISO nail clips

ISO nail clip 2006

PP





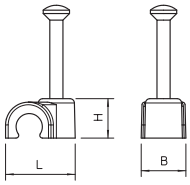
Type	For cable Ø mm	For nail Ø x l mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2006 18 RW	6	2,0x18	Pure white	100	0.075	**2225409**
2006 25 RW	6	2,0x25	Pure white	100	0.089	**2225417**
2006 35 RW	6	2,0x35	Pure white	100	0.113	**2225425**

ISO nail clip, short design

ISO nail clip 2006

PP





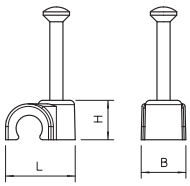
Type	For cable Ø mm	For nail Ø x l mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2006 35 WK SO	6	2,0x35	White/clear	300	0.113	**2232715**

ISO nail clip, short design

ISO nail clip 2007

PP





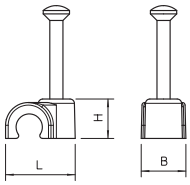
Type	For cable Ø mm	For nail Ø x l mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2007 25 LGR	7	2,0x25	Light grey	100	0.083	**2227517**
2007 35 LGR	7	2,0x35	Light grey	100	0.121	**2227525**

ISO nail clip, short design

ISO nail clip 2007

PP





Type	For cable Ø mm	For nail Ø x l mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2007 35 LGR SO	7	2,0x35	Light grey	300	0.121	**2232804**

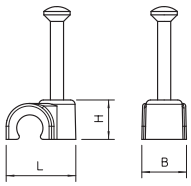
ISO nail clip, short design

PP

ISO nail clip 2007

Type	For cable Ø mm	For nail Ø x l mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2007 18 RW	7	2,0x18	Pure white	100	0.083	**2225506**
2007 25 RW	7	2,0x25	Pure white	100	0.097	**2225514**
2007 35 RW	7	2,0x35	Pure white	100	0.121	**2225522**

ISO nail clip, short design



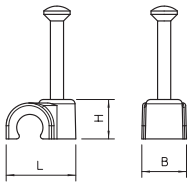


PP

ISO nail clip 2007

Type	For cable Ø mm	For nail Ø x l mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2007 25 SW	7	2,0x25	Jet black	100	0.097	**2232146**

ISO nail clip, short design



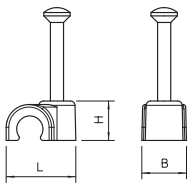


PP

ISO nail clip 2008

Type	For cable Ø mm	For nail Ø x l mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2008 25 LGR	8	2,0x25	Light grey	100	0.103	**2227614**
2008 35 LGR	8	2,0x35	Light grey	100	0.127	**2227622**
2008 45 LGR	8	2,0x45	Light grey	100	0.148	**2227630**

ISO nail clip, short design



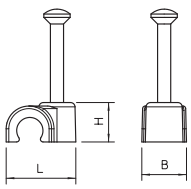


PP

ISO nail clip 2008

Type	For cable Ø mm	For nail Ø x l mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2008 25 LGR SO	8	2,0x25	Light grey	300	0.103	**2232812**
2008 35 LGR SO	8	2,0x25	Light grey	300	0.127	**2232814**
2008 45 LGR SO	8	2,0x45	Light grey	300	0.148	**2232816**

ISO nail clip, short design





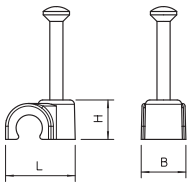
Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

ISO nail clips

ISO nail clip 2008

PP





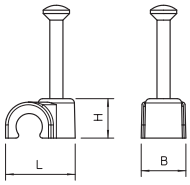
Type	For cable Ø mm	For nail Ø x l mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2008 25 RW	8	2,0x25	Pure white	100	0.104	**2225611**
2008 35 RW	8	2,0x35	Pure white	100	0.128	**2225638**

ISO nail clip, short design

ISO nail clip 2008

PP





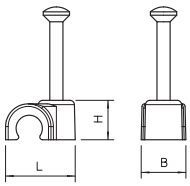
Type	For cable Ø mm	For nail Ø x l mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2008 25 SW	8	2,0x25	Jet black	100	0.104	**2232170**

ISO nail clip, short design

ISO nail clip 2009

PP





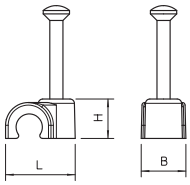
Type	For cable Ø mm	For nail Ø x l mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2009 25 LGR	9	2,0x25	Light grey	100	0.109	**2227711**
2009 35 LGR	9	2,0x35	Light grey	100	0.134	**2227738**
2009 35 LGR SP	9	2,0x35	Light grey	200	0.132	**2227762**
2009 45 LGR	9	2,0x45	Light grey	100	0.153	**2227746**
2009 45 LGR SP	9	2,0x45	Light grey	200	0.155	**2227797**

ISO nail clip, short design

ISO nail clip 2009

PP





Type	For cable Ø mm	For nail Ø x l mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2009 25 LGR SO	9	2,0x25	Light grey	300	0.109	**2232820**
2009 35 LGR SO	9	2,0x35	Light grey	300	0.134	**2232822**
2009 45 LGR SO	9	2,0x45	Light grey	300	0.155	**2232824**

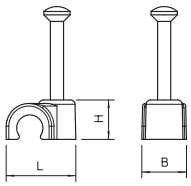
ISO nail clip, short design

PP

ISO nail clip 2009

Type	For cable Ø mm	For nail Ø x l mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2009 25 RW	9	2,0x25	Pure white	100	0.107	**2225719**
2009 35 RW	9	2,0x35	Pure white	100	0.131	**2225727**

ISO nail clip, short design.



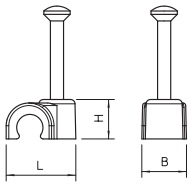


PP

ISO nail clip 2009

Type	For cable Ø mm	For nail Ø x l mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2009 25 SW	9	2,0x25	Jet black	100	0.109	**2232219**

ISO nail clip, short design



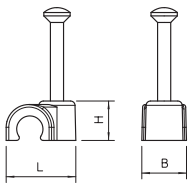


PP

ISO nail clip 2010

Type	For cable Ø mm	For nail Ø x l mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2010 25 LGR	10	2,0x25	Light grey	100	0.122	**2227800**
2010 35 LGR	10	2,0x35	Light grey	100	0.146	**2227819**
2010 45 LGR	10	2,0x45	Light grey	100	0.167	**2227827**

ISO nail clip, short design



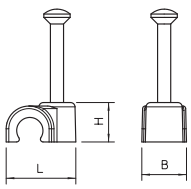


PP

ISO nail clip 2010

Type	For cable Ø mm	For nail Ø x l mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2010 35 LGR SO	10	2,0x35	Light grey	150	0.146	**2232830**
2010 45 LGR SO	10	2,0x45	Light grey	150	0.167	**2232834**

ISO nail clip, short design





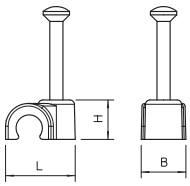
Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

ISO nail clips

ISO nail clip 2010

PP





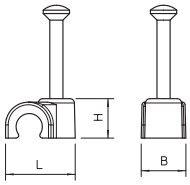
Type	For cable Ø mm	For nail Ø x l mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2010 25 RW	10	2,0x25	Pure white	100	0.123	**2225808**
2010 35 RW	10	2,0x35	Pure white	100	0.147	**2225816**

ISO nail clip, short design

ISO nail clip 2010

PP





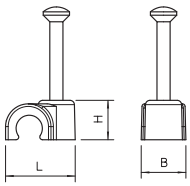
Type	For cable Ø mm	For nail Ø x l mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2010 25 SW	10	2,0x25	Jet black	100	0.123	**2232235**

ISO nail clip, short design

ISO nail clip 2011

PP





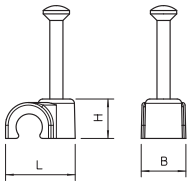
Type	For cable Ø mm	For nail Ø x l mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2011 35 LGR	11	2,0x35	Light grey	100	0.162	**2227916**
2011 45 LGR	11	2,0x45	Light grey	100	0.183	**2227924**

ISO nail clip, short design

ISO nail clip 2011

PP





Type	For cable Ø mm	For nail Ø x l mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2011 25 RW	11	2,0x25	Pure white	100	0.138	**2225905**
2011 35 RW	11	2,0x35	Pure white	100	0.162	**2225913**

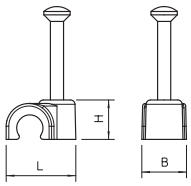
ISO nail clip, short design

PP

ISO nail clip 2012

Type	For cable Ø mm	For nail Ø x l mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2012 35 LGR	12	2,0x35	Light grey	100	0.165	**2228025**
2012 45 LGR	12	2,0x45	Light grey	100	0.189	**2228033**

ISO nail clip, short design



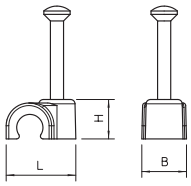


PP

ISO nail clip 2012

Type	For cable Ø mm	For nail Ø x l mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2012 35 LGR SO	12	2,0x35	Light grey	150	0.169	**2232839**
2012 45 LGR SO	12	2,0x45	Light grey	150	0.190	**2232842**

ISO nail clip, short design



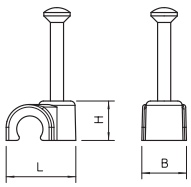


PP

ISO nail clip 2012

Type	For cable Ø mm	For nail Ø x l mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2012 25 RW	12	2,0x25	Pure white	100	0.145	**2226014**
2012 35 RW	12	2,0x35	Pure white	100	0.169	**2226022**

ISO nail clip, short design



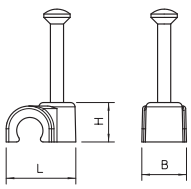


PP

ISO nail clip 2012

Type	For cable Ø mm	For nail Ø x l mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2012 35 SW	12	2,0x35	Jet black	100	0.169	**2232316**

ISO nail clip, short design





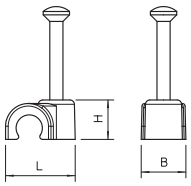
Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

ISO nail clips

ISO nail clip 2014

PP





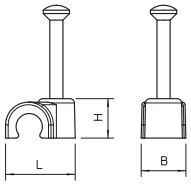
Type	For cable Ø mm	For nail Ø x l mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2014 40 LGR	14	2,0x40	Light grey	50	0.466	**2228114**
2014 50 LGR	14	2,0x50	Light grey	50	0.336	**2228122**

ISO nail clip, short design

ISO nail clip 2014

PP





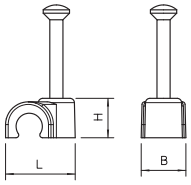
Type	For cable Ø mm	For nail Ø x l mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2014 30 RW	14	2,0x30	Pure white	50	0.432	**2226103**
2014 40 RW	14	2,0x40	Pure white	50	0.303	**2226111**

ISO nail clip, short design

ISO nail clip 2016

PP





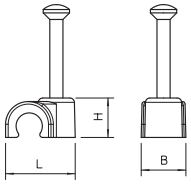
Type	For cable Ø mm	For nail Ø x l mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2016 40 LGR	16	2,0x40	Light grey	50	0.402	**2228211**
2016 50 LGR	16	2,0x50	Light grey	50	0.361	**2228238**

ISO nail clip, short design

ISO nail clip 2016

PP





Type	For cable Ø mm	For nail Ø x l mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2016 40 RW	16	2,0x40	Pure white	50	0.320	**2226219**

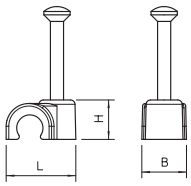
ISO nail clip, short design

PP

ISO nail clip 2018

Type	For cable Ø mm	For nail Ø x l mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2018 40 LGR	18	2,0x40	Light grey	25	0.548	**2228300**
2018 50 LGR	18	2,5x50	Light grey	25	0.700	**2228319**

ISO nail clip, short design



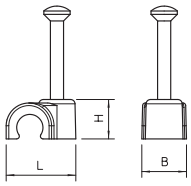


PP

ISO nail clip 2018

Type	For cable Ø mm	For nail Ø x l mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2018 40 RW	18	2,0x40	Pure white	25	0.548	**2226308**

ISO nail clip, short design



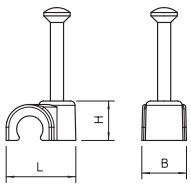


PP

ISO nail clip 2020

Type	For cable Ø mm	For nail Ø x l mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2020 40 LGR	20	2,0x40	Light grey	25	0.418	**2228408**
2020 50 LGR	20	2,0x50	Light grey	25	0.463	**2228416**

ISO nail clip, short design



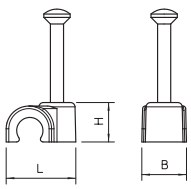


PP

ISO nail clip, type 2020

Type	For cable Ø mm	For nail Ø x l mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2020 40 RW	20	2,0x40	Pure white	25	0.419	**2226405**

ISO nail clip, short design



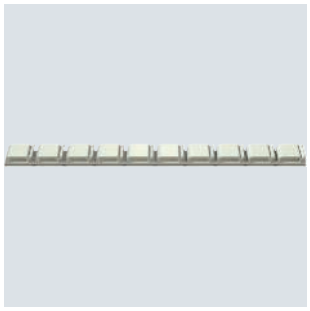


Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Cable clips, self-adhesive

Cable clip

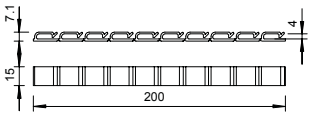
PS



Type	Colour	Pack Piece	Weight kg/100 pc.	Item no.
507	Light grey	100	1.200	**2327104**

Self-adhesive

Dimensions

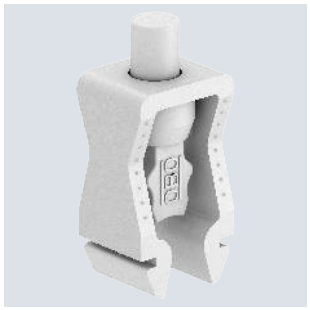


Series clips

Series clip

PS

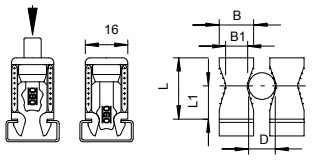
11-12



Type	Clamping range D mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2047 5-25 LGR	5-25	Light grey	100	0.320	**2251256**

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.
Also suitable for rails with 11–12 mm slot width.

Dimensions



Type	Dim. H mm	Dim. H1 mm	Dim. B mm	Dimension B1 mm	Clamping range D mm
2047 5-25 LGR	23	12.5	13	8	5-25

PS

11-12

Series clip

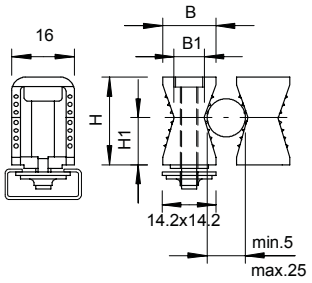
Type	Clamping range D mm	Bolt	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2050 5-25 LGR	5-25	M4 x 27	Light grey	100	0.631	**2254026**

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.



Type	Dim. H mm	Dim. H1 mm	Dim. B mm	Dimension B1 mm	Clamping range D mm
2050 5-25 LGR	23	12.5	14	8.5	5-25

Dimensions



PS

11-12

Series clip

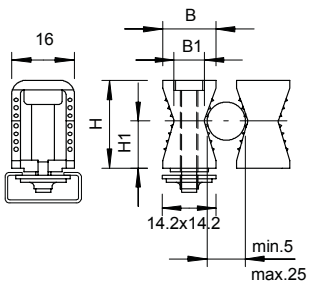
Type	Clamping range D mm	Bolt	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2050 5-25 RW	5-25	M4 x 27	Pure white	100	0.631	**2254522**

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.



Type	Dim. H mm	Dim. H1 mm	Dim. B mm	Dimension B1 mm	Clamping range D mm
2050 5-25 RW	23	12.5	14	8.5	5-25

Dimensions



Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Series clip, black

PS

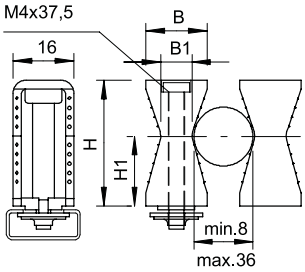
11-12



Type	Clamping range D mm	Bolt	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2051 8-36 SW	8-36	M4 x 37.5	Graphite black	100	0.970	**2254565**

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.

Dimensions



Type	Dim. H mm	Dim. H1 mm	Dim. B mm	Dimension B1 mm	Clamping range D mm
2051 8-36 SW	34	19	16.5	8.5	8-36

Series clip

PS

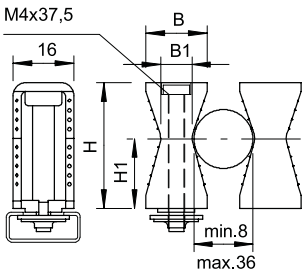
11-12



Type	Clamping range D mm	Bolt	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2051 8-36 LGR	8-36	M4 x 37.5	Light grey	100	0.851	**2254034**

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.

Dimensions



Type	Dim. H mm	Dim. H1 mm	Dim. B mm	Dimension B1 mm	Clamping range D mm
2051 8-36 LGR	34	19	16.5	8.5	8-36

PA

16-17

Series clip

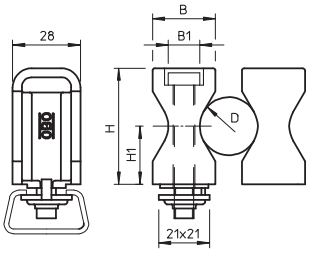
Type	Clamping range D mm	Bolt	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2054 14-48 LGR	14-48	M8x55	Light grey	25	4.320	**2255014**
2055 24-72 LGR	24-72	M8x75	Light grey	20	6.471	**2255022**

Heavyweight version, also suitable for rails of 16 ÷ 17 mm slot width; polyamide clip element, light grey RAL 7035; Metal parts: Electrogalvanised steel.



Type	Dim. H mm	Dim. H1 mm	Dim. B mm	Dimension B1 mm	Clamping range D mm
2054 14-48 LGR	48	24	26	13	14-48
2055 24-72 LGR	70	35	38	15	24-72

Dimensions



PA

16-17

Series clip, graphite black

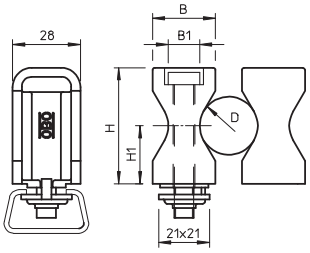
Type	Clamping range D mm	Bolt	Colour	Pack Piece	Weight kg/100 pc.	Item no.
2054 14-48 SW	14-48	M8x55	Graphite black	25	4.300	**2255502**

Heavyweight version, also suitable for rails of 16 ÷ 17 mm slot width; polyamide clip element, light grey RAL 7035; Metal parts: Electrogalvanised steel.



Type	Dim. H mm	Dim. H1 mm	Dim. B mm	Dimension B1 mm	Clamping range D mm
2054 14-48 SW	48	24	26	13	14-48

Dimensions



Industrieinstallation - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Series terminal clip

PE

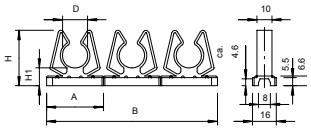
11-12



Type	Clamping range D mm	Colour	Number of clips per strip	Shipping box Piece	Pack Piece	Weight kg/100 pc.	Item no.
2036 19 NL STGR	16-19	Stone grey	3	300	25	2.362	**2259745**
2036 19 NL CW	16-19	Cream	3	300	25	2.428	**2259796**

2036/...: Individually separable, for pushing into profile rails

Dimensions



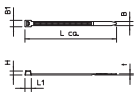
Type	Clamping range D mm	Dim. A mm	Dim. B mm	Dim. H mm	Dim. H1 mm
2036 19 NL STGR	16-19	31	93	31.5	10.5
2036 19 NL CW	16-19	31	93	31.5	10.5

Cable ties

Cable tie, white

PA





Type	Dim. B mm	Dim. L mm	Dim. t mm	Tensile strength N	Max. bundle Ø mm	Colour	Pack Piece	Weight kg/100 pc.	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**

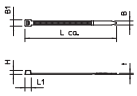
Cable ties are used for quick, uncomplicated fixing or bundling of cables and pipes to cable support systems or other mounting structures.

Cable tie, black, UV and weather-resistant

PA

UV RESISTANT





Type	Dim. B mm	Dim. L mm	Dim. t mm	Tensile strength N	Max. bundle Ø mm	Colour	Pack Piece	Weight kg/100 pc.	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**

Cable ties are used for quick, uncomplicated fixing or bundling of cables and pipes to cable support systems or other mounting structures.

Impu-Fix ribbon conductor bonding agent

Impu-Fix ribbon conductor bonding agent



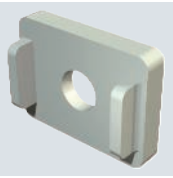
Type	Contents kg		Pack Piece	Weight kg/100 pc.	Item no.
509	0.65		1	70.000	**2341018**

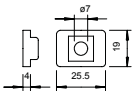
Impu-Fix ribbon conductor bonding agent to stick clips and ribbon conductors to masonry and concrete.

Spacers

Spacer

PS





Type	Colour		Pack Piece	Weight kg/100 pc.	Item no.
2033 D 25x19	Light grey		100	0.173	**2205092**

To increase the clamping height of pressure clips from 10 to 13 mm for thicker cables, impact-resistant polystyrene.

Solvent mixtures

Solvent mixture



Type	Contents ml		Pack Piece	Weight kg/100 pc.	Item no.
508	1000		1	105.000	**2341107**

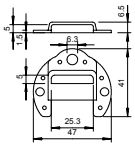
Thinning.
Solvent mixture to create an optimum processing consistency of Impu-Fix ribbon conductor quick adhesive and to clean the working material.

Accessories, adhesive mounting

Ceiling outlet

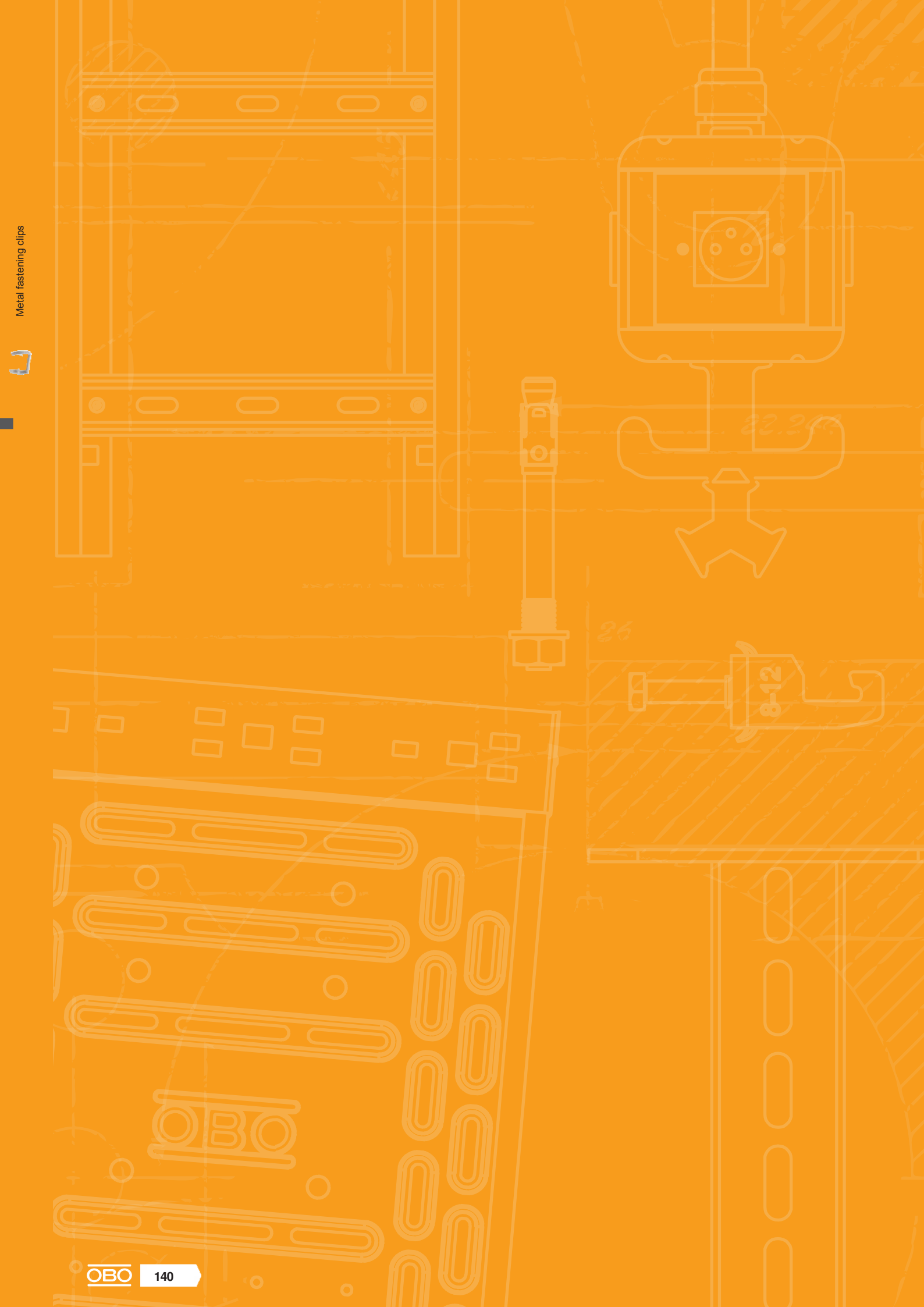
PS



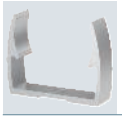


Type	Colour		Pack Piece	Weight kg/100 pc.	Item no.
510	Light grey		100	0.223	**2236028**

To fasten ribbon conductors.



Metal fastening clips


Quick clips 142


Cable tidies 144


Pressure clips 148


Cable and pipe spacer clips 150


Fastening clips 166


Strain relief clips 180


Clamp clips 184

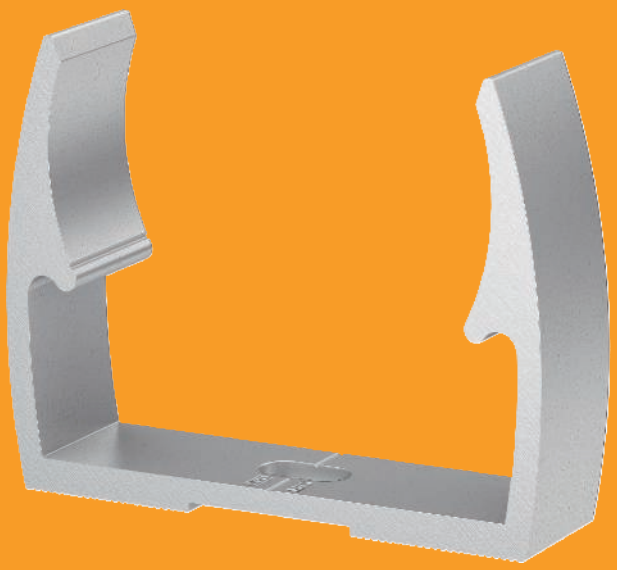

Accessories, U clamps 210

Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47



Quick clip, aluminium

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 installation on walls and ceilings. The clip boasts impressively high holding forces.

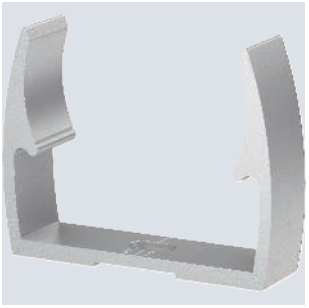


- Strong clip holding forces thanks to optimised geometry
- Centre mark around slot for easy alignment
- Pipe centring aids for easy insertion of the pipe
- Modern, attractive design

Alu

Quick clip, aluminium

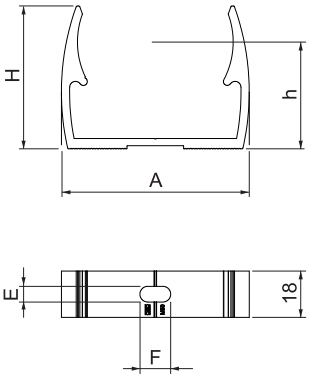
Type	Nominal size	Shipping box Piece		Pack Piece	Weight kg/100 pc.	Item no.
ALQ M16	16	1200		100	0.780	**2149916**
ALQ M20	20	1200		100	0.900	**2149920**
ALQ M25	25	100		100	1.110	**2149925**
ALQ M32	32	600		50	1.600	**2149932**
ALQ M40	40	50		50	2.400	**2149940**
ALQ M50	50	300		25	2.730	**2149950**
ALQ M63	63	20		20	3.340	**2149963**



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	Dim. A mm	Dim. B mm	Dim. E mm	Dim. F mm	Dim. H mm	Dim. 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

Dimensions



Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47



Grip cable tidy, metal

E30 E90



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.

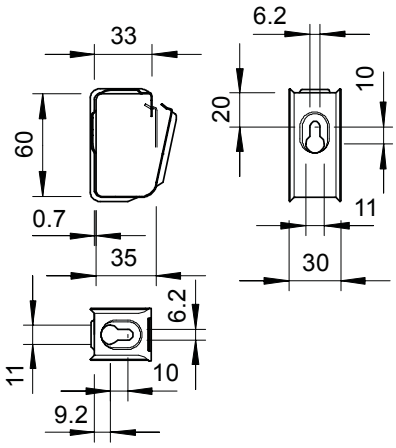
- Ingenious design means both wall and ceiling mounting are possible
- Easy cable insertion
- Extremely sturdy click-in connector means retroinstalling cables is no problem
- UL-tested quality
- Also available in stainless steel qualities A2 and A4
- Tested for the maintenance of electrical functionality
- Halogen and fire load-free

St A2 A4 FS 2B

E30 E90

Grip collection clamp, metal 15

Type	No. of conductors NYM 3 x 1.5	BS	Shipping box Piece	Pack Piece	Weight kg/100 pc.	Item no.
2031 M 15 FS	15		50	50	3.700	**2207028**
2031 M 15 A2	15		50	50	3.000	**2207080**
2031 M 15 A4	15		50	50	3.000	**2207132**





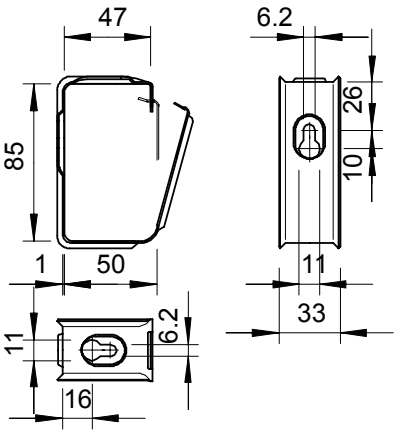
Metal cable tidy for high mechanical stability, even in case of fire. Suitable for safe mounting above fire protection ceilings. Also approved as a cable-specific variant for the maintenance of electrical function to DIN 4102 part 12. For wall and ceiling mounting. Lock can be opened without tools. Detailed information on the approved routing variants can be found in the appropriate testing documentation.

St A2 A4 FS 2B

E30 E90

Grip collection clamp, metal 30

Type	No. of conductors NYM 3 x 1.5	BS	Shipping box Piece	Pack Piece	Weight kg/100 pc.	Item no.
2031 M 30 FS	30		25	25	6.200	**2207036**
2031 M 30 A2	30		25	25	6.500	**2207088**
2031 M 30 A4	30		25	25	6.500	**2207140**





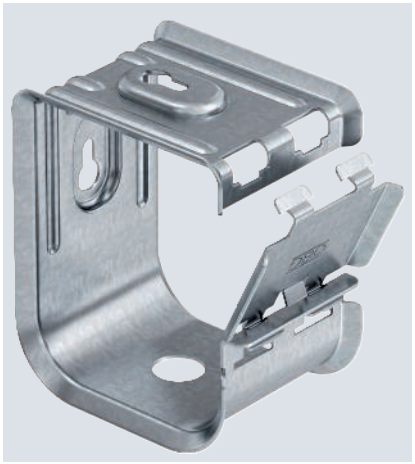
Metal grouped support for high mechanical stability, even in case of fire. Suitable for safe mounting above fire protection ceilings. Also approved as a cable-specific variant for the maintenance of electrical function to DIN 4102 part 12. For wall and ceiling mounting. Lock can be opened without tools. Detailed information on the approved routing variants can be found in the appropriate testing documentation.

Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

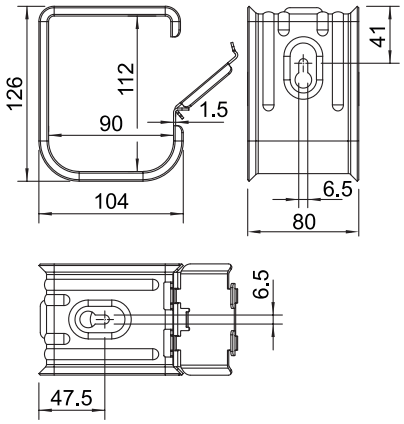
Grip collection clamp, metal 70

St A2 A4 FS 2B

CE E30 E90 cULus LISTED



Type	No. of conductors NYM 3 x 1.5	BS	Shipping box Piece		Pack Piece	Weight kg/100 pc.	Item no.
2031 M 70 FS	70		10		10	34.500	**2207060**
2031 M 70 A2	70		10		10	37.000	**2207112**
2031 M 70 A4	70		10		10	37.000	**2207164**

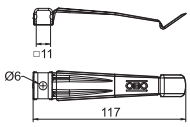


Metal grouped support for high mechanical stability, even in case of fire. Suitable for safe mounting above fire protection ceilings. Also approved as a cable-specific variant for the maintenance of electrical function to DIN 4102 part 12. For wall and ceiling mounting. Lock can be opened without tools. Detailed information on the approved routing variants can be found in the appropriate testing documentation.

Pressure clips, metal

Pressure clip for 8 cables



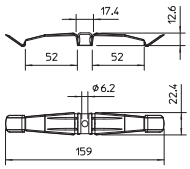


Type	No. of conductors NYM 3 x 1.5	BS	Pack Piece	Weight kg/100 pc.	Item no.
2035 M A2	8		20	1.030	**2204020**

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 the maintenance of electrical functionality to DIN 4102 Part 12. The spacer 2033 D 15 x 3 G (must be ordered separately) increases the clamping height of pressure clips 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



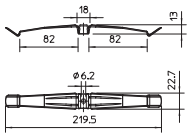


Type	No. of conductors NYM 3 x 1.5	BS	Pack Piece	Weight kg/100 pc.	Item no.
2034 M A2	10		50	1.860	**2204010**

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 the maintenance of electrical functionality to DIN 4102 Part 12. The spacer 2033 D 15 x 3 G (must be ordered separately) increases the clamping height of pressure clips 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 16 cables

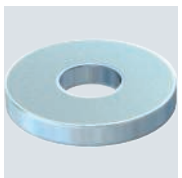


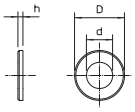


Type	No. of conductors NYM 3 x 1.5	BS	Pack Piece	Weight kg/100 pc.	Item no.
2033 M A2	16		25	2.310	**2204000**

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 the maintenance of electrical functionality to DIN 4102 Part 12. The spacer 2033 D 15 x 3 G (must be ordered separately) increases the clamping height of pressure clips 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	Dim. D mm	Dim. d mm	Dim. h mm	Shipping box Piece		Pack Piece	Weight kg/100 pc.	Item no.
2033 D 15x3 G	15	6.4	3	3000		50	0.340	**2205097**

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



E30 E90



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

Industrieinstalltion - Befestigungsmaterial \ en \ 2023/07/13 08:19:25 08:19:25 (LExport_03289) / 2023/07/13 08:19:47 08:19:47

Cable and pipe spacer clips

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.

Cable and pipe spacer clip 732 with M6 threaded connection



E30 E90



Cable and pipe spacer clip 733

St G

E30 E60 E90

Spacer clip 732

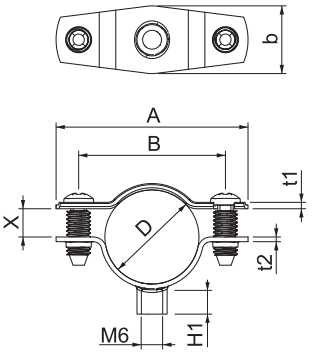
Type	Clamping range D mm	Pack Piece	Weight kg/100 pc.	Item no.
ASG 732 6 G	5-6	25	1.136	**1362404**
ASG 732 7 G	6-7	25	1.341	**1362406**
ASG 732 8 G	7-8	25	1.349	**1362408**
ASG 732 10 G	8-10	25	1.504	**1362410**
ASG 732 12 G	10-12	25	1.567	**1362412**
ASG 732 14 G	12-14	25	1.638	**1362414**
ASG 732 17 G	14-17	25	1.793	**1362417**
ASG 732 20 G	17-20	25	1.895	**1362420**
ASG 732 25 G	20-25	25	2.145	**1362424**
ASG 732 30 G	25-30	20	3.157	**1362428**
ASG 732 36 G	30-36	20	3.664	**1362432**
ASG 732 44 G	36-44	20	4.002	**1362436**
ASG 732 53 G	44-53	20	4.713	**1362440**
ASG 732 63 G	53-63	20	5.231	**1362444**



Spacer clip for the installation of pipes and cables on walls, ceilings and floors. With self-locking cover. Fastening via attachment piece with internal thread.
Approved for the maintenance of electrical function according to DIN 4102 Part 12, maintenance of electrical function classes E 30 to E 90.

Type	Clamping range D mm	Dim. A mm	Dim. B mm	Dim. x mm	Dim. b mm	Dim. t1 mm	Dim. t2 mm	Dim. H1 mm
ASG 732 6 G	5-6	35	23	1.5	18	1	1.25	6.5
ASG 732 7 G	6-7	35	23	1.5	18	1	1.25	6.5
ASG 732 8 G	7-8	35	23	1.5	18	1	1.25	6.5
ASG 732 10 G	8-10	37	25	3	18	1	1.25	6.5
ASG 732 12 G	10-12	39	27	3	18	1	1.25	6.5
ASG 732 14 G	12-14	41	29	3	18	1.25	1.25	6.5
ASG 732 17 G	14-17	44	32	4.5	18	1.25	1.25	6.5
ASG 732 20 G	17-20	47	35	4.5	18	1.25	1.25	6.5
ASG 732 25 G	20-25	51	39	7.5	18	1.25	1.25	6.5
ASG 732 30 G	25-30	59	45	7.5	18	1.5	1.5	6.5
ASG 732 36 G	30-36	65	51	9	18	1.5	1.5	6.5
ASG 732 44 G	36-44	73	59	12	18	1.5	1.5	6.5
ASG 732 53 G	44-53	84	70	13.5	18	1.5	1.5	6.5
ASG 732 63 G	53-63	94	80	15	18	1.5	1.5	6.5

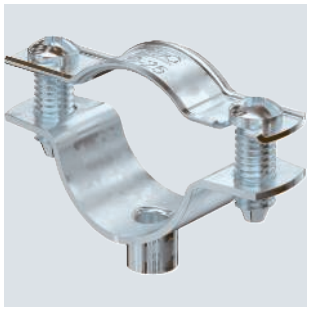
Dimensions



Industrieinstallation - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Spacer clip 732

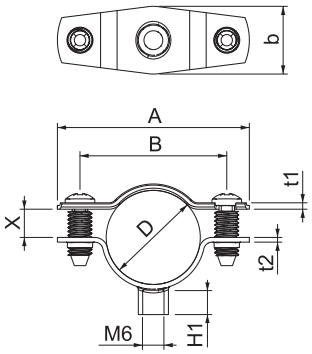
St FT
E30 E60 E90



Type	Clamping range D mm		Pack Piece	Weight kg/100 pc.	Item no.
ASG 732 6 FT	5-6		25	1.398	**1362354**
ASG 732 7 FT	6-7		25	1.415	**1362356**
ASG 732 8 FT	7-8		25	1.424	**1362358**
ASG 732 10 FT	8-10		25	1.585	**1362360**
ASG 732 12 FT	10-12		25	1.653	**1362362**
ASG 732 14 FT	12-14		25	1.729	**1362364**
ASG 732 17 FT	14-17		25	1.892	**1362367**
ASG 732 20 FT	17-20		25	2.002	**1362369**
ASG 732 25 FT	20-25		25	2.261	**1362372**
ASG 732 30 FT	25-30		20	3.309	**1362374**
ASG 732 36 FT	30-36		20	3.840	**1362378**
ASG 732 44 FT	36-44		20	4.197	**1362382**
ASG 732 53 FT	44-53		20	4.942	**1362386**
ASG 732 63 FT	53-63		20	5.492	**1362389**

Spacer clip for the installation of pipes and cables on walls, ceiling and floors. With self-locking upper part. Surfaces G and FT from a clip size of 20 are suitable for installation with a nail device or a bolt-firing tool.
Approved for the maintenance of electrical function according to DIN 4102 Part 12, maintenance of electrical function classes E30 to E90.

Dimensions



Type	Clamping range D mm	Dim. A mm	Dim. B mm	Dim. x mm	Dim. b mm	Dim. t1 mm	Dim. t2 mm	Dim. H1 mm
ASG 732 6 FT	5-6	35	23	1.5	18	1	1.25	6.5
ASG 732 7 FT	6-7	35	23	1.5	18	1	1.25	6.5
ASG 732 8 FT	7-8	35	23	1.5	18	1	1.25	6.5
ASG 732 10 FT	8-10	37	25	3	18	1	1.25	6.5
ASG 732 12 FT	10-12	39	27	3	18	1	1.25	6.5
ASG 732 14 FT	12-14	41	29	3	18	1.25	1.25	6.5
ASG 732 17 FT	14-17	44	32	4.5	18	1.25	1.25	6.5
ASG 732 20 FT	17-20	47	35	4.5	18	1.25	1.25	6.5
ASG 732 25 FT	20-25	51	39	7.5	18	1.25	1.25	6.5
ASG 732 30 FT	25-30	59	45	7.5	18	1.5	1.5	6.5
ASG 732 36 FT	30-36	65	51	9	18	1.5	1.5	6.5
ASG 732 44 FT	36-44	73	59	12	18	1.5	1.5	6.5
ASG 732 53 FT	44-53	84	70	13.5	18	1.5	1.5	6.5
ASG 732 63 FT	53-63	94	80	15	18	1.5	1.5	6.5

A2

E30 E60 E90

Spacer clip 732

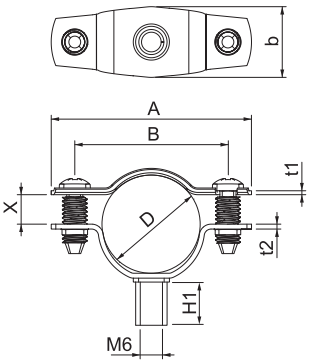
Type	Clamping range D mm		Pack Piece	Weight kg/100 pc.	Item no.
ASG 732 6 A2	5-6		25	1.537	**1362622**
ASG 732 7 A2	6-7		25	1.553	**1362624**
ASG 732 8 A2	7-8		25	1.561	**1362626**
ASG 732 10 A2	8-10		25	1.749	**1362628**
ASG 732 12 A2	10-12		25	1.796	**1362630**
ASG 732 14 A2	12-14		25	1.859	**1362632**
ASG 732 17 A2	14-17		25	2.007	**1362634**
ASG 732 20 A2	17-20		25	2.110	**1362636**
ASG 732 25 A2	20-25		25	2.361	**1362638**
ASG 732 30 A2	25-30		20	3.321	**1362640**
ASG 732 36 A2	30-36		20	3.728	**1362642**
ASG 732 44 A2	36-44		20	4.099	**1362644**
ASG 732 53 A2	44-53		20	4.781	**1362646**
ASG 732 63 A2	53-63		20	5.301	**1362648**



Spacer clip for the installation of pipes and cables on walls, ceiling and floors. With self-locking upper part. Surfaces G and FT from a clip size of 20 are suitable for installation with a nail device or a bolt-firing tool.
Approved for the maintenance of electrical function according to DIN 4102 Part 12, maintenance of electrical function classes E30 to E90.

Dimensions

Type	Clamping range D mm	Dim. A mm	Dim. B mm	Dim. x mm	Dim. b mm	Dim. t1 mm	Dim. t2 mm	Dim. H1 mm
ASG 732 6 A2	5-6	35	23	1.5	18	1	1.25	12
ASG 732 7 A2	6-7	35	23	1.5	18	1	1.25	12
ASG 732 8 A2	7-8	35	23	1.5	18	1	1.25	12
ASG 732 10 A2	8-10	37	25	3	18	1	1.25	12
ASG 732 12 A2	10-12	39	27	3	18	1	1.25	12
ASG 732 14 A2	12-14	41	29	3	18	1.25	1.25	12
ASG 732 17 A2	14-17	44	32	4.5	18	1.25	1.25	12
ASG 732 20 A2	17-20	47	35	4.5	18	1.25	1.25	12
ASG 732 25 A2	20-25	51	39	7.5	18	1.25	1.25	12
ASG 732 30 A2	25-30	59	45	7.5	18	1.5	1.5	12
ASG 732 36 A2	30-36	65	51	9	18	1.5	1.5	12
ASG 732 44 A2	36-44	73	59	12	18	1.5	1.5	12
ASG 732 53 A2	44-53	84	70	13.5	18	1.5	1.5	12
ASG 732 63 A2	53-63	94	80	15	18	1.5	1.5	12



Industrieinstallation - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Spacer clip 732

A4

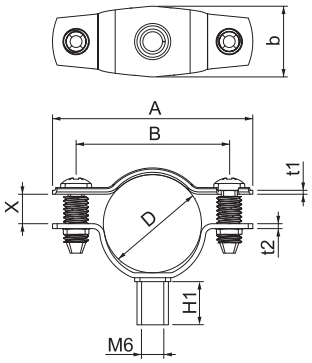
E30 E60 E90



Type	Clamping range D mm		Pack Piece	Weight kg/100 pc.	Item no.
ASG 732 6 A4	5-6		25	1.558	**1362454**
ASG 732 7 A4	6-7		25	1.574	**1362456**
ASG 732 8 A4	7-8		25	1.582	**1362458**
ASG 732 10 A4	8-10		25	1.773	**1362460**
ASG 732 12 A4	10-12		25	1.821	**1362462**
ASG 732 14 A4	12-14		25	1.885	**1362464**
ASG 732 17 A4	14-17		25	2.035	**1362467**
ASG 732 20 A4	17-20		25	2.139	**1362469**
ASG 732 25 A4	20-25		25	2.394	**1362472**
ASG 732 30 A4	25-30		20	3.370	**1362474**
ASG 732 36 A4	30-36		20	3.782	**1362478**
ASG 732 44 A4	36-44		20	4.158	**1362482**
ASG 732 53 A4	44-53		20	4.851	**1362486**
ASG 732 63 A4	53-63		20	5.379	**1362489**

Spacer clip for the installation of pipes and cables on walls, ceilings and floors. With self-locking cover. Fastening via attachment piece with internal thread.
Approved for the maintenance of electrical function according to DIN 4102 Part 12, maintenance of electrical function classes E 30 to E 90.

Dimensions



Type	Clamping range D mm	Dim. A mm	Dim. B mm	Dim. x mm	Dim. b mm	Dim. t1 mm	Dim. t2 mm	Dim. H1 mm
ASG 732 6 A4	5-6	35	23	1.5	18	1	1.25	12
ASG 732 7 A4	6-7	35	23	1.5	18	1	1.25	12
ASG 732 8 A4	7-8	35	23	1.5	18	1	1.25	12
ASG 732 10 A4	8-10	37	25	3	18	1	1.25	12
ASG 732 12 A4	10-12	39	27	3	18	1	1.25	12
ASG 732 14 A4	12-14	41	29	3	18	1.25	1.25	12
ASG 732 17 A4	14-17	44	32	4.5	18	1.25	1.25	12
ASG 732 20 A4	17-20	47	35	4.5	18	1.25	1.25	12
ASG 732 25 A4	20-25	51	39	7.5	18	1.25	1.25	12
ASG 732 30 A4	25-30	59	45	7.5	18	1.5	1.5	12
ASG 732 36 A4	30-36	65	51	9	18	1.5	1.5	12
ASG 732 44 A4	36-44	73	59	12	18	1.5	1.5	12
ASG 732 53 A4	44-53	84	70	13.5	18	1.5	1.5	12
ASG 732 63 A4	53-63	94	80	15	18	1.5	1.5	12

St G

E30 E60 E90

Spacer clip 733

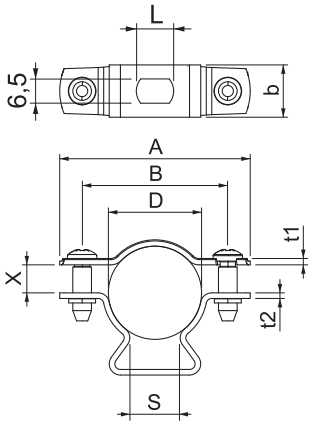
Type	Clamping range D mm	Pack Piece	Weight kg/100 pc.	Item no.
ASL 733 10 G	8-10	25	1.794	**1362754**
ASL 733 12 G	10-12	25	1.857	**1362756**
ASL 733 14 G	12-14	25	1.936	**1362758**
ASL 733 17 G	14-17	25	2.099	**1362762**
ASL 733 20 G	17-20	25	2.201	**1362764**
ASL 733 25 G	20-25	25	2.419	**1362768**
ASL 733 30 G	25-30	20	3.401	**1362772**
ASL 733 36 G	30-36	20	3.774	**1362776**
ASL 733 44 G	36-44	20	4.151	**1362780**
ASL 733 53 G	44-53	20	5.616	**1362784**
ASL 733 63 G	53-63	20	6.212	**1362788**



Spacer clip for the installation of pipes and cables on walls, ceilings and floors. With self-locking cover. Fastening via slot.
Approved for the maintenance of electrical function according to DIN 4102 Part 12, maintenance of electrical function classes E 30 to E 90.

Type	Dim. A mm	Dim. B mm	Dim. x mm	Dim. t1 mm	Dim. t2 mm	Dim. L mm	Dim. b mm	Dim. s mm
ASL 733 10 G	37	25	3	1	1.5	10	16	5.5
ASL 733 12 G	39	27	3	1	1.5	10	14	6.9
ASL 733 14 G	41	29	3	1.25	1.5	10	14	8
ASL 733 17 G	44	32	4.5	1.25	1.5	10	14	9.5
ASL 733 20 G	47	35	4.5	1.25	1.5	10	14	12
ASL 733 25 G	51	39	7.5	1.25	1.5	10	14	13.5
ASL 733 30 G	59	45	7.5	1.5	1.5	10	16	16.5
ASL 733 36 G	65	51	9	1.5	1.5	10	16	20
ASL 733 44 G	73	59	12	1.5	1.5	10	16	24
ASL 733 53 G	84	70	13.5	1.5	2	10	16	29.5
ASL 733 63 G	94	80	15	1.5	2	10	16	35.3

Dimensions



Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Spacer clip 733

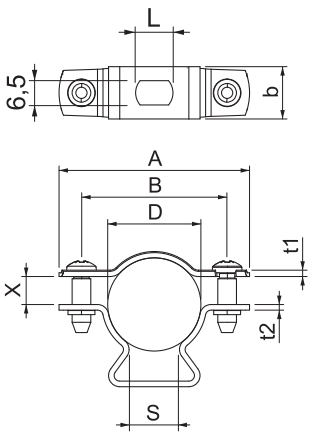
St FT
E30 E60 E90



Type	Clamping range D mm	Pack Piece	Weight kg/100 pc.	Item no.
ASL 733 10 FT	8-10	25	1.883	**1362704**
ASL 733 12 FT	10-12	25	1.951	**1362706**
ASL 733 14 FT	12-14	25	2.035	**1362708**
ASL 733 17 FT	14-17	25	2.206	**1362712**
ASL 733 20 FT	17-20	25	2.000	**1362714**
ASL 733 25 FT	20-25	25	2.540	**1362718**
ASL 733 30 FT	25-30	20	3.567	**1362722**
ASL 733 36 FT	30-36	20	3.956	**1362726**
ASL 733 44 FT	36-44	20	4.356	**1362730**
ASL 733 53 FT	44-53	20	5.850	**1362734**
ASL 733 63 FT	53-63	20	6.477	**1362738**

Spacer clip for the installation of pipes and cables on walls, ceilings and floors. With self-locking cover. Fastening via slot.
Approved for the maintenance of electrical function according to DIN 4102 Part 12, maintenance of electrical function classes E 30 to E 90.

Dimensions



Type	Dim. A mm	Dim. B mm	Dim. x mm	Dim. t1 mm	Dim. t2 mm	Dim. L mm	Dim. b mm	Dim. s mm
ASL 733 10 FT	37	25	3	1	1.5	10	16	5.5
ASL 733 12 FT	39	27	3	1	1.5	10	14	6.9
ASL 733 14 FT	41	29	3	1.25	1.5	10	14	8
ASL 733 17 FT	44	32	4.5	1.25	1.5	10	14	9.5
ASL 733 20 FT	47	35	4.5	1.25	1.5	10	14	12
ASL 733 25 FT	51	39	7.5	1.25	1.5	10	14	13.5
ASL 733 30 FT	59	45	7.5	1.5	1.5	10	16	16.5
ASL 733 36 FT	65	51	9	1.5	1.5	10	16	20
ASL 733 44 FT	73	59	12	1.5	1.5	10	16	24
ASL 733 53 FT	84	70	13.5	1.5	2	10	16	29.5
ASL 733 63 FT	94	80	15	1.5	2	10	16	35.3

A2

E30 E60 E90

Spacer clip 733

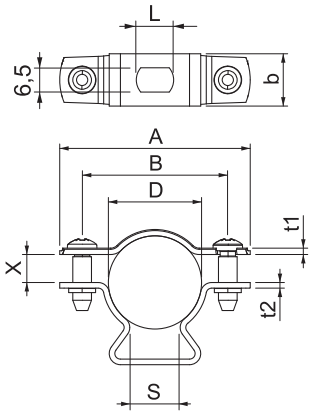
Type	Clamping range D mm		Pack Piece	Weight kg/100 pc.	Item no.
ASL 733 10 A2	8-10		25	1.804	**1362976**
ASL 733 12 A2	10-12		25	1.867	**1362978**
ASL 733 14 A2	12-14		25	1.946	**1362980**
ASL 733 17 A2	14-17		25	2.110	**1362982**
ASL 733 20 A2	17-20		25	2.213	**1362984**
ASL 733 25 A2	20-25		25	2.432	**1362986**
ASL 733 30 A2	25-30		20	3.416	**1362988**
ASL 733 36 A2	30-36		20	3.792	**1362990**
ASL 733 44 A2	36-44		20	4.170	**1362992**
ASL 733 53 A2	44-53		20	5.643	**1362994**
ASL 733 63 A2	53-63		20	6.242	**1362996**



Spacer clip for the installation of pipes and cables on walls, ceilings and floors. With self-locking cover. Fastening via slot.
Approved for the maintenance of electrical function according to DIN 4102 Part 12, maintenance of electrical function classes E 30 to E 90.

Dimensions

Type	Dim. A mm	Dim. B mm	Dim. x mm	Dim. t1 mm	Dim. t2 mm	Dim. L mm	Dim. b mm	Dim. s mm
ASL 733 10 A2	37	25	3	1	1.5	10	16	5.5
ASL 733 12 A2	39	27	3	1	1.5	10	14	6.9
ASL 733 14 A2	41	29	3	1.25	1.5	10	14	8
ASL 733 17 A2	44	32	4.5	1.25	1.5	10	14	9.5
ASL 733 20 A2	47	35	4.5	1.25	1.5	10	14	12
ASL 733 25 A2	51	39	7.5	1.25	1.5	10	14	13.5
ASL 733 30 A2	59	45	7.5	1.5	1.5	10	16	16.5
ASL 733 36 A2	65	51	9	1.5	1.5	10	16	20
ASL 733 44 A2	73	59	12	1.5	1.5	10	16	24
ASL 733 53 A2	84	70	13.5	1.5	2	10	16	29.5
ASL 733 63 A2	94	80	15	1.5	2	10	16	35.3



Industrieinstallation - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Spacer clip 733

A4

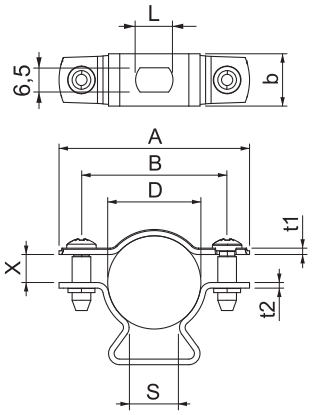
E30 E60 E90



Type	Clamping range D mm		Pack Piece	Weight kg/100 pc.	Item no.
ASL 733 10 A4	8-10		25	1.828	**1362904**
ASL 733 12 A4	10-12		25	1.893	**1362906**
ASL 733 14 A4	12-14		25	1.973	**1362908**
ASL 733 17 A4	14-17		25	2.139	**1362912**
ASL 733 20 A4	17-20		25	2.243	**1362914**
ASL 733 25 A4	20-25		25	2.466	**1362918**
ASL 733 30 A4	25-30		20	3.466	**1362922**
ASL 733 36 A4	30-36		20	3.846	**1362926**
ASL 733 44 A4	36-44		20	4.230	**1362930**
ASL 733 53 A4	44-53		20	5.723	**1362934**
ASL 733 63 A4	53-63		20	6.331	**1362938**

Spacer clip for the installation of pipes and cables on walls, ceilings and floors. With self-locking cover. Fastening via slot.
Approved for the maintenance of electrical function according to DIN 4102 Part 12, maintenance of electrical function classes E 30 to E 90.

Dimensions



Type	Dim. A mm	Dim. B mm	Dim. x mm	Dim. t1 mm	Dim. t2 mm	Dim. L mm	Dim. b mm	Dim. s mm
ASL 733 10 A4	37	25	3	1	1.5	10	16	5.5
ASL 733 12 A4	39	27	3	1	1.5	10	14	6.9
ASL 733 14 A4	41	29	3	1.25	1.5	10	14	8
ASL 733 17 A4	44	32	4.5	1.25	1.5	10	14	9.5
ASL 733 20 A4	47	35	4.5	1.25	1.5	10	14	12
ASL 733 25 A4	51	39	7.5	1.25	1.5	10	14	13.5
ASL 733 30 A4	59	45	7.5	1.5	1.5	10	16	16.5
ASL 733 36 A4	65	51	9	1.5	1.5	10	16	20
ASL 733 44 A4	73	59	12	1.5	1.5	10	16	24
ASL 733 53 A4	84	70	13.5	1.5	2	10	16	29.5
ASL 733 63 A4	94	80	15	1.5	2	10	16	35.3

Alu

Spacer clip 733

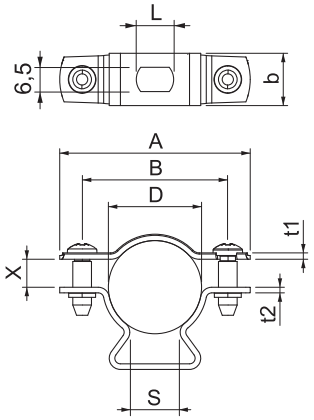
Type	Clamping range D mm	Pack Piece	Weight kg/100 pc.	Item no.
ASL 733 10 ALU	8-10	25	0.917	**1362804**
ASL 733 12 ALU	10-12	25	0.938	**1362806**
ASL 733 14 ALU	12-14	25	0.965	**1362808**
ASL 733 17 ALU	14-17	25	1.062	**1362812**
ASL 733 20 ALU	17-20	25	1.097	**1362814**
ASL 733 25 ALU	20-25	25	1.254	**1362818**
ASL 733 30 ALU	25-30	20	1.592	**1362822**
ASL 733 36 ALU	30-36	20	1.802	**1362826**
ASL 733 44 ALU	36-44	20	1.931	**1362830**
ASL 733 53 ALU	44-53	20	2.537	**1362834**
ASL 733 63 ALU	53-63	20	2.742	**1362838**



Spacer clip for the installation of pipes and cables on walls, ceilings and floors. With self-locking upper part. Fastening via slot. From the clip size of 20 suitable for installation with a nail device or bolt-firing device.
Approved for the maintenance of electrical function to DIN 4102 Part 12, maintenance of electrical function classes E30 to E90 (except ALU).

Type	Dim. A mm	Dim. B mm	Dim. x mm	Dim. t1 mm	Dim. t2 mm	Dim. L mm	Dim. b mm	Dim. s mm
ASL 733 10 ALU	37	25	3	1	1.5	10	16	5.5
ASL 733 12 ALU	39	27	3	1	1.5	10	14	6.9
ASL 733 14 ALU	41	29	3	1.25	1.5	10	14	8
ASL 733 17 ALU	44	32	4.5	1.25	1.5	10	14	9.5
ASL 733 20 ALU	47	35	4.5	1.25	1.5	10	14	12
ASL 733 25 ALU	51	39	7.5	1.25	1.5	10	14	13.5
ASL 733 30 ALU	59	45	7.5	1.5	1.5	10	16	16.5
ASL 733 36 ALU	65	51	9	1.5	1.5	10	16	20
ASL 733 44 ALU	73	59	12	1.5	1.5	10	16	24
ASL 733 53 ALU	84	70	13.5	1.5	2	10	16	29.5
ASL 733 63 ALU	94	80	15	1.5	2	10	16	35.3

Dimensions

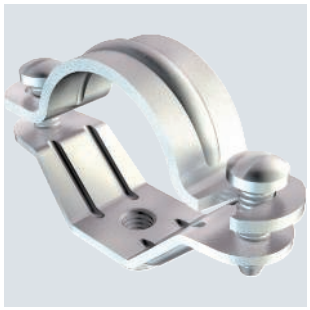


Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Screw-in spacer clips

Screw-in spacer clip, universal

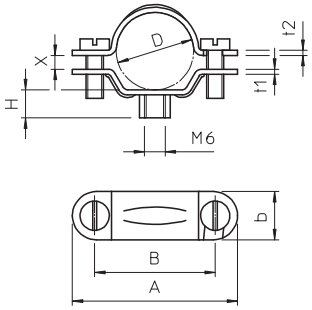
St G



Type	Clamping range D mm	Size	Bolt	Shipping box Piece	Pack Piece	Weight kg/100 pc.	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**

With M6 thread.

Dimensions



Type	Clamping range D mm	Dim. A mm	Dim. B mm	Dim. b mm	Dim. t1 mm	Dim. t2 mm	Dim. H mm	Dim. x mm
2900 M6 13-16 G	13.5-16	48	35	14	1.5	1.5	9	2.2
2900 M6 16-19 G	16.5-19	48	35	14	1.5	1.5	9	2.6
2900 M6 18-21 G	18-21	48	35	14	1.5	1.5	9	2.9
2900 M6 19-23 G	19-23	48	35	14	1.5	1.5	9	4
2900 M6 24-29 G	24-29	60	47	14	1.5	2	7.5	4.6
2900 M6 33-38 G	33-38	79	64	16	2	2	6.5	3.5
2900 M6 30-34 G	30-34	68	54	16	2	2	8	5
2900 M6 39-42 G	39-42	79	64	16	2	2	6.5	5
2900 M6 43-48 G	43-48	79	64	16	2	2	8	5
2900 M6 49-55 G	49-55	102	86	18	2	2	8	5.5
2900 M6 54-60 G	54-60	102	86	18	2	2	8	6.3
2900 M6 61-64 G	61-64	106.5	90.5	18	2	2	6.5	6

Screw-in spacer clip, universal

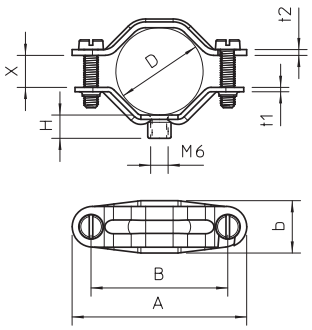
St G



Type	Clamping range D mm	Bolt	Shipping box Piece	Pack Piece	Weight kg/100 pc.	Item no.
2070 M6 G	12-20	M5 x 16	500	50	2.300	**1380028**
2071 M6 G	20-30	M5 x 20	600	50	3.310	**1380222**
2072 M6 G	30-44	M5 x 22	300	25	5.990	**1380427**
2073 M6 G	44-60	M6 x 25	240	20	9.660	**1380729**

With M6 thread.
Universal clip with large tensioning area.

Dimensions



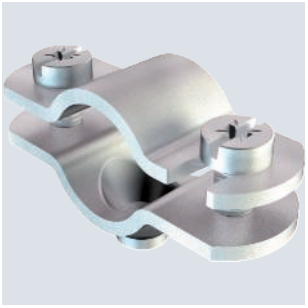
Type	Clamping range D mm	Dim. A mm	Dim. B mm	Dim. b mm	Dim. t1 mm	Dim. t2 mm	Dim. H mm	Dim. x mm
2070 M6 G	12-20	48	35	14	1.5	1.5	9	9
2071 M6 G	20-30	60	47	18	1.5	2	7.5	11
2072 M6 G	30-44	79	64	18	2	2	8	15
2073 M6 G	44-60	102	86	18	2	2	8	18

St G

Screw-in spacer clip

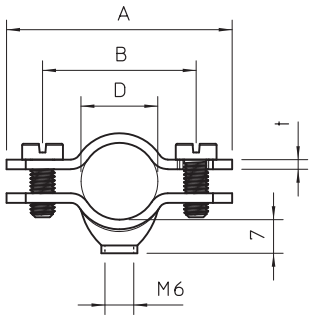
Type	Clamping range D mm	Bolt	Pack Piece	Weight kg/100 pc.	Item no.
731 W 12 G	8-12	M5x12	50	2.470	**1366122**
731 W 16 G	12-16	M5x12	50	2.816	**1366165**
731 W 20 G	16-20	M5x14	50	3.124	**1366203**
731 W 25 G	20-25	M5x14	50	3.480	**1366254**
731 W 30 G	25-30	M5x14	25	4.060	**1366300**
731 W 35 G	30-35	M5x18	25	4.344	**1366351**

With M6 thread.



Type	Dim. A mm	Dim. B mm	Dim. D mm	Dim. t mm	Hole size mm
731 W 12 G	43	28	12	2	M6
731 W 16 G	47	32	16	2	M6
731 W 20 G	51	36	20	2	M6
731 W 25 G	58	43	25	2	M6
731 W 30 G	64	49	30	2	M6
731 W 35 G	65	50	35	2	M6

Dimensions

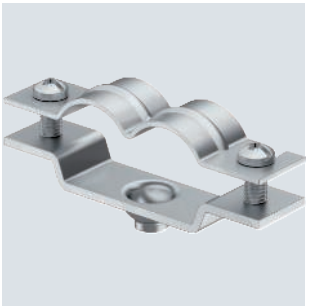


St G

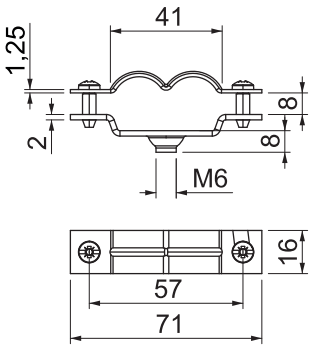
Screw-in spacer clip 705, double

Type	Clamping range D mm	Bolt	Shipping box Piece	Pack Piece	Weight kg/100 pc.	Item no.
705 D M6	13-20	M5x14	400	50	3.730	**1371207**

With M6 thread.



Dimensions

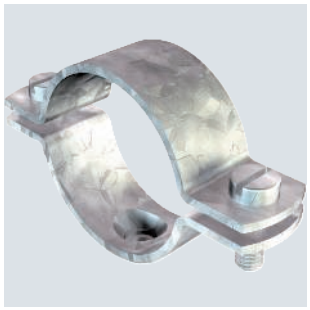


Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Screw-in spacer clips

Screw-in spacer clip, heavy-duty version M6

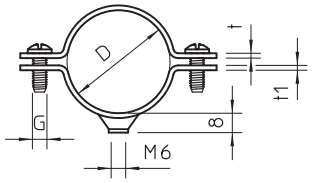
St FT

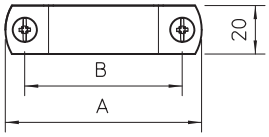


Type	Clamping range D mm	Size	For pipe Ø mm	Pack Piece	Weight kg/100 pc.	Item no.
2900WM6 13.5 FT	12.5-13.5	1/4"	–	25	2.860	**1385003**
2900WM6 17 FT	16-17	3/8"	M16	25	4.912	**1385011**
2900WM6 21.5 FT	19-21.5	1/2"	M20	25	5.104	**1385038**
2900WM6 27 FT	24.5-27	3/4"	M25	25	5.600	**1385054**
2900WM6 33.5 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**

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

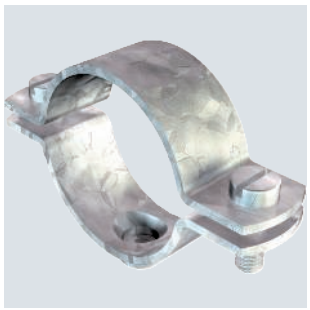




Type	Dim. A mm	Dim. B mm	Dim. D mm	Dim. t mm	Dim. t1 mm	Thread
2900WM6 13.5 FT	48	32	13.5	2	2	M6
2900WM6 17 FT	52	36	17	2	2	M6
2900WM6 21.5 FT	56	40	21.5	2	2	M6
2900WM6 27 FT	62	46	27	2	2	M6
2900WM6 33.5 FT	70	54	33.5	2	2	M6
2900WM6 42.5 FT	83	67	42.5	2	2	M6
2900WM6 48.5 FT	88	72	48.5	2.5	2	M6
2900WM6 54 FT	96	80	54	2.5	2.5	M6
2900WM6 60 FT	105	89	60	2.5	2.5	M6

Screw-in spacer clip, heavy-duty version M8

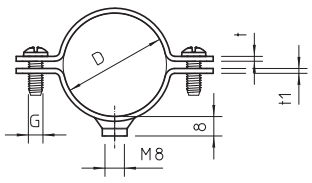
St FT

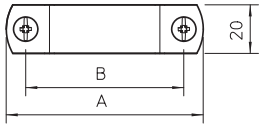


Type	Clamping range D mm	Size	For pipe Ø mm	Pack Piece	Weight kg/100 pc.	Item no.
2900WM8 17 FT	16-17	3/8"	M16	25	5.040	**1387014**
2900WM8 21.5 FT	19-21.5	1/2"	M20	25	5.768	**1387030**
2900WM8 27 FT	24.5-27	3/4"	M25	25	6.144	**1387057**
2900WM8 33.5 FT	30.5-33.5	1"	M32	25	6.864	**1387065**
2900WM8 42.5 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"	M80	50	21.000	**1387154**
2900WM8 88 FT	83-88	3"	M95	50	23.800	**1387170**

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





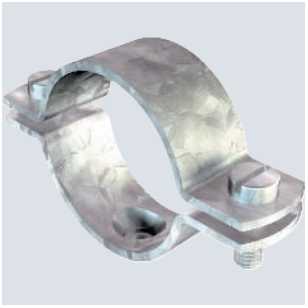
Type	Dim. A mm	Dim. B mm	Dim. D mm	Dim. t mm	Dim. t1 mm	Thread
2900WM8 17 FT	52	36	17	2	2.5	M8
2900WM8 21.5 FT	56	40	21.5	2	2.5	M8
2900WM8 27 FT	62	46	27	2	2.5	M8
2900WM8 33.5 FT	70	54	33.5	2	2.5	M8
2900WM8 42.5 FT	81	65	42.5	2	2.5	M8
2900WM8 48.5 FT	88	74	48.3	2	2.5	M8
2900WM8 60 FT	105	89	60	2.5	2.5	M8
2900WM8 75.5 FT	125	105	75.5	3	3	M8
2900WM8 88 FT	138	118	88	3	3	M8

St FT

Screw-in spacer clip, heavy-duty version M10

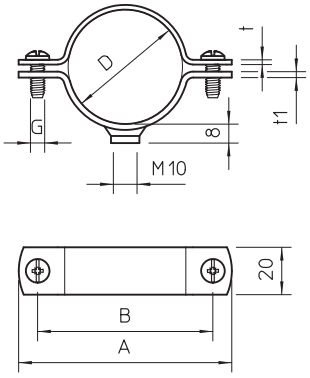
Type	Clamping range D mm	Size	For pipe Ø mm	Pack Piece	Weight kg/100 pc.	Item no.
2900WM10 21.5 FT	19-21.5	1/2"	M20	25	5.768	**1388037**
2900WM10 27 FT	24.5-27	3/4"	M25	25	6.144	**1388053**
2900WM10 33.5 FT	30.5-33.5	1"	M32	25	6.864	**1388061**
2900WM10 48.5 FT	45.5-48.5	1 1/2"	M50	25	9.284	**1388118**
2900WM10 60 FT	56-60	2"	M63	15	11.346	**1388134**

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.



Type	Dim. A mm	Dim. B mm	Dim. t mm	Dim. t1 mm	Thread
2900WM10 21.5 FT	56	40	2	2.5	M10
2900WM10 27 FT	62	46	2	2.5	M10
2900WM10 33.5 FT	70	54	2	2.5	M10
2900WM10 48.5 FT	88	72	2	2.5	M10
2900WM10 60 FT	105	89	2.5	2.5	M10

Dimensions



Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Fastening clip 604, light duty

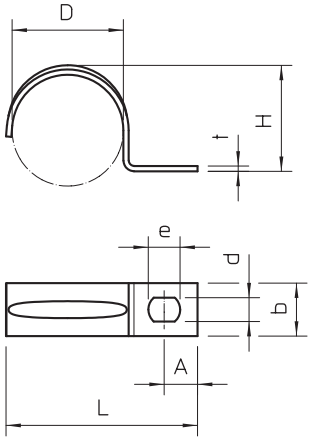
St G



Type	For Ø mm	Hole size mm	Material thickness mm		Pack Piece	Weight kg/100 pc.	Item no.
604 3 G	3	4,5x6	0.7		100	0.052	**1003038**
604 4 G	4	4,5x6	0.7		100	0.067	**1003046**
604 5 G	5	4,5x6	0.7		100	0.084	**1003054**
604 6 G	6	4,5x6	0.7		100	0.099	**1003062**
604 7 G	7	4,5x6	0.7		100	0.120	**1003070**
604 8 G	8	4,5x6	0.7		100	0.123	**1003089**
604 9 G	9	4,5x6	0.7		100	0.139	**1003097**
604 10 G	10	4,5x6	0.7		100	0.150	**1003100**
604 11 G	11	4,5x6	1		100	0.270	**1003119**
604 12 G	12	4,5x6	0.7		100	0.240	**1003127**
604 13 G	13	4,5x6	1		100	0.280	**1003135**
604 16 G	16	4,5x6	1		100	0.348	**1003178**
604 19 G	19	4,5x6	1		100	0.411	**1003194**
604 20 G	20	4,5x6	1		100	0.431	**1003208**
604 21 G	21	4,5x6	1		100	0.447	**1003216**
604 23 G	23	4,5x6	1		100	0.490	**1003232**
604 25 G	25	4,5x6	1		100	0.900	**1003259**
604 28 G	28	4,5x6	1		100	0.874	**1003283**
604 32 G	32	5,5x7	1.5		100	1.462	**1003321**
604 35 G	35	5,5x7	1.5		100	1.355	**1003356**
604 37 G	37	5,5x7	1.5		100	1.567	**1003372**
604 40 G	40	5,5x7	1.5		100	1.860	**1003402**
604 47 G	47	5,5x7	1.5		50	2.484	**1003461**

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

Dimensions



Type	Dim. L mm	Dim. A mm	Dim. e mm	Dim. d mm	Dim. b mm	Dim. D mm	Dim. t mm	Dim. H mm
604 3 G	12	4	6	4.5	7	3	0.7	2.4
604 4 G	14	4	6	4.5	7	4	0.7	3.3
604 5 G	16.5	5	6	4.5	7	5	0.7	4.5
604 6 G	17.5	5	6	4.5	8	6	0.7	5.2
604 7 G	19.5	5	6	4.5	8	7	0.7	6.5
604 8 G	21	5.5	6	4.5	8	8	0.7	7
604 9 G	21.5	5.75	6	4.5	8	9	0.7	8
604 10 G	22	5	6	4.5	8	10	0.7	9
604 11 G	24	5.5	6	4.5	10	11	1	10
604 12 G	27	6.5	6	4.5	10	12	0.7	11
604 13 G	27	6	6	4.5	10	13	1	11.5
604 16 G	31	6.5	6	4.5	10	16	1	14.5
604 19 G	33	6.5	6	4.5	10	19	1	17
604 20 G	35	6.3	6	4.5	10	20	1	18
604 21 G	36	6.3	6	4.5	10	21	1	19
604 23 G	39	7	6	4.5	10	23	1	21.5
604 25 G	41	7	6	4.5	15	25	1	23
604 28 G	45	7	6	4.5	15	28	1	24.8
604 32 G	49	8	7	5.5	15	32	1.5	30
604 35 G	54	8.75	7	5.5	14	35	1.5	30
604 37 G	56	7.5	7	5.5	14	37	1.5	34
604 40 G	63	10.5	7	5.5	14	40	1.5	38
604 47 G	69	10	7	5.5	14	47	1.5	43.8

St G

Fastening clip 1015, medium-duty

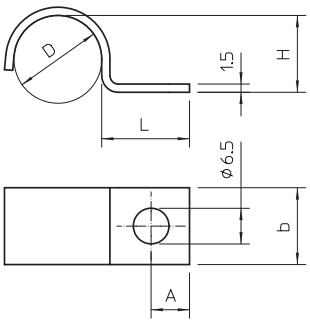
Type	For Ø mm	Hole size mm	Material thickness mm	Pack Piece	Weight kg/100 pc.	Item no.
1015 5 G	5	6,5	1.5	100	0.325	**1009028**
1015 6 G	6	6,5	1.5	100	0.385	**1009036**
1015 7 G	7	6,5	1.5	100	0.418	**1009044**
1015 8 G	8	6,5	1.5	100	0.428	**1009052**
1015 9 G	9	6,5	1.5	100	0.468	**1009060**
1015 10 G	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**



Single-lobe fastening clip for cables and pipes.

Dimensions

Type	Dim. D mm	Dim. L mm	Dim. H mm	Dim. b mm	Dim. A mm
1015 5 G	5	16	4	12	7
1015 6 G	6	16	5	12	7
1015 7 G	7	16	6	12	7
1015 8 G	8	16	7	12	7
1015 9 G	9	16	8	12	7
1015 10 G	10	16	9	12	7
1015 11 G	11	16	10	14	7
1015 12 G	12	16	11	14	7
1015 13 G	13	16	12	14	7
1015 14 G	14	16	12.5	14	7
1015 15 G	15	16	13.5	14	7
1015 16 G	16	16	14	14	7
1015 17 G	17	16	15	14	7
1015 18 G	18	16	16	14	7



A2 2B

Fastening clip 1015

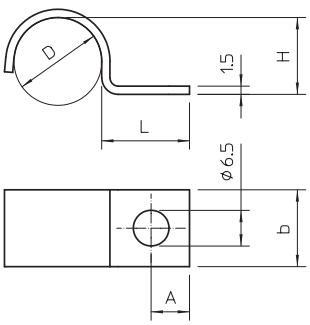
Type	For Ø mm	Hole size mm	Material thickness mm	Pack Piece	Weight kg/100 pc.	Item no.
1015 6 A2	6	6,5	1.5	100	0.341	**1008633**
1015 7 A2	7	6,5	1.5	100	0.420	**1008641**
1015 8 A2	8	6,5	1.5	100	0.428	**1008668**
1015 10 A2	10	6,5	1.5	100	0.560	**1008684**
1015 12 A2	12	6,5	1.5	100	0.672	**1008706**



Single-lobe fastening clip for cables and pipes.

Dimensions

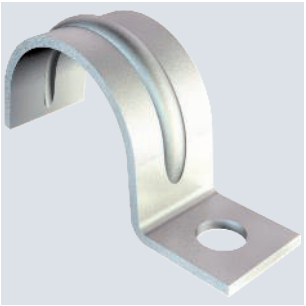
Type	Dim. D mm	Dim. L mm	Dim. H mm	Dim. b mm	Dim. A mm
1015 6 A2	6	16	5	12	7
1015 7 A2	7	16	6	12	7
1015 8 A2	8	16	7	12	7
1015 10 A2	10	16	9	12	7
1015 12 A2	12	16	11	14	7



Industrieinstallation - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Fastening clip 1015, medium-duty

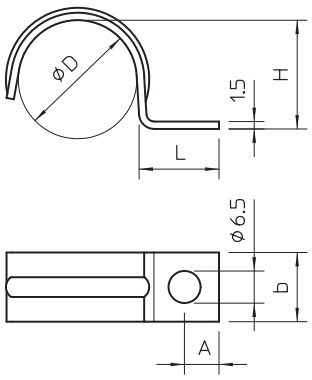
St G



Type	For Ø mm	Hole size mm	Material thickness mm	Pack Piece	Weight kg/100 pc.	Item no.
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**

Single-lobe fastening clip for cables and pipes.
Beading from size 20.

Dimensions



Type	Dim. D mm	Dim. L mm	Dim. H mm	Dim. b mm	Dim. A mm
1015 20 G	20	16	18	14	7
1015 25 G	25	16	22.5	14	7
1015 28 G	28	16	25	14	7

Fastening clip 1015 D

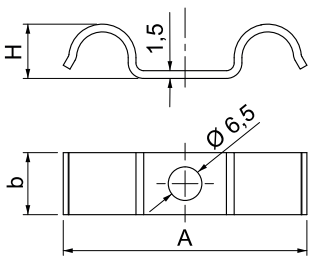
St G



Type	For Ø mm	Hole size mm	Material thickness mm	For Ø mm	Pack Piece	Weight kg/100 pc.	Item no.
1015 D 5 G	5	6,5	1.5	5	100	0.600	**1009455**
1015 D 6 G	6	6,5	1.5	6	100	0.670	**1009457**
1015 D 7 G	7	6,5	1.5	7	100	1.070	**1009459**
1015 D 8 G	8	6,5	1.5	8	100	1.150	**1009461**
1015 D 9 G	9	6,5	1.5	9	100	1.220	**1009463**
1015 D 10 G	10	6,5	1.5	10	100	1.300	**1009465**
1015 D 12 G	12	6,5	1.5	12	100	1.700	**1009469**
1015 D 14 G	14	6,5	1.5	14	100	1.870	**1009473**
1015 D 15 G	15	6,5	1.5	15	100	1.980	**1009475**
1015 D 16 G	16	6,5	1.5	16	100	1.414	**1009477**
1015 D 18 G	18	6,5	1.5	18	100	2.250	**1009481**
1015 D 20 G	20	6,5	1.5	20	100	2.500	**1009485**
1015 D 22 G	22	6,5	1.5	22	100	2.650	**1009489**
1015 D 25 G	25	6,5	1.5	25	100	2.950	**1009493**

Fastening clip with a central fastening point for 2 cables or 2 pipes

Dimensions



Type	Dim. A mm	Dim. b mm	Dim. H mm
1015 D 5 G	33	12	6
1015 D 6 G	35	12	7
1015 D 7 G	41	12	8
1015 D 8 G	43	12	9
1015 D 9 G	45	12	10
1015 D 10 G	47	12	10.5
1015 D 12 G	51	14	12
1015 D 14 G	55	14	14
1015 D 15 G	58	14	15
1015 D 16 G	60	14	16
1015 D 18 G	64	14	18
1015 D 20 G	69	14	21
1015 D 22 G	72	14	22
1015 D 25 G	79	14	25

St G

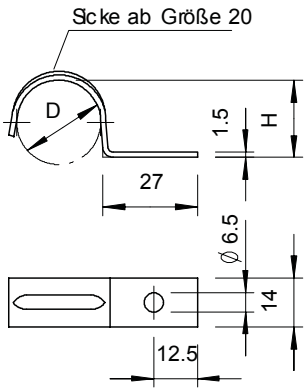
Fastening clip 1015 RB

Type	For Ø mm	Hole size mm	Material thickness mm		Pack Piece	Weight kg/100 pc.	Item no.
1015 RB 20 G	20	6,5	1.5		100	1.100	**1010794**

For fastening of rigid and bending plastic pipes on concrete substrates using knock-in anchors 903/RB and flatteners with hand protection 915/RB.



Dimensions



Industrieinstallation - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Fastening clip 822, heavy-duty

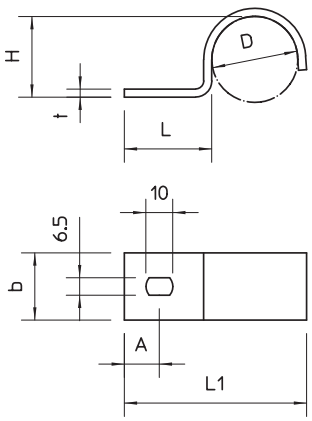
St FT



Type	For Ø mm	Hole size mm	Material thickness mm	Pack Piece	Weight kg/100 pc.	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**

Single-lobe fastening clip for cables and pipes.

Dimensions



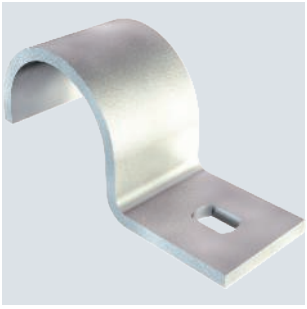
Type	Dim. D mm	Dim. L mm	Dim. H mm	Dim. t mm	Dim. A mm	Dim. L1 mm	Dim. b mm
822 6 FT	6	23.5	5	2	10	32	20
822 10 FT	10	23.5	9	2	10	36	20
822 12 FT	12	23.5	11	2	10	38.5	20
822 14 FT	14	23.5	13	2	10	40.5	20
822 16 FT	15.2	23.5	14	2	10	42	20
822 18 FT	18.6	23.5	17	2	10	45	20
822 20 FT	20	23.5	19.5	2	10	48	20
822 22.5 FT	22.5	23.5	21	2	11	49	20
822 25 FT	25	25.5	23.5	3	11	53	20
822 28.3 FT	28.3	27	26.5	3	11	60	20
822 32 FT	32	32.5	30	3	13	68	25
822 37 FT	37	30	35	3	13	70	25
822 40 FT	40	32.5	38	3	13	76	25
822 47 FT	47	30	45	3	13	81	25
822 50 FT	50	32.5	47	3	15	86	25
822 63 FT	63	33.5	60	3	15	100	25

A2 2B

Fastening clip 822 V2A

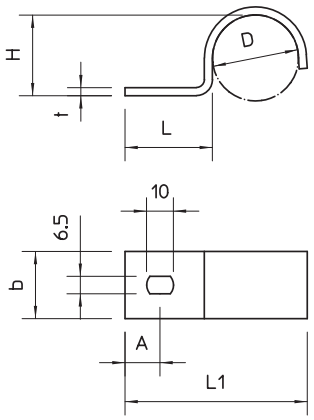
Type	For Ø mm	Hole size mm	Material thickness mm	Pack Piece	Weight kg/100 pc.	Item no.
822 12 A2	12	6,5 x 10	2	100	1.450	**1014714**

Single-lobe fastening clip for cables and pipes.



Type	Dim. D mm	Dim. L mm	Dim. H mm	Dim. t mm	Dim. A mm	Dim. L1 mm	Dim. b mm
822 12 A2	12	23.5	11	2	10	37.58	20

Dimensions



Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Fastening clip 822, heavy-duty

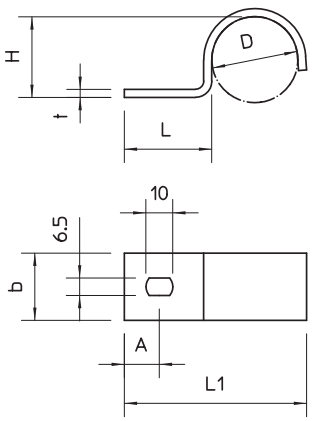
A4 2B



Type	For Ø mm	Hole size mm	Material thickness mm	Pack Piece	Weight kg/100 pc.	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	3	100	5.490	**1013903**
822 40 A4	40	6,5 x 10	3	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**

Single-lobe fastening clip for cables and pipes.

Dimensions

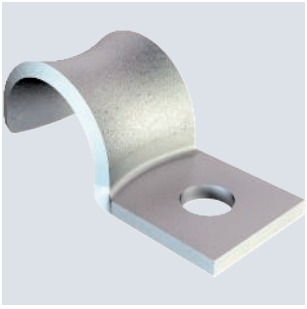


Type	Dim. D mm	Dim. L mm	Dim. H mm	Dim. t mm	Dim. A mm	Dim. L1 mm	Dim. b mm
822 6 A4	6	23.5	5	2	10	32	20
822 10 A4	10	23.5	9	2	10	36	20
822 12 A4	12	23.5	11	2	10	38.5	20
822 14 A4	14	23.5	13	2	10	40.5	20
822 16 A4	15.2	23.5	14	2	10	42	20
822 18 A4	18.6	23.5	17	2	10	45	20
822 20 A4	20	23.5	20	2	10	48	20
822 22.5 A4	22.5	23.5	21	2	11	49	20
822 25 A4	25	25.5	23.5	2	11	53	20
822 32 A4	32	32.5	30	3	13	68	25
822 40 A4	40	32.5	38	3	13	76	25
822 50 A4	50	32.5	47	3	15	86	25
822 63 A4	63	33.5	60	3	15	100	25

St GTP

Fastening clip, plant standard 7855, single-lobe

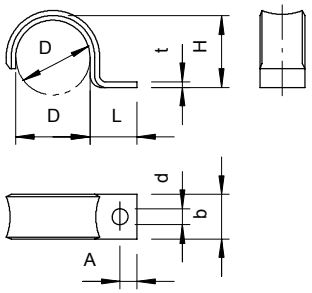
Type	For Ø mm	Hole size mm	Material thickness mm		Pack Piece	Weight kg/100 pc.	Item no.
WN 7855 A 2	2	3,2	0.8		100	0.039	**1043013**
WN 7855 A 2.5	2.5	3,2	0.8		100	0.041	**1043021**
WN 7855 A 4	4	3,2	1		100	0.062	**1043064**
WN 7855 A 4.5	4.5	3,2	1		100	0.074	**1043072**
WN 7855 A 5	5	3,2	1		100	0.090	**1043080**
WN 7855 A 6	6	3,2	1		100	0.082	**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**



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.

Type	Dim. D mm	Dim. L mm	Dim. H mm	Dim. t mm	Dim. A mm	Dim. d mm	Dim. b mm
WN 7855 A 2	2	8.5	1.5	0.8	3	3.2	6
WN 7855 A 2.5	2.5	5.25	2	0.8	3	3.2	6
WN 7855 A 4	4	7.5	3.5	0.8	3	3.2	6
WN 7855 A 4.5	4.5	8.5	4	1	3	3.2	6
WN 7855 A 5	5	8	4.5	1	3	3.2	6
WN 7855 A 6	6	7.5	5.5	1	3	3.2	6
WN 7855 A 7	7	10	6	1	4	3.2	8
WN 7855 A 8	8	9.5	7	1	4	3.2	8
WN 7855 A 9	9	9	8	1	4	3.2	8
WN 7855 A 10	10	8.5	9	1	4	3.2	8
WN 7855 A 12	12	13.5	10	1.5	4.5	4.3	12
WN 7855 A 14	14	12.5	12	1.5	4.5	4.3	12

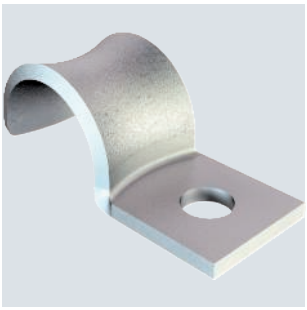
Dimensions



St GTP

Fastening clip, plant standard 7855, single-lobe

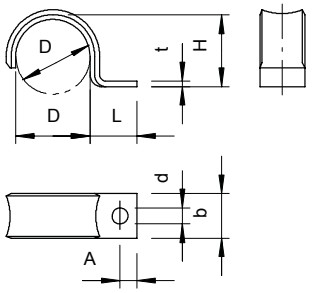
Type	For Ø mm	Hole size mm	Material thickness mm		Pack Piece	Weight kg/100 pc.	Item no.
WN 7855 A 3	3	3,2	0.8		100	0.050	**1043048**



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.

Type	Dim. D mm	Dim. L mm	Dim. H mm	Dim. t mm	Dim. A mm	Dim. d mm	Dim. b mm
WN 7855 A 3	3	8	3.3	0.8	3	3.2	6

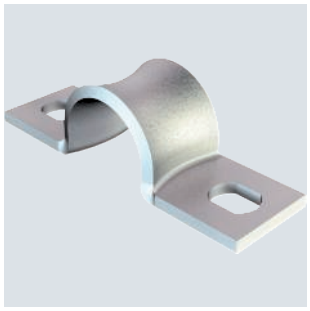
Dimensions



Industrieinstallation - Befestigungsmaterial / en / 2023/07/13 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Fastening clip, plant standard 7855, double-lobe

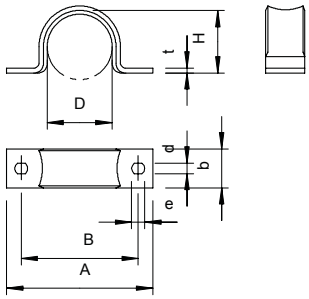
St GTP



Type	For Ø mm	Hole size mm	Material thickness mm		Pack Piece	Weight kg/100 pc.	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**

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.

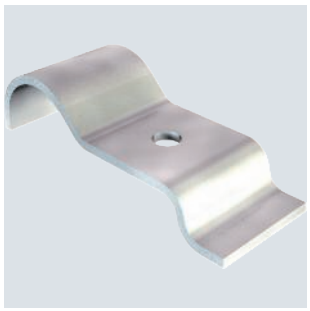
Dimensions



Type	Dim. D mm	Dim. H mm	Dim. t mm	Dim. A mm	Dim. B mm	Dim. b mm	Dim. d mm	Dim. e mm
WN 7855 B 3	3	2.5	0.8	21	14	6	3.2	4
WN 7855 B 4	4	3.5	1	21	14	6	3.2	4
WN 7855 B 4.5	4.5	4	1	24	16	6	3.2	4
WN 7855 B 5	5	4.5	1	24	16	6	3.2	4
WN 7855 B 6	6	5.5	1	24	16	6	3.2	4
WN 7855 B 7	7	6	1	28	20	8	3.2	4
WN 7855 B 8	8	7	1	28	20	8	3.2	4
WN 7855 B 9	9	8	1	28	20	8	3.2	4
WN 7855 B 10	10	9	1	28	20	8	3.2	4
WN 7855 B 12	12	10	1.5	39	30	12	4.3	5
WN 7855 B 14	14	12	1.5	39	30	12	4.3	5
WN 7855 B 16	16	14	1.5	39	30	12	4.3	5

Fastening clip 1594, single-lobe, heavy-duty version

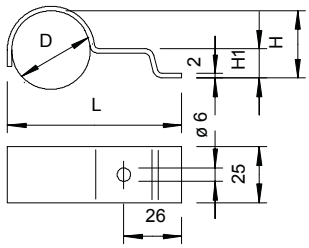
St G



Type	For cable Ø mm	Hole size mm	Material thickness mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
1594 22 G	22	6	2	Stone grey	100	3.300	**1310925**

For earthing cable fastening to house connection boxes.
Levanisit coated.

Dimensions

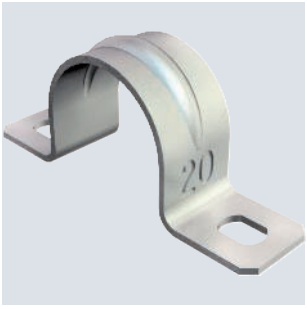


Type	Dim. L mm	Dim. H mm	Dim. H1 mm
1594 22 G	65	18	11

St G

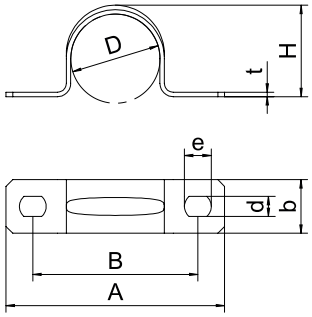
Fastening clip 605, medium-duty

Type	For Ø mm	Hole size mm	Material thickness mm		Pack Piece	Weight kg/100 pc.	Item no.
605 7 G	7	4,5x6	1		100	0.183	**1018078**
605 8 G	8	4,5x6	1		100	0.203	**1018086**
605 9 G	9	4,5x6	1		100	0.246	**1018094**
605 10 G	10	4,5x6	1		100	0.432	**1018108**
605 11 G	11	4,5x6	1		100	0.462	**1018116**
605 12 G	12	4,5x6	1		100	0.485	**1018124**
605 13 G	13	4,5x6	1		100	0.532	**1018132**
605 14 G	14	4,5x6	1		100	0.560	**1018140**
605 15 G	15	4,5x6	1		100	0.584	**1018159**
605 16 G	16	4,5x6	1		100	0.585	**1018167**
605 17 G	17	4,5x6	1		100	0.604	**1018175**
605 18 G	18	4,5x6	1		100	0.640	**1018183**
605 19 G	19	4,5x6	1		100	0.671	**1018191**
605 20 G	20	4,5x6	1		100	0.664	**1018205**
605 21 G	21	4,5x6	1		100	0.678	**1018213**
605 23 G	23	4,5x6	1		100	0.826	**1018221**
605 25 G	25	4,5x6	1		100	0.960	**1018256**
605 26 G	26	4,5x6	1		100	0.975	**1018264**
605 28 G	28	4,5x6	1		100	1.067	**1018280**
605 30 G	30	4,5x6	1		100	1.150	**1018302**
605 32 G	32	4,5x6	1		100	1.260	**1018337**
605 35 G	35	5,5x7	1.5		100	1.921	**1018353**
605 37 G	37	5,5x7	1.5		100	2.007	**1018361**



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

Dimensions

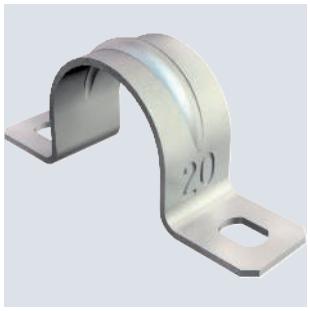


Type	Dim. D mm	Dim. H mm	Dim. t mm	Dim. A mm	Dim. B mm	Dim. b mm	Dim. d mm	Dim. e mm
605 7 G	7	6	1	32	21	10	4.5	6
605 8 G	8	7	1	33	22	10	4.5	6
605 9 G	9	8	1	34	23	10	4.5	6
605 10 G	10	9	1	37	25	12	4.5	6
605 11 G	11	10	1	38	26	12	4.5	6
605 12 G	12	11	1	39	27	12	4.5	6
605 13 G	13	12	1	41	29	12	4.5	6
605 14 G	14	13	1	42	30	12	4.5	6
605 15 G	15	13.5	1	43	31	12	4.5	6
605 16 G	16	14.5	1	44	32	12	4.5	6
605 17 G	17	15.5	1	45	33	12	4.5	6
605 18 G	18	16.5	1	46	34	12	4.5	6
605 19 G	19	17.5	1	47	35	12	4.5	6
605 20 G	20	18.5	1	49	37	12	4.5	6
605 21 G	21	19.5	1	50	38	12	4.5	6
605 23 G	23	21	1	52	40	12	4.5	6
605 25 G	25	23	1	58	44	14	4.5	6
605 26 G	26	24	1	59	45	14	4.5	6
605 28 G	28	26	1	61	47	14	4.5	6
605 30 G	30	28	1	63	49	14	4.5	6
605 32 G	32	30	1	66	52	14	5.5	6
605 35 G	35	32	1.5	70	56	14	5.5	7
605 37 G	37	34	1.5	72	58	14	5.5	7

Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Fastening clip 605, medium duty

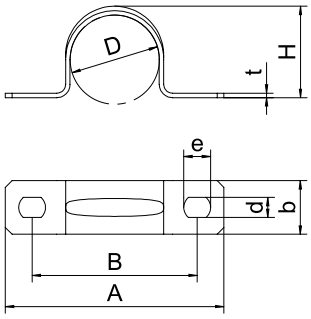
St G



Type	For Ø mm	Hole size mm	Material thickness mm	Pack Piece	Weight kg/100 pc.	Item no.
605 40 G	40	5,5x7	1.5	50	1.900	**1018396**
605 43 G	43	5,5x7	1.5	50	2.324	**1018434**
605 47 G	47	5,5x7	1.5	50	2.366	**1018477**
605 50 G	50	5,5x7	1.5	25	2.770	**1018507**
605 55 G	55	5,5x7	1.5	25	3.840	**1018558**
605 60 G	60	5,5x7	1.5	25	3.800	**1018604**
605 63 G	63	5,5x7	1.5	25	3.670	**1018639**

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

Dimensions



Type	Dim. D mm	Dim. H mm	Dim. t mm	Dim. A mm	Dim. B mm	Dim. b mm	Dim. d mm	Dim. e mm
605 40 G	40	37	1.5	75	61	14	5.5	7
605 43 G	43	40	1.5	78	64	14	5.5	7
605 47 G	47	44	1.5	82	68	14	5.5	7
605 50 G	50	46	1.5	88	74	16	5.5	7
605 55 G	55	51	1.5	94	78	16	5.5	7
605 60 G	60	56	1.5	99	83	16	5.5	7
605 63 G	63	59	1.5	112	98	16	5.5	7

Fastening clip 605, medium duty

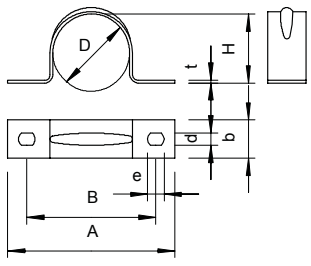
Alu



Type	For Ø mm	Hole size mm	Material thickness mm	Pack Piece	Weight kg/100 pc.	Item no.
605 16 ALU	16	4,5x6	1	100	0.218	**1017799**
605 20 ALU	20	4,5x6	1	100	0.228	**1017837**
605 25 ALU	25	4,5x6	1	100	0.330	**1017861**
605 32 ALU	32	4,5x6	1	100	0.433	**1017926**
605 40 ALU	40	5,5x7	1.5	50	0.650	**1017950**
605 50 ALU	50	5,5x7	1.5	25	0.952	**1017980**
605 63 ALU	63	5,5x7	1.5	25	1.260	**1017997**

Two lobe fastening clips for cables and pipes.

Dimensions

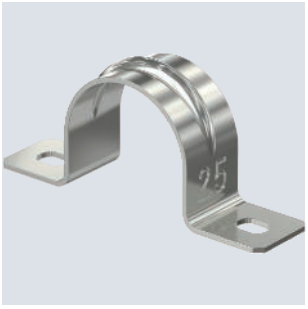


Type	Dim. D mm	Dim. H mm	Dim. t mm	Dim. A mm	Dim. B mm	Dim. b mm	Dim. d mm	Dim. e mm
605 16 ALU	16	14.5	1	44	32	12	4.5	6
605 20 ALU	20	18.5	1	49	37	12	4.5	6
605 25 ALU	25	23	1	58	44	14	4.5	6
605 32 ALU	32	29	1	95	71	25	4.5	6
605 40 ALU	40	37	1.5	75	61	14	5.5	7
605 50 ALU	50	46	1.5	110	86	25	5.5	7
605 63 ALU	63	59	1.5	120	96	25	5.5	7

A4 2B

Fastening clip 605, medium-duty

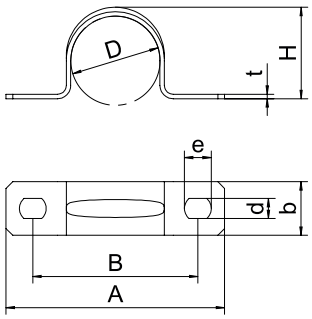
Type	For Ø mm	Hole size mm	Material thickness mm	Pack Piece	Weight kg/100 pc.	Item no.
605 12 A4	12	4,5x6	1	100	0.485	**1018653**
605 16 A4	16	4,5x6	1	100	0.585	**1018661**
605 20 A4	20	4,5x6	1	100	0.664	**1018669**
605 25 A4	25	4,5x6	1	100	0.992	**1018679**
605 32 A4	32	4,5x6	1	100	1.260	**1018693**
605 40 A4	40	5,5x7	1.5	50	1.900	**1018705**
605 50 A4	50	5,5x7	1.5	25	2.770	**1018717**
605 63 A4	63	5,5x7	1.5	25	3.670	**1018729**



Two lobe fastening clips for cables and pipes.

Type	Dim. D mm	Dim. H mm	Dim. t mm	Dim. A mm	Dim. B mm	Dim. b mm	Dim. d mm	Dim. e mm
605 12 A4	12	11	1	39	27	12	4.5	6
605 16 A4	16	14.5	1	44	32	12	4.5	6
605 20 A4	20	18.5	1	49	37	12	4.5	6
605 25 A4	25	23	1	58	44	14	4.5	6
605 32 A4	32	30	1	66	52	14	4.5	6
605 40 A4	40	37	1.5	75	61	14	5.5	7
605 50 A4	50	46	1.5	88	74	16	5.5	7
605 63 A4	63	59	1.5	112	98	16	5.5	7

Dimensions



St FT

Fastening clip 823, heavy duty

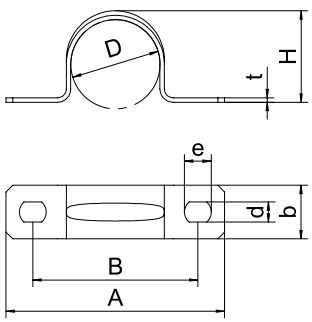
Type	For Ø mm	Hole size mm	Material thickness mm	Pack Piece	Weight kg/100 pc.	Item no.
823 16 FT	16	6,5x10	2	50	2.260	**1015095**
823 18.3 FT	18.6	6,5x10	2	50	2.446	**1015117**
823 20 FT	20	6,5x10	2	50	2.662	**1015133**
823 22.5 FT	22.5	6,5x10	2	50	2.988	**1015168**
823 25 FT	25	6,5x10	3	25	6.770	**1015494**
823 28.3 FT	28.3	6,5x10	3	25	5.208	**1015214**
823 32 FT	32	6,5x10	3	100	7.469	**1015496**
823 37 FT	37	6,5x10	3	100	8.700	**1015303**
823 40 FT	40	6,5x10	3	100	8.460	**1015498**
823 47 FT	47	6,5x10	3	100	10.120	**1015362**
823 54 FT	54	6,5x10	3	100	10.760	**1015427**
823 59.3 FT	59.3	6,5x10	3	100	11.800	**1015486**
823 50 FT	50	6,5x10	3	100	9.050	**1015500**
823 63 FT	63	6,5x10	3	100	10.700	**1015508**



Two lobe fastening clips for cables and pipes.

Type	Dim. D mm	Dim. H mm	Dim. t mm	Dim. A mm	Dim. B mm	Dim. b mm	Dim. d mm	Dim. e mm
823 16 FT	15.2	13	2	59	40	20	6.5	10
823 18.3 FT	18.6	16	2	62	43	20	6.5	10
823 20 FT	20.4	18	2	64	45	20	6.5	10
823 22.5 FT	22.5	20	2	67	48	20	6.5	10
823 25 FT	25	23.5	3	79	60	25	6.5	10
823 28.3 FT	28.3	25.5	3	75	56	20	6.5	10
823 32 FT	32	29	3	95	71	25	6.5	10
823 37 FT	37	34	3	93	69	25	6.5	10
823 40 FT	40	36	3	100	76	25	6.5	10
823 47 FT	47	43	3	103	79	25	6.5	10
823 54 FT	54	50	3	110	86	25	6.5	10
823 59.3 FT	59.3	55	3	116	92	25	6.5	10
823 50 FT	50	46	3	110	86	25	6.5	10
823 63 FT	63	59	3	120	96	25	6.5	10

Dimensions



Industrieinstallation - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Fastening clip 824 VA

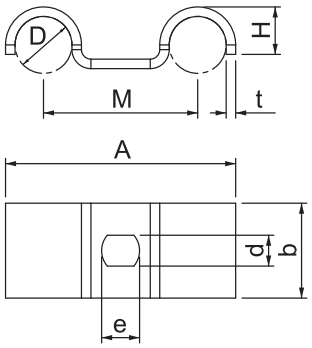
A2 2B



Type	Shipping box Piece		Pack Piece	Weight kg/100 pc.	Item no.
824 12 A2	500		50	2.310	**1016555**

Fastening clip for 2 cables with central strap

Dimensions



Type	Dim. D mm	Dimension M	Dim. t mm	Dim. A mm	Dim. b mm	Dim. d mm	Dim. e mm
824 12 A2	12	32,5	2	48.5	20	6.5	8

Strain relief clip 7901

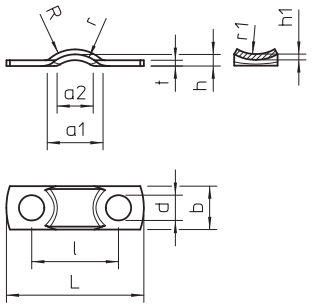
St G



Type	For cable Ø mm	Hole size mm	Material thickness mm	Pack Piece	Weight kg/100 pc.	Item no.
7901 5 G	5	3,5	0.8	100	0.063	**1435019**
7901 6.5 G	6.5	3,2	1	100	0.115	**1435027**

Fastening clip for strain relief of cables.

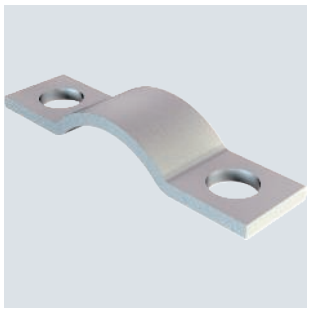
Dimensions



Type	Dim. L mm	Dim. l mm	Dim. d mm	Dim. b mm	Dim. R mm	Dim. r mm	Dim. a1 mm	Dim. a2 mm	Dim. t mm	Dim. h mm	Dim. r1 mm	Dim. h1 mm
7901 5 G	19	12	3.5	6	5	4	6.5	4	0.8	1.6	5	0.8
7901 6.5 G	23	16	3.2	7	6.5	8	8	4	1	1.6	5	1.2

Strain relief clip 7902

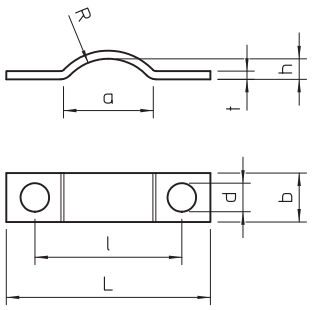
St G



Type	For cable Ø mm	Hole size mm	Material thickness mm	Pack Piece	Weight kg/100 pc.	Item no.
7902 6 G	6.5	3,5	1	100	0.096	**1436015**
7902 8 G	8	4	1	100	0.159	**1436023**

Fastening clip for strain relief of cables.

Dimensions



Type	Dim. L mm	Dim. l mm	Dim. d mm	Dim. b mm	Dim. R mm	Dim. a mm	Dim. t mm	Dim. h mm
7902 6 G	25	18	3.5	6	6.5	11	1	2.5
7902 8 G	30	23	4	8	8	12	1	4.5

St G

Strain relief clip 7903

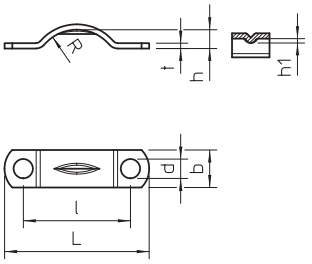
Type	For cable Ø mm	Hole size mm	Material thickness mm	Pack Piece	Weight kg/100 pc.	Item no.
7903 6 G	6	2,5	0.5	100	0.105	**1437003**
7903 8 G	8	3,6	0.8	100	0.130	**1437011**
7903 9 G	9	4,5	1	100	0.244	**1437038**

Fastening clip for strain relief of cables.



Type	Dim. L mm	Dim. l mm	Dim. d mm	Dim. b mm	Dim. R mm	Dim. t mm	Dim. h mm	Dim. h1 mm
7903 6 G	23	16.5	2.5	6	6	1	1.5	0.5
7903 8 G	27	20	3.6	7	8	1	3.5	0.8
7903 9 G	31	23	4.5	8	9	1.5	4	1

Dimensions

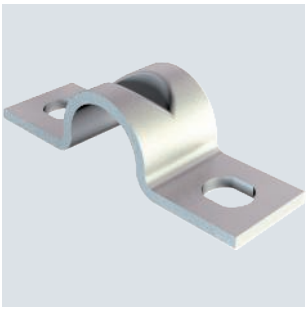


St G

Strain relief clip 7904

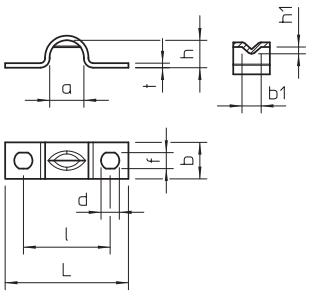
Type	For cable Ø mm	Hole size mm	Material thickness mm	Pack Piece	Weight kg/100 pc.	Item no.
7904 6 G	6	3,5x4	1	100	0.185	**1438018**

Fastening clip for strain relief of cables.



Type	Dim. L mm	Dim. l mm	Dim. d mm	Dim. f mm	Dim. b mm	Dim. a mm	Dim. t mm	Dim. h mm	Dim. b1 mm	Dim. h1 mm
7904 6 G	27.5	19	4	3.5	8	7.5	1	6	4.5	1.5

Dimensions



Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Strain relief clip 7905

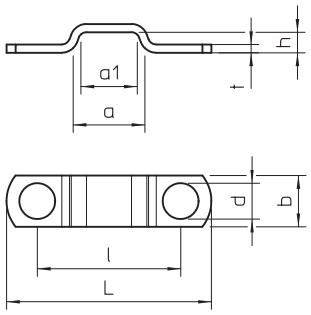
St G



Type	For cable Ø mm	Hole size mm	Material thickness mm	Pack Piece	Weight kg/100 pc.	Item no.
7905 5 G	5	3,5	0.8	100	0.054	**1439014**

Fastening clip for strain relief of cables.

Dimensions



Type	Dim. L mm	Dim. l mm	Dim. d mm	Dim. b mm	Dim. a mm	Dim. a1 mm	Dim. t mm	Dim. h mm
7905 5 G	20	14	3.5	5	7	5.5	0.8	2

Strain relief clip 7908

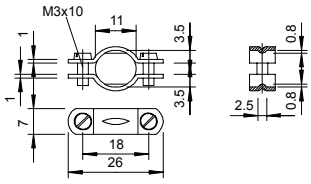
St G



Type	For cable Ø mm	Material thickness mm	Pack Piece	Weight kg/100 pc.	Item no.
7908 11 G	11	1	100	0.433	**1442015**

Fastening clip for strain relief of cables.

Dimensions

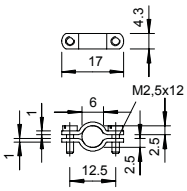


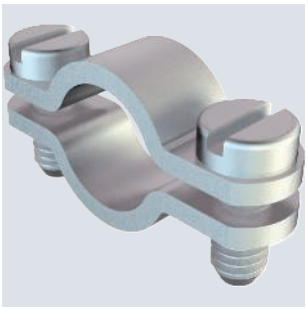
St G

Strain relief clip 7909

Type	For cable Ø mm	Material thickness mm		Pack Piece	Weight kg/100 pc.	Item no.
7909 6 G	6	1		100	0.198	**1443011**

Fastening clip for strain relief of cables.





Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

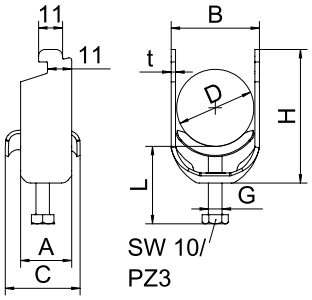
Clamp clip 2056 N-foot, 1-fold, metal pressure sleeve



Type	Clamping range D mm	Pack Piece	Weight kg/100 pc.	Item no.
BS-N1-M-12 FT	8-12	100	2.450	**1187002**
BS-N1-M-16 FT	12-16	100	2.800	**1187008**
BS-N1-M-22 FT	16-22	100	3.150	**1187014**
BS-N1-M-28 FT	22-28	100	4.900	**1187020**
BS-N1-M-34 FT	28-34	100	6.400	**1187026**
BS-N1-M-40 FT	34-40	100	7.000	**1187032**
BS-N1-M-46 FT	40-46	100	8.500	**1187038**
BS-N1-M-52 FT	46-52	100	9.150	**1187044**
BS-N1-M-58 FT	52-58	100	12.100	**1187050**

Clamp clip with N-foot, metal pressure sleeve with rounded edges to protect the cable. For vertical and horizontal mounting of 1 single cable on a C-profile rail. For slot width 11–12 mm With 1-start screw thread on pressure sleeve, universal hexagonal screw head WAF10, with slot and cross recess. Suitable for assembly indoors and outdoors. We recommend the use of a counter-sleeve.

Dimensions



Type	Clamping range D mm	Dim. A mm	Dim. B mm	Dim. C mm	Dim. G	Dim. t mm	Dim. H mm	Dim. L mm	Max. torque Nm
BS-N1-M-12 FT	8-12	22	17	28	M6	1.5	35	34	3
BS-N1-M-16 FT	12-16	22.5	20	28	M6	1.5	39	34	3
BS-N1-M-22 FT	16-22	22.5	27	28	M6	1.5	46	34	3
BS-N1-M-28 FT	22-28	22.5	33	28	M6	2	52	78	3
BS-N1-M-34 FT	28-34	22.5	39	34	M6	2	59	33	3
BS-N1-M-40 FT	34-40	22.5	45	33	M6	2	66	34	3
BS-N1-M-46 FT	40-46	25	51	33	M8	2	73	43	5
BS-N1-M-52 FT	46-52	25	57	33	M8	2	80	43	5
BS-N1-M-58 FT	52-58	25	64	33	M8	2.5	86	43	5

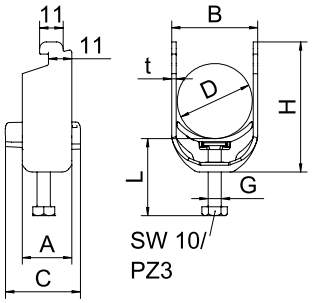
Clamp clip 2056 N-foot, 1-fold, plastic pressure sleeve



Type	Clamping range D mm	Pack Piece	Weight kg/100 pc.	Item no.
BS-N1-K-12 FT	8-12	100	2.500	**1187202**
BS-N1-K-16 FT	12-16	100	2.919	**1187208**
BS-N1-K-22 FT	16-22	100	3.100	**1187214**
BS-N1-K-28 FT	22-28	100	4.600	**1187220**
BS-N1-K-34 FT	28-34	100	5.900	**1187226**
BS-N1-K-40 FT	34-40	100	5.970	**1187232**
BS-N1-K-46 FT	40-46	100	6.640	**1187238**
BS-N1-K-52 FT	46-52	100	7.270	**1187244**
BS-N1-K-58 FT	52-58	50	10.560	**1187250**
BS-N1-K-64 FT	58-64	50	11.200	**1187256**
BS-N1-K-70 FT	64-70	50	12.330	**1187262**

Clamp clip with N-foot, plastic pressure sleeve made of polypropylene. For vertical and horizontal mounting of 1 single cable on a C-profile rail. For slot width 11–12 mm With 1-start screw thread on pressure sleeve, universal hexagonal screw head WAF10, with slot and cross recess. Suitable for assembly indoors and outdoors. We recommend the use of a counter-sleeve.

Dimensions



Type	Clamping range D mm	Dim. A mm	Dim. B mm	Dim. C mm	Dim. G	Dim. t mm	Dim. H mm	Dim. L mm	Max. torque Nm
BS-N1-K-12 FT	8-12	22.5	17	34	M6	1.5	35	35	3
BS-N1-K-16 FT	12-16	22.5	20	34	M6	1.5	39	35	3
BS-N1-K-22 FT	16-22	22.5	27	34	M6	1.5	46	35	3
BS-N1-K-28 FT	22-28	22.5	33	34	M6	2	52	35	3
BS-N1-K-34 FT	28-34	22.5	39	34	M6	2	59	35	3
BS-N1-K-40 FT	34-40	22.5	45	34	M6	2	66	70	3
BS-N1-K-46 FT	40-46	25	51	40	M8	2	73	45	5
BS-N1-K-52 FT	46-52	25	57	40	M8	2	80	45	5
BS-N1-K-58 FT	52-58	25	64	40	M8	2.5	86	45	5
BS-N1-K-64 FT	58-64	25	70	40	M8	2.5	93	45	5
BS-N1-K-70 FT	64-70	25	76	40	M8	2.5	99	45	5

St FT

11-12 N

Clamp clip 2056 N-foot, 2-fold, plastic pressure sleeve

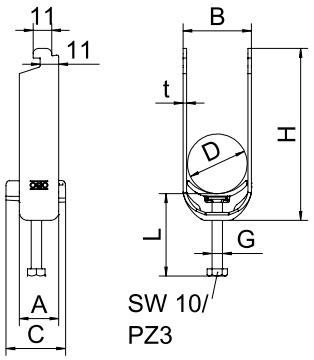
Type	Clamping range D mm		Pack Piece	Weight kg/100 pc.	Item no.
BS-N2-K-12 FT	8-12		50	3.500	**1187203**

Clamp clip with N-foot, plastic pressure sleeve made of polypropylene. For vertical and horizontal mounting of 2 single cables on a C-profile rail. For slot width 11–12 mm With 1-start screw thread on pressure sleeve, universal hexagonal screw head WAF10, with slot and cross recess. Suitable for assembly indoors and outdoors. Multiple cables should be separated by double sleeves. We recommend the use of a counter-sleeve.



Type	Clamping range D mm	Dim. A mm	Dim. B mm	Dim. C mm	Dim. G	Dim. t mm	Dim. H mm	Dim. L mm	Max. torque Nm
BS-N2-K-12 FT	8-12	22.5	17	34	M6	1.5	52	35	3

Dimensions



Alu

11-12 N

Clamp clip 2056 N-foot, 1-fold, plastic pressure sleeve

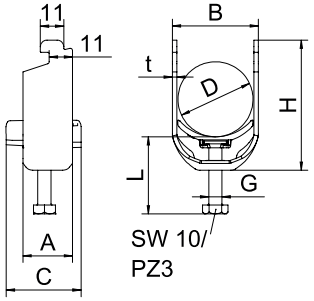
Type	Clamping range D mm		Pack Piece	Weight kg/100 pc.	Item no.
BS-N1-K-12 ALU	8-12		50	0.900	**1187302**
BS-N1-K-16 ALU	12-16		50	1.090	**1187308**
BS-N1-K-22 ALU	16-22		50	1.200	**1187314**
BS-N1-K-28 ALU	22-28		50	1.700	**1187320**
BS-N1-K-34 ALU	28-34		50	2.200	**1187326**
BS-N1-K-40 ALU	34-40		50	2.350	**1187332**
BS-N1-K-46 ALU	40-46		50	2.550	**1187338**
BS-N1-K-52 ALU	46-52		50	2.880	**1187344**
BS-N1-K-58 ALU	52-58		50	4.100	**1187350**

Clamp clip with N-foot, plastic pressure sleeve made of polypropylene. For vertical and horizontal mounting of 1 single cable on a C-profile rail. For slot width 11–12 mm With 1-start screw thread on pressure sleeve, universal hexagonal screw head WAF10, with slot and cross recess. Suitable for assembly indoors and outdoors. We recommend the use of a counter-sleeve.



Type	Clamping range D mm	Dim. A mm	Dim. B mm	Dim. C mm	Dim. G	Dim. t mm	Dim. H mm	Dim. L mm	Max. torque Nm
BS-N1-K-12 ALU	8-12	22.5	17	34	M6	1.5	35	35	2
BS-N1-K-16 ALU	12-16	22.5	20	34	M6	1.5	39	35	2
BS-N1-K-22 ALU	16-22	22.5	27	34	M6	1.5	46	35	2
BS-N1-K-28 ALU	22-28	22.5	33	34	M6	2	52	35	2
BS-N1-K-34 ALU	28-34	22.5	39	34	M6	2	59	35	2
BS-N1-K-40 ALU	34-40	22.5	45	34	M6	2	66	70	2
BS-N1-K-46 ALU	40-46	25	51	40	M8	2	73	45	2
BS-N1-K-52 ALU	46-52	25	57	40	M8	2	80	45	2
BS-N1-K-58 ALU	52-58	25	64	40	M8	2.5	86	45	2

Dimensions



Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Clamp clips, N base

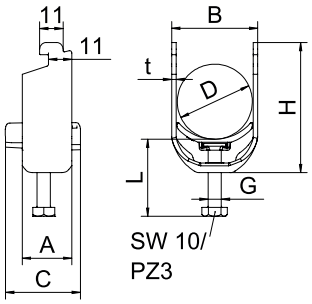
Clamp clip 2056 N-foot, 1-fold, plastic pressure sleeve



Type	Clamping range D mm	Pack Piece	Weight kg/100 pc.	Item no.
BS-N1-K-12 A2	8-12	50	2.500	**1188102**
BS-N1-K-16 A2	12-16	50	2.919	**1188108**
BS-N1-K-22 A2	16-22	50	4.400	**1188114**
BS-N1-K-28 A2	22-28	50	6.500	**1188120**
BS-N1-K-34 A2	28-34	50	8.000	**1188126**
BS-N1-K-40 A2	34-40	25	6.155	**1188132**
BS-N1-K-46 A2	40-46	25	6.770	**1188138**

Clamp clip with N-foot, plastic pressure sleeve made of polypropylene. For vertical and horizontal mounting of 1 single cable on a C-profile rail. For slot width 11–12 mm With 1-start screw thread on pressure sleeve, universal hexagonal screw head WAF10, with slot and cross recess. Suitable for assembly indoors and outdoors. We recommend the use of a counter-sleeve.

Dimensions



Type	Clamping range D mm	Dim. A mm	Dim. B mm	Dim. C mm	Dim. G	Dim. t mm	Dim. H mm	Dim. L mm	Max. torque Nm
BS-N1-K-12 A2	8-12	22.5	17	34	M6	1.5	35	35	3
BS-N1-K-16 A2	12-16	22.5	20	34	M6	1.5	39	35	3
BS-N1-K-22 A2	16-22	22.5	27	34	M6	1.5	46	35	3
BS-N1-K-28 A2	22-28	22.5	33	34	M6	2	52	35	3
BS-N1-K-34 A2	28-34	22.5	39	34	M6	2	59	35	3
BS-N1-K-40 A2	34-40	22.5	45	34	M6	2	66	70	3
BS-N1-K-46 A2	40-46	25	51	40	M8	2	73	45	5

Clamp clips, U base

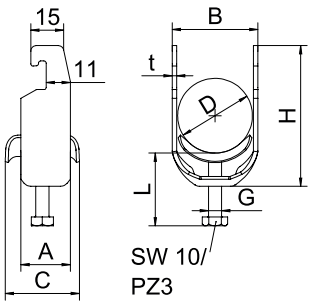
Clamp clip 2056 U-foot, 1-fold, metal pressure sleeve



Type	Clamping range D mm	Pack Piece	Weight kg/100 pc.	Item no.
BS-U1-M-12 FT	8-12	100	3.300	**1186502**
BS-U1-M-16 FT	12-16	100	3.520	**1186509**
BS-U1-M-22 FT	16-22	100	3.960	**1186516**
BS-U1-M-28 FT	22-28	100	5.890	**1186522**
BS-U1-M-34 FT	28-34	100	7.650	**1186529**
BS-U1-M-40 FT	34-40	100	8.360	**1186536**
BS-U1-M-46 FT	40-46	100	10.890	**1186542**
BS-U1-M-52 FT	46-52	100	11.660	**1186549**
BS-U1-M-58 FT	52-58	100	14.740	**1186556**
BS-U1-M-64 FT	58-64	100	15.730	**1186562**
BS-U1-M-70 FT	64-70	50	18.200	**1186569**
BS-U1-M-76 FT	70-76	25	20.600	**1186576**

Clamp clip with U-foot, metal pressure sleeve with rounded edges to protect the cable. For vertical and horizontal mounting of 1 single cable on a C-profile rail. For slot width 18–22 mm. With 1-start screw thread on pressure sleeve, universal hexagonal screw head WAF10, with slot and cross recess. Suitable for assembly indoors and outdoors. We recommend the use of a counter-sleeve.

Dimensions



Type	Clamping range D mm	Dim. A mm	Dim. B mm	Dim. C mm	Dim. G	Dim. t mm	Dim. H mm	Dim. L mm	Max. torque Nm
BS-U1-M-12 FT	8-12	22.5	17	28	M6	1.5	40	34	3
BS-U1-M-16 FT	12-16	22.5	20	28	M6	1.5	44	34	3
BS-U1-M-22 FT	16-22	22.5	27	18	M6	1.5	51	34	3
BS-U1-M-28 FT	22-28	22.5	33	28	M6	2	57	34	3
BS-U1-M-34 FT	28-34	22.5	39	34	M6	2	64	33	3
BS-U1-M-40 FT	34-40	22.5	45	33	M6	2	70	34	3
BS-U1-M-46 FT	40-46	25	51	33	M8	2	76	43	5
BS-U1-M-52 FT	46-52	25	57	33	M8	2	83	43	5
BS-U1-M-58 FT	52-58	25	64	33	M8	2.5	89	43	5
BS-U1-M-64 FT	58-64	25	70	33	M8	2.5	95	43	5
BS-U1-M-70 FT	64-70	25	76	33	M8	2.5	101	43	5
BS-U1-M-76 FT	70-76	25	82	37	M8	2.5	108	43	5

A4 2B

18 22 U

Clamp clip 2056 U-foot, 1-fold, metal pressure sleeve

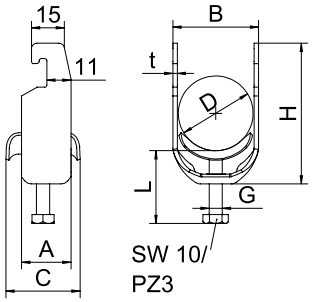
Type	Clamping range D mm	Pack Piece	Weight kg/100 pc.	Item no.
BS-U1-M-12 A4	8-12	100	3.300	**1186602**
BS-U1-M-16 A4	12-16	100	3.520	**1186609**
BS-U1-M-22 A4	16-22	100	3.590	**1186616**
BS-U1-M-28 A4	22-28	100	4.930	**1186622**
BS-U1-M-34 A4	28-34	100	6.656	**1186629**
BS-U1-M-40 A4	34-40	100	8.360	**1186636**
BS-U1-M-46 A4	40-46	100	10.890	**1186642**
BS-U1-M-52 A4	46-52	100	11.660	**1186649**
BS-U1-M-58 A4	52-58	100	14.740	**1186656**
BS-U1-M-64 A4	58-64	100	15.730	**1186662**
BS-U1-M-70 A4	64-70	50	18.200	**1186669**
BS-U1-M-76 A4	70-76	25	20.600	**1186676**



Clamp clip with U-foot, metal pressure sleeve with rounded edges to protect the cable. For vertical and horizontal mounting of 1 single cable on a C-profile rail. For slot width 18–22 mm. With 1-start screw thread on pressure sleeve, universal hexagonal screw head WAF10, with slot and cross recess. Suitable for assembly indoors and outdoors. We recommend the use of a counter-sleeve.

Type	Clamping range D mm	Dim. A mm	Dim. B mm	Dim. C mm	Dim. G	Dim. t mm	Dim. H mm	Dim. L mm	Max. torque Nm
BS-U1-M-12 A4	8-12	22.5	17	28	M6	1.5	40	34	3
BS-U1-M-16 A4	12-16	22.5	20	28	M6	1.5	44	34	3
BS-U1-M-22 A4	16-22	22.5	27	28	M6	1.5	51	34	3
BS-U1-M-28 A4	22-28	22.5	33	28	M6	2	57	34	3
BS-U1-M-34 A4	28-34	22.5	39	34	M6	2	64	33	3
BS-U1-M-40 A4	34-40	22.5	45	33	M6	2	70	34	3
BS-U1-M-46 A4	40-46	25	51	33	M8	2	76	43	5
BS-U1-M-52 A4	46-52	25	57	33	M8	2	83	43	5
BS-U1-M-58 A4	52-58	25	64	33	M8	2.5	89	43	5
BS-U1-M-64 A4	58-64	25	70	33	M8	2.5	95	43	5
BS-U1-M-70 A4	64-70	25	76	33	M8	2.5	101	43	5
BS-U1-M-76 A4	70-76	25	82	37	M8	2.5	108	43	5

Dimensions



Industrieinstallltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Clamp clip 2056 U-foot, 1-fold, plastic pressure sleeve

St FT

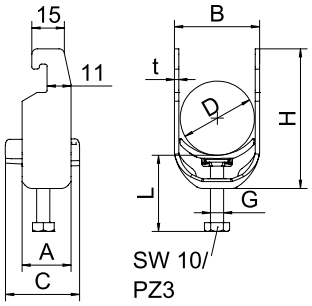
18 22 U



Type	Clamping range D mm	Pack Piece	Weight kg/100 pc.	Item no.
BS-U1-K-12 FT	8-12	100	2.850	**1186702**
BS-U1-K-16 FT	12-16	100	3.050	**1186709**
BS-U1-K-22 FT	16-22	100	3.223	**1186716**
BS-U1-K-28 FT	22-28	100	4.344	**1186722**
BS-U1-K-34 FT	28-34	100	7.500	**1186729**
BS-U1-K-40 FT	34-40	100	8.100	**1186736**
BS-U1-K-46 FT	40-46	100	10.000	**1186742**
BS-U1-K-52 FT	46-52	100	11.200	**1186749**
BS-U1-K-58 FT	52-58	100	13.400	**1186756**
BS-U1-K-64 FT	58-64	100	14.300	**1186762**
BS-U1-K-70 FT	64-70	50	15.250	**1186769**
BS-U1-K-76 FT	70-76	25	20.600	**1186776**
BS-U1-K-82 FT	76-82	25	22.000	**1186782**
BS-U1-K-90 FT	82-90	25	26.200	**1186789**
BS-U1-K-100 FT	90-100	25	30.000	**1186797**

Clamp clip with U-foot, plastic pressure sleeve made of polypropylene. For vertical and horizontal mounting of 1 single cable on a C-profile rail. For slot width 18–22 mm. With 1-start screw thread on pressure sleeve, universal hexagonal screw head WAF10, with slot and cross recess. Suitable for assembly indoors and outdoors. We recommend the use of a counter-sleeve.

Dimensions



Type	Clamping range D mm	Dim. A mm	Dim. B mm	Dim. C mm	Dim. G	Dim. t mm	Dim. H mm	Dim. L mm	Max. torque Nm
BS-U1-K-12 FT	8-12	22.5	17	34	M6	1.5	40	35	3
BS-U1-K-16 FT	12-16	22.5	20	34	M6	1.5	44	35	3
BS-U1-K-22 FT	16-22	22.5	27	34	M6	1.5	51	35	3
BS-U1-K-28 FT	22-28	22.5	33	34	M6	2	57	35	3
BS-U1-K-34 FT	28-34	22.5	39	34	M6	2	64	35	3
BS-U1-K-40 FT	34-40	22.5	45	34	M6	2	70	35	3
BS-U1-K-46 FT	40-46	25	51	40	M8	2	76	45	5
BS-U1-K-52 FT	46-52	25	57	40	M6	2	83	32	5
BS-U1-K-58 FT	52-58	25	64	40	M8	2.5	89	45	5
BS-U1-K-64 FT	58-64	25	70	40	M8	2.5	95	45	5
BS-U1-K-70 FT	64-70	25	79	40	M8	2.5	101	45	5
BS-U1-K-76 FT	70-76	25	82	40	M8	2.5	108	45	5
BS-U1-K-82 FT	76-82	25	88	40	M8	2.5	114	45	5
BS-U1-K-90 FT	82-90	27	97	40	M8	3	124	45	5
BS-U1-K-100 FT	90-100	27	107	40	M8	3	134	45	5

St FT

18 22 U

Clamp clip 2056 U-foot, 2-fold, plastic pressure sleeve

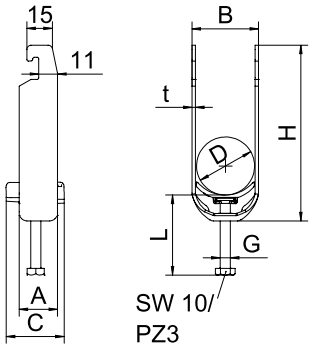
Type	Clamping range D mm	Pack Piece	Weight kg/100 pc.	Item no.
BS-U2-K-12 FT	8-12	50	3.150	**1186703**
BS-U2-K-16 FT	12-16	50	3.600	**1186710**
BS-U2-K-22 FT	16-22	50	4.950	**1186717**
BS-U2-K-28 FT	22-28	50	6.940	**1186723**
BS-U2-K-34 FT	28-34	50	9.500	**1186730**
BS-U2-K-40 FT	34-40	50	11.350	**1186737**
BS-U2-K-46 FT	40-46	50	11.350	**1186743**
BS-U2-K-52 FT	46-52	50	15.050	**1186750**
BS-U2-K-58 FT	52-58	50	19.800	**1186757**



Clamp clip with U-foot, plastic pressure sleeve made of polypropylene. For vertical and horizontal mounting of 2 single cables on a C-profile rail. For slot width 18–22 mm. With 1-start screw thread on pressure sleeve, universal hexagonal screw head WAF10, with slot and cross recess. Suitable for assembly indoors and outdoors. Multiple cables should be separated by double sleeves. We recommend the use of a counter-sleeve.

Type	Clamping range D mm	Dim. A mm	Dim. B mm	Dim. C mm	Dim. G	Dim. t mm	Dim. H mm	Dim. L mm	Max. torque Nm
BS-U2-K-12 FT	8-12	22.5	17	34	M6	1.5	57	35	3
BS-U2-K-16 FT	12-16	22.5	20	34	M6	1.5	65	35	3
BS-U2-K-22 FT	16-22	22.5	27	34	M6	1.5	78	35	3
BS-U2-K-28 FT	22-28	22.5	33	34	M6	2	90	47	3
BS-U2-K-34 FT	28-34	22.5	39	34	M6	2	103	47	3
BS-U2-K-40 FT	34-40	22.5	45	34	M6	2	116	47	3
BS-U2-K-46 FT	40-46	25	51	40	M8	2	128	45	5
BS-U2-K-52 FT	46-52	25	57	40	M8	2	141	32	5
BS-U2-K-58 FT	52-58	25	64	40	M8	2.5	153	45	5

Dimensions



St FT

18 22 U

Clamp clip 2056 U-foot, 3-fold, plastic pressure sleeve

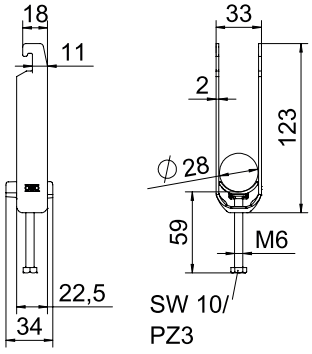
Type	Clamping range D mm	Pack Piece	Weight kg/100 pc.	Item no.
BS-U3-K-12 FT	8-12	50	4.750	**1186704**
BS-U3-K-16 FT	12-16	50	4.850	**1186711**
BS-U3-K-22 FT	16-22	50	6.600	**1186718**
BS-U3-K-28 FT	22-28	50	10.500	**1186724**
BS-U3-K-34 FT	28-34	50	13.250	**1186731**
BS-U3-K-40 FT	34-40	50	14.400	**1186738**
BS-U3-K-46 FT	40-46	50	18.950	**1186744**



Clamp clip with U-foot, plastic pressure sleeve made of polypropylene. For vertical and horizontal mounting of 3 single cables on a C-profile rail. For slot width 18–22 mm. With 1-start screw thread on pressure sleeve, universal hexagonal screw head WAF10, with slot and cross recess. Suitable for assembly indoors and outdoors. Multiple cables should be separated by double sleeves. We recommend the use of a counter-sleeve.

Type	Clamping range D mm	Dim. A mm	Dim. B mm	Dim. C mm	Dim. G	Dim. t mm	Dim. H mm	Dim. L mm	Max. torque Nm
BS-U3-K-12 FT	8-12	22.5	17	34	M6	1.5	74	47	3
BS-U3-K-16 FT	12-16	22.5	20	34	M6	1.5	84	47	3
BS-U3-K-22 FT	16-22	22.5	27	34	M6	1.5	105	47	3
BS-U3-K-28 FT	22-28	22.5	33	34	M6	2	123	59	3
BS-U3-K-34 FT	28-34	22.5	39	34	M6	2	142	59	3
BS-U3-K-40 FT	34-40	22.5	45	34	M6	2	161	59	3
BS-U3-K-46 FT	40-46	25	51	40	M8	2	179	72	5

Dimensions



Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

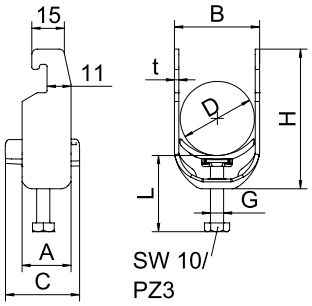
Clamp clip 2056 U-foot, 1-fold, plastic pressure sleeve



Type	Clamping range D mm	Pack Piece	Weight kg/100 pc.	Item no.
BS-U1-K-12 A2	8-12	50	3.000	**1186802**
BS-U1-K-16 A2	12-16	50	3.200	**1186809**
BS-U1-K-22 A2	16-22	50	3.800	**1186816**
BS-U1-K-28 A2	22-28	50	5.350	**1186822**
BS-U1-K-34 A2	28-34	50	7.200	**1186829**
BS-U1-K-40 A2	34-40	25	8.100	**1186836**
BS-U1-K-46 A2	40-46	25	9.900	**1186842**
BS-U1-K-52 A2	46-52	25	11.200	**1186849**
BS-U1-K-58 A2	52-58	25	13.400	**1186856**
BS-U1-K-64 A2	58-64	15	14.300	**1186862**
BS-U1-K-70 A2	64-70	15	20.500	**1186869**
BS-U1-K-76 A2	70-76	10	19.100	**1186876**

Clamp clip with U-foot, plastic pressure sleeve made of polypropylene. For vertical and horizontal mounting of 1 single cable on a C-profile rail. For slot width 18–22 mm. With 1-start screw thread on pressure sleeve, universal hexagonal screw head WAF10, with slot and cross recess. Suitable for assembly indoors and outdoors. We recommend the use of a counter-sleeve.

Dimensions



Type	Clamping range D mm	Dim. A mm	Dim. B mm	Dim. C mm	Dim. G	Dim. t mm	Dim. H mm	Dim. L mm	Max. torque Nm
BS-U1-K-12 A2	8-12	22.5	17	34	M6	1.5	40	35	3
BS-U1-K-16 A2	12-16	22.5	20	34	M6	1.5	44	35	3
BS-U1-K-22 A2	16-22	22.5	27	34	M6	1.5	51	35	3
BS-U1-K-28 A2	22-28	22.5	33	34	M6	2	57	35	3
BS-U1-K-34 A2	28-34	22.5	39	34	M6	2	64	35	3
BS-U1-K-40 A2	34-40	22.5	45	34	M6	2	70	35	3
BS-U1-K-46 A2	40-46	25	51	40	M8	2	76	45	5
BS-U1-K-52 A2	46-52	25	57	40	M8	2	83	32	5
BS-U1-K-58 A2	52-58	25	64	40	M8	2.5	89	45	5
BS-U1-K-64 A2	58-64	25	70	40	M8	2.5	95	45	5
BS-U1-K-70 A2	64-70	25	76	40	M8	2.5	101	45	5
BS-U1-K-76 A2	70-76	25	82	40	M8	2.5	108	45	5

Alu

Clamp clip 2056 U-foot, 1-fold, plastic pressure sleeve

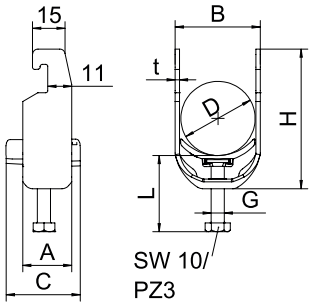
Type	Clamping range D mm	Pack Piece	Weight kg/100 pc.	Item no.
BS-U1-K-12 ALU	8-12	50	1.100	**1186902**
BS-U1-K-16 ALU	12-16	50	1.200	**1186909**
BS-U1-K-22 ALU	16-22	50	1.350	**1186916**
BS-U1-K-28 ALU	22-28	50	1.950	**1186922**
BS-U1-K-34 ALU	28-34	50	2.550	**1186929**
BS-U1-K-40 ALU	34-40	50	2.800	**1186936**
BS-U1-K-46 ALU	40-46	50	3.600	**1186942**
BS-U1-K-52 ALU	46-52	50	3.950	**1186949**
BS-U1-K-58 ALU	52-58	50	4.900	**1186956**
BS-U1-K-64 ALU	58-64	50	5.250	**1186962**
BS-U1-K-70 ALU	64-70	50	5.600	**1186969**
BS-U1-K-76 ALU	70-76	50	7.050	**1186976**



Clamp clip with U-foot, plastic pressure sleeve made of polypropylene. For vertical and horizontal mounting of 1 single cable on a C-profile rail. For slot width 18–22 mm. With 1-start screw thread on pressure sleeve, universal hexagonal screw head WAF10, with slot and cross recess. Suitable for assembly indoors and outdoors. We recommend the use of a counter-sleeve.

Type	Clamping range D mm	Dim. A mm	Dim. B mm	Dim. C mm	Dim. G	Dim. t mm	Dim. H mm	Dim. L mm	Max. torque Nm
BS-U1-K-12 ALU	8-12	22.5	17	34	M6	1.5	40	35	2
BS-U1-K-16 ALU	12-16	22.5	20	34	M6	1.5	44	35	2
BS-U1-K-22 ALU	16-22	22.5	27	34	M6	1.5	51	35	2
BS-U1-K-28 ALU	22-28	22.5	33	34	M6	2	57	35	2
BS-U1-K-34 ALU	28-34	22.5	39	34	M6	2	64	35	2
BS-U1-K-40 ALU	34-40	22.5	45	34	M6	2	70	35	2
BS-U1-K-46 ALU	40-46	25	51	40	M8	2	76	45	2
BS-U1-K-52 ALU	46-52	25	57	40	M8	2	83	32	2
BS-U1-K-58 ALU	52-58	25	64	89	M8	2.5	89	45	2
BS-U1-K-64 ALU	58-64	25	70	40	M8	2.5	95	45	2
BS-U1-K-70 ALU	64-70	25	76	101	M8	2.5	101	45	2
BS-U1-K-76 ALU	70-76	25	82	40	M8	2.5	108	45	2

Dimensions



St FT

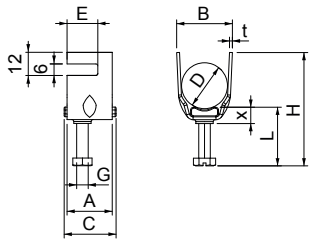
Clamp clips, BBS clip for flat iron

Type	Clamping range D mm	Pack Piece	Weight kg/100 pc.	Item no.
2056F 29 FT	22-29	100	3.200	**1171895**



Suitable for flat, angular and U irons of 4–12 mm material thickness.
Clip and bolt made of hot-dip galvanised steel.
Polypropylene pressure sleeve, halogen-free, colour light grey RAL 7035.

Dimensions



Industrieinstallation - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Clamp clip 2056 H-foot, 1-fold, metal pressure sleeve

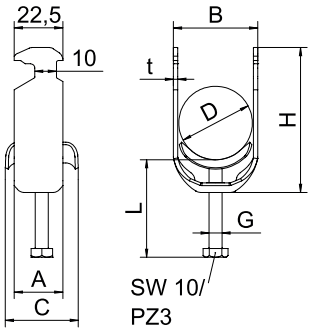
St FT
16-17 H E30 E90



Type	Clamping range D mm	Pack Piece	Weight kg/100 pc.	Item no.
BS-H1-M-12 FT	8-12	100	3.200	**1186002**
BS-H1-M-16 FT	12-16	100	3.500	**1186009**
BS-H1-M-22 FT	16-22	100	4.400	**1186016**
BS-H1-M-28 FT	22-28	100	6.100	**1186022**
BS-H1-M-34 FT	28-34	100	7.700	**1186029**
BS-H1-M-40 FT	34-40	100	8.600	**1186036**
BS-H1-M-46 FT	40-46	100	9.600	**1186042**
BS-H1-M-52 FT	46-52	100	10.400	**1186049**
BS-H1-M-58 FT	52-58	100	13.100	**1186056**
BS-H1-M-64 FT	58-64	100	14.500	**1186062**
BS-H1-M-70 FT	64-70	50	16.100	**1186069**
BS-H1-M-76 FT	70-76	25	18.300	**1186076**
BS-H1-M-82 FT	76-82	25	19.100	**1186082**
BS-H1-M-90 FT	82-90	25	23.300	**1186089**
BS-H1-M-100 FT	90-100	25	24.500	**1186097**

Clamp clip with hammerhead foot, metal pressure sleeve with rounded edges to protect the cable. For vertical and horizontal mounting of 1 single cable on a C-profile rail. For a slot width 16–17 mm. With 1-start screw thread on pressure sleeve, universal hexagonal screw head WAF10, with slot and cross recess. Suitable for assembly indoors and outdoors. The counter-sleeve must be ordered separately.

Dimensions



Type	Clamping range D mm	Dim. A mm	Dim. B mm	Dim. C mm	Dim. G	Dim. t mm	Dim. H mm	Dim. L mm	Max. torque Nm
BS-H1-M-12 FT	8-12	22.5	17	28	M6	1.5	42	34	3
BS-H1-M-16 FT	12-16	22.5	20	28	M6	1.5	46	34	3
BS-H1-M-22 FT	16-22	22.5	27	28	M6	1.5	52	34	3
BS-H1-M-28 FT	22-28	22.5	33	28	M6	2	59	34	3
BS-H1-M-34 FT	28-34	22.5	39	34	M6	2	67	45	3
BS-H1-M-40 FT	34-40	22.5	45	33	M6	2	74	46	3
BS-H1-M-46 FT	40-46	25	51	33	M8	2	82	43	5
BS-H1-M-52 FT	46-52	25	57	33	M8	2	89	43	5
BS-H1-M-58 FT	52-58	25	64	33	M8	2.5	96	43	5
BS-H1-M-64 FT	58-64	25	70	33	M8	2.5	102	43	5
BS-H1-M-70 FT	64-70	25	76	33	M8	2.5	109	43	5
BS-H1-M-76 FT	70-76	25	82	37	M8	2.5	115	55	5
BS-H1-M-82 FT	76-82	25	88	37	M8	2.5	122	55	5
BS-H1-M-90 FT	82-90	27	97	38	M8	3	132	55	5
BS-H1-M-100 FT	90-100	27	107	38	M8	3	143	55	5

St FT
16-17 H E30 E90

Clamp clip 2056 H-foot, 2-fold, metal pressure sleeve

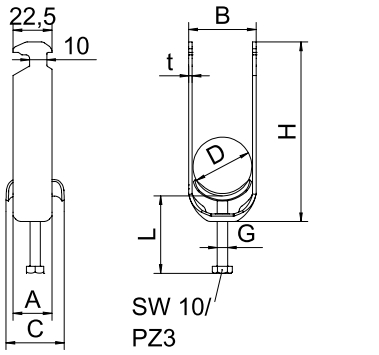
Type	Clamping range D mm	Pack Piece	Weight kg/100 pc.	Item no.
BS-H2-M-12 FT	8-12	50	3.980	**1186003**
BS-H2-M-16 FT	12-16	50	4.750	**1186010**
BS-H2-M-22 FT	16-22	50	6.900	**1186017**
BS-H2-M-28 FT	22-28	50	7.800	**1186023**



Clamp clip with hammerhead foot, metal pressure sleeve with rounded edges to protect the cable. For vertical and horizontal mounting of 2 single cables on a C-profile rail. For a slot width 16–17 mm. With 1-start screw thread on pressure sleeve, universal hexagonal screw head WAF10, with slot and cross recess. Suitable for assembly indoors and outdoors. Multiple cables should be separated by double sleeves. We recommend the use of a counter-sleeve.

Type	Clamping range D mm	Dim. A mm	Dim. B mm	Dim. C mm	Dim. G	Dim. t mm	Dim. H mm	Dim. L mm	Max. torque Nm
BS-H2-M-12 FT	8-12	22.5	17	28	M6	1.5	55	34	3
BS-H2-M-16 FT	12-16	22.5	20	28	M6	1.5	63	34	3
BS-H2-M-22 FT	16-22	22.5	27	28	M6	1.5	77	34	3
BS-H2-M-28 FT	22-28	22.5	33	28	M6	2	91	34	3

Dimensions



St FT
16-17 H E30 E90

Clamp clip 2056 H-foot, 3-fold, metal pressure sleeve

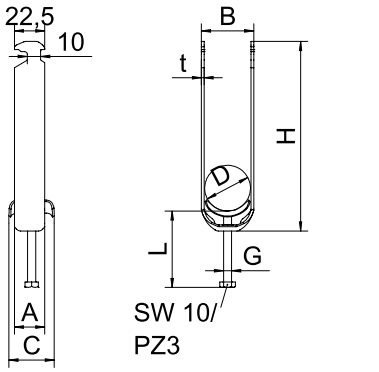
Type	Clamping range D mm	Pack Piece	Weight kg/100 pc.	Item no.
BS-H3-M-12 FT	8-12	50	4.050	**1186004**
BS-H3-M-16 FT	12-16	50	5.800	**1186012**
BS-H3-M-22 FT	16-22	50	6.500	**1186018**
BS-H3-M-28 FT	22-28	50	9.500	**1186024**



Clamp clip with hammerhead foot, metal pressure sleeve with rounded edges to protect the cable. For vertical and horizontal mounting of 3 single cables on a C-profile rail. For a slot width 16–17 mm. With 1-start screw thread on pressure sleeve, universal hexagonal screw head WAF10, with slot and cross recess. Suitable for assembly indoors and outdoors. Multiple cables should be separated by double sleeves. We recommend the use of a counter-sleeve.

Type	Clamping range D mm	Dim. A mm	Dim. B mm	Dim. C mm	Dim. G	Dim. t mm	Dim. H mm	Dim. L mm	Max. torque Nm
BS-H3-M-12 FT	8-12	22.5	17	28	M6	1.5	68	46	3
BS-H3-M-16 FT	12-16	22.5	20	28	M8	1.5	81	46	3
BS-H3-M-22 FT	16-22	22.5	27	28	M6	1.5	101	34	3
BS-H3-M-28 FT	22-28	22.5	33	28	M6	2	121	34	3

Dimensions



Industrieinstallation - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Clamp clip 2056 H-foot, 1-fold, metal pressure sleeve

A2 2B

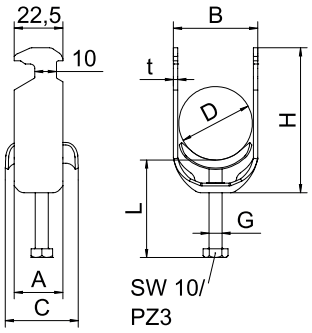
16-17 H



Type	Clamping range D mm	Pack Piece	Weight kg/100 pc.	Item no.
BS-H1-M-12 A2	8-12	50	3.200	**1186102**
BS-H1-M-16 A2	12-16	50	3.500	**1186109**
BS-H1-M-22 A2	16-22	50	4.400	**1186116**
BS-H1-M-28 A2	22-28	25	6.100	**1186122**
BS-H1-M-52 A2	46-52	25	10.400	**1186149**
BS-H1-M-58 A2	52-58	15	13.100	**1186156**
BS-H1-M-34 A2	28-34	25	7.700	**1186129**
BS-H1-M-40 A2	34-40	25	8.600	**1186136**
BS-H1-M-46 A2	40-46	25	9.600	**1186142**
BS-H1-M-64 A2	58-64	15	14.500	**1186162**
BS-H1-M-70 A2	64-70	15	16.100	**1186169**
BS-H1-M-76 A2	70-76	10	18.300	**1186176**

Clamp clip with hammerhead foot, metal pressure sleeve with rounded edges to protect the cable. For vertical and horizontal mounting of 1 single cable on a C-profile rail. For a slot width 16–17 mm. With 1-start screw thread on pressure sleeve, universal hexagonal screw head WAF10, with slot and cross recess. Suitable for assembly indoors and outdoors. We recommend the use of a counter-sleeve.

Dimensions



Type	Clamping range D mm	Dim. A mm	Dim. B mm	Dim. C mm	Dim. G	Dim. t mm	Dim. H mm	Dim. L mm	Max. torque Nm
BS-H1-M-12 A2	8-12	22.5	17	28	M6	1.5	42	34	3
BS-H1-M-16 A2	12-16	22.5	20	28	M6	1.5	46	34	3
BS-H1-M-22 A2	16-22	22.5	27	28	M6	1.5	52	34	3
BS-H1-M-28 A2	22-28	22.5	33	28	M6	2	59	34	3
BS-H1-M-52 A2	46-52	25	57	33	M8	2	89	43	5
BS-H1-M-58 A2	52-58	25	64	33	M8	2.5	96	43	5
BS-H1-M-34 A2	28-34	22.5	39	34	M6	2	67	45	3
BS-H1-M-40 A2	34-40	22.5	45	33	M6	2	74	46	3
BS-H1-M-46 A2	40-46	25	51	33	M8	2	82	43	5
BS-H1-M-64 A2	58-64	25	70	33	M8	2.5	102	43	5
BS-H1-M-70 A2	64-70	25	76	33	M8	2.5	109	43	5
BS-H1-M-76 A2	70-76	25	82	37	M8	2.5	115	55	5

St FT

16-17 H

Clamp clip 2056 H-foot, 1-fold, plastic pressure sleeve

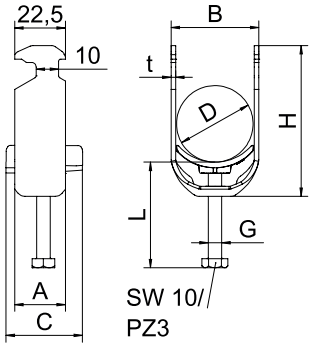
Type	Clamping range D mm	Pack Piece	Weight kg/100 pc.	Item no.
BS-H1-K-12 FT	8-12	100	3.540	**1186202**
BS-H1-K-16 FT	12-16	100	3.820	**1186209**
BS-H1-K-22 FT	16-22	100	4.508	**1186216**
BS-H1-K-28 FT	22-28	100	6.240	**1186222**
BS-H1-K-34 FT	28-34	100	7.680	**1186229**
BS-H1-K-40 FT	34-40	100	8.260	**1186236**
BS-H1-K-46 FT	40-46	100	10.900	**1186242**
BS-H1-K-52 FT	46-52	100	11.900	**1186249**
BS-H1-K-58 FT	52-58	100	14.300	**1186256**
BS-H1-K-64 FT	58-64	100	15.600	**1186262**
BS-H1-K-70 FT	64-70	50	18.200	**1186269**
BS-H1-K-90 FT	82-90	25	26.200	**1186289**
BS-H1-K-76 FT	70-76	25	20.600	**1186276**
BS-H1-K-82 FT	76-82	25	22.000	**1186282**
BS-H1-K-100 FT	90-100	25	27.800	**1186297**



Clamp clip with hammerhead foot, plastic pressure sleeve made of polypropylene. For vertical and horizontal mounting of 1 single cable on a C-profile rail. For a slot width 16–17 mm. With 1-start screw thread on pressure sleeve, universal hexagonal screw head WAF10, with slot and cross recess. Suitable for assembly indoors and outdoors. We recommend the use of a counter-sleeve.

Type	Clamping range D mm	Dim. A mm	Dim. B mm	Dim. C mm	Dim. G	Dim. t mm	Dim. H mm	Dim. L mm	Max. torque Nm
BS-H1-K-12 FT	8-12	22.5	17	34	M6	1.5	42	35	3
BS-H1-K-16 FT	12-16	22.5	20	34	M6	1.5	46	35	3
BS-H1-K-22 FT	16-22	22.5	27	34	M6	1.5	52	35	3
BS-H1-K-28 FT	22-28	22.5	33	34	M6	2	59	35	3
BS-H1-K-34 FT	28-34	22.5	39	34	M6	2	67	47	3
BS-H1-K-40 FT	34-40	22.5	45	34	M6	2	74	47	3
BS-H1-K-46 FT	40-46	25	51	40	M8	2	82	45	5
BS-H1-K-52 FT	46-52	25	57	40	M8	2	89	46	5
BS-H1-K-58 FT	52-58	25	64	40	M8	2.5	96	46	5
BS-H1-K-64 FT	58-64	25	70	40	M8	2.5	102	45	5
BS-H1-K-70 FT	64-70	25	76	40	M8	2.5	109	46	5
BS-H1-K-90 FT	82-90	27	97	40	M8	3	132	58	5
BS-H1-K-76 FT	70-76	25	82	40	M8	2.5	115	58	5
BS-H1-K-82 FT	76-82	25	88	40	M8	2.5	122	58	5
BS-H1-K-100 FT	90-100	27	107	40	M8	3	143	58	5

Dimensions



Industrieinstallation - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

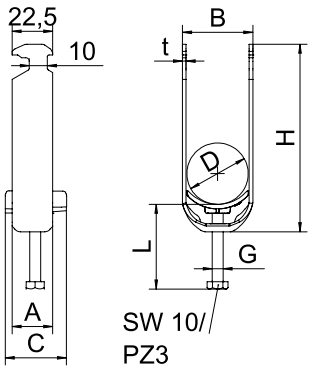
Clamp clip 2056 H-foot, 2-fold, plastic pressure sleeve



Type	Clamping range D mm	Pack Piece	Weight kg/100 pc.	Item no.
BS-H2-K-12 FT	8-12	50	4.100	**1186203**
BS-H2-K-16 FT	12-16	50	4.650	**1186210**
BS-H2-K-22 FT	16-22	50	5.120	**1186217**
BS-H2-K-28 FT	22-28	50	7.700	**1186223**
BS-H2-K-34 FT	28-34	50	10.200	**1186230**
BS-H2-K-40 FT	34-40	50	11.450	**1186237**
BS-H2-K-46 FT	40-46	50	14.900	**1186243**
BS-H2-K-52 FT	46-52	50	11.900	**1186250**
BS-H2-K-58 FT	52-58	50	21.400	**1186257**
BS-H2-K-64 FT	58-64	50	24.250	**1186263**

Clamp clip with hammerhead foot, plastic pressure sleeve made of polypropylene. For vertical and horizontal mounting of 2 single cables on a C-profile rail. For a slot width 16–17 mm. With 1-start screw thread on pressure sleeve, universal hexagonal screw head WAF10, with slot and cross recess. Suitable for assembly indoors and outdoors. Multiple cables should be separated by double sleeves. We recommend the use of a counter-sleeve.

Dimensions



Type	Clamping range D mm	Dim. A mm	Dim. B mm	Dim. C mm	Dim. G	Dim. t mm	Dim. H mm	Dim. L mm	Max. torque Nm
BS-H2-K-12 FT	8-12	22.5	17	34	M6	1.5	55	35	3
BS-H2-K-16 FT	12-16	22.5	20	34	M6	1.5	63	35	3
BS-H2-K-22 FT	16-22	22.5	27	34	M6	1.5	77	35	3
BS-H2-K-28 FT	22-28	22.5	33	34	M6	2	91	35	3
BS-H2-K-34 FT	28-34	22.5	39	34	M6	2	104	47	3
BS-H2-K-40 FT	34-40	22.5	45	34	M6	2	118	47	3
BS-H2-K-46 FT	40-46	25	51	40	M8	2	132	57	5
BS-H2-K-52 FT	46-52	25	57	40	M8	2	146	57	5
BS-H2-K-58 FT	52-58	25	64	40	M8	2.5	159	57	5
BS-H2-K-64 FT	58-64	25	70	40	M8	2.5	172	58	5

St FT

16-17 H

Clamp clip 2056 H-foot, 3-fold, plastic pressure sleeve

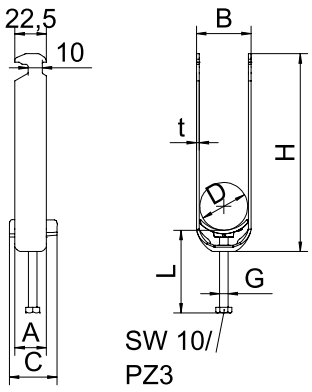
Type	Clamping range D mm	Pack Piece	Weight kg/100 pc.	Item no.
BS-H3-K-12 FT	8-12	50	4.900	**1186204**
BS-H3-K-16 FT	12-16	50	6.200	**1186211**
BS-H3-K-22 FT	16-22	50	7.100	**1186218**
BS-H3-K-28 FT	22-28	50	10.650	**1186224**
BS-H3-K-34 FT	28-34	50	13.100	**1186231**
BS-H3-K-40 FT	34-40	50	14.350	**1186238**
BS-H3-K-46 FT	40-46	25	19.800	**1186244**



Clamp clip with hammerhead foot, plastic pressure sleeve made of polypropylene. For vertical and horizontal mounting of 3 single cables on a C-profile rail. For a slot width 16–17 mm. With 1-start screw thread on pressure sleeve, universal hexagonal screw head WAF10, with slot and cross recess. Suitable for assembly indoors and outdoors. Multiple cables should be separated by double sleeves. We recommend the use of a counter-sleeve.

Type	Clamping range D mm	Dim. A mm	Dim. B mm	Dim. C mm	Dim. G	Dim. t mm	Dim. H mm	Dim. L mm	Max. torque Nm
BS-H3-K-12 FT	8-12	22.5	17	34	M6	1.5	68	47	3
BS-H3-K-16 FT	12-16	22.5	20	34	M6	1.5	81	35	3
BS-H3-K-22 FT	16-22	22.5	27	34	M6	1.5	101	35	3
BS-H3-K-28 FT	22-28	22.5	33	34	M6	2	121	35	3
BS-H3-K-34 FT	28-34	22.5	39	34	M6	2	141	47	3
BS-H3-K-40 FT	34-40	22.5	45	34	M6	2	161	59	3
BS-H3-K-46 FT	40-46	25	51	40	M8	2	182	72	5

Dimensions



Industrieinstallation - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

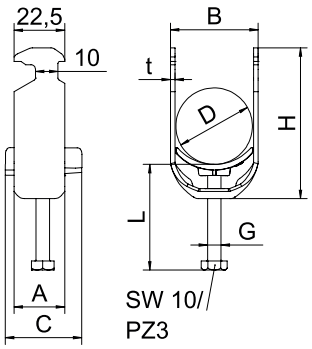
Clamp clip 2056 H-foot, 1-fold, plastic pressure sleeve



Type	Clamping range D mm	Pack Piece	Weight kg/100 pc.	Item no.
BS-H1-K-12 A2	8-12	50	3.300	**1186302**
BS-H1-K-16 A2	12-16	50	3.600	**1186309**
BS-H1-K-22 A2	16-22	50	4.200	**1186316**
BS-H1-K-28 A2	22-28	50	6.500	**1186322**
BS-H1-K-34 A2	28-34	50	7.400	**1186329**
BS-H1-K-40 A2	34-40	25	8.000	**1186336**
BS-H1-K-46 A2	40-46	25	10.900	**1186342**
BS-H1-K-52 A2	46-52	25	11.400	**1186349**
BS-H1-K-58 A2	52-58	25	14.500	**1186356**
BS-H1-K-64 A2	58-64	15	15.600	**1186362**
BS-H1-K-70 A2	64-70	15	18.200	**1186369**
BS-H1-K-76 A2	70-76	10	20.800	**1186376**

Clamp clip with hammerhead foot, plastic pressure sleeve made of polypropylene. For vertical and horizontal mounting of 1 single cable on a C-profile rail. For a slot width 16–17 mm. With 1-start screw thread on pressure sleeve, universal hexagonal screw head WAF10, with slot and cross recess. Suitable for assembly indoors and outdoors. We recommend the use of a counter-sleeve.

Dimensions



Type	Clamping range D mm	Dim. A mm	Dim. B mm	Dim. C mm	Dim. G	Dim. t mm	Dim. H mm	Dim. L mm	Max. torque Nm
BS-H1-K-12 A2	8-12	22.5	17	34	M6	1.5	42	35	3
BS-H1-K-16 A2	12-16	22.5	20	34	M6	1.5	46	35	3
BS-H1-K-22 A2	16-22	22.5	27	34	M6	1.5	52	35	3
BS-H1-K-28 A2	22-28	22.5	33	34	M6	2	59	35	3
BS-H1-K-34 A2	28-34	22.5	39	34	M6	2	67	47	3
BS-H1-K-40 A2	34-40	22.5	45	34	M6	2	75	47	3
BS-H1-K-46 A2	40-46	25	51	40	M8	2	82	45	5
BS-H1-K-52 A2	46-52	25	51	40	M8	2	89	46	5
BS-H1-K-58 A2	52-58	25	64	40	M8	2.5	96	46	5
BS-H1-K-64 A2	58-64	25	70	40	M8	2.5	102	45	5
BS-H1-K-70 A2	64-70	25	76	40	M8	2.5	109	46	5
BS-H1-K-76 A2	70-76	25	82	40	M8	2.5	115	58	5

A2 2B

16-17 H

Clamp clip 2056 H-foot, 2-fold, plastic pressure sleeve

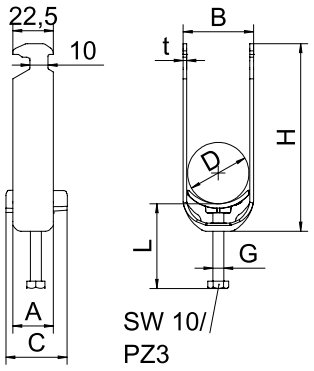
Type	Clamping range D mm		Pack Piece	Weight kg/100 pc.	Item no.
BS-H2-K-16 A2	12-16		50	4.650	**1186310**
BS-H2-K-22 A2	16-22		50	5.150	**1186317**
BS-H2-K-28 A2	16-22		50	7.700	**1186323**
BS-H2-K-34 A2	28-34		50	10.200	**1186330**
BS-H2-K-40 A2	34-40		25	14.350	**1186337**
BS-H2-K-46 A2	40-46		25	14.950	**1186343**
BS-H2-K-52 A2	46-52		25	16.700	**1186350**
BS-H2-K-58 A2	52-58		25	21.400	**1186357**
BS-H2-K-64 A2	58-64		15	24.250	**1186363**



Clamp clip with hammerhead foot, plastic pressure sleeve made of polypropylene. For vertical and horizontal mounting of 2 single cables on a C-profile rail. For a slot width 16–17 mm. With 1-start screw thread on pressure sleeve, universal hexagonal screw head WAF10, with slot and cross recess. Suitable for assembly indoors and outdoors. Multiple cables should be separated by double sleeves. We recommend the use of a counter-sleeve.

Type	Clamping range D mm	Dim. A mm	Dim. B mm	Dim. C mm	Dim. G	Dim. t mm	Dim. H mm	Dim. L mm	Max. torque Nm
BS-H2-K-16 A2	12-16	22.5	20	34	M6	1.5	63	35	3
BS-H2-K-22 A2	16-22	22.5	27	34	M6	1.5	77	35	3
BS-H2-K-28 A2	16-22	22.5	33	34	M6	2	91	35	3
BS-H2-K-34 A2	28-34	22.5	39	34	M6	2	104	47	3
BS-H2-K-40 A2	34-40	22.5	45	34	M6	2	118	47	3
BS-H2-K-46 A2	40-46	25	51	40	M8	2	132	57	5
BS-H2-K-52 A2	46-52	25	57	40	M8	2	146	57	5
BS-H2-K-58 A2	52-58	25	64	40	M8	2.5	159	57	5
BS-H2-K-64 A2	58-64	25	70	40	M8	2.5	172	58	5

Dimensions



Industrieinstallation - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

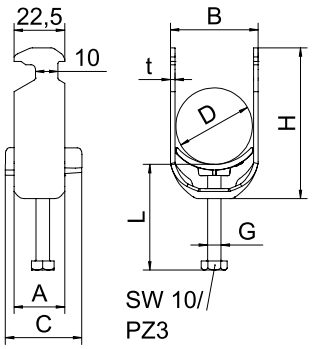
Clamp clip 2056 H-foot, 1-fold, plastic pressure sleeve



Type	Clamping range D mm	Pack Piece	Weight kg/100 pc.	Item no.
BS-H1-K-12 ALU	8-12	100	0.750	**1186402**
BS-H1-K-16 ALU	12-16	100	0.900	**1186409**
BS-H1-K-22 ALU	16-22	100	1.050	**1186416**
BS-H1-K-28 ALU	22-28	100	1.500	**1186422**
BS-H1-K-34 ALU	28-34	100	2.300	**1186429**
BS-H1-K-40 ALU	34-40	100	2.700	**1186436**
BS-H1-K-46 ALU	40-46	100	3.600	**1186442**
BS-H1-K-52 ALU	46-52	100	3.900	**1186449**
BS-H1-K-58 ALU	52-58	50	4.200	**1186456**
BS-H1-K-64 ALU	58-64	50	4.500	**1186462**
BS-H1-K-70 ALU	64-70	50	5.400	**1186469**
BS-H1-K-76 ALU	70-76	25	5.850	**1186476**

Clamp clip with hammerhead foot, plastic pressure sleeve made of polypropylene. For vertical and horizontal mounting of 1 single cable on a C-profile rail. For a slot width 16–17 mm. With 1-start screw thread on pressure sleeve, universal hexagonal screw head WAF10, with slot and cross recess. Suitable for assembly indoors and outdoors. We recommend the use of a counter-sleeve.

Dimensions



Type	Clamping range D mm	Dim. A mm	Dim. B mm	Dim. C mm	Dim. G	Dim. t mm	Dim. H mm	Dim. L mm	Max. torque Nm
BS-H1-K-12 ALU	8-12	22.5	17	34	M6	1.5	42	35	2
BS-H1-K-16 ALU	12-16	22.5	20	34	M6	1.5	46	35	2
BS-H1-K-22 ALU	16-22	22.5	27	34	M6	1.5	52	35	2
BS-H1-K-28 ALU	22-28	22.5	33	34	M6	2	59	35	2
BS-H1-K-34 ALU	28-34	22.5	39	34	M6	2	67	47	2
BS-H1-K-40 ALU	34-40	22.5	45	34	M6	2	74	47	2
BS-H1-K-46 ALU	40-46	25	51	40	M8	2	82	45	2
BS-H1-K-52 ALU	46-52	25	57	40	M8	2	89	46	2
BS-H1-K-58 ALU	52-58	25	64	40	M8	2.5	96	46	2
BS-H1-K-64 ALU	58-64	25	70	40	M8	2.5	102	45	2
BS-H1-K-70 ALU	64-70	25	76	40	M8	2.5	109	46	2
BS-H1-K-76 ALU	70-76	25	82	40	M8	2.5	115	58	2

Alu

Clamp clip 2056 H-foot, 2-fold, plastic pressure sleeve

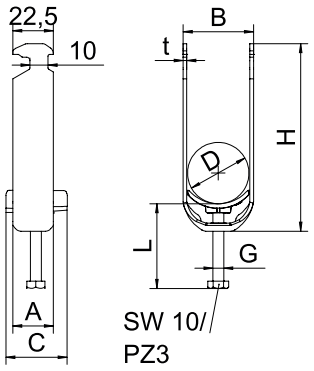
Type	Clamping range D mm	Pack Piece	Weight kg/100 pc.	Item no.
BS-H2-K-12 ALU	8-12	50	1.000	**1186403**
BS-H2-K-16 ALU	12-16	50	1.250	**1186410**
BS-H2-K-22 ALU	16-22	50	1.500	**1186417**
BS-H2-K-28 ALU	22-28	50	2.000	**1186423**
BS-H2-K-34 ALU	28-34	50	3.200	**1186430**
BS-H2-K-40 ALU	34-40	50	3.750	**1186437**
BS-H2-K-46 ALU	40-46	50	4.850	**1186443**
BS-H2-K-52 ALU	46-52	50	5.300	**1186450**
BS-H2-K-58 ALU	52-58	50	6.000	**1186457**



Clamp clip with hammerhead foot, plastic pressure sleeve made of polypropylene. For vertical and horizontal mounting of 2 single cables on a C-profile rail. For a slot width 16–17 mm. With 1-start screw thread on pressure sleeve, universal hexagonal screw head WAF10, with slot and cross recess. Suitable for assembly indoors and outdoors. Multiple cables should be separated by double sleeves. We recommend the use of a counter-sleeve.

Type	Clamping range D mm	Dim. A mm	Dim. B mm	Dim. C mm	Dim. G	Dim. t mm	Dim. H mm	Dim. L mm	Max. torque Nm
BS-H2-K-12 ALU	8-12	22.5	17	34	M6	1.5	55	35	2
BS-H2-K-16 ALU	12-16	22.5	20	34	M6	1.5	63	35	2
BS-H2-K-22 ALU	16-22	22.5	27	34	M6	1.5	77	35	2
BS-H2-K-28 ALU	22-28	22.5	33	34	M6	2	91	35	2
BS-H2-K-34 ALU	28-34	22.5	36	34	M6	2	104	47	2
BS-H2-K-40 ALU	34-40	22.5	45	34	M6	2	118	47	2
BS-H2-K-46 ALU	40-46	25	51	40	M8	2	132	57	2
BS-H2-K-52 ALU	46-52	25	57	40	M8	2	89	57	2
BS-H2-K-58 ALU	52-58	25	64	40	M8	2.5	159	57	2

Dimensions



Alu

Clamp clip 2056 H-foot, 3-fold, plastic pressure sleeve

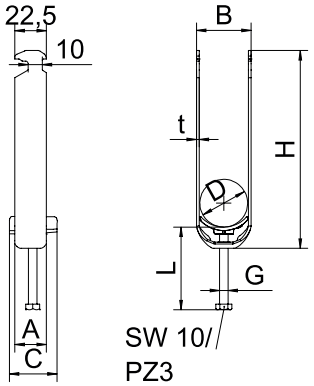
Type	Clamping range D mm	Pack Piece	Weight kg/100 pc.	Item no.
BS-H3-K-22 ALU	16-22	50	2.050	**1186418**
BS-H3-K-28 ALU	22-28	50	2.900	**1186424**
BS-H3-K-34 ALU	28-34	50	4.200	**1186431**



Clamp clip with hammerhead foot, plastic pressure sleeve made of polypropylene. For vertical and horizontal mounting of 3 single cables on a C-profile rail. For a slot width 16–17 mm. With 1-start screw thread on pressure sleeve, universal hexagonal screw head WAF10, with slot and cross recess. Suitable for assembly indoors and outdoors. Multiple cables should be separated by double sleeves. We recommend the use of a counter-sleeve.

Type	Clamping range D mm	Dim. A mm	Dim. B mm	Dim. C mm	Dim. G	Dim. t mm	Dim. H mm	Dim. L mm	Max. torque Nm
BS-H3-K-22 ALU	16-22	22.5	27	34	M6	1.5	101	35	2
BS-H3-K-28 ALU	22-28	22.5	33	34	M6	2	121	35	2
BS-H3-K-34 ALU	28-34	22.5	39	34	M6	2	141	47	2

Dimensions

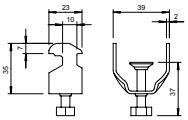


Industrieinstallation - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Clamp clip H-foot

Clamp clip, fastening earthing strips





Type	For rail with slot width mm	Max. torque Nm	Pack Piece	Weight kg/100 pc.	Item no.
2056 BE FT	16-17	5	25	4.700	**1174053**

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

Clamp clip F-foot

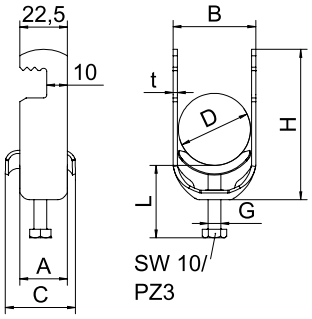
Clamp clip 2056 F-foot, 1-fold, metal pressure sleeve



Type	Clamping range D mm	Pack Piece	Weight kg/100 pc.	Item no.
BS-F1-M-12 FT	8-12	100	3.700	**1187402**
BS-F1-M-16 FT	12-16	100	3.900	**1187408**
BS-F1-M-22 FT	16-22	100	4.550	**1187414**
BS-F1-M-28 FT	22-28	100	6.000	**1187420**
BS-F1-M-34 FT	28-34	100	8.000	**1187426**

Clamp clip with F-foot, metal pressure sleeve with rounded edges to protect the cable. For vertical and horizontal mounting of 1 single cable on flat bars. With 1-start screw thread on pressure sleeve, universal hexagonal screw head WAF10, with slot and cross recess. Suitable for assembly indoors and outdoors. We recommend the use of a counter-sleeve.

Dimensions



Type	Clamping range D mm	Dim. A mm	Dim. B mm	Dim. C mm	Dim. G	Dim. t mm	Dim. H mm	Dim. L mm	Max. torque Nm
BS-F1-M-12 FT	8-12	22.5	17	28	M6	1.5	47	34	3
BS-F1-M-16 FT	12-16	22.5	20	28	M6	1.5	51	34	3
BS-F1-M-22 FT	16-22	22.5	27	28	M6	1.5	58	34	3
BS-F1-M-28 FT	22-28	22.5	33	28	M6	2	64	34	3
BS-F1-M-34 FT	28-34	22.5	39	34	M6	2	71	34	3

A2 2B

Clamp clip 2056 F-foot, 1-fold, metal pressure sleeve

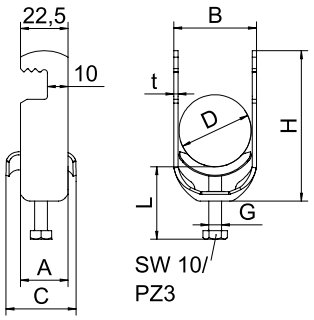
Type	Clamping range D mm		Pack Piece	Weight kg/100 pc.	Item no.
BS-F1-M-28 A2	22-28		100	6.000	**1187520**
BS-F1-M-34 A2	28-34		100	8.000	**1187526**
BS-F1-M-40 A2	34-40		100	8.500	**1187532**

Clamp clip with F-foot, metal pressure sleeve with rounded edges to protect the cable. For vertical and horizontal mounting of 1 single cable on flat bars. With 1-start screw thread on pressure sleeve, universal hexagonal screw head WAF10, with slot and cross recess. Suitable for assembly indoors and outdoors. We recommend the use of a counter-sleeve.



Type	Clamping range D mm	Dim. A mm	Dim. B mm	Dim. C mm	Dim. G	Dim. t mm	Dim. H mm	Dim. L mm	Max. torque Nm
BS-F1-M-28 A2	22-28	22.5	33	28	M6	2	64	34	3
BS-F1-M-34 A2	28-34	22.5	39	33	M6	2	71	34	3
BS-F1-M-40 A2	34-40	22.5	45	33	M6	2	77	34	3

Dimensions



St FT

Clamp clip 2056 F-foot, 1-fold, plastic pressure sleeve

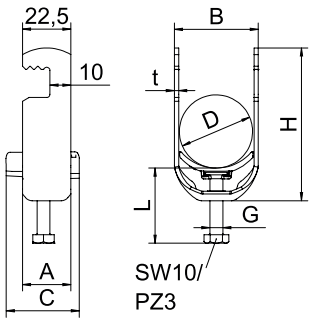
Type	Clamping range D mm		Pack Piece	Weight kg/100 pc.	Item no.
BS-F1-K-12 FT	8-12		100	3.700	**1187602**
BS-F1-K-16 FT	12-16		100	3.900	**1187608**
BS-F1-K-22 FT	16-22		100	4.500	**1187614**
BS-F1-K-28 FT	22-28		100	6.000	**1187620**
BS-F1-K-34 FT	28-34		100	8.740	**1187626**
BS-F1-K-40 FT	34-40		100	8.500	**1187632**
BS-F1-K-46 FT	40-46		100	10.600	**1187638**
BS-F1-K-52 FT	46-52		100	11.700	**1187644**
BS-F1-K-58 FT	52-58		50	13.050	**1187650**
BS-F1-K-64 FT	58-64		50	14.800	**1187656**

Clamp clip with F-foot, plastic pressure sleeve made of polypropylene. For vertical and horizontal mounting of 1 single cable on flat bars. With 1-start screw thread on pressure sleeve, universal hexagonal screw head WAF10, with slot and cross recess. Suitable for assembly indoors and outdoors. We recommend the use of a counter-sleeve.



Type	Clamping range D mm	Dim. A mm	Dim. B mm	Dim. C mm	Dim. G	Dim. t mm	Dim. H mm	Dim. L mm	Max. torque Nm
BS-F1-K-12 FT	8-12	22.5	17	34	M6	1.5	47	35	3
BS-F1-K-16 FT	12-16	22.5	20	34	M6	1.5	51	35	3
BS-F1-K-22 FT	16-22	22.5	27	34	M6	1.5	58	35	3
BS-F1-K-28 FT	22-28	22.5	33	34	M6	2	64	35	3
BS-F1-K-34 FT	28-34	22.5	39	34	M6	2	71	35	3
BS-F1-K-40 FT	34-40	22.5	45	34	M6	2	77	35	3
BS-F1-K-46 FT	40-46	25	51	40	M8	2	83	45	5
BS-F1-K-52 FT	46-52	25	57	40	M8	2	90	35	5
BS-F1-K-58 FT	52-58	25	64	40	M8	2.5	96	45	5
BS-F1-K-64 FT	58-64	25	70	40	M8	2.5	102	45	5

Dimensions



Industrieinstallation - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

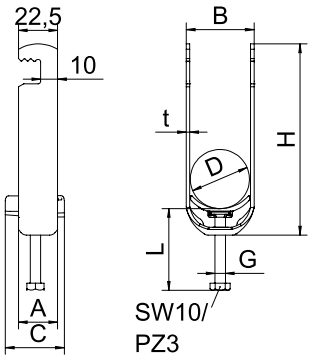
Clamp clip 2056 F-foot, 2-fold, plastic pressure sleeve



Type	Clamping range D mm	Pack Piece	Weight kg/100 pc.	Item no.
BS-F2-K-12 FT	8-12	50	4.250	**1187603**
BS-F2-K-16 FT	12-16	50	4.550	**1187609**
BS-F2-K-22 FT	16-22	50	5.200	**1187615**
BS-F2-K-28 FT	22-28	50	7.900	**1187621**
BS-F2-K-34 FT	28-34	50	9.900	**1187627**
BS-F2-K-40 FT	34-40	50	10.672	**1187633**
BS-F2-K-46 FT	40-46	50	12.050	**1187639**
BS-F2-K-52 FT	46-52	50	16.600	**1187645**

Clamp clip with F-foot, plastic pressure sleeve made of polypropylene. For vertical and horizontal mounting of 2 single cables on flat bars. With 1-start screw thread on pressure sleeve, universal hexagonal screw head WAF10, with slot and cross recess. Suitable for assembly indoors and outdoors. Multiple cables should be separated by double sleeves. We recommend the use of a counter-sleeve.

Dimensions



Type	Clamping range D mm	Dim. A mm	Dim. B mm	Dim. C mm	Dim. G	Dim. t mm	Dim. H mm	Dim. L mm	Max. torque Nm
BS-F2-K-12 FT	8-12	22.5	17	34	M6	1.5	64	34	3
BS-F2-K-16 FT	12-16	22.5	20	34	M6	1.5	72	35	3
BS-F2-K-22 FT	16-22	22.5	27	34	M6	1.5	85	45	3
BS-F2-K-28 FT	22-28	22.5	33	34	M6	2	97	47	3
BS-F2-K-34 FT	28-34	22.5	39	34	M6	2	110	47	3
BS-F2-K-40 FT	34-40	22.5	45	34	M6	2	123	47	3
BS-F2-K-46 FT	40-46	25	51	40	M8	2	135	45	5
BS-F2-K-52 FT	46-52	25	57	40	M8	2	148	45	5

St FT

Clamp clip 2056 W-foot, 1-fold, plastic pressure sleeve

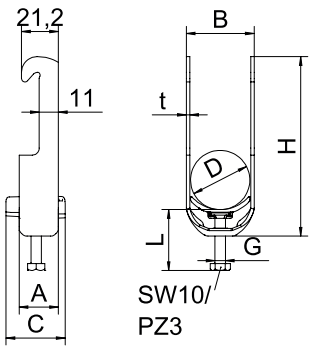
Type	Clamping range D mm	Pack Piece	Weight kg/100 pc.	Item no.
BS-W1-K-12 FT	8-12	100	4.450	**1187702**
BS-W1-K-16 FT	12-16	100	4.890	**1187708**
BS-W1-K-22 FT	16-22	100	5.700	**1187714**
BS-W1-K-28 FT	22-28	100	7.800	**1187720**
BS-W1-K-34 FT	28-34	100	9.400	**1187726**
BS-W1-K-40 FT	34-40	100	10.000	**1187732**
BS-W1-K-46 FT	40-46	100	12.800	**1187738**
BS-W1-K-52 FT	46-52	100	13.600	**1187744**
BS-W1-K-58 FT	52-58	50	17.100	**1187750**
BS-W1-K-64 FT	58-64	50	18.600	**1187756**
BS-W1-K-70 FT	64-70	50	18.500	**1187762**



Clamp clip with W-foot, plastic pressure sleeve made of polypropylene. For vertical and horizontal mounting of 1 single cable on angle irons < 40 mm. With 1-start screw thread on pressure sleeve, universal hexagonal screw head WAF10, with slot and cross recess. Suitable for assembly indoors and outdoors. We recommend the use of a counter-sleeve.

Type	Clamping range D mm	Dim. A mm	Dim. B mm	Dim. C mm	Dim. G	Dim. t mm	Dim. H mm	Dim. L mm	Max. torque Nm
BS-W1-K-12 FT	8-12	22.5	17	34	M6	1.5	80	35	3
BS-W1-K-16 FT	12-16	22.5	20	34	M6	1.5	84	35	3
BS-W1-K-22 FT	16-22	22.5	27	34	M6	1.5	91	35	3
BS-W1-K-28 FT	22-28	22.5	33	34	M6	2	97	35	3
BS-W1-K-34 FT	28-34	22.5	39	34	M6	2	103	35	3
BS-W1-K-40 FT	34-40	22.5	45	34	M6	2	109	35	3
BS-W1-K-46 FT	40-46	25	51	40	M8	2	115	45	5
BS-W1-K-52 FT	46-52	25	57	40	M8	2	122	45	5
BS-W1-K-58 FT	52-58	25	64	40	M8	2.5	128	45	5
BS-W1-K-64 FT	58-64	25	70	40	M8	2.5	134	45	5
BS-W1-K-70 FT	64-70	25	76	40	M8	2.5	140	46	5

Dimensions



Industrieinstallation - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

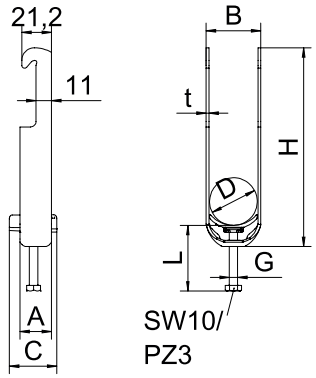
Clamp clip 2056 W-foot, 2-fold, plastic pressure sleeve



Type	Clamping range D mm	Pack Piece	Weight kg/100 pc.	Item no.
BS-W2-K-16 FT	12-16	50	7.050	**1187709**
BS-W2-K-22 FT	16-22	50	7.050	**1187715**
BS-W2-K-28 FT	22-28	50	10.350	**1187721**
BS-W2-K-34 FT	28-34	50	11.600	**1187727**
BS-W2-K-40 FT	34-40	25	12.700	**1187733**
BS-W2-K-46 FT	40-46	25	16.750	**1187739**
BS-W2-K-52 FT	46-52	25	18.200	**1187745**
BS-W2-K-58 FT	52-58	25	23.000	**1187751**

Clamp clip with W-foot, plastic pressure sleeve made of polypropylene. For vertical and horizontal mounting of 2 single cables on angle irons < 40 mm. With 1-start screw thread on pressure sleeve, universal hexagonal screw head WAF10, with slot and cross recess. Suitable for assembly indoors and outdoors. Multiple cables should be separated by double sleeves. We recommend the use of a counter-sleeve.

Dimensions



Type	Clamping range D mm	Dim. A mm	Dim. B mm	Dim. C mm	Dim. G	Dim. t mm	Dim. H mm	Dim. L mm	Max. torque Nm
BS-W2-K-16 FT	12-16	22.5	20	34	M6	1.5	105	35	3
BS-W2-K-22 FT	16-22	22.5	27	34	M6	1.5	118	47	3
BS-W2-K-28 FT	22-28	22.5	33	34	M6	2	130	47	3
BS-W2-K-34 FT	28-34	22.5	39	34	M6	2	142	47	3
BS-W2-K-40 FT	34-40	22.5	45	34	M6	2	155	47	3
BS-W2-K-46 FT	40-46	25	51	40	M8	2	167	45	5
BS-W2-K-52 FT	46-52	25	57	40	M8	2	180	45	5
BS-W2-K-58 FT	52-58	25	64	40	M8	2.5	192	45	5

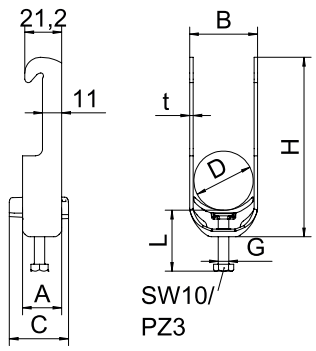
Clamp clip 2056 W-foot, 1-fold, plastic pressure sleeve



Type	Clamping range D mm	Pack Piece	Weight kg/100 pc.	Item no.
BS-W1-K-22 A2	16-22	50	5.700	**1187814**
BS-W1-K-28 A2	22-28	50	7.800	**1187820**
BS-W1-K-34 A2	28-34	50	9.400	**1187826**
BS-W1-K-40 A2	34-40	25	10.000	**1187832**
BS-W1-K-46 A2	40-46	25	12.800	**1187838**
BS-W1-K-52 A2	46-52	25	13.600	**1187844**
BS-W1-K-58 A2	52-58	25	17.100	**1187850**

Clamp clip with W-foot, plastic pressure sleeve made of polypropylene. For vertical and horizontal mounting of 1 single cable on angle irons < 40 mm. With 1-start screw thread on pressure sleeve, universal hexagonal screw head WAF10, with slot and cross recess. Suitable for assembly indoors and outdoors. We recommend the use of a counter-sleeve.

Dimensions



Type	Clamping range D mm	Dim. A mm	Dim. B mm	Dim. C mm	Dim. G	Dim. t mm	Dim. H mm	Dim. L mm	Max. torque Nm
BS-W1-K-22 A2	16-22	22.5	27	34	M6	1.5	91	35	3
BS-W1-K-28 A2	22-28	22.5	33	34	M6	2	97	35	3
BS-W1-K-34 A2	28-34	22.5	39	34	M6	2	103	35	3
BS-W1-K-40 A2	34-40	22.5	45	34	M6	2	109	35	3
BS-W1-K-46 A2	40-46	25	51	40	M8	2	115	45	5
BS-W1-K-52 A2	46-52	25	57	40	M8	2	122	45	5
BS-W1-K-58 A2	52-58	25	64	40	M8	2.5	128	45	5

Alu

Clamp clip 2056 W-foot, 1-fold, plastic pressure sleeve

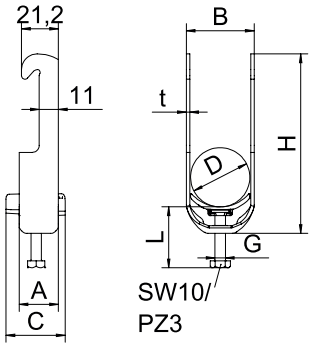
Type	Clamping range D mm	Pack Piece	Weight kg/100 pc.	Item no.
BS-W1-K-22 ALU	16-22	50	1.900	**1187914**
BS-W1-K-28 ALU	22-28	50	2.550	**1187920**
BS-W1-K-34 ALU	28-34	50	3.200	**1187926**
BS-W1-K-40 ALU	34-40	50	3.500	**1187932**
BS-W1-K-46 ALU	40-46	50	4.550	**1187938**
BS-W1-K-52 ALU	46-52	50	4.800	**1187944**
BS-W1-K-58 ALU	52-58	50	5.850	**1187950**
BS-W1-K-64 ALU	58-64	50	6.450	**1187956**



Clamp clip with W-foot, plastic pressure sleeve made of polypropylene. For vertical and horizontal mounting of 1 single cable on angle irons < 40 mm. With 1-start screw thread on pressure sleeve, universal hexagonal screw head WAF10, with slot and cross recess. Suitable for assembly indoors and outdoors. We recommend the use of a counter-sleeve.

Type	Clamping range D mm	Dim. A mm	Dim. B mm	Dim. C mm	Dim. G	Dim. t mm	Dim. H mm	Dim. L mm	Max. torque Nm
BS-W1-K-22 ALU	16-22	22.5	27	34	M6	1.5	91	35	3
BS-W1-K-28 ALU	22-28	22.5	33	34	M6	2	97	35	3
BS-W1-K-34 ALU	28-34	22.5	39	34	M6	2	103	35	3
BS-W1-K-40 ALU	34-40	22.5	45	34	M6	2	109	35	3
BS-W1-K-46 ALU	40-46	25	51	40	M8	2	115	45	5
BS-W1-K-52 ALU	46-52	25	57	40	M8	2	122	45	5
BS-W1-K-58 ALU	52-58	25	64	40	M8	2.5	128	45	5
BS-W1-K-64 ALU	58-64	25	70	40	M8	2.5	134	45	5

Dimensions



A2 2B

Clamp clip 2056 W-foot, 1-fold, metal pressure sleeve

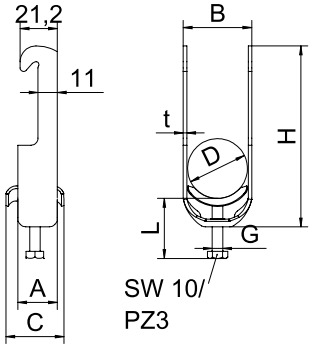
Type	Clamping range D mm	Pack Piece	Weight kg/100 pc.	Item no.
BS-W1-M-28 A2	22-28	100	7.800	**1188020**
BS-W1-M-34 A2	28-34	100	9.400	**1188026**
BS-W1-M-40 A2	34-40	100	10.000	**1188032**



Clamp clip with W-foot, metal pressure sleeve with rounded edges to protect the cable. For vertical and horizontal mounting of 1 single cable on angle irons < 40 mm. With 1-start screw thread on pressure sleeve, universal hexagonal screw head WAF10, with slot and cross recess. Suitable for assembly indoors and outdoors. We recommend the use of a counter-sleeve.

Type	Clamping range D mm	Dim. A mm	Dim. B mm	Dim. C mm	Dim. G	Dim. t mm	Dim. H mm	Dim. L mm	Max. torque Nm
BS-W1-M-28 A2	22-28	22.5	33	28	M6	2	97	34	3
BS-W1-M-34 A2	28-34	22.5	39	34	M6	2	103	34	3
BS-W1-M-40 A2	34-40	22.5	45	33	M6	2	109	34	3

Dimensions

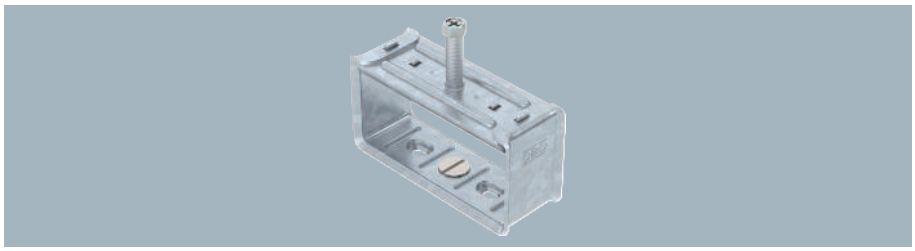


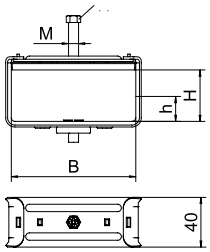
Industrieinstallltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Bundle clip

St FT

16-17





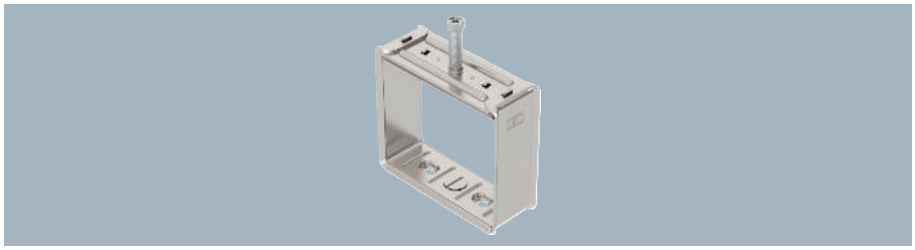
Type	Height x Width mm	Dim. h mm	Dim. H mm	Dim. B mm	Pack Piece	Weight kg/100 pc.	Item no.
2056 B 35 FT	35 x 50	20	35	50	100	16.000	**1194054**
2056 B 40 FT	40 x 100	15	40	100	50	32.700	**1194046**
2056 B 80 FT	80 x 100	55	80	100	25	38.300	**1194089**

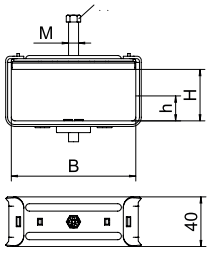
Clip and bolt made of hot-dip galvanised steel, countersunk head bolt made of rustproof stainless steel, slide nut made of electrogalvanised stainless steel.

Bundle clip

A2 2B

16-17





Type	Height x Width mm	Dim. h mm	Dim. H mm	Dim. B mm	Pack Piece	Weight kg/100 pc.	Item no.
2056 B 80 A2	80 x 100	55	80	100	25	38.300	**1194372**

Clip and bolt made of hot-dip galvanised steel, countersunk head bolt made of rustproof stainless steel, slide nut made of electrogalvanised stainless steel.

St FT

16-17 H

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

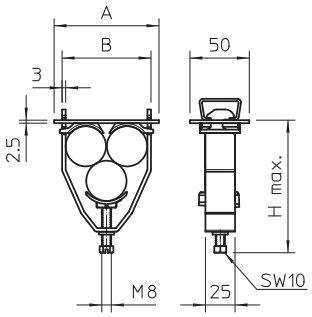
Type	Clamping range D mm	Pack Piece	Weight kg/100 pc.	Item no.
2056 E 31 FT	28-31	25	19.500	**1174606**
2056 E 37 FT	34-37	25	24.600	**1174614**
2056 E 44 FT	40-44	25	28.300	**1174630**

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.



Type	Clamping range D mm	Dim. A mm	Dim. B mm	Dim. H mm	Max. 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

Dimensions



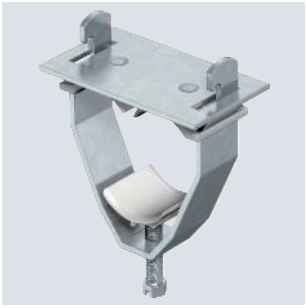
St FT

18 22 U

Clamp clip, U base, 3x single-wire connection

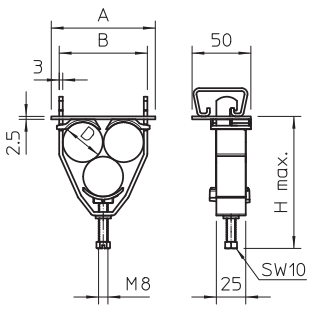
Type	Clamping range D mm	Pack Piece	Weight kg/100 pc.	Item no.
2056U-E28 FT	25-28	25	20.000	**1174509**
2056U-E31 FT	28-31	25	19.500	**1174541**
2056U-E34 FT	31-34	25	23.000	**1174517**
2056U-E37 FT	34-37	25	24.600	**1174568**
2056U-E40 FT	37-40	25	26.000	**1174525**
2056U-E44 FT	40-44	25	28.300	**1174576**

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.



Type	Clamping range D mm	Dim. A mm	Dim. B mm	Dim. H mm	Max. 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

Dimensions



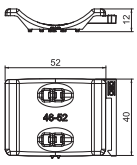
Industrieinstallation - Befestigungsmaterial / en / 2023/07/13 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Universal counter-trough, plastic

PP

11-12 16-17 18 22





Type	Clamping range D mm	Dim. L mm	Dim. B mm	Dim. H mm	Colour	Shipping box Piece	Pack Piece	Item no.
2058UW 12 LGR	8-12	37	18.5	5.8	Light grey	1500	100	**1198012**
2058UW 16 LGR	12-16	37	21.5	5.8	Light grey	1600	100	**1198016**
2058UW 22 LGR	16-22	37	27.5	6.8	Light grey	1500	100	**1198022**
2058UW 28 LGR	22-28	37	33.5	8.3	Light grey	1200	100	**1198028**
2058UW 34 LGR	28-34	37	45.5	9.8	Light grey	1200	100	**1198034**
2058UW 40 LGR	34-40	37	45.5	10.8	Light grey	600	50	**1198040**
2058UW 46 LGR	40-46	40	51.5	11.8	Light grey	600	50	**1198046**
2058UW 52 LGR	46-52	40	57.5	11.8	Light grey	600	50	**1198052**
2058UW 58 LGR	52-58	40	63.5	11.8	Light grey	600	50	**1198058**
2058UW 64 LGR	58-64	40	69.5	11.8	Light grey	600	50	**1198064**
2058UW 70 LGR	64-70	40	75.5	12.3	Light grey	300	25	**1198070**
2058UW 76 LGR	70-76	40	81.5	12.3	Light grey	300	25	**1198076**
2058UW 82 LGR	76-82	40	87.5	12.3	Light grey	300	25	**1198082**
2058UW 90 LGR	82-90	40	96	12.8	Light grey	300	25	**1198090**
2058UW 100 LGR	90-100	40	106	12.8	Light grey	300	25	**1198100**

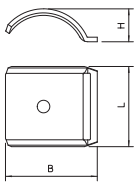
Regardless of the type of rail, the counter-trough can be used by applying it onto one side of the clamp clip. Due to an intelligent contour on the backside, the counter-trough can be combined to a double trough. Retrofitting possible without the need to dismantle.

Counter-trough, metal, universal

St A2 DD 2B

11-12 16-17 18 22





Type	Clamping range D mm	Dim. L mm	Dim. B mm	Dim. H mm	Pack Piece	Weight kg/100 pc.	Item no.
2058FW M 12 DD	8-12	35	17.5	6.5	100	0.940	**1199846**
2058FW M 16 DD	12-16	35	21.5	7.7	100	1.100	**1199854**
2058FW M 22 DD	16-22	35	28	8.8	100	1.200	**1199862**
2058FW M 28 DD	22-28	35	34	10.4	100	1.400	**1199870**
2058FW M 34 DD	28-34	35	40	13.5	100	2.160	**1199889**
2058FW M 40 DD	34-40	35	46	15.1	100	2.490	**1199897**
2058FW M 46 DD	40-46	35	52	17.2	100	3.270	**1199900**
2058FW M 52 DD	46-52	35	58	19.2	50	3.460	**1199919**
2058FW M 58 DD	52-58	35	64	20.3	50	3.620	**1199927**
2058FW M 64 DD	58-64	35	70	22.4	50	4.280	**1199935**
2058FW M 70 DD	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	40	13.5	50	3.776	**1197592**
2058FW M 64 A2	58-64	35	70	24.5	50	4.203	**1197606**

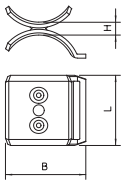
Metal counter-trough, for mounting on clamp clip. Can be used universally, irrespective of the rail.

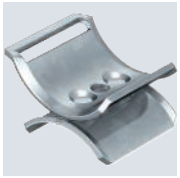
St DD

11-12 16-17 18 22

Double trough, metal

Type	Clamping range D mm	Dim. L mm	Dim. B mm	Dim. H mm	Pack Piece	Weight kg/100 pc.	Item no.
2058 M2 12 DD	8-12	35	17.6	5.4	100	1.360	**1199706**
2058 M2 16 DD	12-16	35	21.5	5.4	50	1.800	**1199714**
2058 M2 22 DD	16-22	35	28	5.4	50	2.300	**1199722**
2058 M2 28 DD	22-28	35	34	5.4	50	3.100	**1199730**
2058 M2 34 DD	28-34	35	40	6.4	50	3.760	**1199749**
2058 M2 40 DD	34-40	35	46	6.4	50	5.600	**1199757**





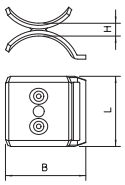
Metallic double trough as intermediate layer between two or three cables within a clamp clip.

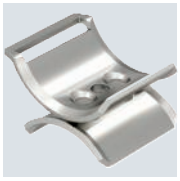
A2 2B

11-12 16-17 18 22

Double trough, metal

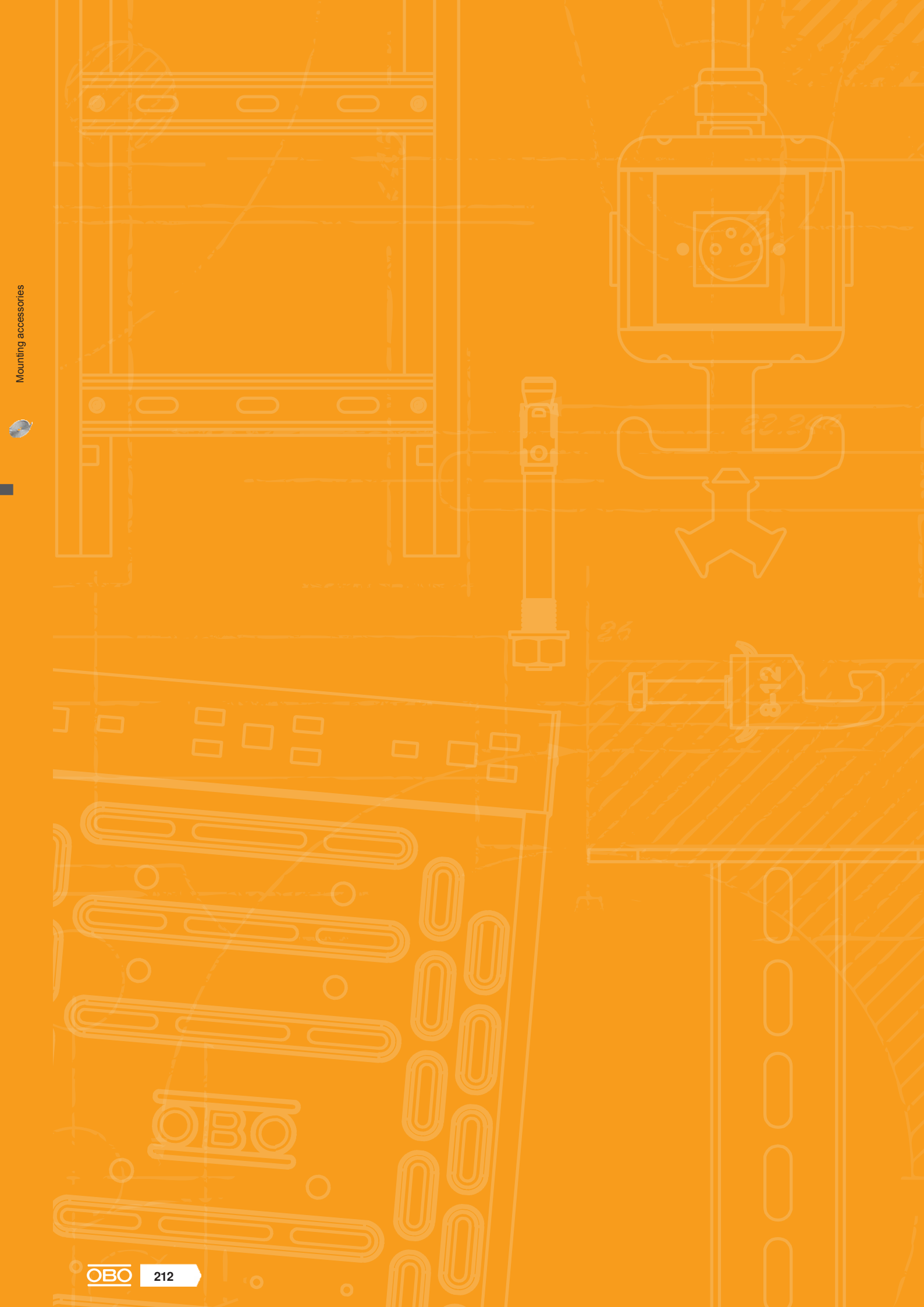
Type	Clamping range D mm	Dim. L mm	Dim. B mm	Dim. H mm	Pack Piece	Weight kg/100 pc.	Item no.
2058 M2 22 A2	16-22	35	28	5.4	50	2.300	**1196597**
2058 M2 28 A2	22-28	35	34	5.4	50	3.100	**1196599**
2058 M2 34 A2	28-34	35	40	6.4	50	3.760	**1196601**



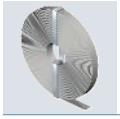


Metallic double trough as intermediate layer between two or three cables within a clamp clip.

Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47



Mounting accessories


Tightening straps 212


Slotted steel straps 216


Installation straps 218

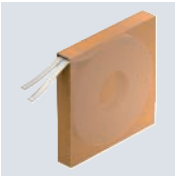

Tensioning wire 220

Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Tightening strap

SBR 8 tightening strap

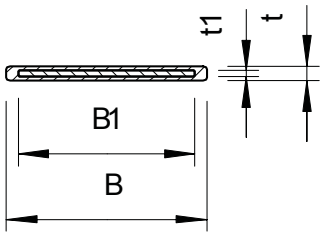
A2 K



Type	Avg. breaking load kN	Colour	Pack m	Weight kg/100 m	Item no.
SBR 8 A2K	1.16	Jet black	20	1.704	**6490192**

Tightening strap made of rustproof steel with plastic jacketing to fasten cables on cable support systems.

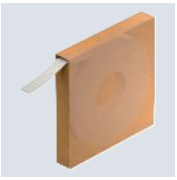
Dimensions



Type	Dim. B mm	Dim. t mm	Dimension B1 mm	Dim. t1 mm
SBR 8 A2K	9.3	1	8	0.3

SBR 15 tightening strap

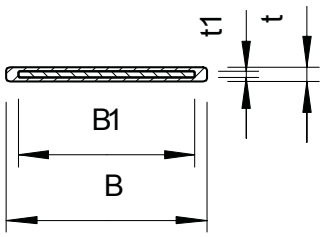
St A2 FSK K



Type	Avg. breaking load kN	Colour	Pack m	Weight kg/100 m	Item no.
SBR 15 FSK	2.5	Stone grey	25	7.628	**6490280**
SBR 15 A2K	4.19	Jet black	25	7.628	**6490282**

Tightening strap made of strip-galvanised steel with plastic jacketing to fasten cables on cable support systems.

Dimensions



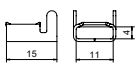
Type	Dim. B mm	Dim. t mm	Dimension B1 mm	Dim. t1 mm
SBR 15 FSK	17	1.2	15	0.5

Tightening strap locks

SBV 8 tightening strap lock

St A2 VA FS 2B





Type	Pack Piece	Weight kg/100 pc.	Item no.
SBV 8 FS	100	0.250	**6490940**
SBV 8 A2	100	0.250	**6490942**
SBV 8 A4	100	0.250	**6490944**

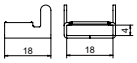
Tightening strap lock made of strip-galvanised steel, suitable for portfolio with 8 mm width.

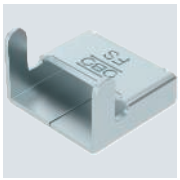
St A2 VA FS 2B

SBV 15 tightening strap lock

Type	Pack Piece	Weight kg/100 pc.	Item no.
SBV 15 FS	100	0.560	6490950
SBV 15 A2	100	0.564	6490964
SBV 15 A4	100	0.560	6490972

Tightening strap lock made of strip-galvanised steel, suitable for a range of products with a 15 mm width.





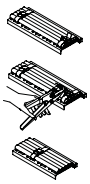
Spring chucks

St

Spring chuck

Type	Pack Piece	Weight kg/100 pc.	Item no.
575	1	29.700	6498019

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.





St

Spring chuck

Type	Pack Piece	Weight kg/100 pc.	Item no.
576	1	132.000	6498027

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.





Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Slotted steel strap in strips

St FT





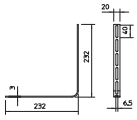
Type	Dimension mm	Hole size mm	Length mm	Pack m	Weight kg/100 m	Item no.
OSS 20x3 3M FT	20 x 3	6,5 x 40	3000	60	35.000	**1465767**
OSS 30x3 3M FT	30 x 3	8,5 x 70	3000	30	53.600	**1465805**
OSS 40x4 3M FT	40 x 4	8,5 x 70	3000	30	101.000	**1465821**

Perforated slotted steel strap in strips.

Slotted steel strap, bent

St FT



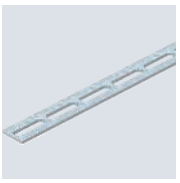


Type	Dimension mm	Pack Piece	Weight kg/100 pc.	Item no.
OSG 20X3 FT	20x3	25	15.800	**6017371**

Bent slotted steel strap for creation of bends and tees.

Slotted steel strap, rings

St BK





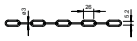
Type	Dimension mm	Hole size mm	Pack m	Weight kg/100 m	Item no.
OSR 20x1.5 BK	20 x 1,5	5,5 x 40	200	18.000	**1465600**

In rings.

Suspension chain

St G





Type	Break load kN	Pack m	Weight kg/100 m	Item no.
K-C30 G	0.7	25	13.600	**1488201**

To suspend luminaire supports or other components.

Mesh installation strip

PP



Type	Width mm	Thickness mm	Length m	Pack Piece	Weight kg/100 pc.	Item no.
GB 1525 GR	15	1.3	25	1	18.000	**1476980**

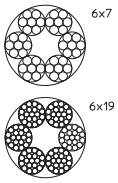
Tear-resistant and UV-stable fabric tape, universally applicable, e.g. to fix pipes and cables onto the floor, before screed laying using OBO anchors or nails.

Tensioning wire

Steel wire tensioning rope

St G





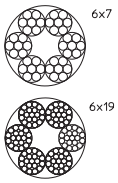
Type	Cable diameter mm	Break load kN	In rings m	Pack m	Weight kg/100 m	Item no.
957 2 G	2	2.35	50	50	1.430	**5303202**
957 3 G	3	5.29	50	50	3.220	**5303206**
957 4 G	4	9.41	50	50	5.720	**5303214**
957 5 G	5	14.7	50	50	8.940	**5303222**
957 6 G	6	21.1	50	50	12.900	**5303230**
957 8 G	8	34.8	50	50	22.900	**5303257**
957 10 G	10	54.4	50	50	35.700	**5303265**

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 x19 according to DIN 3060.
Minimum break force 1770 N/mm².

Steel wire tensioning rope

VA 2B





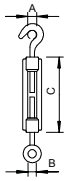
Type	Cable diameter mm	Break load kN	In rings m	Pack m	Weight kg/100 m	Item no.
957 2 A4	2	2.35	50	50	1.430	**5303179**
957 3 A4	3	5.29	50	50	3.220	**5303182**
957 4 A4	4	9.41	50	50	5.720	**5303185**
957 5 A4	5	14.7	50	50	8.940	**5303188**
957 6 A4	6	21.1	50	50	12.900	**5303191**
957 8 A4	8	34.8	50	50	22.900	**5303194**
957 10 A4	10	54.4	50	50	35.700	**5303197**

Cable Ø 2–6 mm: round-stranded cable 6 x 7 according to DIN 3055.
Cable Ø 8–10 mm: round-stranded cable 6 x19 according to DIN 3060.
Minimum break force 1,770 N/mm².

Tension jack

St G





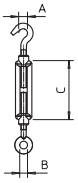
Type	Thread	Dim. A mm	Dim. B mm	Dim. C mm	Break load kN	Pack Piece	Weight kg/100 pc.	Item no.
945 M6 G	M6	9	8.5	110	2	5	8.642	**5300037**
945 M10 G	M10	14	13.5	125	5	5	33.650	**5300053**
945 M12 G	M12	16	15.5	125	7	5	53.000	**5300061**
945 M16 G	M16	22	19	170	8.5	5	84.000	**5300088**

With hook and eye, to DIN 1480.

Tension jack

VA 2B





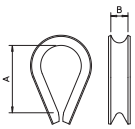
Type	Thread	Dim. A mm	Dim. B mm	Dim. C mm	Break load kN	Pack Piece	Weight kg/100 pc.	Item no.
945 M6 A4	M6	9	8.5	110	2	5	10.500	**5300120**
945 M10 A4	M10	14	13.5	125	5	5	28.000	**5300124**
945 M12 A4	M12	16	15.5	125	8	5	42.000	**5300127**
945 M16 A4	M16	22	19	170	10	5	100.000	**5300132**

With hook and eye, to DIN 1480.

St G FT

Cable eye stiffener

Type	For rope-Ø mm	Dim. A mm	Dim. B mm	Pack Piece	Weight kg/100 pc.	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**



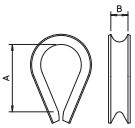


Cable eye stiffener to DIN 65457.

VA 2B

Cable eye stiffener

Type	For rope-Ø mm	Dim. A mm	Dim. B mm	Pack Piece	Weight kg/100 pc.	Item no.
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**



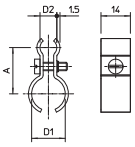


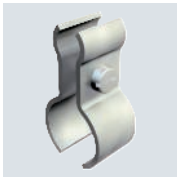
Cable eye stiffener to DIN 65457.

St G

Tensioning wire clip

Type	Dim. D1 mm	Dim. D2 mm	Dim. A mm	Pack Piece	Weight kg/100 pc.	Item no.
1020 11-16 G	11-16	4-9	22	50	1.420	**1404164**
1020 14-18 G	14-18	4-9	26	50	1.650	**1404180**
1020 18-28 G	19-28	4-9	34	50	2.000	**1404288**



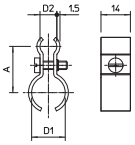


To fasten cables to tensioning cables. With bolt M4x13.

A4 2B

Tensioning wire clip

Type	Dim. D1 mm	Dim. D2 mm	Dim. A mm	Pack Piece	Weight kg/100 pc.	Item no.
1020 11-16 A4	11-16	4-9	22	50	1.420	**1404168**
1020 14-18 A4	14-18	4-9	26	50	1.650	**1404184**
1020 18-28 A4	19-28	4-9	34	50	2.000	**1404292**



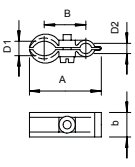


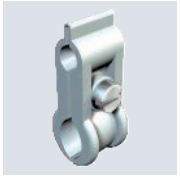
To fasten cables to tensioning cables. With V4A bolt M4x14.

PS

Tensioning wire clip, polystyrene

Type	Dim. D1 mm	Dim. D2 mm	Dim. A mm	Dim. B mm	Dim. b mm	Pack Piece	Weight kg/100 pc.	Item no.
4024 9-16	9-16	3-8	41	24	14	100	0.460	**2305151**
4024 16-23	16-23	5-10	55	31.5	15	50	0.930	**2305232**



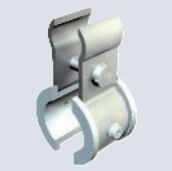


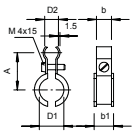
Bolt, steel, electrogalvanised, light grey.

Industrieinstallation - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Fix ISO tensioning wire clip

St FS



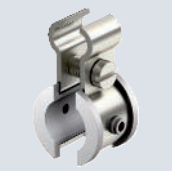


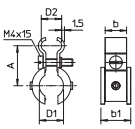
Type	Dim. D1 mm	Dim. D2 mm	Dim. A mm	Dim. b mm	Dim. b1 mm	Pack Piece	Weight kg/100 pc.	Item no.
4021 K 6-13	6-13	4-9	21.5	11.5	16	100	1.295	**2307618**
4021 K 9-16	9-16	4-9	26	14	18.3	100	1.457	**2307634**

Metal clip with plastic inlay, steel, strip galvanised, polyethylene inlays.

Fix ISO tensioning wire clip

A4 2B





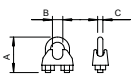
Type	Dim. D1 mm	Dim. D2 mm	Dim. A mm	Dim. b mm	Dim. b1 mm	Pack Piece	Weight kg/100 pc.	Item no.
4021 K 6-13 A4	6-13	4-9	21.5	11.5	16	100	1.295	**2307622**
4021 K 9-16 A4	9-16	4-9	26	14	18.3	100	1.457	**2307638**

The cable and pipe fastenings of the special system include cable ties, fastening straps and installation strips, with which cable and pipe installations can be fastened to cable support systems such as cable or mesh cable trays or other mounting constructions. A complete tensioning wire system to suspend and catch cable weights is also a component part of the special system.

Wire cable clamp

St G





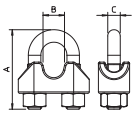
Type	For rope-Ø mm	Dim. A mm	Dim. B mm	Dim. C mm	Pack Piece	Weight kg/100 pc.	Item no.
947 3 G	3	20	4	4	25	1.100	**5302021**
947 5 G	5	24	6	5	25	1.400	**5302056**
947 6 G	6	28	8	5	25	1.700	**5302064**
947 8 G	8	34	9	6	10	3.100	**5302080**
947 10 G	10	42	11	8	10	6.500	**5302102**

Wire cable clamp for fastening steel wire tensioning ropes.

Wire cable clamp

VA 2B





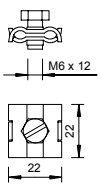
Type	For rope-Ø mm	Dim. A mm	Dim. B mm	Dim. C mm	Pack Piece	Weight kg/100 pc.	Item no.
947 3 A4	3	20	4	4	25	1.090	**5302170**
947 5 A4	5	24	6	5	25	1.500	**5302174**
947 6 A4	6	28	8	5	25	2.080	**5302178**
947 8 A4	8	34	9	6	10	3.390	**5302182**
947 10 A4	10	42	11	8	10	6.310	**5302188**

Wire cable clamp for fastening steel wire tensioning ropes.

Wire cable clamp

St G





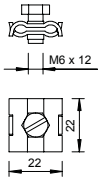
Type	For rope-Ø mm	Bolt	Pack Piece	Weight kg/100 pc.	Item no.
261 3-6 G	3-6	M6x12	100	1.498	**5305012**

Wire cable clamp for fastening steel wire tensioning ropes.

A4 2B

Wire cable clamp

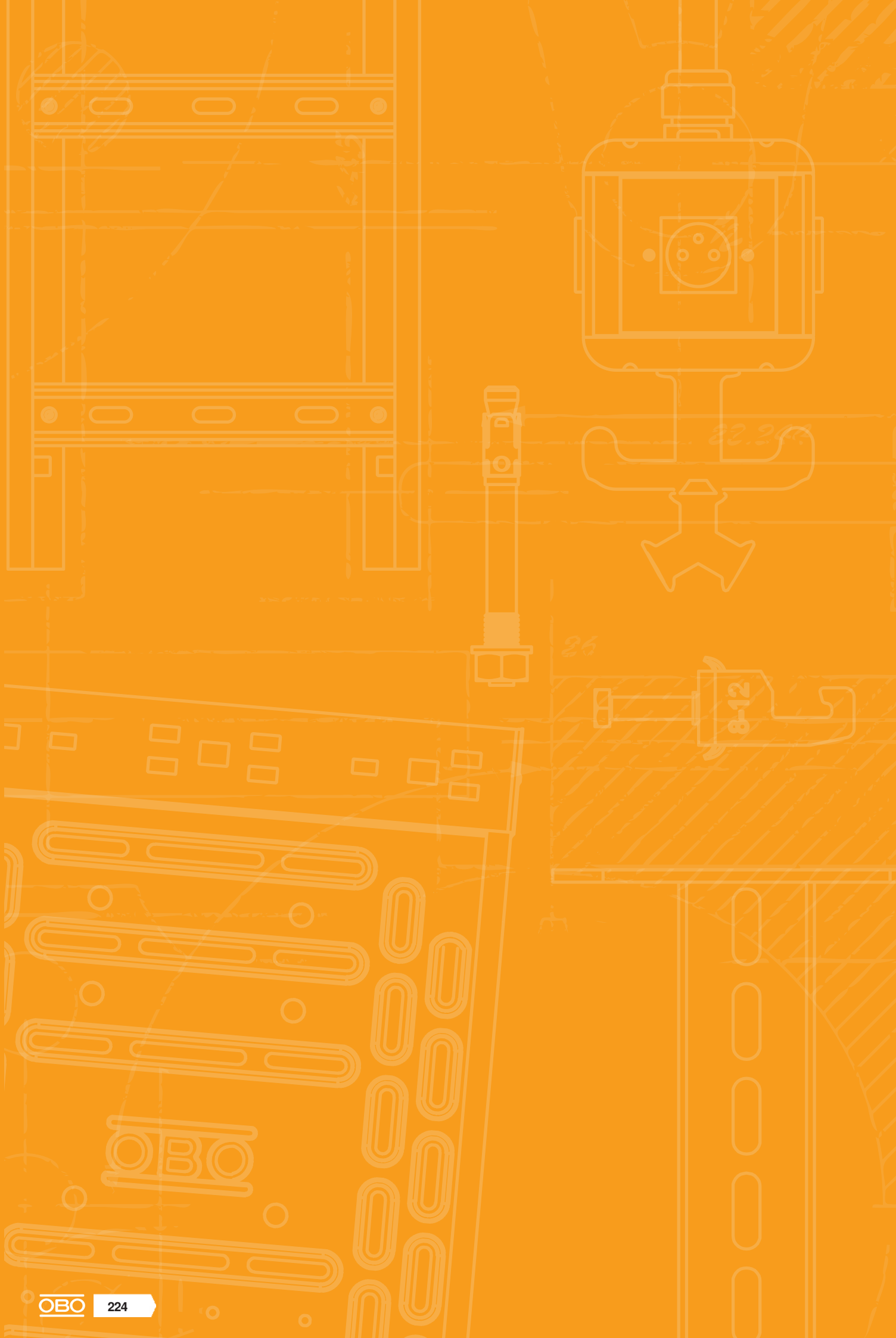
Type	For rope-Ø mm	Bolt	Pack Piece	Weight kg/100 pc.	Item no.
261 3-6 A4	3-6	M6x12	100	1.498	**5305016**



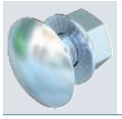


The cable and pipe fastenings of the special system include cable ties, fastening straps and installation strips, with which cable and pipe installations can be fastened to cable support systems such as cable or mesh cable trays or other mounting constructions. A complete tensioning wire system to suspend and catch cable weights is also a component part of the special system.

Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47



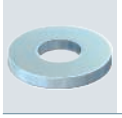
Bolts and screws

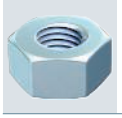

Truss-head bolts 224


Hexagonal bolts 230


Hooks 234


Threaded rods 238


Washers 240


Nuts 244


Wood screws 248

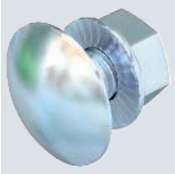

Accessories, bolts and screws 254

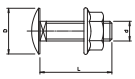
Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Truss-head bolts

Truss-head bolt with flange nut

St G



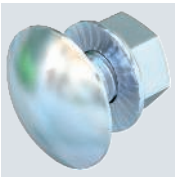


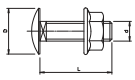
Type	Dimension mm	Dim. L mm	Dim. d mm	Dim. D mm	Resistance grade	Pack Piece	Weight kg/100 pc.	Item no.
FRSB 6x12 VZ G	M6x12	12	6	13.5	5.6	10	0.700	**6406133**
FRSB 6x12 G	M6x12	12	6	13.5	5.6	100	0.804	**6406130**
FRSB 6x20 G	M6x20	20	6	13.5	5.6	100	0.903	**6406181**

Hot galvanised truss-head bolt with square neck including electrogalvanised combination nut.
For universal fastening of construction components. Permitted use of the article only in dry atmospheres.

Truss-head bolt with flange nut

St F



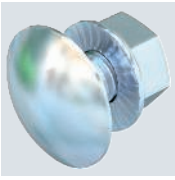


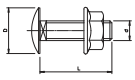
Type	Dimension mm	Dim. L mm	Dim. d mm	Dim. D mm	Resistance grade	Pack Piece	Weight kg/100 pc.	Item no.
FRSB 6x12 VZ F	M6x12	12	6	13.5	5.6	10	0.840	**6406125**
FRSB 6x12 F	M6x12	12	6	13.5	5.6	100	0.812	**6406122**
FRSB 6x16 F	M6x16	16	6	13.5	5.6	100	0.890	**6406157**
FRSB 6x20 F	M6x20	20	6	13.5	5.6	100	0.965	**6406203**
FRSB 6x30 F	M6x30	30	6	13.5	5.6	100	1.232	**6406907**

Truss-head bolt with square neck including flange nut.

Truss-head bolt with combination nut

St G



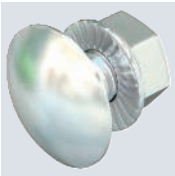


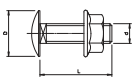
Type	Dimension mm	Dim. L mm	Dim. d mm	Dim. D mm	Resistance grade	Pack Piece	Weight kg/100 pc.	Item no.
FRS 10x25 G	M10x25	25	10	24	8.8	50	3.926	**6407521**

Truss-head bolt with square neck including combination nut.

Truss-head bolt with flange nut

A2 VA 2B



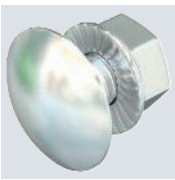


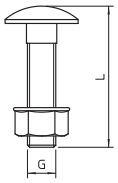
Type	Dimension mm	Dim. L mm	Dim. d mm	Dim. D mm	Resistance grade	Pack Piece	Weight kg/100 pc.	Item no.
FRSB 6x12 A2	M6x12	12	6	13.5	A2-70	100	0.830	**6406138**
FRSB 6x16 A2	M6x16	16	6	13.5	A2-70	100	0.800	**6406189**
FRSB 6x20 A2	M6x20	20	6	13.5	A2-70	100	0.960	**6406205**
FRSB 6x12 A4	M6x12	12	6	13.5	A4-50	100	0.796	**6406142**
FRSB 6x16 A4	M6x16	16	6	13.5	A4-50	100	0.800	**6406193**
FRSB 6x20 A4	M6x20	20	6	13.5	A4-70	100	0.960	**6406207**

Truss-head bolt with square neck including flange nut.

Truss-head bolt with combination nut, V2A

A2 2B





Type	Dimension mm	Dim. D mm	Dim. L mm	Pack Piece	Weight kg/100 pc.	Item no.
FRSB M8x35 A2	M8x35	8	35	50	2.570	**3175608**
FRSB M10x20 A2	M10x20	10	20	50	3.000	**3175620**
FRSB M10x25 A2	M10x25	10	25	50	3.700	**3175625**

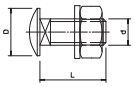
Truss-head bolt with square neck and combination nut.

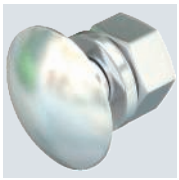
VA 2B

Truss-head bolt with nut and washer

Type	Dimension mm	Dim. L mm	Dim. d mm	Dim. D mm	Resistance grade	Pack Piece	Weight kg/100 pc.	Item no.
FRS 10x25 A4	M10x25	25	10	24	A4-70	50	4.500	**6407524**

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



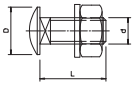


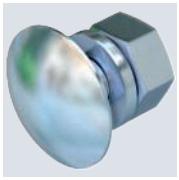
St F

Truss-head bolt with nut and washer

Type	Dimension mm	Dim. L mm	Dim. d mm	Dim. D mm	Resistance grade	Pack Piece	Weight kg/100 pc.	Item no.
FRS 8x16 F 8.8	M8x16	16	8	20	8.8	50	1.947	**6406963**
FRS 8x16 F 5.6	M8x16	16	8	20	5.6	50	2.000	**6406939**
FRS 8x20 F	M8x20	20	8	20	5.6	50	2.054	**6406971**
FRS 8x25 F	M8x25	25	8	20	8.8	50	2.217	**6406998**
FRS 8x35 F	M8x35	35	8	20	5.6	50	2.431	**6407048**
FRS 8x35 8.8 F	M8x35	35	8	20	8.8	50	2.700	**6407050**
FRS 10x20 F	M10x20	20	10	24	8.8	50	4.100	**6407471**
FRS 10x25 F	M10x25	25	10	24	5.6	50	4.077	**6407528**
FRS 10x25 F 8.8	M10x25	25	10	24	8.8	50	4.500	**6407560**
FRS 10x25 TPS F	M10x25	25	10	18	5.6	50	4.300	**6407536**
FRS 10x30 F	M10x30	30	10	24	8.8	50	4.187	**6407579**
FRS 12x25 F	M12x25	25	12	30	5.6	50	6.518	**6406254**
FRS 12x30 F	M12x30	30	12	30	5.6	50	6.805	**6406270**

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



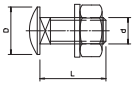


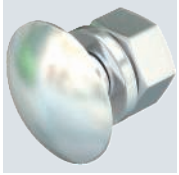
A2 2B

Truss-head bolt with nut and washer

Type	Dimension mm	Dim. L mm	Dim. D mm	Dim. d mm	Resistance grade	Pack Piece	Weight kg/100 pc.	Item no.
FRS 10x25 TPS A2	M10x25	25	18	10	A2-70	50	4.000	**6407537**

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



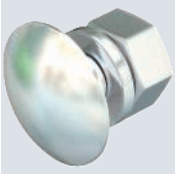


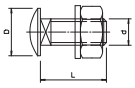
Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Truss-head bolts

Truss-head bolt with nut and washer

A2 A4 VA 2B





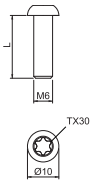
Type	Dimension mm	Dim. L mm	Dim. d mm	Dim. D mm	Resistance grade	Pack Piece	Weight kg/100 pc.	Item no.
FRS 6x12 A2	M6x12	12	6	13.5	A2-70	100	0.760	**6406521**
FRS 6x16 A2	M6x16	15	6	13.5	A2-70	100	0.869	**6406556**
FRS 6x20 A2	M6x20	20	6	13.5	A2-70	100	0.942	**6406602**
FRS 8x16 A2	M8x16	16	8	20	A2-70	50	1.926	**6406696**
FRS 8x25 A2	M8x25	25	8	20	A2-70	50	2.300	**6406815**
FRS 8x35 A2	M8x35	35	8	20	A2-70	50	2.700	**6406823**
FRS 10x20 A2	M10x20	20	10	24	A2-70	50	4.100	**6406866**
FRS 10x25 A2	M10x25	25	10	24	A2-70	50	3.905	**6406718**
FRS 10x30 A2	M10x30	30	10	24	A2-70	50	4.500	**6406726**
FRS 12x25 A2	M12x25	25	12	30	A2-70	25	6.400	**6406750**
FRS 12x30 A2	M12x30	30	12	30	A2-50	25	6.800	**6406769**
FRS 6x12 A4	M6x12	12	6	13.5	A4-70	100	0.820	**6406564**
FRS 6x16 A4	M6x16	16	6	13.5	A4-70	100	0.900	**6406580**
FRS 6x20 A4	M6x20	20	6	13.5	A4-70	100	0.977	**6406610**
FRS 8x16 A4	M8x16	16	8	20	A4-50	50	2.200	**6406653**
FRS 8x16 A4	M8x16	16	8	20	A4-70	50	2.200	**6406698**
FRS 12x25 A4	M12x25	25	12	30	A4-70	25	6.400	**6406785**
FRS 10x20 A4	M10x20	20	10	24	A4-70	50	4.000	**6406870**
FRS 10x20S A4	M10x20	20	10	24	A4-70	50	4.100	**6406872**

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

Flat-head screw with internal Torx, steel

St G





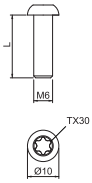
Type	Dimension mm	Screw system	Pack Piece	Weight kg/100 pc.	Item no.
7380T 6x20 G	M6x20	Torx	100	0.570	**3164952**
7380T 6x35 G	M6x35	Torx	100	0.910	**3164956**

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.

Flat-head screw with internal Torx, stainless steel

A2 2B





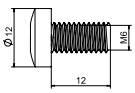
Type	Dimension mm	Screw system	Pack Piece	Weight kg/100 pc.	Item no.
7380T M6x20 A2	M6x20	Torx	100	0.580	**3164972**
7380T M6x35 A2	M6x35	Torx	100	0.910	**3164976**

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.

Flat-head screw with hexalobular internal

St G





Type	Dimension mm	Screw system	Pack Piece	Weight kg/100 pc.	Item no.
FKS 6x12 G	M6x12	Torx	100	0.530	**6049246**

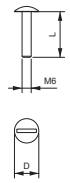
Flat-head screw with hexalobular internal to connect base and crossbeam of the symmetrical floor support BSS, to be used on walkable cable tray system BKRS.

A2 2B

Pan head screw, stainless steel

Type	Dimension mm	Pack Piece	Weight kg/100 pc.	Item no.
BS M6x30 A2	M6x30	100	0.790	**1148896**

The cup screw is used to connect two panels or to fasten cable sections on brackets. The flat, rounded head offers optimum cable protection.



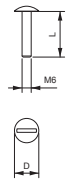


St G

Pan head screw, steel

Type	Dimension mm	Pack Piece	Weight kg/100 pc.	Item no.
BS M6x30 G	M6x30	100	0.800	**1148898**

The cup screw is used to connect two panels or to fasten cable sections on brackets. The flat, rounded head offers optimum cable protection.



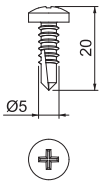


St G

Drilling screw DIN 7504

Type	Dimension mm	Pack Piece	Weight kg/100 pc.	Item no.
DIN 7504 N G	4,8 x 16	100	0.250	**3176428**

Self-tapping, with Philips.



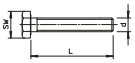


Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Hexagonal bolt DIN 933

St ZL
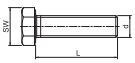




Type	Thread	Dimension mm	Dim. L mm	Dim. d mm	SW mm	Pack Piece	Weight kg/100 pc.	Item no.
SKS M6x16 ZL	M6	M6x16	16	6	10	100	0.530	**3156706**
SKS M6x20 ZL	M6	M6x20	20	6	10	100	0.600	**3156708**
SKS M6x30 ZL	M6	M6x30	30	6	10	100	0.780	**3156710**
SKS M6x40 ZL	M6	M6x40	40	6	10	100	0.950	**3156712**
SKS M6x55 ZL	M6	M6x55	55	6	10	100	1.230	**3156715**
SKS M6x60 ZL	M6	M6x60	60	6	10	100	1.310	**3156716**
SKS M8x20 ZL	M8	M8x20	20	8	13	100	1.190	**3156728**
SKS M8x30 ZL	M8	M8x30	30	8	13	100	1.510	**3156730**
SKS M8x40 ZL	M8	M8x40	40	8	13	100	1.820	**3156732**
SKS M8x50 ZL	M8	M8x50	50	8	13	100	2.150	**3156734**
SKS M8x60 ZL	M8	M8x60	60	8	13	100	2.440	**3156736**
SKS M8x80 ZL	M8	M8x80	80	8	13	100	3.080	**3156738**
SKS M10x20 ZL	M10	M10x20	20	10	17	50	2.180	**3156758**
SKS M10x30 ZL	M10	M10x30	30	10	17	50	2.660	**3156760**
SKS M10x40 ZL	M10	M10x40	40	10	17	50	3.200	**3156762**
SKS M10x50 ZL	M10	M10x50	50	10	17	50	3.700	**3156764**
SKS M10x60 ZL	M10	M10x60	60	10	17	50	4.160	**3156766**
SKS M10x70 ZL	M10	M10x70	70	10	17	50	4.640	**3156768**
SKS M10x80 ZL	M10	M10x80	80	10	17	50	5.000	**3156770**
SKS M10x100 ZL	M10	M10x100	100	10	17	50	6.180	**3156774**
SKS M12x30 ZL	M12	M12x30	30	12	19	50	3.880	**3156788**
SKS M12x40 ZL	M12	M12x40	40	12	19	50	4.600	**3156790**
SKS M12x50 ZL	M12	M12x50	50	12	19	50	5.340	**3156792**
SKS M12x60 ZL	M12	M12x60	60	12	19	50	6.080	**3156794**
SKS M12x80 ZL	M12	M12x80	80	12	19	50	7.520	**3156796**
SKS M12x100 ZL	M12	M12x100	100	12	19	50	8.940	**3156799**

Hexagonal bolt according to DIN 933 with metric thread. Resistance grade at least 8.8.

Hexagonal bolt DIN 933 V2A

A2 2B





Type	Thread	Dimension mm	Dim. L mm	Dim. d mm	SW mm	Pack Piece	Weight kg/100 pc.	Item no.
HHS M10x45 A2	M10	M10x45	45	10	17	50	3.370	**3156040**
HHS M12x45 A2	M12	M12x45	45	12	19	50	4.850	**3156042**
HHS M16x50 A2	M16	M16x50	50	16	24	50	10.300	**3156044**

Hexagonal bolt according to DIN 933 with metric thread.

Hexagonal bolt DIN 933

A4 2B





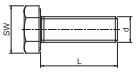
Type	Thread	Dimension mm	Dim. L mm	Dim. d mm	SW mm	Pack Piece	Weight kg/100 pc.	Item no.
HHS M6x16 A4	M6	M6x16	16	6	10	100	0.511	**3156016**
HHS M6x20 A4	M6	M6x20	20	6	10	100	0.580	**3156018**
HHS M6x25 A4	M6	M6x25	25	6	10	100	0.665	**3156019**
HHS M6x30 A4	M6	M6x30	30	6	10	100	0.751	**3156020**
HHS M6x35 A4	M6	M6x35	35	6	10	100	0.837	**3156021**
HHS M6x40 A4	M6	M6x40	40	6	10	100	0.923	**3156022**
HHS M8x20 A4	M8	M8x20	20	8	13	100	1.230	**3156024**
HHS M8x25 A4	M8	M8x25	25	8	13	100	1.390	**3156025**
HHS M8x30 A4	M8	M8x30	30	8	13	100	1.550	**3156026**
HHS M8x40 A4	M8	M8x40	40	8	13	100	1.870	**3156027**
HHS M8x50 A4	M8	M8x50	50	8	13	100	2.180	**3156028**
HHS M10x20 A4	M10	M10x20	20	10	17	100	2.320	**3156031**
HHS M10x30 A4	M10	M10x30	30	10	17	100	2.620	**3156032**
HHS M10x40 A4	M10	M10x40	40	10	17	50	3.120	**3156033**
HHS M10x50 A4	M10	M10x50	50	10	17	50	3.620	**3156034**
HHS M10x60 A4	M10	M10x60	60	10	17	50	4.130	**3156035**
HHS M12x30 A4	M12	M12x30	30	12	19	50	3.770	**3156036**
HHS M12x40 A4	M12	M12x40	40	12	19	50	4.740	**3156029**
HHS M12x50 A4	M12	M12x50	50	12	19	50	5.200	**3156037**

Hexagonal bolt according to DIN 933 with metric thread.

A5

Hexagonal bolt DIN 933

Type	Thread	Dimension mm	Dim. L mm	Dim. d mm	SW mm	Pack Piece	Weight kg/100 pc.	Item no.
HHS M8x20 A5	M8	M 8 x 20	20	8	13	100	1.230	**3156054**
HHS M10x30 A5	M10	M 10 x 30	30	10	17	100	2.620	**3156062**
HHS M12x40 A5	M12	M 12 x 40	40	12	19	50	4.490	**3156067**



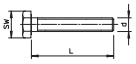


St F

Hexagonal M6

Type	Dimension mm	Dim. L mm	Dim. d mm	SW mm	Resistance grade	Pack Piece	Weight kg/100 pc.	Item no.
SKS 6x12 F	M 6 x 12	12	6	10	5.6	100	0.810	**3156494**
SKS 6x20 F	M 6 x 20	20	6	10	5.6	100	0.917	**3156516**
SKS 6x30 F	M 6 x 30	30	6	10	5.6	100	1.097	**3156524**

Hexagonal bolt for universal fastening of construction components. With hexagonal nut and 2 washers.



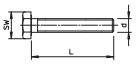


St F

Hexagonal bolt M8

Type	Dimension mm	Dim. L mm	Dim. d mm	SW mm	Resistance grade	Pack Piece	Weight kg/100 pc.	Item no.
SKS 8x16 F	M 8 x 16	16	8	13	8.8	50	1.691	**3158624**
SKS 8x20 F	M 8 x 20	20	8	13	8.8	50	1.837	**3158632**
SKS 8x30 F	M 8 x 30	30	8	13	5.6	50	2.144	**3158640**

Hexagonal bolt for universal fastening of construction components. With hexagonal nut and 2 washers.



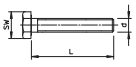


St F

Hexagonal bolt M10

Type	Dimension mm	Dim. L mm	Dim. d mm	SW mm	Resistance grade	Pack Piece	Weight kg/100 pc.	Item no.
SKS 10x25 F	M 10 x 25	25	10	17	8.8	50	3.719	**3160734**
SKS 10x30 F	M 10 x 30	30	10	17	8.8	50	3.995	**3160742**
SKS 10x40 F	M 10 x 40	40	10	17	8.8	50	4.422	**3160750**
SKS 10x60 F	M 10 x 60	60	10	17	8.8	20	6.000	**6408516**
SKS 10x80 F	M 10 x 80	80	10	17	8.8	20	6.900	**6418250**
SKS 10x90 F	M 10 x 90	90	10	17	8.8	20	8.950	**6418252**
SKS 10x120 F	M 10 x 120	120	10	17	8.8	20	8.294	**3160793**

Hexagonal bolt for universal fastening of construction components. With hexagonal nut and 2 washers.



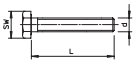


St G

Hexagonal bolt for trapezoidal fastening TPB 100

Type	Dimension mm	Dim. L mm	Dim. d mm	SW mm	Resistance grade	Pack Piece	Weight kg/100 pc.	Item no.
SKS 10x110 G	M 10 x 110	110	10	17	5.6	20	9.500	**6418244**

Hexagonal bolt for mounting trapezoidal fastening TPB 100, with shaft and thread, including hexagonal nut and 2 washers.



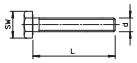


Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Hexagonal bolt M10

VA A4





Type	Dimension mm	Dim. L mm	Dim. d mm	SW mm	Resistance grade	Pack Piece	Weight kg/100 pc.	Item no.
SKS 10x30 A4	M 10 x 30	30	10	17	A4-70	50	3.000	**3160752**
SKS 10x80 A5	M 10 x 90	90	10	17	A5-80	20	7.520	**6418247**
SKS 10x90 A5	M 10 x 90	90	10	17	A5-80	20	10.038	**6418257**

Hexagonal bolt for universal fastening of construction components. With hexagonal nut and 2 washers.

Hexagonal bolt M12

St F





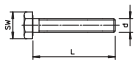
Type	Dimension mm	Dim. L mm	Dim. d mm	SW mm	Resistance grade	Pack Piece	Weight kg/100 pc.	Item no.
SKS 12x30 F	M 12 x 30	30	12	19	8.8	20	5.990	**3163091**
SKS 12x40 F	M 12 x 40	40	12	19	8.8	25	7.800	**3163113**
SKS 12x60 F	M 12 x 60	60	12	19	8.8	25	8.057	**3163156**

Hexagonal bolt for universal fastening of construction components. With hexagonal nut and 2 washers.

Hexagonal bolt M10

A2 VA 2B





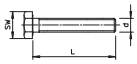
Type	Dimension mm	Dim. L mm	Dim. d mm	SW mm	Resistance grade	Pack Piece	Weight kg/100 pc.	Item no.
SKS 10x90 A2	M 10 x 90	90	10	17	A2-70	20	10.038	**6418255**
SKS 10x80 A4	M 10 x 80	80	10	17	A4-70	20	7.800	**6418248**
SKS 10x90 A4	M 10 x 90	90	10	17	A4-70	20	7.800	**6418256**

Hexagonal bolt for universal fastening of construction components. With hexagonal nut and 2 washers.

Hexagonal bolt M12

St F





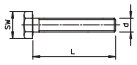
Type	Dimension mm	Dim. L mm	Dim. d mm	SW mm	Resistance grade	Pack Piece	Weight kg/100 pc.	Item no.
SKS 12x80 F	M 12 x 80	80	12	19	8.8	20	10.000	**6418287**
SKS 12x100 F	M 12 x 100	100	12	19	8.8	20	10.981	**6418295**
SKS 12x110 F	M 12 x 110	110	12	19	8.8	20	14.500	**6418317**
SKS 12x130 F	M 12 x 130	130	12	19	8.8	20	13.101	**6408478**

Hexagonal bolt for universal fastening of construction components. With hexagonal nut and 2 washers.

Hexagonal bolt M12

A2 2B





Type	Dimension mm	Dim. L mm	Dim. d mm	SW mm	Resistance grade	Pack Piece	Weight kg/100 pc.	Item no.
SKS 12x80 A2	M 12 x 80	80	12	19	A2-70	20	10.400	**6418279**
SKS 12x100 A2	M 12 x 100	100	12	19	A2-70	20	12.000	**6418368**
SKS 12x110 A2	M 12 x 110	110	12	19	A2-70	20	14.500	**6418376**

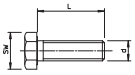
Hexagonal bolt for universal fastening of construction components. With hexagonal nut and 2 washers.

St F

Hexagonal bolt M12

Type	Dimension mm	Dim. L mm	Dim. d mm	SW mm	Resistance grade	Pack Piece	Weight kg/100 pc.	Item no.
SKS 12x40 G F	M 12 x 40	40	12	19	8.8	10	9.800	**3164020**

Hexagonal bolt for universal fastening of construction components and for the fastening of wall and support brackets on adapter plates. With hexagonal nut and 2 washers.



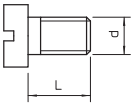


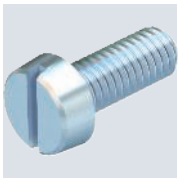
St G

Cylinder head bolt

Type	Thread	Length mm	Pack Piece	Weight kg/100 pc.	Item no.
341 M6x10 G	M6	10	100	0.349	**3153096**
341 M6x16 G	M6	16	100	0.479	**3153150**
341 M6x20 G	M6	20	100	0.569	**3153207**

Cylinder head bolt according to ISO 1207 with metric thread



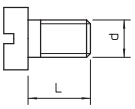


A2

Cylinder head bolt A2

Type	Length mm	Pack Piece	Weight kg/100 pc.	Item no.
341 M6x16 A2	16	100	0.485	**3168905**

Cylinder head bolt according to ISO 1207 with metric thread



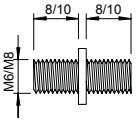


St G

Double nipple

Type	Thread	Thread length mm	Pack Piece	Weight kg/100 pc.	Item no.
3100 M6 G	M6	8	100	0.358	**3131068**
3100 M8 G	M8	10	100	0.680	**3131084**

Double nipple with metric thread.





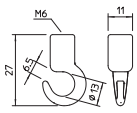
Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Ceiling hooks

Ceiling hook

St G





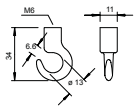
Type	Thread	Break load kN	Pack Piece	Weight kg/100 pc.	Item no.
2081 K M6	M6	1.5	100	0.899	**3460061**

Ceiling hook with metric internal thread.

Ceiling hook

St G





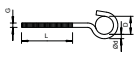
Type	Thread	Break load kN	Pack Piece	Weight kg/100 pc.	Item no.
2081 M6 G	M6	1.2	100	1.257	**3460169**

Ceiling hook with metric internal thread.

Ceiling hook

St G





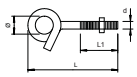
Type	Dim. L mm	Dim. D mm	Dim. d Ø mm	Thread	Break load kN	Pack Piece	Weight kg/100 pc.	Item no.
867 M5X125 G	90	16	4.3	M5	0.4	100	1.730	**3470148**
867 M6X 95 G	55	16	5.2	M6	0.8	100	2.095	**3470210**
867 M6X125 G	85	16	5.2	M6	0.8	100	2.760	**3470237**

Ceiling hook with long metric thread.

Ceiling hook

St G





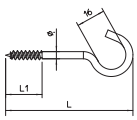
Type	Thread	Dim. d mm	Dim. L mm	Dim. L1 mm	Dim. d Ø mm	Washer Ø mm	Break load kN	Pack Piece	Weight kg/100 pc.	Item no.
948 TG6	M6	6	70	46	13	18	1	25	3.300	**3453820**

Tightly wound ceiling hook. Including two large washers and nuts.

Ceiling hook

St G





Type	Material Ø mm	Dim. L mm	Dim. L1 mm	Break load kN	Pack Piece	Weight kg/100 pc.	Item no.
915 3.9x50 G	3.9	50	20	0.15	100	0.724	**3450058**
915 3.9x60 G	3.9	60	20	0.15	100	0.800	**3450066**
915 3.9x70 G	3.9	70	20	0.15	100	0.879	**3450074**
915 3.9x80 G	3.9	80	20	0.15	100	0.913	**3450082**
915 3.9x90 G	3.9	90	20	0.15	100	1.076	**3450090**
915 3.9x100 G	3.9	100	20	0.15	100	1.187	**3450104**
915 4.3x120 G	4.3	120	24	0.2	100	1.662	**3450120**

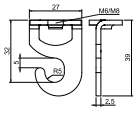
Ceiling hook with rolled wood screw thread.

St G

TS ceiling hook

Type	Thread	Break load kN	Pack Piece	Weight kg/100 pc.	Item no.
2989 M6 G	M6	1	50	2.540	**3460762**
2989 M8 G	M8	1	50	2.540	**3460789**

TS ceiling hook with metric thread.





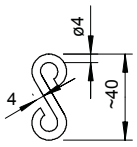
S hook

St G

S hook

Type	Break load kN	Pack Piece	Weight kg/100 pc.	Item no.
SH 40 G	0.5	100	0.800	**1488252**

Connecting book of support clamps and suspension chains.





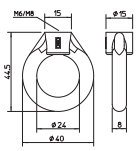
Eyelets

Zn G

Suspension eyelet

Type	Thread	Break load kN	Pack Piece	Weight kg/100 pc.	Item no.
2085 M6 G	M6	1.1	50	3.900	**3464067**
2085 M8 G	M8	1.1	50	3.700	**3464083**

Suspension eyelet with metric thread.





Zn G

Ring eyelet

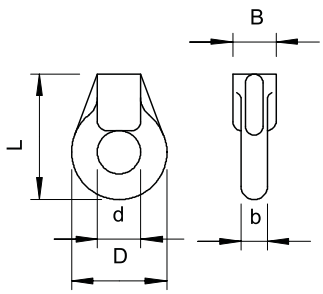
Type	Thread	Break load kN	Pack Piece	Weight kg/100 pc.	Item no.
2084 M6 G	M6	1.15	100	2.200	**3463567**
2084 M8 G	M8	1.15	100	2.100	**3463583**
2084 K M6	M6	1.15	100	1.500	**3463060**

Ring eyelet with metric internal thread.



Type	Thread	Dim. L mm	Dim. d Ø mm	Dimension BØ mm	Break load kN
2084 M6 G	M6	37.8	15	12	1.15
2084 M8 G	M8	37.8	15	12	1.15

Dimensions

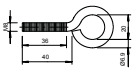


Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Frame eyelet

St G





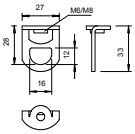
Type	Thread	Length mm	Break load kN	Pack Piece	Weight kg/100 pc.	Item no.
869 M8X40 G	M8	70	2	25	3.540	**3472086**

Frame eyelet M8 x 40 mm.

TS suspension eyelet

St G



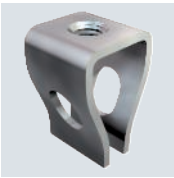


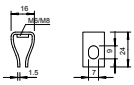
Type	Thread	Break load kN	Pack Piece	Weight kg/100 pc.	Item no.
2990 M6 G	M6	1.6	50	2.320	**3462862**
2990 M8 G	M8	1.7	50	2.320	**3462889**

Suspension eyelet with interior thread.

Rabitz coupler

St G





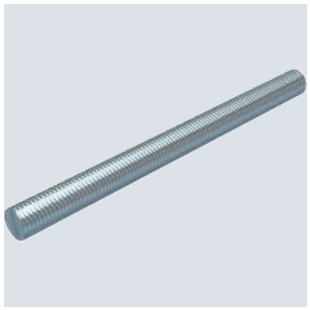
Type	Thread	Break load kN	Pack Piece	Weight kg/100 pc.	Item no.
2083 M6 G	M6	1.7	100	1.090	**3462064**
2083 M8 G	M8	1.7	100	1.090	**3462080**

Rabitz coupler with metric thread.

Threaded rods

Threaded rod

St G





Type	Thread	Dim. d mm	Dim. L mm	Break load kN	Pack Piece	Weight kg/100 pc.	Item no.
TR M6 1M G	M6	6	1000	8.04	10	18.300	**3141047**
TR M8 1M G	M8	8	1000	14.6	10	30.000	**3141128**
TR M10 1M G	M10	10	1000	23.2	10	49.000	**3141209**
TR M12 1M G	M12	12	1000	33.7	10	62.000	**3141306**
TR M6 2M G	M6	6	2000	8.04	10	36.600	**3141048**
TR M8 2M G	M8	8	2000	14.6	10	60.000	**3141136**
TR M10 2M G	M10	10	2000	23.2	10	98.000	**3141140**
TR M12 2M G	M12	12	2000	33.7	10	140.000	**3141144**
TR M10 3M G	M10	10	3000	23.2	20	147.000	**3141233**

Threaded rod to DIN 976.

Threaded rod

A2 A4 2B





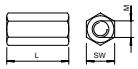
Type	Thread	Dim. d mm	Dim. L mm	Break load kN	Pack Piece	Weight kg/100 pc.	Item no.
TR M6 1M A2	M6	6	1000	19.78	10	18.300	**3141327**
TR M8 1M A2	M8	8	1000	35.17	10	30.000	**3141310**
TR M10 1M A2	M10	10	1000	54.95	10	49.000	**3141312**
TR M12 1M A2	M12	12	1000	79.13	10	70.000	**3141314**
TR M6 2M A2	M6	6	2000	19.78	10	36.600	**3141328**
TR M8 2M A2	M8	8	2000	35.17	10	60.000	**3141330**
TR M10 2M A2	M10	10	2000	54.95	10	98.000	**3141339**
TR M12 2M A2	M12	12	2000	79.13	10	140.000	**3141316**
TR M6 1M A4	M6	6	1000	22.61	1	18.300	**3141482**
TR M8 1M A4	M8	8	1000	40.19	1	30.000	**3141492**
TR M10 1M A4	M10	10	1000	62.8	1	49.000	**3141502**
TR M6 2M A4	M6	6	2000	22.61	1	36.600	**3141484**
TR M8 2M A4	M8	8	2000	40.19	1	60.000	**3141494**
TR M10 2M A4	M10	10	2000	62.8	20	98.000	**3141504**
TR M12 2M A4	M12	12	2000	90.43	10	140.000	**3141514**

Threaded rod to DIN 976.

Connection sleeve

St G





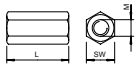
Type	Thread	Dim. L mm	SW mm	Pack Piece	Weight kg/100 pc.	Item no.
CSTR M8 G	M8	24	13	50	1.880	**6410081**
CSTR M10 G	M10	30	17	50	4.150	**6410103**
CSTR M12 G	M12	40	19	25	7.000	**6410111**

Connection sleeve with continuous internal thread.

Connection sleeve

A2 2B





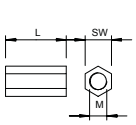
Type	Thread	Dim. L mm	SW mm	Pack Piece	Weight kg/100 pc.	Item no.
CSTR M8 A2	M8	24	13	50	1.880	**6410154**
CSTR M10 A2	M10	30	17	50	4.150	**6410162**

Connection sleeve with continuous internal thread.

Zn G

Spacer sleeve

Type	Thread	Dim. L mm	SW mm		Pack Piece	Weight kg/100 pc.	Item no.
965 M6X20 G	M6	20	10		100	0.900	**3415031**
965 M6X25 G	M6	25	10		100	0.960	**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**





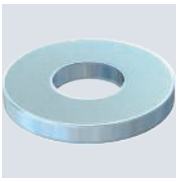
Continuous internal thread.

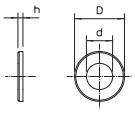
Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Washers

Washer

St G



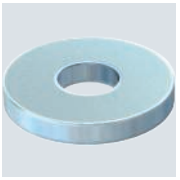


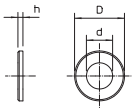
Type	Thread	Dim. d mm	Dim. D mm	Dim. h mm	Pack Piece	Weight kg/100 pc.	Item no.
WS M4 D09 G	M4	4.3	9	0.8	100	0.031	**3402045**
WS M6 D12 G	M6	6.4	12	1.6	100	0.114	**3402061**
WS M8 D16 G	M8	8.4	16	1.6	100	0.156	**3402088**
WS M10 D20 G	M10	10.5	20	2	100	0.408	**3402096**
WS M12 D24 G	M12	13	24	2.5	100	0.570	**3402126**

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

Washer ISO 7093

St G



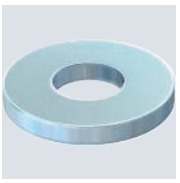


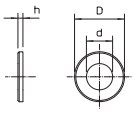
Type	Thread	Dim. d mm	Dim. D mm	Dim. h mm	Pack Piece	Weight kg/100 pc.	Item no.
WS M6 D28 G	M6	6.5	28	2.5	100	1.104	**3402207**
WS M8 D28 G	M8	8.5	28	2.5	100	1.100	**3402215**
WS M10 D28 G	M10	11	28	2.5	100	1.020	**3402223**

Washer of large outer diameter for universal use.

Washer

St F



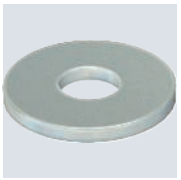


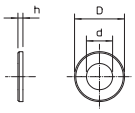
Type	Thread	Dim. d mm	Dim. D mm	Dim. h mm	Pack Piece	Weight kg/100 pc.	Item no.
966 M6 F	M6	6.6	12	1.6	100	0.098	**3402444**
966 M8 F	M8	9	16	1.6	100	0.177	**3402452**
966 M10 F	M10	11	20	2	100	0.327	**3402460**
966 M12 F	M12	13.5	24	2.5	100	0.620	**3402479**

Washer for universal use.

Washer

A2 2B



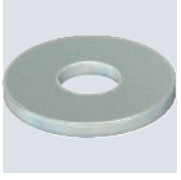


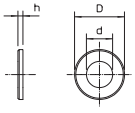
Type	Thread	Dim. d mm	Dim. D mm	Dim. h mm	Pack Piece	Weight kg/100 pc.	Item no.
WS M6 D12 A2	M6	6.4	12	1.6	100	0.114	**3402304**
WS M8 D16 A2	M8	8.4	16	1.6	100	0.214	**3402312**
WS M10 D20 A2	M10	10.5	20	2	100	0.408	**3402320**
WS M12 D24 A2	M12	13	24	2.5	100	0.627	**3402339**

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

Washer

A4 2B





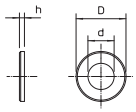
Type	Thread	Dim. d mm	Dim. D mm	Dim. h mm	Pack Piece	Weight kg/100 pc.	Item no.
WS M6 D12 A4	M6	6.4	12	1.6	100	0.114	**3402306**
WS M8 D16 A4	M8	8.4	16	1.6	100	0.214	**3402314**
WS M10 D20 A4	M10	10.5	20	2	100	0.408	**3402322**
WS M12 D24 A4	M12	13	24	2.5	100	0.627	**3402345**

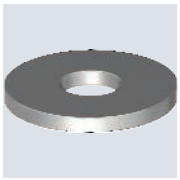
Washer according to DIN 125, shape A, for universal use.

A5

Washer

Type	Thread	Dim. d mm	Dim. D mm	Dim. h mm	Pack Piece	Weight kg/100 pc.	Item no.
WS M6 D12 A5	M6	6.4	12	1.6	100	0.114	**3402308**
WS M8 D16 A5	M8	8.4	16	1.6	100	0.214	**3402316**



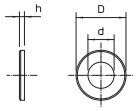


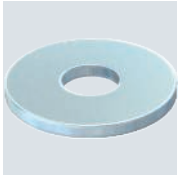
Washer according to DIN 125, shape A, for universal use.

St G

Fender washer

Type	Thread	Dim. d mm	Dim. D mm	Dim. h mm	Pack Piece	Weight kg/100 pc.	Item no.
WS M4 G15 G	M4	4.3	15	1.2	100	0.156	**3403025**
WS M5 G20 G	M5	5.3	20	1.2	100	0.207	**3403041**
WS M6 G25 G	M6	6.4	25	1.2	100	0.428	**3403084**
WS M6 G30 G	M6	6.4	30	1.3	100	0.636	**3403092**
WS M6 G20 G	M6	6.4	20	1.25	100	0.236	**3403076**
WS M8 G20 G	M8	8.4	20	1.25	100	0.227	**3403122**
WS M8 G25 G	M8	8.4	25	1.2	100	0.408	**3403130**
WS M10 G30 G	M10	10.5	30	1.5	100	0.598	**3403165**
WS M6 G40 G	M6	6.4	40	1.5	100	1.400	**3403099**
WS M8 G40 G	M8	8.4	40	2.5	100	2.400	**3403140**



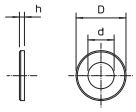


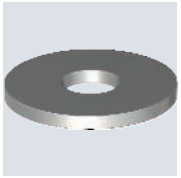
Washer of particularly large outer diameter.

A2 2B

Fender washer

Type	Thread	Dim. d mm	Dim. D mm	Dim. h mm	Pack Piece	Weight kg/100 pc.	Item no.
WS M8 D20 A2	M8	8.4	20	1.5	100	0.240	**3403125**
WS M8 D25 A2	M8	8.4	25	1.5	100	0.370	**3403135**
WS M8 D40 A2	M8	8.5	40	1.5	100	0.370	**3403145**
WS M10 D30 A2	M10	10.5	30	1.5	100	0.592	**3403155**
WS M10 D40 A2	M10	10.5	40	1.5	100	0.592	**3403175**



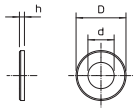


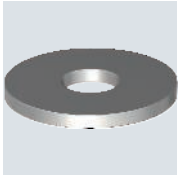
Washer of particularly large outer diameter. In the case of connections on the MS 41 mounting rail, we recommend the external diameter of 40 mm.

A4 2B

Fender washer

Type	Thread	Dim. d mm	Dim. D mm	Dim. h mm	Pack Piece	Weight kg/100 pc.	Item no.
WS M8 D20 A4	M8	8.4	20	1.5	100	0.240	**3403127**
WS M8 D25 A4	M8	8.4	25	1.2	100	0.370	**3403137**
WS M8 D40 A4	M8	8.4	40	1.5	100	0.370	**3403147**
WS M10 D30 A4	M10	10.5	30	1.5	100	0.592	**3403163**
WS M10 D40 A4	M10	10.5	40	1.5	100	0.592	**3403177**





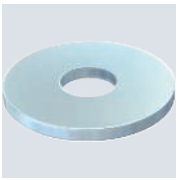
Washer of particularly large outer diameter. In the case of connections on the MS 41 mounting rail, we recommend the external diameter of 40 mm.

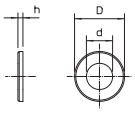
Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Washers

Large washer

St F



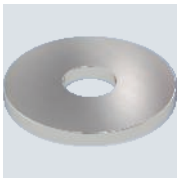


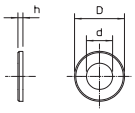
Type	Thread	Dim. d mm	Dim. D mm	Dim. h mm	Pack Piece	Weight kg/100 pc.	Item no.
DIN440 7 F	M6	6.6	22	2	100	0.535	**6408702**
DIN440 9 F	M8	9	28	3	100	1.057	**6408710**
DIN440 11 F	M10	11	34	3	100	1.852	**6408729**
DIN440 14 F	M12	13.5	44	4	50	4.736	**6408737**

Washer of particularly large outer diameter.

Large washer

A2



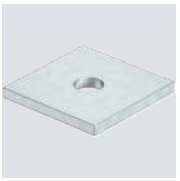


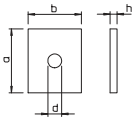
Type	Hole Ø mm	External Ø mm	Material thickness mm	Pack Piece	Weight kg/100 pc.	Item no.
DIN440 7 A2	6.6	22	2	100	0.535	**6408703**
DIN440 9 A2	9	28	3	100	1.057	**6408715**
DIN440 11 A2	11	34	3	100	1.852	**6408732**
DIN440 14 A2	13.5	44	4	50	4.330	**6408739**

Washer of particularly large outer diameter.

Counter plate

St FT





Type	Dimension mm	Hole Ø mm	Material thickness mm	Pack Piece	Weight kg/100 pc.	Item no.
K 60 FT	50x60	13	6.5	10	14.900	**6348408**
K 70 FT	70x70	17	6.5	10	24.000	**6348440**

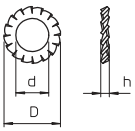
Counter plate to increase the contact surface for pass-through installation of brackets and supports.

Serrated washers

Serrated washer DIN 6798

St G





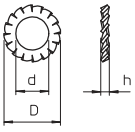
Type	Thread	Dim. d mm	Dim. D mm	Dim. h mm	Pack Piece	Weight kg/100 pc.	Item no.
SWS M5 G	M5	5.3	10	1.8	100	0.022	**3404056**
SWS M6 G	M6	6.4	11	2.1	100	0.036	**3404064**
SWS M8 G	M8	8.4	15	2.4	100	0.080	**3404080**
SWS M10 G	M10	10.5	18	2.7	100	0.125	**3404102**
SWS M12 G	M12	13	20.5	3	100	0.160	**3404129**

Serrated washer to DIN 6798, shape A.

Serrated washer DIN 6798

A4 2B





Type	Thread	Dim. d mm	Dim. D mm	Dim. h mm	Pack Piece	Weight kg/100 pc.	Item no.
SWS M6 A4	M6	6.4	11	2.1	100	0.036	**3404372**
SWS M8 A4	M8	8.4	15	2.4	100	0.080	**3404377**
SWS M10 A4	M10	10.5	18	2.7	100	0.125	**3404381**
SWS M12 A4	M12	13	20.5	3	100	0.170	**3404385**

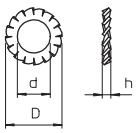
Serrated washer to DIN 6798, shape A.

A2 2B

Serrated washer DIN 6798

Type	Thread	Dim. d mm	Dim. D mm	Dim. h mm	Pack Piece	Weight kg/100 pc.	Item no.
SWS M6 A2	M6	6.4	11	2.1	100	0.040	**3404331**
SWS M8 A2	M8	8.4	15	2.4	100	0.080	**3404358**

Serrated washer to DIN 6798, shape A.



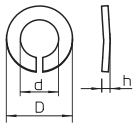


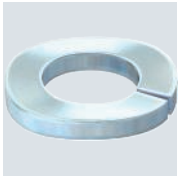
St G

Lock washer

Type	Thread	Dim. d mm	Dim. D mm	Dim. h mm	Pack Piece	Weight kg/100 pc.	Item no.
LWS M6 G	M6	6.3	11.8	2.1	100	0.070	**3405060**
LWS M8 G	M8	8.3	14.8	2.6	100	0.130	**3405087**
LWS M10 G	M10	10.5	18.1	3	100	0.210	**3405109**
LWS M12 G	M12	12.5	21.1	3.5	100	0.320	**3405125**

Lock washer according to DIN 128, shape A.



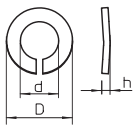


A4 2B

Spring washer

Type	Thread	Dim. d mm	Dim. D mm	Dim. h mm	Pack Piece	Weight kg/100 pc.	Item no.
LWS M6 A4	M6	6.3	11.8	2.1	100	0.070	**3405062**
LWS M8 A4	M8	8.3	14.8	2.6	100	0.130	**3405089**
LWS M10 A4	M10	10.5	18.1	3	100	0.210	**3405111**
LWS M12 A4	M12	12.5	21.1	3.5	100	0.320	**3405127**

Lock washer according to DIN 128, shape A.

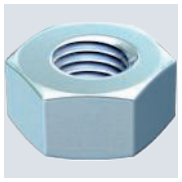


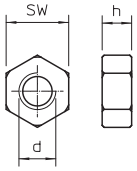


Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Hexagonal nut DIN 934

St G



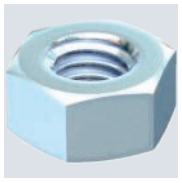


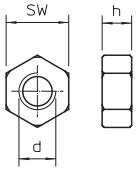
Type	Thread	SW mm	Dim. h mm	Dim. d mm	Pack Piece	Weight kg/100 pc.	Item no.
HN M4 G	M4	7	3.2	4	100	0.081	**3400042**
HN M5 G	M5	8	4.7	5	100	0.123	**3400050**
HN M6 G	M6	10	5.2	6	100	0.221	**3400069**
HN M8 G	M8	13	6.8	8	100	0.500	**3400085**
HN M10 G	M10	17	8.4	10	100	1.014	**3400107**
HN M12 G	M12	19	10.8	12	100	1.730	**3400123**

Hexagonal nut to DIN 934 with metric thread.

Hexagonal nut ISO 4032

St F



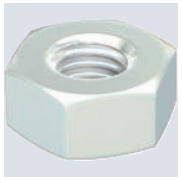


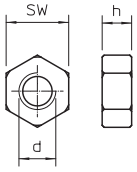
Type	Thread	SW mm	Dim. h mm	Dim. d mm	Pack Piece	Weight kg/100 pc.	Item no.
DIN934 M6 F	M6	10	5.2	6	100	0.250	**3400344**
DIN934 M8 F	M8	13	6.8	8	100	0.477	**3400352**
DIN934 M10 F	M10	17	8.4	10	100	1.061	**3400360**
DIN934 M12 F	M12	19	10.8	12	100	1.540	**3400379**

Hexagonal nut to DIN 934 with metric thread.

Hexagonal nut DIN 934

A2 2B



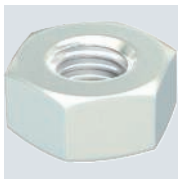


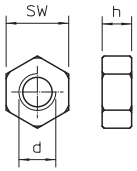
Type	Thread	SW mm	Dim. h mm	Dim. d mm	Pack Piece	Weight kg/100 pc.	Item no.
HN M6 A2	M6	10	5.2	6	100	0.215	**3397068**
HN M8 A2	M8	13	6.8	8	100	0.520	**3397084**
HN M10 A2	M10	17	8.4	10	100	1.043	**3397106**
HN M12 A2	M12	19	10.8	12	100	1.730	**3397114**

Hexagonal nut to DIN 934 with metric thread.

Hexagonal nut DIN 934

A4 2B



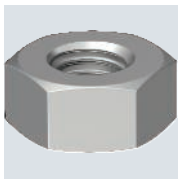


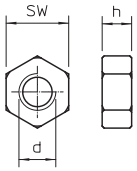
Type	Thread	SW mm	Dim. h mm	Dim. d mm	Pack Piece	Weight kg/100 pc.	Item no.
HN M6 A4	M6	10	5.2	6	100	0.250	**3400173**
HN M8 A4	M8	13	6.8	8	100	0.520	**3400175**
HN M10 A4	M10	17	8.4	10	100	1.084	**3400177**
HN M12 A4	M12	19	10.8	12	100	1.730	**3397145**

Hexagonal nut to DIN 934 with metric thread.

Hexagonal nut DIN 934

A5





Type	Thread	SW mm	Dim. h mm	Dim. d mm	Pack Piece	Weight kg/100 pc.	Item no.
HN M6 A5	M6	10	5.2	6	100	0.250	**3400183**
HN M8 A5	M8	13	6.8	8	100	0.520	**3400185**

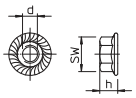
Hexagonal nut to DIN 934 with metric thread.

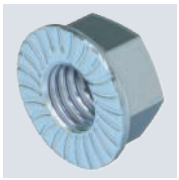
St G

Flange nut

Type	Dim. d mm	Dim. h mm	SW mm	Resistance grade	Pack Piece	Weight kg/100 pc.	Item no.
KM M6 G	6	6	10	8	100	0.315	**6408958**

Combination nut with washer based on EN 1661.



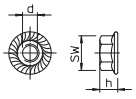


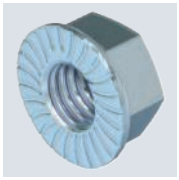
St F

Flange nut

Type	Dim. d mm	Dim. h mm	SW mm	Resistance grade	Pack Piece	Weight kg/100 pc.	Item no.
KM M6 F	6	6	10	8	100	0.315	**6408962**

Combination nut with washer based on EN 1661.



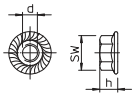


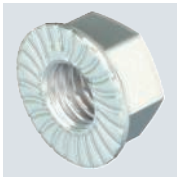
A2 2B

Combination nut A2

Type	Dim. d mm	Dim. h mm	SW mm	Resistance grade	Pack Piece	Weight kg/100 pc.	Item no.
KM M6 A2	6	6	10	A2-70	100	0.315	**6408966**

Nut with pressed washer.



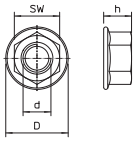


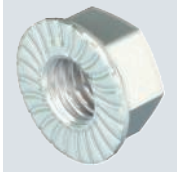
A2 2B

Combination nut DIN 6923

Type	Thread	SW mm	Dim. h mm	Dim. d mm	Pack Piece	Weight kg/100 pc.	Item no.
KM M8 A2	M8	13	8	17.9	100	0.800	**3156120**
KM M10 A2	M10	17	10	21.8	50	1.320	**3156122**
KM M12 A2	M12	19	12	26	50	2.100	**3156126**

Combination nut with pressed washer in accordance with EN 1661.



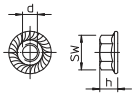


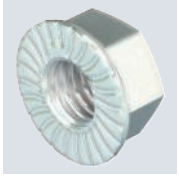
VA

Combination nut

Type	Dim. d mm	Dim. h mm	SW mm	Resistance grade	Pack Piece	Weight kg/100 pc.	Item no.
KM M8 A4	8	8	13	A4-70	100	0.800	**6408920**
KM M10 A4	10	10	17	A4-70	100	1.320	**6408930**
KM M12 A4	12	12	19	A4-70	100	2.260	**6408940**
KM M6 A4	6	6	10	A4-70	100	0.315	**6408970**

Combination nut with washer based on EN 1661.



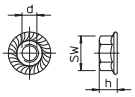


Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Combination nut

VA





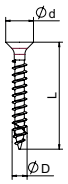
Type	Dim. d mm	Dim. h mm	SW mm	Resist-ance grade	Pack Piece	Weight kg/100 pc.	Item no.
KM M8 A5	8	8	13	A5-70	100	0.800	**6408922**
KM M10 A5	10	10	17	A5-70	100	1.320	**6408932**
KM M6 A5	6	6	10	A5-70	100	0.320	**6408972**

Combination nut with washer based on EN 1661.

Chipboard screw, with Torx, countersunk head, stainless steel

A4 2B





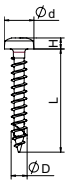
Type	Dim. L mm	Dim. D mm	Pack Piece	Weight kg/100 pc.	Item no.
OTSC 3,5x30 A4	30	3.5	100	0.090	**3191050**
OTSC 3,5x40 A4	40	3.5	100	0.210	**3191052**
OTSC 4,0x25 A4	25	4	100	0.125	**3191056**
OTSC 4,0x30 A4	30	4	100	0.220	**3191058**
OTSC 4,0x40 A4	40	4	100	0.240	**3191060**
OTSC 4,0x50 A4	50	4	100	0.310	**3191062**
OTSC 4,5x30 A4	30	4.5	100	0.290	**3191066**
OTSC 4,5x40 A4	40	4.5	100	0.310	**3191068**
OTSC 4,5x50 A4	50	4.5	100	0.400	**3191070**
OTSC 5,0x40 A4	40	5	100	0.455	**3191074**
OTSC 5,0x50 A4	50	5	100	0.460	**3191076**
OTSC 5,0x60 A4	60	5	100	0.465	**3191078**
OTSC 6,0x40 A4	40	6	100	0.710	**3191082**
OTSC 6,0x50 A4	50	6	100	0.830	**3191084**
OTSC 6,0x60 A4	60	6	100	0.960	**3191086**

Stainless steel wood screw with countersunk head and Torx drive for fastenings in interior and exterior areas.
Areas of use: Wood, chipboard, plasterboard panels and plastic anchors.

Chipboard screw, with Torx, panhead, stainless steel

A4 2B





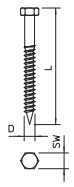
Type	Dim. L mm	Dim. D mm	Pack Piece	Weight kg/100 pc.	Item no.
OTSP 3,5x30 A4	30	3.5	100	0.165	**3191000**
OTSP 3,5x40 A4	40	3.5	100	0.210	**3191002**
OTSP 4,0x25 A4	25	4	100	0.185	**3191006**
OTSP 4,0x30 A4	30	4	100	0.215	**3191008**
OTSP 4,0x40 A4	40	4	100	0.265	**3191010**
OTSP 4,0x50 A4	50	4	100	0.325	**3191012**
OTSP 4,5x30 A4	30	4.5	100	0.260	**3191016**
OTSP 4,5x40 A4	40	4.5	100	0.330	**3191018**
OTSP 4,5x50 A4	50	4.5	100	0.395	**3191020**
OTSP 5,0x40 A4	40	5	100	0.450	**3191024**
OTSP 5,0x50 A4	50	5	100	0.530	**3191026**
OTSP 5,0x60 A4	60	5	100	0.600	**3191028**
OTSP 6,0x40 A4	40	6	100	0.720	**3191032**
OTSP 6,0x50 A4	50	6	100	0.830	**3191034**
OTSP 6,0x60 A4	60	6	100	0.960	**3191036**

Stainless steel wood screw with lens head and Torx drive for fastenings in interior and exterior areas.
Areas of use: Wood, chipboard, plasterboard panels and plastic anchors.

St G

Hexagonal wood screw DIN 571

Type	Dim. L mm	Dim. D mm	SW mm	Pack Piece	Weight kg/100 pc.	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**



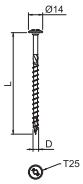


Hexagonal screw to DIN 571 with wood thread. Suitable for anchors, type 910.

St G

Flange head-screw HT 6

Type	Dim. D mm	Dim. L mm	Head Ø mm	Screw system	Pack Piece	Weight kg/100 pc.	Item no.
HT 6x60 TD	6	60	14	Torx	200	0.850	**3498130**
HT 6x80 TD	6	80	14	Torx	100	1.100	**3498132**
HT 6x100 TD	6	100	14	Torx	100	1.300	**3498134**
HT 6x120 TD	6	120	14	Torx	100	1.300	**3498136**



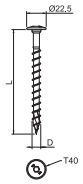


Self-tapping wood screw for fireproof fastening of cable systems for the maintenance of electrical function according to DIN 4102 Part 12 on supporting wooden structures. The flange head shape allows installation without an additional washer.

St G

Flange head-screw HT 10

Type	Dim. D mm	Dim. L mm	Head Ø mm	Screw system	Pack Piece	Weight kg/100 pc.	Item no.
HT 10x80 TD	10	80	22.5	Torx	50	3.100	**3498140**
HT 10x100 TD	10	100	22.5	Torx	50	3.700	**3498142**
HT 10x120 TD	10	120	22.5	Torx	50	4.300	**3498144**
HT 10x140 TD	10	140	22.5	Torx	50	4.900	**3498146**





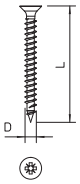
Self-tapping wood screw for fireproof fastening of cable systems for the maintenance of electrical function according to DIN 4102 Part 12 on supporting wooden structures. The flange head shape allows installation without an additional washer.

Industrieinstallation - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Sprint screw, with Philips slot

St G





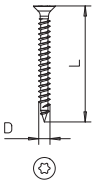
Type	Dim. L mm	Dim. D mm	Head Ø mm		Pack Piece	Weight kg/100 pc.	Item no.
4759 3.0x15	15	3	5.6		200	0.060	**3192055**
4759 3.0x20	20	3	5.6		200	0.070	**3192059**
4759 3.0x25	25	3	5.6		200	0.080	**3192063**
4759 3.5x15	15	3.5	6.5		200	0.060	**3192091**
4759 3.5x20	20	3.5	6.5		200	0.080	**3192105**
4759 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 4.0x15	15	4	7.5		200	0.090	**3192199**
4759 4.0x20	20	4	7.5		200	0.120	**3192202**
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**
4759 3.0x30	30	3	5.6		200	0.110	**3192067**

Hardened steel, electrogalvanised and Hostaflon-coated. Countersunk head with Phillips head (Pozidriv size 2 except Ø 6 mm Pozidriv 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.

St G

Sprint screw, with Torx

Type	Dim. L mm	Dim. D mm	Head Ø mm		Pack Piece	Weight kg/100 pc.	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**
4759T 6.0x60	60	6	11		200	0.750	**3198322**





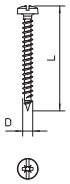
Hardened steel, electrogalvanised and Hostaflon-coated. Countersunk head with T bit (six lobe head), sizes Ø 3 mm T10, Ø 3.5 mm T15, Ø 4 and 4.5 mm T20, Ø 5 mm T25.
The use of Sprint screws leads to considerably reduced screw-in times compared with standard screws. This noticeable advantage comes from the point with the first thread, which leads on to the double thread beyond.
Areas of use: wood, chipboard, Rigips panels, plastic anchors.

Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Sprint screw, with Philips screw

St G





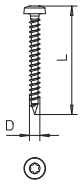
Type	Dim. L mm	Dim. D mm	Head Ø mm		Pack Piece	Weight kg/100 pc.	Item no.
4758 3.5x15	15	3.5	6.5		200	0.070	**3195007**
4758 3.5x20	20	3.5	6.5		200	0.090	**3195015**
4758 3.5x30	30	3.5	6.5		200	0.163	**3195031**
4758 3.5x25	25	3.5	6.5		200	0.120	**3195023**
4758 3.5x35	35	3.5	6.5		200	0.170	**3195058**
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	0.585	**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**

Hardened steel, electrogalvanised and Hostaflon-coated. Pan head with combined Phillips and slotted head (Pozidriv size 2 except Ø 6 mm Pozidriv 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.

St G

Sprint screw, with Torx

Type	Dim. L mm	Dim. D mm	Head Ø mm	Pack Piece	Weight kg/100 pc.	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**
4758T 5.0x60	60	5	9.5	200	0.740	**3198083**
4758T 6.0x60	60	6	12	200	0.930	**3198118**





Hardened steel, electrogalvanised and Hostaflon-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.

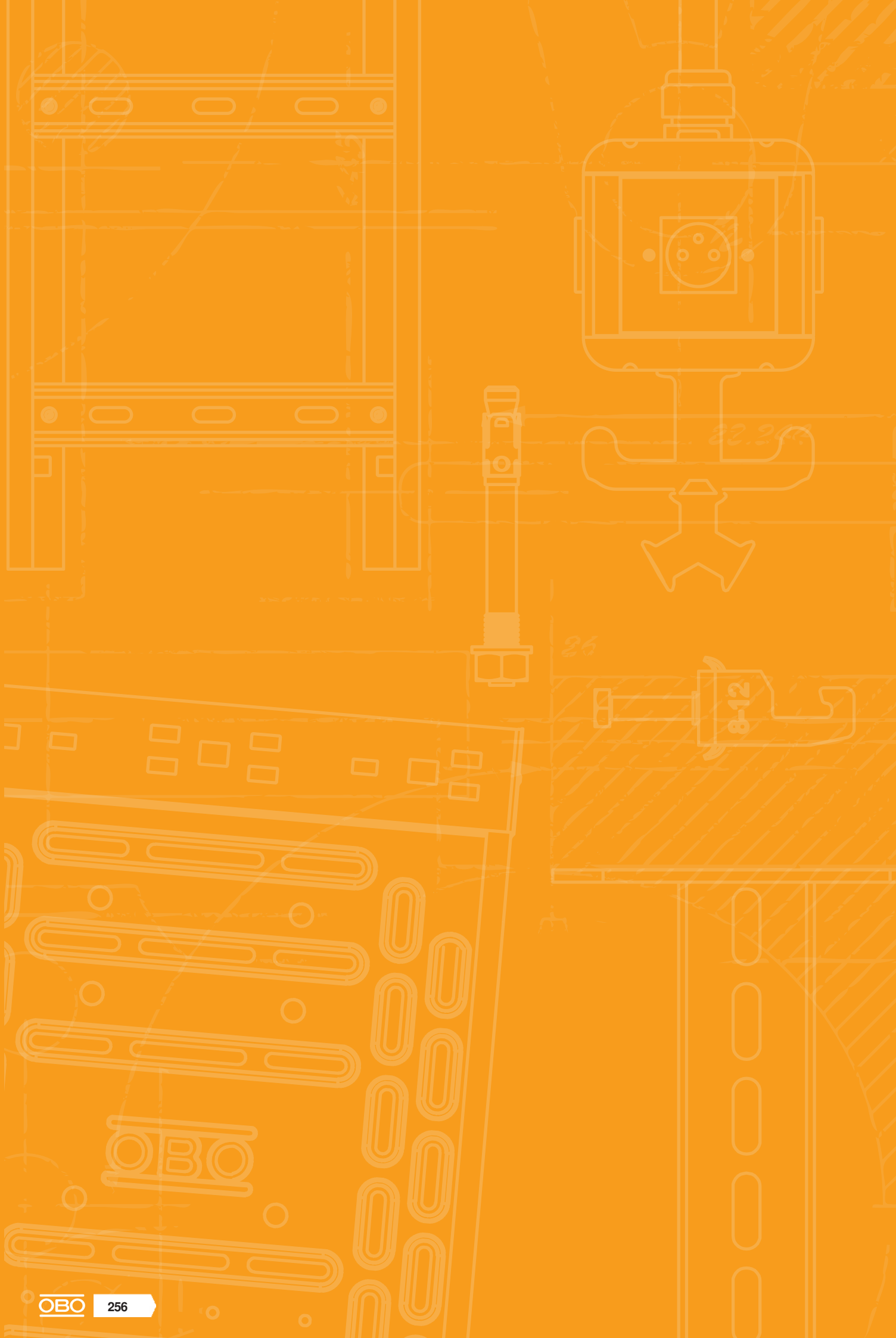
Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Screw-locking adhesive



Type	Contents ml		Pack Piece	Weight kg/100 pc.	Item no.
Loctite 243	50		1	7.800	**2362940**

Medium strength bolt lock, suitable for all metal thread connections (e.g. stainless steel, aluminium, galvanised surfaces). Prevents loosening due to vibrations. Connections can be removed using hand tools for maintenance.



Nails



Nails 256

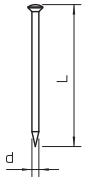
Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Steel nails

Steel nail

St BK





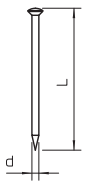
Type	Dim. L mm	Dim. d mm	Pack Piece	Weight kg/100 pc.	Item no.
362 16 BK	16	2	100	0.044	**3353168**
362 18 BK	18	2	100	0.049	**3353184**
362 23 BK	23	2	100	0.061	**3353230**
362 30 BK	30	2	100	0.080	**3353303**
362 40 BK	40	2	100	0.103	**3353400**
362 50 BK	50	2	100	0.128	**3353508**
362 60 BK	60	2	100	0.150	**3353605**

Hardened steel, blue tempered, with bead head.

Steel nail

St G





Type	Dim. L mm	Dim. d mm	Pack Piece	Weight kg/100 pc.	Item no.
362 Z 16 G	16	2	100	0.044	**3354164**
362 Z 18 G	18	2	100	0.049	**3354180**
362 Z 23 G	23	2	100	0.061	**3354237**
362 Z 30 G	30	2	100	0.078	**3354296**
362 Z 40 G	40	2	100	0.103	**3354407**
362 Z 50 G	50	2	100	0.128	**3354504**
362 Z 60 G	60	2	100	0.150	**3354601**

Hardened steel, electrogalvanised, with bead head.

Hook nails

Hook nail

St BK





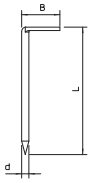
Type	Dim. L mm	Dim. d mm	Dim. B mm	Pack Piece	Weight kg/100 pc.	Item no.
1101 3x40	40	3	18	250	0.290	**3341046**
1101 3x50	50	3	18	250	0.344	**3341054**
1101 3x60	60	3	18	250	0.404	**3341062**
1101 3x70	70	3	18	250	0.466	**3341070**
1101 3.4x50	50	3.4	18	250	0.451	**3341496**
1101 3.4x60	60	3.4	18	250	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**

Steel, with an 18 mm hook on the head.

Hook nail

St G





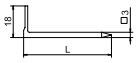
Type	Dim. L mm	Dim. d mm	Dim. B mm	Pack Piece	Weight kg/100 pc.	Item no.
1101 Z 40 G	40	3	18	250	0.288	**3342042**
1101 Z 50 G	50	3	18	250	0.360	**3342050**
1101 Z 60 G	60	3	18	250	0.404	**3342069**
1101 Z 70 G	70	3	18	250	0.474	**3342077**
1101 Z3.4x50 G	50	3.4	18	250	0.464	**3342506**
1101 Z3.4x60 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**

Steel, galvanised, with 18 mm hook on the head.

St BK

Steel wall hook

Type	Dim. L mm	Dim. d mm	Dim. B mm	Pack Piece	Weight kg/100 pc.	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**



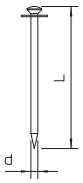


Steel, bright (St), hardened, blue tempered, made of square bar steel.

St BK

Impu steel nail

Type	Dim. L mm	Dim. d mm	Pack Piece	Weight kg/100 pc.	Item no.
500 12	12	2	100	0.040	**3360121**
500 16	16	2	100	0.046	**3360164**
500 18	18	2	100	0.055	**3360180**
500 23	23	2	100	0.062	**3360237**
500 30	30	2	100	0.081	**3360296**
500 40	40	2	100	0.108	**3360407**
500 50	50	2	100	0.128	**3360504**
500 60	60	2	100	0.150	**3360601**



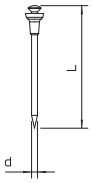


Hardened steel, blue tempered, with vulcanised fibre disc.

St BK

Siko nail

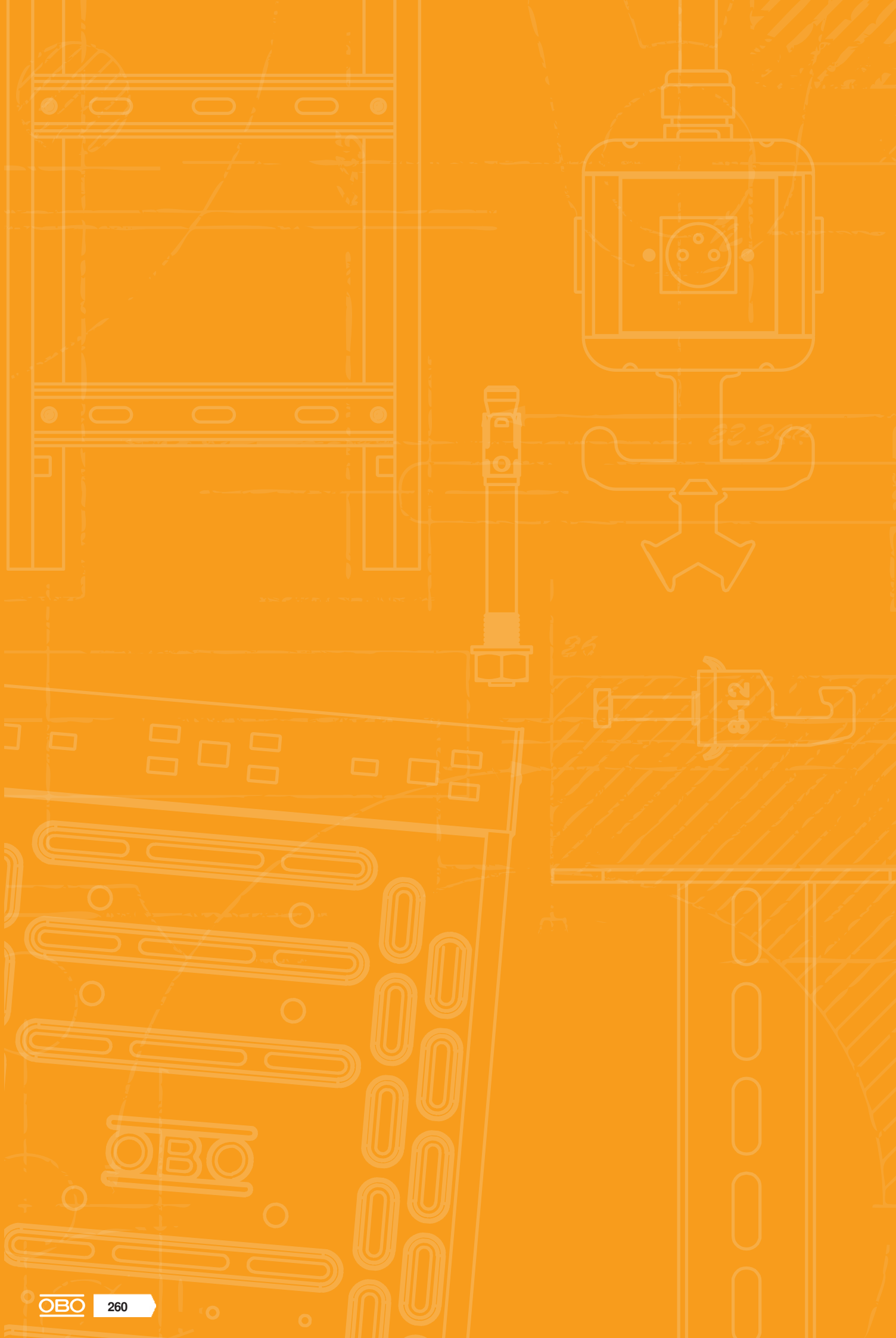
Type	Dim. L mm	Dim. d mm	Pack Piece	Weight kg/100 pc.	Item no.
511 12	12	2	100	0.042	**3366111**
511 16	16	2	100	0.049	**3366162**
511 18	18	2	100	0.052	**3366189**
511 23	23	2	100	0.064	**3366235**
511 30	30	2	100	0.081	**3366308**
511 40	40	2	100	0.104	**3366405**
511 50	50	2	100	0.134	**3366502**
511 60	60	2	100	0.154	**3366596**





Hardened steel, blue tempered, with polyethylene safety head.

Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47



Directories

Test marks	262
Pictogram explanation	264
Alphabetical table of contents	268
Numeric directory	272
Type listing	278
For the latest general conditions of sale and delivery please see www.obo.global/general-purchasing-conditions/	

Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Test marks

	American Bureau of Shipping, USA
	AENOR, Producto Certificado, Spain
	STOWARZYSZENIE ELEKTRYKÓW POLSKICH, Poland
	Lightning current-tested
	Lightning current-tested, Class H (100 kA)
	CEBEC, Belgium
	Canadian Standards Association, Canada
	DEMKO, Danmarks Elektriske Materielkontrol, Denmark
DIBt	Deutsches Institut für Bautechnik Berlin, Germany
	Det Norske Veritas
	ENEC Austria
	ATEX certificate for explosive areas
	ELEKTROTECHNICKÝ ZKUŠEBNÌ ÚSTAV, Czech Republic
	FIMKO, Finland
	Forschungs- und Materialprüfungsanstalt, Germany
	Russia, GOST The State Committee for Standards
	Test marks for technical resources, VDE Prüf- und Zertifizierungsinstitut Offenbach, Germany
	Halogen-free; without chlorine, fluorine and bromine
	INMETRO, Brazil
	KEMA-KEUR, Netherlands
	Indication of metric products
	MAGYAR ELEKTROTECHNIKAI ELLENŐRZŐ INTÉZET Budapest, Hungary
	NEMKO, Norway
	AFNOR Quality symbol of the French standardisation institute

	Underwriters Laboratories Inc., USA + CSA, Canada
	Österreichischer Verband für Elektrotechnik, Austria
	INSTITUTO ITALIANO DEL MARCHO DI QUALITÁ, Italy
	RINA 1861, Ship Classification, Certification and Services
	Underwriters Laboratories Inc., USA
	SEMKO An Inchcape Testing Services Company, Sweden
	Eidgenössisches Starkstrominspektorat, Switzerland
	South African Bureau of Standards
	Shock-tested, Bundesamt für Zivilschutz, Germany
	Sähkötarkastuskeskus Elinspektionscentralen Electrical Inspectorate, Finland
	Underwriters Laboratories Inc., USA
	Underwriters Laboratories Inc., USA
	Verband der Elektrotechnik, Elektronik, Informationstechnik e.V., Germany
	German Association of Electricians, tested safety
	5-year warranty

Pictogram explanation

Surfaces

FS	Strip galvanised
FSK	Strip galvanised/plastic-coated
DD	Strip galvanised zinc/aluminium, double dip
BK	Bright
2B	Bright, reworked
EL	Anodised
F	Hot-dip galvanised
G	Electrogalvanised
GK	Electrogalvanised/plastic-coated
GCL	Electrogalvanised, yellow-chromatised
GGP	Electrogalvanised, yellow passivated
GTP	Electrogalvanised, transparently passivated
GR	Primed
L	Painted
SG	Welding primed
FT	Hot-dip galvanised
FT SO	Hot-dip galvanised 85 µm
Cu	Copper-plated
N	Nickel-plated
ZD	Galvanised, Deltatone 500
ZDM	Galvanised, MAGNI 565
GA	Zinc-aluminium coated, Galfan
ZL	Zinc scale

Conformity symbol

CE	Communautés Européennes, EC declaration of conformity according to EC directives
RoHS conform	RoHS-conformant

Quality marks

halogen free	Halogen-free; without chlorine, fluorine and bromine
650°	Flame resistant 650 °C
750°	Flame resistant 750 °C
960°	Flame resistant 960 °C
UV resistant	UV-resistant

Specific product symbols

Ø 60	Diameter 60 mm
Ø 68	Diameter 68 mm
Type 3	Protection device to DIN EN 61643-11 or IEC 61643-11
LPZ 2→3	Transition from LPZ 2 to LPZ 3
AS	Acoustic signalling
ABZ	General construction approval

Applications

FS	Remote signalling
AS	Acoustic signalling
ISDN	Integrated Service Digital Network, ISDN applications
DSL	Digital Subscriber Line, DSL applications
Analog TK	Analogue telecommunication
Cat 5	Category 5 TwisterPair
Cat 6_A	Channel Performance to American EIA/TIA standard
MSR	Measuring, controlling and regulating systems
TV	TV applications
SAT	SAT-TV applications
Mu	MultiBase base
LifeControl	LifeControl
EX	Intrinsically safe protection device for potentially explosive areas
Class E_A	Channel Performance to ISO/IEC 11801
PoE	Power over Ethernet
230/ 400 V System	230/400 V system
IP 54	Protection rating IP 54
IP 65	Protection rating IP 65

Lightning protection classes

Type 1	Protection device to DIN EN 61643-11 or IEC 61643-11
Type 1+2	Combination protection device made of type 1 and type 2
Type 2	Protection device to DIN EN 61643-11 or IEC 61643-11

Lightning protection classes

Type 2+3	Protection device to DIN EN 61643-11 or IEC 61643-11
Type 3	Protection device to DIN EN 61643-11 or IEC 61643-11

Lightning protection zone

LPZ 0→1	Transition from LPZ 0 to LPZ 1
LPZ 0→2	Transition from LPZ 0 to LPZ 2
LPZ 0→3	Transition from LPZ 0 to LPZ 3
LPZ 1→2	Transition from LPZ 1 to LPZ 2
LPZ 1→3	Transition from LPZ 1 to LPZ 3
LPZ 2→3	Transition from LPZ 2 to LPZ 3

BSS maintenance of electrical function installation

	Fire-tested systems
	Escape route ceiling mounting with pressure clip
	OBO Grip, wall routing type
	OBO Grip, ceiling routing type
	Pressure clip for maintenance of electrical function, ceiling mounting

BSS anchor

	Fire protection anchor
	Fire protection bolt tie

BSS test marks/material class

E30	Maintenance of electrical function class E30
E90	Maintenance of electrical function class E90

Clamp clip base shapes

N	Clamp clip for C profile rail, slot width 11–12 mm
H	Clamp clip for C profile rail, slot width 16–17 mm
U	Clamp clip for C profile rail, slot width 18–22 mm

Diameter

Ø 60	Diameter 60 mm
Ø 68	Diameter 68 mm
Ø 70	Diameter 70 mm
Ø 74	Diameter 74 mm

Entries

4	4 cable entries
6	6 cable entries
7	7 cable entries
8	8 cable entries
9	9 cable entries
10	10 cable entries
12	12 cable entries
10	10 cable entries ECO
12	12 cable entries ECO
14	14 cable entries ECO
16	16 cable entries
18	18 cable entries ECO
24	24 cable entries

Gland thread

M	Thread metric
Pg	Thread Pg

Entry size

M20	M20 entry
M25	M25 entry
M32	M32 entry
M40	M40 entry

KTS side heights

	Cable tray, side height 35 mm
	Cable tray, side height 60 mm
	Cable tray, side height 85 mm
	Mesh cable tray, side height 35 mm
	Mesh cable tray, side height 55 mm

Materials

	Flat steel
	Angular steel
	U steel
	Round material

Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Pictogram explanation

Nominal cross-section

1,5 mm²	Nominal cross-section 1.5 mm²
1,5-2,5 mm²	Nominal cross-section 1.5–2.5 mm²
2,5 mm²	Nominal cross-section 2.5 mm²
2,5-4 mm²	Nominal cross-section 2.5–4 mm²
4 mm²	Nominal cross-section 4 mm²
4-6 mm²	Nominal cross-section 4–6 mm²
6 mm²	Nominal cross-section 6 mm²
10 mm²	Nominal cross-section 10 mm²
16 mm²	Nominal cross-section 16 mm²

Nominal voltage

400 V	Nominal voltage 400 V
500 V	Nominal voltage 500 V
660 V	Nominal voltage 660 V

Polarity

3	3-pole
5	5-pole
7	7-pole
8	8-pole
10	10-pole
12	12-pole

Slot widths

7,5	Slot width 7.5 mm
11	Slot width 11 mm
11-12	Slot width 11–12 mm
12	Slot width 12 mm
15	Slot width 15 mm
16	Slot width 16 mm
16,5	Slot width 16.5 mm
16-17	Slot width 16–17 mm
17	Slot width 17 mm
18	Slot width 18 mm
22	Slot width 22 mm
35	Slot width 35 mm

Screw heads

	Philips screw
	Torx screw
	Phillips screw
	Pozidriv

Firing devices

	Bolt-firing tool
	Nail device

Protection rating

IP 20	Protection rating IP 20
IP 30	Protection rating IP 30
IP 31	Protection rating IP 31
IP 44	Protection rating IP 44
IP 54	Protection rating IP 54
IP 55	Protection rating IP 55
IP 65	Protection rating IP 65
IP 66	Protection rating IP 66
IP 67	Protection rating IP 67
IP 68	Protection rating IP 68

Metals

Alu	Aluminium
Alu/St	Aluminium/steel
A2	Stainless steel, rustproof
A4	Stainless steel, rustproof
A5	Stainless steel, rustproof
Cu	Copper
CuZn 37	Brass
St	Steel
TG	Malleable iron
Zn	Die-cast zinc

Plastics

ABS/AVA	Acrylonitrile butadiene styrene
UF	Duroplast, Aminoplast, type 131.5
MF	Duroplast, melamine resin, type 150
EVA	Ethylene vinyl acetate

Plastics

FA	Fibre-proof material DIN 28091
GFK	Fibreglass-reinforced plastic
NBR SBR	Rubber mixture
NBR	Nitrile rubber
PETR	Petrolatum
PA	Polyamide
PA/ GF	Polyamide, fibreglass reinforced
PBPT	Polybutylene terephthalate
PC	Polycarbonate
PE	Polyethylene
PP	Polypropylene
PP/ GF	Polypropylene, fibreglass reinforced
PS	Polystyrene
PVC	Polyvinylchloride
ZELL PC	Cellular polyethylene

Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Alphabetical table of contents

A

Adhesive clip, type 1985, natural; 120
Adhesive clip, type 2025, light grey; 116
Adhesive clip, type 2025, pure white; 117
Adhesive clip, type 2026, light grey; 117
Adhesive clip, type 2026, pure white; 117
Adhesive clip, type 2027, light grey; 117-118
Adhesive clip, type 2028, light grey; 118
Adhesive clip, type 4039, without nail, light grey; 118
Adhesive clip, type 4040, without nail, light grey; 118
Adhesive clip, type 4041, without nail, light grey; 119
Adhesive clip, type 4042, without nail, light grey; 119
Adhesive clip, type 4043, without nail, light grey; 119
Adhesive clip, type 4044, without nail, light grey; 119
All-purpose anchor; 47
Anchor rod; 71
Angler spreading anchor; 46

B

Base clamp clip, double; 107
Base clamp clip, single; 107
BKS clamp clip; 86
Blow pump for drill holes; 72
Brass spreading anchor; 58
Bundle clip; 208
BZ bolt tie; 63

C

Cable clip; 130, 174
Cable eye stiffener; 221
Cable tie, black, UV and weather-resistant; 136
Cable tie, white; 136
Ceiling hook; 234-235
Ceiling outlet; 138
Chipboard screw, with Torx, countersunk head,; 248
stainless steel
Chipboard screw, with Torx, panhead, stainless steel; 248
Clamp clip F-foot 1-fold, metal pressure sleev; 202-203
Clamp clip F-foot 1-fold, metal pressure sleeve; 202
Clamp clip F-foot 1-fold, plastic pressure sleeve; 203
Clamp clip F-foot 2-fold, plastic pressure sleeve; 204
Clamp clip H-foot 1-fold, metal pressure sleeve; 192, 194
Clamp clip H-foot 1-fold, plastic pressure sleeve; 195, 198, 200
Clamp clip H-foot 2-fold, metal pressure sleeve; 193
Clamp clip H-foot 2-fold, plastic pressure sleeve; 196, 199, 201
Clamp clip H-foot 3-fold, metal pressure sleeve; 193
Clamp clip H-foot 3-fold, plastic pressure sleeve; 197, 201
Clamp clip N-foot 1-fold, metal pressure sleeve; 184
Clamp clip N-foot 1-fold, plastic pressure sleeve; 184-186
Clamp clip N-foot 2-fold, plastic pressure sleeve; 185
Clamp clip U-foot 1-fold, metal pressure sleeve; 186-187
Clamp clip U-foot 1-fold, plastic pressure sleeve; 188, 190-191
Clamp clip U-foot 2-fold, plastic pressure sleeve; 189
Clamp clip U-foot 3-fold, plastic pressure sleeve; 189
Clamp clip W-foot 1-fold, metal pressure sleeve; 207
Clamp clip W-foot 1-fold, plastic pressure sleeve; 205-207
Clamp clip W-foot 2-fold, plastic pressure sleeve; 206
Clamp clip, fastening earthing strips; 202
Clamp clip, hammer-head base, 3x single-wire; 209
connection
Clamp clip, U base, 3x single-wire connection; 209
Clamp clips, BBS clip for flat iron; 191
Click-snap clip; 87
Combination nut; 226, 245-246
Connection sleeve; 238
Counter plate; 242
Counter-trough, metal, universal; 210
Counter-trough, plastic, universal; 210
Coupling nut; 238
CTC cable tie clip; 110
Cylinder head bolt; 233

D

Dome head slotted bolt and nut; 233
Double ISO nail clip; 115
Double nipple; 233
Double push-fit clip; 87
Double trough, metal; 211
Double-flange anchor; 48
Drilling screw DIN 7504; 229

E

Extension pipe; 73

F

Fastening clip; 111, 166-178
Fastening clip 1015 D; 168
Fastening clip 1015 RB; 169
Fastening clip 1015 V2A; 167
Fastening clip 1015, medium duty; 167-168
Fastening clip 1015, medium-duty; 167-168
Fastening clip 604, light-duty; 166
Fastening clip 605, medium-duty; 175-177
Fastening clip 605, medium-duty, V4A; 177
Fastening clip 822 V2A; 171
Fastening clip 822, heavy-duty; 170, 172
Fastening clip 822, heavy-duty, V4A; 172
Fastening clip 823, heavy-duty; 177
Fastening clip 824 VA; 178
Fastening clip, plant standard 7855, double-lobe; 174
Fastening clip, plant standard 7855, single-lobe; 173
Fire protection bolt tie; 56
Fire protection screw tie; 53-54
Fix ISO tensioning wire clip; 222
Flange head-screw HT 10; 249
Flange head-screw HT 6; 249
Flange nut; 226, 245
Flat head screw with hexagon socket; 228
Flat-head screw with internal Torx, stainless steel; 228
Flat-head screw with internal Torx, steel; 228
Flattener; 58
Flattener with hand protection; 58
Frame eyelet; 236

G

Gas concrete anchor; 48
GOLDEN SPRINT, with Philips screw; 252
GOLDEN SPRINT, with Torx; 253
GRIP "M" 15; 145
GRIP "M" 30; 145
GRIP "M" 70; 146
Grip 10; 91-92
GRIP 10 hardly flameable; 92
GRIP 20; 92-93
GRIP 20 hardly flameable; 93
GRIP 40; 92-93
GRIP 40 hardly flameable; 93
Grip ISO clip, double; 103
Grip ISO clip, single; 103
Grip ISO clip, triple; 104

H

Heavy-duty cable clip; 174
Hexagonal bolt DIN 933; 230-231
Hexagonal bolt DIN 933 V2A; 230
Hexagonal bolt DIN 933 V4A; 230
Hexagonal bolt DIN 933 V5A; 231
Hexagonal bolt with large surface screw, washer and nut; 233
Hexagonal bolt with nut and washer; 231-232
Hexagonal bolt with nut, serrated washer and washer; 232
Hexagonal bolt with washer, serrated lock washer and nut; 231-232
Hexagonal nut DIN 934; 244
Hexagonal nut ISO 4032; 244
Hexagonal nut with underhead toothing DIN 6923; 245
Hexagonal wood screw DIN 571; 249
High-load anchor SZ-B; 66
Hollow core anchor Easy; 64
Hook nail; 258

I

Impact clip; 130
Impact tie, version with collar; 63-64
Impu steel nail; 259
Impu-Fix ribbon conductor quick adhesive; 138
Injection mortar in cartridge, 300 ml; 70
Injection mortar in cartridge, 420 ml; 70
Insulation anchor; 47
ISO base clip; 108
ISO nail clamp; 111-114
ISO nail clamp 4029 4-7; 112
ISO nail clamp 40301 7-11; 112
ISO nail clamp 4031 10-14; 113
ISO nail clamp 4031 14-17; 113
ISO nail clamp 4032 16-20; 114
ISO nail clip, light grey; 120
ISO nail clip, type 2004, pure white; 120
ISO nail clip, type 2005, light grey; 121
ISO nail clip, type 2005, pure white; 121
ISO nail clip, type 2006, light grey; 121
ISO nail clip, type 2006, pure white; 122
ISO nail clip, type 2007, black; 123
ISO nail clip, type 2007, light grey; 122
ISO nail clip, type 2007, pure white; 123
ISO nail clip, type 2008, black; 124
ISO nail clip, type 2008, light grey; 123
ISO nail clip, type 2008, pure white; 124
ISO nail clip, type 2009, black; 125
ISO nail clip, type 2009, light grey; 124
ISO nail clip, type 2009, pure white; 125
ISO nail clip, type 2010, black; 126
ISO nail clip, type 2010, light grey; 125
ISO nail clip, type 2010, pure white; 126
ISO nail clip, type 2011, light grey; 126
ISO nail clip, type 2011, pure white; 126
ISO nail clip, type 2012, black; 127
ISO nail clip, type 2012, light grey; 127
ISO nail clip, type 2012, pure white; 127
ISO nail clip, type 2014, light grey; 128
ISO nail clip, type 2014, pure white; 128
ISO nail clip, type 2016, light grey; 128
ISO nail clip, type 2016, pure white; 128
ISO nail clip, type 2018, light grey; 129
ISO nail clip, type 2018, pure white; 129
ISO nail clip, type 2020, light grey; 129
ISO nail clip, type 2020, pure white; 129

K

Knock-in anchor; 47-48, 96

L

Large washer; 241-242
Large washer, steel; 241
Large washer, V2A; 241
Large washer, V4A; 241
Lightning ISO clip; 106
Lightning ISO clip, screw-on; 106
Lock washer; 231-232, 243
Lock washer V4A; 243

M

Marking spreading tool for impact ties; 64
Metal spreading anchor; 58
Metallic internal thread sleeve; 71
Mixer pipe for mortar cartridge; 72
MMS hex; 55
MMS-plus P 7.5x75 round head tie, with panhead,; 53
made of A4 stainless steel
MMS-plus R ring tie, with setting tool; 56
MMS-plus SS hexagonal tie, with pressed washer,; 55
made of A4 stainless steel, size 10
MMS-plus V pre-push tie, with connection thread, size; 55
10
MMS-plus V pre-push tie, with connection thread, size; 56
12
MMS-plusl bolt tie; 54
MMS-ST with thread; 54
Multi-Quick clip; 81
Multi-Quick clip, metric; 81

N

N nail tie with thread, A5; 61
Nail anchor N with thread; 60-61
Nail anchor N with thread, V4A; 61
Nail anchor N-K with nail head; 61
Nail anchor N-K with nail head, V4A; 61
Nail-Fix; 116
Nail-Fix, without nail; 116
N-K nail tie with A5 nail head; 62

O

OBO anchor; 57

P

Pan head screw, stainless steel; 229
Pan head screw, steel; 229
Perforated sleeve, metal; 73
Plasterboard anchor; 48-49
Plastic wire sleeve; 71
Porous concrete anchor with external thread; 65
Porous concrete anchor with internal thread; 65
Pressing gun for 10:1 coaxial cartridges; 70
Pressing gun for 280 ml and side-by-side cartridges; 70
Pressure clip for 10 cables; 94-95, 148
Pressure clip for 10 cables, connectable; 95
Pressure clip for 10 cables, flame resistant; 95
Pressure clip for 16 cables; 95-96, 148
Pressure clip for 16 cables, connectable; 96
Pressure clip for 8 cables; 94, 148
Pressure clip for 8 cables, connectable; 94
Pressure clip for 8 cables, flame resistant; 94
Pressure clip with knock-in anchor, for 16 cables; 96

Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Alphabetical table of contents

Pressure clip with knock-in anchor, for 8 cables; 96
Pressure clip with push-fit anchor; 96
Pressure ISO clip 3050, double, light grey; 100
Pressure ISO clip 3051, single, light grey; 101
Pressure ISO clip 3051, single, pure white; 101
Pressure ISO clip 3052, single, light grey; 102
Pressure ISO clip, single; 100
Push-fit anchor for Quick clip for type 2957; 88
Push-fit anchor with mushroom head; 88
Push-fit anchors for cable ties; 87

Q

Quick clip, aluminium; 143
Quick clip, black; 79
Quick clip, flame-resistant; 79
Quick clip, for push-fit anchor; 86
Quick clip, light grey; 78

R

Rabitz coupler; 236
Ring eyelet; 235

S

S hook; 235
SBR 15 tightening strap; 214
SBR 8 tightening strap; 214
SBV 15 tightening strap lock; 215
SBV 8 tightening strap lock; 214
Screw anchor; 53
Screw-in anchor with M6 thread; 57
Screw-in anchor with M8 thread; 57
Screw-in spacer clip; 162-165
Screw-in spacer clip 705, double; 163
Screw-in spacer clip, heavy-duty version M10; 165
Screw-in spacer clip, heavy-duty version M6; 164
Screw-in spacer clip, heavy-duty version M8; 164
Screw-in spacer clip, universal; 162
Screw-locking adhesive; 254
SDS adapter; 72
SDS-Extension; 72
Series clip; 131-133
Series clip, black; 132
Series pressure clip; 98-99
Series pressure clip 2037; 99
Series terminal clip; 134
Serrated washer DIN 6798; 242-243
Serrated washer DIN 6798 A2; 243
Serrated washer DIN 6798 A4; 242
Setting tool for drop-in anchor; 64
Setting tool for hand hammer; 65
Setting tool for rotary hammer; 66
Setting tool for Nail anchor; 62
Siko nail; 259
Single push-fit clip; 87
Slotted steel strap, bent; 216
Slotted steel strap, rings; 216
Slotted steel strap, rods; 216
Snap clip; 86-87
Solvent mixture; 138
SOM clip, single; 105
SOM clip, single, hardly flammable; 105
Spacer; 73, 138, 148, 153-165, 239
Spacer clip 732; 153-156
Spacer clip 733...; 157-161
Spacer sleeve; 73, 239
Spacer sleeve for insulated ceilings; 73
Spring chuck; 215
Sprint screw, with Phillips slot; 250
Sprint screw, with Torx; 251
Sprung hinged anchor; 59
starQuick clip; 83, 85
starQuick nut; 84
starQuick studding adapter for threaded rods; 84
Steel cleaning brush for drill holes; 72
Steel nail; 258-259
Steel wall hook; 259
Steel wire tensioning rope; 220
Strain relief clip; 180-183
Strain relief clip 7901; 180
Strain relief clip 7902; 180
Strain relief clip 7909; 183
Suspension chain; 216
Suspension eyelet; 235-236
SWS starQuick clip; 85
SWS starQuick double holder; 84

T

Tension jack; 220
Tensioning wire clip; 221-222
Tensioning wire clip, polystyrene; 221
Threaded rod; 84, 238
Tilting anchor; 59-60
Truss-head bolt with combination nut, V2A; 226
Truss-head bolt with flange nut; 226
Truss-head bolt with nut and washer; 227-228
TS ceiling hook; 235
TS suspension eyelet; 236

U

Universal anchor; 46

W

Washer F; 240
Washer ISO 7093; 240
Washer V2A; 240
Washer V4A; 240, 243
Washer V5A; 241
Wedge anchor BZ; 62-63
Wedge anchor BZ-IG V SET; 63
Wire cable clamp; 222
Wire rope clamp; 222-223
Woven strip; 218

Numeric directory

GTIN	Item no.	Page
	/100 pc.	
5000792	**1003038**	166
5000853	**1003046**	166
5000914	**1003054**	166
5000976	**1003062**	166
5001034	**1003070**	166
5001096	**1003089**	166
5001157	**1003097**	166
5001218	**1003100**	166
5001270	**1003119**	166
5001331	**1003127**	166
5001393	**1003135**	166
5001454	**1003178**	166
5001515	**1003194**	166
5001577	**1003208**	166
5001638	**1003216**	166
5001690	**1003232**	166
5566892	**1003259**	166
5001751	**1003283**	166
5566953	**1003321**	166
5001812	**1003356**	166
5001874	**1003372**	166
5001935	**1003402**	166
5002055	**1003461**	166
5006619	**1008633**	167
5006671	**1008641**	167
5006732	**1008668**	167
5006855	**1008684**	167
5006978	**1008706**	167
5007456	**1009028**	167
5007517	**1009036**	167
5007579	**1009044**	167
5007630	**1009052**	167
5007692	**1009060**	167
5007753	**1009079**	167
5007814	**1009087**	167
5007876	**1009109**	167
5007937	**1009117**	167
5007999	**1009168**	167
5008057	**1009184**	167
5008118	**1009192**	167
5008170	**1009206**	167
5008231	**1009214**	167
5008354	**1009230**	168
5008712	**1009362**	168
5009078	**1009427**	168
6458561	**1009455**	168
6458578	**1009457**	168
6458585	**1009459**	168
6458622	**1009461**	168
6458639	**1009463**	168
6458646	**1009465**	168
6458684	**1009469**	168
6458691	**1009473**	168
6458707	**1009475**	168
6458738	**1009477**	168
6458745	**1009481**	168
6458752	**1009485**	168
6458769	**1009489**	168
6458790	**1009493**	168
5850090	**1010794**	169
5911746	**1013861**	172
5911753	**1013865**	172
5911760	**1013869**	172
5911807	**1013873**	172
5911814	**1013877**	172
5911821	**1013881**	172
5911838	**1013885**	172
5911845	**1013889**	172
5911852	**1013893**	172
5911876	**1013903**	172
5911890	**1013911**	172
5911913	**1013921**	172
5911920	**1013925**	172
5013631	**1014005**	170
5013693	**1014013**	170
5013754	**1014021**	170
5013815	**1014048**	170
5013877	**1014099**	170

GTIN	Item no.	Page
	/100 pc.	
5013938	**1014110**	170
5013990	**1014137**	170
5014058	**1014161**	170
5014119	**1014218**	170
5014171	**1014293**	170
5014232	**1014366**	170
5567011	**1014501**	170
5567073	**1014528**	170
5567134	**1014536**	170
5567493	**1014544**	170
5567554	**1014552**	170
5472032	**1014714**	171
5015130	**1015095**	177
5015192	**1015117**	177
5015253	**1015133**	177
5015314	**1015168**	177
5015376	**1015214**	177
5015437	**1015303**	177
5015499	**1015362**	177
5015550	**1015427**	177
5015611	**1015486**	177
5567615	**1015494**	177
5567738	**1015496**	177
5567790	**1015498**	177
5567851	**1015500**	177
5567912	**1015508**	177
5472452	**1016555**	178
5449539	**1017799**	176
5449652	**1017837**	176
5449836	**1017861**	176
5590170	**1017926**	176
5450016	**1017950**	176
5589938	**1017980**	176
5590057	**1017997**	176
5016274	**1018078**	175
5016335	**1018086**	175
5016397	**1018094**	175
5016458	**1018108**	175
5016519	**1018116**	175
5016571	**1018124**	175
5016632	**1018132**	175
5016694	**1018140**	175
5016755	**1018159**	175
5016816	**1018167**	175
5016878	**1018175**	175
5016939	**1018183**	175
5016991	**1018191**	175
5017059	**1018205**	175
5017110	**1018213**	175
5017172	**1018221**	175
5017233	**1018256**	175
5017295	**1018264**	175
5017356	**1018280**	175
5017417	**1018302**	175
5017479	**1018337**	175
5017530	**1018353**	175
5017592	**1018361**	175
5017653	**1018396**	176
5017714	**1018434**	176
5017776	**1018477**	176
5568339	**1018507**	176
5017837	**1018558**	176
5017899	**1018604**	176
5568513	**1018639**	176
5912002	**1018653**	177
5912064	**1018661**	177
5912101	**1018669**	177
5912132	**1018679**	177
5912170	**1018693**	177
5912231	**1018705**	177
5906476	**1018717**	177
5906506	**1018729**	177
5028451	**1043013**	173
5028512	**1043021**	173
5028574	**1043048**	173
5028697	**1043064**	173
5028758	**1043072**	173
5028819	**1043080**	173

GTIN	Item no.	Page
	/100 pc.	
5028871	**1043102**	173
5028932	**1043129**	173
5028994	**1043145**	173
5029052	**1043161**	173
5029113	**1043196**	173
5029175	**1043226**	173
5029236	**1043242**	173
5029595	**1044044**	174
5029717	**1044060**	174
5029779	**1044079**	174
5029830	**1044087**	174
5029892	**1044109**	174
5029953	**1044125**	174
5030010	**1044141**	174
5030072	**1044176**	174
5030133	**1044192**	174
5030195	**1044214**	174
5030256	**1044230**	174
5030317	**1044257**	174
6429370	**1148896**	229
6429400	**1148898**	229
5499930	**1171895**	191
5072492	**1174053**	202
5451211	**1174509**	209
5451273	**1174517**	209
5451334	**1174525**	209
5072553	**1174541**	209
5072614	**1174568**	209
5072676	**1174576**	209
5500353	**1174606**	209
5500414	**1174614**	209
5500476	**1174630**	209
6846900	**1186002**	192
6848539	**1186003**	193
6848546	**1186004**	193
6848553	**1186009**	192
6848560	**1186010**	193
6848577	**1186012**	193
6848584	**1186016**	192
6848591	**1186017**	193
6848607	**1186018**	193
6848614	**1186022**	192
6848621	**1186023**	193
6848638	**1186024**	193
6848645	**1186029**	192
6848676	**1186036**	192
6848706	**1186042**	192
6848737	**1186049**	192
6848751	**1186056**	192
6848775	**1186062**	192
6848799	**1186069**	192
6848805	**1186076**	192
6848812	**1186082**	192
6848829	**1186089**	192
6848836	**1186097**	192
6848850	**1186102**	194
6848881	**1186109**	194
6848911	**1186116**	194
6848942	**1186122**	194
6849017	**1186129**	194
6849048	**1186136**	194
6849079	**1186142**	194
6848973	**1186149**	194
6848997	**1186156**	194
6849109	**1186162**	194
6849123	**1186169**	194
6849130	**1186176**	194
6846931	**1186202**	195
6846948	**1186203**	196
6846955	**1186204**	197
6846962	**1186209**	195
6846993	**1186210**	196
6847006	**1186211**	197
6847013	**1186216**	195
6847020	**1186217**	196
6847051	**1186218**	197
6847068	**1186222**	195
6847075	**1186223**	196

GTIN	Item no.	Page
6847082	**1186224**	197
6847112	**1186229**	195
6847129	**1186230**	196
6847136	**1186231**	197
6847143	**1186236**	195
6847174	**1186237**	196
6847181	**1186238**	197
6847198	**1186242**	195
6847204	**1186243**	196
6847235	**1186244**	197
6847242	**1186249**	195
6847259	**1186250**	196
6847266	**1186256**	195
6847297	**1186257**	196
6847303	**1186262**	195
6847310	**1186263**	196
6847327	**1186269**	195
6847372	**1186276**	195
6847358	**1186282**	195
6847365	**1186289**	195
6847389	**1186297**	195
6847617	**1186302**	198
6847662	**1186309**	198
6847679	**1186310**	199
6847716	**1186316**	198
6847723	**1186317**	199
6847747	**1186322**	198
6847778	**1186323**	199
6847792	**1186329**	198
6847808	**1186330**	199
6847846	**1186336**	198
6847853	**1186337**	199
6847891	**1186342**	198
6847907	**1186343**	199
6847921	**1186349**	198
6847952	**1186350**	199
6847969	**1186356**	198
6847976	**1186357**	199
6847983	**1186362**	198
6848010	**1186363**	199
6848027	**1186369**	198
6848034	**1186376**	198
6848096	**1186402**	200
6848102	**1186403**	201
6848140	**1186409**	200
6848157	**1186410**	201
6848195	**1186416**	200
6848218	**1186417**	201
6848225	**1186418**	201
6848201	**1186422**	200
6848256	**1186423**	201
6848263	**1186424**	201
6848270	**1186429**	200
6848287	**1186430**	201
6848317	**1186431**	201
6848324	**1186436**	200
6848331	**1186437**	201
6848379	**1186442**	200
6848386	**1186443**	201
6848409	**1186449**	200
6848430	**1186450**	201
6848447	**1186456**	200
6848454	**1186457**	201
6848461	**1186462**	200
6848485	**1186469**	200
6848492	**1186476**	200
6849772	**1186502**	186
6849826	**1186509**	186
6849871	**1186516**	186
6849901	**1186522**	186
6849956	**1186529**	186
6850006	**1186536**	186
6850051	**1186542**	186
6850082	**1186549**	186
6850129	**1186556**	186
6850143	**1186562**	186
6850181	**1186569**	186
6850198	**1186576**	186
6850259	**1186602**	187
6850303	**1186609**	187
6850358	**1186616**	187
6850389	**1186622**	187
6850433	**1186629**	187
6850488	**1186636**	187

GTIN	Item no.	Page
6850532	**1186642**	187
6850563	**1186649**	187
6850600	**1186656**	187
6850624	**1186662**	187
6850662	**1186669**	187
6850679	**1186676**	187
6850730	**1186702**	188
6850747	**1186703**	189
6850778	**1186704**	189
6850785	**1186709**	188
6850792	**1186710**	189
6850808	**1186711**	189
6850839	**1186716**	188
6850846	**1186717**	189
6850853	**1186718**	189
6850860	**1186722**	188
6850891	**1186723**	189
6850907	**1186724**	189
6850914	**1186729**	188
6850921	**1186730**	189
6850952	**1186731**	189
6850969	**1186736**	188
6850976	**1186737**	189
6850983	**1186738**	189
6851010	**1186742**	188
6851027	**1186743**	189
6851034	**1186744**	189
6851041	**1186749**	188
6851072	**1186750**	189
6851089	**1186756**	188
6851096	**1186757**	189
6851102	**1186762**	188
6851140	**1186769**	188
6851157	**1186776**	188
6851164	**1186782**	188
6851195	**1186789**	188
6851201	**1186797**	188
6851270	**1186802**	190
6851324	**1186809**	190
6851379	**1186816**	190
6851409	**1186822**	190
6851454	**1186829**	190
6851508	**1186836**	190
6851553	**1186842**	190
6851584	**1186849**	190
6851621	**1186856**	190
6851645	**1186862**	190
6851683	**1186869**	190
6851690	**1186876**	190
6851751	**1186902**	191
6851805	**1186909**	191
6851850	**1186916**	191
6851881	**1186922**	191
6851935	**1186929**	191
6851980	**1186936**	191
6852031	**1186942**	191
6852062	**1186949**	191
6852109	**1186956**	191
6852123	**1186962**	191
6852161	**1186969**	191
6852178	**1186976**	191
6852352	**1187002**	184
6852390	**1187008**	184
6852413	**1187014**	184
6852451	**1187020**	184
6852475	**1187026**	184
6852512	**1187032**	184
6852536	**1187038**	184
6852574	**1187044**	184
6852598	**1187050**	184
6852758	**1187202**	184
6852765	**1187203**	185
6852772	**1187208**	184
6852789	**1187214**	184
6852819	**1187220**	184
6852826	**1187226**	184
6852833	**1187232**	184
6852932	**1187238**	184
6852956	**1187244**	184
6852963	**1187250**	184
6852994	**1187256**	184
6853007	**1187262**	184
6853069	**1187302**	185

GTIN	Item no.	Page
6853083	**1187308**	185
6853113	**1187314**	185
6853120	**1187320**	185
6853182	**1187326**	185
6853205	**1187332**	185
6853236	**1187338**	185
6853243	**1187344**	185
6853250	**1187350**	185
6853380	**1187402**	202
6853410	**1187408**	202
6853427	**1187414**	202
6853434	**1187420**	202
6853441	**1187426**	202
6853748	**1187520**	203
6853779	**1187526**	203
6853786	**1187532**	203
6854028	**1187602**	203
6854035	**1187603**	204
6854042	**1187608**	203
6854196	**1187609**	204
6854073	**1187614**	203
6854202	**1187615**	204
6854080	**1187620**	203
6854219	**1187621**	204
6854097	**1187626**	203
6854226	**1187627**	204
6854103	**1187632**	203
6854257	**1187633**	204
6854134	**1187638**	203
6854264	**1187639**	204
6854141	**1187644**	203
6854271	**1187645**	204
6854158	**1187650**	203
6854165	**1187656**	203
6854332	**1187702**	205
6854370	**1187708**	205
6854462	**1187709**	206
6854387	**1187714**	205
6854493	**1187715**	206
6854394	**1187720**	205
6854509	**1187721**	206
6854400	**1187726**	205
6854516	**1187727**	206
6854431	**1187732**	205
6854523	**1187733**	206
6854448	**1187738**	205
6854554	**1187739**	206
6854455	**1187744**	205
6854561	**1187745**	206
6854578	**1187750**	205
6854639	**1187751**	206
6854585	**1187756**	205
6854615	**1187762**	205
6854738	**1187814**	206
6854745	**1187820**	206
6854806	**1187826**	206
6854820	**1187832**	206
6854851	**1187838**	206
6854868	**1187844**	206
6854875	**1187850**	206
6855049	**1187914**	207
6855056	**1187920**	207
6855063	**1187926**	207
6855155	**1187932**	207
6855162	**1187938**	207
6855179	**1187944**	207
6855186	**1187950**	207
6855216	**1187956**	207
6855759	**1188020**	207
6855773	**1188026**	207
6855810	**1188032**	207
6868971	**1188102**	186
6869015	**1188108**	186
6869039	**1188114**	186
6869077	**1188120**	186
6869084	**1188126**	186
6869091	**1188132**	186
6869107	**1188138**	186
	/100 pc.	
5081197	**1194046**	208
5081258	**1194054**	208
5081319	**1194089**	208
	/100 pc.	
5476771	**1194372**	208
5847649	**1196597**	211
5847656	**1196599**	211
5847663	**1196601**	211
5514039	**1197096**	210
5514091	**1197134**	210
5514152	**1197177**	210
5514213	**1197231**	210
5514275	**1197290**	210
5514336	**1197355**	210
5860297	**1197428**	210
5844334	**1197479**	210
5821892	**1197533**	210
5847632	**1197592**	210
5865995	**1197606**	210
6636129	**1198012**	210
6636150	**1198016**	210
6636167	**1198022**	210
6636174	**1198028**	210
6636181	**1198034**	210
6636198	**1198040**	210
6636204	**1198046**	210
6636211	**1198052**	210
6636228	**1198058**	210
6636235	**1198064**	210
6636242	**1198070**	210
6636273	**1198076**	210
6636280	**1198082**	210
6636297	**1198090**	210
6636303	**1198100**	210
	/100 pc.	
5441434	**1199706**	211
5441496	**1199714**	211
5441557	**1199722**	211
5441618	**1199730**	211
5441670	**1199749**	211
5441731	**1199757**	211
5442035	**1199846**	210
5442097	**1199854**	210
5442158	**1199862**	210
5442219	**1199870**	210
5442271	**1199889**	210
5442332	**1199897**	210
5442394	**1199900**	210
5442455	**1199919**	210
5442516	**1199927**	210
5442578	**1199935**	210
5442639	**1199943**	210
5106159	**1310925**	174
6599332	**1362354**	154
6599349	**1362356**	154
6599356	**1362358**	154
6599363	**1362360**	154
6599370	**1362362**	154
6599387	**1362364**	154
6599394	**1362367**	154
6599400	**1362369**	154
6599417	**1362372**	154
6599424	**1362374**	154
6599431	**1362378**	154
6600700	**1362382**	154
6599448	**1362386**	154
6599455	**1362389**	154
6599585	**1362404**	153
6599592	**1362406**	153
6599608	**1362408**	153
6599615	**1362410**	153
6599622	**1362412**	153
6599639	**1362414**	153
6599646	**1362417**	153
6599653	**1362420**	153
6599660	**1362424**	153
6599677	**1362428**	153
6599684	**1362432**	153
6599691	**1362436**	153
6599707	**1362440**	153
6599714	**1362444**	153
6599738	**1362454**	156
6599745	**1362456**	156
6599752	**1362458**	156
6599769	**1362460**	156
6599776	**1362462**	156
6599783	**1362464**	156
6599790	**1362467**	156
6599806	**1362469**	156
6599813	**1362472**	156
6599820	**1362474**	156
6599837	**1362478**	156
6599844	**1362482**	156
6599851	**1362486**	156
6599868	**1362489**	156
6609352	**1362622**	155
6609369	**1362624**	155
6609376	**1362626**	155
6609383	**1362628**	155
6609390	**1362630**	155
6609406	**1362632**	155
6609413	**1362634**	155
6609420	**1362636**	155
6609437	**1362638**	155
6609444	**1362640**	155
6609451	**1362642**	155
6609468	**1362644**	155
6609475	**1362646**	155
6609482	**1362648**	155
6599875	**1362704**	158
6599882	**1362706**	158
6599905	**1362708**	158
6599912	**1362712**	158
6599929	**1362714**	158
6599936	**1362718**	158
6599943	**1362722**	158
6599981	**1362726**	158
6599998	**1362730**	158
6600007	**1362734**	158
6600014	**1362738**	158
6600021	**1362754**	157
6600038	**1362756**	157
6600045	**1362758**	157
6600052	**1362762**	157
6600069	**1362764**	157
6600076	**1362768**	157
6600083	**1362772**	157
6600090	**1362776**	157
6600106	**1362780**	157
6600113	**1362784**	157
6600120	**1362788**	157
6600144	**1362804**	161
6600151	**1362806**	161
6600243	**1362808**	161
6600168	**1362812**	161
6600175	**1362814**	161
6600182	**1362818**	161
6600199	**1362822**	161
6600205	**1362826**	161
6600212	**1362830**	161
6600229	**1362834**	161
6600236	**1362838**	161
6600250	**1362904**	160
6600267	**1362906**	160
6600274	**1362908**	160
6600281	**1362912**	160
6600298	**1362914**	160
6600304	**1362918**	160
6600335	**1362922**	160
6600311	**1362926**	160
6600328	**1362930**	160
6600359	**1362934**	160
6600366	**1362938**	160
6608867	**1362976**	159
6608874	**1362978**	159
6608881	**1362980**	159
6608898	**1362982**	159
6608904	**1362984**	159
6608911	**1362986**	159
6608928	**1362988**	159
6608935	**1362990**	159
6608942	**1362992**	159
6608959	**1362994**	159
6608966	**1362996**	159
	/100 pc.	
5117919	**1366122**	163
5117971	**1366165**	163
5118039	**1366203**	163
5118091	**1366254**	163
5118152	**1366300**	163
5118213	**1366351**	163
5119418	**1371207**	163
5120735	**1380028**	162
5120858	**1380222**	162
5120971	**1380427**	162
5121152	**1380729**	162
5121336	**1383094**	162
5121398	**1383116**	162
5121459	**1383132**	162
5121510	**1383167**	162
5121572	**1383213**	162
5121633	**1383299**	162
5569176	**1383310**	162
5121695	**1383361**	162
5569237	**1383418**	162
5121756	**1383426**	162
5121817	**1383485**	162
5569299	**1383507**	162
5122838	**1385003**	164
5122890	**1385011**	164
5122951	**1385038**	164
5123019	**1385054**	164
5123071	**1385062**	164
5123132	**1385089**	164
5123194	**1385119**	164
5123255	**1385127**	164
5123316	**1385135**	164
5123675	**1387014**	164
5123736	**1387030**	164
5123798	**1387057**	164
5123859	**1387065**	164
5123910	**1387081**	164
5123972	**1387111**	164
5124030	**1387138**	164
5124092	**1387154**	164
5124153	**1387170**	164
5124450	**1388037**	165
5124511	**1388053**	165
5124573	**1388061**	165
5124696	**1388118**	165
5124757	**1388134**	165
5125891	**1404164**	221
5901792	**1404168**	221
5125952	**1404180**	221
5901808	**1404184**	221
5126010	**1404288**	221
5901815	**1404292**	221
5134831	**1435019**	180
5134893	**1435027**	180
5134954	**1436015**	180
5135012	**1436023**	180
5135074	**1437003**	181
5135135	**1437011**	181
5135197	**1437038**	181
5135258	**1438018**	181
5135319	**1439014**	182
5135555	**1442015**	182
5135616	**1443011**	183
	price/100	
5549079	**1465600**	216
5137597	**1465767**	216
5137771	**1465805**	216
5137832	**1465821**	216
	/pc.	
6456307	**1476980**	218
	price/100	
5151210	**1488201**	216
	/100 pc.	
5151272	**1488252**	235
5195252	**2101017**	100
5195313	**2101033**	101
5195375	**2101068**	102
5584773	**2102048**	101
5195436	**2105012**	103
5195498	**2105039**	103
5195559	**2105055**	103
5195610	**2107015**	103
5195672	**2107031**	103
5195795	**2109018**	104
5196211	**2115018**	100
5196570	**2124149**	105
5196631	**2124173**	105
5196693	**2124254**	105
5196754	**2124343**	105
5196815	**2124459**	105
5196990	**2130114**	108
5197058	**2130122**	108
5197119	**2130157**	108
5197171	**2130181**	108
5197232	**2130211**	108
5197294	**2130254**	108
5197355	**2130289**	108
5197416	**2130351**	108
5197478	**2130408**	108
5197539	**2130432**	108
5197591	**2130475**	108
5197652	**2130548**	108
5588917	**2136880**	108
5198970	**2140063**	107
5199038	**2140071**	107
5199090	**2140101**	107
5199151	**2140128**	107
5199212	**2140152**	107
5199274	**2140187**	107
5199335	**2140233**	107
5199397	**2140284**	107
5199458	**2140357**	107
5199519	**2140411**	107
5199694	**2140608**	107
5199939	**2140683**	107
5199991	**2140721**	107
5595359	**2146053**	83
5595410	**2146061**	83
5595472	**2146096**	83
5595533	**2146118**	83
5595656	**2146134**	83
5595717	**2146207**	83
5595779	**2146215**	83
5595830	**2146258**	83
5204275	**2146290**	83
5595892	**2146320**	83
5204398	**2146363**	83
5595953	**2146444**	83
5204510	**2146487**	83
5016069	**2146509**	84
	price/100	
5371618	**2146922**	85
5371625	**2146923**	85
5371632	**2146924**	85
5371649	**2146925**	85
5371670	**2146926**	85
5371748	**2146927**	85
5371755	**2146928**	85
5371762	**2146929**	85

Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Numeric directory

GTIN	Item no.	Page
	price/100	
5371809	**2147000**	84
	/100 pc.	
5403180	**2147280**	84
5403197	**2147283**	84
5844518	**2148021**	86
5844570	**2148048**	86
5844631	**2148056**	86
5863779	**2148501**	87
5863830	**2148528**	87
5863892	**2148536**	87
5947899	**2148803**	86
5877691	**2148846**	86
5640035	**2148862**	86
5583219	**2149004**	78
5583936	**2149010**	78
5583998	**2149016**	78
5584056	**2149022**	78
5584292	**2149028**	78
5588191	**2149034**	78
5588252	**2149040**	78
5584353	**2149303**	79
5585251	**2149309**	79
5585312	**2149315**	79
5585435	**2149321**	79
5585497	**2149327**	79
5585558	**2149333**	79
5585619	**2149339**	79
5585671	**2149351**	79
5586036	**2149357**	79
5586159	**2149363**	79
5586395	**2149369**	79
5586456	**2149375**	79
5616276	**2149559**	79
5616337	**2149563**	79
5616399	**2149567**	79
5616450	**2149571**	79
5616511	**2149575**	79
5616993	**2149579**	79
5617051	**2149583**	79
5931911	**2149701**	86
5931928	**2149710**	86
6409235	**2149916**	143
6409242	**2149920**	143
6409259	**2149925**	143
6409266	**2149932**	143
6409273	**2149940**	143
6409297	**2149950**	143
6409303	**2149963**	143
5880936	**2153106**	81
5880998	**2153114**	81
5881056	**2153130**	81
5881117	**2153157**	81
5742395	**2153718**	81
5741732	**2153726**	81
5741671	**2153734**	81
5206897	**2157128**	106
5206958	**2157179**	106
5207016	**2157241**	106
5207078	**2157349**	106
5207139	**2158124**	106
5207191	**2158175**	106
5207252	**2158248**	106
5207313	**2158345**	106
5742999	**2197804**	87
5742937	**2197812**	87
5742630	**2197855**	87
5742579	**2197863**	87
5036616	**2204000**	148
5210672	**2204010**	148
6624249	**2204020**	148
5693253	**2204541**	96
5210917	**2204800**	96
5210979	**2204819**	96
5597490	**2204851**	96
5597551	**2204878**	96
5211099	**2204908**	94
5211150	**2204916**	95
5211211	**2204924**	95
5597674	**2204975**	94
5597735	**2204983**	95
5597797	**2204991**	94
5211273	**2205017**	94
5211334	**2205033**	95
5211396	**2205041**	94
5710028	**2205052**	94
5710035	**2205053**	96
5710042	**2205054**	95
5211457	**2205092**	138
5044970	**2205097**	148
6773572	**2205380**	92
6773589	**2205384**	92
6773619	**2205388**	92
	/100 pc.	
5651635	**2205404**	92
5651642	**2205408**	92
5651659	**2205412**	93
5651666	**2205416**	92
5651703	**2205420**	92
5651710	**2205423**	93
5863953	**2207028**	145
5798798	**2207036**	145
5022497	**2207060**	146
5809395	**2207080**	145
5809401	**2207088**	145
5809449	**2207112**	146
5809456	**2207132**	145
5809463	**2207140**	145
5809470	**2207164**	146
5213017	**2213117**	115
5599777	**2214873**	118
5599838	**2214881**	118
5213130	**2215047**	111
5213192	**2215071**	112
5213253	**2215101**	112
5213314	**2215144**	113
5213376	**2215179**	113
5213437	**2215209**	114
5213550	**2215306**	118
5213611	**2215314**	118
5213673	**2215322**	119
5213734	**2215330**	119
5213796	**2215349**	119
5213857	**2215357**	119
5214038	**2222035**	111
5214090	**2222051**	111
5214151	**2222078**	111
5214212	**2222086**	111
5214274	**2222094**	111
5214335	**2222116**	111
5214397	**2222124**	111
5214458	**2222140**	111
5214519	**2222167**	111
5214571	**2222175**	111
5698357	**2222809**	116
5705796	**2222833**	116
5705734	**2222841**	116
5707837	**2222868**	116
5509837	**2222876**	116
5214878	**2225220**	120
5214939	**2225239**	120
5214991	**2225344**	121
5215059	**2225379**	121
5215110	**2225409**	122
5215172	**2225417**	122
5215233	**2225425**	122
5215295	**2225506**	123
5215356	**2225514**	123
5215417	**2225522**	123
5215530	**2225611**	124
5215592	**2225638**	124
5215776	**2225719**	125
5215837	**2225727**	125
5215899	**2225808**	126
5215950	**2225816**	126
5216070	**2225905**	126
5216131	**2225913**	126
5216254	**2226014**	127
5216315	**2226022**	127
5216438	**2226103**	128
5216490	**2226111**	128
5216674	**2226219**	128
5216797	**2226308**	129
5216919	**2226405**	129
5217275	**2227223**	120
5217336	**2227231**	120
5217398	**2227339**	121
5217459	**2227347**	121
5606970	**2227371**	121
5217572	**2227428**	121
5217633	**2227436**	121
5607151	**2227460**	121
5217756	**2227517**	122
5217817	**2227525**	122
5217930	**2227614**	123
5217992	**2227622**	123
5218050	**2227630**	123
5218173	**2227711**	124
5218234	**2227738**	124
5218296	**2227746**	124
5607694	**2227762**	124
5607878	**2227797**	124
5218357	**2227800**	125
5218418	**2227819**	125
5218470	**2227827**	125
5218593	**2227916**	126
5218654	**2227924**	126
5218777	**2228025**	127
5218838	**2228033**	127
5218951	**2228114**	128
5219019	**2228122**	128
5219132	**2228211**	128
5219194	**2228238**	128
5219255	**2228300**	129
5219316	**2228319**	129
5219378	**2228408**	129
5219439	**2228416**	129
5496397	**2228420**	117
5496458	**2228422**	117
5608110	**2228432**	117
5608172	**2228440**	117
5828617	**2228467**	117
5219552	**2228610**	116
5219613	**2228629**	116
5608530	**2228637**	116
5496519	**2228686**	117
5828556	**2228688**	117
5219675	**2228718**	117
5219736	**2228726**	117
5219798	**2228734**	117
5608837	**2228750**	117
5219859	**2228823**	117
5219910	**2228831**	117
5219972	**2228858**	117
5220039	**2228904**	118
5609551	**2228963**	120
5336372	**2232146**	123
5336310	**2232170**	124
5336198	**2232219**	125
5336136	**2232235**	126
5335955	**2232316**	127
5518594	**2232715**	122
5518655	**2232804**	122
5518716	**2232812**	123
5518778	**2232814**	123
5518839	**2232816**	123
5518891	**2232820**	124
5519010	**2232822**	124
5519195	**2232824**	124
5519256	**2232830**	125
5512530	**2232834**	125
5519379	**2232839**	127
5519430	**2232842**	127
5519492	**2232901**	116
5519553	**2232928**	117
5519614	**2232930**	117
5519676	**2232936**	118
5519737	**2232940**	118
5221173	**2236028**	138
5613398	**2249952**	98
5221296	**2250071**	98
5221357	**2250136**	98
5221418	**2250209**	98
5221470	**2250241**	98
5221531	**2250306**	98
5221593	**2250438**	98
5613879	**2250527**	99
	/100 pc.	
5614050	**2250705**	99
5221654	**2251256**	130
5222132	**2254026**	131
5222194	**2254034**	132
5614890	**2254522**	131
5615019	**2254565**	132
5222798	**2255014**	133
5222859	**2255022**	133
5664451	**2255502**	133
5616573	**2259745**	134
5315971	**2259796**	134
5224297	**2305151**	221
5224358	**2305232**	221
5224419	**2307618**	222
5901853	**2307622**	222
5224471	**2307634**	222
5901860	**2307638**	222
5225911	**2327104**	130
6416929	**2331800**	136
6416936	**2331802**	136
6416943	**2331810**	136
6416950	**2331812**	136
6416974	**2331816**	136
6416981	**2331818**	136
6416998	**2331822**	136
6417001	**2331824**	136
6417018	**2331830**	136
6417032	**2331832**	136
6417049	**2331836**	136
6417056	**2331838**	136
6417100	**2331842**	136
6417117	**2331844**	136
6417124	**2331848**	136
6417131	**2331850**	136
6417155	**2331860**	136
6417162	**2331862**	136
6417179	**2331866**	136
6417186	**2331868**	136
6417193	**2331872**	136
6417216	**2331874**	136
6417223	**2331878**	136
6417230	**2331880**	136
6417247	**2331884**	136
6417254	**2331886**	136
6417278	**2331890**	136
6417285	**2331892**	136
6417292	**2331910**	136
6417308	**2331912**	136
6417315	**2331916**	136
6417346	**2331918**	136
6417339	**2331922**	136
6417353	**2331924**	136
6417360	**2331934**	136
6417377	**2331936**	136
6417384	**2331944**	136
6417391	**2331946**	136
6515158	**2332790**	110
6515165	**2332794**	110
	/pc.	
5228073	**2341018**	138
5228196	**2341107**	138
	/100 pc.	
5828198	**2347229**	48
5828259	**2347261**	48
5448099	**2347407**	48
6788521	**2347580**	46
6788538	**2347582**	46
6788545	**2347584**	46
6788552	**2347586**	46
6788569	**2347588**	46
7273934	**2347605**	47
6788675	**2348120**	47
6788682	**2348122**	47
6788699	**2348124**	47
6788705	**2348126**	47
6788712	**2348128**	47
6788613	**2349480**	46
6788620	**2349482**	46
6788637	**2349484**	46
6788644	**2349486**	46
6788651	**2349488**	46
	/100 pc.	
5874454	**2350807**	48
5229452	**2351021**	47
5669197	**2351056**	47
5229513	**2351064**	47
5229575	**2351099**	47
5229636	**2351218**	47
5242352	**2351412**	88
5708971	**2351609**	87
5931935	**2351650**	88
	/pc.	
5785385	**2362940**	254
5241690	**3031012**	58
5851417	**3031500**	58
	/100 pc.	
5245773	**3100154**	57
5245834	**3100189**	57
5245896	**3100251**	57
5245957	**3100308**	57
5246015	**3100405**	57
5851059	**3105016**	57
5851110	**3105024**	57
5851172	**3105032**	57
5250272	**3131068**	233
5250333	**3131084**	233
5250395	**3133028**	57
5250456	**3133036**	57
5250579	**3133230**	57
5253211	**3141047**	238
6096640	**3141048**	238
5253334	**3141128**	238
5119982	**3141136**	238
5123583	**3141140**	238
5123644	**3141144**	238
5253396	**3141209**	238
5895152	**3141233**	238
5253457	**3141306**	238
5023456	**3141310**	238
5023579	**3141312**	238
5594437	**3141314**	238
6096930	**3141316**	238
6096886	**3141327**	238
6096893	**3141328**	238
5882886	**3141330**	238
6096909	**3141339**	238

GTIN	Item no.	Page
	/100 pc.	
6098385	**3141482**	238
6098392	**3141484**	238
6098408	**3141492**	238
6098439	**3141494**	238
6098446	**3141502**	238
6098453	**3141504**	238
6098507	**3141514**	238
5254836	**3153096**	233
5254898	**3153150**	233
5254959	**3153207**	233
5940371	**3156016**	230
5940388	**3156018**	230
5940395	**3156019**	230
5940401	**3156020**	230
5940418	**3156021**	230
5940425	**3156022**	230
5940432	**3156024**	230
5940449	**3156025**	230
5940487	**3156026**	230
5940494	**3156027**	230
5940500	**3156028**	230
5891994	**3156029**	230
5940548	**3156031**	230
5940555	**3156032**	230
5940562	**3156033**	230
5940609	**3156034**	230
5940616	**3156035**	230
5940623	**3156036**	230
5940661	**3156037**	230
5849490	**3156040**	230
5849513	**3156042**	230
5849582	**3156044**	230
5940739	**3156054**	231
5940821	**3156062**	231
5940876	**3156067**	231
5849643	**3156120**	245
5849711	**3156122**	245
5849728	**3156126**	245
5255857	**3156494**	231
5255970	**3156516**	231
5256038	**3156524**	231
6687336	**3156706**	230
6687343	**3156708**	230
6687350	**3156710**	230
6687367	**3156712**	230
6687701	**3156715**	230
6687374	**3156716**	230
6687381	**3156728**	230
6687398	**3156730**	230
6687404	**3156732**	230
6687411	**3156734**	230
6687428	**3156736**	230
6687435	**3156738**	230
6687442	**3156758**	230
6687480	**3156760**	230
6687497	**3156762**	230
6687503	**3156764**	230
6687510	**3156766**	230
6687527	**3156768**	230
6687534	**3156770**	230
6687541	**3156774**	230
6687558	**3156788**	230
6687565	**3156790**	230
6687572	**3156792**	230
6687589	**3156794**	230
6687596	**3156796**	230
6687602	**3156799**	230
	/100 pc.	
5256571	**3158624**	231
5256632	**3158632**	231
5256694	**3158640**	231
5257233	**3160734**	231
5257295	**3160742**	231
5257356	**3160750**	231
5618423	**3160752**	232
5505631	**3160793**	231
5258070	**3163091**	232
5258131	**3163113**	232
5258254	**3163156**	232
5317418	**3164020**	233
6101023	**3164952**	228
6101030	**3164956**	228
6101047	**3164972**	228
6101078	**3164976**	228
5261018	**3168905**	233
5849520	**3175608**	226
5849537	**3175620**	226
5849544	**3175625**	226
5871156	**3176428**	229
5866718	**3188043**	249
5270195	**3188051**	249
5270256	**3188078**	249
5866770	**3188094**	249
5866831	**3188140**	249
5866893	**3188159**	249
5270317	**3188167**	249
5270379	**3188175**	249
5866954	**3188183**	249
5867012	**3188205**	249
5867074	**3188256**	249
5270430	**3188272**	249
5270492	**3188280**	249
5867135	**3188302**	249
5270553	**3188361**	249
5270614	**3188388**	249
6621392	**3191000**	248
6621408	**3191002**	248
6621415	**3191006**	248
6621422	**3191008**	248
6621439	**3191010**	248
6621446	**3191012**	248
6621453	**3191016**	248
6621460	**3191018**	248
6621477	**3191020**	248
6621484	**3191024**	248
6621491	**3191026**	248
6621507	**3191028**	248
6621514	**3191032**	248
6621521	**3191034**	248
6621538	**3191036**	248
6621545	**3191050**	248
6621552	**3191052**	248
6621576	**3191056**	248
6621583	**3191058**	248
6621590	**3191060**	248
6621606	**3191062**	248
6621613	**3191066**	248
6621620	**3191068**	248
6621637	**3191070**	248
6621644	**3191074**	248
6621651	**3191076**	248
6621668	**3191078**	248
6621675	**3191082**	248
6621682	**3191084**	248
6621699	**3191086**	248
5155348	**3192055**	250
5155386	**3192059**	250
5155393	**3192063**	250
5155409	**3192067**	250
5654612	**3192091**	250
5654674	**3192105**	250
5271932	**3192113**	250
5271994	**3192121**	250
5272052	**3192148**	250
5272113	**3192156**	250
5272175	**3192164**	250
5272236	**3192172**	250
5654735	**3192199**	250
5654797	**3192202**	250
5272298	**3192210**	250
5272359	**3192229**	250
5272410	**3192237**	250
5272472	**3192245**	250
5272533	**3192253**	250
5272595	**3192261**	250
5272717	**3192334**	250
5272779	**3192342**	250
5272830	**3192350**	250
5272892	**3192369**	250
5272953	**3192377**	250
5273011	**3192415**	250
5273073	**3192423**	250
5273134	**3192431**	250
5273196	**3192458**	250
5273257	**3192466**	250
5682578	**3192628**	250
5682516	**3192636**	250
5682455	**3192644**	250
5274759	**3195007**	252
5274810	**3195015**	252
5274872	**3195023**	252
5274933	**3195031**	252
5274995	**3195058**	252
5275053	**3195066**	252
5275114	**3195074**	252
5275176	**3195082**	252
5275237	**3195201**	252
5275299	**3195228**	252
5275350	**3195236**	252
5275411	**3195244**	252
5275473	**3195252**	252
5275534	**3195260**	252
5275596	**3195279**	252
5275657	**3195287**	252
5275718	**3195422**	252
5275770	**3195430**	252
5275831	**3195449**	252
5275893	**3195457**	252
5275954	**3195465**	252
5276012	**3195473**	252
5276074	**3195635**	252
5276135	**3195643**	252
5276197	**3195651**	252
5276258	**3195678**	252
5276319	**3195686**	252
5321019	**3195694**	252
5682875	**3195910**	252
5682813	**3195929**	252
5682752	**3195937**	252
5682691	**3195945**	252
5552017	**3198016**	253
5552079	**3198018**	253
5552130	**3198020**	253
5552192	**3198022**	253
5552253	**3198024**	253
5552314	**3198026**	253
5552376	**3198030**	253
5552437	**3198032**	253
5555438	**3198034**	253
5555551	**3198036**	253
5557111	**3198038**	253
5557418	**3198040**	253
5558132	**3198042**	253
5558378	**3198044**	253
5558491	**3198054**	253
5558972	**3198056**	253
5559030	**3198058**	253
5560296	**3198060**	253
5560357	**3198062**	253
5628750	**3198073**	253
5628873	**3198075**	253
5628996	**3198077**	253
5785835	**3198079**	253
5785897	**3198081**	253
5736493	**3198083**	253
5736509	**3198118**	253
5797593	**3198193**	251
5797777	**3198197**	251
5797951	**3198199**	251
5560470	**3198219**	251
5560531	**3198221**	251
5561132	**3198223**	251
5561378	**3198225**	251
5561439	**3198227**	251
5561552	**3198229**	251
5561972	**3198231**	251
5785958	**3198237**	251
5562511	**3198239**	251
5562573	**3198241**	251
5563112	**3198243**	251
5786016	**3198245**	251
5786078	**3198247**	251
5787457	**3198249**	251
5787877	**3198251**	251
5790037	**3198260**	251
5791232	**3198262**	251
5791294	**3198264**	251
5791539	**3198266**	251
5791713	**3198268**	251
5792192	**3198276**	251
5792253	**3198278**	251
5792437	**3198280**	251
5792499	**3198282**	251
5792550	**3198284**	251
5736516	**3198322**	251
5287537	**3341046**	258
5287599	**3341054**	258
5287650	**3341062**	258
5287711	**3341070**	258
5287773	**3341496**	258
5287834	**3341607**	258
5287896	**3341704**	258
5287957	**3341801**	258
5288015	**3341909**	258
5288077	**3341992**	258
5288138	**3342042**	258
5288190	**3342050**	258
5288251	**3342069**	258
5288312	**3342077**	258
5288374	**3342506**	258
5288435	**3342603**	258
5288497	**3342700**	258
5288558	**3342808**	258
5289272	**3347052**	259
5289333	**3347060**	259
5289395	**3347079**	259
5291374	**3353168**	258
5291435	**3353184**	258
5291497	**3353230**	258
5291558	**3353303**	258
5291619	**3353400**	258
5291671	**3353508**	258
5291732	**3353605**	258
5291916	**3354164**	258
5291978	**3354180**	258
5292036	**3354237**	258
5292098	**3354296**	258
5292159	**3354407**	258
5292210	**3354504**	258
5292272	**3354601**	258
5292999	**3360121**	259
5293118	**3360164**	259
5293170	**3360180**	259
5293231	**3360237**	259
5293293	**3360296**	259
5293354	**3360407**	259
5293415	**3360504**	259
5293477	**3360601**	259
5294313	**3366111**	259
5294436	**3366162**	259
5294498	**3366189**	259
5294559	**3366235**	259
5294610	**3366308**	259
5294733	**3366405**	259
5294795	**3366502**	259
5294856	**3366596**	259
5297673	**3397068**	244
5297734	**3397084**	244
5297796	**3397106**	244
5297857	**3397114**	244
5894810	**3397145**	244
5297970	**3400042**	244
5298038	**3400050**	244
5298090	**3400069**	244
5298151	**3400085**	244
5298212	**3400107**	244
5298274	**3400123**	244
5909293	**3400173**	244
5909309	**3400175**	244
5618072	**3400177**	244
5909354	**3400183**	244
5909361	**3400185**	244
5298397	**3400344**	244
5298458	**3400352**	244
5298519	**3400360**	244
5298571	**3400379**	244
5299899	**3402045**	240
5300014	**3402061**	240
5300076	**3402088**	240
5300137	**3402096**	240
5300199	**3402126**	240
5300311	**3402207**	240
5300373	**3402215**	240
5300434	**3402223**	240
5300496	**3402304**	240
5909415	**3402306**	240
5909422	**3402308**	241
5300557	**3402312**	240
5909477	**3402314**	240
5909484	**3402316**	241
5300618	**3402320**	240
5618089	**3402322**	240
5300670	**3402339**	240
5894780	**3402345**	240
5300731	**3402444**	240
5300793	**3402452**	240
5300854	**3402460**	240
5300915	**3402479**	240
5867913	**3403025**	241
5867975	**3403041**	241
5868033	**3403076**	241
5868095	**3403084**	241
5868156	**3403092**	241
6849536	**3403099**	241
	/100 pc.	
5868217	**3403122**	241
5944348	**3403125**	241
5944409	**3403127**	241
5868279	**3403130**	241
5944386	**3403135**	241
5944447	**3403137**	241
6849543	**3403140**	241
	/100 pc.	
5946250	**3403145**	241
5946267	**3403147**	241
5944393	**3403155**	241
5944454	**3403163**	241
5868330	**3403165**	241
5946298	**3403175**	241
5946304	**3403177**	241
5301578	**3404056**	242
5301639	**3404064**	242
5301691	**3404080**	242
5301752	**3404102**	242
5301813	**3404129**	242
5301936	**3404331**	243
5301998	**3404358**	243
6095506	**3404372**	242
6095513	**3404377**	242
6095520	**3404381**	242
6095537	**3404385**	242
5302292	**3405060**	243
5909651	**3405062**	243
5302353	**3405087**	243
5909712	**3405089**	243
5302414	**3405109**	243
5909750	**3405111**	243
5302476	**3405125**	243

Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Numeric directory

GTIN	Item no.	Page
	/100 pc.	
5909774	**3405127**	243
5303558	**3415031**	239
5303619	**3415066**	239
5303671	**3415082**	239
5303732	**3415104**	239
5303794	**3415120**	239
5303855	**3415147**	239
5303916	**3415163**	239
5304333	**3450058**	234
5304395	**3450066**	234
5304456	**3450074**	234
5304517	**3450082**	234
5304579	**3450090**	234
5304630	**3450104**	234
5304692	**3450120**	234
5513315	**3453820**	234
5305958	**3460061**	234
5306078	**3460169**	234
5306191	**3460762**	235
5306252	**3460789**	235
5306498	**3462064**	236
5306559	**3462080**	236
5306979	**3462862**	236
5307037	**3462889**	236
5307150	**3463060**	235
5307211	**3463567**	235
5307273	**3463583**	235
5307334	**3464067**	235
5307396	**3464083**	235
5309253	**3470148**	234
5309314	**3470210**	234
5309376	**3470237**	234
5309550	**3472086**	236
5442936	**3481611**	59
5432852	**3481662**	59
5432975	**3481778**	59
5310631	**3482014**	59
5310693	**3482030**	60
5310754	**3482057**	60
5310815	**3482073**	60
5310877	**3482103**	59
5310938	**3482138**	60
5310990	**3482154**	59
5239475	**3482707**	60
5239352	**3482758**	60
5311171	**3483061**	58
5311232	**3483088**	58
5311294	**3483096**	58
5418191	**3483214**	48
5418207	**3483239**	49
5683414	**3484602**	58
5683353	**3484629**	58
6709557	**3492003**	64
6709564	**3492008**	64
6709595	**3492012**	64
6709601	**3492018**	63
6709618	**3492020**	63
6709625	**3492022**	63
6395934	**3492023**	63
6709656	**3492024**	63
6709663	**3492025**	63
6709670	**3492026**	63
6179107	**3492029**	64
6709717	**3492030**	64
6179091	**3492032**	63
6709687	**3492964**	64
6709724	**3492966**	64
6709731	**3492968**	64
6709748	**3492971**	64

GTIN	Item no.	Page
6709779	**3492973**	64
	/pc.	
6412044	**3492974**	64
6412051	**3492978**	64
6652297	**3497600**	65
6652365	**3497608**	65
6652426	**3497616**	65
6652488	**3497640**	65
6652532	**3497648**	65
6652563	**3497656**	65
6652662	**3497676**	66
6652723	**3497684**	66
6652778	**3497700**	65
6652785	**3497702**	65
6652792	**3497704**	65
6652808	**3497706**	65
6652839	**3497720**	65
6652846	**3497722**	65
6652853	**3497724**	65
	/pc.	
6606986	**3497803**	70
7334017	**3497806**	70
	/pc.	
6606757	**3497820**	71
6606764	**3497822**	71
6606771	**3497824**	71
6606788	**3497826**	71
6606818	**3497830**	71
6606825	**3497832**	71
6606832	**3497834**	71
6606849	**3497840**	71
6606856	**3497842**	71
6606863	**3497844**	71
6606870	**3497850**	71
6606887	**3497852**	71
6606894	**3497854**	71
6606900	**3497860**	71
6606917	**3497862**	71
6606924	**3497864**	71
6606931	**3497866**	71
6606948	**3497870**	72
6606955	**3497872**	72
6606962	**3497874**	72
6615384	**3497875**	72
6606993	**3497876**	72
6615391	**3497878**	72
6464661	**3497906**	70
6464678	**3497909**	70
6464685	**3497912**	72
6464708	**3497915**	72
6467884	**3497932**	72
	/100 pc.	
6464906	**3497972**	73
6464913	**3497975**	73
6464920	**3497978**	73
	/pc.	
6464937	**3497981**	72
6464944	**3497984**	73
6464951	**3497987**	73
6651290	**3498103**	53
6952175	**3498105**	53
	/100 pc.	
6559657	**3498108**	53
6559626	**3498124**	55
6952182	**3498126**	55
6952199	**3498128**	55
	/100 pc.	
6563920	**3498130**	249
6563937	**3498132**	249
6563944	**3498134**	249
6563951	**3498136**	249
6563968	**3498140**	249
6563975	**3498142**	249
6563982	**3498144**	249
6563999	**3498146**	249
6559633	**3498159**	55
6842681	**3498160**	56
6842575	**3498170**	55
6842582	**3498172**	55
6952205	**3498174**	55
6952236	**3498176**	55
6842698	**3498180**	56

GTIN	Item no.	Page
6842629	**3498190**	55
6842636	**3498192**	55
6842643	**3498196**	56
	/100 pc.	
5964100	**3498204**	53
6559664	**3498261**	54
6842568	**3498262**	54
	/100 pc.	
6559671	**3498264**	54
6710881	**3498266**	54
6710911	**3498268**	54
	/100 pc.	
6559640	**3498272**	53
6952243	**3498274**	53
	/pc.	
6571505	**3498314**	62
	/100 pc.	
6592678	**3498344**	62
6571482	**3498358**	62
6429493	**3498370**	63
6429509	**3498372**	63
6429516	**3498374**	63
6429523	**3498376**	63
6411924	**3498390**	61
6411931	**3498392**	62
6429578	**3498393**	61
6411948	**3498396**	60
6411955	**3498398**	61
6429585	**3498399**	61
5940128	**3498516**	63
5940142	**3498556**	63
5940180	**3498666**	63
6429486	**3498752**	66
6571499	**3498768**	64
6412075	**3498770**	64
6412082	**3498774**	64
6466313	**3498776**	64
5413530	**5300037**	220
5413592	**5300053**	220
5413653	**5300061**	220
5413714	**5300088**	220
5901174	**5300120**	220
5901181	**5300124**	220
5901198	**5300127**	220
5901204	**5300132**	220
5413899	**5301009**	221
5413950	**5301033**	221
5414018	**5301041**	221
5414070	**5301068**	221
5414193	**5301084**	221
5414315	**5301106**	221
5901020	**5301170**	221
5901068	**5301172**	221
5901075	**5301174**	221
5901082	**5301176**	221
5901099	**5301180**	221
5901105	**5301184**	221
5414551	**5302021**	222
5414612	**5302056**	222
5414674	**5302064**	222
5414735	**5302080**	222
5414797	**5302102**	222
5901327	**5302170**	222
5901358	**5302174**	222
5901365	**5302178**	222
5901372	**5302182**	222
5901389	**5302188**	222
	price/100	
5900658	**5303179**	220
5900665	**5303182**	220
5900696	**5303185**	220
5900702	**5303188**	220
5900719	**5303191**	220
5900726	**5303194**	220
5900764	**5303197**	220
5464273	**5303202**	220
5414971	**5303206**	220
5415039	**5303214**	220
5415091	**5303222**	220
5415152	**5303230**	220

GTIN	Item no.	Page
	price/100	
5415275	**5303257**	220
5415336	**5303265**	220
	/100 pc.	
5417132	**5305012**	222
5901785	**5305016**	223
	/pc.	
6326112	**6017371**	216
7303631	**6049246**	228
	/pc.	
6465972	**6348408**	242
6466092	**6348440**	242
	/100 pc.	
6199815	**6406122**	226
5059585	**6406125**	226
6563111	**6406130**	226
5059561	**6406133**	226
6077595	**6406138**	226
6078370	**6406142**	226
6199877	**6406157**	226
6616152	**6406181**	226
6077717	**6406189**	226
6078431	**6406193**	226
6199990	**6406203**	226
5925248	**6406205**	226
5925255	**6406207**	226
6200054	**6406254**	227
6200115	**6406270**	227
6200238	**6406521**	228
6200290	**6406556**	228
6291311	**6406564**	228
6817573	**6406580**	228
6200351	**6406602**	228
6603077	**6406610**	228
6603138	**6406653**	228
6200412	**6406696**	228
5942849	**6406698**	228
6200474	**6406718**	228
6200535	**6406726**	228
6200597	**6406750**	228
6200658	**6406769**	228
6064328	**6406785**	228
6200771	**6406815**	228
6200832	**6406823**	228
6200894	**6406866**	228
6822072	**6406870**	228
6437894	**6406872**	228
5045243	**6406907**	226
6201198	**6406939**	227
6201259	**6406963**	227
6201310	**6406971**	227
6201372	**6406998**	227
6201433	**6407048**	227
6396160	**6407050**	227
6201730	**6407471**	227
5354956	**6407521**	226
5925262	**6407524**	227
6201792	**6407528**	227
6201853	**6407536**	227
5626343	**6407537**	227
6201914	**6407560**	227
6201976	**6407579**	227
6479535	**6408478**	232
6202157	**6408516**	231
6479955	**6408702**	242
6712199	**6408703**	242
	/100 pc.	
6480012	**6408710**	242
6712205	**6408715**	242
	/100 pc.	
6480074	**6408729**	242
6712243	**6408732**	242
	/100 pc.	
6480135	**6408737**	242
6427215	**6408739**	242
5910961	**6408920**	245
5910978	**6408922**	246

GTIN	Item no.	Page
	/100 pc.	
5910985	**6408930**	245
5911036	**6408932**	246
5911043	**6408940**	245
6623952	**6408958**	245
6078493	**6408962**	245
6078554	**6408966**	245
6078615	**6408970**	245
5911081	**6408972**	246
6202218	**6410081**	238
6202270	**6410103**	238
6202331	**6410111**	238
6043569	**6410154**	238
6043682	**6410162**	238
6348794	**6418244**	231
5911159	**6418247**	232
6822133	**6418248**	232
6437474	**6418250**	231
6518470	**6418252**	231
5911166	**6418255**	232
5759041	**6418256**	232
5911197	**6418257**	232
6204373	**6418279**	232
6204434	**6418287**	232
6204496	**6418295**	232
6204557	**6418317**	232
6204618	**6418368**	232
6204670	**6418376**	232
6589685	**6490192**	214
	price/100	
6590865	**6490280**	214
6590872	**6490282**	214
	/100 pc.	
6589579	**6490940**	214
6589586	**6490942**	214
6589593	**6490944**	214
6589609	**6490950**	215
6209835	**6490964**	215
6650118	**6490972**	215
	/pc.	
6209897	**6498019**	215
6209958	**6498027**	215
	/100 pc.	
6397228	**7205900**	73
6397235	**7205901**	73
6397242	**7205902**	73
6397266	**7205903**	73
6397297	**7205904**	73
6397303	**7205905**	73
6397310	**7205906**	73
6397327	**7205907**	73
6397358	**7205908**	73
6397365	**7205909**	73
6397372	**7205910**	73

Type listing

Type	GTIN	Item no. /100 pc.	Page
1015 10 A2	5006855	1008684	167
1015 10 G	5007753	1009079	167
1015 11 G	5007814	1009087	167
1015 12 A2	5006978	1008706	167
1015 12 G	5007876	1009109	167
1015 13 G	5007937	1009117	167
1015 14 G	5007999	1009168	167
1015 15 G	5008057	1009184	167
1015 16 G	5008118	1009192	167
1015 17 G	5008170	1009206	167
1015 18 G	5008231	1009214	167
1015 20 G	5008354	1009230	168
1015 25 G	5009078	1009427	168
1015 28 G	5008712	1009362	168
1015 5 G	5007456	1009028	167
1015 6 A2	5006619	1008633	167
1015 6 G	5007517	1009036	167
1015 7 A2	5006671	1008641	167
1015 7 G	5007579	1009044	167
1015 8 A2	5006732	1008668	167
1015 8 G	5007630	1009052	167
1015 9 G	5007692	1009060	167
1015 D 10 G	6458646	1009465	168
1015 D 12 G	6458684	1009469	168
1015 D 14 G	6458691	1009473	168
1015 D 15 G	6458707	1009475	168
1015 D 16 G	6458738	1009477	168
1015 D 18 G	6458745	1009481	168
1015 D 20 G	6458752	1009485	168
1015 D 22 G	6458769	1009489	168
1015 D 25 G	6458790	1009493	168
1015 D 5 G	6458561	1009455	168
1015 D 6 G	6458578	1009457	168
1015 D 7 G	6458585	1009459	168
1015 D 8 G	6458622	1009461	168
1015 D 9 G	6458639	1009463	168
1015 RB 20 G	5850090	1010794	169
1020 11-16 A4	5901792	1404168	221
1020 11-16 G	5125891	1404164	221
1020 14-18 A4	5901808	1404184	221
1020 14-18 G	5125952	1404180	221
1020 18-28 A4	5901815	1404292	221
1020 18-28 G	5126010	1404288	221
1101 3.4x100	5288077	3341992	258
1101 3.4x50	5287773	3341496	258
1101 3.4x60	5287834	3341607	258
1101 3.4x70	5287896	3341704	258
1101 3.4x80	5287957	3341801	258
1101 3.4x90	5288015	3341909	258
1101 3x40	5287537	3341046	258
1101 3x50	5287599	3341054	258
1101 3x60	5287650	3341062	258
1101 3x70	5287711	3341070	258
1101 Z 40 G	5288138	3342042	258
1101 Z 50 G	5288190	3342050	258
1101 Z 60 G	5288251	3342069	258
1101 Z 70 G	5288312	3342077	258
1101 Z3.4x50 G	5288374	3342506	258
1101 Z3.4x60 G	5288435	3342603	258
1101 Z3.4x70 G	5288497	3342700	258
1101 Z3.4x80 G	5288558	3342808	258
1594 22 G	5106159	1310925	174
1973 20-40 LGR	5640035	2148862	86
1973 3-13 LGR	5947899	2148803	86
1973 8-28 LGR	5877691	2148846	86
1974 16-23	5742999	2197804	87
1974 22-30	5742937	2197812	87
1974 2X12-25	5742579	2197863	87
1974 2X4-12	5742630	2197855	87
1975 12-15	5844518	2148021	86
1975 16-19	5844570	2148048	86
1975 19-22	5844631	2148056	86
1976 12-15	5863779	2148501	87
1976 16-21	5863830	2148528	87
1976 22-28	5863892	2148536	87

Type	GTIN	Item no. /100 pc.	Page
1985 16-19	5609551	2228963	120
1996 40	5705796	2222833	116
1996 50	5705734	2222841	116
1996 60	5707837	2222868	116
1996 70	5509837	2222876	116
1996 O	5698357	2222809	116
2004 18 LGR	5217275	2227223	120
2004 18 RW	5214878	2225220	120
2004 25 LGR	5217336	2227231	120
2004 25 RW	5214939	2225239	120
2005 18 LGR	5217459	2227347	121
2005 18 RW	5215059	2225379	121
2005 25 LGR	5217398	2227339	121
2005 25 RW	5214991	2225344	121
2006 18 RW	5215110	2225409	122
2006 25 LGR	5217572	2227428	121
2006 25 LGR SP	5607151	2227460	121
2006 25 RW	5215172	2225417	122
2006 35 LGR	5217633	2227436	121
2006 35 LGR SP	5606970	2227371	121
2006 35 RW	5215233	2225425	122
2006 35 WK SO	5518594	2232715	122
2007 18 RW	5215295	2225506	123
2007 25 LGR	5217756	2227517	122
2007 25 RW	5215356	2225514	123
2007 25 SW	5336372	2232146	123
2007 35 LGR	5217817	2227525	122
2007 35 LGR SO	5518655	2232804	122
2007 35 RW	5215417	2225522	123
2008 25 LGR	5217930	2227614	123
2008 25 LGR SO	5518716	2232812	123
2008 25 RW	5215530	2225611	124
2008 25 SW	5336310	2232170	124
2008 35 LGR	5217992	2227622	123
2008 35 LGR SO	5518778	2232814	123
2008 35 RW	5215592	2225638	124
2008 45 LGR	5218050	2227630	123
2008 45 LGR SO	5518839	2232816	123
2009 25 LGR	5218173	2227711	124
2009 25 LGR SO	5518891	2232820	124
2009 25 RW	5215776	2225719	125
2009 25 SW	5336198	2232219	125
2009 35 LGR	5218234	2227738	124
2009 35 LGR SO	5519010	2232822	124
2009 35 LGR SP	5607694	2227762	124
2009 35 RW	5215837	2225727	125
2009 45 LGR	5218296	2227746	124
2009 45 LGR SO	5519195	2232824	124
2009 45 LGR SP	5607878	2227797	124
2010 25 LGR	5218357	2227800	125
2010 25 RW	5215899	2225808	126
2010 25 SW	5336136	2232235	126
2010 35 LGR	5218418	2227819	125
2010 35 LGR SO	5519256	2232830	125
2010 35 RW	5215950	2225816	126
2010 45 LGR	5218470	2227827	125
2010 45 LGR SO	5512530	2232834	125
2011 25 RW	5216070	2225905	126
2011 35 LGR	5218593	2227916	126
2011 35 RW	5216131	2225913	126
2011 45 LGR	5218654	2227924	126
2012 25 RW	5216254	2226014	127
2012 35 LGR	5218777	2228025	127
2012 35 LGR SO	5519379	2232839	127
2012 35 RW	5216315	2226022	127
2012 35 SW	5335955	2232316	127
2012 45 LGR	5218838	2228033	127
2012 45 LGR SO	5519430	2232842	127
2014 30 RW	5216438	2226103	128
2014 40 LGR	5218951	2228114	128
2014 40 RW	5216490	2226111	128
2014 50 LGR	5219019	2228122	128

Type	GTIN	Item no.	Page
		/100 pc.	
2016 40 LGR	5219132	2228211	128
2016 40 RW	5216674	2226219	128
2016 50 LGR	5219194	2228238	128
2018 40 LGR	5219255	2228300	129
2018 40 RW	5216797	2226308	129
2018 50 LGR	5219316	2228319	129
2020 40 LGR	5219378	2228408	129
2020 40 RW	5216919	2226405	129
2020 50 LGR	5219439	2228416	129
2025 18 LGR	5219552	2228610	116
2025 18 RW	5496519	2228686	117
2025 25 LGR	5219613	2228629	116
2025 25 LGR SO	5519492	2232901	116
2025 25 RW	5828556	2228688	117
2025 30 LGR	5608530	2228637	116
2026 18 LGR	5219675	2228718	117
2026 18 RW	5496397	2228420	117
2026 25 LGR	5219736	2228726	117
2026 25 LGR SO	5519553	2232928	117
2026 25 LGR SP	5608110	2228432	117
2026 25 RW	5496458	2228422	117
2026 35 LGR	5219798	2228734	117
2026 35 LGR SO	5519614	2232930	117
2026 35 LGR SP	5608172	2228440	117
2026 45 LGR	5608837	2228750	117
2026 45 LGR SP	5828617	2228467	117
2027 25 LGR	5219859	2228823	117
2027 30 LGR	5219910	2228831	117
2027 30 LGR SO	5519676	2232936	118
2027 40 LGR	5219972	2228858	117
2027 40 LGR SO	5519737	2232940	118
2028 40 LGR	5220039	2228904	118
2031 10	6773572	2205380	92
2031 10 SP	6773589	2205384	92
		/100 pc.	
2031 20	5651635	2205404	92
2031 20 SP	5651642	2205408	92
2031 40	5651666	2205416	92
2031 40 SP	5651703	2205420	92
2031 F 10	6773619	2205388	92
		/100 pc.	
2031 F 20	5651659	2205412	93
2031 F 40	5651710	2205423	93
2031 M 15 A2	5809395	2207080	145
2031 M 15 A4	5809456	2207132	145
2031 M 15 FS	5863953	2207028	145
2031 M 30 A2	5809401	2207088	145
2031 M 30 A4	5809463	2207140	145
2031 M 30 FS	5798798	2207036	145
2031 M 70 A2	5809449	2207112	146
2031 M 70 A4	5809470	2207164	146
2031 M 70 FS	5022497	2207060	146
2032	5211273	2205017	94
2032 AS	5710028	2205052	94
2032 F	5211099	2204908	94
2032 SD	5210917	2204800	96
2032 SD SP	5597490	2204851	96
2032 SP	5597674	2204975	94
2033	5211334	2205033	95
2033 AS	5710035	2205053	96
2033 D 15x3 G	5044970	2205097	148
2033 D 25x19	5211457	2205092	138
2033 F	5211150	2204916	95
2033 M A2	5036616	2204000	148
2033 SD	5210979	2204819	96
2033 SD SP	5597551	2204878	96
2033 SP	5597735	2204983	95
2033 STD	5693253	2204541	96
2034	5211396	2205041	94
2034 AS	5710042	2205054	95
2034 F	5211211	2204924	95
2034 M A2	5210672	2204010	148
2034 SP	5597797	2204991	94

Type	GTIN	Item no.	Page
		/100 pc.	
2035 M A2	6624249	2204020	148
2036 19 NL CW	5315971	2259796	134
2036 19 NL STGR	5616573	2259745	134
2037 12-20 CW	5614050	2250705	99
2037 12-20 LGR	5613398	2249952	98
2037 12-20 LGR	5221418	2250209	98
2037 12-20 SW	5613879	2250527	99
		/100 pc.	
2037 16-24 LGR	5221470	2250241	98
2037 18-30 LGR	5221531	2250306	98
2037 27-43 LGR	5221593	2250438	98
2037 3-7 LGR	5221296	2250071	98
2037 6-13 LGR	5221357	2250136	98
2047 5-25 LGR	5221654	2251256	130
2050 5-25 LGR	5222132	2254026	131
2050 5-25 RW	5614890	2254522	131
2051 8-36 LGR	5222194	2254034	132
2051 8-36 SW	5615019	2254565	132
2054 14-48 LGR	5222798	2255014	133
2054 14-48 SW	5664451	2255502	133
2055 24-72 LGR	5222859	2255022	133
2056 B 35 FT	5081258	1194054	208
2056 B 40 FT	5081197	1194046	208
2056 B 80 A2	5476771	1194372	208
2056 B 80 FT	5081319	1194089	208
2056 BE FT	5072492	1174053	202
2056 E 31 FT	5500353	1174606	209
2056 E 37 FT	5500414	1174614	209
2056 E 44 FT	5500476	1174630	209
2056F 29 FT	5499930	1171895	191
2056U-E28 FT	5451211	1174509	209
2056U-E31 FT	5072553	1174541	209
2056U-E34 FT	5451273	1174517	209
2056U-E37 FT	5072614	1174568	209
2056U-E40 FT	5451334	1174525	209
2056U-E44 FT	5072676	1174576	209
2058 M2 12 DD	5441434	1199706	211
2058 M2 16 DD	5441496	1199714	211
2058 M2 22 A2	5847649	1196597	211
2058 M2 22 DD	5441557	1199722	211
2058 M2 28 A2	5847656	1196599	211
2058 M2 28 DD	5441618	1199730	211
2058 M2 34 A2	5847663	1196601	211
2058 M2 34 DD	5441670	1199749	211
2058 M2 40 DD	5441731	1199757	211
2058FW M 12 A2	5514091	1197134	210
2058FW M 12 DD	5442035	1199846	210
2058FW M 16 A2	5514152	1197177	210
2058FW M 16 DD	5442097	1199854	210
2058FW M 22 A2	5514213	1197231	210
2058FW M 22 DD	5442158	1199862	210
2058FW M 28 A2	5514275	1197290	210
2058FW M 28 DD	5442219	1199870	210
2058FW M 34 A2	5514336	1197355	210
2058FW M 34 DD	5442271	1199889	210
2058FW M 40 A2	5860297	1197428	210
2058FW M 40 DD	5442332	1199897	210
2058FW M 46 A2	5844334	1197479	210
2058FW M 46 DD	5442394	1199900	210
2058FW M 52 A2	5821892	1197533	210
2058FW M 52 DD	5442455	1199919	210
2058FW M 58 A2	5847632	1197592	210
2058FW M 58 DD	5442516	1199927	210
2058FW M 64 A2	5865995	1197606	210
2058FW M 64 DD	5442578	1199935	210
2058FW M 70 DD	5442639	1199943	210
2058FW M 8 A2	5514039	1197096	210
2058UW 100 LGR	6636303	1198100	210
2058UW 12 LGR	6636129	1198012	210
2058UW 16 LGR	6636150	1198016	210
2058UW 22 LGR	6636167	1198022	210
2058UW 28 LGR	6636174	1198028	210
2058UW 34 LGR	6636181	1198034	210
2058UW 40 LGR	6636198	1198040	210

Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Always indicate the item number when ordering.

Type listing

Type	GTIN	Item no.	Page
2058UW 46 LGR	6636204	1198046	210
2058UW 52 LGR	6636211	1198052	210
2058UW 58 LGR	6636228	1198058	210
2058UW 64 LGR	6636235	1198064	210
2058UW 70 LGR	6636242	1198070	210
2058UW 76 LGR	6636273	1198076	210
2058UW 82 LGR	6636280	1198082	210
2058UW 90 LGR	6636297	1198090	210
		/100 pc.	
2070 M6 G	5120735	1380028	162
2071 M6 G	5120858	1380222	162
2072 M6 G	5120971	1380427	162
2073 M6 G	5121152	1380729	162
2081 K M6	5305958	3460061	234
2081 M6 G	5306078	3460169	234
2083 M6 G	5306498	3462064	236
2083 M8 G	5306559	3462080	236
2084 K M6	5307150	3463060	235
2084 M6 G	5307211	3463567	235
2084 M8 G	5307273	3463583	235
2085 M6 G	5307334	3464067	235
2085 M8 G	5307396	3464083	235
255 11 LGR	5214335	2222116	111
255 12.5 LGR	5214397	2222124	111
255 14 LGR	5214458	2222140	111
255 16 LGR	5214519	2222167	111
255 17.5 LGR	5214571	2222175	111
255 3.2 LGR	5214038	2222035	111
255 5.2 LGR	5214090	2222051	111
255 6.5 LGR	5214151	2222078	111
255 8 LGR	5214212	2222086	111
255 9.5 LGR	5214274	2222094	111
261 3-6 A4	5901785	5305016	223
261 3-6 G	5417132	5305012	222
2900 M6 13-16 G	5121336	1383094	162
2900 M6 16-19 G	5121398	1383116	162
2900 M6 18-21 G	5121459	1383132	162
2900 M6 19-23 G	5121510	1383167	162
2900 M6 24-29 G	5121572	1383213	162
2900 M6 30-34 G	5121633	1383299	162
2900 M6 33-38 G	5569176	1383310	162
2900 M6 39-42 G	5569237	1383418	162
2900 M6 43-48 G	5121695	1383361	162
2900 M6 49-55 G	5121756	1383426	162
2900 M6 54-60 G	5121817	1383485	162
2900 M6 61-64 G	5569299	1383507	162
2900WM10 21.5 FT	5124450	1388037	165
2900WM10 27 FT	5124511	1388053	165
2900WM10 33.5 FT	5124573	1388061	165
2900WM10 48.5 FT	5124696	1388118	165
2900WM10 60 FT	5124757	1388134	165
2900WM6 13.5 FT	5122838	1385003	164
2900WM6 17 FT	5122890	1385011	164
2900WM6 21.5 FT	5122951	1385038	164
2900WM6 27 FT	5123019	1385054	164
2900WM6 33.5 FT	5123071	1385062	164
2900WM6 42.5 FT	5123132	1385089	164
2900WM6 48.5 FT	5123194	1385119	164
2900WM6 54 FT	5123255	1385127	164
2900WM6 60 FT	5123316	1385135	164
2900WM8 17 FT	5123675	1387014	164
2900WM8 21.5 FT	5123736	1387030	164
2900WM8 27 FT	5123798	1387057	164
2900WM8 33.5 FT	5123859	1387065	164
2900WM8 42.5 FT	5123910	1387081	164
2900WM8 48.5 FT	5123972	1387111	164
2900WM8 60 FT	5124030	1387138	164
2900WM8 75.5 FT	5124092	1387154	164
2900WM8 88 FT	5124153	1387170	164
2955 F M16 RW	5585671	2149351	79
2955 F M16 STGR	5584353	2149303	79
2955 F M20 RW	5586036	2149357	79

Type	GTIN	Item no.	Page
		/100 pc.	
2955 F M20 STGR	5585251	2149309	79
2955 F M25 RW	5586159	2149363	79
2955 F M25 STGR	5585312	2149315	79
2955 F M32 RW	5586395	2149369	79
2955 F M32 STGR	5585435	2149321	79
2955 F M40 RW	5586456	2149375	79
2955 F M40 STGR	5585497	2149327	79
2955 F M50 STGR	5585558	2149333	79
2955 F M63 STGR	5585619	2149339	79
2955 M16	5583219	2149004	78
2955 M16 SW	5616276	2149559	79
2955 M20	5583936	2149010	78
2955 M20 SW	5616337	2149563	79
2955 M25	5583998	2149016	78
2955 M25 SW	5616399	2149567	79
2955 M32	5584056	2149022	78
2955 M32 SW	5616450	2149571	79
2955 M40	5584292	2149028	78
2955 M40 SW	5616511	2149575	79
2955 M50	5588191	2149034	78
2955 M50 SW	5616993	2149579	79
2955 M63	5588252	2149040	78
2955 M63 SW	5617051	2149583	79
2957 M16	5931911	2149701	86
2957 M19-20	5931928	2149710	86
2960 11 M6 LGR	5196990	2130114	108
2960 12 M6 LGR	5197058	2130122	108
2960 15 M6 LGR	5197119	2130157	108
2960 18 M6 LGR	5197171	2130181	108
2960 22 LGR SO	5588917	2136880	108
2960 22 M6 LGR	5197232	2130211	108
2960 25 M6 LGR	5197294	2130254	108
2960 28 M6 LGR	5197355	2130289	108
2960 35 M6 LGR	5197416	2130351	108
2960 40 M6 LGR	5197478	2130408	108
2960 43 M6 LGR	5197539	2130432	108
2960 47 M6 LGR	5197591	2130475	108
2960 54 M6 LGR	5197652	2130548	108
2962 10 LGR	5199090	2140101	107
2962 12 LGR	5199151	2140128	107
2962 15 LGR	5199212	2140152	107
2962 18 LGR	5199274	2140187	107
2962 22 LGR	5199335	2140233	107
2962 28 LGR	5199397	2140284	107
2962 2X10	5199694	2140608	107
2962 2x16	5199939	2140683	107
2962 2x22	5199991	2140721	107
2962 35 LGR	5199458	2140357	107
2962 42 LGR	5199519	2140411	107
2962 6 LGR	5198970	2140063	107
2962 8 LGR	5199038	2140071	107
2989 M6 G	5306191	3460762	235
2989 M8 G	5306252	3460789	235
2990 M6 G	5306979	3462862	236
2990 M8 G	5307037	3462889	236
3015 12 LGR	5206897	2157128	106
3015 17 LGR	5206958	2157179	106
3015 24 LGR	5207016	2157241	106
3015 34 LGR	5207078	2157349	106
3019 M6 LGR	5207139	2158124	106
3020 LGR	5207191	2158175	106
3021 LGR	5207252	2158248	106
3022 LGR	5207313	2158345	106
3030 2	5213017	2213117	115
3040 2	5195610	2107015	103
3040 3	5195795	2109018	104
3040 LGR	5195436	2105012	103
3041 2	5195672	2107031	103
3041 LGR	5195498	2105039	103

Type	GTIN	Item no. /100 pc.	Page
3042 LGR	5195559	2105055	103
3050 2 6-16	5196211	2115018	100
3050 LGR	5195252	2101017	100
3051 LGR	5195313	2101033	101
3051 RW	5584773	2102048	101
3052 LGR	5195375	2101068	102
3079 LGR	5196570	2124149	105
3080 LGR	5196631	2124173	105
3081 LGR	5196693	2124254	105
3082 LGR	5196754	2124343	105
3083 LGR	5196815	2124459	105
3100 M6 G	5250272	3131068	233
3100 M8 G	5250333	3131084	233
341 M6x10 G	5254836	3153096	233
341 M6x16 A2	5261018	3168905	233
341 M6x16 G	5254898	3153150	233
341 M6x20 G	5254959	3153207	233
362 16 BK	5291374	3353168	258
362 18 BK	5291435	3353184	258
362 23 BK	5291497	3353230	258
362 30 BK	5291558	3353303	258
362 40 BK	5291619	3353400	258
362 50 BK	5291671	3353508	258
362 60 BK	5291732	3353605	258
362 Z 16 G	5291916	3354164	258
362 Z 18 G	5291978	3354180	258
362 Z 23 G	5292036	3354237	258
362 Z 30 G	5292098	3354296	258
362 Z 40 G	5292159	3354407	258
362 Z 50 G	5292210	3354504	258
362 Z 60 G	5292272	3354601	258
4021 K 6-13	5224419	2307618	222
4021 K 6-13 A4	5901853	2307622	222
4021 K 9-16	5224471	2307634	222
4021 K 9-16 A4	5901860	2307638	222
4024 16-23	5224358	2305232	221
4024 9-16	5224297	2305151	221
4028	5213130	2215047	111
4029	5213192	2215071	112
4030	5213253	2215101	112
4031 10-14	5213314	2215144	113
4031 14-17	5213376	2215179	113
4032	5213437	2215209	114
4039	5213550	2215306	118
4039 SP	5599777	2214873	118
4040	5213611	2215314	118
4040 SP	5599838	2214881	118
4041	5213796	2215349	119
4042	5213673	2215322	119
4043	5213734	2215330	119
4044	5213857	2215357	119
450 M4x95 G	5442936	3481611	59
451 M4x95 G	5432852	3481662	59
452 M4x70 G	5432975	3481778	59
453 M6x100 G	5310631	3482014	59

Type	GTIN	Item no. /100 pc.	Page
454 M6x100 G	5310693	3482030	60
455 M5x100 G	5310815	3482073	60
455 M5x65 G	5310754	3482057	60
456 M5x100 G	5310877	3482103	59
457 M4x55 G	5310938	3482138	60
458 M4x100 G	5310990	3482154	59
4758 3.5x15	5274759	3195007	252
4758 3.5x20	5274810	3195015	252
4758 3.5x25	5274872	3195023	252
4758 3.5x30	5274933	3195031	252
4758 3.5x35	5274995	3195058	252
4758 3.5x40	5275053	3195066	252
4758 3.5x45	5275114	3195074	252
4758 3.5x50	5275176	3195082	252
4758 4.0x15	5275237	3195201	252
4758 4.0x20	5275299	3195228	252
4758 4.0x25	5275350	3195236	252
4758 4.0x30	5275411	3195244	252
4758 4.0x35	5275473	3195252	252
4758 4.0x40	5275534	3195260	252
4758 4.0x45	5275596	3195279	252
4758 4.0x50	5275657	3195287	252
4758 4.5x25	5275718	3195422	252
4758 4.5x30	5275770	3195430	252
4758 4.5x35	5275831	3195449	252
4758 4.5x40	5275893	3195457	252
4758 4.5x45	5275954	3195465	252
4758 4.5x50	5276012	3195473	252
4758 5.0x30	5276074	3195635	252
4758 5.0x35	5276135	3195643	252
4758 5.0x40	5276197	3195651	252
4758 5.0x45	5276258	3195678	252
4758 5.0x50	5276319	3195686	252
4758 5.0x60	5321019	3195694	252
4758 6.0x30	5682875	3195910	252
4758 6.0x40	5682813	3195929	252
4758 6.0x50	5682752	3195937	252
4758 6.0x60	5682691	3195945	252
4758T 3.5x15	5552017	3198016	253
4758T 3.5x20	5552079	3198018	253
4758T 3.5x25	5552130	3198020	253
4758T 3.5x30	5552192	3198022	253
4758T 3.5x35	5552253	3198024	253
4758T 3.5x40	5552314	3198026	253
4758T 4.0x15	5552376	3198030	253
4758T 4.0x20	5552437	3198032	253
4758T 4.0x25	5555438	3198034	253
4758T 4.0x30	5555551	3198036	253
4758T 4.0x35	5557111	3198038	253
4758T 4.0x40	5557418	3198040	253
4758T 4.0x45	5558132	3198042	253
4758T 4.0x50	5558378	3198044	253
4758T 4.5x30	5558491	3198054	253
4758T 4.5x35	5558972	3198056	253
4758T 4.5x40	5559030	3198058	253
4758T 4.5x45	5560296	3198060	253
4758T 4.5x50	5560357	3198062	253
4758T 5.0x30	5628750	3198073	253
4758T 5.0x35	5628873	3198075	253
4758T 5.0x40	5628996	3198077	253
4758T 5.0x45	5785835	3198079	253
4758T 5.0x50	5785897	3198081	253
4758T 5.0x60	5736493	3198083	253
4758T 6.0x60	5736509	3198118	253
4759 3.0x15	5155348	3192055	250
4759 3.0x20	5155386	3192059	250
4759 3.0x25	5155393	3192063	250
4759 3.0x30	5155409	3192067	250
4759 3.5x15	5654612	3192091	250
4759 3.5x20	5654674	3192105	250
4759 3.5x25	5271932	3192113	250
4759 3.5x30	5271994	3192121	250
4759 3.5x35	5272052	3192148	250
4759 3.5x40	5272113	3192156	250
4759 3.5x45	5272175	3192164	250
4759 3.5x50	5272236	3192172	250
4759 4.0x15	5654735	3192199	250

Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Always indicate the item number when ordering.

Type listing

Type	GTIN	Item no.	Page
		/100 pc.	
4759 4.0x20	5654797	3192202	250
4759 4.0x25	5272298	3192210	250
4759 4.0x30	5272359	3192229	250
4759 4.0x35	5272410	3192237	250
4759 4.0x40	5272472	3192245	250
4759 4.0x45	5272533	3192253	250
4759 4.0x50	5272595	3192261	250
4759 4.5x30	5272717	3192334	250
4759 4.5x35	5272779	3192342	250
4759 4.5x40	5272830	3192350	250
4759 4.5x45	5272892	3192369	250
4759 4.5x50	5272953	3192377	250
4759 5.0x30	5273011	3192415	250
4759 5.0x35	5273073	3192423	250
4759 5.0x40	5273134	3192431	250
4759 5.0x45	5273196	3192458	250
4759 5.0x50	5273257	3192466	250
4759 6.0x40	5682578	3192628	250
4759 6.0x50	5682516	3192636	250
4759 6.0x60	5682455	3192644	250
4759T 3.0x15	5797593	3198193	251
4759T 3.0x25	5797777	3198197	251
4759T 3.0x30	5797951	3198199	251
4759T 3.5x15	5560470	3198219	251
4759T 3.5x20	5560531	3198221	251
4759T 3.5x25	5561132	3198223	251
4759T 3.5x30	5561378	3198225	251
4759T 3.5x35	5561439	3198227	251
4759T 3.5x40	5561552	3198229	251
4759T 3.5x50	5561972	3198231	251
4759T 4.0x15	5785958	3198237	251
4759T 4.0x20	5562511	3198239	251
4759T 4.0x25	5562573	3198241	251
4759T 4.0x30	5563112	3198243	251
4759T 4.0x35	5786016	3198245	251
4759T 4.0x40	5786078	3198247	251
4759T 4.0x45	5787457	3198249	251
4759T 4.0x50	5787877	3198251	251
4759T 4.5x30	5790037	3198260	251
4759T 4.5x35	5791232	3198262	251
4759T 4.5x40	5791294	3198264	251
4759T 4.5x45	5791539	3198266	251
4759T 4.5x50	5791713	3198268	251
4759T 5.0x30	5792192	3198276	251
4759T 5.0x35	5792253	3198278	251
4759T 5.0x40	5792437	3198280	251
4759T 5.0x45	5792499	3198282	251
4759T 5.0x50	5792550	3198284	251
4759T 6.0x60	5736516	3198322	251
500 12	5292999	3360121	259
500 16	5293118	3360164	259
500 18	5293170	3360180	259
500 23	5293231	3360237	259
500 30	5293293	3360296	259
500 40	5293354	3360407	259
500 50	5293415	3360504	259
500 60	5293477	3360601	259
507	5225911	2327104	130
		/pc.	
508	5228196	2341107	138
509	5228073	2341018	138
		/100 pc.	
510	5221173	2236028	138
511 12	5294313	3366111	259
511 16	5294436	3366162	259
511 18	5294498	3366189	259
511 23	5294559	3366235	259
511 30	5294610	3366308	259
511 40	5294733	3366405	259
511 50	5294795	3366502	259
511 60	5294856	3366596	259
565 2.5x100 SWUV	6416950	2331812	136
565 2.5x100 WS	6416943	2331810	136
565 2.5x150 SWUV	6416981	2331818	136
565 2.5x150 WS	6416974	2331816	136
565 2.5x200 SWUV	6417001	2331824	136

Type	GTIN	Item no.	Page
		/100 pc.	
565 2.5x200 WS	6416998	2331822	136
565 2.5x75 SWUV	6416936	2331802	136
565 2.5x75 WS	6416929	2331800	136
565 3.6x150 SWUV	6417032	2331832	136
565 3.6x150 WS	6417018	2331830	136
565 3.6x200 SWUV	6417056	2331838	136
565 3.6x200 WS	6417049	2331836	136
565 3.6x290 SWUV	6417117	2331844	136
565 3.6x290 WS	6417100	2331842	136
565 3.6x365 SWUV	6417131	2331850	136
565 3.6x365 WS	6417124	2331848	136
565 4.8x120 SWUV	6417162	2331862	136
565 4.8x120 WS	6417155	2331860	136
565 4.8x160 SWUV	6417186	2331868	136
565 4.8x160 WS	6417179	2331866	136
565 4.8x200 SWUV	6417216	2331874	136
565 4.8x200 WS	6417193	2331872	136
565 4.8x300 SWUV	6417230	2331880	136
565 4.8x300 WS	6417223	2331878	136
565 4.8x365 SWUV	6417254	2331886	136
565 4.8x365 WS	6417247	2331884	136
565 4.8x430 SWUV	6417285	2331892	136
565 4.8x430 WS	6417278	2331890	136
565 7.6x200 SWUV	6417308	2331912	136
565 7.6x200 WS	6417292	2331910	136
565 7.6x300 SWUV	6417346	2331918	136
565 7.6x300 WS	6417315	2331916	136
565 7.6x380 SWUV	6417353	2331924	136
565 7.6x380 WS	6417339	2331922	136
565 7.6x450 SWUV	6417377	2331936	136
565 7.6x450 WS	6417360	2331934	136
565 9x760 SWUV	6417391	2331946	136
565 9x760 WS	6417384	2331944	136
		/pc.	
575	6209897	6498019	215
576	6209958	6498027	215
		/100 pc.	
604 10 G	5001218	1003100	166
604 11 G	5001270	1003119	166
604 12 G	5001331	1003127	166
604 13 G	5001393	1003135	166
604 16 G	5001454	1003178	166
604 19 G	5001515	1003194	166
604 20 G	5001577	1003208	166
604 21 G	5001638	1003216	166
604 23 G	5001690	1003232	166
604 25 G	5566892	1003259	166
604 28 G	5001751	1003283	166
604 3 G	5000792	1003038	166
604 32 G	5566953	1003321	166
604 35 G	5001812	1003356	166
604 37 G	5001874	1003372	166
604 4 G	5000853	1003046	166
604 40 G	5001935	1003402	166
604 47 G	5002055	1003461	166
604 5 G	5000914	1003054	166
604 6 G	5000976	1003062	166
604 7 G	5001034	1003070	166
604 8 G	5001096	1003089	166
604 9 G	5001157	1003097	166
605 10 G	5016458	1018108	175
605 11 G	5016519	1018116	175
605 12 A4	5912002	1018653	177
605 12 G	5016571	1018124	175
605 13 G	5016632	1018132	175
605 14 G	5016694	1018140	175
605 15 G	5016755	1018159	175
605 16 A4	5912064	1018661	177
605 16 ALU	5449539	1017799	176
605 16 G	5016816	1018167	175
605 17 G	5016878	1018175	175
605 18 G	5016939	1018183	175
605 19 G	5016991	1018191	175
605 20 A4	5912101	1018669	177
605 20 ALU	5449652	1017837	176
605 20 G	5017059	1018205	175
605 21 G	5017110	1018213	175
605 23 G	5017172	1018221	175
605 25 A4	5912132	1018679	177

Type	GTIN	Item no.	Page
		/100 pc.	
605 25 ALU	5449836	1017861	176
605 25 G	5017233	1018256	175
605 26 G	5017295	1018264	175
605 28 G	5017356	1018280	175
605 30 G	5017417	1018302	175
605 32 A4	5912170	1018693	177
605 32 ALU	5590170	1017926	176
605 32 G	5017479	1018337	175
605 35 G	5017530	1018353	175
605 37 G	5017592	1018361	175
605 40 A4	5912231	1018705	177
605 40 ALU	5450016	1017950	176
605 40 G	5017653	1018396	176
605 43 G	5017714	1018434	176
605 47 G	5017776	1018477	176
605 50 A4	5906476	1018717	177
605 50 ALU	5589938	1017980	176
605 50 G	5568339	1018507	176
605 55 G	5017837	1018558	176
605 60 G	5017899	1018604	176
605 63 A4	5906506	1018729	177
605 63 ALU	5590057	1017997	176
605 63 G	5568513	1018639	176
605 7 G	5016274	1018078	175
605 8 G	5016335	1018086	175
605 9 G	5016397	1018094	175
705 D M6	5119418	1371207	163
716 3X50 BK	5289272	3347052	259
716 3X60 BK	5289333	3347060	259
716 3X70 BK	5289395	3347079	259
731 W 12 G	5117919	1366122	163
731 W 16 G	5117971	1366165	163
731 W 20 G	5118039	1366203	163
731 W 25 G	5118091	1366254	163
731 W 30 G	5118152	1366300	163
731 W 35 G	5118213	1366351	163
7380T 6x20 G	6101023	3164952	228
7380T 6x35 G	6101030	3164956	228
7380T M6x20 A2	6101047	3164972	228
7380T M6x35 A2	6101078	3164976	228
7901 5 G	5134831	1435019	180
7901 6.5 G	5134893	1435027	180
7902 6 G	5134954	1436015	180
7902 8 G	5135012	1436023	180
7903 6 G	5135074	1437003	181
7903 8 G	5135135	1437011	181
7903 9 G	5135197	1437038	181
7904 6 G	5135258	1438018	181
7905 5 G	5135319	1439014	182
7908 11 G	5135555	1442015	182
7909 6 G	5135616	1443011	183
822 10 A4	5911753	1013865	172
822 10 FT	5013693	1014013	170
822 12 A2	5472032	1014714	171
822 12 A4	5911760	1013869	172
822 12 FT	5013754	1014021	170
822 14 A4	5911807	1013873	172
822 14 FT	5013815	1014048	170
822 16 A4	5911814	1013877	172
822 16 FT	5013877	1014099	170
822 18 A4	5911821	1013881	172
822 18 FT	5013938	1014110	170
822 20 A4	5911838	1013885	172
822 20 FT	5013990	1014137	170
822 22.5 A4	5911845	1013889	172
822 22.5 FT	5014058	1014161	170
822 25 A4	5911852	1013893	172
822 25 FT	5567011	1014501	170
822 28.3 FT	5014119	1014218	170
822 32 A4	5911876	1013903	172
822 32 FT	5567073	1014528	170

Type	GTIN	Item no.	Page
		/100 pc.	
822 37 FT	5014171	1014293	170
822 40 A4	5911890	1013911	172
822 40 FT	5567134	1014536	170
822 47 FT	5014232	1014366	170
822 50 A4	5911913	1013921	172
822 50 FT	5567493	1014544	170
822 6 A4	5911746	1013861	172
822 6 FT	5013631	1014005	170
822 63 A4	5911920	1013925	172
822 63 FT	5567554	1014552	170
823 16 FT	5015130	1015095	177
823 18.3 FT	5015192	1015117	177
823 20 FT	5015253	1015133	177
823 22.5 FT	5015314	1015168	177
823 25 FT	5567615	1015494	177
823 28.3 FT	5015376	1015214	177
823 32 FT	5567738	1015496	177
823 37 FT	5015437	1015303	177
823 40 FT	5567790	1015498	177
823 47 FT	5015499	1015362	177
823 50 FT	5567851	1015500	177
823 54 FT	5015550	1015427	177
823 59.3 FT	5015611	1015486	177
823 63 FT	5567912	1015508	177
824 12 A2	5472452	1016555	178
865 M10x34	5311294	3483096	58
865 M6x24	5311171	3483061	58
865 M8x30	5311232	3483088	58
867 M5X125 G	5309253	3470148	234
867 M6X 95 G	5309314	3470210	234
867 M6X125 G	5309376	3470237	234
869 M8X40 G	5309550	3472086	236
903 15 G	5245773	3100154	57
903 18 G	5245834	3100189	57
903 25 G	5245896	3100251	57
903 30 G	5245957	3100308	57
903 40 G	5246015	3100405	57
903 RB 15	5851059	3105016	57
903 RB 18	5851110	3105024	57
903 RB 22	5851172	3105032	57
910 AZK 10x61	6788705	2348126	47
910 AZK 12x71	6788712	2348128	47
910 AZK 5x31	6788675	2348120	47
910 AZK 6x38	6788682	2348122	47
910 AZK 8x51	6788699	2348124	47
		/100 pc.	
910 DF 6x35	5448099	2347407	48
910 F 10x50	6788644	2349486	46
910 F 12x60	6788651	2349488	46
910 F 5x25	6788613	2349480	46
910 F 6x30	6788620	2349482	46
910 F 8x40	6788637	2349484	46
910 FX 12x60	6788569	2347588	46
910 FX 5x25	6788521	2347580	46
910 FX 6x30	6788538	2347582	46
910 FX 8x40	6788545	2347584	46
910 FX10x50	6788552	2347586	46
		/100 pc.	
910 GD 6x35	5828198	2347229	48
910 GD 8x50	5828259	2347261	48
910 GKDM 12x30	5418191	3483214	48
910 GKSM 6x25	5418207	3483239	49
910 SD 5X35	5229452	2351021	47
910 SD 6X35	5669197	2351056	47
910 SD 6X40	5229513	2351064	47
910 SD 8X55	5229575	2351099	47
910 SDM M6	5874454	2350807	48
910 SD-Q 6x40	5229636	2351218	47
910 STK 6x30	5708971	2351609	87
910 STP 6x30	5242352	2351412	88
910 STQS 6x26	5931935	2351650	88
915 3.9x100 G	5304630	3450104	234
915 3.9x50 G	5304333	3450058	234
915 3.9x60 G	5304395	3450066	234
915 3.9x70 G	5304456	3450074	234

Industrieinstallation - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Always indicate the item number when ordering.

Type listing

Type	GTIN	Item no.	Page
		/100 pc.	
915 3.9x80 G	5304517	3450082	234
915 3.9x90 G	5304579	3450090	234
915 4.3x120 G	5304692	3450120	234
		/pc.	
915 RBS M4	5851417	3031500	58
915 S M6	5241690	3031012	58
		/100 pc.	
945 M10 A4	5901181	5300124	220
945 M10 G	5413592	5300053	220
945 M12 A4	5901198	5300127	220
945 M12 G	5413653	5300061	220
945 M16 A4	5901204	5300132	220
945 M16 G	5413714	5300088	220
945 M6 A4	5901174	5300120	220
945 M6 G	5413530	5300037	220
946 10 A4	5901105	5301184	221
946 10 FT	5414315	5301106	221
946 3 A4	5901020	5301170	221
946 3 G	5413950	5301033	221
946 4 A4	5901068	5301172	221
946 4 G	5414018	5301041	221
946 5 A4	5901075	5301174	221
946 5 G	5413899	5301009	221
946 6 A4	5901082	5301176	221
946 6 G	5414070	5301068	221
946 8 A4	5901099	5301180	221
946 8 G	5414193	5301084	221
947 10 A4	5901389	5302188	222
947 10 G	5414797	5302102	222
947 3 A4	5901327	5302170	222
947 3 G	5414551	5302021	222
947 5 A4	5901358	5302174	222
947 5 G	5414612	5302056	222
947 6 A4	5901365	5302178	222
947 6 G	5414674	5302064	222
947 8 A4	5901372	5302182	222
947 8 G	5414735	5302080	222
948 TG6	5513315	3453820	234
		price/100	
957 10 A4	5900764	5303197	220
957 10 G	5415336	5303265	220
957 2 A4	5900658	5303179	220
957 2 G	5464273	5303202	220
957 3 A4	5900665	5303182	220
957 3 G	5414971	5303206	220
957 4 A4	5900696	5303185	220
957 4 G	5415039	5303214	220
957 5 A4	5900702	5303188	220
957 5 G	5415091	5303222	220
957 6 A4	5900719	5303191	220
957 6 G	5415152	5303230	220
957 8 A4	5900726	5303194	220
957 8 G	5415275	5303257	220
		/100 pc.	
965 M6X20 G	5303558	3415031	239
965 M6X25 G	5303619	3415066	239
965 M6X30 G	5303671	3415082	239
965 M6X40 G	5303732	3415104	239
965 M6X50 G	5303794	3415120	239
965 M8X20 G	5303855	3415147	239
965 M8X30 G	5303916	3415163	239
966 M10 F	5300854	3402460	240
966 M12 F	5300915	3402479	240
966 M6 F	5300731	3402444	240
966 M8 F	5300793	3402452	240
985 M6 25	5250395	3133028	57
985 M6 35	5250456	3133036	57
985 M8 35	5250579	3133230	57
ALQ M16	6409235	2149916	143
ALQ M20	6409242	2149920	143
ALQ M25	6409259	2149925	143
ALQ M32	6409266	2149932	143
ALQ M40	6409273	2149940	143
ALQ M50	6409297	2149950	143

Type	GTIN	Item no.	Page
		/100 pc.	
ALQ M63	6409303	2149963	143
ASG 732 10 A2	6609383	1362628	155
ASG 732 10 A4	6599769	1362460	156
ASG 732 10 FT	6599363	1362360	154
ASG 732 10 G	6599615	1362410	153
ASG 732 12 A2	6609390	1362630	155
ASG 732 12 A4	6599776	1362462	156
ASG 732 12 FT	6599370	1362362	154
ASG 732 12 G	6599622	1362412	153
ASG 732 14 A2	6609406	1362632	155
ASG 732 14 A4	6599783	1362464	156
ASG 732 14 FT	6599387	1362364	154
ASG 732 14 G	6599639	1362414	153
ASG 732 17 A2	6609413	1362634	155
ASG 732 17 A4	6599790	1362467	156
ASG 732 17 FT	6599394	1362367	154
ASG 732 17 G	6599646	1362417	153
ASG 732 20 A2	6609420	1362636	155
ASG 732 20 A4	6599806	1362469	156
ASG 732 20 FT	6599400	1362369	154
ASG 732 20 G	6599653	1362420	153
ASG 732 25 A2	6609437	1362638	155
ASG 732 25 A4	6599813	1362472	156
ASG 732 25 FT	6599417	1362372	154
ASG 732 25 G	6599660	1362424	153
ASG 732 30 A2	6609444	1362640	155
ASG 732 30 A4	6599820	1362474	156
ASG 732 30 FT	6599424	1362374	154
ASG 732 30 G	6599677	1362428	153
ASG 732 36 A2	6609451	1362642	155
ASG 732 36 A4	6599837	1362478	156
ASG 732 36 FT	6599431	1362378	154
ASG 732 36 G	6599684	1362432	153
ASG 732 44 A2	6609468	1362644	155
ASG 732 44 A4	6599844	1362482	156
ASG 732 44 FT	6600700	1362382	154
ASG 732 44 G	6599691	1362436	153
ASG 732 53 A2	6609475	1362646	155
ASG 732 53 A4	6599851	1362486	156
ASG 732 53 FT	6599448	1362386	154
ASG 732 53 G	6599707	1362440	153
ASG 732 6 A2	6609352	1362622	155
ASG 732 6 A4	6599738	1362454	156
ASG 732 6 FT	6599332	1362354	154
ASG 732 6 G	6599585	1362404	153
ASG 732 63 A2	6609482	1362648	155
ASG 732 63 A4	6599868	1362489	156
ASG 732 63 FT	6599455	1362389	154
ASG 732 63 G	6599714	1362444	153
ASG 732 7 A2	6609369	1362624	155
ASG 732 7 A4	6599745	1362456	156
ASG 732 7 FT	6599349	1362356	154
ASG 732 7 G	6599592	1362406	153
ASG 732 8 A2	6609376	1362626	155
ASG 732 8 A4	6599752	1362458	156
ASG 732 8 FT	6599356	1362358	154
ASG 732 8 G	6599608	1362408	153
ASL 733 10 A2	6608867	1362976	159
ASL 733 10 A4	6600250	1362904	160
ASL 733 10 ALU	6600144	1362804	161
ASL 733 10 FT	6599875	1362704	158
ASL 733 10 G	6600021	1362754	157
ASL 733 12 A2	6608874	1362978	159
ASL 733 12 A4	6600267	1362906	160
ASL 733 12 ALU	6600151	1362806	161
ASL 733 12 FT	6599882	1362706	158
ASL 733 12 G	6600038	1362756	157
ASL 733 14 A2	6608881	1362980	159
ASL 733 14 A4	6600274	1362908	160
ASL 733 14 ALU	6600243	1362808	161
ASL 733 14 FT	6599905	1362708	158
ASL 733 14 G	6600045	1362758	157
ASL 733 17 A2	6608898	1362982	159
ASL 733 17 A4	6600281	1362912	160
ASL 733 17 ALU	6600168	1362812	161
ASL 733 17 FT	6599912	1362712	158
ASL 733 17 G	6600052	1362762	157
ASL 733 20 A2	6608904	1362984	159
ASL 733 20 A4	6600298	1362914	160
ASL 733 20 ALU	6600175	1362814	161
ASL 733 20 FT	6599929	1362714	158

Type	GTIN	Item no.	Page
ASL 733 20 G	6600069	1362764	157
ASL 733 25 A2	6608911	1362986	159
ASL 733 25 A4	6600304	1362918	160
ASL 733 25 ALU	6600182	1362818	161
ASL 733 25 FT	6599936	1362718	158
ASL 733 25 G	6600076	1362768	157
ASL 733 30 A2	6608928	1362988	159
ASL 733 30 A4	6600335	1362922	160
ASL 733 30 ALU	6600199	1362822	161
ASL 733 30 FT	6599943	1362722	158
ASL 733 30 G	6600083	1362772	157
ASL 733 36 A2	6608935	1362990	159
ASL 733 36 A4	6600311	1362926	160
ASL 733 36 ALU	6600205	1362826	161
ASL 733 36 FT	6599981	1362726	158
ASL 733 36 G	6600090	1362776	157
ASL 733 44 A2	6608942	1362992	159
ASL 733 44 A4	6600328	1362930	160
ASL 733 44 ALU	6600212	1362830	161
ASL 733 44 FT	6599998	1362730	158
ASL 733 44 G	6600106	1362780	157
ASL 733 53 A2	6608959	1362994	159
ASL 733 53 A4	6600359	1362934	160
ASL 733 53 ALU	6600229	1362834	161
ASL 733 53 FT	6600007	1362734	158
ASL 733 53 G	6600113	1362784	157
ASL 733 63 A2	6608966	1362996	159
ASL 733 63 A4	6600366	1362938	160
ASL 733 63 ALU	6600236	1362838	161
ASL 733 63 FT	6600014	1362738	158
ASL 733 63 G	6600120	1362788	157
		/100 pc.	
BS M6x30 A2	6429370	1148896	229
BS M6x30 G	6429400	1148898	229
BS-F1-K-12 FT	6854028	1187602	203
BS-F1-K-16 FT	6854042	1187608	203
BS-F1-K-22 FT	6854073	1187614	203
BS-F1-K-28 FT	6854080	1187620	203
BS-F1-K-34 FT	6854097	1187626	203
BS-F1-K-40 FT	6854103	1187632	203
BS-F1-K-46 FT	6854134	1187638	203
BS-F1-K-52 FT	6854141	1187644	203
BS-F1-K-58 FT	6854158	1187650	203
BS-F1-K-64 FT	6854165	1187656	203
BS-F1-M-12 FT	6853380	1187402	202
BS-F1-M-16 FT	6853410	1187408	202
BS-F1-M-22 FT	6853427	1187414	202
BS-F1-M-28 A2	6853748	1187520	203
BS-F1-M-28 FT	6853434	1187420	202
BS-F1-M-34 A2	6853779	1187526	203
BS-F1-M-34 FT	6853441	1187426	202
BS-F1-M-40 A2	6853786	1187532	203
BS-F2-K-12 FT	6854035	1187603	204
BS-F2-K-16 FT	6854196	1187609	204
BS-F2-K-22 FT	6854202	1187615	204
BS-F2-K-28 FT	6854219	1187621	204
BS-F2-K-34 FT	6854226	1187627	204
BS-F2-K-40 FT	6854257	1187633	204
BS-F2-K-46 FT	6854264	1187639	204
BS-F2-K-52 FT	6854271	1187645	204
BS-H1-K-100 FT	6847389	1186297	195
BS-H1-K-12 A2	6847617	1186302	198
BS-H1-K-12 ALU	6848096	1186402	200
BS-H1-K-12 FT	6846931	1186202	195
BS-H1-K-16 A2	6847662	1186309	198
BS-H1-K-16 ALU	6848140	1186409	200
BS-H1-K-16 FT	6846962	1186209	195
BS-H1-K-22 A2	6847716	1186316	198
BS-H1-K-22 ALU	6848195	1186416	200
BS-H1-K-22 FT	6847013	1186216	195
BS-H1-K-28 A2	6847747	1186322	198
BS-H1-K-28 ALU	6848201	1186422	200
BS-H1-K-28 FT	6847068	1186222	195
BS-H1-K-34 A2	6847792	1186329	198
BS-H1-K-34 ALU	6848270	1186429	200
BS-H1-K-34 FT	6847112	1186229	195
BS-H1-K-40 A2	6847846	1186336	198
BS-H1-K-40 ALU	6848324	1186436	200
BS-H1-K-40 FT	6847143	1186236	195
BS-H1-K-46 A2	6847891	1186342	198
BS-H1-K-46 ALU	6848379	1186442	200

Type	GTIN	Item no.	Page
BS-H1-K-46 FT	6847198	1186242	195
BS-H1-K-52 A2	6847921	1186349	198
BS-H1-K-52 ALU	6848409	1186449	200
BS-H1-K-52 FT	6847242	1186249	195
BS-H1-K-58 A2	6847969	1186356	198
BS-H1-K-58 ALU	6848447	1186456	200
BS-H1-K-58 FT	6847266	1186256	195
BS-H1-K-64 A2	6847983	1186362	198
BS-H1-K-64 ALU	6848461	1186462	200
BS-H1-K-64 FT	6847303	1186262	195
BS-H1-K-70 A2	6848027	1186369	198
BS-H1-K-70 ALU	6848485	1186469	200
BS-H1-K-70 FT	6847327	1186269	195
BS-H1-K-76 A2	6848034	1186376	198
BS-H1-K-76 ALU	6848492	1186476	200
BS-H1-K-76 FT	6847372	1186276	195
BS-H1-K-82 FT	6847358	1186282	195
BS-H1-K-90 FT	6847365	1186289	195
BS-H1-M-100 FT	6848836	1186097	192
BS-H1-M-12 A2	6848850	1186102	194
BS-H1-M-12 FT	6846900	1186002	192
BS-H1-M-16 A2	6848881	1186109	194
BS-H1-M-16 FT	6848553	1186009	192
BS-H1-M-22 A2	6848911	1186116	194
BS-H1-M-22 FT	6848584	1186016	192
BS-H1-M-28 A2	6848942	1186122	194
BS-H1-M-28 FT	6848614	1186022	192
BS-H1-M-34 A2	6849017	1186129	194
BS-H1-M-34 FT	6848645	1186029	192
BS-H1-M-40 A2	6849048	1186136	194
BS-H1-M-40 FT	6848676	1186036	192
BS-H1-M-46 A2	6849079	1186142	194
BS-H1-M-46 FT	6848706	1186042	192
BS-H1-M-52 A2	6848973	1186149	194
BS-H1-M-52 FT	6848737	1186049	192
BS-H1-M-58 A2	6848997	1186156	194
BS-H1-M-58 FT	6848751	1186056	192
BS-H1-M-64 A2	6849109	1186162	194
BS-H1-M-64 FT	6848775	1186062	192
BS-H1-M-70 A2	6849123	1186169	194
BS-H1-M-70 FT	6848799	1186069	192
BS-H1-M-76 A2	6849130	1186176	194
BS-H1-M-76 FT	6848805	1186076	192
BS-H1-M-82 FT	6848812	1186082	192
BS-H1-M-90 FT	6848829	1186089	192
BS-H2-K-12 ALU	6848102	1186403	201
BS-H2-K-12 FT	6846948	1186203	196
BS-H2-K-16 A2	6847679	1186310	199
BS-H2-K-16 ALU	6848157	1186410	201
BS-H2-K-16 FT	6846993	1186210	196
BS-H2-K-22 A2	6847723	1186317	199
BS-H2-K-22 ALU	6848218	1186417	201
BS-H2-K-22 FT	6847020	1186217	196
BS-H2-K-28 A2	6847778	1186323	199
BS-H2-K-28 ALU	6848256	1186423	201
BS-H2-K-28 FT	6847075	1186223	196
BS-H2-K-34 A2	6847808	1186330	199
BS-H2-K-34 ALU	6848287	1186430	201
BS-H2-K-34 FT	6847129	1186230	196
BS-H2-K-40 A2	6847853	1186337	199
BS-H2-K-40 ALU	6848331	1186437	201
BS-H2-K-40 FT	6847174	1186237	196
BS-H2-K-46 A2	6847907	1186343	199
BS-H2-K-46 ALU	6848386	1186443	201
BS-H2-K-46 FT	6847204	1186243	196
BS-H2-K-52 A2	6847952	1186350	199
BS-H2-K-52 ALU	6848430	1186450	201
BS-H2-K-52 FT	6847259	1186250	196
BS-H2-K-58 A2	6847976	1186357	199
BS-H2-K-58 ALU	6848454	1186457	201
BS-H2-K-58 FT	6847297	1186257	196
BS-H2-K-64 A2	6848010	1186363	199
BS-H2-K-64 FT	6847310	1186263	196
BS-H2-M-12 FT	6848539	1186003	193
BS-H2-M-16 FT	6848560	1186010	193
BS-H2-M-22 FT	6848591	1186017	193
BS-H2-M-28 FT	6848621	1186023	193
BS-H3-K-12 FT	6846955	1186204	197
BS-H3-K-16 FT	6847006	1186211	197
BS-H3-K-22 ALU	6848225	1186418	201
BS-H3-K-22 FT	6847051	1186218	197
BS-H3-K-28 ALU	6848263	1186424	201
BS-H3-K-28 FT	6847082	1186224	197
BS-H3-K-34 ALU	6848317	1186431	201

Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Always indicate the item number when ordering.

Type listing

Type	GTIN	Item no.	Page
BS-H3-K-34 FT	6847136	1186231	197
BS-H3-K-40 FT	6847181	1186238	197
BS-H3-K-46 FT	6847235	1186244	197
BS-H3-M-12 FT	6848546	1186004	193
BS-H3-M-16 FT	6848577	1186012	193
BS-H3-M-22 FT	6848607	1186018	193
BS-H3-M-28 FT	6848638	1186024	193
BS-N1-K-12 A2	6868971	1188102	186
BS-N1-K-12 ALU	6853069	1187302	185
BS-N1-K-12 FT	6852758	1187202	184
BS-N1-K-16 A2	6869015	1188108	186
BS-N1-K-16 ALU	6853083	1187308	185
BS-N1-K-16 FT	6852772	1187208	184
BS-N1-K-22 A2	6869039	1188114	186
BS-N1-K-22 ALU	6853113	1187314	185
BS-N1-K-22 FT	6852789	1187214	184
BS-N1-K-28 A2	6869077	1188120	186
BS-N1-K-28 ALU	6853120	1187320	185
BS-N1-K-28 FT	6852819	1187220	184
BS-N1-K-34 A2	6869084	1188126	186
BS-N1-K-34 ALU	6853182	1187326	185
BS-N1-K-34 FT	6852826	1187226	184
BS-N1-K-40 A2	6869091	1188132	186
BS-N1-K-40 ALU	6853205	1187332	185
BS-N1-K-40 FT	6852833	1187232	184
BS-N1-K-46 A2	6869107	1188138	186
BS-N1-K-46 ALU	6853236	1187338	185
BS-N1-K-46 FT	6852932	1187238	184
BS-N1-K-52 ALU	6853243	1187344	185
BS-N1-K-52 FT	6852956	1187244	184
BS-N1-K-58 ALU	6853250	1187350	185
BS-N1-K-58 FT	6852963	1187250	184
BS-N1-K-64 FT	6852994	1187256	184
BS-N1-K-70 FT	6853007	1187262	184
BS-N1-M-12 FT	6852352	1187002	184
BS-N1-M-16 FT	6852390	1187008	184
BS-N1-M-22 FT	6852413	1187014	184
BS-N1-M-28 FT	6852451	1187020	184
BS-N1-M-34 FT	6852475	1187026	184
BS-N1-M-40 FT	6852512	1187032	184
BS-N1-M-46 FT	6852536	1187038	184
BS-N1-M-52 FT	6852574	1187044	184
BS-N1-M-58 FT	6852598	1187050	184
BS-N2-K-12 FT	6852765	1187203	185
BS-U1-K-100 FT	6851201	1186797	188
BS-U1-K-12 A2	6851270	1186802	190
BS-U1-K-12 ALU	6851751	1186902	191
BS-U1-K-12 FT	6850730	1186702	188
BS-U1-K-16 A2	6851324	1186809	190
BS-U1-K-16 ALU	6851805	1186909	191
BS-U1-K-16 FT	6850785	1186709	188
BS-U1-K-22 A2	6851379	1186816	190
BS-U1-K-22 ALU	6851850	1186916	191
BS-U1-K-22 FT	6850839	1186716	188
BS-U1-K-28 A2	6851409	1186822	190
BS-U1-K-28 ALU	6851881	1186922	191
BS-U1-K-28 FT	6850860	1186722	188
BS-U1-K-34 A2	6851454	1186829	190
BS-U1-K-34 ALU	6851935	1186929	191
BS-U1-K-34 FT	6850914	1186729	188
BS-U1-K-40 A2	6851508	1186836	190
BS-U1-K-40 ALU	6851980	1186936	191
BS-U1-K-40 FT	6850969	1186736	188
BS-U1-K-46 A2	6851553	1186842	190
BS-U1-K-46 ALU	6852031	1186942	191
BS-U1-K-46 FT	6851010	1186742	188
BS-U1-K-52 A2	6851584	1186849	190
BS-U1-K-52 ALU	6852062	1186949	191
BS-U1-K-52 FT	6851041	1186749	188
BS-U1-K-58 A2	6851621	1186856	190
BS-U1-K-58 ALU	6852109	1186956	191
BS-U1-K-58 FT	6851089	1186756	188
BS-U1-K-64 A2	6851645	1186862	190
BS-U1-K-64 ALU	6852123	1186962	191
BS-U1-K-64 FT	6851102	1186762	188
BS-U1-K-70 A2	6851683	1186869	190
BS-U1-K-70 ALU	6852161	1186969	191
BS-U1-K-70 FT	6851140	1186769	188
BS-U1-K-76 A2	6851690	1186876	190
BS-U1-K-76 ALU	6852178	1186976	191
BS-U1-K-76 FT	6851157	1186776	188
BS-U1-K-82 FT	6851164	1186782	188

Type	GTIN	Item no.	Page
BS-U1-K-90 FT	6851195	1186789	188
BS-U1-M-12 A4	6850259	1186602	187
BS-U1-M-12 FT	6849772	1186502	186
BS-U1-M-16 A4	6850303	1186609	187
BS-U1-M-16 FT	6849826	1186509	186
BS-U1-M-22 A4	6850358	1186616	187
BS-U1-M-22 FT	6849871	1186516	186
BS-U1-M-28 A4	6850389	1186622	187
BS-U1-M-28 FT	6849901	1186522	186
BS-U1-M-34 A4	6850433	1186629	187
BS-U1-M-34 FT	6849956	1186529	186
BS-U1-M-40 A4	6850488	1186636	187
BS-U1-M-40 FT	6850006	1186536	186
BS-U1-M-46 A4	6850532	1186642	187
BS-U1-M-46 FT	6850051	1186542	186
BS-U1-M-52 A4	6850563	1186649	187
BS-U1-M-52 FT	6850082	1186549	186
BS-U1-M-58 A4	6850600	1186656	187
BS-U1-M-58 FT	6850129	1186556	186
BS-U1-M-64 A4	6850624	1186662	187
BS-U1-M-64 FT	6850143	1186562	186
BS-U1-M-70 A4	6850662	1186669	187
BS-U1-M-70 FT	6850181	1186569	186
BS-U1-M-76 A4	6850679	1186676	187
BS-U1-M-76 FT	6850198	1186576	186
BS-U2-K-12 FT	6850747	1186703	189
BS-U2-K-16 FT	6850792	1186710	189
BS-U2-K-22 FT	6850846	1186717	189
BS-U2-K-28 FT	6850891	1186723	189
BS-U2-K-34 FT	6850921	1186730	189
BS-U2-K-40 FT	6850976	1186737	189
BS-U2-K-46 FT	6851027	1186743	189
BS-U2-K-52 FT	6851072	1186750	189
BS-U2-K-58 FT	6851096	1186757	189
BS-U3-K-12 FT	6850778	1186704	189
BS-U3-K-16 FT	6850808	1186711	189
BS-U3-K-22 FT	6850853	1186718	189
BS-U3-K-28 FT	6850907	1186724	189
BS-U3-K-34 FT	6850952	1186731	189
BS-U3-K-40 FT	6850983	1186738	189
BS-U3-K-46 FT	6851034	1186744	189
BS-W1-K-12 FT	6854332	1187702	205
BS-W1-K-16 FT	6854370	1187708	205
BS-W1-K-22 A2	6854738	1187814	206
BS-W1-K-22 ALU	6855049	1187914	207
BS-W1-K-22 FT	6854387	1187714	205
BS-W1-K-28 A2	6854745	1187820	206
BS-W1-K-28 ALU	6855056	1187920	207
BS-W1-K-28 FT	6854394	1187720	205
BS-W1-K-34 A2	6854806	1187826	206
BS-W1-K-34 ALU	6855063	1187926	207
BS-W1-K-34 FT	6854400	1187726	205
BS-W1-K-40 A2	6854820	1187832	206
BS-W1-K-40 ALU	6855155	1187932	207
BS-W1-K-40 FT	6854431	1187732	205
BS-W1-K-46 A2	6854851	1187838	206
BS-W1-K-46 ALU	6855162	1187938	207
BS-W1-K-46 FT	6854448	1187738	205
BS-W1-K-52 A2	6854868	1187844	206
BS-W1-K-52 ALU	6855179	1187944	207
BS-W1-K-52 FT	6854455	1187744	205
BS-W1-K-58 A2	6854875	1187850	206
BS-W1-K-58 ALU	6855186	1187950	207
BS-W1-K-58 FT	6854578	1187750	205
BS-W1-K-64 ALU	6855216	1187956	207
BS-W1-K-64 FT	6854585	1187756	205
BS-W1-K-70 FT	6854615	1187762	205
BS-W1-M-28 A2	6855759	1188020	207
BS-W1-M-34 A2	6855773	1188026	207
BS-W1-M-40 A2	6855810	1188032	207
BS-W2-K-16 FT	6854462	1187709	206
BS-W2-K-22 FT	6854493	1187715	206
BS-W2-K-28 FT	6854509	1187721	206
BS-W2-K-34 FT	6854516	1187727	206
BS-W2-K-40 FT	6854523	1187733	206
BS-W2-K-46 FT	6854554	1187739	206
BS-W2-K-52 FT	6854561	1187745	206
BS-W2-K-58 FT	6854639	1187751	206
		/100 pc.	
BZ 10-150/230	6592678	3498344	62
BZ 12-160/255	6571482	3498358	62

Type	GTIN	Item no.	Page
		/100 pc.	
BZ 8-10-21/75HCR	5940128	3498516	63
BZ10-10-30/90HCR	5940142	3498556	63
BZ12-15-35/110HC	5940180	3498666	63
BZ-IG M 10-0	6429516	3498374	63
BZ-IG M 12-0	6429523	3498376	63
BZ-IG M 6-0	6429493	3498370	63
BZ-IG M 8-0	6429509	3498372	63
CSTR M10 A2	6043682	6410162	238
CSTR M10 G	6202270	6410103	238
CSTR M12 G	6202331	6410111	238
CSTR M8 A2	6043569	6410154	238
CSTR M8 G	6202218	6410081	238
CTC 7,5x180 LGR	6515158	2332790	110
CTC 7,5x280 LGR	6515165	2332794	110
DHI 050	6397228	7205900	73
DHI 060	6397235	7205901	73
DHI 070	6397242	7205902	73
DHI 080	6397266	7205903	73
DHI 090	6397297	7205904	73
DHI 100	6397303	7205905	73
DHI 110	6397310	7205906	73
DHI 120	6397327	7205907	73
DHI 130	6397358	7205908	73
DHI 140	6397365	7205909	73
DHI 150	6397372	7205910	73
DIN 7504 N G	5871156	3176428	229
DIN440 11 A2	6712243	6408732	242
		/100 pc.	
DIN440 11 F	6480074	6408729	242
DIN440 14 A2	6427215	6408739	242
DIN440 14 F	6480135	6408737	242
DIN440 7 A2	6712199	6408703	242
		/100 pc.	
DIN440 7 F	6479955	6408702	242
DIN440 9 A2	6712205	6408715	242
		/100 pc.	
DIN440 9 F	6480012	6408710	242
DIN934 M10 F	5298519	3400360	244
DIN934 M12 F	5298571	3400379	244
DIN934 M6 F	5298397	3400344	244
DIN934 M8 F	5298458	3400352	244
DSDT 60	7273934	2347605	47
		/100 pc.	
Easy M10	6412082	3498774	64
Easy M12	6466313	3498776	64
Easy M6	6571499	3498768	64
Easy M8	6412075	3498770	64
E-MSH 10x25	6709748	3492971	64
		/pc.	
E-MSH 10x40	6412044	3492974	64
E-MSH 12x25	6709779	3492973	64
		/pc.	
E-MSH 12x50	6412051	3492978	64
E-MSH 6x25	6709687	3492964	64
E-MSH 8x25	6709724	3492966	64
E-MSH 8x30	6709731	3492968	64
ES M 10x25	6709625	3492022	63
ES M 10x30	6179091	3492032	63
ES M 10x40	6709656	3492024	63
ES M 10x40 A4	6709564	3492008	64
ES M 12x25	6709663	3492025	63
ES M 12x50	6709670	3492026	63
ES M 12x50 A4	6709595	3492012	64
ES M 6x25	6709601	3492018	63
ES M 8x25	6709618	3492020	63
ES M 8x30	6395934	3492023	63
ES M 8x30 A4	6709557	3492003	64
E-SW 10x30	6179107	3492029	64
E-SW 8x30	6709717	3492030	64

Type	GTIN	Item no.	Page
EWP 10 i/ 12 i	6652853	3497724	65
EWP 10x10	6652563	3497656	65
EWP 6 i	6652839	3497720	65
EWP 6x10	6652488	3497640	65
EWP 8 i	6652846	3497722	65
EWP 8x10	6652532	3497648	65
FKS 6x12 G	7303631	6049246	228
		/100 pc.	
FRS 10x20 A2	6200894	6406866	228
FRS 10x20 A4	6822072	6406870	228
FRS 10x20 F	6201730	6407471	227
FRS 10x20S A4	6437894	6406872	228
FRS 10x25 A2	6200474	6406718	228
FRS 10x25 A4	5925262	6407524	227
FRS 10x25 F	6201792	6407528	227
FRS 10x25 F 8.8	6201914	6407560	227
FRS 10x25 G	5354956	6407521	226
FRS 10x25 TPS A2	5626343	6407537	227
FRS 10x25 TPS F	6201853	6407536	227
FRS 10x30 A2	6200535	6406726	228
FRS 10x30 F	6201976	6407579	227
FRS 12x25 A2	6200597	6406750	228
FRS 12x25 A4	6064328	6406785	228
FRS 12x25 F	6200054	6406254	227
FRS 12x30 A2	6200658	6406769	228
FRS 12x30 F	6200115	6406270	227
FRS 6x12 A2	6200238	6406521	228
FRS 6x12 A4	6291311	6406564	228
FRS 6x16 A2	6200290	6406556	228
FRS 6x16 A4	6817573	6406580	228
FRS 6x20 A2	6200351	6406602	228
FRS 6x20 A4	6603077	6406610	228
FRS 8x16 A2	6200412	6406696	228
FRS 8x16 A4	6603138	6406653	228
FRS 8x16 A4	5942849	6406698	228
FRS 8x16 F 5.6	6201198	6406939	227
FRS 8x16 F 8.8	6201259	6406963	227
FRS 8x20 F	6201310	6406971	227
FRS 8x25 A2	6200771	6406815	228
FRS 8x25 F	6201372	6406998	227
FRS 8x35 8.8 F	6396160	6407050	227
FRS 8x35 A2	6200832	6406823	228
FRS 8x35 F	6201433	6407048	227
FRSB 6x12 A2	6077595	6406138	226
FRSB 6x12 A4	6078370	6406142	226
FRSB 6x12 F	6199815	6406122	226
FRSB 6x12 G	6563111	6406130	226
FRSB 6x12 VZ F	5059585	6406125	226
FRSB 6x12 VZ G	5059561	6406133	226
FRSB 6x16 A2	6077717	6406189	226
FRSB 6x16 A4	6078431	6406193	226
FRSB 6x16 F	6199877	6406157	226
FRSB 6x20 A2	5925248	6406205	226
FRSB 6x20 A4	5925255	6406207	226
FRSB 6x20 F	6199990	6406203	226
FRSB 6x20 G	6616152	6406181	226
FRSB 6x30 F	5045243	6406907	226
FRSB M10x20 A2	5849537	3175620	226
FRSB M10x25 A2	5849544	3175625	226
FRSB M8x35 A2	5849520	3175608	226
		/pc.	
GB 1525 GR	6456307	1476980	218
		/100 pc.	
HHS M10x20 A4	5940548	3156031	230
HHS M10x30 A4	5940555	3156032	230
HHS M10x30 A5	5940821	3156062	231
HHS M10x40 A4	5940562	3156033	230
HHS M10x45 A2	5849490	3156040	230
HHS M10x50 A4	5940609	3156034	230
HHS M10x60 A4	5940616	3156035	230
HHS M12x30 A4	5940623	3156036	230
HHS M12x40 A4	5891994	3156029	230
HHS M12x40 A5	5940876	3156067	231
HHS M12x45 A2	5849513	3156042	230
HHS M12x50 A4	5940661	3156037	230
HHS M16x50 A2	5849582	3156044	230
HHS M6x16 A4	5940371	3156016	230
HHS M6x20 A4	5940388	3156018	230
HHS M6x25 A4	5940395	3156019	230

Industrieinstallation - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Always indicate the item number when ordering.

Type listing

Type	GTIN	Item no.	Page
		/100 pc.	
HHS M6x30 A4	5940401	3156020	230
HHS M6x35 A4	5940418	3156021	230
HHS M6x40 A4	5940425	3156022	230
HHS M8x20 A4	5940432	3156024	230
HHS M8x20 A5	5940739	3156054	231
HHS M8x25 A4	5940449	3156025	230
HHS M8x30 A4	5940487	3156026	230
HHS M8x40 A4	5940494	3156027	230
HHS M8x50 A4	5940500	3156028	230
HHWS 10x100 G	5867135	3188302	249
HHWS 10x60 G	5867074	3188256	249
HHWS 10x70 G	5270430	3188272	249
HHWS 10x80 G	5270492	3188280	249
HHWS 12x70 G	5270553	3188361	249
HHWS 12x80 G	5270614	3188388	249
HHWS 6x40 G	5866718	3188043	249
HHWS 6x50 G	5270195	3188051	249
HHWS 6x60 G	5270256	3188078	249
HHWS 6x80 G	5866770	3188094	249
HHWS 8x100 G	5867012	3188205	249
HHWS 8x40 G	5866831	3188140	249
HHWS 8x50 G	5866893	3188159	249
HHWS 8x60 G	5270317	3188167	249
HHWS 8x70 G	5270379	3188175	249
HHWS 8x80 G	5866954	3188183	249
HN M10 A2	5297796	3397106	244
HN M10 A4	5618072	3400177	244
HN M10 G	5298212	3400107	244
HN M12 A2	5297857	3397114	244
HN M12 A4	5894810	3397145	244
HN M12 G	5298274	3400123	244
HN M4 G	5297970	3400042	244
HN M5 G	5298038	3400050	244
HN M6 A2	5297673	3397068	244
HN M6 A4	5909293	3400173	244
HN M6 A5	5909354	3400183	244
HN M6 G	5298090	3400069	244
HN M8 A2	5297734	3397084	244
HN M8 A4	5909309	3400175	244
HN M8 A5	5909361	3400185	244
HN M8 G	5298151	3400085	244
HT 10x100 TD	6563975	3498142	249
HT 10x120 TD	6563982	3498144	249
HT 10x140 TD	6563999	3498146	249
HT 10x80 TD	6563968	3498140	249
HT 6x100 TD	6563944	3498134	249
HT 6x120 TD	6563951	3498136	249
HT 6x60 TD	6563920	3498130	249
HT 6x80 TD	6563937	3498132	249
		/pc.	
K 60 FT	6465972	6348408	242
K 70 FT	6466092	6348440	242
		price/100	
K-C30 G	5151210	1488201	216
		/100 pc.	
KD 10 100	5239352	3482758	60
KD 8 100	5239475	3482707	60
KM M10 A2	5849711	3156122	245
KM M10 A4	5910985	6408930	245
KM M10 A5	5911036	6408932	246
KM M12 A2	5849728	3156126	245
KM M12 A4	5911043	6408940	245
KM M6 A2	6078554	6408966	245
KM M6 A4	6078615	6408970	245
KM M6 A5	5911081	6408972	246
KM M6 F	6078493	6408962	245
KM M6 G	6623952	6408958	245
KM M8 A2	5849643	3156120	245
KM M8 A4	5910961	6408920	245
KM M8 A5	5910978	6408922	246
		/pc.	
Loctite 243	5785385	2362940	254

Type	GTIN	Item no.	Page
		/100 pc.	
LWS M10 A4	5909750	3405111	243
LWS M10 G	5302414	3405109	243
LWS M12 A4	5909774	3405127	243
LWS M12 G	5302476	3405125	243
LWS M6 A4	5909651	3405062	243
LWS M6 G	5302292	3405060	243
LWS M8 A4	5909712	3405089	243
LWS M8 G	5302353	3405087	243
MD 5 GTP	5683414	3484602	58
MD 6 GTP	5683353	3484629	58
MMS+ F 7.5x80	6842681	3498160	56
MMS+ I 7.5x40	6710881	3498266	54
MMS+ I 7.5x60	6710911	3498268	54
		/100 pc.	
MMS+ KS 5x50	5964100	3498204	53
MMS+ MS 7.5x50	6559664	3498261	54
MMS+ MS 7.5x60	6842568	3498262	54
MMS+ P 6x35	6651290	3498103	53
MMS+ P 6x40	6952175	3498105	53
		/100 pc.	
MMS+ P 6x50	6559657	3498108	53
MMS+ P 7.5x75 A4	6952243	3498274	53
		/100 pc.	
MMS+ P 7.5x80	6559640	3498272	53
MMS+ R 6x40	6842698	3498180	56
		/100 pc.	
MMS+ SS 10x100	6559633	3498159	55
MMS+ SS 10x75 A4	6952182	3498126	55
		/100 pc.	
MMS+ SS 10x80	6559626	3498124	55
MMS+ SS 10x95 A4	6952199	3498128	55
MMS+ SS 12x100	6842575	3498170	55
MMS+ SS 12x120	6842582	3498172	55
MMS+ SS12x105 A4	6952205	3498174	55
MMS+ SS12x120 A4	6952236	3498176	55
		/100 pc.	
MMS+ ST 6x55	6559671	3498264	54
MMS+ V 10x110	6842636	3498192	55
MMS+ V 10x90	6842629	3498190	55
MMS+ V 12x110	6842643	3498196	56
		/100 pc.	
M-Quick 15-19LGR	5880936	2153106	81
M-Quick 18-22LGR	5880998	2153114	81
M-Quick 25-28LGR	5881056	2153130	81
M-Quick 31-37LGR	5881117	2153157	81
M-Quick M20 LGR	5742395	2153718	81
M-Quick M25 LGR	5741732	2153726	81
M-Quick M32 LGR	5741671	2153734	81
N 6-5/49 A4	6429585	3498399	61
N 6-5/49 HCR	6411955	3498398	61
N 6-5-10/49	6411948	3498396	60
N-K 6-5/44 A4	6429578	3498393	61
N-K 6-5/44 HCR	6411931	3498392	62
N-K 6-5-10/44	6411924	3498390	61
		/pc.	
N-K SWZ SDS	6571505	3498314	62
OSG 20X3 FT	6326112	6017371	216
		price/100	
OSR 20x1.5 BK	5549079	1465600	216
OSS 20x3 3M FT	5137597	1465767	216
OSS 30x3 3M FT	5137771	1465805	216
OSS 40x4 3M FT	5137832	1465821	216
		/100 pc.	
OTSC 3,5x30 A4	6621545	3191050	248
OTSC 3,5x40 A4	6621552	3191052	248
OTSC 4,0x25 A4	6621576	3191056	248
OTSC 4,0x30 A4	6621583	3191058	248
OTSC 4,0x40 A4	6621590	3191060	248
OTSC 4,0x50 A4	6621606	3191062	248
OTSC 4,5x30 A4	6621613	3191066	248
OTSC 4,5x40 A4	6621620	3191068	248
OTSC 4,5x50 A4	6621637	3191070	248
OTSC 5,0x40 A4	6621644	3191074	248

Type	GTIN	Item no.	Page
		/100 pc.	
OTSC 5,0x50 A4	6621651	3191076	248
OTSC 5,0x60 A4	6621668	3191078	248
OTSC 6,0x40 A4	6621675	3191082	248
OTSC 6,0x50 A4	6621682	3191084	248
OTSC 6,0x60 A4	6621699	3191086	248
OTSP 3,5x30 A4	6621392	3191000	248
OTSP 3,5x40 A4	6621408	3191002	248
OTSP 4,0x25 A4	6621415	3191006	248
OTSP 4,0x30 A4	6621422	3191008	248
OTSP 4,0x40 A4	6621439	3191010	248
OTSP 4,0x50 A4	6621446	3191012	248
OTSP 4,5x30 A4	6621453	3191016	248
OTSP 4,5x40 A4	6621460	3191018	248
OTSP 4,5x50 A4	6621477	3191020	248
OTSP 5,0x40 A4	6621484	3191024	248
OTSP 5,0x50 A4	6621491	3191026	248
OTSP 5,0x60 A4	6621507	3191028	248
OTSP 6,0x40 A4	6621514	3191032	248
OTSP 6,0x50 A4	6621521	3191034	248
OTSP 6,0x60 A4	6621538	3191036	248
PBD i M10	6652792	3497704	65
PBD i M12	6652808	3497706	65
PBD i M6	6652778	3497700	65
PBD i M8	6652785	3497702	65
PBD M10x10	6652426	3497616	65
PBD M6x10	6652297	3497600	65
PBD M8x10	6652365	3497608	65
		/pc.	
RB 10 M 6	6606948	3497870	72
RB 12 M 6	6606955	3497872	72
RB 14 M 6	6606962	3497874	72
RB 16 M 6	6615384	3497875	72
RB 18 M 6	6606993	3497876	72
RB 20 M 6	6615391	3497878	72
RB-L 150 M6	6467884	3497932	72
RBL M6 SDS	6464708	3497915	72
		price/100	
SBR 15 A2K	6590872	6490282	214
SBR 15 FSK	6590865	6490280	214
SBR 8 A2K	6589685	6490192	214
		/100 pc.	
SBV 15 A2	6209835	6490964	215
SBV 15 A4	6650118	6490972	215
SBV 15 FS	6589609	6490950	215
SBV 8 A2	6589586	6490942	214
SBV 8 A4	6589593	6490944	214
SBV 8 FS	6589579	6490940	214
SDS-EWP 10x10	6652723	3497684	66
SDS-EWP 8x10	6652662	3497676	66
		/100 pc.	
SH 40 G	5151272	1488252	235
SKS 10x110 G	6348794	6418244	231
SKS 10x120 F	5505631	3160793	231
SKS 10x25 F	5257233	3160734	231
SKS 10x30 A4	5618423	3160752	232
SKS 10x30 F	5257295	3160742	231
SKS 10x40 F	5257356	3160750	231
SKS 10x60 F	6202157	6408516	231
SKS 10x80 A4	6822133	6418248	232
SKS 10x80 A5	5911159	6418247	232
SKS 10x80 F	6437474	6418250	231
SKS 10x90 A2	5911166	6418255	232
SKS 10x90 A4	5759041	6418256	232
SKS 10x90 A5	5911197	6418257	232
SKS 10x90 F	6518470	6418252	231
SKS 12x100 A2	6204618	6418368	232
SKS 12x100 F	6204496	6418295	232
SKS 12x110 A2	6204670	6418376	232
SKS 12x110 F	6204557	6418317	232
SKS 12x130 F	6479535	6408478	232
SKS 12x30 F	5258070	3163091	232
SKS 12x40 F	5258131	3163113	232

Type	GTIN	Item no.	Page
		/100 pc.	
SKS 12x40 G F	5317418	3164020	233
SKS 12x60 F	5258254	3163156	232
SKS 12x80 A2	6204373	6418279	232
SKS 12x80 F	6204434	6418287	232
SKS 6x12 F	5255857	3156494	231
SKS 6x20 F	5255970	3156516	231
SKS 6x30 F	5256038	3156524	231
SKS 8x16 F	5256571	3158624	231
SKS 8x20 F	5256632	3158632	231
SKS 8x30 F	5256694	3158640	231
SKS M10x100 ZL	6687541	3156774	230
SKS M10x20 ZL	6687442	3156758	230
SKS M10x30 ZL	6687480	3156760	230
SKS M10x40 ZL	6687497	3156762	230
SKS M10x50 ZL	6687503	3156764	230
SKS M10x60 ZL	6687510	3156766	230
SKS M10x70 ZL	6687527	3156768	230
SKS M10x80 ZL	6687534	3156770	230
SKS M12x100 ZL	6687602	3156799	230
SKS M12x30 ZL	6687558	3156788	230
SKS M12x40 ZL	6687565	3156790	230
SKS M12x50 ZL	6687572	3156792	230
SKS M12x60 ZL	6687589	3156794	230
SKS M12x80 ZL	6687596	3156796	230
SKS M6x16 ZL	6687336	3156706	230
SKS M6x20 ZL	6687343	3156708	230
SKS M6x30 ZL	6687350	3156710	230
SKS M6x40 ZL	6687367	3156712	230
SKS M6x55 ZL	6687701	3156715	230
SKS M6x60 ZL	6687374	3156716	230
SKS M8x20 ZL	6687381	3156728	230
SKS M8x30 ZL	6687398	3156730	230
SKS M8x40 ZL	6687404	3156732	230
SKS M8x50 ZL	6687411	3156734	230
SKS M8x60 ZL	6687428	3156736	230
SKS M8x80 ZL	6687435	3156738	230
		price/100	
SQ 2 SWS	5371809	2147000	84
		/100 pc.	
SQ M6	5016069	2146509	84
SQ-10 LGR	5595359	2146053	83
		price/100	
SQ-10 T20 SWS	5371618	2146922	85
		/100 pc.	
SQ-12 LGR	5595410	2146061	83
		price/100	
SQ-12 T20 SWS	5371625	2146923	85
		/100 pc.	
SQ-15 LGR	5595472	2146096	83
		price/100	
SQ-15 T20 SWS	5371632	2146924	85
		/100 pc.	
SQ-17 LGR	5595533	2146118	83
		price/100	
SQ-17 T20 SWS	5371649	2146925	85
		/100 pc.	
SQ-20 LGR	5595656	2146134	83
		price/100	
SQ-20 T10 SWS	5371670	2146926	85
		/100 pc.	
SQ-25 LGR	5595717	2146207	83
		price/100	
SQ-25 T10 SWS	5371748	2146927	85
		/100 pc.	
SQ-28 LGR	5595779	2146215	83
		price/100	
SQ-28 T10 SWS	5371755	2146928	85
		/100 pc.	
SQ-32 LGR	5595830	2146258	83
		price/100	
SQ-32 T10 SWS	5371762	2146929	85
		/100 pc.	
SQ-36 LGR	5204275	2146290	83
SQ-40 LGR	5595892	2146320	83
SQ-47 LGR	5204398	2146363	83
SQ-51 LGR	5595953	2146444	83

Industrieinstalltion - Befestigungsmaterial / en / 2023/07/13 08:19:25 08:19:25 (LLExport_03289) / 2023/07/13 08:19:47 08:19:47

Always indicate the item number when ordering.

Type listing

Type	GTIN	Item no.	Page
		/100 pc.	
SQ-59 LGR	5204510	2146487	83
SQ-SA M6	5403180	2147280	84
SQ-SA M8	5403197	2147283	84
SWS M10 A4	6095520	3404381	242
SWS M10 G	5301752	3404102	242
SWS M12 A4	6095537	3404385	242
SWS M12 G	5301813	3404129	242
SWS M5 G	5301578	3404056	242
SWS M6 A2	5301936	3404331	243
SWS M6 A4	6095506	3404372	242
SWS M6 G	5301639	3404064	242
SWS M8 A2	5301998	3404358	243
SWS M8 A4	6095513	3404377	242
SWS M8 G	5301691	3404080	242
SZ-B 18/0x142	6429486	3498752	66
TR M10 1M A2	5023579	3141312	238
TR M10 1M A4	6098446	3141502	238
TR M10 1M G	5253396	3141209	238
TR M10 2M A2	6096909	3141339	238
TR M10 2M A4	6098453	3141504	238
TR M10 2M G	5123583	3141140	238
TR M10 3M G	5895152	3141233	238
TR M12 1M A2	5594437	3141314	238
TR M12 1M G	5253457	3141306	238
TR M12 2M A2	6096930	3141316	238
TR M12 2M A4	6098507	3141514	238
TR M12 2M G	5123644	3141144	238
TR M6 1M A2	6096886	3141327	238
TR M6 1M A4	6098385	3141482	238
TR M6 1M G	5253211	3141047	238
TR M6 2M A2	6096893	3141328	238
TR M6 2M A4	6098392	3141484	238
TR M6 2M G	6096640	3141048	238
TR M8 1M A2	5023456	3141310	238
TR M8 1M A4	6098408	3141492	238
TR M8 1M G	5253334	3141128	238
TR M8 2M A2	5882886	3141330	238
TR M8 2M A4	6098439	3141494	238
TR M8 2M G	5119982	3141136	238
		/pc.	
VM-AP 360	6464685	3497912	72
VM-P 345 Profi	6464661	3497906	70
VM-P 380 Profi	6464678	3497909	70
		/100 pc.	
VM-SH 12x1000	6464906	3497972	73
VM-SH 16x1000	6464913	3497975	73
VM-SH 22x1000	6464920	3497978	73
VMU plus 300	7334017	3497806	70
		/pc.	
VMU plus 420	6606986	3497803	70
VMU-A 10-130A4	6606825	3497832	71
VMU-A 10-130vz	6606764	3497822	71
VMU-A 10-150vz	6606771	3497824	71
VMU-A 12-155A4	6606832	3497834	71
VMU-A 12-155vz	6606788	3497826	71
VMU-A 8-110A4	6606818	3497830	71
VMU-A 8-110vz	6606757	3497820	71
VMU-IG M10x80A4	6606894	3497854	71
VMU-IG M10x80vz	6606863	3497844	71
VMU-IG M6x80A4	6606870	3497850	71
VMU-IG M6x80vz	6606849	3497840	71
VMU-IG M8x80A4	6606887	3497852	71
VMU-IG M8x80vz	6606856	3497842	71
VMU-SH 12x80	6606900	3497860	71
VMU-SH 16x130	6606924	3497864	71
VMU-SH 16x85	6606917	3497862	71
VMU-SH 20x85	6606931	3497866	71
VM-X	6464937	3497981	72
VM-XE 10/200	6464944	3497984	73
VM-XE 10/500	6464951	3497987	73
		/100 pc.	
WN 7855 A 10	5029113	1043196	173

Type	GTIN	Item no.	Page
		/100 pc.	
WN 7855 A 12	5029175	1043226	173
WN 7855 A 14	5029236	1043242	173
WN 7855 A 2	5028451	1043013	173
WN 7855 A 2.5	5028512	1043021	173
WN 7855 A 3	5028574	1043048	173
WN 7855 A 4	5028697	1043064	173
WN 7855 A 4.5	5028758	1043072	173
WN 7855 A 5	5028819	1043080	173
WN 7855 A 6	5028871	1043102	173
WN 7855 A 7	5028932	1043129	173
WN 7855 A 8	5028994	1043145	173
WN 7855 A 9	5029052	1043161	173
WN 7855 B 10	5030133	1044192	174
WN 7855 B 12	5030195	1044214	174
WN 7855 B 14	5030256	1044230	174
WN 7855 B 16	5030317	1044257	174
WN 7855 B 3	5029595	1044044	174
WN 7855 B 4	5029717	1044060	174
WN 7855 B 4.5	5029779	1044079	174
WN 7855 B 5	5029830	1044087	174
WN 7855 B 6	5029892	1044109	174
WN 7855 B 7	5029953	1044125	174
WN 7855 B 8	5030010	1044141	174
WN 7855 B 9	5030072	1044176	174
WS M10 D20 A2	5300618	3402320	240
WS M10 D20 A4	5618089	3402322	240
WS M10 D20 G	5300137	3402096	240
WS M10 D28 G	5300434	3402223	240
WS M10 D30 A2	5944393	3403155	241
WS M10 D30 A4	5944454	3403163	241
WS M10 D40 A2	5946298	3403175	241
WS M10 D40 A4	5946304	3403177	241
WS M10 G30 G	5868330	3403165	241
WS M12 D24 A2	5300670	3402339	240
WS M12 D24 A4	5894780	3402345	240
WS M12 D24 G	5300199	3402126	240
WS M4 D09 G	5299899	3402045	240
WS M4 G15 G	5867913	3403025	241
WS M5 G20 G	5867975	3403041	241
WS M6 D12 A2	5300496	3402304	240
WS M6 D12 A4	5909415	3402306	240
WS M6 D12 A5	5909422	3402308	241
WS M6 D12 G	5300014	3402061	240
WS M6 D28 G	5300311	3402207	240
WS M6 G20 G	5868033	3403076	241
WS M6 G25 G	5868095	3403084	241
WS M6 G30 G	5868156	3403092	241
WS M6 G40 G	6849536	3403099	241
		/100 pc.	
WS M8 D16 A2	5300557	3402312	240
WS M8 D16 A4	5909477	3402314	240
WS M8 D16 A5	5909484	3402316	241
WS M8 D16 G	5300076	3402088	240
WS M8 D20 A2	5944348	3403125	241
WS M8 D20 A4	5944409	3403127	241
WS M8 D25 A2	5944386	3403135	241
WS M8 D25 A4	5944447	3403137	241
WS M8 D28 G	5300373	3402215	240
WS M8 D40 A2	5946250	3403145	241
WS M8 D40 A4	5946267	3403147	241
WS M8 G20 G	5868217	3403122	241
WS M8 G25 G	5868279	3403130	241
WS M8 G40 G	6849543	3403140	241



© OBO Bettermann Order no. 9178356 03/2023 EN

OBO Bettermann
Holding GmbH & Co. KG
P.O. Box 1120
58694 Menden
GERMANY

www.obo-bettermann.com

Customer Service
Tel.:+49 23 73 89 - 17 00
export@obo.de

Building Connections

OBO BETTERMANN