



External lightning protection

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.



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



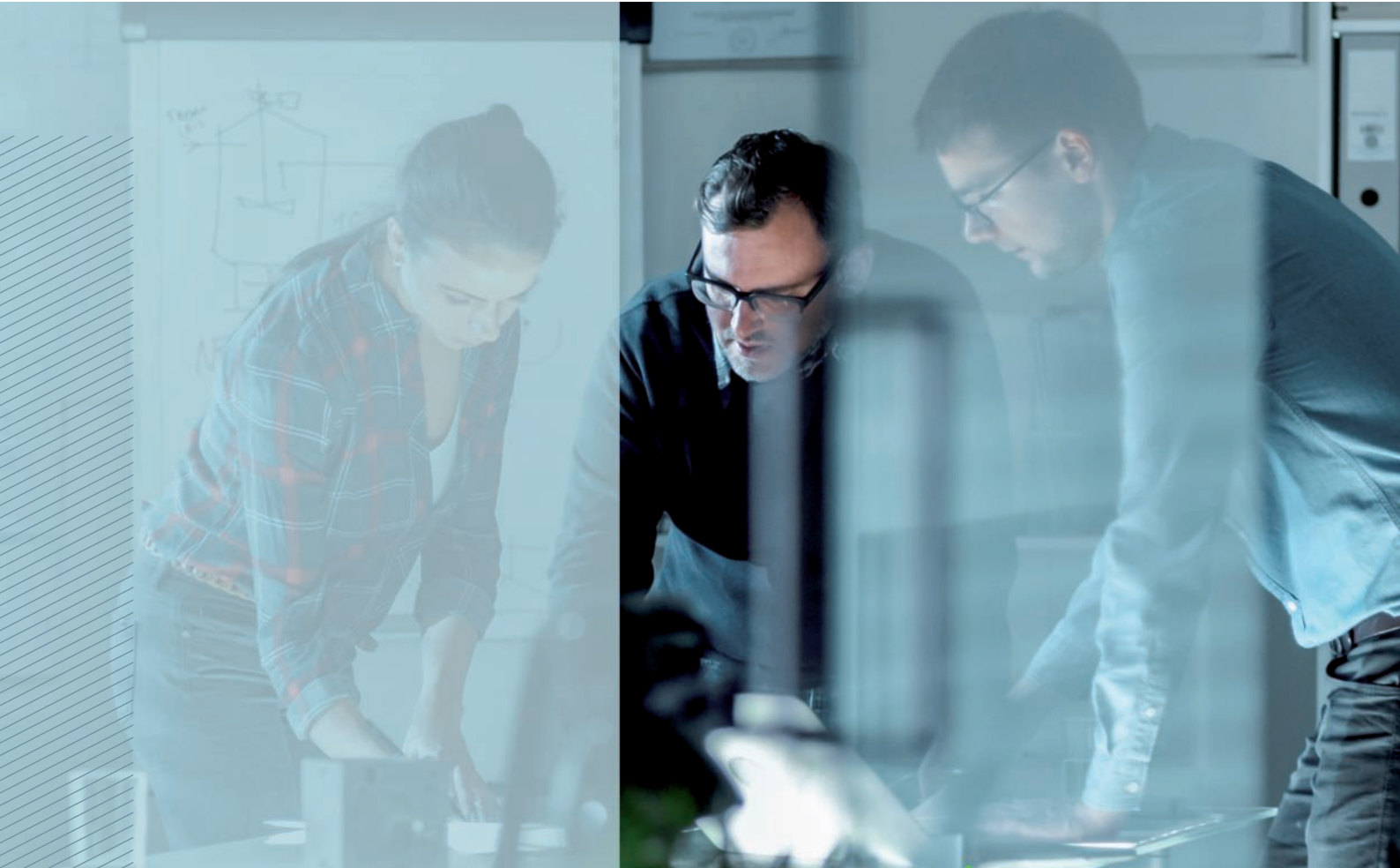
Safety and protection installations

- 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.

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 by 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.

Customer Service

Tel.: +49 23 73 89 - 17 00

Monday–Thursday
07.30–17.00

Friday
07.30–15.00

export@obo.de

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.



Service



Training



Handling



Certification

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



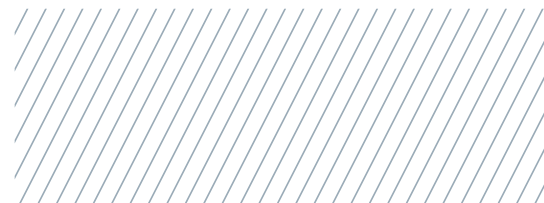
OBO Construct: Planning has never been so easy!

OBO Construct is a collection of planning tools that were developed especially for electrical installation engineers and planners. This platform offers support in product configuration and a selection aid for the matching systems, and automatically generates a corresponding parts list. With OBO Construct, you can therefore access and edit projects at any time and at any location – via your smartphone, tablet or desktop PC. Versions of the app are available for iOS and Android.



OBO Academy: From the basics to the concrete application

The OBO Academy has been offering an extensive further education programme for many years. This programme helps with first-hand information and expertise, giving you that essential head start in terms of in-depth knowledge. In our seminars, planner days or online seminars, we provide you with current developments, trends, norms and regulations – systematically, comprehensively and practically oriented.





Clear delivery capability

With an approximate storage area of 38,000 m² and five strategically well-located sales warehouses, we ensure that our products arrive at the right place at the right time. Our logistics specialists work hard to ensure all our partners are supplied flexibly and as quickly as possible. This you can rely on!

- 1** Sales Warehouse North
Bad Fallingbostal
- 2** Sales Warehouse West
Iserlohn
- 3** Sales Warehouse East
Delitzsch
- 4** Sales Warehouse South-West
Groß-Rohrheim
- 5** Sales Warehouse South
Dasing





Planning aids

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Conductor material

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Connection and separating terminals

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Connection clamps and connection terminals

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Protection and spark gaps

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Accessories, external lightning protection

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Directories

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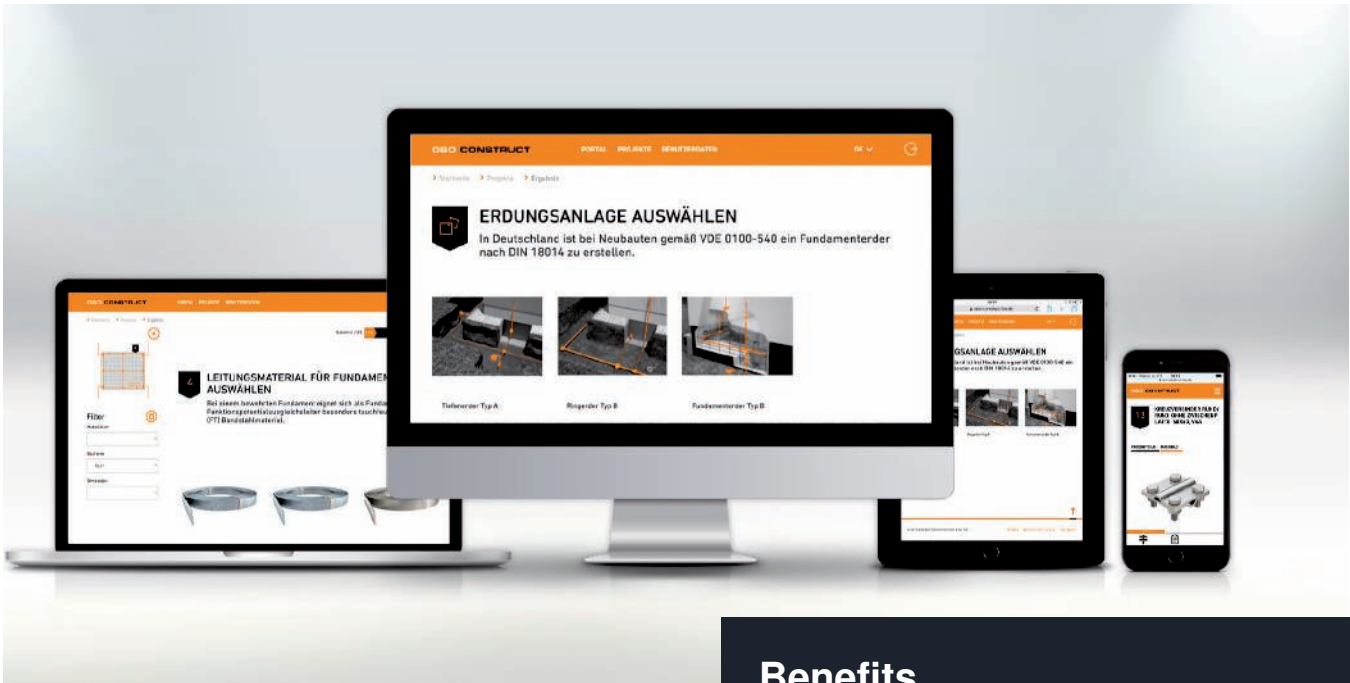
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Planning aids

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OBO Construct planning aids



Digital selection aids for earthing systems and surge protection

The OBO Construct electronic planning aids are programs developed to support electrical installation engineers and planners in the design of electrical installation systems. In particular, in complex areas such as surge protection and earthing, there are countless technical and standard general conditions to be observed. The two OBO Construct programs for earthing and surge protection systems should provide active help here. Systematic questions simplify the search for suitable products and guaranteed surge protection systems and earthing systems which fulfil the standards.

OBO Construct for surge protection

This online tool aids you in the project-orientated selection and connection of suitable surge protection systems and provides you with information on the OBO surge protection systems. You can create your personal materials list, connection diagram and invitation to tender texts quickly, efficiently and in a targeted manner for complete surge protection in the fields of energy technology, photovoltaics, telecommunication, MSR, TV, HF and data technology. The result can be exported easily into Excel format for further processing.

Benefits

- Time and place-independent work assistance
- Transmit planning requirements to complete product systems
- Find suitable products quickly and simply
- Calculate material and parts lists automatically
- Download configuration results as Excel or Word files

OBO Construct for earthing systems

Earthing systems can be planned and configured easily using the digital selection aid. The simple and intuitive user guidance leads you through the individual components of the earthing system step by step. The software then automatically calculates the amounts required and the matching accessories. The application can be opened on any end device, irrespective of its operating system – be it smartphone, tablet or desktop PC.



Lightning protection guide. Safely routed.

Reference work and planning aid for electrical installation engineers and technical planners

At OBO Bettermann, we can look back on more than 90 years of experience in the field of lightning and surge protection. This experience and, of course, the latest standards and technical innovations have flowed into the company's new lightning protection guide. The brochure allows you to plan installations in the field of lightning and surge protection faster and more easily.

It contains a balanced mixture of both basic and expert knowledge, as well as planning and selection aids for the protection of buildings and systems.

The new lightning protection guide can be requested by calling +49 23 73 89 - 17 00 and is also available for download on the OBO website.



Topics

- Basic principles
- The external lightning protection system
- Air-termination and down-conductor systems
- Examples and selection aids for wind load calculation conform with Eurocode 1+3
- Earthing systems with foundation earth electrode to current DIN 18014
- The internal lightning protection system
- Equipotential bonding systems
- Overvoltage protection systems
- Current standards
- New selection and planning aids
- Examples



First-hand support and knowledge



OBO TBS seminars: First-hand knowledge

With a comprehensive programme of training courses and seminars on the subject of surge voltage and lightning protection systems, OBO is able to support its customers with specialist knowledge from a single source. Alongside the basic theoretical principles, the programme also deals with practical implementation in everyday applications. Special calculation and application examples round off the comprehensive programme of knowledge transfer.

Invitations to tender on the Internet at www.ausschreiben.de

More than 10,000 entries from the cable support systems, fire protection systems, connection and fastening systems, transient and lightning protection systems, cable routing systems, device systems and underfloor systems can be recalled for free. 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

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 for lightning protection/earthing at the highest level:

OBO manufactures products to RAL GZ642-5 and is dedicated to compliance with the RAL directives. Lightning protection and earthing products can be used for invitations to tender according to RAL.

These documents are continually updated and can be downloaded for free at any time from the Internet download area at www.obo-bettermann.com.



Customer service and credibility

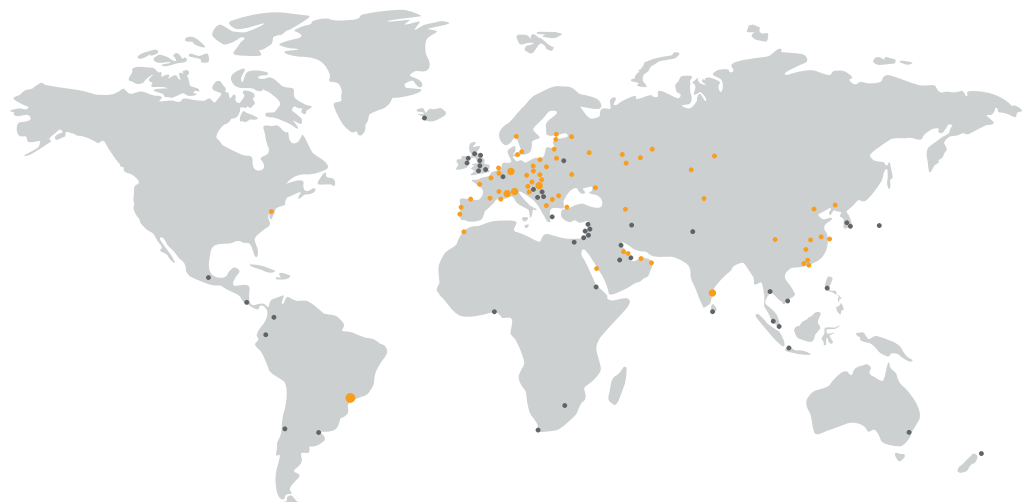
Friendliness, reliability and competence create acceptance, credibility and lasting working relationships. These shared values arise from OBO's consistent orientation around the wishes and needs of its customers. Close partnerships with customers is OBO's foremost priority.

Speed and reliability

Optimised procedures and highly developed logistics ensure that OBO products are in the right place at the right time, anywhere in the world. OBO offers comprehensive support for large-scale projects, from planning all the way to installation.

Help and advice

Answers to questions about products and installation, planning advice for complex projects – OBO's staff will help you through every phase of your project, no matter what field it is in. We are constantly improving the support we provide in every phase of collaboration, laying the foundations for genuine partnerships.



- Production location
- Subsidiary
- Representative

Minor cause, major effect: Damage caused by surge voltages



Our dependency on electrical and electronic equipment continues to increase, in both our professional and private lives. Data networks in companies or emergency facilities such as hospitals and fire stations are lifelines for an essential real time information exchange. Sensitive databases, e.g. in banks or media publishers, need reliable transmission paths.

It is not only lightning strikes that pose a latent threat to these systems. More and more frequently, today's electronic aids are damaged by surge voltages caused by remote lightning discharges or switching operations in large electrical systems. During thunderstorms too, high volumes of energy are instantaneously released. These voltage peaks can penetrate a building through all manner of conductive connections and cause enormous damage.



Financial implications of lightning and surge damage



Additional costs can also be incurred due to outages and consequential damage in relation to:

- Loss of data
- Production outage
- Loss of contactability (Internet, telephone, fax)
- Faulty heating system
- Costs due to faults and false alarms in fire or burglar alarm systems

Financial losses are on the rise

Recent statistics and numbers show: Surge voltage damages per year have been on the decline since 2014. The positive development could be a result, amongst other things, of the mandatory use of surge protection measures to VDE 0100-443. At the same time, the figures also show that the costs per year are rising significantly. A reason for this is the growing dependency on electrical devices and the increasing number of smart home solutions. Therefore it is always recommended to retrofit surge protection systems, even when they are not required by norms. Although costs will be covered by insurance policies, the annoyance about the preventable damage is initially large. Information on protection measures can be found in, for example, the German Directive VdS 2010.

Financial losses can only be considered in isolation when no legal or insurance requirements for the safety of people apply.

Substantial losses result from the destruction of electrical devices, notably:

- Computers and servers
- Telephone systems
- Fire alarm systems
- Monitoring systems
- Lift, garage door and roller shutter drives
- Consumer electronics
- Kitchen appliances

Year	Amount of lightning and surge voltage damage	Paid damages for lightning and surge voltage damage
2010	290,000	€170 million
2011	380,000	€230 million
2012	360,000	€230 million
2013	290,000	€170 million
2014	380,000	€250 million
2015	350,000	€240 million
2016	320,000	€250 million
2017	300,000	€240 million
2018	280,000	€250 million
2019	230,000	€250 million
2020	200,000	€260 million

Number of instances of damage from lightning and surge voltages and amounts paid out by home and contents insurance companies (the example is of Germany); source: GDV extrapolation based on industry and risk statistics; numbers rounded to the nearest €10,000 or €10 million.

Lightning and surge protection standards

When planning and executing a lightning protection system, it is necessary to observe all relevant national guidelines and take account of any special circumstances or applications and the safety stipulations in the relevant country-specific supplements.

A lightning and surge protection system consists of several systems, each tailored to each of the others. At its most basic, a lightning and surge protection system consists of one internal and one external lightning protection system.

These, in turn, can be categorised as follows:

- Air-termination devices
- Down-conductors
- Earthing systems
- Area shielding
- Separation distance
- Lightning protection equipotential bonding system

These systems must be carefully selected for the application at hand, and used in a coordinated way. Installation of the systems takes place according to various application and product standards. The supplements to the international IEC guidelines and harmonised European versions of the various country-specific translations often contain additional informative information specific to the country in question.

Product standards

To ensure that the components can withstand the loads to which they are likely to be exposed in application, they must be checked against the respective product standard for external and internal lightning protection.



External and internal lightning protection systems



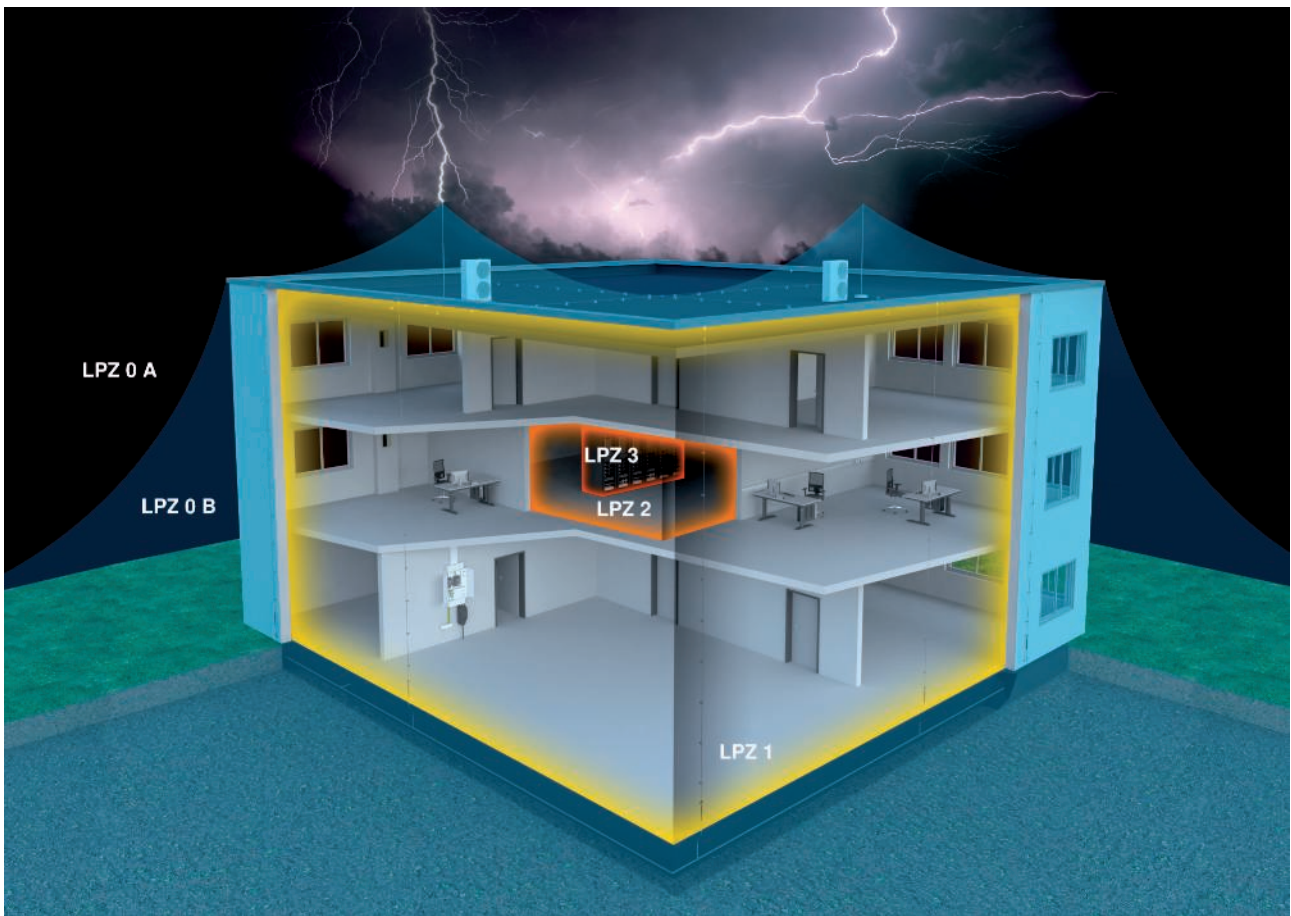
Standard	German supplement	Contents
VDE 0185-305-1 (IEC 62305-1)		Protection against lightning – Part 1: General principles
VDE 0185-305-2 (IEC 62305-2)		Protection against lightning – Part 2: Risk management
	1	Lightning risk in Germany
	2	Calculation aids for estimating the risk of damage for buildings
	3	Additional information on use of EN 62305-2
VDE 0185-305-3 (IEC 62305-3)		Protection against lightning – Part 3: Physical damage to structures and life hazard
	1	Additional information on use of EN 62305-3
	2	Additional information for building structures
	3	Additional information for the testing and servicing of lightning protection systems
	4	Use of metal roofs in lightning protection systems
	5	Lightning and surge protection in PV power supply systems
VDE 0185-305-4 (IEC 62305-4)		Protection against lightning – Part 4: Electrical and electronic systems within structures
	1	Distribution of the lightning current
VDE 0675-6-11 (IEC 6075-6-11)		Low-voltage surge protective devices – Part 11: Surge protective devices connected to low-voltage power systems
VDE 0100-534 (IEC 60364-5-53)		Low-voltage electrical installations – Part 5-53: Selection and erection of electrical equipment – Isolation, switching and control – Clause 534: Devices for protection against surge voltages
VDE 0100-443 (IEC 60364-4-44)		Low-voltage electrical installations – Part 4-44: Protection for safety – Protection against voltage disturbances and electromagnetic disturbances – Clause 443: Protection against surge voltages of atmospheric origin or due to switching
VDE 0100-712 (IEC 60364-7-712)		Requirements for operational premises, special rooms and systems – photovoltaic (PV) power supply systems

Key lightning protection standards and specifications

Product standards	Contents
VDE 0185-561-1 (IEC 62561-1)	Lightning protection system components – Requirements for connection components
VDE 0185-561-2 (IEC 62561-2)	Lightning protection system components – Requirements for conductors and earthers
VDE 0185-561-3 (IEC 62561-3)	Lightning protection system components – Requirements for isolating spark gaps
VDE 0185-561-4 (IEC 62561-4)	Lightning protection system components – Requirements for conductor fasteners
VDE 0185-561-5 (IEC 62561-5)	Lightning protection system components – Requirements for earth electrode inspection housings and earth electrode seals
VDE 0185-561-6 (IEC 62561-6)	Lightning protection system components – Requirements for lightning strike counters
VDE 0185-561-7 (IEC 62561-7)	Lightning protection system components – Requirements for earthing enhancing compounds
IEC TS 62561-8	Lightning protection system components – Requirements for components for insulated lightning protection systems
VDE 0675-6-11 (IEC 61643-11)	Surge protective devices for use in low-voltage power systems – Requirements and test methods
VDE 0845-3-1 (IEC 61643-21)	Surge protection for use in telecommunications and signalling networks

Lightning protection and surge protection components

Gradual surge reduction with lightning protection zones



Lightning protection zone concept

The lightning protection zone concept described in international standard IEC 62305-4 (DIN VDE 0185 Part 4) has proved to be practical and efficient. This concept is based on the principle of gradually reducing surges to a safe level before they reach the terminal device and cause damage. In order to achieve this

situation, a building's entire energy network is split into lightning protection zones (LPZ = lightning protection zone). Installed at each transition from one zone to another is a surge arrester for equipotential bonding. These arresters correspond to the requirement class in question.




Lightning protection zone

LPZ 0 A	Unprotected zone outside the building. Direct lightning strike, no shielding against electromagnetic interference pulses LEMP (Lightning Electromagnetic Pulse).
LPZ 0 B	Through the area protected by the external lightning protection system. No shielding against LEMP.
LPZ 1	Zone inside the building. Low partial lightning energies possible.
LPZ 2	Zone inside the building. Low surges possible.
LPZ 3	Zone inside the building (can also be the metal housing of a consumer). No interference pulses through LEMP or surges present.

Choosing the right surge protective devices



The classification of surge protective devices into types means they can be matched to different requirements with regard to location, protection level and current-carrying capacity. The table provides an overview of the zone transitions. It also shows which OBO surge protective devices can be installed in the energy supply network and their respective function.

Zone transition	Protection device and device type	Product example	Product figure
LPZ 0 B to LPZ 1	Protection device for lightning protection equipotential bonding in accordance with VDE 0185-305 (IEC 62305) for direct or close lightning strikes. Devices: Type 1+2 (Class I+II), e.g. CCF Compact Max. protection level according to standard: 1.5 kV OBO protection level: < 1.5 kV Installation, e.g. in the main distributor/at building entry	MCF Compact Item no.: 5096987	
LPZ 1 to LPZ 2	Protection device for lightning protection equipotential bonding in accordance with VDE 0185-305 (IEC 62305) for direct or close lightning strikes. Devices: Type 2 (Class II), e.g. V20 Max. protection level according to standard: 1.5 kV OBO protection level: < 1.3 kV Installation, e.g. in the main distributor/at building entry	V20 Item no.: 5095253	
LPZ 2 to LPZ 3	Protection device, designed for surge protection of portable consumers at sockets and power supplies. Devices: Type 3 (Class III), e.g. ÜSM-A Max. protection level according to standard: 1.5 kV OBO protection level: < 1.3 kV Installation, e.g. on the end consumer	ÜSM-A Item no.: 5092451	

BET Test Centre – for lightning protection, electrical engineering and support systems



BET with countless tasks

Whereas previously only lightning current, environmental and electrical testing had been possible at BET, the BET Test Centre is now also a competent partner for the testing of cable support systems. This combination has made it necessary to revise the meaning of the name. If BET previously stood for "Blitzschutz- und EMV-Technologiezentrum" (Lightning protection and EMC technology centre), since 2009 these letters have meant BET Test Centre for lightning protection, electrical engineering and support systems.

Test generator for lightning current tests

The test generator planned in 1994 and completed in 1996 makes it possible to carry out lightning current tests at up to 200 kA. The generator was planned and constructed in cooperation with Soest Technical College. Due to the intensive planning and scientific support in the construction of the test system, it has worked for 20 years without errors and meets current standardised test requirements.

Testing tasks

The main load of the testing generator is generated through the testing of products from the TBS product division. For this, developmental tests of new developments, modifications to existing OBO products and also comparison tests with competitive products are carried out. These include lightning protection components, surge protective devices and lightning conductors. Tests for lightning protection components are carried out according to DIN EN 62561-1, for spark gaps according to DIN EN 62561-3 and for lightning and surge protective devices according to DIN EN 61643-11. This is only a small amount of the testing standards used for tests in the BET Test Centre.

Certification

In development, manufacture and marketing, the products of OBO Bettermann are subject to high, standardised quality standards and international standards. For decades now, OBO Bettermann has operated an ISO 9001-certified quality management system, which also fulfils the high requirements of the ATEX 2014/34/EU directive for EX products. In addition, OBO has run a certified energy management system according to ISO 50001 and is a long-standing member of Industrieverband Feuerverzinken e.V.

The BET Test Centre is a testing laboratory, recognised and certified by VDE, for the execution of countless tests according to international standards for lightning protection systems.



Confirmation

Herewith we confirm, that

OBO BETTERMANN GmbH & Co. KG
Hüngser Ring 52
58710 Menden

is a member of our association

Industrieverband Feuerverzinken e. V., Düsseldorf.

The company OBO BETTERMANN GmbH & Co. KG provides among other things corrosion protection for fabricated iron and steel articles by hot dip galvanizing and examines that business in accordance with the requirements of the standard

DIN EN ISO 1461
"Hot dip galvanized coatings on fabricated iron and steel articles - specifications and test methods".

Industrieverband Feuerverzinken e.V. Düsseldorf, February 3rd, 2017
- Director -

Industrieverband Feuerverzinken e.V.
Königsplatz Wupp. 206
40520 Düsseldorf

Mark Huckhold

Mitglied der European General Galvanizers Association (EGGA) - SIC DBU / DEDB/DUE - IBAN DE42 3007 0224 0589 1643 00

Zertifikat zur Anerkennung
Certificate of acceptance

von / of
OBO Bettermann GmbH & Co. KG
BET Testcenter
Hüngser Ring 52
58710 Menden
GERMANY

durch die / by the
VDE Prüf- und Zertifizierungsinstitut GmbH
VDE Testing and Certification Institute

Zertifikat
Mitteilung über die Bewertung des Qualitätssicherungssystems

1. **Zweck:** Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen
2. **Grundlage:** Richtlinie 2014/34/EU Anhang IV - Modul D; Konformität mit dem Baumuster auf der Grundlage einer Qualitätssicherung bezogen auf den Produktionsprozess
3. **Produktkategorie:** Geräte und Komponenten
4. **Gerätegruppe II, Kategorien 1G, 2G: Transienten- und Blitzschutz-Systeme**

Nummer des Zertifikates: BVS 16 ATEX ZQS/E310

DEKRA EXAM GmbH, benannte Stelle Nr. 0158 gemäß Artikel 17 der 404/EU vom 29. Februar 2014, bescheinigt, dass der Hersteller ein System in Übereinstimmung mit Anhang IV der Richtlinie entspricht

Anlage werden alle Überwachten Produkte mit den Baumusterprüf- ufgeliefert.

im Auditbericht Nr. ZQS/E310/16, ausgestellt am 21.12.2016.

Revisionsaudits des Qualitätssicherungssystems werden Bestandteil dieses

am 20.08.2016 bis 19.08.2019 und kann zurückgezogen werden, wenn der Anforderungen an die Qualitätssicherung nach Anhang IV und VII erfüllt.

Richtlinie 2014/34/EU ist hinter der CE-Kennzeichnung die Kennnummer der OBO Bettermann GmbH als der benannten Stelle anzugeben, die in der Phase der Produktion

Fachzertifizierer:

Seite 1 von 1
Zertifikat darf nur vollständig und unverändert weitervertrieben werden.
Tel. 9, 44609 Bochum, Telefon +49 234 3696-100, Telefax +49 234 3696-110, zc-enr@vde.com

Acceptance Program
Stage 2 / in Stage 2

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2019-08-22
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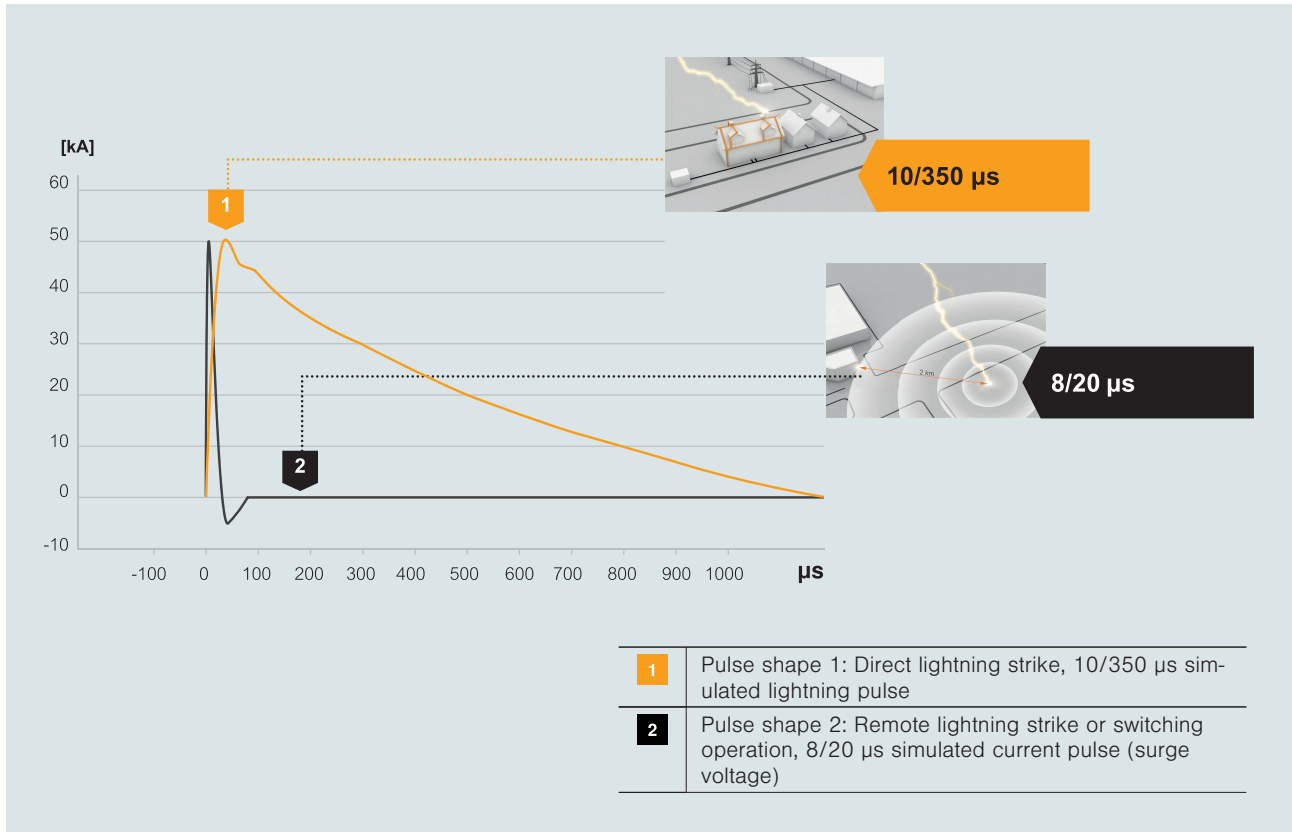
in mit dem gültigen Dokument „TDAP SCOPE“. Es berechtigt den Inhaber des Zeichens des VDE.
in with the valid document „TDAP SCOPE“. It does not entitle the holder to use VDE marks.

VDE Institut
7 Products

www.vde.com/zertifizierung
www.vde.com/tdap

VDE INSTITUT

Types of pulse and their characteristics



Testing types for lightning and surge protection

Both lightning current tests and surge voltage tests can be carried out at up to 20 kV. A hybrid generator is used for these tests, which was also developed as part of a cooperation with the Soest Technical College. EMC testing of cable support systems can also be carried out using this test generator. All kinds of cable routing and cable support systems of up to 8 m length can be tested without any difficulties. Tests for electrical conductivity according to IEC 61537 are also carried out.

Simulation of real environmental conditions

To carry out standardised tests on components intended for external use, they must be pretreated under real environmental conditions. This takes place in a salt spray trough and a sulphur dioxide testing

chamber. Depending on the test, the test length and the concentration of the salt spray or sulphur dioxide in the testing chambers may vary. This means that it is possible to conduct tests according to IEC 60068-2-52, ISO 7253, ISO 9227 and EN ISO 6988.

Testing cable support systems

The well-known KTS testing system, newly installed in the BET Test Centre, allows the investigation of the load capacities of any cable support system manufactured by OBO. The basis for this is IEC 61537 and VDE 0639.

In the BET Test Centre, OBO Bettermann has a testing department in which products can be tested according to standards, even during the development phase.





OBO isCon® system



isCon® conductors

30



isCon® conductor accessories

36



Insulated isCon® conductor

The high-voltage-resistant, insulated isCon® down-conductor is the modern solution for planners and erectors of lightning protection systems, in order to maintain the necessary separation distances safely according to VDE 0185-305-3 (IEC/EN 62305-3).

As an innovative international provider of complete lightning and surge protection systems, OBO has adjusted its product range according to the different demands of our customers in the area of insulated lightning protection.

The result: We can now offer the appropriate isCon® conductor system with external certification according to the most recent testing norms (VDE V 0185-561-8/IEC TS 62561-8) for any lightning protection project.



BASIC



$s_e \leq 45 \text{ cm}$



PROFESSIONAL



$s_e \leq 75 \text{ cm}$



EX

PROFESSIONAL+



$s_e \leq 75 \text{ cm}$



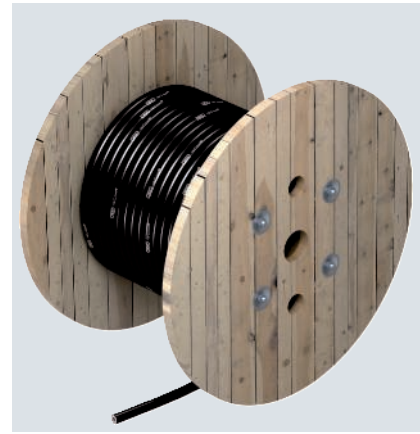
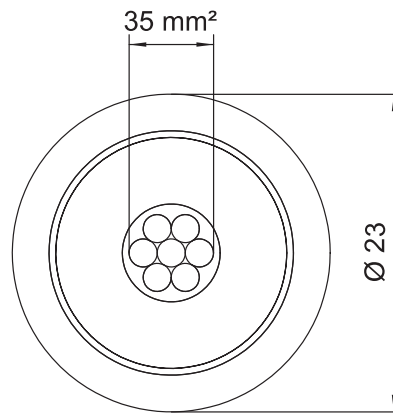
PREMIUM



$s_e \leq 90 \text{ cm}$

isCon® conductor, Professional plus black

Type	Cross-section mm ²	Nominal size Ø mm	Equivalent separation distance m	Pack m	Weight kg/100 m	Item no.
isCon Pro+ 75 SW	35	23	0.75	25	69.400	5408002
isCon Pro+ 75 SW	35	23	0.75	100	69.400	5408004
isCon Pro+ 75 SW	35	23	0.75	250	69.400	5408006



Please refer to the mounting instructions for information on routing the OBO isCon® conductor.

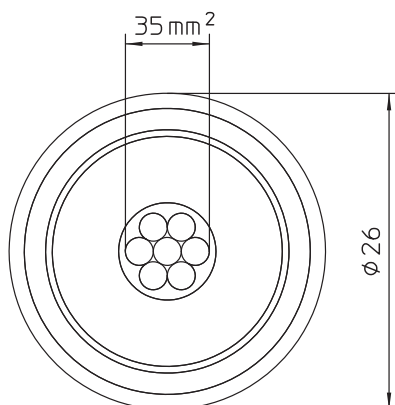
- Highly voltage-resistant, insulated conductor
- Floating discharge-free
- Additional mechanical protection (black protective jacket)
- For maintenance of the separation distance according to IEC 62305 (VDE 0185-305-3)
- Tested according to IEC/EN 62561-1 (VDE 0185-561-1) with H1/150 kA
- Equivalent separation distance $se \leq 0.75$ m (air) and $se \leq 1.5$ (solid material)
- Tested according to IEC TS 62561-8 (VDE V 0185-561-8)
- Halogen-free
- Fire load 4.3 kWh/m
- Can be used in potentially explosive areas Ex zone 1/2 and 21/22 when taking the current mounting instructions into account



isCon® conductor, Professional plus light grey



Type	Cross-section mm ²	Nominal size Ø mm	Equivalent separation distance m	Pack m	Weight kg/100 m	Item no.
isCon Pro+ 75 GR	35	26	0.75	25	86.800	5407995
isCon Pro+ 75 GR	35	26	0.75	100	86.800	5407997

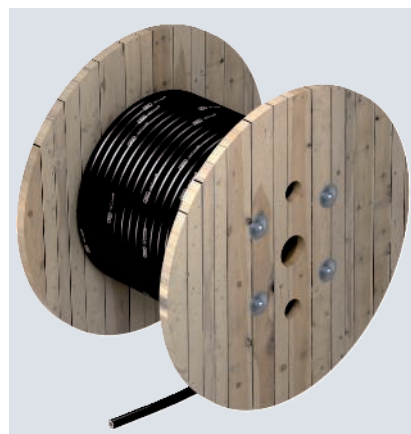
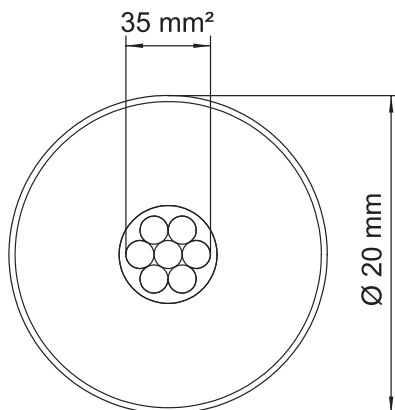


Please refer to the mounting instructions for information on routing the OBO isCon® conductor.

- Highly voltage-resistant, insulated arrester
- Protection against contact voltage during rain (VDE 0432-1 (IEC/EN 60060-1))
- Floating discharge-free
- Additional mechanical protection (double protective jacket)
- For maintenance of the separation distance according to IEC 62305 (VDE 0185-305-3)
- Tested according to IEC/EN 62561-1 (VDE 0185-561-1) with H1/150 kA
- Equivalent separation distance $se \leq 0.75$ m (air) and $se \leq 1.5$ (solid material)
- Tested according to IEC TS 62561-8 (VDE V 0185-561-8)
- Halogen-free
- Fire load 5.1 kWh/m
- Protection against contact voltage under sprinkling (VDE 0432-1 (IEC/EN 60060-1))
- Can be used in potentially explosive areas Ex zone 1/2 and 21/22 when taking the current mounting instructions into account

isCon® conductor, Professional black

Type	Cross-section mm ²	Nominal size Ø mm	Equivalent separation distance m	Pack m	Weight kg/100 m	Item no.
isCon Pro 75 SW	35	20	0.75	100	57.000	5408008



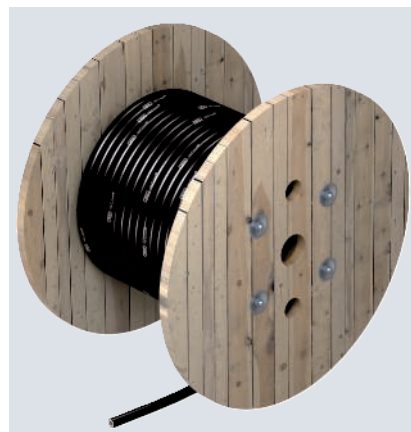
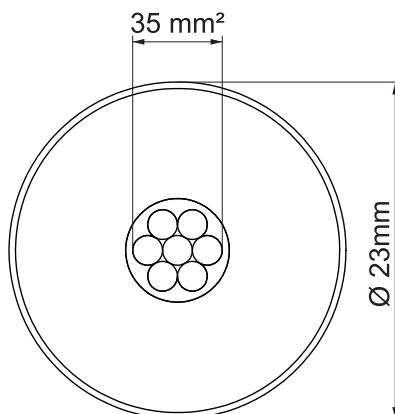
Please refer to the mounting instructions for information on routing the OBO isCon® Pro conductor.

- Highly voltage-resistant, insulated conductor
- Floating discharge-free
- For maintenance of the separation distance according to IEC 62305 (VDE 0185-305-3)
- Tested according to IEC/EN 62561-1 (VDE 0185-561-1) with H1/150 kA
- Equivalent separation distance $se \leq 0.75$ m (air) and $se \leq 1.5$ m (solid material)
- Tested according to IEC TS 62561-8 (VDE V 0185-561-8)
- Halogen-free
- Fire load 3.3 kWh/m

isCon® conductors, Premium

isCon® conductor, Premium black

Type	Cross-section mm ²	Nominal size Ø mm	Equivalent separation distance m	Pack m	Weight kg/100 m	Item no.
isCon PR 90 SW	35	23	0.9	100	66.600	5408018



Please refer to the mounting instructions for information on routing the OBO isCon® Premium conductor.

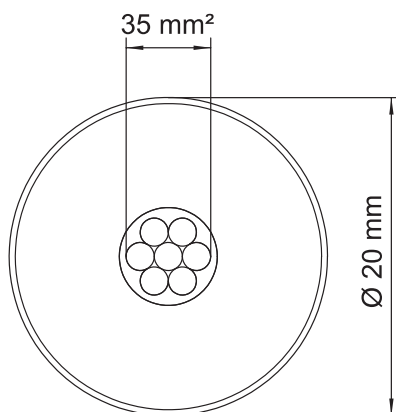
- Highly voltage-resistant, insulated conductor
- Floating discharge-free
- Tested according to IEC/EN 62561-1 (VDE 0185-561-1) with H2/200 kA
- Equivalent separation distance $se \leq 0.90$ m (air) and $se \leq 1.8$ m (solid material)
- Tested according to IEC TS 62561-8 (VDE V 0185-561-8)
- Halogen-free
- Fire load 4.2 kWh/m



isCon® conductor, Basic black



Type	Cross-section mm ²	Nominal size Ø mm	Equivalent separation distance m	Pack m	Weight kg/100 m	Item no.
isCon BA 45 SW	35	20	0.45	100	57.000	5408014



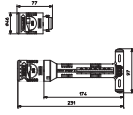
Please refer to the mounting instructions for information on routing the OBO isCon® Basic conductor.

- Highly voltage-resistant, insulated conductor
- For maintenance of the separation distance according to IEC 62305 (VDE 0185-305-3)
- Tested according to IEC/EN 62561-1 (VDE 0185-561-1) with H1/150 kA
- Equivalent separation distance $se \leq 0.45$ m (air) and $se \leq 0.90$ m (solid material)
- Tested according to IEC TS 62561-8 (VDE V 0185-561-8)
- Halogen-free
- Fire load 3.3 kWh/m



Stripping tool for isCon® conductor

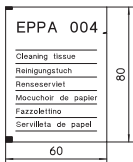
PA/PE



Type	Clamping range D mm	Pack Piece	Weight kg/100 pc.	Item no.
isCon stripper 2	20-23	1	170.000	5408013

Stripping tool to remove the insulation of the OBO isCon® conductor.

Cleaning cloth



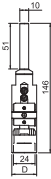
Type	Width mm	Length mm	Pack Piece	Weight kg/100 pc.	Item no.
isCon EPPA 004	140	200	50	0.420	5408060

- Cellulose polypropylene paper with abrasive sections, folded multiple times
- Doused with 2.8 ml impregnation solution
- For cleaning the external jacket of the OBO isCon® conductor

isCon® connection elements

isCon® connection element set ASE, testable

VA

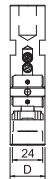


Type	Dim. D Ø mm	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
isCon ASE 23	28	23	1	52.400	5408080

- For the isCon® Pro+ and Premium conductor
- Set consisting of 2 testable connection elements
- For function and state determination with integrated ASE technology (Adaptive Switching Element)
- For comprehensive repeat testing according to VDE 0185-305-3 (IEC/EN 62305-3)
- Screw-on termination
- Testable with the simplest insulation measuring devices (≥ 1 kV DC)
- Can be used in all lightning protection classes
- For highest system availability - no switch-off, dismantling or testing with dangerous pulse voltages
- QR code to open the test report
- Incl. heat-shrinkable hose and Allen key

isCon® connection elements set ASE, testable for isFang IN

VA



Type	Dim. D Ø mm	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
isCon ASE 23 IN	28	23	1	56.200	5408082

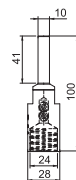
- For the isCon® Pro+ and Premium conductor
- Set consisting of 2 testable connection elements
- Connection and routing of the cable in the insulated air-termination mast
- For function and state determination with integrated ASE technology (Adaptive Switching Element)
- For comprehensive repeat testing according to VDE 0185-305-3 (IEC/EN 62305-3)
- Screw-on termination
- Testable with the simplest insulation measuring devices (≥ 1 kV DC)
- Can be used in all lightning protection classes
- For highest system availability - no switch-off, dismantling or testing with dangerous pulse voltages
- QR code to open the test report
- Incl. heat-shrinkable hose and Allen key



VA

isCon® connection element

Type	Dim. D Ø mm	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
isCon con 2	20	10	H1/150	2	21.500	5408021
isCon connect	23	10	H1/150	2	21.500	5408022
isCon con PRE	23	10	H2/200	2	21.500	5408023



- Screw-on termination of the connection for the isCon® conductor
- Incl. heat-shrinkable sleeve, hexagonal
- Tested up to 200 kA (lightning protection class I)

isCon® Professional+ connection elements

VA

Connection element for installation in the insulated air-termination rod isFang IN

Type	Dim. D Ø mm	Lightning current capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
isCon IN connect	23	H1/150	1	26.900	5408024



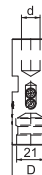
- Screw-on termination of the connection for the isCon® conductor
- Connection and installation of the cable in the insulated air-termination rod
- Tested up to 200 kA (lightning protection Class I)

isCon® Basic, Premium and Professional connection elements

VA

Connection element for installation in the insulated air-termination rod isFang IN

Type	Dim. D Ø mm	Lightning current capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
isCon IN con 2	20	H1/150	1	27.800	5408019
isCon IN con PRE	23	H2/200	1	27.800	5408020



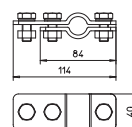
- Screw-on termination of the connection for the isCon® conductor
- Connection and installation of the cable in the insulated air-termination rod
- Tested up to 200 kA (lightning protection Class I)

Potential connections

VA

Potential connection

Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
isCon PAE	Ø 17-25	2	36.500	5408036

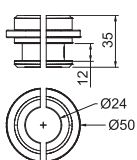


- Potential connection
- To avoid floating discharges on the isCon® conductor
 - With sprung discs to protect screws against loosening



Potential connection for isCon® Basic and Professional in the isFang IN insulated air-termination rod

Alu

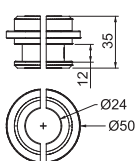


Type	Dim. D Ø mm	Dimension d Ø mm	Dim. L mm	Pack Piece	Weight kg/100 pc.	Item no.
isCon IN PAE 2	20	49.9	35	1	5.900	5408032

- To avoid surface discharges
- For the isCon® Basic and Professional conductor
- Installation takes place in the insulated air-termination rod, type isFang IN

Potential connection for isCon® Professional+ and Premium in the isFang IN insulated air-termination rod

Alu



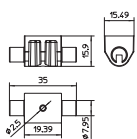
Type	Dim. D Ø mm	Dimension d Ø mm	Dim. L mm	Pack Piece	Weight kg/100 pc.	Item no.
isCon IN PAE	23	49.9	35	1	5.900	5408031

- To avoid surface discharges on the isCon® conductor
- For the isCon® Professional+ and Premium conductor system
- Installation takes place after the first 1.5 metres in the insulated air-termination rod, type isFang IN

Cable brackets

Universal flat conductor adapter for roof conductor holder, type 165/MBG

PP

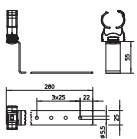


Type	Colour	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
165 MBG UH	Black	Rd 8	25	0.254	5218882

- Universal adapter with drill hole Ø 2.5 mm
- E.g. for OBO Golden Sprint screw, type 4758 4 x L (L = depending on application)
- For fastening to 165/MBG

PA roof conductor holder, sloping roof

PA

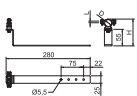


Type	Colour	Dimension mm	Installation height mm	Pack Piece	Weight kg/100 pc.	Item no.
isCon H280 PA	Black	280mm	55	25	13.950	5408049
isCon H280 26 PA	Light grey	280mm	55	25	14.060	5408072

To route the isCon® conductor on pitched roofs.

VA roof conductor holder, sloping roof

VA

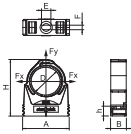


Type	Dimension mm	Installation height mm	Pack Piece	Weight kg/100 pc.	Item no.
isCon H280 VA	280mm	55	25	16.100	5408047
isCon H280 26 VA	280mm	55	25	16.900	5408074

- For routing of the isCon® conductor on pitched roofs
- Cable bracket with sprung discs to protect the screws against loosening

starQuick clip, black

PP PA

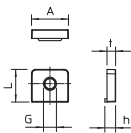
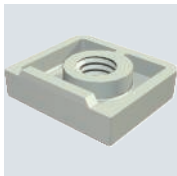


Type	Colour	Dim.			Pack Piece	Weight kg/100 pc.	Item no.
		A mm	B mm	H mm			
SQ-20 SW	Jet black	29	17	43.5	50	0.848	2146164
SQ-25 LGR	Light grey	40	17	49.5	50	0.970	2146207

Cable brackets for isCon® conductors for mounting on the building structure. Can also be used in the first 1.5 m. Can be arranged next to each other. Made from a UV and weather-resistant polyamide.

starQuick nut

PC



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

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

Information signs

isCon® information panel

PS



Type	Pack Piece	Weight kg/100 pc.	Item no.
isCon HWS	1	2.000	5408058

Label: "NOTE! Insulated lightning protection with the OBO isCon® system. Only a lightning protection specialist may carry out changes"
 • To label the lightning protection system
 • Self-adhesive and with 4 fastening holes ø 6.5 mm

isCon® information panel EN

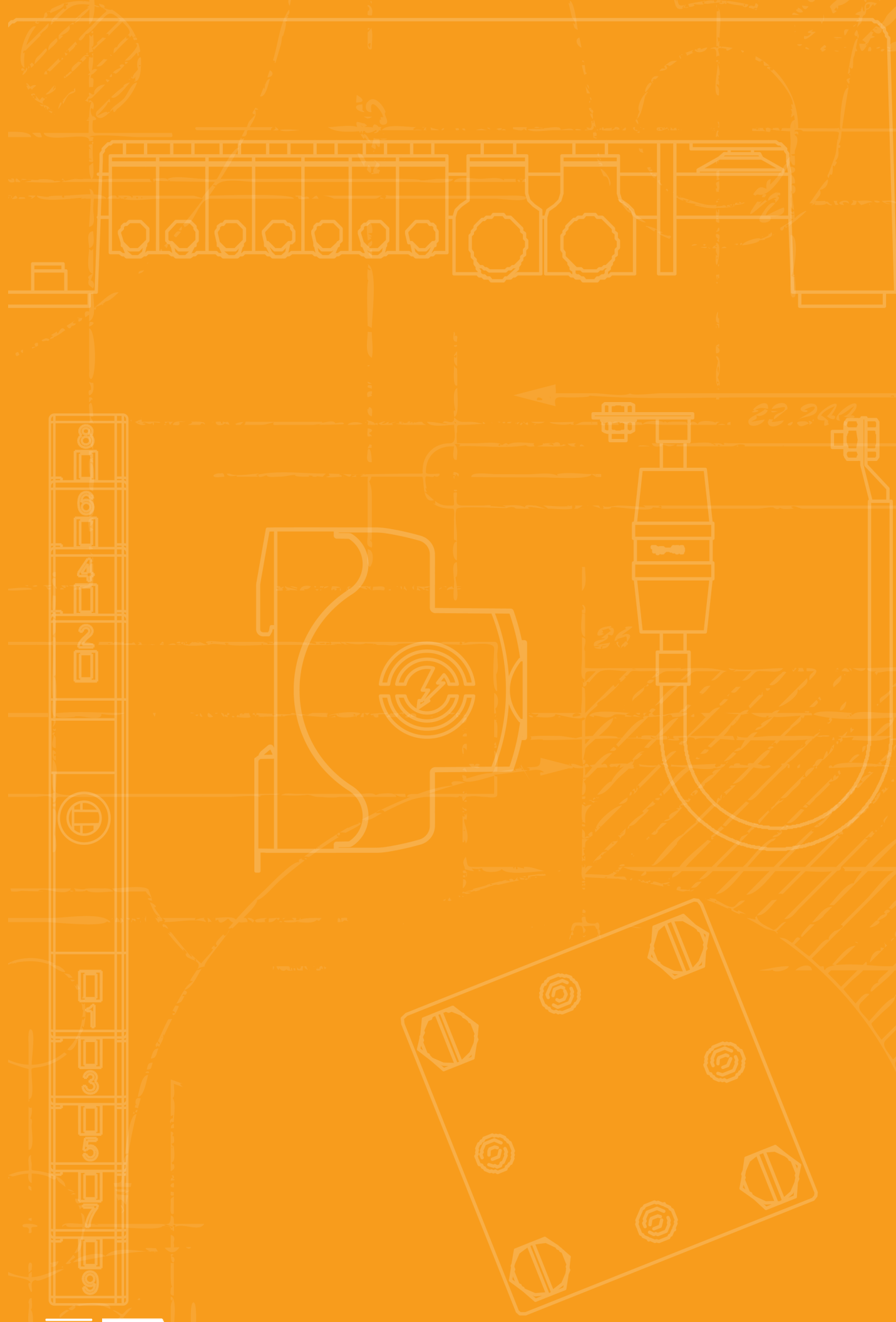
PS










Type	Pack Piece	Weight kg/100 pc.	Item no.
isCon HWS EN	1	2.000	5408059

Label: "NOTE! Insulated lightning protection with the OBO isCon® system. Only a lightning protection specialist may carry out changes"
 • To label the lightning protection system
 • Self-adhesive and with 4 fastening holes ø 6.5 mm



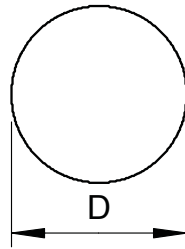


Conductor material

	Cable material	44
	Cable bracket	50
	Connection clamps and connection terminals	62
	Connection and separating terminals	90
	Connection material	96
	Protection and spark gaps	112
	Accessories	114



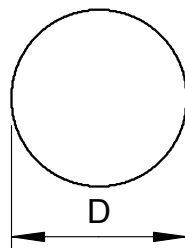
Round conductor, galvanised steel



Type	Nominal size Ø mm	Cross-section mm ²	Normal ring ca. m	Normal ring ca. kg	Pack m	Weight kg/100 m	Item no.
RD 8-FT	8	50	125	50	125	40.000	5021081
RD 8-FT 50	8	50	50	20	50	40.000	5021050
RD 10	10	78	80	50	80	63.000	5021103

- According to DIN EN 62561-2 (VDE 0185-561-2)
- Corresponds to the requirements of VDE 0185-305 (IEC 62305)
- RD 10 can also be used in the earth
- Zinc coating: ≥ 350 g/m² (approx. 50 µm in mean value)

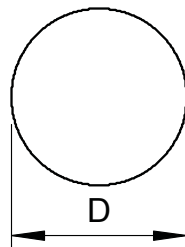
Round conductor, stainless steel A2



Type	Nominal size Ø mm	Cross-section mm ²	Normal ring ca. m	Normal ring ca. kg	Pack m	Weight kg/100 m	Item no.
RD 8-V2A	8	50	125	50	125	40.000	5021235
RD 10-V2A	10	78	50	32	50	63.000	5021227
RD 10-V2A	10	78	80	50	80	63.000	5021239
RD 8-V4A	8	50	125	50	125	40.000	5021644
RD 10-V4A 20	10	78	20	12	20	63.000	5021640
RD 10-V4A	10	78	50	32	50	63.000	5021642
RD 10-V4A	10	78	80	50	80	63.000	5021647

- According to DIN EN 62561-2 (VDE 0185-561-2)
- Corresponds to the requirements of VDE 0185-305 (IEC 62305)
- RD 10-V4A for applications in the earth
- According to the foundation earth electrode standard DIN 18014, V4A is required in the earth

Round conductor, copper



Type	Nominal size Ø mm	Cross-section mm ²	Normal ring ca. m	Normal ring ca. kg	Pack m	Weight kg/100 m	Item no.
RD 8-CU	8	50	100	45	100	45.000	5021480
RD 10-CU	10	78	50	35	50	70.000	5021502
RD 8-CU 25	8	50	55	25	55	45.000	5021484

- According to DIN EN 62561-2 (VDE 0185-561-2)
- Corresponds to the requirements of VDE 0185-305 (IEC 62305)

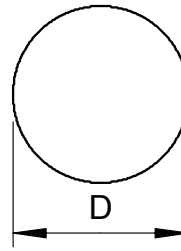
Alu



Round conductor, aluminium

Type	Nominal size Ø mm	Cross-section mm ²	Normal ring ca. m	Normal ring ca. kg	Pack m	Weight kg/100 m	Item no.
RD 8-ALU	8	50	150	20	150	13.500	5021286
RD 8-ALU-T	8	50	150	20	150	13.500	5021294
RD 8-ALU-T 75	8	50	75	10	75	13.500	5021296
RD 10-ALU	10	78	95	20	95	21.000	5021308

- According to DIN EN 62561-2 (VDE 0185-561-2)
- Corresponds to the requirements of VDE 0185-305 (IEC 62305)
- RD 8 ALU: Semi-hard (E-ALMgSi0.5 corresponds to DIN 48801)
- RD 8 ALU-T: Can be subjected to torsion (E-ALMgSi0.5 corresponds to DIN 48801)
- RD 10 ALU: Pure aluminium (E-Al corresponds to DIN 48801)
- AL and ALMgSi may not be routed directly on, in or under plaster, mortar or concrete, nor routed in the earth



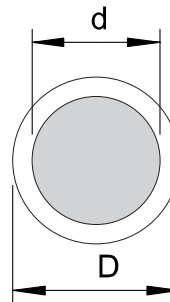
Alu



Round conductor, aluminium, with PVC jacketing

Type	Colour	Dim. d mm	Dim. D mm	Cross-section mm ²	Normal ring ca. m	Normal ring ca. kg	Pack m	Weight kg/100 m	Item no.
RD 8-PVC	Cream	8	11	50	100	20	100	20.000	5021332

- Meets the requirements of VDE 0185-305 (IEC 62305)
- With PVC jacketing (halogen-free)
- Suitable for routing on, in or under plasterwork, mortar or concrete



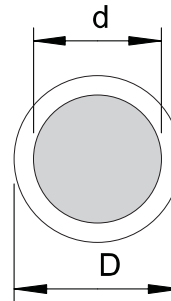
St FT



Round conductor, galvanised steel with PVC jacketing

Type	Colour	Dim. d mm	Dim. D mm	Cross-section mm ²	Normal ring ca. m	Normal ring ca. kg	Pack m	Weight kg/100 m	Item no.
RD 10-PVC	Black	10	13	78	75	50	75	67.000	5021162

- Corresponds to the requirements according to VDE 0185-305 (IEC 62305)
- Zinc coating: ≥ 350 g/m² (approx. 50 µm in mean value)
- With PVC jacketing

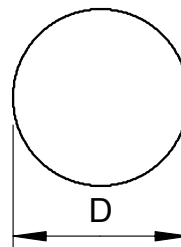


St Cu

Round conductor, copper sheathed

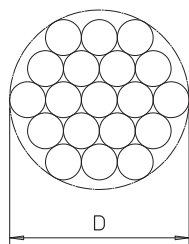
Type	Nominal size Ø mm	Cross-section mm ²	Pack m	Weight kg/100 m	Item no.
RD 8-ST CU	8	50	100	40.000	5021380

- According to IEC/ EN 62561-2 (VDE 0185-561-2)
- Meets the requirements of VDE 0185-305 (IEC 62305)
- Copper layer thickness: Min. 250 µm



Copper cable

Cu

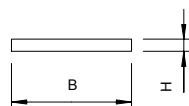
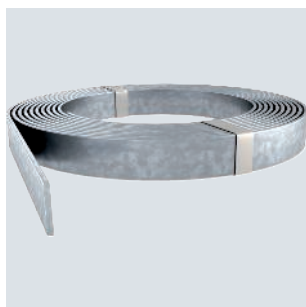


Type	Dim. D mm	Single wires	Cross-section mm ²	Normal ring ca. m	Normal ring ca. kg	Pack m	Weight kg/100 m	Item no.
S 11-CU	10.5	19xØ2,1	70	50	30	50	58.600	5021654
S 9-CU	9	19xØ1,8	50	100	45	100	45.000	5021652
S-11-CU SN	10.5	19xØ2,1	70	50	30	50	58.600	5021656

- According to DIN EN 62561-2 (VDE 0185-561-2)
- Corresponds to the requirements of VDE 0185-305 (IEC 62305)

Galvanised steel flat conductor for earth

St FT

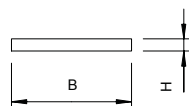
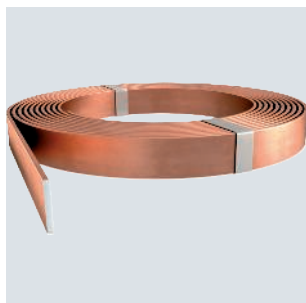


Type	Dim. B mm	Dim. H mm	Cross-section mm ²	Normal ring ca. kg	Pack m	Weight kg/100 m	Item no.
5052 DIN 30X3.5	30	3.5	105	25	30	84.000	5019345
5052 DIN 30X3.5	30	3.5	105	50	60	84.000	5019347
5052 DIN 40X4	40	4	160	51	40	128.000	5019355
5052 DIN 40X5	40	5	200	50	30	162.000	5019360

- According to DIN EN 62561-2 (VDE 0185-561-2)
- Meets the requirements of VDE 0185-305 (IEC 62305)
- Zinc coating: ≥ 500 g/m² (approx. 70 µm in mean value)
- For lightning protection, earthing systems and ring equipotential bonding

Flat conductor, copper sheathed

St Cu

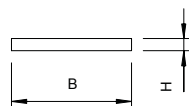


Type	Dimension W x H mm	Cross-section mm ²	Weight kg/100 m	Item no.
5052 STCU 30X3	30x3	90	80.000	5020980

- According to IEC/ EN 62561-2 (VDE 0185-561-2)
- Copper layer thickness: Min. 70 µm

Stainless steel flat conductor

VA VA



Type	Dim. B mm	Dim. H mm	Cross-section mm ²	Normal ring ca. kg	Pack m	Weight kg/100 m	Item no.
5052 V2A 30X3.5	30	3.5	105	42	50	82.500	5018501
5052 V4A 30X3.5	30	3.5	105	42	50	82.425	5018706
5052 V4A 30X3.5	30	3.5	105	21	25	82.425	5018730

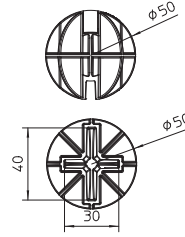
- According to DIN EN 62561-2 (VDE 0185-561-2)
- Corresponds to the requirements of VDE 0185-305 (IEC 62305)
- According to the foundation earth electrode standard DIN 18014, V4A is required in the earth
- For use in areas at risk of corrosion
- For lightning protection, earthing systems and ring equipotential bonding

PE

Protective cap for connection lugs, reflective

Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
ProtectionBall	Rd 8-10/ FL 25/ 30/ 40	25	2.050	5018014

- For snapping onto round conductors or flat conductors
- Noticeable, reflective label
- For accident protection during the construction phase



Accessories

PG

Type	Pack PU	Weight kg/100 PUs	Item no.
PCS	1	5.000	5091438

Peak Current Sensor (PCS) card for recording pulsed/lightning currents. A continuous check of whether lightning has struck the lightning protection system and how high the most recent lightning current was in kA can thus be carried out in the simplest manner by the system operator, specialist lightning protection company or by a surveyor. Here, the printed maintenance circuit and the labelling panels support the maintenance work of the entire lightning protection system which must be performed at defined intervals according to VDE 0185-305-3 (IEC/EN 62305-3).

- Contents = 10 units
- Digital evaluation via the PCS card reading device
- Can be used in addition to the OBO lightning current meter LSC I-II
- With separate labelling panels: "Erected by", "Tested by", "Card code"
- Integrated maintenance circuit (year/month)



Magnetic card PCS

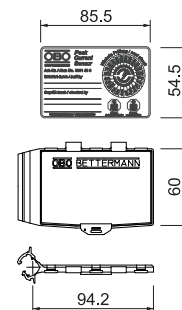


Type	Pack PU	Weight kg/100 PUs	Item no.
MK-B	1	31.000	5091322

PCS magnetic card to record pulsed/lightning currents including holder

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

Magnetic card and holder MK-B

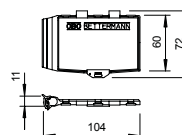


Magnetic card holder PCS-H

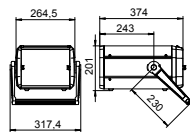
Type	Pack PU	Weight kg/100 PUs	Item no.
PCS-H	1	31.000	5091527

Magnetic card holder for mounting PCS cards.

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



Card reader PCS-CS..

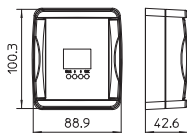


Type	Country version	Nom. V	Measuring range	Measuring tolerances	Pack Piece	Weight kg/100 pc.	Item no.
PCS-CS-D	EN	230	3-- 120 kA	<2 kA (<2%)	1	750.000	5091683

Magnetic card reader for reading and analysing PCS cards.

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

Lightning strike and surge counter



Type	Measuring range	Pack Piece	Weight kg/100 pc.	Item no.
LSC I-II	1 kA - 100 kA	1	32.500	5091722

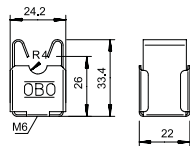
The LSC I-II lightning current meter measures and permanently saves pulse currents, together with the date and time. This ensures constant monitoring in order to notice if any lightning has struck the lightning protection system. Should this be the case, then the lightning protection system must be maintained according to VDE 0185-305 (IEC 62305).

- Saving and display of time and date
- Usable both inside and outside due to its protection class of IP65
- Cable clip for round conductor or flat conductor
- Direct mounting on the conductor or the PE conductor of the surge protective device
- Long lifespan of the internal lithium batteries
- LCD display
- Internal battery
- Tested according to VDE 0185-561-6 (IEC 62561-6)



Cable bracket for Rd 8 mm, through-way Ø 7 mm

VA

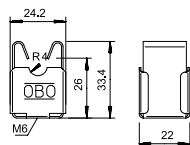


Type	Installation		Pack Piece	Weight kg/100 pc.	Item no.
	Fit mm	height mm			
177 20 VA M8	Rd 8	20	20	1.838	5207347

- With female thread M8 or through hole Ø 5 mm
- From stainless steel (V2A)

Cable bracket for Rd 8 mm, through-way Ø 5 mm

VA

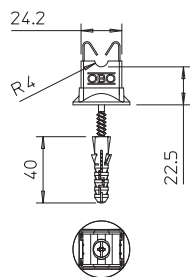


Type	Installation		Pack Piece	Weight kg/100 pc.	Item no.
	Fit mm	height mm			
177 20 VA M6	Rd 8	20	20	2.500	5207339

- With female thread M6 or through hole Ø 5 mm
- From stainless steel (V2A)

Cable bracket for Rd 8 mm, fastening with screw and anchor

VA

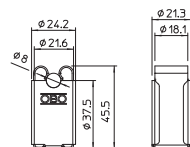


Type	Installation		Pack Piece	Weight kg/100 pc.	Item no.
	Fit mm	height mm			
177 20 VA B-HD	Rd 8	20	50	2.900	5207901

- With female thread M8 or through hole Ø 5 mm
- From stainless steel (V2A)
- With pre-mounted wood screws (5 x 60) and plastic dowels (8 x 40)

Cable bracket, raised construction type, for Rd 8 mm, through-way Ø 5 mm

VA



Type	Installation		Pack Piece	Weight kg/100 pc.	Item no.
	Fit mm	height mm			
177 35 VA M6	Rd 8	35	20	2.680	5207342

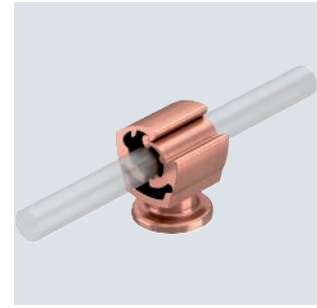
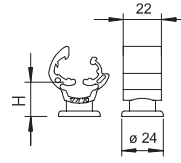
- With female thread M6 or through hole Ø 5 mm
- From stainless steel (V2A)

PA

Cable bracket Rd 8–10 mm, copper-plated

Type	Fit mm	Installation height mm	Pack Piece	Weight kg/100 pc.	Item no.
177 30 CU	Rd 8-10	30	10	0.784	5207754

- With female thread M8 for screwing and through hole for wood screws
- Colour: copper
- Weather and temperature-resistant from -35 °C to +90 °C

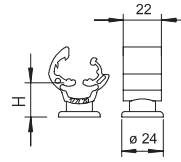


PA

Cable bracket Rd 8–10 mm with pre-mounted wood screw

Type	Fit mm	Installation height mm	Pack Piece	Weight kg/100 pc.	Item no.
177 B-HD20	Rd 8-10	20	50	1.930	5207851
177 B-HD30	Rd 8-10	30	50	1.503	5207878

- With female thread M8 for screwing and through hole for wood screws
- For round conductor Rd 8-10
- Weather and temperature-resistant from -35 °C to +90 °C
- With pre-mounted wood screws (5 x 60) and plastic dowels (8 x 40)

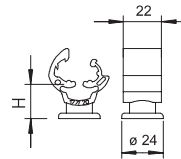


PA

Cable bracket Rd 8–10 mm

Type	Fit mm	Installation height mm	Pack Piece	Weight kg/100 pc.	Item no.
177 20 M8	Rd 8-10	20	20	0.723	5207444
177 30 M8	Rd 8-10	30	20	0.790	5207460
177 55 M8	Rd 8-10	55	20	1.007	5207487

- With female thread M8 or through hole Ø 7 mm
- Weather and temperature-resistant from -35 °C to +90 °C

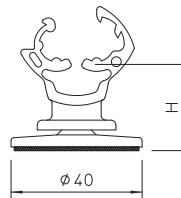


PA

Cable bracket, Rd 8–10 mm with bonding base

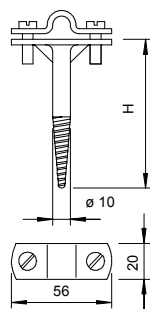
Type	Dim. H mm	Pack Piece	Weight kg/100 pc.	Item no.
177 20 KL	25	50	1.239	5207451

- For bonding to concrete, steel or smooth substrates
- Not suitable for rough surfaces such as plaster, wood, bitumen strips
- Processing at > +15 °C and on cleaned substrate
- When installing flat conductors and round conductors, expansion elements are to be used for thermal compensation
- Use on film roofs after consultation with the responsible roof construction company



Cable bracket Rd 8–10 mm, with wood screw thread

TG F

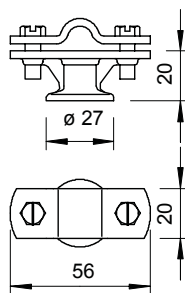


Type	Fit mm	Dim. H mm	Pack Piece	Weight kg/100 pc.	Item no.
176 A 80	Rd 8-10	80	50	10.025	5227089
176 A 100	Rd 8-10	100	50	11.500	5227100
176 A 150	Rd 8-10	150	20	13.100	5227151

- Also for flat conductor to FL 30
- With wood screw thread
- Bottom section, hot-dip galvanised cast iron
- Over-piece and screws, hot dipped galvanised steel

Cable bracket Rd 8–10 mm with wood screw, plastic anchor

Zn Cu

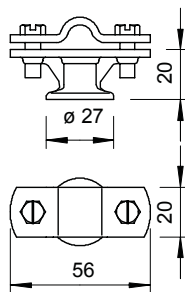


Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
113 B-MS-HD 8-10	Rd 8-10	100	7.280	5230365

- With female thread M8 or through hole Ø 7 mm
- Over-piece installed with 2 hexagonal bolts
- Version HD with wood screws (5 x 60) and plastic dowels (8 x 40)

Cable bracket Rd 8–10 mm with wood screw, plastic anchor

Zn

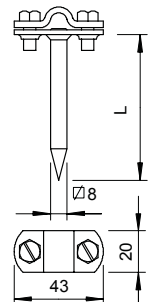
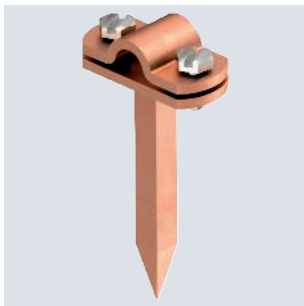


Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
113 B-Z-HD	Rd 8-10	100	6.580	5230322

- With female thread M8 or through hole Ø 7 mm
- Over-piece installed with 2 hexagonal bolts
- Version HD with wood screws (5 x 60) and plastic dowels (8 x 40)

Cable bracket Rd 8–10 mm, with square pin, copper-plated

Cu



Type	Fit mm	Length mm	Pack Piece	Weight kg/100 pc.	Item no.
163 100 CU	Rd 8-10	100	10	10.840	5223601

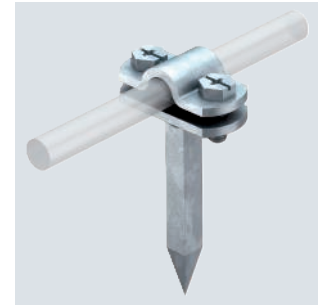
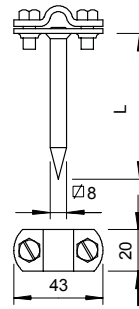
- Complete with crossbar and hexagonal bolts
- With square pin for rapid mounting
- With hexagonal bolts made of VA

St FT

Cable bracket Rd 8–10 mm, with square pin

Type	Fit mm	Length mm	Pack Piece	Weight kg/100 pc.	Item no.
163 70 FT	Rd 8-10	70	50	8.476	5223075
163 100 FT	Rd 8-10	100	50	10.056	5223105

- Complete with crossbar and hexagonal bolts
- With square pin for rapid mounting
- With hexagonal bolts made of VA

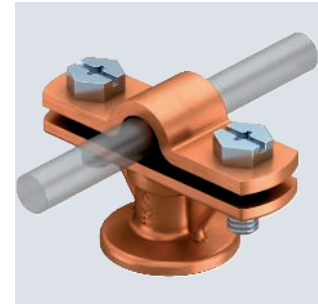
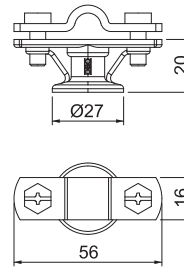


Zn Cu

Cable bracket Rd 8–10 mm

Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
113 8-10	Rd 8-10	20	6.247	5230217

- With female thread M8 or through hole \varnothing 7 mm
- Over-piece installed with 2 hexagonal bolts

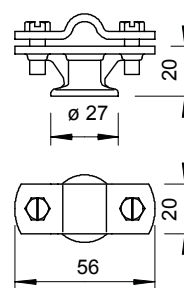


Zn G

Cable bracket with crossbar Rd 8–10 mm

Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
113 Z8-10	Rd 8-10	20	5.956	5229960

- With female thread M8 or through hole \varnothing 7 mm
- Over-piece installed with 2 hexagonal bolts
- Version HD with wood screws (5 x 60) and plastic dowels (8 x 40)

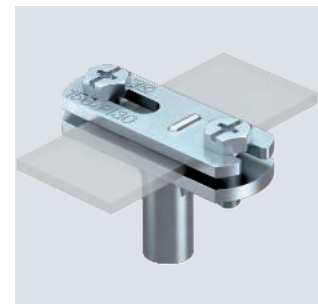
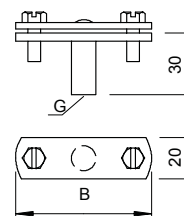


Zn G

Cable bracket for flat conductors

Type	Dim.		Fit mm	Thread	Pack Piece	Weight kg/100 pc.	Item no.
	B mm						
168 FL30-M6	56		FL 30	M6	20	7.640	5229464
168 DIN 30	56		FL 30	M8	20	6.570	5229480

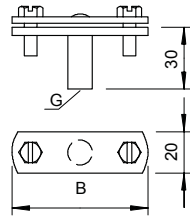
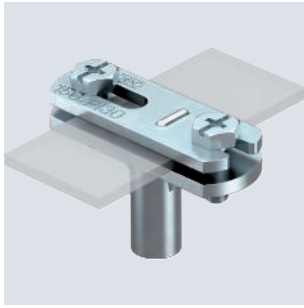
- For flat strip
- With female thread (G)
- Installed height 30 mm



Cable bracket with crossbar

Cable bracket for flat conductors

TG FT



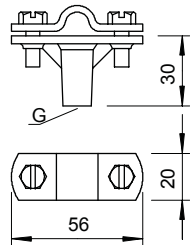
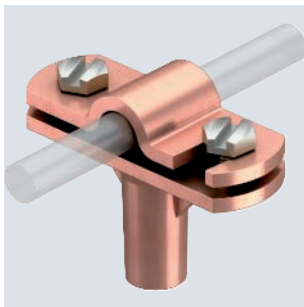
Type	Dim.			Pack Piece	Weight kg/100 pc.	Item no.
	B mm	Fit mm	Thread			
168 FL40-M8	66	FL 40	M8	20	8.200	5229553

- For flat strip
- With female thread (G)
- Installed height 30 mm

Cable bracket with hinged crossbar

Zn Cu

Cable bracket with hinged crossbar

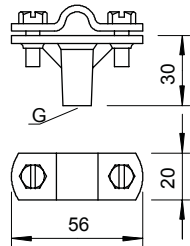
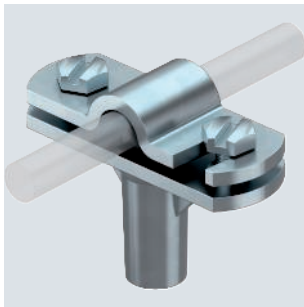


Type	Fit		Pack Piece	Weight kg/100 pc.	Item no.
	mm	Thread			
168 DIN-K-M8	Rd 8-10	M8	20	8.440	5229383

- With female thread (G)
- With over-piece and 2 hexagonal bolts
- Installed height 30 mm

Cable bracket Rd 8–10 mm, 30 mm mounting height

Zn G

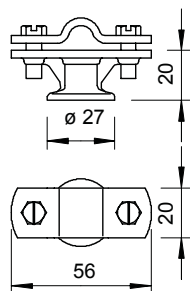


Type	Fit		Pack Piece	Weight kg/100 pc.	Item no.
	mm	Thread			
168 8-10 M6	Rd 8-10	M6	20	7.800	5229162
168 DIN-K-M8	Rd 8-10	M8	20	7.780	5229383

- With female thread (G)
- With over-piece and 2 hexagonal bolts
- Installed height 30 mm

Cable bracket with hinged crossbar Rd 8–10 mm

Zn G



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

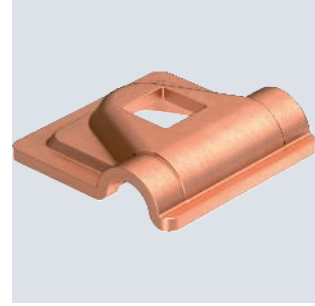
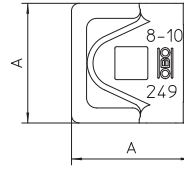
- With female thread M8 or through hole \varnothing 7 mm
- Hinge crossbar for quick swivel mounting
- Crossbar mounted with 2 hexagonal bolts

Cu

Quick connector, upper part Rd 8–10 mm

Type	Fit mm	Dim.		Pack Piece	Weight kg/100 pc.	Item no.
		A mm				
249 8-10 CU-OT	Rd 8-10	40		100	3.580	5311530

- For round conductor fastening Rd 8-10
- Suitable for M10 bolts

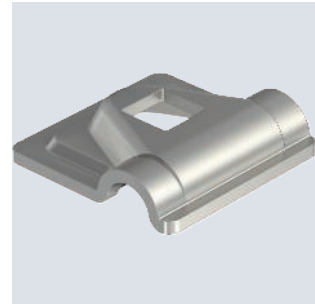
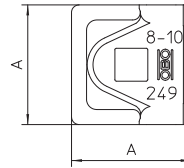


VA

Quick connector, upper part Rd 8–10 mm

Type	Fit mm	Dim.		Pack Piece	Weight kg/100 pc.	Item no.
		A mm				
249 8-10 VA-OT	Rd 8-10	40		100	3.130	5311554

- For round conductor Rd 8-10
- Suitable for M10 bolts

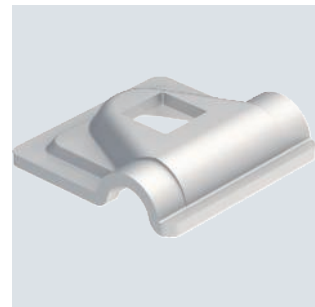
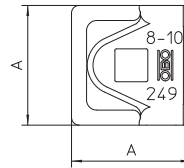


Alu

Quick connector, upper part Rd 8–10 mm

Type	Fit mm	Dim.		Pack Piece	Weight kg/100 pc.	Item no.
		A mm				
249 8-10 ALU-OT	Rd 8-10	44		100	2.100	5311585

- For round conductor fastening Rd 8-10
- Suitable for M10 bolts

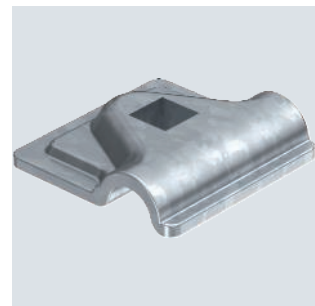
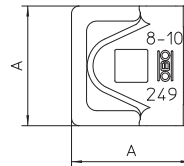


St FT

Quick connector, upper part Rd 8–10 mm

Type	Fit mm	Dim.		Pack Piece	Weight kg/100 pc.	Item no.
		A mm				
249 8-10 ST-OT	Rd 8-10	40		100	3.240	5311503

- For round conductor fastening RD 8-10
- Suitable for M10 bolts

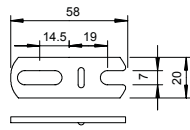


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Conductor material

Cable bracket, upper part for FL 30 mm

St FT

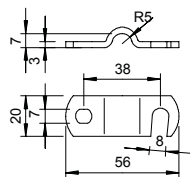


Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
156 FL	FL30	50	2.460	5228328

- With slot for quick installation

Cable bracket, upper part for Rd 8–10 mm

St FT



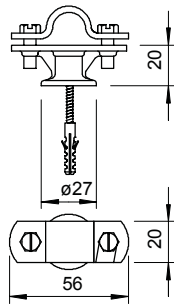
Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
156 8-10	Rd 8-10	100	2.680	5228026

- With open slot for quick installation

Holder for interception and ground insertion rods

Rod holder, 16 mm, with screw and anchor

Zn Cu

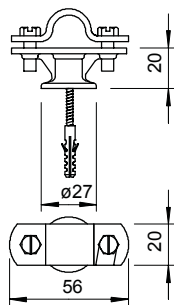


Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
113 B-HD-16	Rd 16	100	10.100	5412811

- For lightning and ground insertion rods Rd 16
- Installed with over-piece and hexagonal bolts M6 x 16 (VA)
- Female thread M8 for screwing and through hole for wood screws
- Pre-mounted with wood screw 5 x 60 and plastic dowels 8 x 40

Rod holder, 16 mm, with screw and anchor

Zn



Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
113 B-Z-HD	Rd 16	100	6.000	5412803

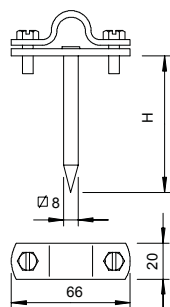
- For lightning and ground insertion rods Rd 16
- Installed with over-piece and hexagonal bolts M6 x 16 (VA)
- Female thread M8 for screwing and through hole for wood screws
- Pre-mounted with wood screw 5 x 60 and plastic dowels 8 x 40

St F

Rod holder, 16 mm, with square pin

Type	Fit mm	Dim. H mm		Pack Piece	Weight kg/100 pc.	Item no.
112 DIN-100	Rd 16	100		10	12.412	5410096

- For lightning and ground insertion rods
- Over-piece with 2 hexagonal bolts M6 x 16 (VA)
- With square pin

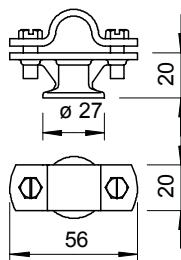


Zn Cu

Rod holder, 16 mm

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

- For lightning and ground insertion rods Rd 16
- Installed with over-piece and hex-head screws M6 x 16
- With female thread M8 or through hole Ø 7 mm

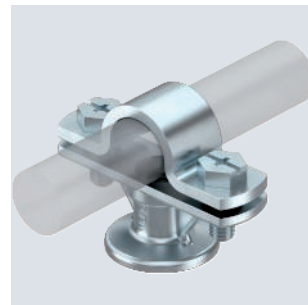
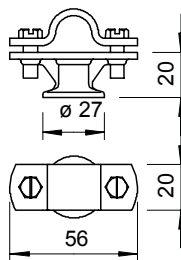


Zn

Rod holder, 16 mm

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

- For lightning and ground insertion rods Rd 16
- Installed with over-piece and hex-head screws M6 x 16
- With female thread M8 or through hole Ø 7 mm

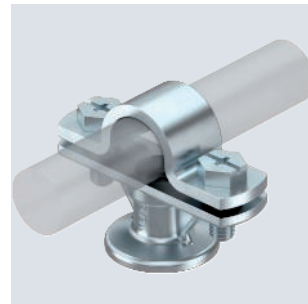
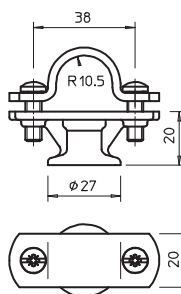


Zn

Rod holder, 20 mm

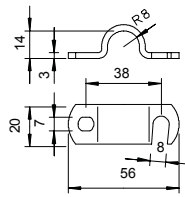
Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.

- Installed with over-piece and hex-head screws M6 x 16
- With female thread M8 or through hole Ø 7 mm



Cable bracket, round conductors and air-termination rods 16 mm

St FT

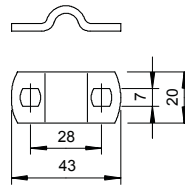
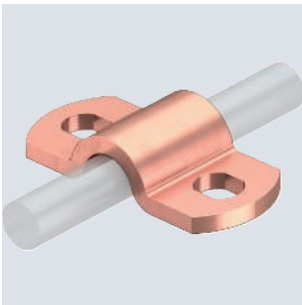


Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
156 16	Rd 16	50	3.230	5228220

• With open slot for quick installation

Cable bracket, upper part for Rd 8–10 mm, copper

Cu

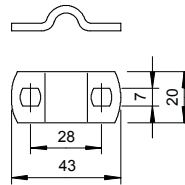
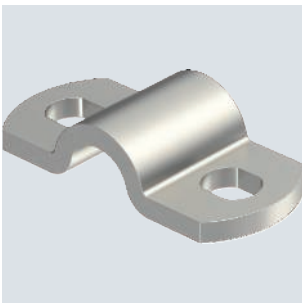


Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
156 K8-10 CU	Rd 8-10	100	2.260	5228131

• For Rd 8–10 mm

Cable bracket, upper part for Rd 8–10 mm, stainless steel

VA

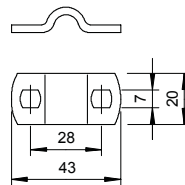


Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
156 K8-10 VA	Rd 8-10	100	2.100	5228134

• For Rd 8–10 mm

Cable bracket, upper part for Rd 8–10 mm, steel

St FT



Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
156 K8-10 ST	Rd 8-10	100	2.000	5228123

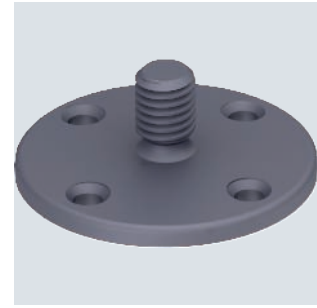
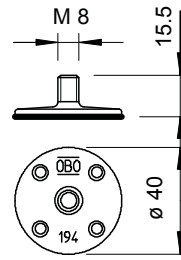
• For Rd 8–10 mm

PA

Bonding base including industrial bonding pad

Type	Colour	Thread	Pack Piece	Weight kg/100 pc.	Item no.
194 K	Grey	M8	20	0.600	5207266

- With threaded stem M8
- For mounting cable supports with M8 female thread
- For bonding to concrete, steel or smooth substrates
- Not suitable for rough surfaces such as plaster, wood, bitumen strips
- Processing at > +15 °C and on cleaned substrate
- When installing flat conductors and round conductors, expansion elements are to be used for thermal compensation
- Use on film roofs after consultation with the responsible roof construction company

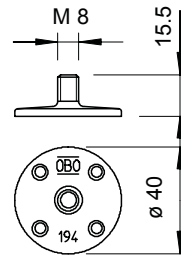


PA

Bonding base

Type	Colour	Thread	Pack Piece	Weight kg/100 pc.	Item no.
194	Grey	M8	100	0.389	5207258

- With threaded stem M8
- For mounting cable supports with M8 female thread
- For bonding to concrete, steel or brickwork
- When installing flat conductors and round conductors, expansion elements are to be used for thermal compensation

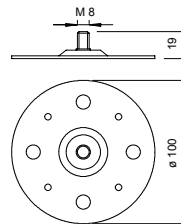


St FS

Base plate

Type	Thread	Pack Piece	Weight kg/100 pc.	Item no.
199 DIN	M8	10	14.200	5208017

- With threaded pin M8
- Suitable for direct bonding
- Threaded pin brass and base plate hot-dip galvanised steel

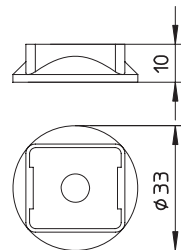


PP

Washer for cable bracket, type 177

Type	Colour	Pack Piece	Weight kg/100 pc.	Item no.
177 U	Light grey	20	0.286	5207371

- For simple wall installation
- UV-resistant



Hard foam plate anchor

PA



Type	Length mm	Dowel Ø mm	Wood screws Ø mm	Break load kN	Pack Piece	Weight kg/100 pc.	Item no.
177 WDVS 64x25 B	63.5	9	4-5	0.05	50	0.658	5207375

Anchor for universal light-duty fastening in plastered composite heat insulation systems (WDVS). The self-tapping point makes pre-drilling superfluous.

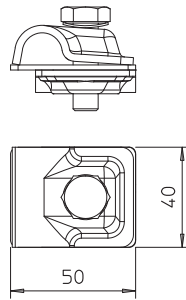
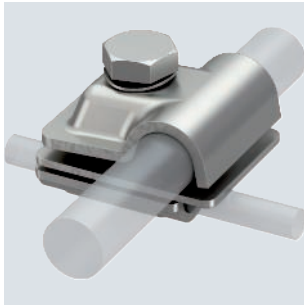
Conductor material





Vario quick connector Rd 8-10x16

VA

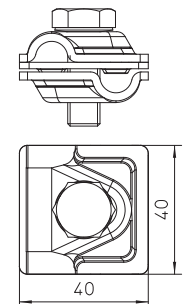
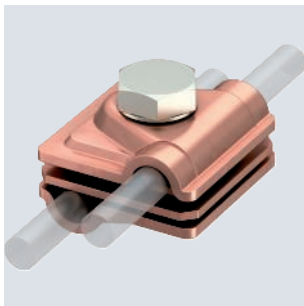


Type	Fit mm	Dim. A mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
249 8-10X16 VA	8-10x16	40	H/100	10	14.958	5311590

- For T, intersection and parallel connections with adapter plates
- Quick mounting using an M10 x 30 bolt, made from rustproof stainless steel
- With sprung washer to DIN 137
- Corresponds to the requirements of VDE 0185-305 (IEC 62305)

Variable earthing connector Rd 6-8 / 8-10 mm

Cu

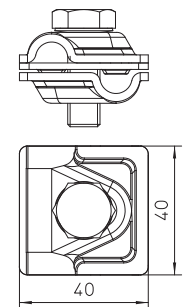
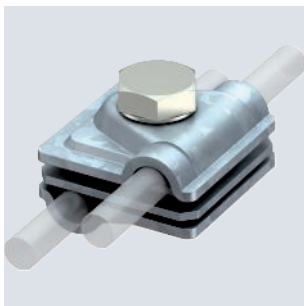


Type	Fit mm	Dim. A mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
249 6-10 CU	Rd 6-8 / 8-10	40	H/100	10	14.540	5311417

- For T, cross-over and parallel connections with adapter plates
- Quick mounting using an M10 x 30 bolt, made from rustproof stainless steel A2
- With sprung washer to DIN 137
- Corresponds to the requirements of VDE 0185-305 (IEC 62305)

Variable earthing connector Rd 6-8 / 8-10 mm

St FT

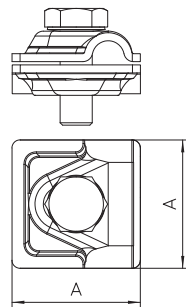
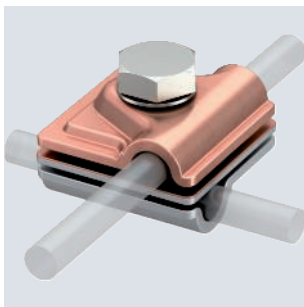


Type	Fit mm	Dim. A mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
249 6-10 ST	Rd 6-8 / 8-10	40	H/100	20	13.100	5311410

- For T, intersection and parallel connections with adapter plates
- Quick mounting using an M10 x 30 bolt, made from rustproof stainless steel
- With sprung washer to DIN 137
- Corresponds to the requirements of VDE 0185-305 (IEC 62305)

Variable bi-metal quick connector

Cu



Type	Fit mm	Dim. A mm	Lightning current carrying capacity kA	Material	Pack Piece	Weight kg/100 pc.	Item no.
249 8-10 ZV	Rd 8-10	44	H/100	Cu	10	14.220	5311535

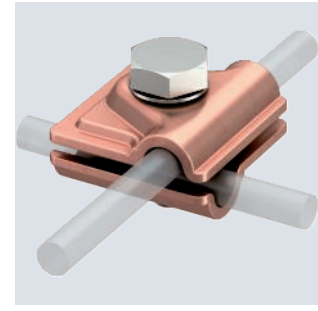
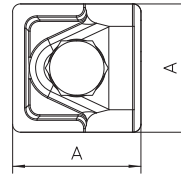
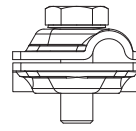
- Intermediate plate, copper/aluminium, top section copper and aluminium
- For T, cross and parallel connectors
- Quick installation using hexagonal bolt M10 x 30, high-grade stainless steel
- With spring washer according to DIN 137
- Conforms to the requirements according to DIN VDE 0185-305 (IEC 62305)

Cu



Type	Fit mm	Dim. A mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
249 8-10 CU	Rd 8-10	40	H/100	10	11.900	5311527

- For T, cross and parallel connectors
- Quick installation using hexagonal bolt M10 x 30, high-grade stainless steel
- Conforms to the requirements according to DIN VDE 0185-305 (IEC 62305)



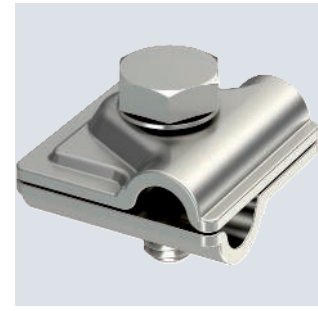
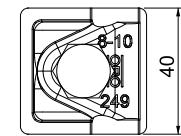
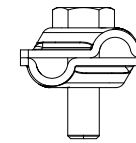
Vario quick connector

VA



Type	Fit mm	Lightning current carrying capacity kA	Short-circuit current (50 Hz) (1 s; ≤300 °C) kA	Pack Piece	Weight kg/100 pc.	Item no.
249 8-10 V4A	Rd 8-10	H/100	1.4	10	9.500	5311404

- For T, cross-over and parallel connections
- Complete component made of A4
- Quick mounting using an M10 x 30 bolt, made from rustproof stainless steel
- Meets the requirements of VDE 0185-305 (IEC 62305)



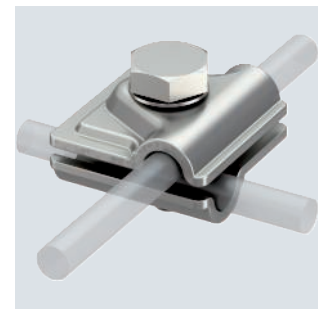
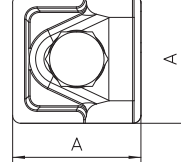
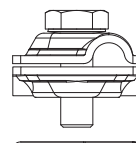
Vario quick connector

VA



Type	Fit mm	Dim. A mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
249 8-10 VA	Rd 8-10	40	H/100	10	9.276	5311551

- For T, cross and parallel connectors
- Quick installation using hexagonal bolt M10 x 30, high-grade stainless steel
- Conforms to the requirements according to DIN VDE 0185-305 (IEC 62305)



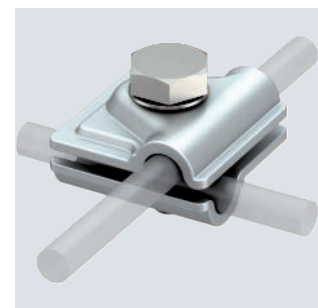
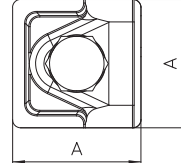
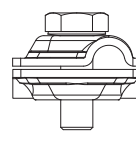
Vario quick connector

Alu



Type	Fit mm	Dim. A mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
249 8-10 ALU	Rd 8-10	44	H/100	30	6.600	5311519
249 B ALU	Rd 8-10	44	H/100	100	7.250	5311713

- For T, cross and parallel connectors
- Quick installation using hexagonal bolt M10 x 30, high-grade stainless steel
- Conforms to the requirements according to DIN VDE 0185-305 (IEC 62305)

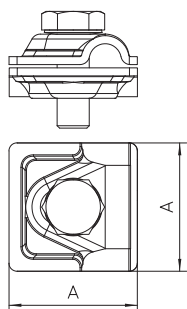
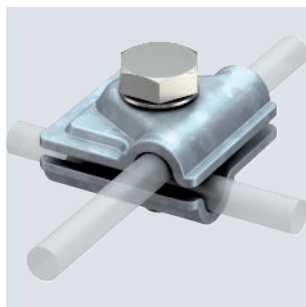


Vario quick connector



Vario quick connector

St FT
TESTED

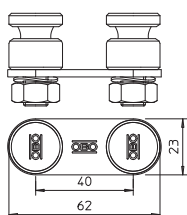


Type	Fit mm	Dim. A mm	Short-circuit current (50 Hz) (1 s; ≤300 °C) kA	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
249 8-10 ST	Rd 8-10	40	5.6	H/100	20	9.306	5311500
249 B ST	Rd 8-10	40	5.6	H/100	100	10.800	5311705

- For T, cross and parallel connectors
- Quick installation using hexagonal bolt M10 x 30, high-grade stainless steel
- Conforms to the requirements according to DIN VDE 0185-305 (IEC 62305)

Connector, Rd 8–10 mm, double, with pressure trough

VA
TESTED

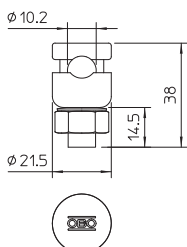


Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
5002 N-VA	Rd 8-10	N/50	10	16.200	5304270

- With 2 Fix contact clamping screws, nuts and serrated washers
- With pre-mounted pressure trough made of VA
- Corresponds to the requirements of VDE 0185-305 (IEC 62305)

Connector, Rd 8–10 mm with pressure trough

Cu
TESTED

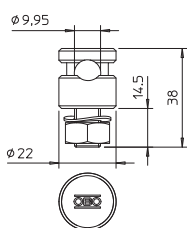


Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
5001 N-CU	Rd 8-10	H/100	10	6.750	5304172

- With 1 fix contact clamping screw, nut and serrated washer
- Including pre-mounted pressure sump, steel
- Conforms to the requirements according to DIN VDE 0185-305 (IEC 62305)

Connector, Rd 8–10 mm with pressure trough

VA
TESTED



Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
5001 N-VA	Rd 8-10	N/50	10	6.800	5304176

- With 1 fix contact clamping screw, nut and serrated washer
- Including pre-mounted pressure sump, steel
- Conforms to the requirements according to DIN VDE 0185-305 (IEC 62305)

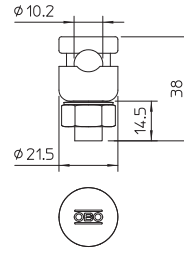
St FT



Connector, Rd 8–10 mm with pressure trough

Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
5001 N-FT	Rd 8-10	N/50	20	5.900	5304164

- With 1 fix contact clamping screw, nut and serrated washer
- Including pre-mounted pressure sump, steel
- Conforms to the requirements according to DIN VDE 0185-305 (IEC 62305)



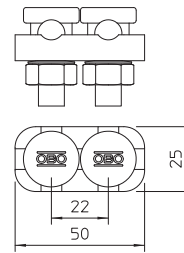
St FT



Connector Rd 8–10 mm, double

Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
5002 DIN-FT	Rd 8-10	H/100	20	14.240	5304202

- With 2 fix contact clamping screws, nut and serrated washer
- Including pre-mounted connecting pressure piece, die-cast zinc or copper-plated die-cast zinc
- Conforms to the requirements according to DIN VDE 0185-305 (IEC 62305)



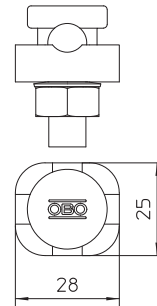
Zn Cu



Connector Rd 8–10 mm, single, copper

Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
5001 ZN-CU	Rd 8-10	H/100	10	8.760	5304113

- With fix contact clamping screw, nut and serrated washer
- With bore hole 10.2 mm
- With pre-mounted pressure piece, die-cast zinc
- Conforms to the requirements according to DIN VDE 0185-305 (IEC 62305)



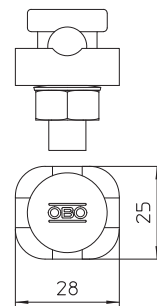
St FT



Connector Rd 8–10 mm, single

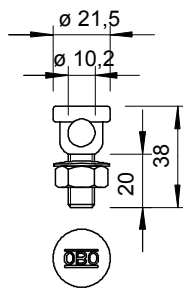
Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
5001 DIN-FT	Rd 8-10	H/100	20	7.450	5304105
5001 DIN-FT+VA	Rd 8-10	N/50	20	7.450	5304107

- With fix contact clamping screw, nut and serrated washer
- With bore hole 10.2 mm
- With pre-mounted pressure piece, die-cast zinc
- Conforms to the requirements according to DIN VDE 0185-305 (IEC 62305)



Connector, Rd 8–10 mm with M10 thread

St F

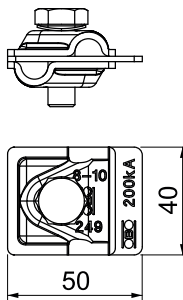
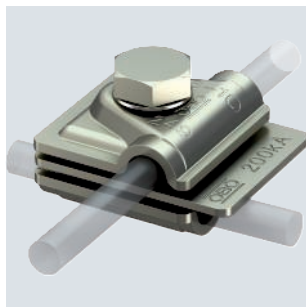


Type	Fit	Pack Piece	Weight kg/100 pc.	Item no.
5000	Rd 8-10	20	4.630	5304008

- With bore hole 10.2 mm
- With thread M10
- Including pre-mounted nut M10 and serrated washer
- Conforms to the requirements according to DIN VDE 0185-305 (IEC 62305)

Vario quick connector 200 kA

VA



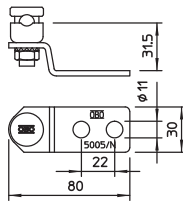
Type	Fit	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
249 8-10 V2A 200	Rd 8-10	H2/200	10	12.374	5311595

- For T, intersection and parallel connections
- Quick mounting using an M10 x 30 bolt, made from rustproof stainless steel
- Meets the requirements of VDE 0185-305 (IEC 62305)
- Tested according to VDE 0185-561-1 (IEC/EN 62561-1) with 200 kA
- For use in lightning protection class I with the isCon® Premium conductor

Connection and end pieces

Connection and end piece with connector and pressure trough

St FT



Type	Fit	Pack Piece	Weight kg/100 pc.	Item no.
5005 N-FT	Rd 8-10	10	11.600	5304660

- With 2 attaching holes \varnothing 11 mm
- Including pre-mounted connector 5001 N
- Conforms to the requirements according to DIN VDE 0185-305 (IEC 62305)

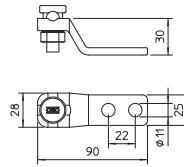
St F



Connection and end piece, DIN version

Type	Fit	Material	Pack Piece	Weight kg/100 pc.	Item no.
5005 DIN-FT	Rd 8-10	St	10	15.518	5304601

- With 2 attaching holes and 1 fix contact clamping screw 5000...
- With 2 attaching holes Ø 11 mm
- Conforms to the requirements according to DIN VDE 0185-305 (IEC 62305)

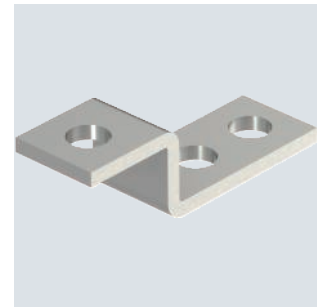
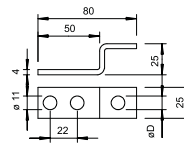


VA

Connection and end piece

Type	Dim. D	Pack Piece	Weight kg/100 pc.	Item no.
5011 VA M10	11	10	7.064	5334934
5011 VA M12	13	10	7.048	5334942

- For attaching to steel structures or bolting to fixed earthing terminals
- For attachments: Round conductor Rd 8-10 and flat conductor FL 30 x 3.5
- 2 attaching holes Ø 11 mm
- 1 attaching hole Ø D mm

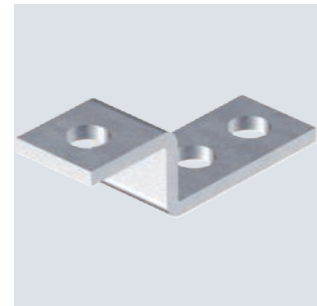
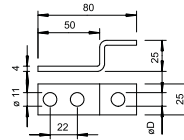


St FT

Connection and end piece

Type	Dim. D	Pack Piece	Weight kg/100 pc.	Item no.
5011	11	10	7.064	5304997

- For attaching to steel structures or bolting to fixed earthing terminals
- For attachments: Round conductor Rd 8-10 and flat conductor FL 30 x 3.5
- 2 attaching holes Ø 11 mm
- 1 attaching hole Ø D mm



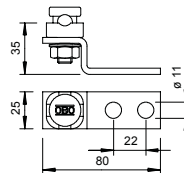
St F



Connection and end piece with connector

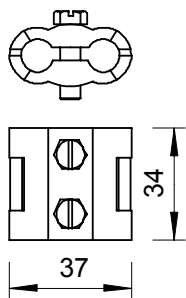
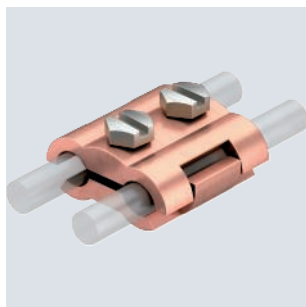
Type	Material	Fit	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
5009	St	Rd 8-10	H/100	10	14.500	5304970

- With 2 attaching holes Ø 11 mm
- Installed with connector (single-piece) type 5001 DIN-FT
- Conforms to the requirements according to DIN VDE 0185-305 (IEC 62305)



Parallel connector Rd 6–10 mm, M6 x 20

CuZn 37
BEST TESTED

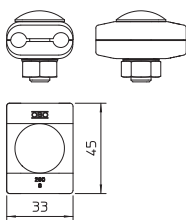
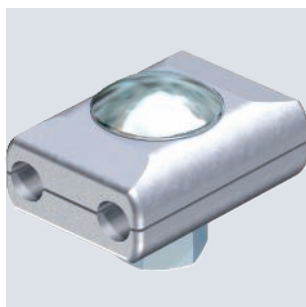


Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
260 8-10 MS	Rd 6-10	N/50	50	15.820	5315654

• With 2 hexagonal bolts M6 x 20 made of stainless steel (V2A)

Parallel connector Rd 8 mm, M10 x 30

Zn G
BEST TESTED

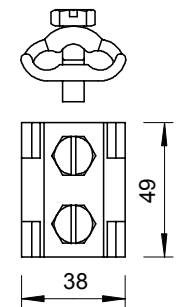


Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
260 8	Rd 8	H/100	50	13.930	5315700

• With flat, round bolt M10 x 30 and hexagonal nut, hot-dip galvanised steel

Parallel connector Rd 8–10 mm, M8 x 25

TG FT
BEST TESTED

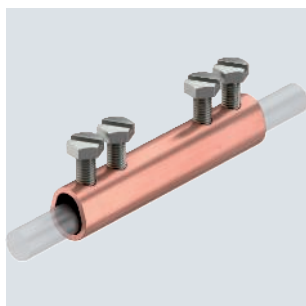


Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
259 8-10	Rd 8-10	N/50	25	13.230	5315506

• With 2 hex-head bolts M8 x 25, hot-dip galvanised steel

Straight connector Rd 6–10 mm

Cu
BEST TESTED



Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
237 N CU	Rd 6-10	H/100	10	8.760	5328284

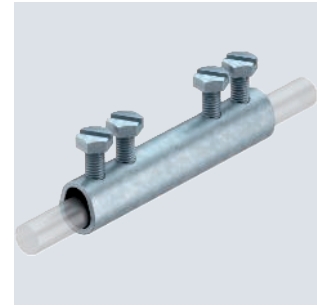
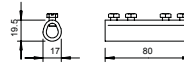
• With 4 hexagonal bolts M6 x 12
• Complies with the requirements of VDE 0185-305-3 (IEC/EN 62305-3)

St F



Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
237 N FT	Rd 8-10	H/100	20	8.560	5328209

- With 4 hexagonal bolts M6 x 10
- Complies with the requirements of VDE 0185-305-3 (IEC/ EN 62305-3)



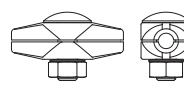
Straight connector Rd 8–10 mm

Zn G



Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
239	Rd 8	N/50	20	12.510	5329078

- With truss-head bolt M10 x 30 and hexagonal nut M10
- Complies with the requirements of VDE 0185-305-3 (IEC/ EN 62305-3)



Straight connector Rd 8 mm

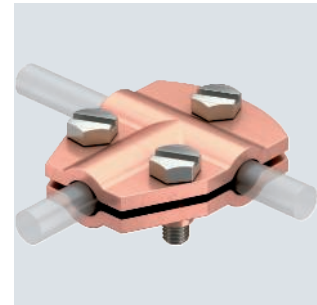
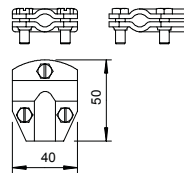
T connector

Cu



Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
247 8-10 CU	Rd 8-10	N/50	10	10.750	5311268

- With 3 hexagonal bolts M6 x 16 (VA)
- Complies with the requirements of VDE 0185-305-3 (IEC/ EN 62305-3)



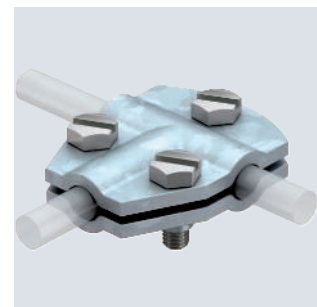
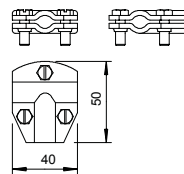
T connector Rd 8-10 mm, triple-screwed

St FT



Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
247 8-10 FT	Rd 8-10	N/50	10	10.934	5311209

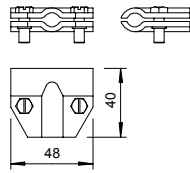
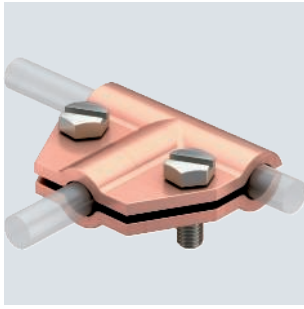
- With 3 hexagonal bolts M6 x 16 (VA)



T connector Rd 8-10 mm, triple-screwed

T connector Rd 8–10 mm

Cu

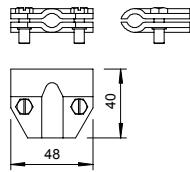
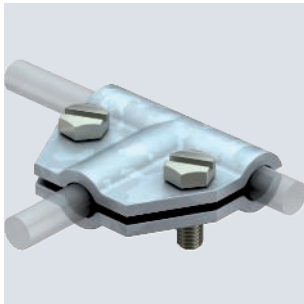


Type	Fit mm	Lightning current carrying capacity kA	Pack	Weight	Item no.
			Piece	kg/100 pc.	
245 8-10 CU	Rd 8-10	N/50	10	11.560	5311152

- With 2 hexagonal bolts M6 x 16 (VA)
- Complies with the requirements of VDE 0185-305-3 (IEC/ EN 62305-3)

T connector Rd 8–10 mm

St FT

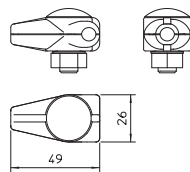
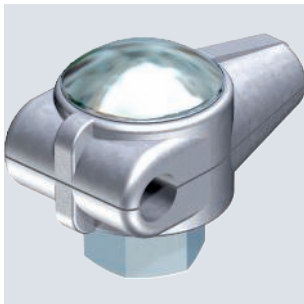


Type	Fit mm	Lightning current carrying capacity kA	Pack	Weight	Item no.
			Piece	kg/100 pc.	
245 8-10 FT	Rd 8-10	N/50	10	9.401	5311101

- With 2 hexagonal bolts M6 x 16 (VA)
- Complies with the requirements of VDE 0185-305-3 (IEC/ EN 62305-3)

T connector Rd 8 mm

Zn G



Type	Fit mm	Lightning current carrying capacity kA	Pack	Weight	Item no.
			Piece	kg/100 pc.	
244	Rd 8	N/50	10	11.580	5311039

- With truss-head bolt M10 x 30 and hexagonal nut M10
- Complies with the requirements of VDE 0185-305-3 (IEC/ EN 62305-3)

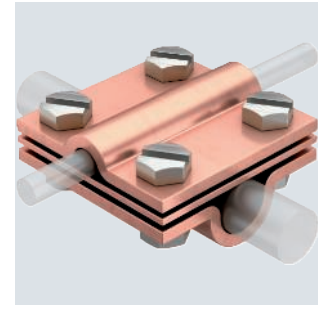
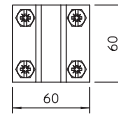
Cu

Cross-connector with intermediate plate for Rd 8–10 x Rd 16



Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
252 8-10X16 CU	Rd 8-10 x 16	H/100	10	43.985	5312442

- Meets the requirements of VDE 0185-305-3 (IEC/ EN 62305-3)
- Fit: Rd 8–10 x Rd 16 / FL 30
- With adapter plate
- Mounted with 4 hexagonal bolts M8 x 25 and 4 hexagonal nuts M8 made of rust-proof stainless steel (A2)



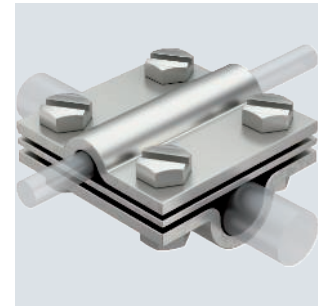
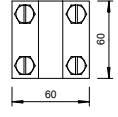
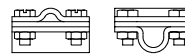
VA

Cross-connector with intermediate plate for Rd 8–10 x Rd 16



Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
252 8-10x16 V4A	Rd 8-10 x 16	H/100	10	39.000	5312346

- Meets the requirements of VDE 0185-305-3 (IEC/ EN 62305-3)
- Fit: Rd 8–10 x Rd 16 / FL 30
- With adapter plate
- Mounted with 4 hexagonal bolts M8 x 25 and 4 hexagonal nuts M8



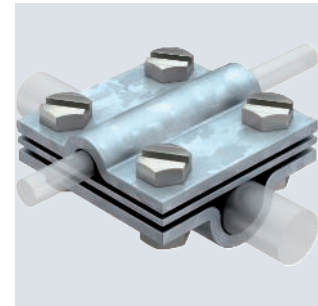
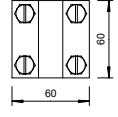
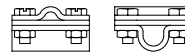
St FT

Cross-connector with intermediate plate for Rd 8–10 x Rd 16



Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
252 8-10X16 FT	Rd 8-10 x 16	H/100	25	38.800	5312345

- Meets the requirements of VDE 0185-305-3 (IEC/ EN 62305-3)
- Fit: Rd 8–10 x Rd 16 / FL 30
- With adapter plate
- Mounted with 4 hexagonal bolts M8 x 25 and 4 hexagonal nuts M8



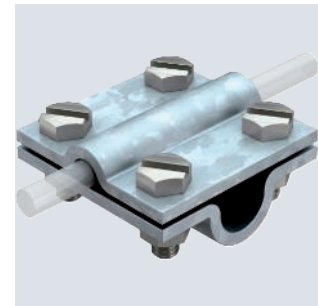
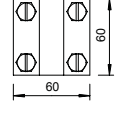
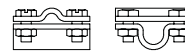
St FT

Cross-connector for Rd 8–10 x Rd 16



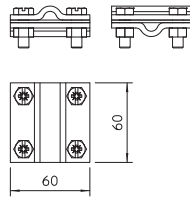
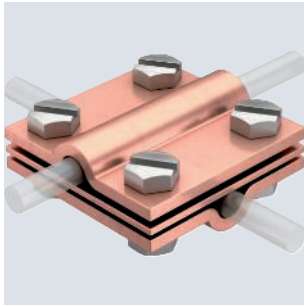
Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
253 10X16	Rd 8-10 x 16	H/100	25	29.800	5312809

- Meets the requirements of VDE 0185-305-3 (IEC/ EN 62305-3)
- Fit: Rd 8–10 x Rd 16 / FL 30
- Mounted with 4 hexagonal bolts M8 x 25 and 4 hexagonal nuts M8 (F)



Cross-connector with intermediate plate for Rd 8–10 mm

Cu

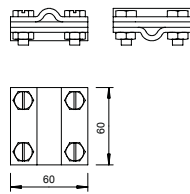
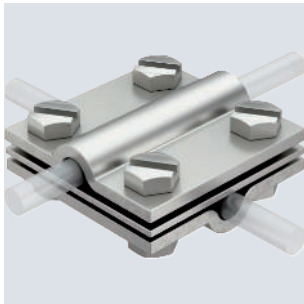


Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
252 8-10 CU	Rd 8-10	H/100	10	38.940	5312418

- Meets the requirements of VDE 0185-305-3 (IEC/ EN 62305-3)
- Fit: Rd 8–10 x Rd 8–10 / FL 30
- With adapter plate
- Mounted with 4 hexagonal bolts M8 x 25 and 4 hexagonal nuts M8 made of rust-proof stainless steel (A2)

Cross-connector with intermediate plate for Rd 8–10 mm

VA

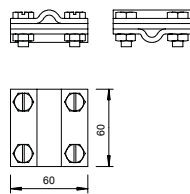
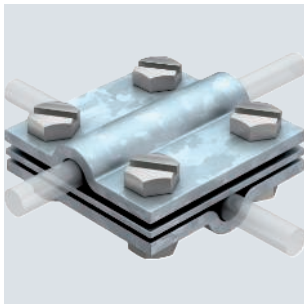


Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
252 8-10 V4A	Rd 8-10	H/100	10	33.530	5312318

- Meets the requirements of VDE 0185-305-3 (IEC/ EN 62305-3)
- Fit: Rd 8–10 x Rd 8–10 / FL 30
- With adapter plate
- Mounted with 4 hexagonal bolts M8 x 25 and 4 hexagonal nuts M8

Cross-connector with intermediate plate for Rd 8–10 mm

St FT

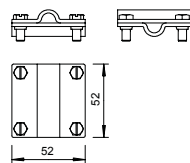
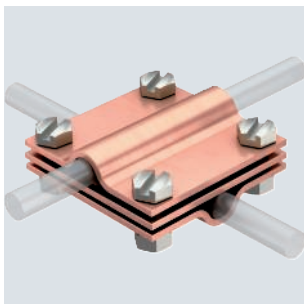


Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
252 8-10 FT	Rd 8-10	H/100	25	33.530	5312310

- Meets the requirements of VDE 0185-305-3 (IEC/ EN 62305-3)
- Fit: Rd 8–10 x Rd 8–10 / FL 30
- With adapter plate
- Mounted with 4 hexagonal bolts M8 x 25 and 4 hexagonal nuts M8 (F)

Cross-connector with intermediate plate for Rd 8–10 mm

Cu



Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
254 DIN 8-10 CU	Rd 8-10	H/100	10	17.410	5314135

- Meets the requirements of VDE 0185-305-3 (IEC/ EN 62305-3)
- Fit: Rd 8–10 x Rd 8–10
- With adapter plate
- Mounted with 4 hexagonal bolts M6 x 20 and 4 hexagonal nuts M6 (F) made of rustproof steel (VA)

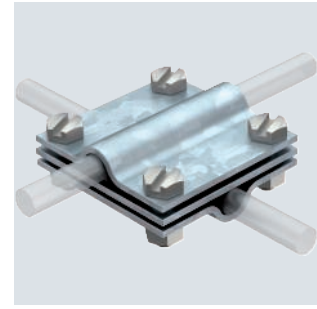
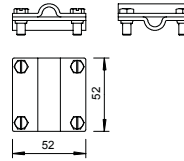
St FT

Cross-connector with intermediate plate for Rd 8–10 mm



Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
254 DIN 8-10 FT	Rd 8-10	H/100	25	16.660	5314038

- Meets the requirements of VDE 0185-305-3 (IEC/ EN 62305-3)
- For round conductors, fit: Rd 8-10 x Rd 8-10
- With adapter plate
- Mounted with 4 hexagonal bolts M6 x 20 and 4 hexagonal nuts M6



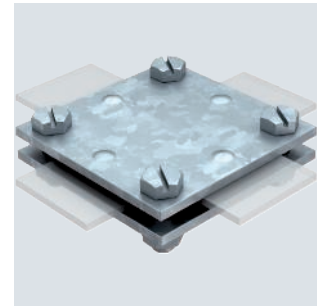
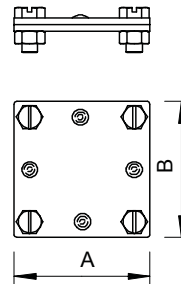
St FT

Cross-connector flat/flat without adapter plate FT



Type	Fit mm	Dim. A mm	Dim. B mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
256 S6 FT	max. FL 30	60	60	H/100	3600	24.100	5314572

- Meets the requirements of VDE 0185-305-3 (IEC/EN 62305-3)
- Fit: Max. FL 30 x FL 30 or max. FL 40 x FL 40
- Without adapter plate
- Mounted with 4 hexagonal bolts M8 x 25 and 4 hexagonal nuts M8 (F)



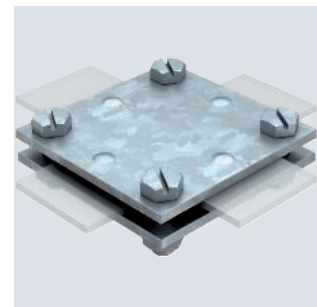
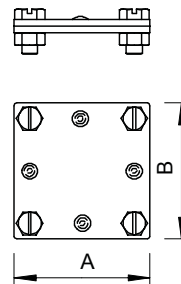
St FT

Cross-connector flat/flat without adapter plate FT



Type	Fit mm	Dim. A mm	Dim. B mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
256 S6 FT	max. FL 30	60	60	H/100	3600	24.100	5314572

- Meets the requirements of VDE 0185-305-3 (IEC/EN 62305-3)
- Fit: Max. FL 30 x FL 30 or max. FL 40 x FL 40
- Without adapter plate
- Mounted with 4 hexagonal bolts M8 x 25 and 4 hexagonal nuts M8 (F)



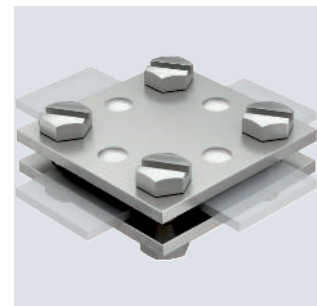
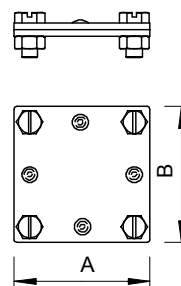
VA

Cross-connector flat/flat without adapter plate A4



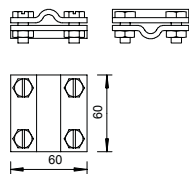
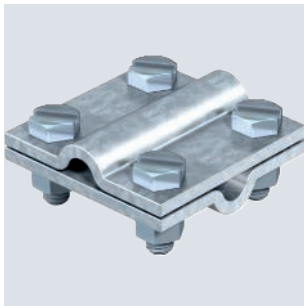
Type	Fit mm	Dim. A mm	Dim. B mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
256 S6 V4A	max. FL 30	60	60	H/100	3600	24.100	5314574

- Meets the requirements of VDE 0185-305-3 (IEC/ EN 62305-3)
- Fit: Max. FL 30 x FL 30
- Without adapter plate
- Mounted with 4 hexagonal bolts M8 x 25 and 4 hexagonal nuts M8



Cross-connector Rd 8–10 mm

St FT
TEST TESTED

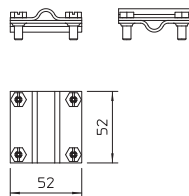
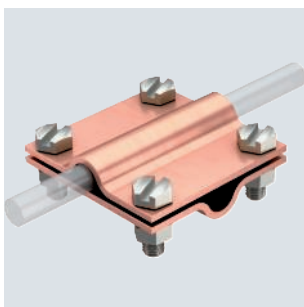


Type	Fit mm	Lightning current carrying capacity kA	H/100	Pack	Weight	Item no.
				Piece	kg/100 pc.	
253 8X8	Rd 8-10	H/100		25	22.900	5312604

- Meets the requirements of VDE 0185-305-3 (IEC/EN 62305-3)
- Fit: Rd 8–10 x Rd 8–10/FL 30
- Mounted with 4 hexagonal bolts M8 x 25 and 4 hexagonal nuts M8 (F)

Cross-connector Rd 8–10 mm

Cu
TEST TESTED

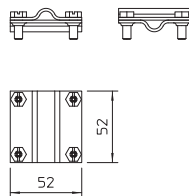
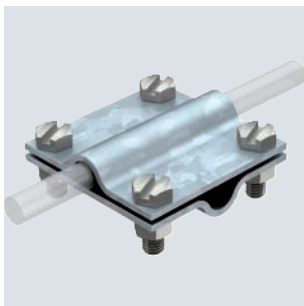


Type	Fit mm	Lightning current carrying capacity kA	H/100	Pack	Weight	Item no.
				Piece	kg/100 pc.	
251 CU	Rd 8-10	H/100		10	12.400	5312132

- Meets the requirements of VDE 0185-305-3 (IEC/ EN 62305-3)
- Fit: Rd 8–10 x Rd 8–10
- With 4 hexagonal bolts M6 x 16, made of rust-proof steel (VA)

Cross-connector Rd 8–10 mm

St FT
TEST TESTED

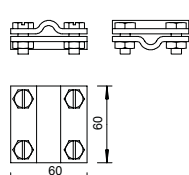
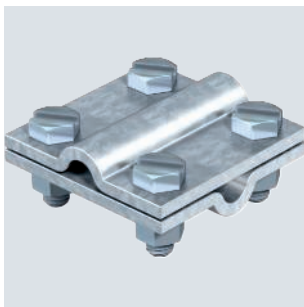


Type	Fit mm	Lightning current carrying capacity kA	H/100	Pack	Weight	Item no.
				Piece	kg/100 pc.	
251 8-10	Rd 8-10	H/100		25	11.690	5312035

- Meets the requirements of VDE 0185-305-3 (IEC/ EN 62305-3)
- For round conductors, fit: Rd 8–10 x Rd 8–10
- With 4 hexagonal bolts M6 x 16 (VA)

Cross-connector Rd 8–10 mm

St FT
TEST TESTED



Type	Fit mm	Lightning current carrying capacity kA	H/100	Pack	Weight	Item no.
				Piece	kg/100 pc.	
253 S3 FT	Rd 8-10	H/100		3400	23.300	5312592

- Meets the requirements of VDE 0185-305-3 (IEC/EN 62305-3)
- Fit: Rd 8–10 x Rd 8–10/FL 30
- Mounted with 4 hexagonal bolts M8 x 25 and 4 hexagonal nuts M8 (F)

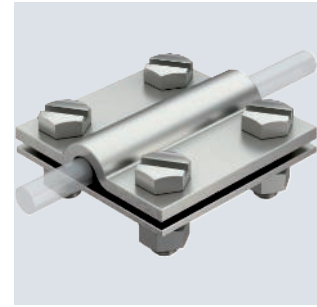
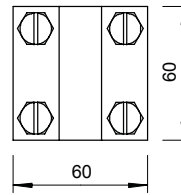
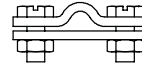
VA

Cross-connector for round conductors and flat conductors



Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
252 8-10xFL30V4A	8-10xFL30	H/100	10	28.500	5312656

- Meets the requirements of VDE 0185-305-3 (IEC/ EN 62305-3)
- Fit: Rd 8-10 x FL 30
- Mounted with 4 hexagonal bolts M8 x 25 and 4 hexagonal nuts M8



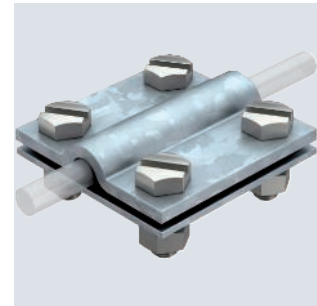
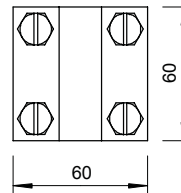
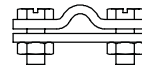
St FT

Cross-connector for round and flat conductors



Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
252 8-10XFL30 FT	8-10xFL30	H/100	25	28.500	5312655

- Meets the requirements of VDE 0185-305-3 (IEC/ EN 62305-3)
- Fit: Rd 8-10 x FL 30
- Mounted with 4 hexagonal bolts M8 x 25 and 4 hexagonal nuts M8



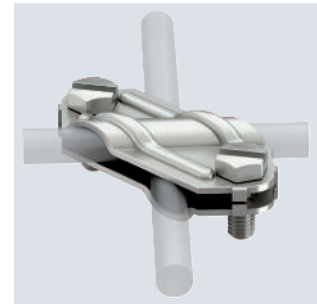
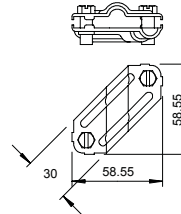
VA VA

Cross-connector for flat conductors and round conductors



Type	Fit mm	Lightning current carrying capacity kA	Short-circuit current (50 HZ) (1 s; ≤300 °C) kA	Pack Piece	Weight kg/100 pc.	Item no.
250 VA	Rd 8-10/ FL30	H/100	1.4	25	10.260	5312922
250 V4A	Rd 8-10/ FL30	H/100	1.4	10	10.260	5312925

- Meets the requirements of VDE 0185-305-3 (IEC/ EN 62305-3)
- Fit: Rd 8-10 x Rd 8-10
- Fit: Rd 8-10 x FL 30
- Fit: FL 30 x FL 30
- Mounted with 2 hexagonal bolts M8 x 20



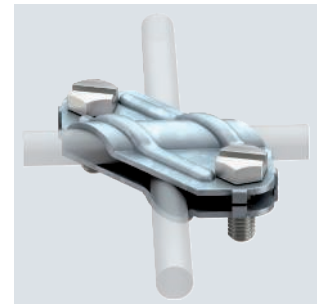
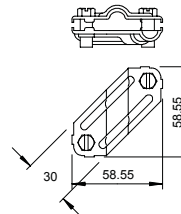
St FT

Cross-connector for flat conductors and round conductors



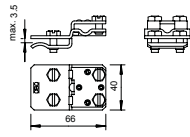
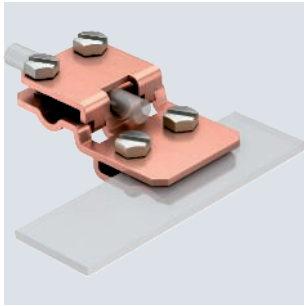
Type	Fit mm	Lightning current carrying capacity kA	Short-circuit current (50 HZ) (1 s; ≤300 °C) kA	Pack Piece	Weight kg/100 pc.	Item no.
250	Rd 8-10/ FL30	N/50	5.6	25	10.260	5312906

- Meets the requirements of VDE 0185-305-3 (IEC/ EN 62305-3)
- Fit: Rd 8-10 x Rd 8-10
- Fit: Rd 8-10 x FL 30
- Fit: FL 30 x FL 30
- Mounted with 2 hexagonal bolts M8 x 20 (F)



Folding clamp and connection terminal up to 10 mm plate thickness

Cu



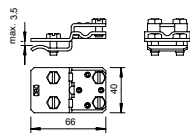
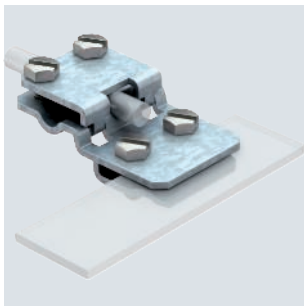
Type	Fit mm	Clamping range mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
274 CU	Rd 8-10	- 10	N/50	10	11.340	5317479

- Plate thickness to 10 mm
- For conductor routing transverse and longitudinal to plate
- 4 hexagonal bolts M6 x 16
- Conforms to the requirements according to DIN VDE 0185-305 (IEC 62305)

Folding clamp and connection terminal up to 10 mm plate thickness

St

FT



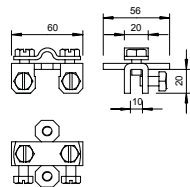
Type	Fit mm	Clamping range mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
274 8-10	Rd 8-10	- 10	N/50	20	10.400	5317428

- Plate thickness to 10 mm
- For conductor routing transverse and longitudinal to plate
- 4 hexagonal bolts M6 x 16
- Conforms to the requirements according to DIN VDE 0185-305 (IEC 62305)

Folding clamp up to 10 mm plate thickness

St

FT



Type	Fit mm	Clamping range mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
273 8-10	Rd 8-10	- 10	N/50	50	17.200	5317223

- Plate thickness to 10 mm
- Conductor routing transverse and longitudinal to plate with 2 hexagonal bolts M8 x 10 and 2 hexagonal bolts M8 x 16 (F)

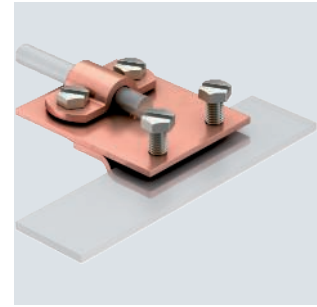
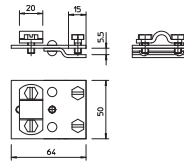
Cu



Folding clamp up to 5 mm plate thickness

Type	Fit mm	Clamping range mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
271 CU	Rd 8-10	-5	N/50	10	15.230	5317452

- Plate thickness to 5 mm
- For conductor routing transverse and longitudinal to plate
- With 4 hexagonal bolts M6 x 12
- Conforms to the requirements according to DIN VDE 0185-305 (IEC 62305)
- 271 Cu: with hexagonal bolts stainless steel (VA)



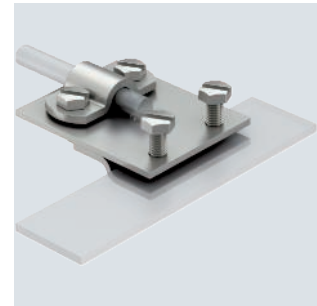
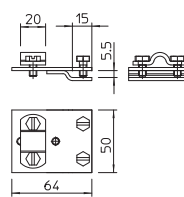
VA



Folding clamp up to 5 mm plate thickness

Type	Fit mm	Clamping range mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
271 8-10 VA	Rd 8-10	-5	N/50	10	15.000	5317481

- Plate thickness to 5 mm
- For conductor routing transverse and longitudinal to plate
- With 4 hexagonal bolts M6 x 12
- Conforms to the requirements according to DIN VDE 0185-305 (IEC 62305)
- 271 Cu: with hexagonal bolts stainless steel (VA)



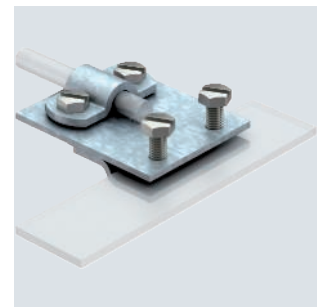
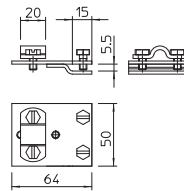
St FT



Folding clamp up to 5 mm plate thickness

Type	Fit mm	Clamping range mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
271 8-10	Rd 8-10	-5	N/50	20	14.060	5317401

- Plate thickness to 5 mm
- For conductor routing transverse and longitudinal to plate
- With 4 hexagonal bolts M6 x 12
- Conforms to the requirements according to DIN VDE 0185-305 (IEC 62305)
- 271 Cu: with hexagonal bolts stainless steel (VA)



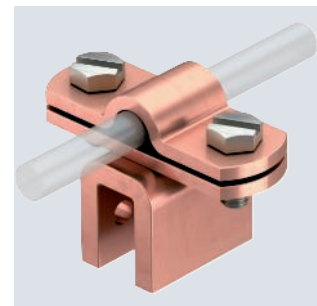
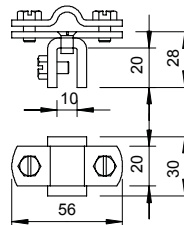
Cu



Folding clamp Rd 8-10 up to 10 mm plate thickness

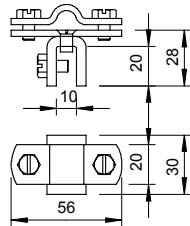
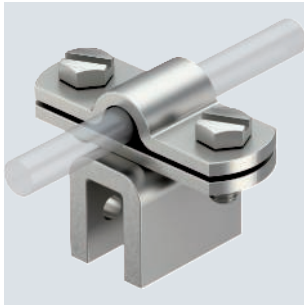
Type	Fit mm	Clamping range mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
270 8-10 CU	Rd 8-10	-10	H/100	10	14.740	5317258

- Metal thickness to 10 mm
- For conductor routing transverse and in parallel to the plate
- Corresponds to the requirements to DIN V VDE V 0185-3 section 4.5



Folding clamp Rd 8-10 up to 10 mm plate thickness

VA

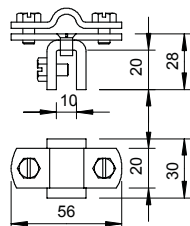
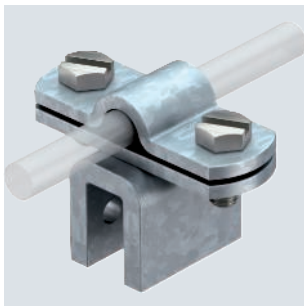


Type	Fit mm	Clamping range mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
270 8-10 VA	Rd 8-10	- 10	N/50	10	13.800	5317208

- Metal thickness to 10 mm
- For conductor routing transverse and in parallel to the plate
- Corresponds to the requirements to DIN V VDE V 0185-3 section 4.5

Folding clamp Rd 8-10 up to 10 mm plate thickness

St FT

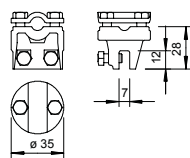
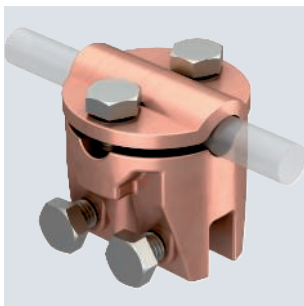


Type	Fit mm	Clamping range mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
270 8-10 FT	Rd 8-10	- 10	N/50	20	13.810	5317207

- Metal thickness to 10 mm
- For conductor routing transverse and in parallel to the plate
- Corresponds to the requirements to DIN V VDE V 0185-3 section 4.5

Folding clamp up to 7 mm plate thickness

Zn Cu

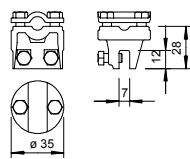
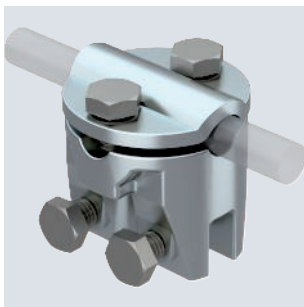


Type	Fit mm	Clamping range mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
269 MS	Rd 8-10	- 7	H/100	10	14.480	5317053

- Plate thickness to 7 mm
- For conductor arrangement transverse and parallel to plate with 4 hexagonal bolts M6 x 16
- Conforms to the requirements according to DIN VDE 0185-305 (IEC 62305)

Folding clamp up to 7 mm plate thickness

Zn G



Type	Fit mm	Clamping range mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
269 8-10	Rd 8-10	- 7	N/50	20	14.460	5317010

- Plate thickness to 7 mm
- For conductor arrangement transverse and parallel to plate with 4 hexagonal bolts M6 x 16
- Conforms to the requirements according to DIN VDE 0185-305 (IEC 62305)

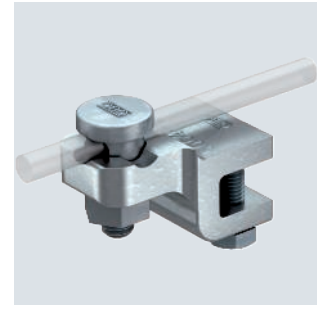
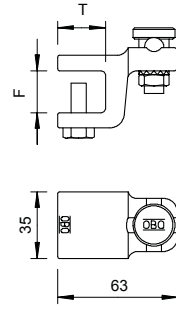
TG FT



Folding and construction clamp, 10–20 mm

Type	Fit mm	Clamping range mm	Dim. T mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
5004 DIN-FT 12	Rd 8-10	-12	20	N/50	10	18.730	5304407
5004 DIN-FT 20	Rd 8-10	10-20	25	N/50	10	30.600	5304504

- Flange thickness to 12 or 10–20 mm
- With pre-mounted Fix contact clamping screw 5000
- 2 hexagonal bolts M8 x 20, bolts made of hot galvanised steel
- Terminal block made of malleable iron, hot galvanised
- Mounting of the round conductors either vertical or transverse to structure
- Corresponds to the requirements of DIN VDE 0185-305-3



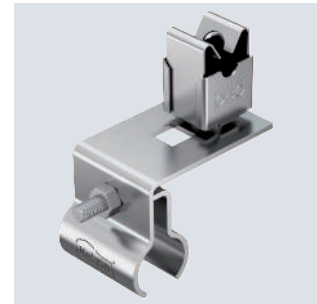
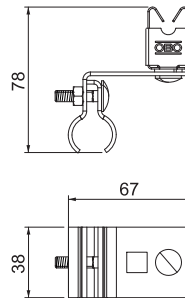
VA



Folding and construction clamp

Type	Fit mm	Clamping range mm	Pack Piece	Weight kg/100 pc.	Item no.
RSF 177 20 VA M8	8	8	50	13.400	5317512

- For round standing seam systems, loose cable routing
- Manufacturer release by Kalzip
- Tested according to VDE 0185-561-4 (IEC/EN 62561-4)



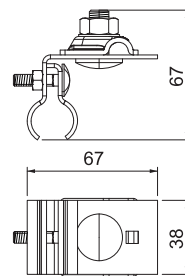
VA



Folding and construction clamp

Type	Fit mm	Clamping range mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
RSF 249 8-10 VA	Rd 8-10	-10	N/50	50	14.200	5317502

- For round standing seam systems, fixed cable routing
- Manufacturer release by Kalzip
- Tested according to VDE 0185-561-1 (IEC/EN 62561-1)



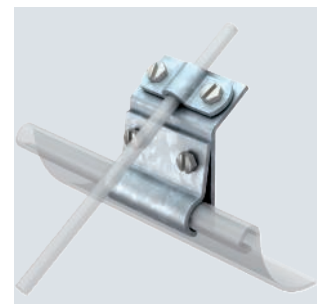
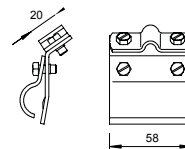
Roof gutter clamps

St FT

Gutter clamp for bead thickness 15–22 mm

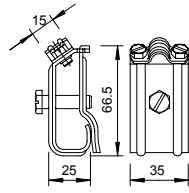
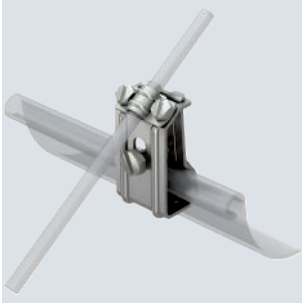
Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
262 A-DIN FT	Rd 8-10	25	19.610	5316219

- Suitable for bulge thickness 15–22 mm
- With 4 hexagonal bolts M6 x 16 (VA)



Gutter clamp for all bead thicknesses

VA

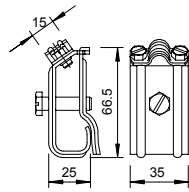
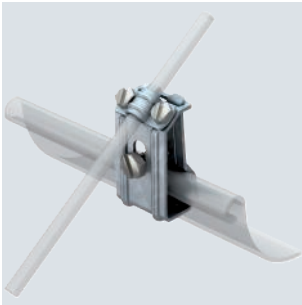


Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
267 VA	Rd 8-10	10	11.360	5316324

- Fits all bead thicknesses
- With 1 hexagonal bolt M8 x 30
- 2 hexagonal bolts M6 x 12
- VA version also for use as bimetal conductor (holder)

Gutter clamp for all bead thicknesses

St FT

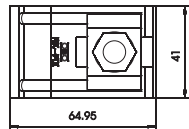
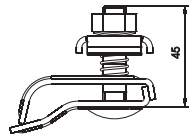
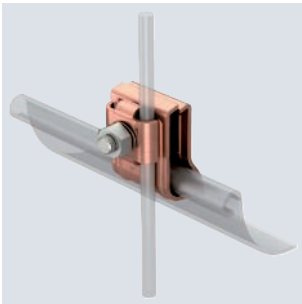


Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
267	Rd 8-10	25	13.950	5316308

- Fits all bead thicknesses
- With 1 hexagonal bolt M8 x 30
- 2 hexagonal bolts M6 x 12

Gutter clamp RK-FIX

VA Cu

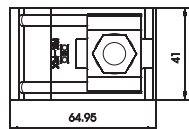
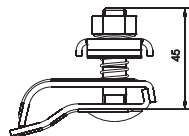
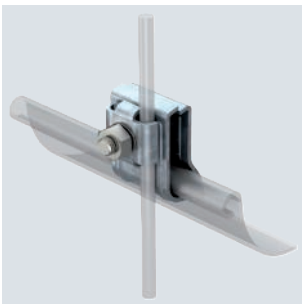


Type	Fit mm	Lightning current carrying capacity kA	Material	Pack Piece	Weight kg/100 pc.	Item no.
RK-FIX CU	2xRd 8/ 2xRd 6	H/100	A2	10	21.000	5316468

- For up to 2 conductors Rd 6 or Rd 8
- Suitable for all bead thicknesses (15–25 mm)
- With 1 truss-head bolt M10 x 45
- Nut and bolt made of VA stainless steel
- With spring for prefixing on rain gutter
- Tested to VDE 0185-561-1 (IEC/EN 62561-1)

Gutter clamp RK-FIX

St FT



Type	Fit mm	Lightning current carrying capacity kA	Material	Pack Piece	Weight kg/100 pc.	Item no.
RK-FIX	2xRd 8	H/100	St	25	19.100	5316450

- For up to 2 round conductors Rd 8
- Suitable for all bead thicknesses (15–25 mm)
- With 1 truss-head bolt M10 x 45
- Nut and bolt made of VA stainless steel
- With spring for prefixing on rain gutter
- Tested to VDE 0185-561-1 (IEC/EN 62561-1)

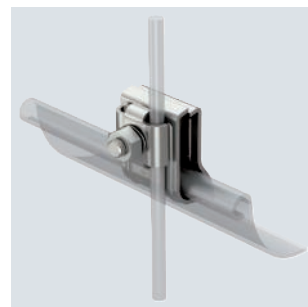
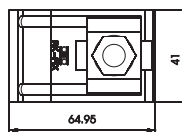
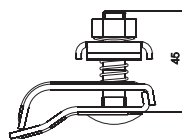
VA



Gutter clamp RK-FIX

Type	Fit mm	Lightning current carrying capacity kA	Material	Pack Piece	Weight kg/100 pc.	Item no.
RK-FIX VA	2xRd 8/ 2xRd 6	H/100	A2	10	19.100	5316459

- For up to 2 round conductors Rd 6 or Rd 8
- Suitable for all bead thicknesses (15–25 mm)
- With 1 truss-head bolt M10 x 45
- Nut and bolt made of VA stainless steel
- With spring for prefixing on rain gutter
- Tested to VDE 0185-561-1 (IEC/EN 62561-1)



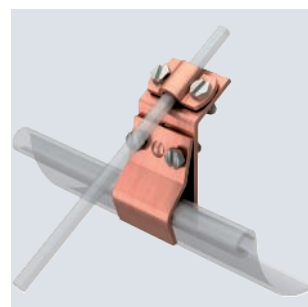
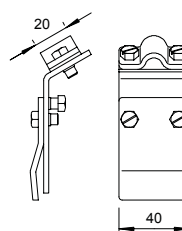
Roof gutter clamps

Cu

Roof gutter clamp for all bead thicknesses

Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
262 CU	Rd 8-10	10	20.940	5316154

- With 4 hexagonal bolts M6 x 16
- Fits all bead thicknesses

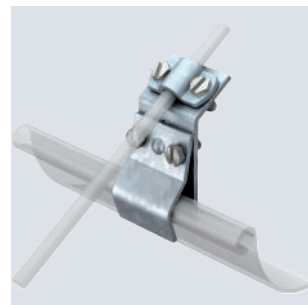
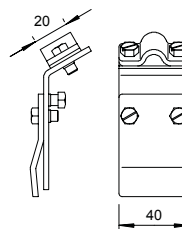


St FT

Roof gutter clamp for all bead thicknesses

Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
262	Rd 8-10	25	20.300	5316014

- With 4 hexagonal bolts M6 x 16
- Fits all bead thicknesses

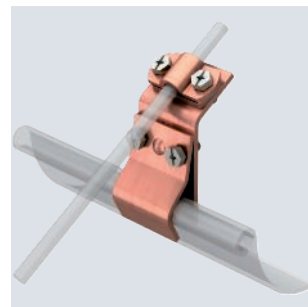
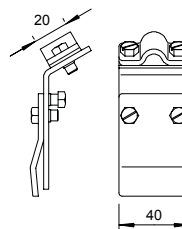


St FT

Bi-metal roof gutter clamp for all bead thicknesses

Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
262 ZM	Rd 8-10	10	23.100	5316170

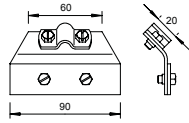
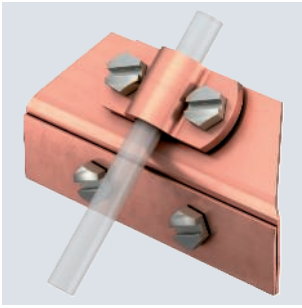
- Fits all bead thicknesses
- Bi-metal for attaching round conductors aluminium or steel to roof gutters without corrosion to different metals



Snow catching grate clamps

Snow catching grate clamp

Cu

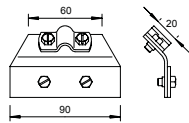
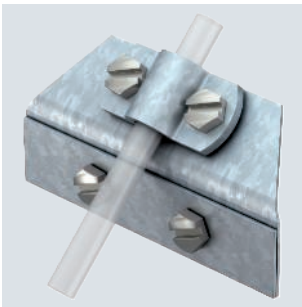


Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
264 CU	Rd 8-10	10	21.140	5316553

- Plate thickness to 8 mm
- With 4 hexagonal bolts M6 x 16

Snow catching grate clamp

St F



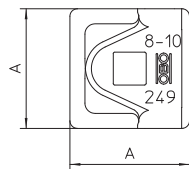
Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
264	Rd 8-10	25	18.640	5316510

- Plate thickness to 8 mm
- With 4 hexagonal bolts M6 x 16

Connection terminals

Quick connector, upper part Rd 8–10 mm

Cu

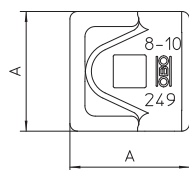
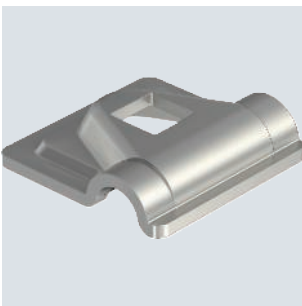


Type	Fit mm	Dim. A mm	Pack Piece	Weight kg/100 pc.	Item no.
249 8-10 CU-OT	Rd 8-10	40	100	3.580	5311530

- For round conductor fastening Rd 8-10
- Suitable for M10 bolts

Quick connector, upper part Rd 8–10 mm

VA



Type	Fit mm	Dim. A mm	Pack Piece	Weight kg/100 pc.	Item no.
249 8-10 VA-OT	Rd 8-10	40	100	3.130	5311554

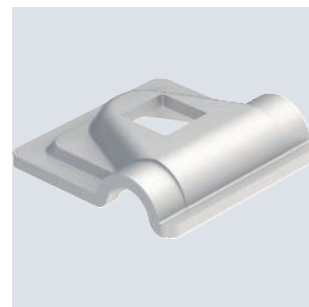
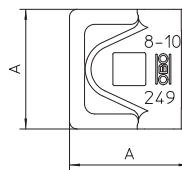
- For round conductor Rd 8-10
- Suitable for M10 bolts

Alu

Quick connector, upper part Rd 8–10 mm

Type	Fit mm	Dim. A mm		Pack Piece	Weight kg/100 pc.	Item no.
		Rd 8-10	44			
249 8-10 ALU-OT	Rd 8-10	44		100	2.100	5311585

- For round conductor fastening Rd 8-10
- Suitable for M10 bolts

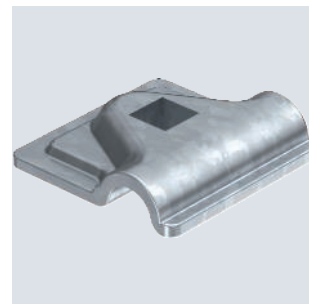
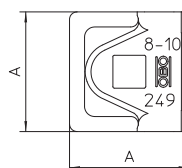


St FT

Quick connector, upper part Rd 8–10 mm

Type	Fit mm	Dim. A mm		Pack Piece	Weight kg/100 pc.	Item no.
		Rd 8-10	40			
249 8-10 ST-OT	Rd 8-10	40		100	3.240	5311503

- For round conductor fastening RD 8-10
- Suitable for M10 bolts



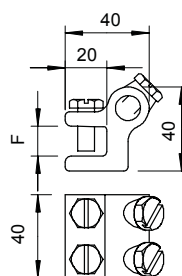
TG FT



Connection terminal to 14 mm

Type	Fit mm	Clamping range mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
272 14	Rd 8-10	-14	N/50	20	25.230	5318149

- Flange thickness to 8 and/or 14 mm
- With 4 hexagonal bolts M8
- Conforms to the requirements according to DIN V VDE V 0185-3, Section 4.5

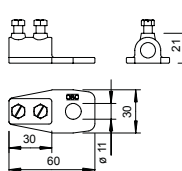


End pieces

Zn G

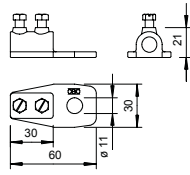
Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
280 8-10	Rd 8-10	20	6.300	5320011

- With Ø 11 mm attaching hole
- 2 hexagonal bolts M6 x 12, bolts hot-dip galvanised steel or VA
- Clamping element from die-cast zinc or copper-plated die-cast zinc



End piece

Zn



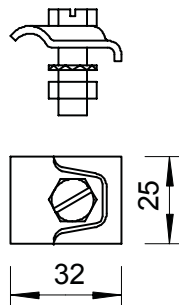
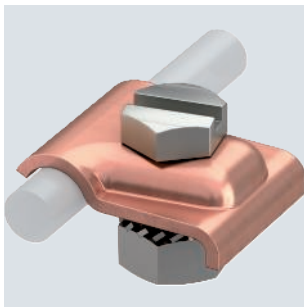
Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
280 VK	Rd 8-10	20	9.000	5320054

- With \varnothing 11 mm attaching hole
- 2 hexagonal bolts M6 x 12, bolts hot-dip galvanised steel or VA
- Clamping element from die-cast zinc or copper-plated die-cast zinc

Universal terminal blocks

Universal clamping block Rd 8–10 mm

Cu

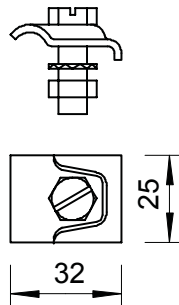
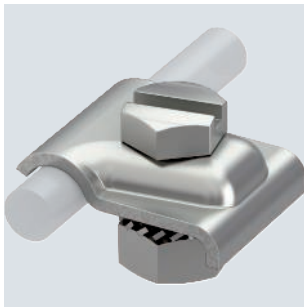


Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
324 S-CU	Rd 8-10	10	3.660	5326338

- Including hexagonal bolt M8 x 25, washer and nuts

Universal clamping block Rd 8–10 mm

VA

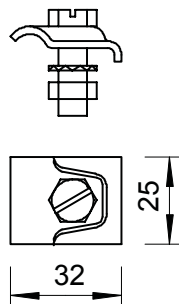
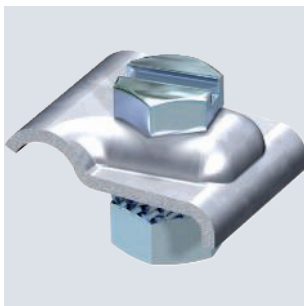


Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
324 S-VA	Rd 8-10	10	3.400	5326311

- Including hexagonal bolt M8 x 25, washer and nuts

Universal clamping block Rd 8–10 mm

St FT



Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
324 S-FT	Rd 8-10	20	3.400	5326303

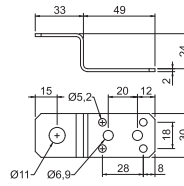
- Including hexagonal bolt M8 x 25, washer and nuts

Alu

Connection component

Type	Pack Piece	Weight kg/100 pc.	Item no.
287	20	1.600	5320704

- With 1 attaching hole Ø 11 mm
- 4 mounting holes Ø 5.2 mm
- 2 mounting holes Ø 6.9 mm

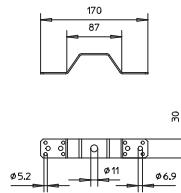


Alu

Connection and bridging component

Type	Pack Piece	Weight kg/100 pc.	Item no.
288 DIN	20	2.900	5320712

- With 1 attaching hole Ø 11 mm
- With 2 x 4 mounting holes Ø 5.2 mm
- With 2 x 2 mounting holes Ø 6.9 mm

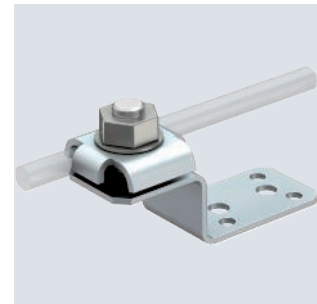
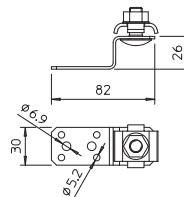


Alu

Connection component with double crossbar

Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
287 DCT	8	N/50	10	6.450	5320707

- Quick mounting thanks to an M10 x 30 bolt made of rustproof stainless steel
- With spring washer
- 4 fastening holes Ø 5.2 mm
- 2 fastening holes Ø 6.9 mm
- Corresponds to the requirements of VDE 0185-305 (IEC 62305)

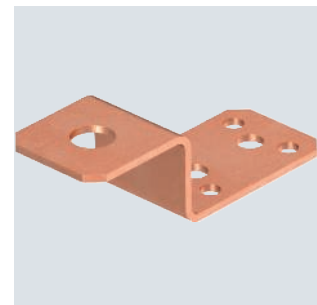
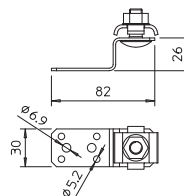


Cu

Connection component

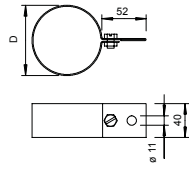
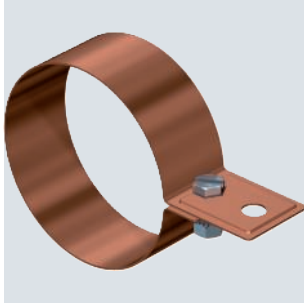
Type	Pack Piece	Weight kg/100 pc.	Item no.
287 CU	10	5.600	5320690

- With 1 attaching hole Ø 11 mm
- 4 mounting holes Ø 5.2 mm
- 2 mounting holes Ø 6.9 mm



Downpipe clip

Cu

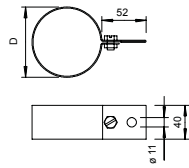


Type	For pipe mm	Pack Piece	Weight kg/100 pc.	Item no.
301 CU-80	80	10	22.500	5350689
301 CU-100	100	10	26.230	5350700

- With 1x hexagonal bolt M8 x 20
- With 1x hexagonal nut M8 and 1 serrated disc made of rustproof steel
- With connection hole Ø 11 mm

Downpipe clip

St FS



Type	For pipe mm	Pack Piece	Weight kg/100 pc.	Item no.
301 DIN-80	80	10	19.580	5350085
301 DIN-90	90	10	21.880	5350093
301 DIN-100	100	10	19.880	5350107
301 DIN-110	110	10	24.920	5350115
301 DIN-120	120	10	26.240	5350123

- To connect conductors and downpipes
- Similar to DIN 48818 C
- Strip galvanised (rd. 275 g/m² = 40 µm average value)
- With 1x hexagonal bolt M8 x 20
- With 1x hexagonal nut M8 and 1 stainless steel serrated washer
- With connection hole Ø 11 mm

Downpipe clip for routing Rd 8–10 mm behind pipe

St FS



Type	For pipe mm	Pack Piece	Weight kg/100 pc.	Item no.
301 S-100	100	10	5.200	5351057
301 S-120	120	10	5.950	5351073

- With beading
- For round conductor Rd 8-10
- Including hexagonal bolt M6 x 20 and nuts M6

Downpipe clip for routing Rd 8–10 mm behind pipe

Alu



Type	For pipe mm	Pack Piece	Weight kg/100 pc.	Item no.
301 S-AL-100	100	10	4.100	5351359
301 S-AL-120	120	10	4.600	5351375

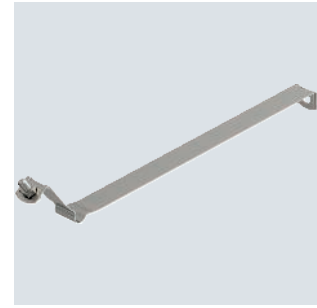
- With beading
- For round conductor Rd 8-10
- Including hexagonal bolt M6 x 20 and nuts M6

VA

Downpipe clip for routing Rd 8–10 mm behind pipe

Type	For pipe mm	Pack Piece	Weight kg/100 pc.	Item no.
301 S-VA-100	100	10	5.200	5351251
301 S-VA-120	120	10	5.950	5351286

- With beading
- For round conductor Rd 8-10
- Including hexagonal bolt M6 x 20 and nuts M6

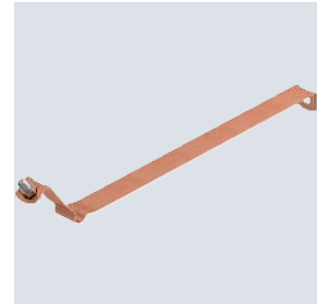


Cu

Downpipe clip for routing Rd 8–10 mm behind pipe

Type	For pipe mm	Pack Piece	Weight kg/100 pc.	Item no.
301 S-CU-100	100	10	5.850	5351456
301 S-CU-120	120	10	6.700	5351472

- With beading
- For round conductor Rd 8-10
- Including hexagonal bolt M6 x 20 and nuts M6

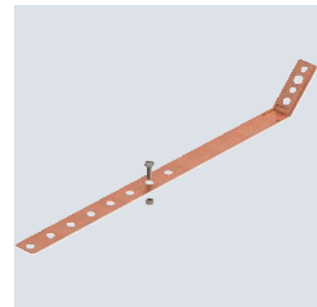
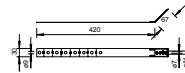


Cu

Universal downpipe clip 60–130 mm

Type	Pack Piece	Weight kg/100 pc.	Item no.
301 V-CU	5	13.500	5350883

- Adjustable for pipes from 60-130 mm
- With 2x attaching holes Ø 7 mm
- With 1x attaching hole Ø 9 mm
- With 1x attaching hole Ø 11 mm
- Including hexagonal bolt M6 x 20 and nuts M6

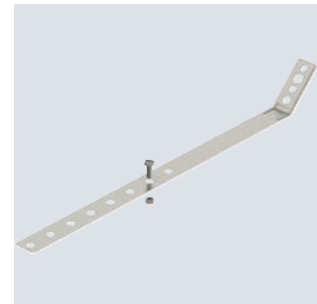
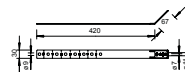


VA

Universal downpipe clip 60–130 mm

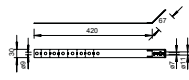
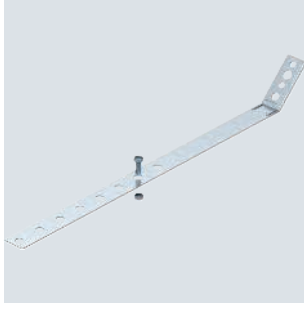
Type	Pack Piece	Weight kg/100 pc.	Item no.
301 V-VA	5	11.800	5350905

- Adjustable for pipes from 60-130 mm
- With 2x attaching holes Ø 7 mm
- With 1x attaching hole Ø 9 mm
- With 1x attaching hole Ø 11 mm
- Including hexagonal bolt M6 x 20 and nuts M6



Universal downpipe clip 60–130 mm

St FS



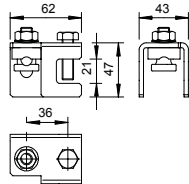
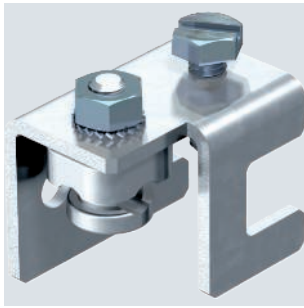
Type	Pack Piece	Weight kg/100 pc.	Item no.
301 V	5	11.900	5350867

- Adjustable for pipes from 60-130 mm
- With 2x attaching holes Ø 7 mm
- With 1x attaching hole Ø 9 mm
- With 1x attaching hole Ø 11 mm
- Including hexagonal bolt M6 x 20 and nuts M6

Connection clamps and connection terminal accessories

Construction clamp to 20 mm

St FT

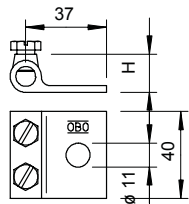
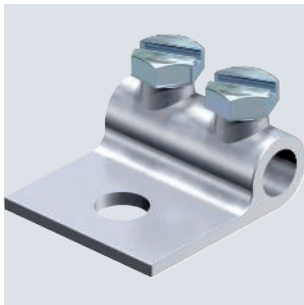


Type	Fit mm	Clamping range mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
5010 20 FT	Rd 8-10	4-20	N/50	10	30.600	5304520

- Mounting of the round conductor possible vertically or transverse to construction
- For fastening to constructions up to a flange thickness of 20 mm
- Fastening to constructions using a hexagonal bolt M10
- Meets the requirements of VDE 0185-305 (IEC 62305)

Clamping shoe

TG F



Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
319 8	Rd 8	25	7.800	5325307
319 10	Rd 10	25	9.650	5325315

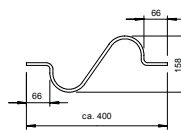
- With Ø 11 mm attaching hole
- 2 hexagonal bolts M8 x 16
- Bolts hot-dip galvanised steel and clamping element hot dipped galvanised cast steel

Alu



Type	Pack Piece	Weight kg/100 pc.	Item no.
172 AR	10	7.500	5218926

- For equalising temperature-related length changes
- Necessary on conductor lengths over 20 m
- From round conductor Rd 8-Al



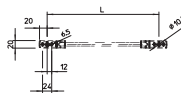
Expansion piece

Cu



Type	Dim. L mm	Pack Piece	Weight kg/100 pc.	Item no.
853 200	200	10	4.840	5331008
853 300	300	10	7.260	5331013
853 400	400	10	9.680	5331017

- With aluminium cable lugs
- From flexible copper cable 16 mm²
- Coating: Black, chlorinated EM5 natural rubber mixture
- With 1 fastening hole Ø 10.5 mm per attachment side
- With 2 fastening holes Ø 6.5 mm per attachment side
- Suitable for applications outside or inside
- Temperature range -25 °C to +80 °C (moved) and -40 °C to +80 °C (not moved)
- UV-stable



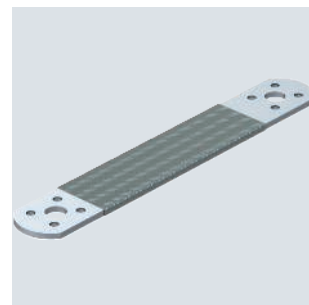
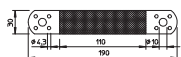
Bridging cable

Cu



Type	Pack Piece	Weight kg/100 pc.	Item no.
856	10	8.125	5331501

- Copper strip 35 mm², tin-plated
- Highly flexible with rigid ends
- Each end with 1 fastening hole Ø 10 mm and 4 fastening holes Ø 4.3 mm

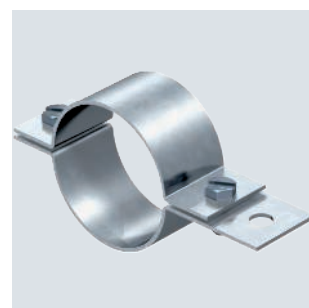
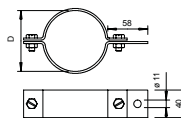


Connection and expansion strip

St FT

Type	For pipe mm	For pipe inch	Pack Piece	Weight kg/100 pc.	Item no.
303 DIN-3/8	17.2	3/8	5	22.600	5102057
303 DIN-1/2	21.3	1/2	5	23.280	5102073
303 DIN-3/4	26.9	3/4	5	25.640	5102081
303 DIN-1	33.7	1	5	28.300	5102111
303 DIN-1 1/4	42.4	1 1/4	5	31.300	5102138
303 DIN-1 1/2	48.3	1 1/2	5	33.220	5102154
303 DIN-2	60.3	2	5	36.840	5102197
303 DIN-2 1/2	76.1	2 1/2	10	39.400	5102219
303 DIN-3	88.9	3	10	43.300	5102235
303 DIN-3 1/2	100	3 1/2	10	64.900	5102251
303 DIN-4	114.3	4	10	66.800	5102278

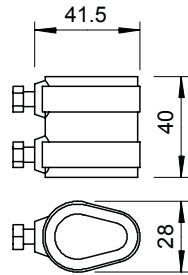
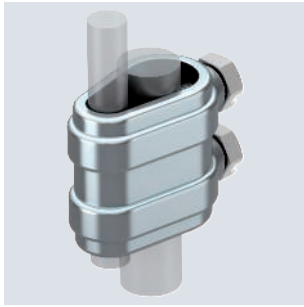
- DIN 48818, Form D
- With Ø 11 mm mounting hole
- 2 hexagonal bolts M8 x 20 (4 inch = M10)
- 2 hex-head nuts M8 (4 inch = M10)



Pipe clamp

Separating piece, open

Zn G

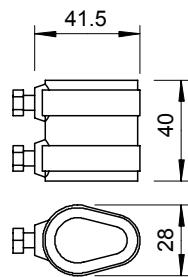


Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
223 O DIN ZN	Rd 8-10/16	20	12.500	5335140

- With 2 hexagonal bolts, stainless steel (VA)
- Clamping element, die-cast zinc

Separating piece, open

Zn Cu

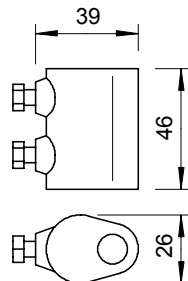
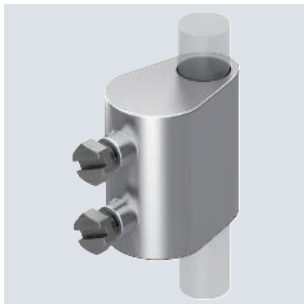


Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
223 O DIN MS	Rd 8-10/16	20	14.900	5335167

- With 2 hexagonal bolts, stainless steel (VA)
- Clamping element, copper-plated die-cast zinc

Separating piece, closed

Zn G

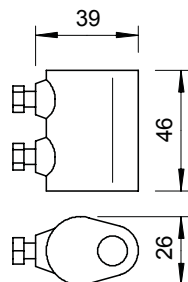
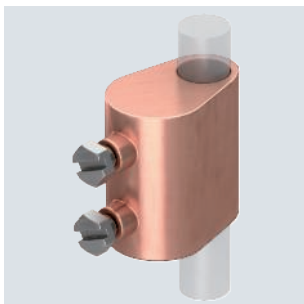


Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
223 DIN ZN	Rd 8-10/16	20	12.406	5335205

- For fitting round conductors Rd 8-10 to ground insertion rods Rd 16
- Including 2 hexagonal bolts, high-grade stainless steel (V2A)
- Conforms to the requirements according to DIN VDE 0185-305 (IEC 62305)

Separating piece, closed

Zn Cu



Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
223 DIN MS	Rd 8-10/16	10	11.700	5335256

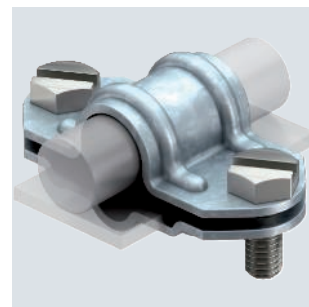
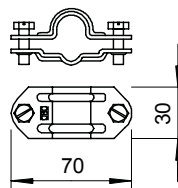
- For fitting round conductors Rd 8-10 to ground insertion rods Rd 16
- Including 2 hexagonal bolts, high-grade stainless steel (V2A)
- Conforms to the requirements according to DIN VDE 0185-305 (IEC 62305)

St FT



Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
226 8-10	Rd 8-10/FL30 x 16	20	8.600	5336007

- For fitting round conductors Rd 8–10 to Rd 16 or flat conductors FL30
- Including 2 hexagonal bolts M8 x 20 high-grade stainless steel (V2A)
- Conforms to the requirements according to VDE 0185-305 (IEC 62305)



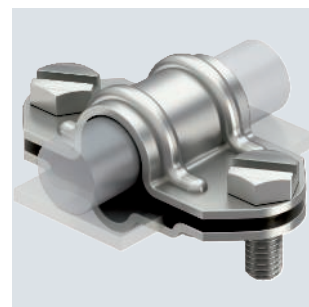
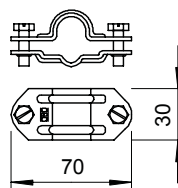
Universal separating piece

VA



Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
226 VA	Rd 8-10/FL30 x 16	10	8.700	5336058

- For fitting round conductors Rd 8–10 to Rd 16 or flat conductors FL30
- Including 2 hexagonal bolts M8 x 20 high-grade stainless steel (V2A)
- Conforms to the requirements according to VDE 0185-305 (IEC 62305)

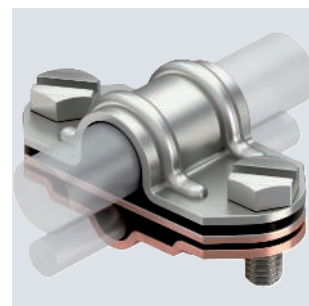
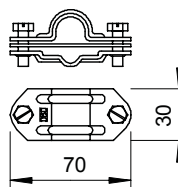


Universal separating piece

Cu

Type	Fit mm	Material upper part	Material lower part	Pack Piece	Weight kg/100 pc.	Item no.
226 ZV VA	Rd 8-10/FL30 x 16	VA	Cu	10	11.000	5336074

- Fit: Rd 8-10 x 16, FL 30 x Rd 16
- With 2 hexagonal bolts M8 x 20, stainless steel (VA)
- Intermediate plate, aluminium/copper

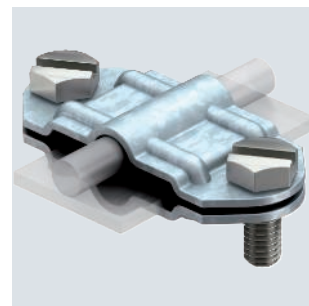
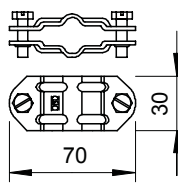


Universal bi-metal separating piece

St FT

Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
233 8	Rd 8-10/FL30 x Rd 8-10/FL30	20	8.200	5336309

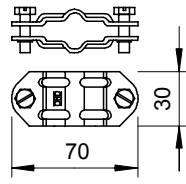
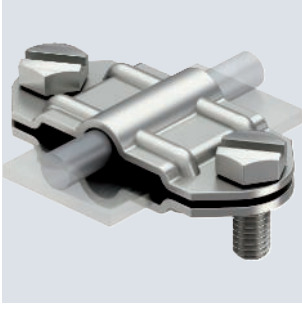
- To fit round conductors Rd 8-10 or flat conductors FL 30
- With 2 hexagonal bolts M8 x 20 made of rustproof steel (VA)
- Short-circuit current I_k (50 Hz), time 0.6 s, temp. max. 300 °C: 8.5 kA



Separating piece for Rd 8–10 and FL 30 mm

Separating piece for Rd 8–10 and FL 30 mm

VA

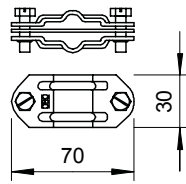
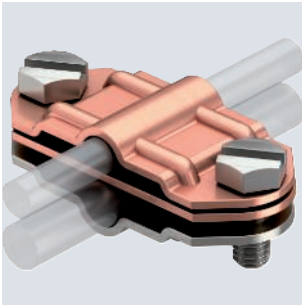


Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
233 VA	Rd 8-10/FL30 x Rd 8-10/FL30	10	8.300	5336341

- For fitting round conductors Rd 8-10 or flat conductors FL 30
- With 2 hexagonal bolts M8 x 20, stainless steel (VA)

Bi-metal separating piece for Rd 8–10 and FL 30 mm

VA

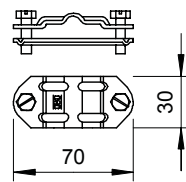
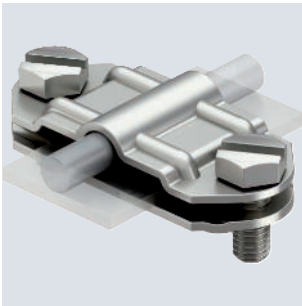


Type	Fit mm	Material upper part	Material lower part	Pack Piece	Weight kg/100 pc.	Item no.
233 ZV	Rd 8-10/FL30 x Rd 8-10/FL30	Cu	VA	10	10.100	5336376

- For fitting round conductors Rd 8-10 to flat conductors FL 30
- With 2 hexagonal bolts M8 x 20, stainless steel (VA)
- Intermediate plate aluminium/copper, top section copper, bottom section stainless steel

Separating piece for Rd 8–10 and FL 30–40 mm

VA

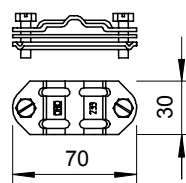
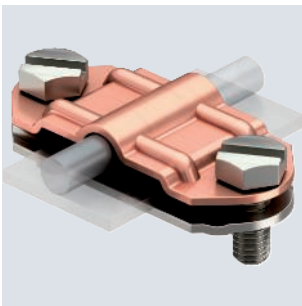


Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
233 A VA	8-10xFL30-40	10	7.851	5336457

- Fit: Rd 8-10 x FL 30-40
- With 2 hexagonal bolts M8 x 20 (VA)

Bi-metal separating piece for Rd 8–10 and FL 30–40 mm

Cu



Type	Fit mm	Material upper part	Material lower part	Pack Piece	Weight kg/100 pc.	Item no.
233 A ZV	Rd 8-10 x FL30-40	Cu	VA	10	10.400	5336503

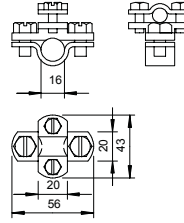
- Fit: Rd 8-10 x FL 30-40, FL 30 x FL 30-40
- With 2 hexagonal bolts M8 x 20, stainless steel (VA)
- Intermediate plate, aluminium/copper
- Top section copper, bottom section stainless steel

St FT

Rod clamp

Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
108 B DIN	Rd 8-10/16	10	13.970	5416566

- Rod clamp for connecting round conductors Rd 8–10 to connector rods Rd 16
- Mounted with 2 hexagonal bolts M8 x 16 and M6 x 12
- Adapter from malleable iron
- Crossbar and bolts from hot dip galvanized steel

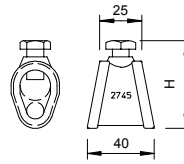


CuZn 37 Cu

Connection clamp for earth rod or cables

Type	For earth rods Ø mm	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
2745 20 MS	20	7-12,5/S95 mm ²	5	16.000	5001560

- For earth rods Ø 20 or conductors of 95 mm²
- For round conductor attachments Rd 7–12.5 with hexagonal bolts M10 x 25

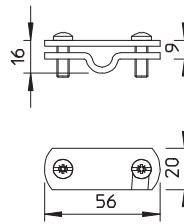


Alu

Number plates

Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
311 N-ALU 8-10	RD 8-10/FL30	5	2.500	3049256
311 N-ALU 16	RD 16-FL30	5	2.800	3049345

- To identify the point of separation to DIN 48821
- Suitable for universal labelling (e.g. stamped numbers)

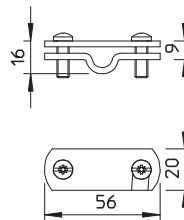


A2

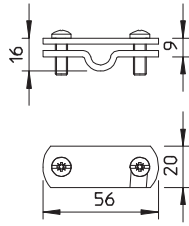
Number plates

Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
311 N-VA 8-10	RD 8-10/FL30	5	5.600	3049221
311 N-VA 16	RD 16-FL30	5	6.400	3049329

- To identify the point of separation to DIN 48821
- Suitable for universal labelling (e.g. stamped numbers)



Number plates



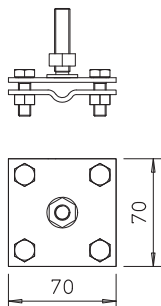
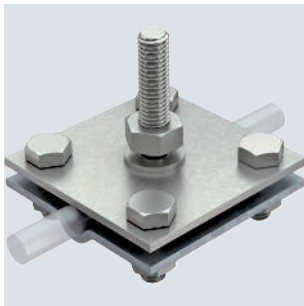
Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
311 N-CU 8-10	RD 8-10 / FL30	5	6.400	3049205

- To identify the point of separation to DIN 48821
- Suitable for universal labelling (e.g. stamped numbers)

Conductor material



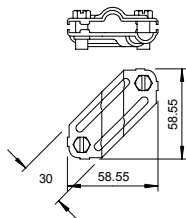
Cross-connector for flat conductors and round conductors with threaded bolt M10x45



Type	Fit mm	Lightning current carrying capacity kA	Short-circuit current (50 HZ) (1 s; ≤300 °C) kA	Pack Piece	Weight kg/100 pc.	Item no.
252 GB 10x45	8-10xFL30	H/100	4.2	10	34.800	5312657

- Meets the requirements of VDE 0185-305-3 (IEC/ EN 62305-3)
- Fit: Rd 8-10 x FL 30
- Mounted with 4 hexagonal bolts M8 x 25 and 4 hexagonal nuts M8

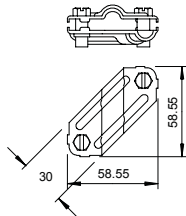
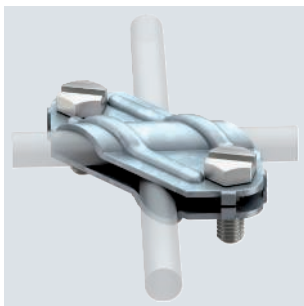
Cross-connector for flat conductors and round conductors



Type	Fit mm	Lightning current carrying capacity kA	Short-circuit current (50 HZ) (1 s; ≤300 °C) kA	Pack Piece	Weight kg/100 pc.	Item no.
250 VA	Rd 8-10/ FL30	H/100	1.4	25	10.260	5312922
250 V4A	Rd 8-10/ FL30	H/100	1.4	10	10.260	5312925

- Meets the requirements of VDE 0185-305-3 (IEC/ EN 62305-3)
- Fit: Rd 8-10 x Rd 8-10
- Fit: Rd 8-10 x FL 30
- Fit: FL 30 x FL 30
- Mounted with 2 hexagonal bolts M8 x 20

Cross-connector for flat conductors and round conductors



Type	Fit mm	Lightning current carrying capacity kA	Short-circuit current (50 HZ) (1 s; ≤300 °C) kA	Pack Piece	Weight kg/100 pc.	Item no.
250	Rd 8-10/ FL30	N/50	5.6	25	10.260	5312906

- Meets the requirements of VDE 0185-305-3 (IEC/ EN 62305-3)
- Fit: Rd 8-10 x Rd 8-10
- Fit: Rd 8-10 x FL 30
- Fit: FL 30 x FL 30
- Mounted with 2 hexagonal bolts M8 x 20 (F)

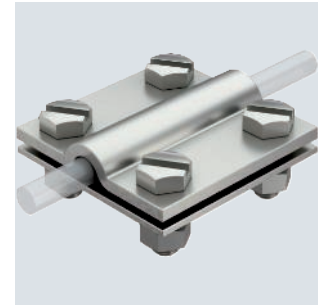
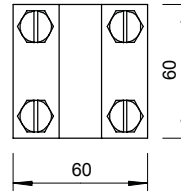
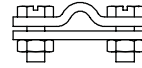
VA

Cross-connector for round conductors and flat conductors



Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
252 8-10xFL30V4A	8-10xFL30	H/100	10	28.500	5312656

- Meets the requirements of VDE 0185-305-3 (IEC/ EN 62305-3)
- Fit: Rd 8-10 x FL 30
- Mounted with 4 hexagonal bolts M8 x 25 and 4 hexagonal nuts M8



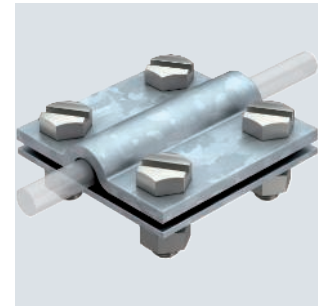
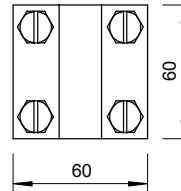
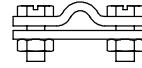
St FT

Cross-connector for round and flat conductors



Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
252 8-10XFL30 FT	8-10xFL30	H/100	25	28.500	5312655

- Meets the requirements of VDE 0185-305-3 (IEC/ EN 62305-3)
- Fit: Rd 8-10 x FL 30
- Mounted with 4 hexagonal bolts M8 x 25 and 4 hexagonal nuts M8



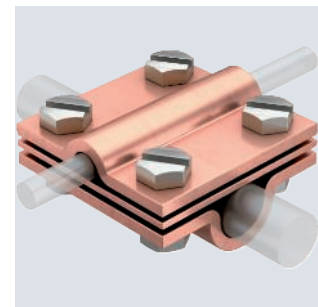
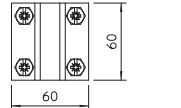
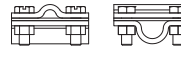
Cu

Cross-connector with intermediate plate for Rd 8–10 x Rd 16



Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
252 8-10X16 CU	Rd 8-10 x 16	H/100	10	43.985	5312442

- Meets the requirements of VDE 0185-305-3 (IEC/ EN 62305-3)
- Fit: Rd 8–10 x Rd 16 / FL 30
- With adapter plate
- Mounted with 4 hexagonal bolts M8 x 25 and 4 hexagonal nuts M8 made of rust-proof stainless steel (A2)



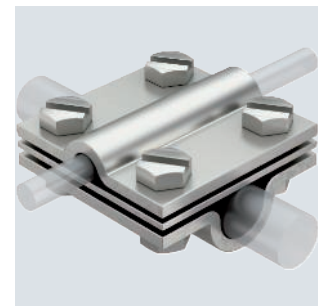
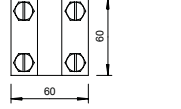
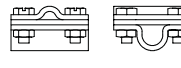
VA

Cross-connector with intermediate plate for Rd 8–10 x Rd 16



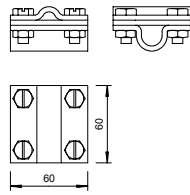
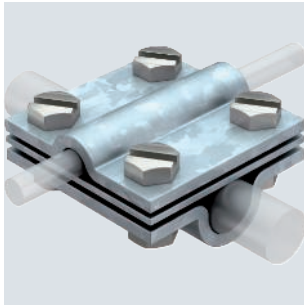
Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
252 8-10x16 V4A	Rd 8-10 x 16	H/100	10	39.000	5312346

- Meets the requirements of VDE 0185-305-3 (IEC/ EN 62305-3)
- Fit: Rd 8-10 x Rd 16 / FL 30
- With adapter plate
- Mounted with 4 hexagonal bolts M8 x 25 and 4 hexagonal nuts M8



Cross-connector with intermediate plate for Rd 8–10 x Rd 16

St FT
BEST TESTED

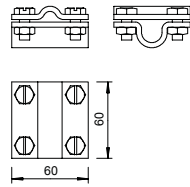
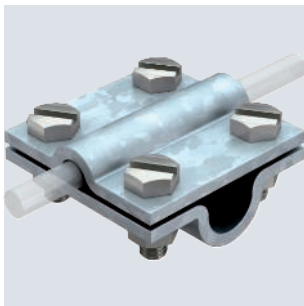


Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
252 8-10X16 FT	Rd 8-10 x 16	H/100	25	38.800	5312345

- Meets the requirements of VDE 0185-305-3 (IEC/ EN 62305-3)
- Fit: Rd 8-10 x Rd 16 / FL 30
- With adapter plate
- Mounted with 4 hexagonal bolts M8 x 25 and 4 hexagonal nuts M8

Cross-connector for Rd 8–10 x Rd 16

St FT
BEST TESTED

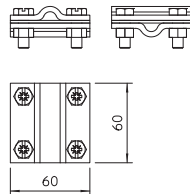
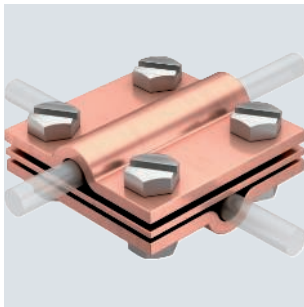


Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
253 10X16	Rd 8-10 x 16	H/100	25	29.800	5312809

- Meets the requirements of VDE 0185-305-3 (IEC/ EN 62305-3)
- Fit: Rd 8-10 x Rd 16 / FL 30
- Mounted with 4 hexagonal bolts M8 x 25 and 4 hexagonal nuts M8 (F)

Cross-connector with intermediate plate for Rd 8–10 mm

Cu
BEST TESTED

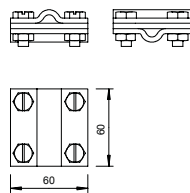
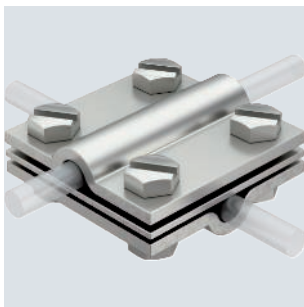


Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
252 8-10 CU	Rd 8-10	H/100	10	38.940	5312418

- Meets the requirements of VDE 0185-305-3 (IEC/ EN 62305-3)
- Fit: Rd 8–10 x Rd 8–10 / FL 30
- With adapter plate
- Mounted with 4 hexagonal bolts M8 x 25 and 4 hexagonal nuts M8 made of rust-proof stainless steel (A2)

Cross-connector with intermediate plate for Rd 8–10 mm

VA
BEST TESTED



Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
252 8-10 V4A	Rd 8-10	H/100	10	33.530	5312318

- Meets the requirements of VDE 0185-305-3 (IEC/ EN 62305-3)
- Fit: Rd 8-10 x Rd 8-10 / FL 30
- With adapter plate
- Mounted with 4 hexagonal bolts M8 x 25 and 4 hexagonal nuts M8

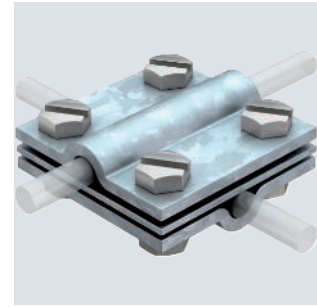
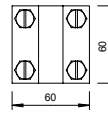
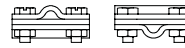
St FT

Cross-connector with intermediate plate for Rd 8–10 mm



Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
252 8-10 FT	Rd 8-10	H/100	25	33.530	5312310

- Meets the requirements of VDE 0185-305-3 (IEC/ EN 62305-3)
- Fit: Rd 8-10 x Rd 8-10 / FL 30
- With adapter plate
- Mounted with 4 hexagonal bolts M8 x 25 and 4 hexagonal nuts M8 (F)



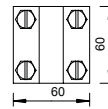
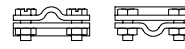
VA

Cross-connector round/round without intermediate plate



Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
253 8-10 V4A	Rd 8-10	H/100	25	23.650	5312582

- Meets the requirements of VDE 0185-305-3 (IEC/ EN 62305-3)
- Fit: Rd 8-10 x Rd 8-10 / FL 30
- Mounted with 4 hexagonal bolts M8 x 25 and 4 hexagonal nuts M8 (F)



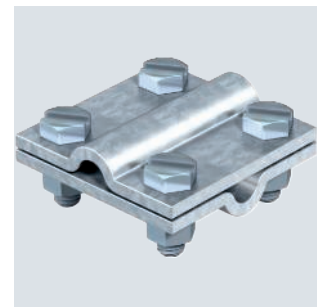
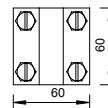
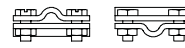
St FT

Cross-connector Rd 8–10 mm



Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
253 8X8	Rd 8-10	H/100	25	22.900	5312604

- Meets the requirements of VDE 0185-305-3 (IEC/EN 62305-3)
- Fit: Rd 8–10 x Rd 8–10/FL 30
- Mounted with 4 hexagonal bolts M8 x 25 and 4 hexagonal nuts M8 (F)



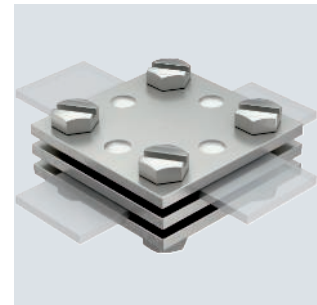
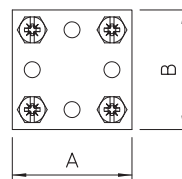
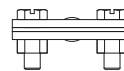
VA

DIN cross-connector for flat conductor, with intermediate plate



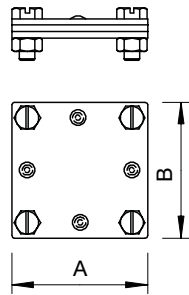
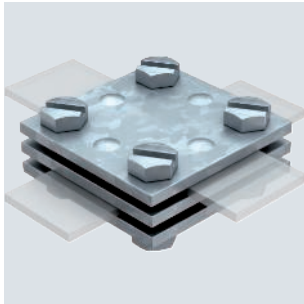
Type	Fit mm	Dim. A mm	Dim. B mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
256 DIN 30 V4A	max. FL 30	60	60	H/100	10	29.100	5314616

- Meets the requirements of VDE 0185-305-3 (IEC/EN 62305-3)
- Fit: Max. FL 30 x FL 30
- With adapter plate
- Mounted with 4 hexagonal bolts M8 x 25 and 4 hexagonal nuts M8



DIN cross-connector for flat conductor, with intermediate plate

St FT
BEST TESTED

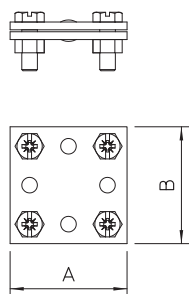
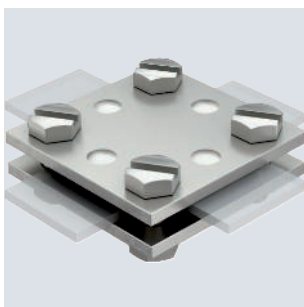


Type	Fit mm	Dim. A mm	Dim. B mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
256 DIN 30 FT	max. FL30	60	60	H/100	10	35.860	5314615
256 DIN 40 FT	max. FL40	80	80	H/100	10	54.650	5314623

- Meets the requirements of VDE 0185-305-3 (IEC/EN 62305-3)
- Fit: Max. FL 30 x FL 30 or max. FL 40 x FL 40
- With adapter plate
- Mounted with 4 hexagonal bolts M8 x 25 and 4 hexagonal nuts M8

DIN cross-connector for flat conductor

VA VA
BEST TESTED

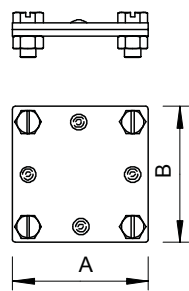
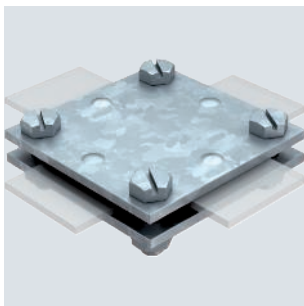


Type	Fit mm	Dim. A mm	Dim. B mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
256 A-DIN 30 VA	max. FL30	60	60	H/100	10	27.800	5314720
256 A-DIN 30 V4A	max. FL30	60	60	H/100	10	26.400	5314659

- Meets the requirements of VDE 0185-305-3 (IEC/EN 62305-3)
- Fit: Max. FL 30 x FL 30
- Without adapter plate
- Mounted with 4 hexagonal bolts M8 x 25 and 4 hexagonal nuts M8

DIN cross-connector for flat conductor

St FT
BEST TESTED



Type	Fit mm	Dim. A mm	Dim. B mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
256 A-DIN 30 FT	max. FL30	60	60	H/100	10	22.550	5314658
256 A-DIN 40 FT	max. FL40	80	80	H/100	10	35.436	5314666

- Meets the requirements of VDE 0185-305-3 (IEC/EN 62305-3)
- Fit: Max. FL 30 x FL 30 or max. FL 40 x FL 40
- Without adapter plate
- Mounted with 4 hexagonal bolts M8 x 25 and 4 hexagonal nuts M8 (F)

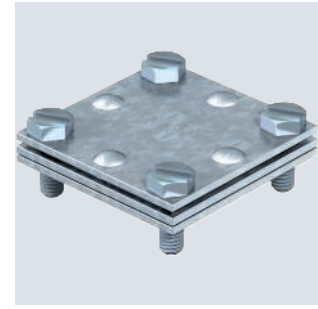
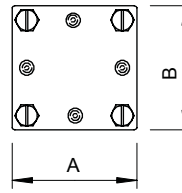
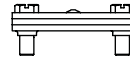
St FT

Cross-connector for flat conductor, with intermediate plate



Type	Fit mm	Dim. A mm	Dim. B mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
255 30	max. FL30	52	52	H/100	20	16.650	5314518

- Meets the requirements of VDE 0185-305-3 (IEC/EN 62305-3)
- Fit: Max FL 30 x FL 30
- With adapter plate
- Mounted with 4 hexagonal bolts M6 x 20 (F)



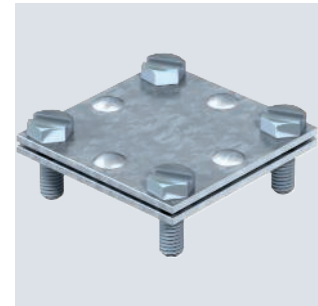
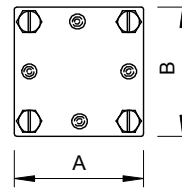
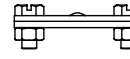
St FT



Cross-connector for flat conductor

Type	Fit mm	Dim. A mm	Dim. B mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
255 A-FL30 FT	max. FL30	52	52	H/100	20	11.500	5314534

- Meets the requirements of VDE 0185-305-3 (IEC/EN 62305-3)
- Fit: Max FL 30 x FL 30
- Without adapter plate
- Mounted with 4 hexagonal bolts M6 x 20 (F)



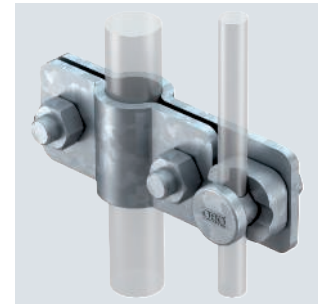
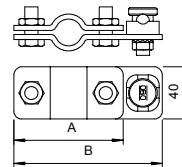
Connection clips

St FT

Connection clamp for earth rod to round conductors Rd 8–10

Type	For earth rods Ø mm	Dim. A mm	Dim. B mm	Pack Piece	Weight kg/100 pc.	Item no.
2710 20 FT	20	84	114	5	39.900	5001218
2710 25 FT	25	89	119	5	42.300	5001226

- ST, BP, OMEX and LightEarth system
- On round conductor Rd 8-10
- Incl. connector, type 5001 DIN



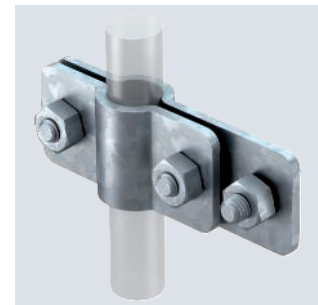
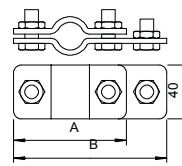
St FT



Connection clamp for earth rod on flat conductor

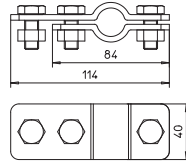
Type	For earth rods Ø mm	Short-circuit current (50 Hz) (1 s; ≤300 °C) kA	Dim. A mm	Dim. B mm	Pack Piece	Weight kg/100 pc.	Item no.
2730 25 FT	25	8.5	89	119	5	38.800	5001412
2730 20 FT	20	7.9	84	114	5	35.900	5001404

- ST, BP, OMEX and LightEarth systems
- On flat conductors
- Including hex-head screw for attaching flat conductors



Connection clamp for earth rod on flat conductor

VA

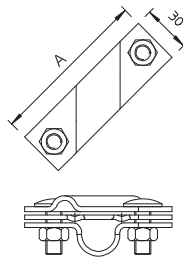
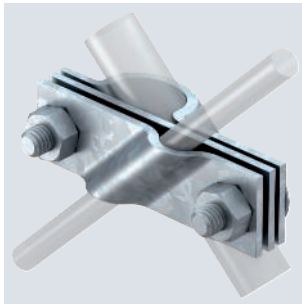


Type	For earth rods	Dim. A	Dim. B	Pack Piece	Weight kg/100 pc.	Item no.
	Ø mm	mm	mm			
2730 20 VA	20	84	114	5	33.764	5001366

- ST, BP, OMEX and LightEarth systems
- On flat conductors
- Including hex-head screw for attaching flat conductors

Connection clamp for earth rod, universal

St FT

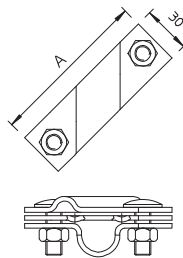
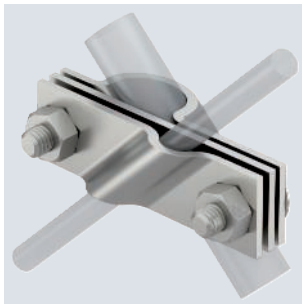


Type	Dim. A mm	For earth rods Ø mm	Fit mm	Short-circuit current (50 Hz) (1 s; ≤300 °C) kA	Pack Piece	Weight kg/100 pc.	Item no.
2760 B-20 FT	101	20	Rd 8-10/FL40	7.9	20	32.400	5001749
2760 25 FT	110	25	Rd 8-10/FL40	8.5	5	38.400	5001668

- Suitable for attaching round conductors Rd 8-10 or flat conductors to FL 40
- With separator plate
- Installed with 2 hexagonal bolts M10 x 30 and 2 hexagonal nuts M10

Connection clamp for earth rod, universal

VA VA

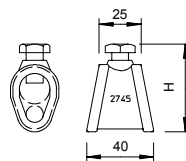


Type	Dim. A mm	For earth rods Ø mm	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
2760 B-20 VA	101	20	Rd 8-10/FL40	20	32.400	5001625
2760 20 V4A	101	20	Rd 8-10/FL40	5	32.400	5001633
2760 25 V4A	110	25	Rd 8-10/FL40	5	32.400	5001672

- Meets the requirements of VDE 0185-305-3 (IEC/ EN 62305-3)
- Suitable for connecting round conductors Rd 8-10 or flat conductors to FL 40
- With adapter plate
- Mounted with 2 hexagonal bolts M10 x 30 and 2 hexagonal bolts M10

Connection clamp for earth rod or cables

CuZn 37 Cu



Type	For earth rods Ø mm	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.

- For earth rods Ø 20 or conductors of 95 mm²
- For round conductor attachments Rd 7–12.5 with hexagonal bolts M10 x 25

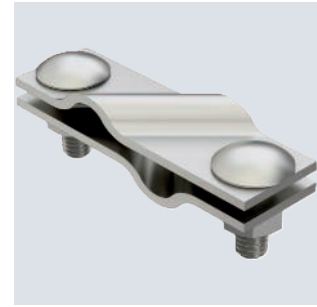
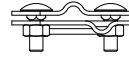
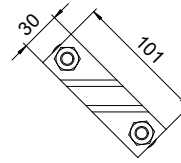
VA



Diagonal connector for round conductor

Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
2760 8-10 V4A	Rd 8-10	H/100	25	21.364	5313013

- Meets the requirements of VDE 0185-305-3 (IEC/ EN 62305-3)
- To connect round conductors 8–10 mm
- Mounted with 2 truss-head bolts M10 x 30 and 2 hexagonal bolts M10



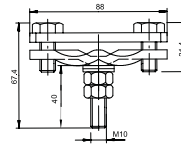
St F



Diagonal clamp with bolt

Type	Dim. L mm	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
250 A-BO	25	Rd 6-22/max. FL50	H/100	25	30.994	5313066

- For reinforced steels Ø 6-22 mm and flat conductor 50 x 4
- Installed with bolts M10 x 25
- Simple installation with open slot
- With flange-welded bolts M10 x 40, inc. 2 washers and 2 nuts



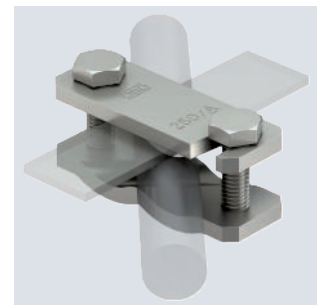
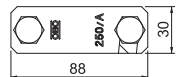
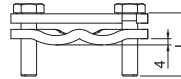
VA



Diagonal clamp for flat conductors and round conductors

Type	Dim. L mm	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
250 A-VA	40	Rd 6-22/max. FL50	H/100	10	28.800	5313023

- For reinforced steels Ø 6-22 mm and flat conductor 50 x 4
- Installed with bolts M10 x 40
- AS version with bolts M10 x 20
- Simple installation with open slot



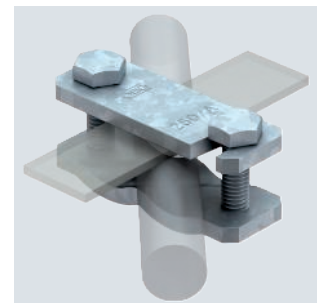
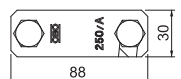
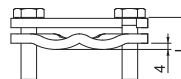
St FT



Diagonal clamp for flat conductors and round conductors

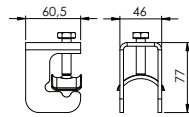
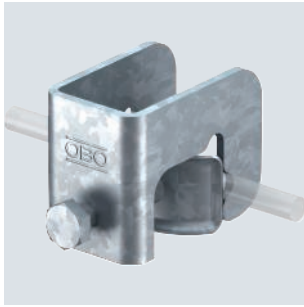
Type	Dim. L mm	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
250 A-FT	40	Rd 6-22/ max. FL50	H/100	25	28.800	5313015
250 AS-FT	20	Rd 6-22/ max. FL50	H/100	25	26.000	5313031
250 A	40	Rd 6-22/ max. FL50	H/100	25	28.800	5313058

- For reinforced steels Ø 6-22 mm and flat conductor 50 x 4
- Installed with bolts M10 x 40
- AS version with bolts M10 x 20
- Simple installation with open slot



VARIO earthing terminal for large reinforced steels

St FT
BEST TESTED

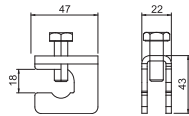
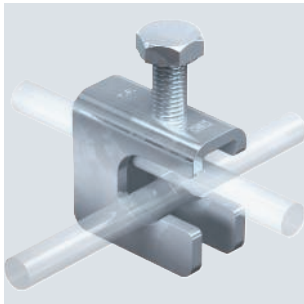


Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
1814 ST D37	FL30x3-4mm/ Rd 10 x Rd 16-37	H/100	25	30.000	5014477
1814 FT D37	FL30x3-4mm/ Rd 10 x Rd 16-37	H/100	25	30.000	5014469

- For armoured steel with 16-37 mm diameter and round conductors and flat conductors
- Rapid installation using open slot and only one M10 bolt
- Rotatable metal pressure trough for simple, safe mounting

VARIO earthing terminal for reinforced steels

St FT
BEST TESTED

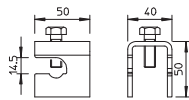
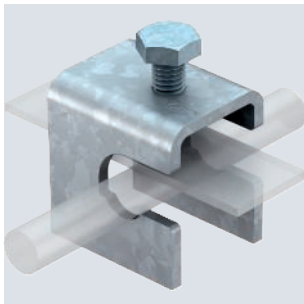


Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
1814 FT D14	FL30x3-4mm/Rd 8-10 x Rd 6-14	N/50	25	15.340	5014471

- For reinforced steel with 6–14 mm diameter and round and flat conductors
- Rapid installation using elongated open slot and only one M10 bolt

VARIO earthing terminal for reinforced steels

St FT
BEST TESTED

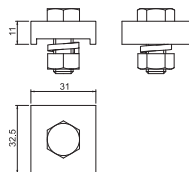
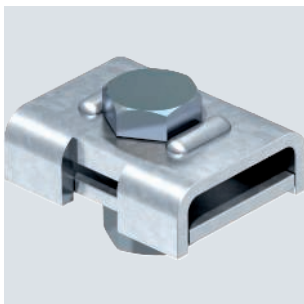


Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
1814 ST	FL30x5 x Rd8-14	N/50	25	20.000	5014476
1814 FT	FL30x5 x Rd8-14	N/50	25	20.000	5014468

- For reinforced steels with diameters 8-14 mm and FL 30 x 5
- Simple mounting through open slot
- Side suspension possible

Connection terminal for round conductors

St FT
BEST TESTED



Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
1818	Rd 8-10	10	17.600	5012015

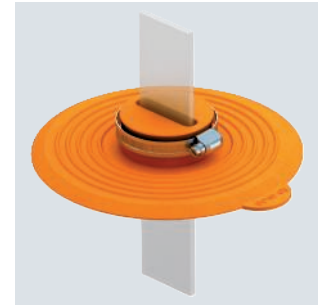
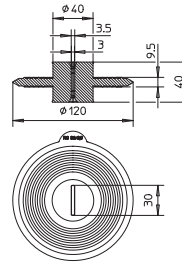
- For connecting round conductor Rd 8-10
- With 1 hexagonal bolt M12 x 40, 1 hexagonal nut M12 and 1 lock washer, stainless steel

TPE

Sealing sleeve for flat conductors

Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
DW FL30x3,5	FL 30x3,5	1	18.000	2360043

- Sealing sleeve for penetrations of waterproof foundation plates/walls (e.g. white trough)
- For mounting on connection lugs with stainless steel tightening straps
- With pressurised water testing to 5 bar
- According to DIN EN 62561-5 (VDE 0185-561-5)

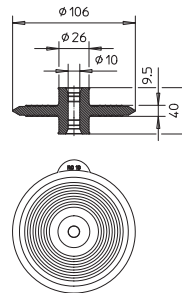


TPE

Sealing sleeve for round conductors

Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
DW RD10	RD 10	1	13.000	2360041

- Sealing sleeve for penetrations of waterproof foundation plates/walls (e.g. white trough)
- For mounting on connection lugs with stainless steel tightening straps
- With pressurised water testing to 5 bar
- According to DIN EN 62561-5 (VDE 0185-561-5)



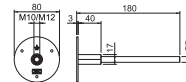
Earthing fixed points

St VA FT

Fixed earthing terminal with axis and double thread

Type	Thread	Short-circuit current (50 HZ) (1 s; ≤300 °C) kA	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
205 DG L180 V4A	M10/M12	3,3	H/100	10	23.900	5420022
205 DG L180 FT	M10/M12	4,9	H/100	10	23.900	5420024

- For connection to earthing systems, conductors and reinforcements
- Contact plate: Ø 80 mm made of stainless steel, rustproof (V4A)
- Clamping screw Ø 10 mm
- Incl. plastic cover for simple installation

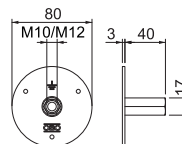


VA

Fixed earthing terminal with double thread

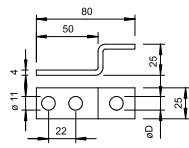
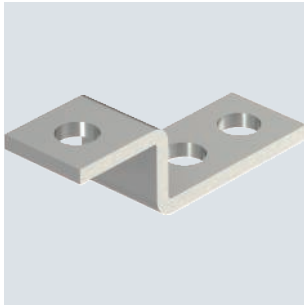
Type	Thread	Short-circuit current (50 HZ) (1 s; ≤300 °C) kA	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
205 DG V4A	M10/M12	6,2	H/100	10	14.800	5420020

- For connection to earthing systems, conductors and reinforcements
- Contact plate: Ø 80 mm made of stainless steel, rustproof (V4A)
- Double thread M10/M12
- Incl. plastic cover for simple installation



Connection and end piece

VA

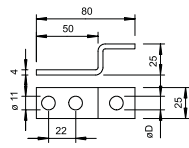
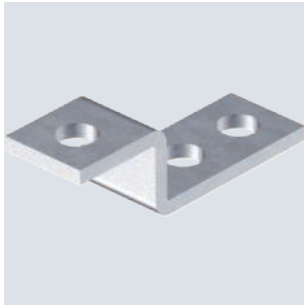


Type	Dim.	Pack Piece	Weight kg/100 pc.	Item no.
	D Ø mm			
5011 VA M10	11	10	7.064	5334934
5011 VA M12	13	10	7.048	5334942

- For attaching to steel structures or bolting to fixed earthing terminals
- For attachments: Round conductor Rd 8-10 and flat conductor FL 30 x 3.5
- 2 attaching holes Ø 11 mm
- 1 attaching hole Ø D mm

Connection and end piece

St FT

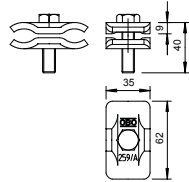
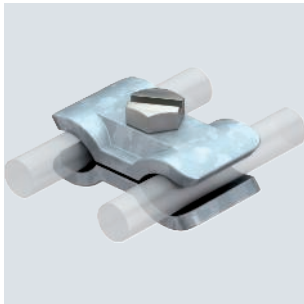


Type	Dim.	Pack Piece	Weight kg/100 pc.	Item no.
	D Ø mm			
5011	11	10	7.064	5304997

- For attaching to steel structures or bolting to fixed earthing terminals
- For attachments: Round conductor Rd 8-10 and flat conductor FL 30 x 3.5
- 2 attaching holes Ø 11 mm
- 1 attaching hole Ø D mm

Parallel clamp for the connecting of reinforcing steels

St VA FT

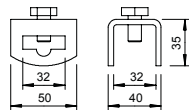
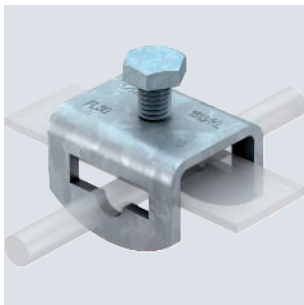


Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
259 A FT	Ø 10-20	H/100	25	18.800	5315514
259 A VA	Ø 10-20	H/100	10	15.880	5315522

- For connecting reinforced steels Ø 10–20 mm
- Mounted with M10 x 40 bolts

Variable earthing terminal

St FT



Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.

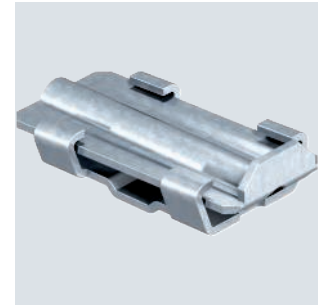
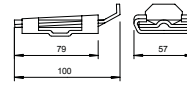
- Suitable for connection for Rd 10 x FL 30, FL 30 x FL 30
- Quick mounting using a hexagonal bolt M10 x 20 (F)

St FT



Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
1813 DIN	10/FL30xFL30	H/100	5	21.144	5014212

- DIN 48834, Form A
- Suitable for connecting Rd 10 x FL 30, FL 30 x FL 30
- Quick installation with high contact force

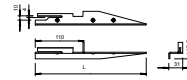


Wedge connector

St FT

Type	Fit mm	Length mm	Pack Piece	Weight kg/100 pc.	Item no.
1811	10/FL30x3,5	250	25	19.000	5014018
1811 L	10/FL30x3,5	400	25	31.500	5014026

- For professional laying of round conductors and flat conductors according to DIN VDE 0185-305 (IEC 62305)
- DIN 48833
- Suitable for mounting round conductors Rd 10 or flat conductors FL 30 x 3.5

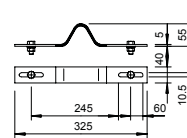


Spacer

Alu

Type	Pack Piece	Weight kg/100 pc.	Item no.
1807	1	27.000	5016142

- For expansion joints, for a connection of the foundation earth electrode outside the concrete
- To VDE 0185-561-2 (IEC 62561-2)
- 2 hexagonal nuts M10 x 30, 2 steel washers, hot galvanised and 2 serrated washers made of rustproof steel



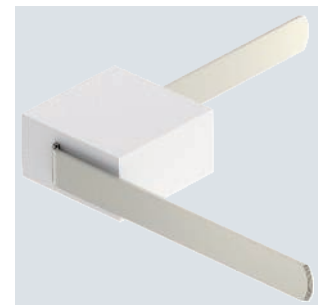
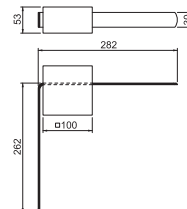
Expansion piece

VA

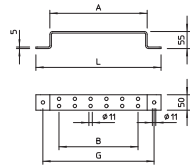
Expansion strip for foundation earth electrode systems

Type	Dimension W x H mm	Pack Piece	Weight kg/100 pc.	Item no.
1807 DB	30x3,5	1	40.000	5016160

- Expansion strip according to VDE 0185-561-2 (IEC 62561-2)
- To pass the foundation earth electrode through movement joints



Earthing connection bar

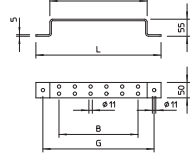
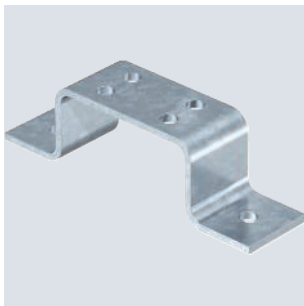


Type	Dim. L mm	Dim. A mm	Dim. B mm	Dim. G mm	Pack Piece	Weight kg/100 pc.	Item no.
1805 2 VA	200	110	51	155	1	54.800	5016096
1805 4 VA	302	212	153	257	1	77.000	5016118
1805 6 VA	404	314	255	359	1	97.100	5016126

1805/...: For connecting different earthing systems

- With 2 mounting holes Ø 11 mm
- 1805/2: With 4 attaching holes
- 1805/4: With 8 attaching holes
- 1805/6: With 12 attaching holes

Earthing connection bar

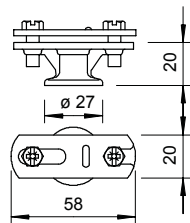
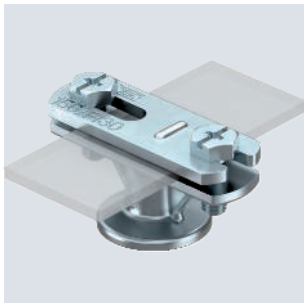


Type	Dim. L mm	Dim. A mm	Dim. B mm	Dim. G mm	Pack Piece	Weight kg/100 pc.	Item no.
1805 2 FT	200	110	51	155	1	54.800	5016029
1805 4 FT	302	212	153	257	1	77.000	5016037
1805 6 FT	404	314	255	359	1	97.100	5016045

1805/...: For connecting different earthing systems

- With 2 mounting holes Ø 11 mm
- 1805/2: With 4 attaching holes
- 1805/4: With 8 attaching holes
- 1805/6: With 12 attaching holes

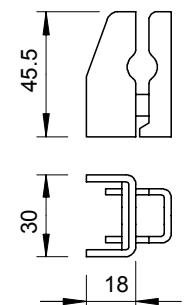
Cable bracket for flat conductor



Type	Pack Piece	Weight kg/100 pc.	Item no.
113 BZ-FL	100	6.280	5230446
113 B-Z-HD-FL	100	7.000	5230462

- With female thread M8 or through hole for wood screws
- For flat conductor FL 30
- Sliding over-piece for quick installation

Cable bracket for Rd 8–10 and FL 30



Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
835	Rd 8/10/ FL 30x3,5	1	8.907	5033209

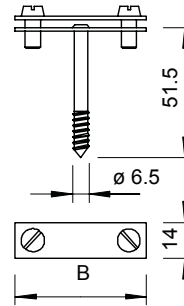
- For round conductor Rd 8-10 and flat conductor FL 30 x 3.5
- Supplied with hexagonal wood bolt 6 x 70 and straddling dowel 910/N

St G

Spacer clip for flat conductor, with wood screw

Type	Fit mm	Dim. B mm	Pack Piece	Weight kg/100 pc.	Item no.
708 30 HG	max. FL30	52	50	2.536	5030234
708 40 HG	max. FL40	62	50	2.827	5030242

- Fit: FL 30 and FL 40
- With 2 cylinder bolts M5 x 12 (G) and over-piece
- With wood screw

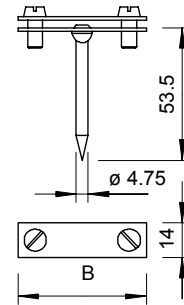


St G

Spacer clip for flat conductor, with square pin

Type	Fit mm	Dim. B mm	Pack Piece	Weight kg/100 pc.	Item no.
708 30 SP	max. FL30	52	50	3.148	5030021

- Fit: FL 30 and FL 40
- With 2 cylinder bolts M5 x 12 (G) and over-piece
- With square pin

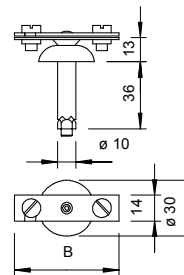


St G

Spacer clip for flat conductor, with steel spreading anchor Ø 10

Type	Fit mm	Dim. B mm	Pack Piece	Weight kg/100 pc.	Item no.
710 30	max. FL30	52	25	5.044	5028035
710 40	max. FL40	62	25	5.360	5028043

- Fit: FL 30 and FL 40
- With steel straddling dowel Ø 10 mm, spacer and 2 cylinder bolts M5 x 14 (G)

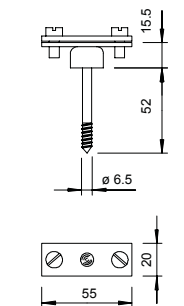


St FT

Spacer clip for flat conductor, with wood screw and spacer

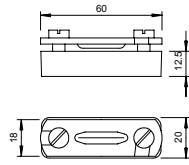
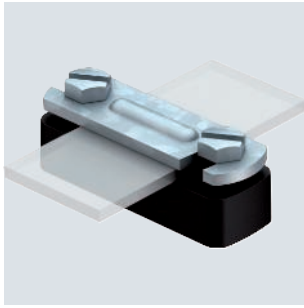
Type	Fit mm	Dim. B mm	Pack Piece	Weight kg/100 pc.	Item no.
370 H	max. FL30	55	100	10.200	5025206

- Fit: FL 30
- With spacer and cylinder bolts M6 x 16 (G)
- With wood bolts



Spacer clip for flat conductor, with polyamide base

St FT

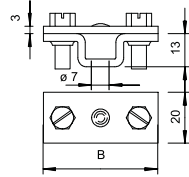
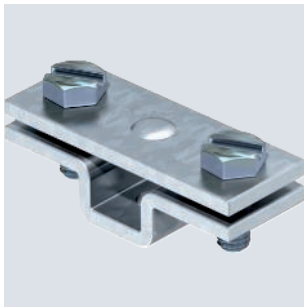


Type	Fit mm	Dim. B mm	Pack Piece	Weight kg/100 pc.	Item no.

- Fit: FL 30
- With mounting hole 6.2 x 22 mm
- With 2 cylinder bolts M6 x 16 and over-piece from hot-dip galvanised steel
- Bottom section from polyamide, black

Spacer clip for flat conductor, with fastening hole Ø 7

St FT

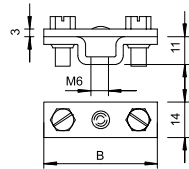
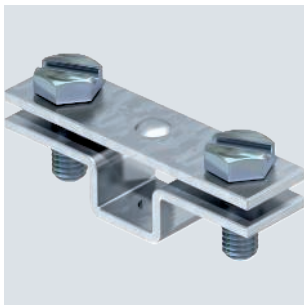


Type	Fit mm	Dim. B mm	Pack Piece	Weight kg/100 pc.	Item no.
832 40	max. FL40	65	25	7.612	5032547

- Fit: FL 30 and FL 40
- With mounting hole Ø 7 mm and 2 hexagonal bolts M6 x 16

Spacer clip for flat conductor, with threaded connection M6

St FT

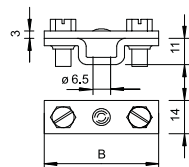
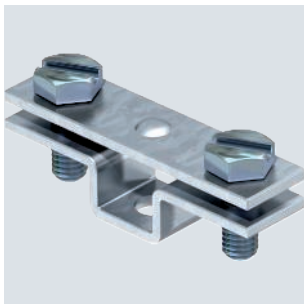


Type	Fit mm	Dim. B mm	Pack Piece	Weight kg/100 pc.	Item no.
831 40 M6	max. FL40	65	25	3.880	5032245

- Fit: FL 30 and FL 40
- With attaching thread M6 and 2 hexagonal bolts M6 x 16 (F)

Spacer clip for flat conductor with fastening hole Ø 6.5

St FT



Type	Fit mm	Dim. B mm	Pack Piece	Weight kg/100 pc.	Item no.
831 40	max. FL40	65	25	3.894	5032040

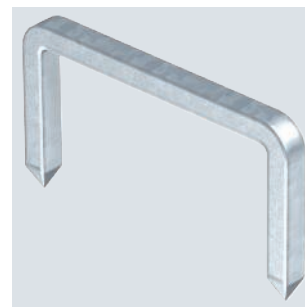
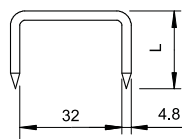
- Fit: FL 30 and FL 40
- With mounting hole Ø 6.5 mm and 2 hexagonal bolts M6 x 16 (F)

St FT

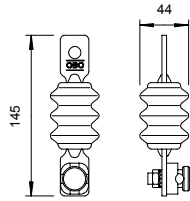
Strip steel crimp

Type	Length mm	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
366 35	35	max. FL30	100	1.737	5059356
366 50	50	max. FL30	100	2.300	5059496

- For the mounting and fixing of flat conductors
- Fit: FL 30



Protective spark gap

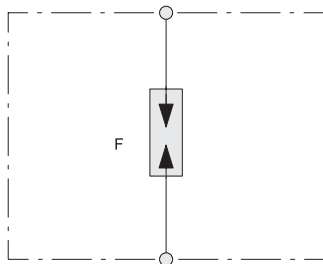


Type	Protection level kV	Nominal discharge current (8/20) kA	Power frequency spark-over voltage kV	Pack Piece	Weight kg/100 pc.	Item no.
482	< 10	25	10	1	56.000	5240050

Closed spark gap for bridging a proximity point between roof standard of low-voltage system and components of outer lightning protection system.

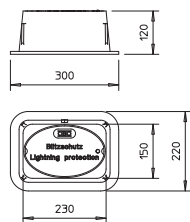
- Protection rating IP 54
- With pre-mounted type 5001 connector for attaching round conductors Rd 8 - 10

Connection options





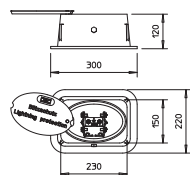
Underfloor test box



Type	Pack Piece	Weight kg/100 pc.	Item no.
5700	1	720.000	5106002

- Without base
- Cast iron, painted black
- Without cut-off unit
- To VDE 0185-561-5 (IEC 62561-5) suitable for heavy loads (up to 40 kN/ 4.0 t)

Inspection pit with integrated separation piece

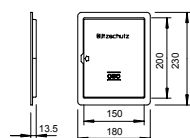


Type	Pack Piece	Weight kg/100 pc.	Item no.
5700 SP	1	770.000	5106003

- Without base
- Cast iron, painted black
- With built-in cut-off unit for round conductors Rd 8-10 and flat conductors to FL 40
- To VDE 0185-561-5 (IEC 62561-5) suitable for heavy loads (up to 40 kN/ 4.0 t)

Inspection door

St FS

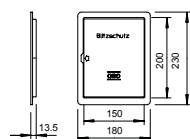


Type	Pack Piece	Weight kg/100 pc.	Item no.
5800 VZ	1	46.000	5106133

- Lightweight design for flush-mounted separation points
- With fastening straps to be bent

Inspection door

VA



Type	Pack Piece	Weight kg/100 pc.	Item no.
5800 VA	1	46.000	5106141

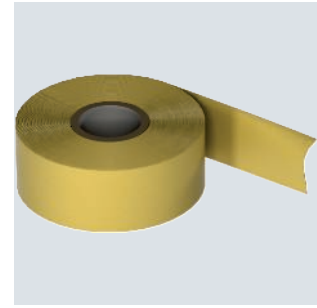
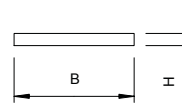
- Lightweight design for flush-mounted separation points
- With fastening straps to be bent

PETR

Corrosion protection strip

Type	Dimension		Pack Piece	Weight kg/100 pc.	Item no.
	Width mm	Length m			
356 50	50	10	1	59.000	2360055
356 100	100	10	1	122.200	2360101

- Approx. 1.1 mm thick
- Width: 50 mm or 100 mm, made of petrolatum-coated chemical fibre fabric
- Can be processed cold

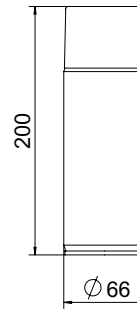


CE UK CA

Zinc repairs

Type	Dimension		Pack Piece	Weight kg/100 pc.	Item no.
	Width mm	Length m			
ZSF	400ml		1	45.000	2362970

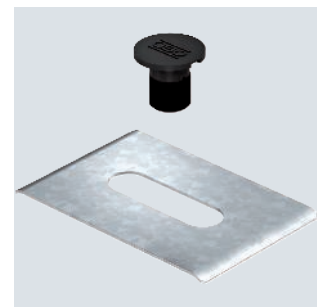
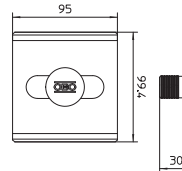
Zinc spray for treatment of unprotected surfaces and cutting edges. Can contents: 400 ml.



TrayFix mounting adapter for mesh cable trays on FangFix system

Type	Dimension		Pack Piece	Weight kg/100 pc.	Item no.
	Width mm	Length mm			
TrayFix	ø20mm		25	9.850	5403100

- Mounting system for the fastening of mesh cable trays and cable trays on FangFix stone, e.g. cable routing on a flat roof
- Adapted to OBO cable tray systems MKSM, SKSM and IKSM
- Adapted to OBO mesh cable tray systems with a minimum width of 100 mm



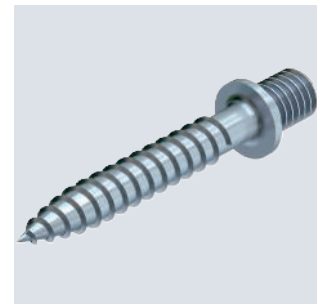
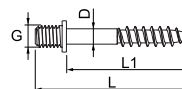
St G

CE

Screw-in anchor with M6 thread

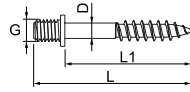
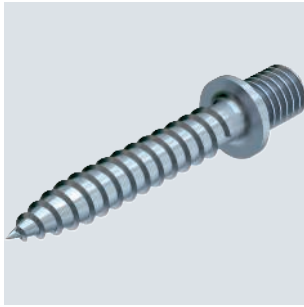
Type	Dim. L mm	Dim. L1 mm	Dim. D mm	Dim. G mm	Shipping box Piece	Pack Piece	Weight kg/100 pc.	Item no.
985 M6 25	35	25	4.3	M6	3000	100	0.412	3133028
985 M6 35	45	35	4.3	M6	2000	100	0.533	3133036

With wood screw shank and M6 thread.



Screw-in anchor with M8 thread

St G
CE

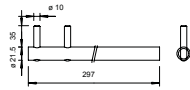


Type	Dim.	Dim.	Dim.	Dim.	Shipping	Pack	Weight	Item no.
	L	L1	D	G	box			
985 M8 35	47	35	5.2	M8	1200	100	0.950	3133230

With wood screw shank and M8 thread.

Directional irons

St FT

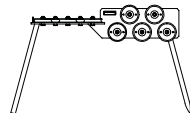


Type	Length	Pack	Weight	Item no.
	mm			
364	297	1	35.000	3051013

• Directional iron for bending and aligning conductors

Wire straightening machine

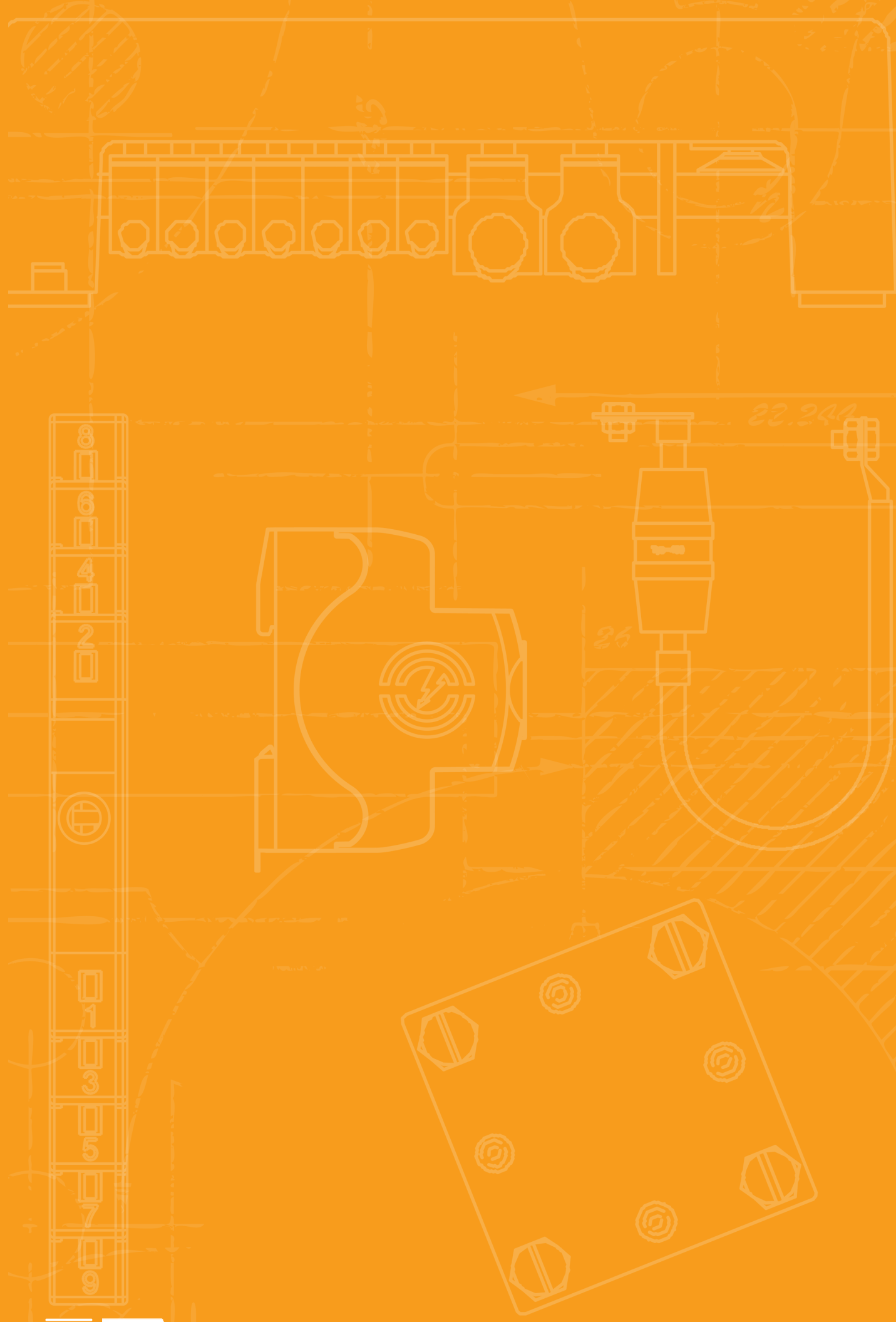
St



Type	Pack	Weight	Item no.
5900	Piece	kg/100 pc.	
	1	3,300.000	3059006

- Factory-set for round conductor Rd 8
- Structure, steel, painted
- Straightening rolls, galvanised cast iron





Air-termination systems and air-termination rods



Air-termination rods

118



Air-termination systems

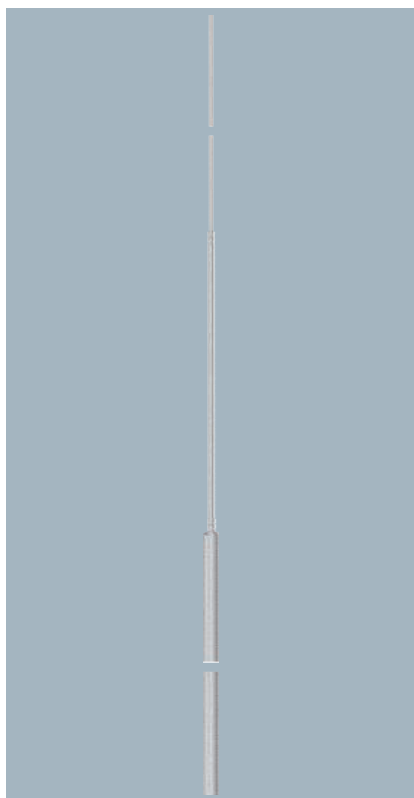
130



Insulated air-termination systems

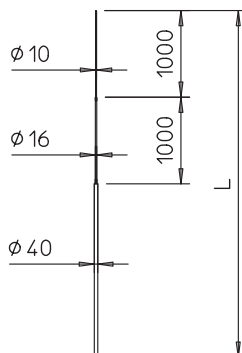
142

isFang air-termination rod

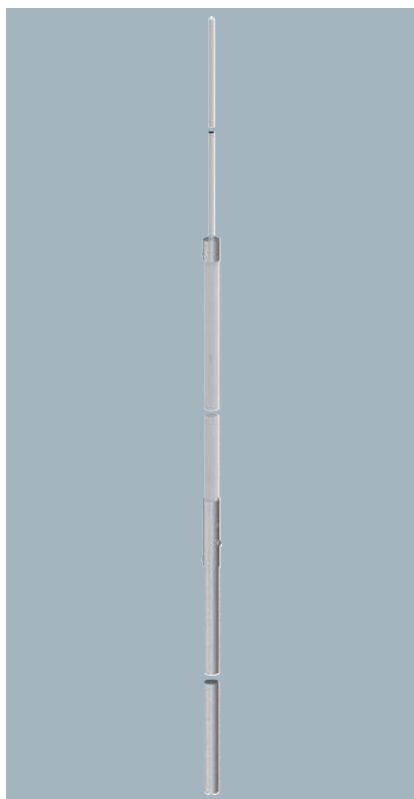


Type	Dim.	Dim.	Length	Pack	Weight	Item no.
	B	D				
	mm	mm	mm	Piece	kg/100 pc.	
101 3B-4000	2000	1000	4000	1	400.000	5402864
101 3B-4500	2500	1000	4500	1	480.000	5402866
101 3B-5000	3000	1000	5000	1	550.000	5402868
101 3B-5500	3000	1500	5500	1	630.000	5402870
101 3B-6000	4000	1000	6000	1	700.000	5402872
101 3B-6500	4500	1000	6500	1	780.000	5402874
101 3B-7000	5000	1000	7000	1	850.000	5402876
101 3B-7500	5500	1000	7500	1	930.000	5402878
101 3B-8000	5500	1000	8000	1	1,000.000	5402880

- Suitable for wind loads according to Eurocode 1: DIN EN 1991-1-4
- Tapered air-termination rod
- Suitable for 40 mm isFang tripod stand and isFang support systems

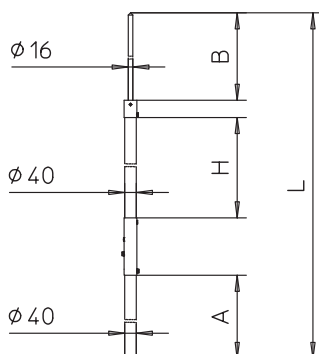


Insulated air-termination rod



Type	Dim.	Dim.	Dim.	Length	Pack	Weight	Item no.
	A	H	B				
	mm	mm	mm	mm	Piece	kg/100 pc.	
isFang 4000 AL	1240	1500	1000	4000	1	580.000	5408943
isFang 6000 AL	3340	1500	1000	6000	1	600.000	5408947
isFang 4000	1240	1500	1000	4000	1	680.000	5408942
isFang 6000	3340	1500	1000	6000	1	680.000	5408946

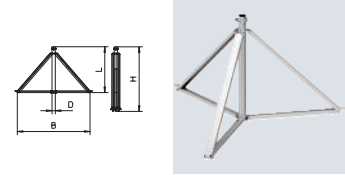
- For isolated creation of air-termination systems
- Suitable for isFang air-termination rod stands, type isFang 3B-100/150
- Suitable for wind loads according to Eurocode 1: DIN EN 1991-1-4
- For installation on the building structure with isFang support
- Fastening of the OBO isCon® conductor possible using accessories
- Suitable for externally routed isCon® conductors



VA **Alu**

isFang tripod

Type	Dim. B mm	Dim. D mm	Dim. L mm	Dim. H mm	Pack Piece	Weight kg/100 pc.	Item no.
isFang 3B-100 AL	1000	40	600	885	1	380.000	5408966
isFang 3B-150 AL	1500	40	900	1275	1	560.000	5408967
isFang 3B-100	1000	40	600	885	1	620.000	5408968
isFang 3B-150	1500	40	900	1275	1	950.000	5408969

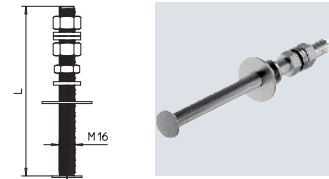


- Installation of free-standing air-termination rods as well as insulated air-termination rods with 40 mm diameter
- Roof slope to max. 5 degrees
- Incl. Rd 8–10 crossbar for quick round conductor fastening
- Concrete base as well as threaded rods should be ordered separately

VA

isFang-3B threaded rod

Type	Dim. L mm	Pack Piece	Weight kg/100 pc.	Item no.
isFang 3B-G1	270	3	48.000	5408971
isFang 3B-G2	340	3	60.400	5408972
isFang 3B-G3	430	3	69.500	5408973
isFang 3B-G4	500	3	75.000	5408905

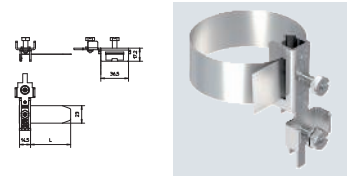


- For fastening on one, two, three or four FangFix concrete bases with tripod stand

VA

Potential connection clamp for mounting on isFang

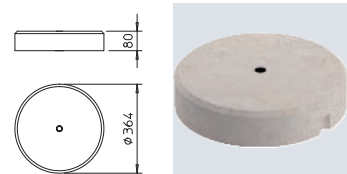
Type	For pipe Ø inch	For pipe Dim. L mm	Pack Piece	Weight kg/100 pc.	Item no.
927 2 6-K	3/8-4	595	10	5.500	5057599



- Potential connection for isCor® conductor for mounting on insulated air-termination rods of type isFang.

Concrete base for FangFix system, min. 16 kg

Type	Nominal size Ø mm	Pack Piece	Weight kg/100 pc.	Item no.
F-FIX-S16	365	1	1,773.000	5403227

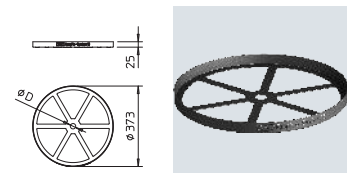


- Min. 16 kg block of Ø 365 mm, high level of stability
- Frost-resistant concrete
- Stackable

PP

Base for FangFix system 16 kg for mounting the isFang tripod

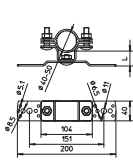
Type	Nominal size Ø mm	Dim. D mm	Pack Piece	Weight kg/100 pc.	Item no.
F-FIX-B16 3B	373	25	10	15.800	5403238



- Edge protection with through hole
- For mounting isFang-3B threaded rod and FangFix concrete block F-FIX-S16

isFang support for wall mounting, 30 mm spacing

VA

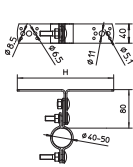


Type	Dim.	Pack Piece	Weight kg/100 pc.	Item no.
	L mm			
isFang TW30	30	2	62.000	5408952

Fastening clip to fasten the insulated support pipes on the structure to be protected or on the wall.

isFang support for wall mounting, 80 mm spacing

VA

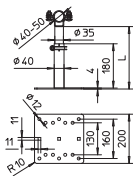


Type	Dim.	Pack Piece	Weight kg/100 pc.	Item no.
	L mm			
isFang TW80	80	2	63.000	5408950

Fastening clip to fasten the insulated support pipes on the structure to be protected or on the wall.

isFang support for wall mounting, 200 mm spacing

VA

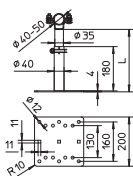
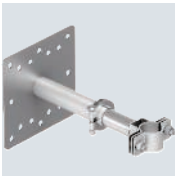


Type	Dim.	Dim.	Pack Piece	Weight kg/100 pc.	Item no.
	D Ø mm	L mm			
isFang TW200 12	50	200	2	240.000	5408910

Fastening clip to fasten the insulated support pipes on the structure to be protected or on the wall.

isFang support for wall mounting, 200–300 mm spacing

VA

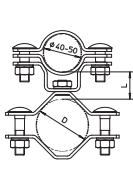


Type	Dim.	Pack Piece	Weight kg/100 pc.	Item no.
	L mm			
isFang TW200	300	2	230.000	5408954

Fastening clip to fasten the insulated support pipes on the structure to be protected or on the wall.

isFang support for pipe mounting, ø 50–60 mm

VA



Type	Dim.	Dim.	Pack Piece	Weight kg/100 pc.	Item no.
	D Ø mm	L mm			
isFang TS50-60	60	30	2	76.000	5408960

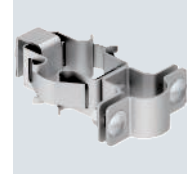
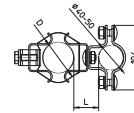
Tightening strap clip to fasten the insulated support pipes on the structure to be protected or for construction-side pipes of ø 50–60 mm.

VA

isFang support for pipe mounting, \varnothing 50–300 mm

Type	Dim.	Dim.	Pack Piece	Weight kg/100 pc.	Item no.
	D \varnothing mm	L mm			
isFang TR100	300	40	2	77.000	5408956

Tightening strap clip to fasten the insulated support pipes on the structure to be protected or for construction-side pipes of \varnothing 50–300mm.

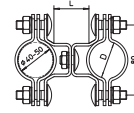


VA

isFang support for pipe mounting, \varnothing 40–50 mm

Type	Dim.	Dim.	Pack Piece	Weight kg/100 pc.	Item no.
	D \varnothing mm	L mm			
isFang TS40-50	50	40	2	90.000	5408958

Tightening strap clip to fasten the insulated support pipes on the structure to be protected or for construction-side pipes of \varnothing 40–50 mm.

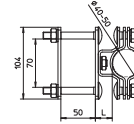


VA

isFang support for corner pipe mounting, 50 x 50 mm

Type	Dim.	Dim.	Pack Piece	Weight kg/100 pc.	Item no.
	D \varnothing mm	L mm			
isFang TS50x50	50	30	2	82.000	5408964

Fastening clip to fasten the insulated support pipes on the structure to be protected or for construction-side corner pipes of 50x50 mm.

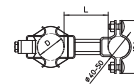


VA

isFang support for spaced pipe mounting, \varnothing 50–300 mm

Type	Dim.	Dim.	Pack Piece	Weight kg/100 pc.	Item no.
	D \varnothing mm	L mm			
isFang TR100 100	300	100	2	95.500	5408955
isFang TR100 200	300	200	2	121.000	5408957
isFang TR100 300	300	300	2	146.000	5408959

Tightening strap clip to fasten the insulated support pipes on the structure to be protected or for construction-side pipes of \varnothing 50–300 mm.

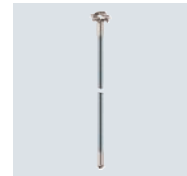
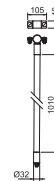


VA

isFang support for installation on insulated air-termination rod

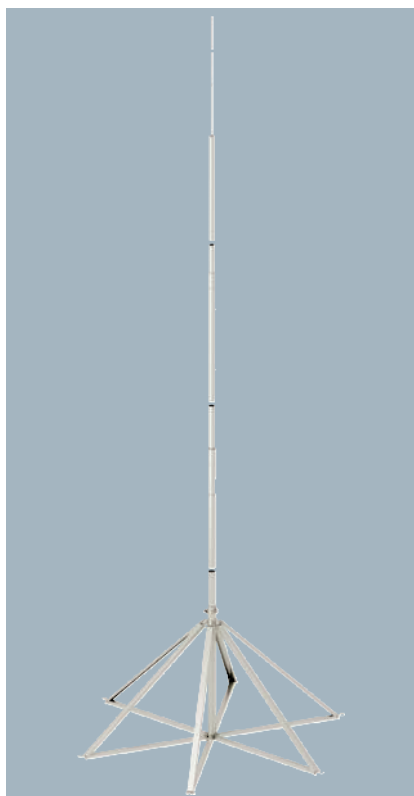
Type	Dim.	Pack Piece	Weight kg/100 pc.	Item no.
	L mm			
isFang TS-S 1000	1010	2	140.000	5408949

- For mounting on insulated air-termination rods
- For installation with aluminium cables



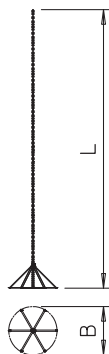
VA

10 m air-termination rod with 6-legged air-termination rod stand



Type	Dim. D	Dim. B	Length	Pack Piece	Weight kg/100 pc.	Item no.
	Ø mm	mm	mm			
irod 10	48.3	1800	10000	1	6,500.000	5400810

- Tele lightning protection system against direct lightning strikes into plants, such as biogas plants
- Consisting of air-termination rod and air-termination rod stand
- Please order concrete foot, edge protection and threaded rods separately



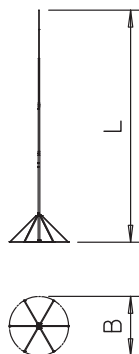
12 m air-termination rod with 6-legged air-termination rod stand

VA



Type	Dim. D	Dim. B	Length	Pack Piece	Weight kg/100 pc.	Item no.
	Ø mm	mm	mm			
irod 12	85	3000	12000	1	10,900.000	5400812

- Tele lightning protection system against direct lightning strikes into plants, such as biogas plants
- Consisting of air-termination rod and air-termination rod stand
- Please order concrete foot, edge protection and threaded rods separately

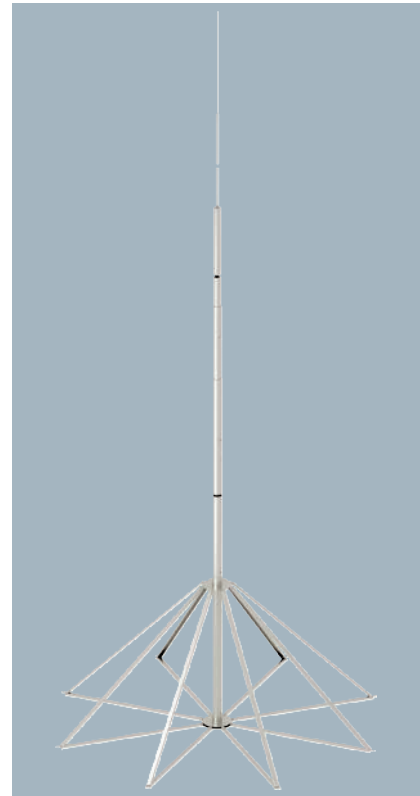
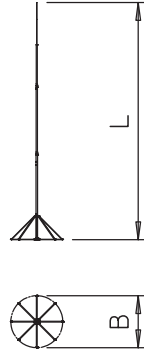


VA

14 m air-termination rod with 8-legged air-termination rod stand

Type	Dim.	Dim.	Length	Pack Piece	Weight kg/100 pc.	Item no.
	D Ø mm	B mm				
irod 14	85	3200	14000	1	15,400.000	5400814

- Tele lightning protection system against direct lightning strikes into plants, such as biogas plants, gas pressure regulation plants, control and greenfield photovoltaic systems
- Consisting of air-termination rod and air-termination rod stand
- Please order concrete foot, edge protection and threaded rods separately

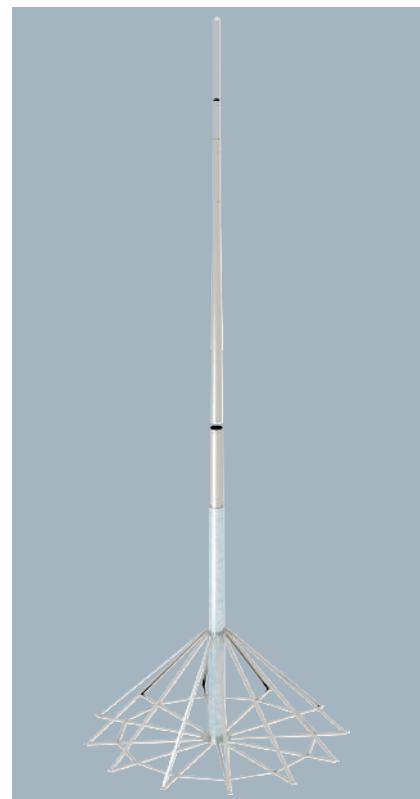
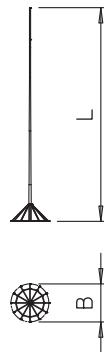


VA

19 m air-termination rod with 12-legged air-termination rod stand

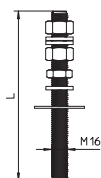
Type	Dim.	Dim.	Length	Pack Piece	Weight kg/100 pc.	Item no.
	D Ø mm	B mm				
irod 19	198	3400	19500	1	41,500.000	5400817

- Tele lightning protection system against direct lightning strikes into plants, such as biogas plants, gas-pressure regulation plants, control and greenfield photovoltaic systems
- Consisting of air-termination rod and air-termination rod stand
- Please order concrete foot and edge protection separately
- Including 800-mm threaded rods



isFang-3B threaded rod

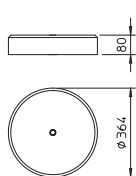
VA



Type	Dim. L mm	Pack Piece	Weight kg/100 pc.	Item no.
isFang 3B-G1	270	3	48.000	5408971
isFang 3B-G2	340	3	60.400	5408972
isFang 3B-G3	430	3	69.500	5408973
isFang 3B-G4	500	3	75.000	5408905

• For fastening on one, two, three or four FangFix concrete bases with tripod stand

Concrete base for FangFix system, min. 16 kg

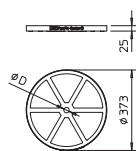
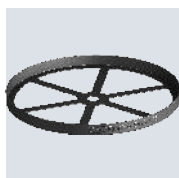


Type	Nominal size mm	Pack Piece	Weight kg/100 pc.	Item no.
F-FIX-S16	365	1	1,773.000	5403227

- Min. 16 kg block of Ø 365 mm, high level of stability
- Frost-resistant concrete
- Stackable

Base for FangFix system 16 kg for mounting the isFang tripod

PP



Type	Nominal size mm	Dim. D mm	Pack Piece	Weight kg/100 pc.	Item no.
F-FIX-B16 3B	373	25	10	15.800	5403238

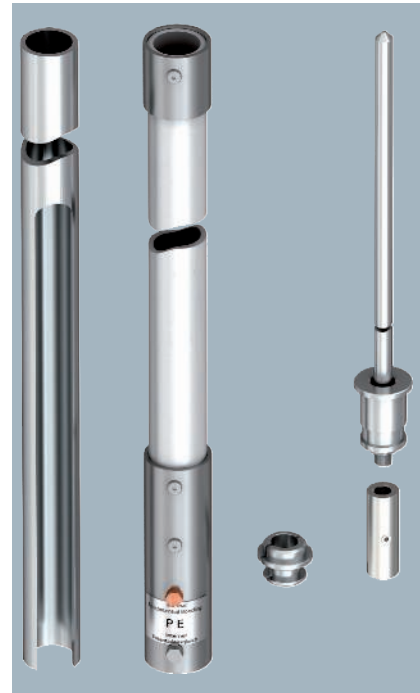
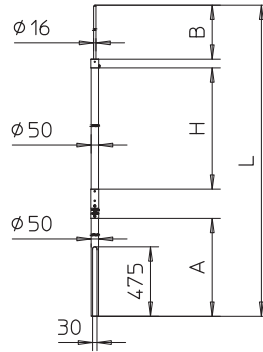
- Edge protection with through hole
- For mounting isFang-3B threaded rod and FangFix concrete block F-FIX-S16



Insulated air-termination rod for inner-routed isCon conductor with side exit

Type	Dim.	Dim.	Dim.	Dim.	Length	Pack Piece	Weight kg/100 pc.	Item no.
	D	A	H	B				
isFang IN-A 4000	50	1325	1500	1000	4000	1	535.000	5408938
isFang IN-A 6000	50	3325	1500	1000	6000	1	835.000	5408940
isFang IN-A 8000	50	5335	1500	1000	8000	1	1,385.000	5408888
isFang IN-A10000	50	6000	1733	2000	10000	1	1,540.000	5408890

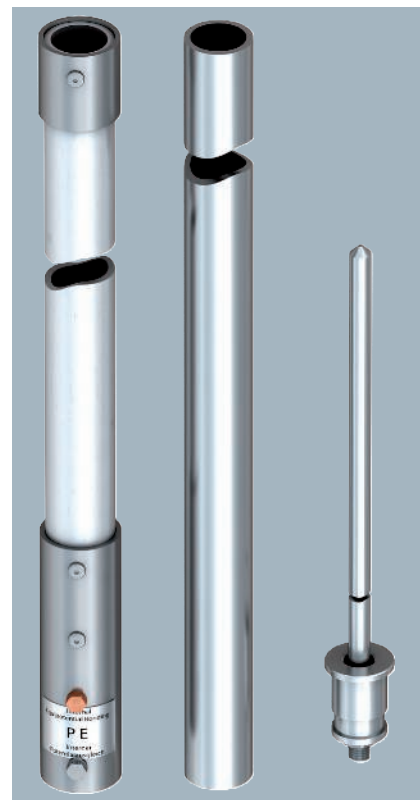
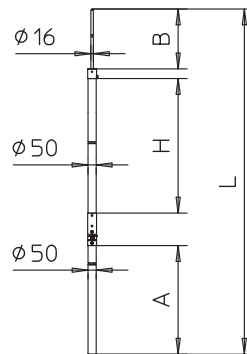
- For installation of the OBO isCon® Pro+ conductor in the pipe
- With side conductor outlet matching isFang air-termination rod stand with side outlet, type isFang 3B-A
- Suitable for wind loads according to Eurocode 1: DIN EN 1991-1-4
- Inclusive connection element (type isCon IN connect)
- Inclusive potential connection (type isCon In PAE)



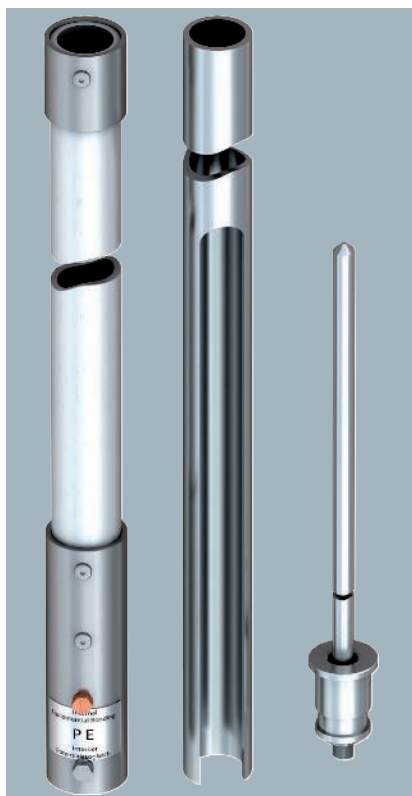
Insulated air-termination rod for inner-routed isCon® conductor

Type	Dim.	Dim.	Dim.	Dim.	Length	Pack Piece	Weight kg/100 pc.	Item no.
	D	A	H	B				
isFang IN L4	50	1325	1500	1000	4000	1	535.741	5408854
isFang IN L6	50	3325	1500	1000	6000	1	835.741	5408856
isFang IN L8	50	5335	1500	1000	8000	1	1,315.741	5408858
isFang IN L10	50	6000	1733	2000	10000	1	1,540.741	5408860

- For routing OBO isCon® conductors in pipes
- For installation on the building structure with isFang support
- Suitable for wind loads according to Eurocode 1: DIN EN 1991-1-4
- Tested according to VDE V 0185-561-8 (IEC TS 62561-8)

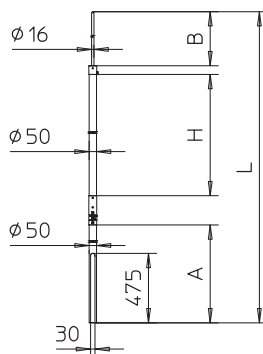


Insulated air-termination rod for inner-routed isCon® conductor with side exit

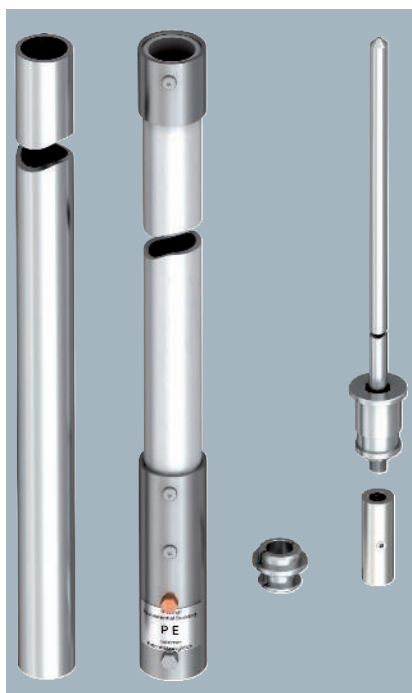


Type	Dim. D Ø mm	Dim. A mm	Dim. H mm	Dim. B mm	Length mm	Pack Piece	Weight kg/100 pc.	Item no.
isFang IN-A L4	50	1325	1500	1000	4000	1	535.000	5408874
isFang IN-A L6	50	3325	1500	1000	6000	1	835.741	5408876
isFang IN-A L8	50	5335	1500	1000	8000	1	1,385.741	5408878
isFang IN-A L10	50	6000	1733	2000	10000	1	1,540.741	5408880

- For routing OBO isCon® conductors in pipes
- For mounting on the building structure with isFang support
- Suitable for wind loads according to Eurocode 1: DIN EN 1991-1-4
- Tested according to VDE V 0185-561-8 (IEC TS 62561-8)

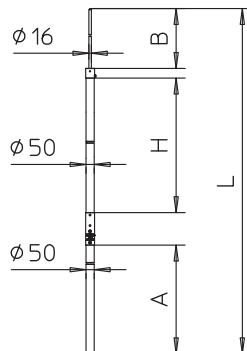


isFang, insulated air-termination rod for inner-routed isCon® conductor Professional Plus



Type	Dim. D Ø mm	Dim. A mm	Dim. H mm	Dim. B mm	Length mm	Pack Piece	Weight kg/100 pc.	Item no.
isFang IN 4000	50	1325	1500	1000	4000	1	535.000	5408934
isFang IN 6000	50	3325	1500	1000	6000	1	835.000	5408936
isFang IN 8000	50	5335	1500	1000	8000	1	1,315.000	5408868
isFang IN 10000	50	6000	1733	2000	10000	1	1,540.000	5408870

- For installation of the OBO isCon® Pro+ conductor in the pipe
- For mounting on the building structure with isFang support
- Suitable for wind loads according to Eurocode 1: DIN EN 1991-1-4
- Inclusive connection element (type isCon IN connect)
- Inclusive potential connection (type isCon In PAE)

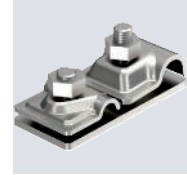
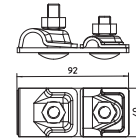


VA

Connection plate for one isCon® conductor

Type	Dimension		Pack	Weight	Item no.
	16x8-10mm		Piece	kg/100 pc.	
isCon AP1-16 VA	16x8-10mm		1	27.400	5408026

Connection plate to connect an isCon® conductor with air-termination rod Ø 16 mm, tested up to 150 kA (lightning protection class II)

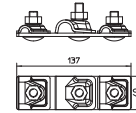


VA

Connection plate for two isCon® conductors

Type	Dimension		Pack	Weight	Item no.
	16x8-10mm		Piece	kg/100 pc.	
isCon AP2-16 VA	16x8-10mm		1	39.500	5408028

Connection plate to connect two isCon® conductors with air-termination rod Ø 16 mm, tested up to 150 kA (lightning protection class II)



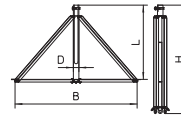
Tripod

VA

isFang tripod with side outlet

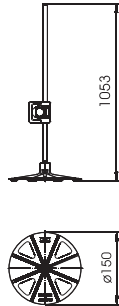
Type	Dim.	Dim.	Dim.	Dim.	Pack	Weight	Item no.
	B	D	L	H			
	mm	Ø mm	mm	mm	Piece	kg/100 pc.	
isFang 3B-100-A	1026	50	600	885	1	610.000	5408930
isFang 3B-150-A	1500	50	900	1275	1	950.000	5408932
isFang 3B-250-A	2900	50	1450	2055	1	2,500.000	5408902

- Screwless installation of freestanding air-termination rods as well as insulated air-termination rods with 50 mm diameter
- E.g. for internal OBO isCon® conductor
- Roof slope to max. 5 degrees
- Incl. Rd 8–10 crossbar for quick round conductor fastening
- Concrete plinths as well as threaded rods should be ordered separately



Stand for FangFix Junior system

Alu

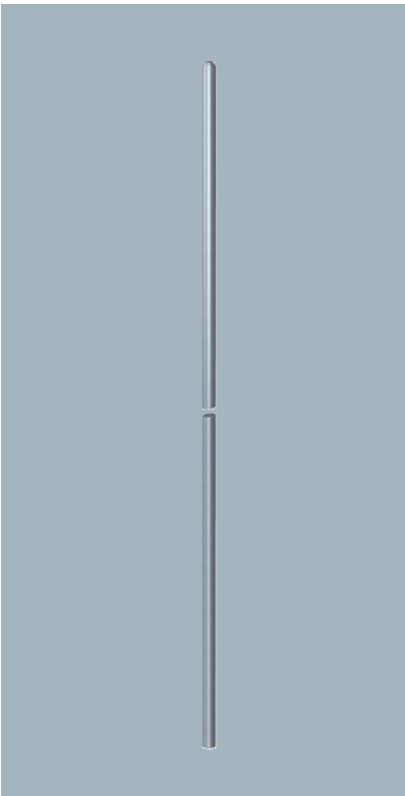


Type	Length mm	Nominal size Ø mm	Pack Piece	Weight kg/100 pc.	Item no.

- Incl. aluminium air-termination rod 1,000 mm long (Ø 10 mm)
- Quick mounting of the air-termination rod in the base using plug technology
- With Vario quick connector 249

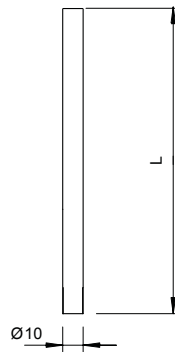
Air-termination rod for FangFix-Junior

Alu



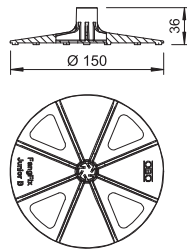
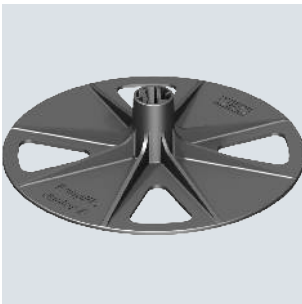
Type	Length mm	Nominal size Ø mm	Pack Piece	Weight kg/100 pc.	Item no.

- Suitable for wind loads according to Eurocode 1: DIN EN 1991-1-4
- Ø 10 mm, aluminium
- Without thread
- Suitable for use in FangFix-Junior



Base for FangFix Junior

PP



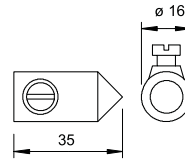
Type	Pack Piece	Weight kg/100 pc.	Item no.

- For mounting Ø 10 mm air-termination rods up to an overall length of 1,000 mm
- Quick installation of air-termination rod in base using plug-in system
- Quick and easy installation

Zn G

Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
120 A	Rd 8-10	10	2.500	5405068

- To be used for Rd 8–10 (corrosion protection)
- With cylinder bolt M6 x 10
- Made of die-cast zinc, bolts made of hot-galvanised steel



Air-termination tip

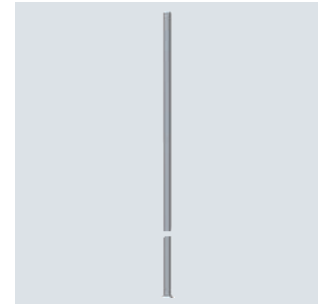
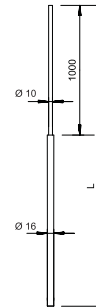


Alu

Type	Length mm	Nominal size Ø mm	Pack Piece	Weight kg/100 pc.	Item no.
101 VL1500	1500	10/16	1	38.000	5401980
101 VL2000	2000	10/16	1	55.000	5401983
101 VL2500	2500	10/16	1	72.000	5401986
101 VL3000	3000	10/16	1	88.000	5401989
101 VL3500	3500	10/16	1	105.000	5401993
101 VL4000	4000	10/16	1	120.000	5401995

- Suitable for wind loads according to Eurocode 1: DIN EN 1991-1-4
- From a free length of > 2.5 m, an additional fastening, e.g. insulated spacer is recommended
- Last metre is tapered from Ø 16 mm to Ø 10 mm, material: AlMgSi
- Matches stand system FangFix

Tapered pipe air-termination rod

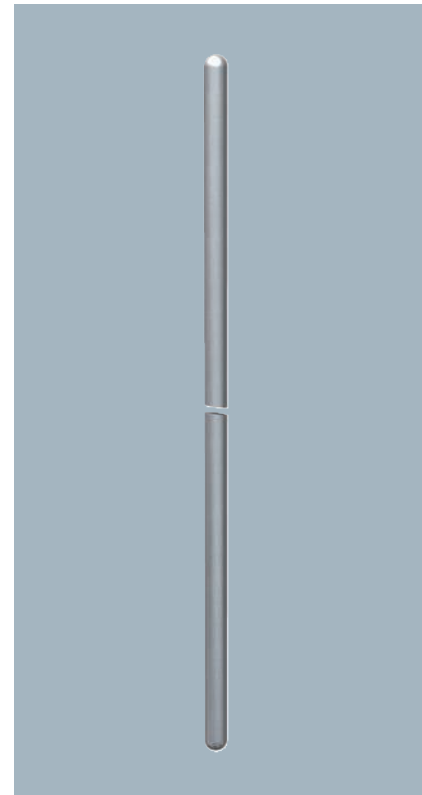
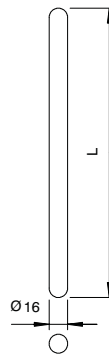


St FT

Air-termination/earth entry rod, rounded-off on both ends

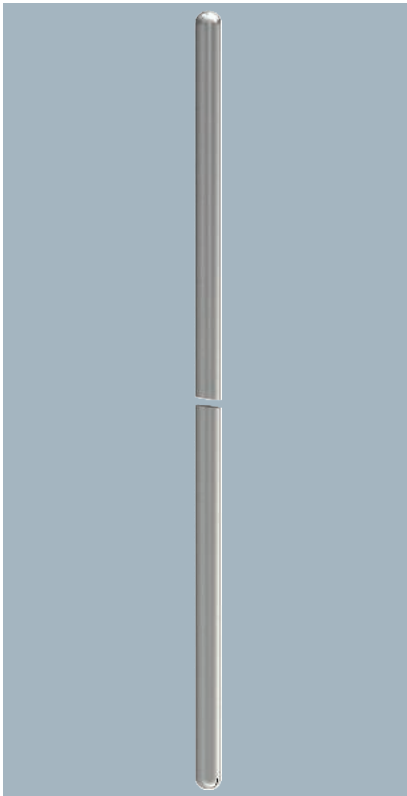
Type	Length mm	Nominal size Ø mm	Pack Piece	Weight kg/100 pc.	Item no.
101 A-1500	1500	16	1	240.000	5400155

- Full material Ø 16 mm
- Rounded on both ends
- Suitable for FangFix stand system



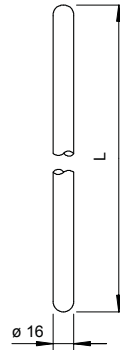
Air-termination/earth entry rod, rounded-off on both ends

VA



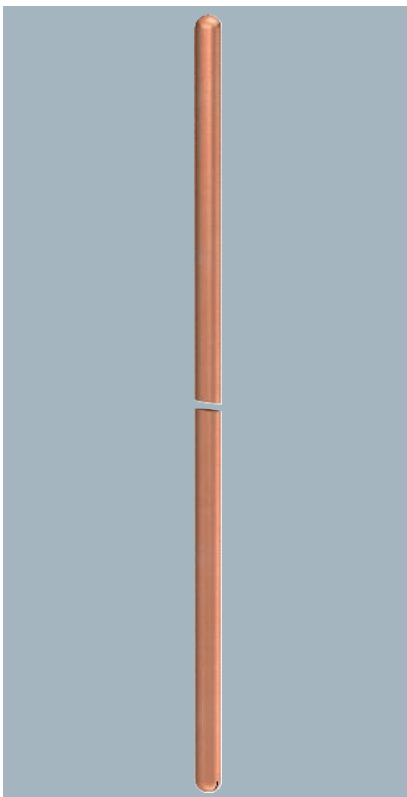
Type	Length mm	Nominal size Ø mm	Pack Piece	Weight kg/100 pc.	Item no.
200 V4A-2000	2000	16	1	320.000	5420539

- Full material Ø 16 mm
- Both ends rounded



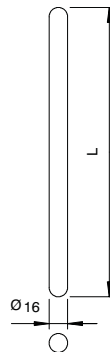
Air-termination/earth entry rod, rounded-off on both ends

Cu



Type	Length mm	Nominal size Ø mm	Pack Piece	Weight kg/100 pc.	Item no.

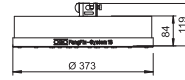
- Full material Ø 16 mm
- Both ends rounded



Stand for FangFix system, min. 16 kg

Type	Fit	Nominal	Pack	Weight	Item no.
		size Ø			
	mm	mm	Piece	kg/100 pc.	
F-FIX-16	Rd 8	373	1	1,715.000	5403200
F-FIX-16B	Rd 8	373	54	1,732.500	5403205

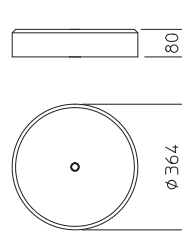
- System consisting of FangFix block with edge protection and clamp
- FangFix clamp made of VA; complies with the requirements of VDE 0185-305 (IEC 62305)
- Min. 16 kg block of Ø 373 mm, high level of stability
- Quick and easy installation of air-termination rod using anchors
- Frost-resistant concrete
- The FangFix block can be stacked
- Suitable for Ø 16 mm pipe air-termination rods



Concrete base for FangFix system, min. 16 kg

Type	Nominal size Ø	Pack	Weight	Item no.
F-FIX-S16	365	1	1,773.000	5403227

- Min. 16 kg block of Ø 365 mm, high level of stability
- Frost-resistant concrete
- Stackable

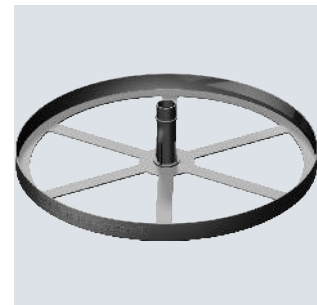
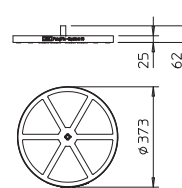


PP

Base for FangFix system 16 kg

Type	Nominal size Ø	Pack	Weight	Item no.
F-FIX-B16	373	10	16.400	5403235

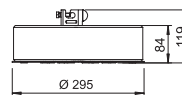
Edge protection with integrated dowel (basic) suitable for FangFix system.



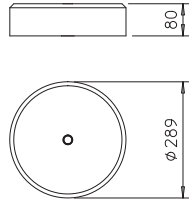
Stand for FangFix system, min. 10 kg

Type	Fit	Nominal	Pack	Weight	Item no.
		size Ø			
	mm	mm	Piece	kg/100 pc.	
F-FIX-10	Rd 8	295	1	1,058.000	5403103
F-FIX-10B	Rd 8	295	77	1,058.000	5403110

- System consists of FangFix block with base and clamp
- FangFix clamp made of VA; complies with the requirements of VDE 0185-305 (IEC 62305)
- Min. 10 kg block of Ø 289 mm, high level of stability
- Quick and easy installation of air-termination rod using anchors
- Frost-resistant concrete
- The FangFix stone can be stacked
- Suitable for Ø 16 mm pipe air-termination rods



Concrete base for FangFix system, min. 10 kg

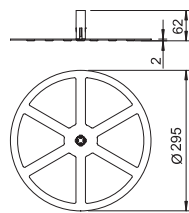


Type	Nominal size Ø mm	Pack Piece	Weight kg/100 pc.	Item no.
F-FIX-S10	289	1	1,000.000	5403117

- Min. 10 kg block of Ø 289 mm, high level of stability
- Frost-resistant concrete
- Stackable

Base for FangFix system 10 kg

PP

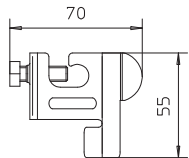


Type	Nominal size Ø mm	Pack Piece	Weight kg/100 pc.	Item no.
F-FIX-B10	295	10	7.600	5403124

Edge protection with integrated dowel (basic) suitable for FangFix 10 kg system.

Terminal for FangFix system

VA

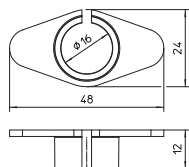


Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
F-FIX-KL	Rd 8	5	8.700	5403219

- FangFix terminal, VA for RD 8 mm
- Tested with H (100 kA) to DIN EN 50164-1
- Round conductor installed on the air-termination rod with only one screw

FangFix reducing sleeve

PA



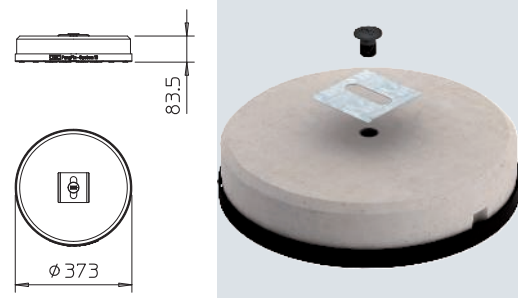
Type	Colour	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
101 RH-16	Black	16	25	0.187	5408101

Reduces the drill hole of the FangFix block from Ø 20 mm to Ø 16 mm. Suitable for the installation of GFK insulating rods of Ø 16 mm.

Stand - TrayFix set 16 L

Type	From tray width mm	Pack Piece	Weight kg/100 pc.	Item no.
TrayFix-16-L	100	1	1,700.000	5403098

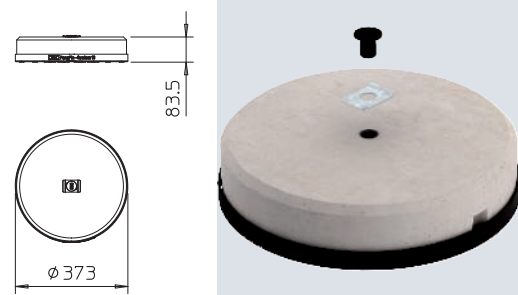
- Mounting system for the fastening of mesh cable trays with the FangFix stone, e.g. cable routing on a flat roof
- Matched to OBO cable tray systems MKSM and SKSM
- Matched to OBO mesh cable systems with a minimum width of 100 mm
- Set consisting of TrayFix mounting adapter and concrete block including base for FangFix system 16 kg.



Stand - TrayFix set 16 S

Type	From tray width mm	Pack Piece	Weight kg/100 pc.	Item no.
TrayFix-16-S	100	1	1,700.000	5403099

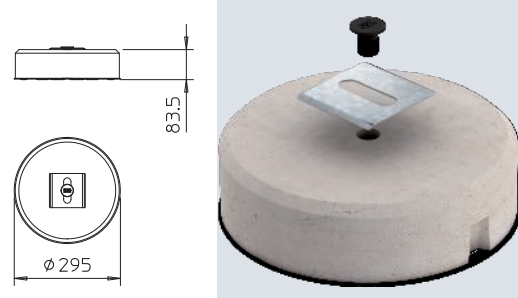
- Mounting system for the fastening of mesh cable trays with the FangFix base, e.g. for cable routing on a flat roof
- Matches OBO mesh cable tray systems with a minimum width of 100 mm
- Set consisting of TrayFix mounting adapter and concrete block incl. base for FangFix system 16 kg



Stand - TrayFix set 10 L

Type	From tray width mm	Pack Piece	Weight kg/100 pc.	Item no.
TrayFix-10-L	100	1	1,100.000	5403101

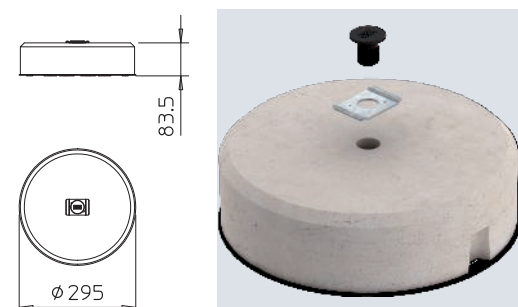
- Mounting system for the fastening of mesh cable trays with the FangFix stone, e.g. cable routing on a flat roof
- Matched to OBO cable tray systems MKSM and SKSM
- Matched to OBO mesh cable systems with a minimum width of 100 mm
- Set consisting of TrayFix mounting adapter and concrete block including base for FangFix system 10 kg



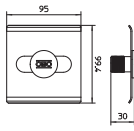
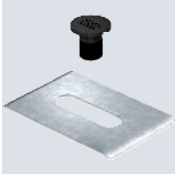
Stand - TrayFix set 10 S

Type	From tray width mm	Pack Piece	Weight kg/100 pc.	Item no.
TrayFix-10-S	100	1	1,000.000	5403102

- Mounting system for the fastening of mesh cable trays with the FangFix stone, e.g. cable routing on a flat roof
- Matches to OBO mesh cable tray systems with a minimum width of 100 mm
- Set consisting of TrayFix mounting adapter and concrete block including base for FangFix system 10 kg



TrayFix mounting adapter for mesh cable trays on FangFix system



Dimension		Pack	Weight	Item no.
Type	Piece	Piece	kg/100 pc.	
TrayFix	ø20mm	25	9.850	5403100

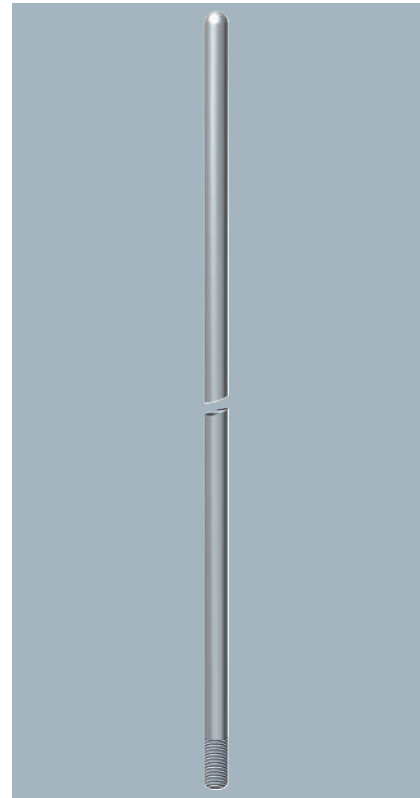
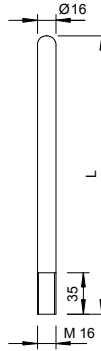
- Mounting system for the fastening of mesh cable trays and cable trays on FangFix stone, e.g. cable routing on a flat roof
- Adapted to OBO cable tray systems MKSM, SKSM and IKSM
- Adapted to OBO mesh cable tray systems with a minimum width of 100 mm

Alu

Air-termination rod, one end rounded, M16 thread

Type	Length mm	Nominal size Ø mm	Pack Piece	Weight kg/100 pc.	Item no.
101 ALU-1000	1000	16	1	55.000	5401771
101 ALU-1500	1500	16	1	81.000	5401801
101 ALU-2000	2000	16	1	109.000	5401836
101 ALU-2500	2500	16	1	136.000	5401852
101 ALU-3000	3000	16	1	162.000	5401879

- Suitable for wind loads according to Eurocode 1: DIN EN 1991-1-4
- From a free length of > 2.5 m, an additional fastening, e.g. insulated spacer is recommended
- Ø 16 mm, aluminium
- For stand system with M16 internal thread

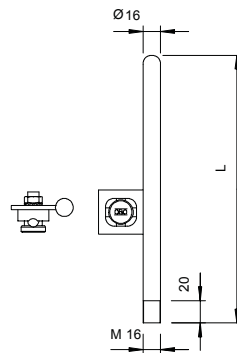


St FT

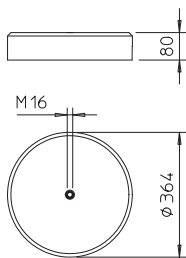
Air-termination rod, one end rounded, M16 thread

Type	Length mm	Nominal size Ø mm	Pack Piece	Weight kg/100 pc.	Item no.
101 A-L100	1000	16	1	160.000	5402808
101 A-L150	1500	16	1	240.000	5402859

- With thread M16 x 20
- With connecting strap
- Including pre-mounted connector type 5001 DIN for round conductor Rd 8-10
- For stands with female thread M16



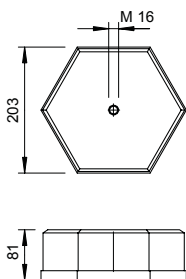
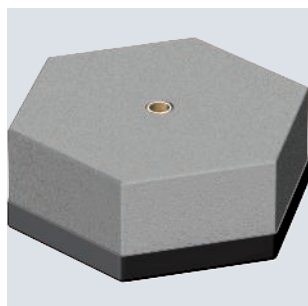
Concrete base min. 16 kg with female thread



Type	Nominal size \varnothing		Thread	Pack Piece	Weight kg/100 pc.	Item no.
	mm					
101 B2-16 M16	364		M16	1	1,600.000	5402958

- Weight min. 16 kg
- Frost-resistant concrete
- Female thread M16
- Recommended air-termination rod length max. 3.0 m, depending on wind load zone

Stand 6.9 kg with female thread

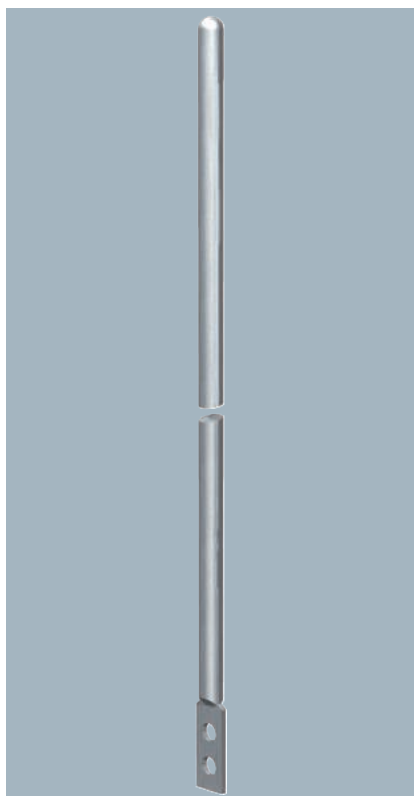


Type	Thread		Pack Piece	Weight kg/100 pc.	Item no.
	M16				
101 ST	M16		4	690.000	5402891

- Weight 6.9 kg
- Frost-resistant concrete
- Female thread M16
- Recommended air-termination rod length max. 1.0 m

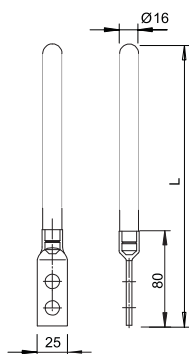
Air-termination/earth entry rod with connection tabs

St FT



Type	Length mm	Nominal size \varnothing		Pack Piece	Weight kg/100 pc.	Item no.
		mm				
101 F1000	1000	16		1	160.000	5424100
101 F1500	1500	16		1	240.000	5424151
101 F2000	2000	16		1	320.000	5424208

- With 2 attaching holes \varnothing 12 mm
- One end rounded

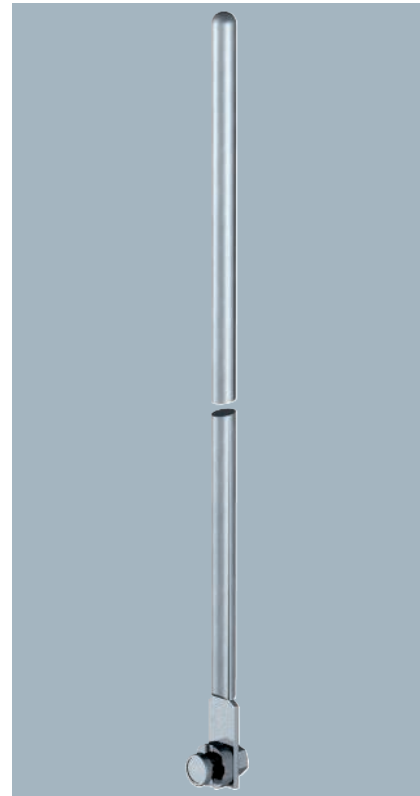
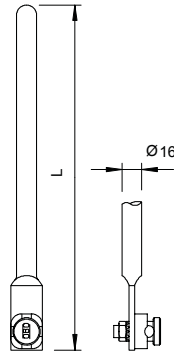


St FT

Air-termination/earth entry rod with connection tabs and connector

Type	Length mm	Nominal size Ø mm	Pack Piece	Weight kg/100 pc.	Item no.
101 G1000	1000	16	1	164.300	5402107
101 G1500	1500	16	1	240.000	5402158

- 1 attaching hole Ø 12 mm
- With pre-mounted conductor for Rd 8-10
- One end rounded



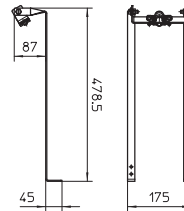
VA

Air-termination rod holder for sloping roof

Type	Pack Piece	Weight kg/100 pc.	Item no.
SD-Fix	1	81.000	5403335

Stand system: rod holder for sloping roofs, for simple, quick and secure fastening of Ø 16 mm air-termination rods.

- System consists of a bracket made of V2A stainless steel
- Quick and easy mounting
- Adjustable angle
- In the case of high air-termination rods (> 1 m), additional fastening with insulated spaces is necessary



VA

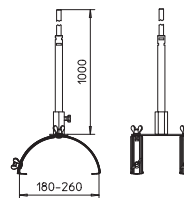
Air-termination rod holder for ridge tiles

Type	Dim. L mm	Pack Piece	Weight kg/100 pc.	Item no.
F-FIX-132	110	1	62.000	5403330
F-Fix-132-300	300	1	78.000	5403333

Rod holder for ridge tiles, for simple, quick and safe fastening of Ø 16 mm air-termination rods

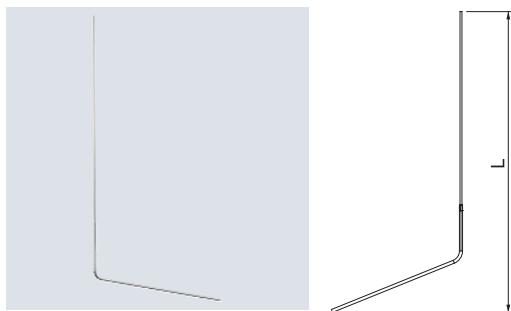
- System consisting of holder made of V2A stainless steel and aluminium air-termination rods
- Quick and easy mounting thanks to pre-mounted air-termination rod
- Air-termination rod length: 1,000 mm
- Width adjustable between 180–260 mm
- Spacing of the ridge holders: 110 mm (5403330)
- Spacing of the ridge holders: 300 mm (5403333)

Application: To protect roof structures such as photovoltaic and TV/SAT systems.



Angled air-termination rod for PV frames

Alu

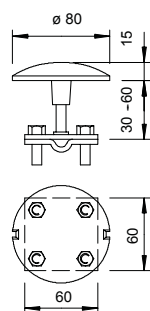
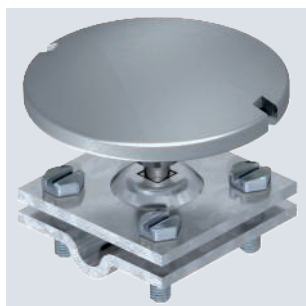


Type	Length mm	Nominal size Ø mm	Pack Piece	Weight kg/100 pc.	Item no.

- Suitable for wind loads according to Eurocode 1: DIN EN 1991-1-4
- Last metre is tapered from Ø 16 mm to Ø 10 mm, material: AlMgSi
- Angled to 112°

Mushroom-shaped air-termination with connectors

St FT

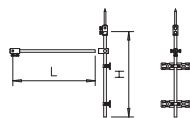
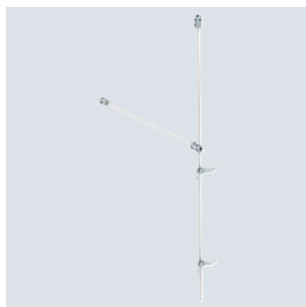


Type	Fit mm	Dim. D Ø mm	Pack Piece	Weight kg/100 pc.	Item no.

- Mushroom-shaped air-termination from aluminium
- With pre-mounted cross-piece and hexagonal bolt M8 x 25, hot-dip galvanised steel
- For round conductor Rd 8-10 and flat conductor FL 30



Insulated lightning protection set, 3-corner fastening

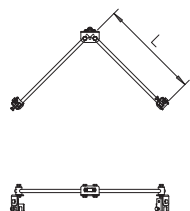
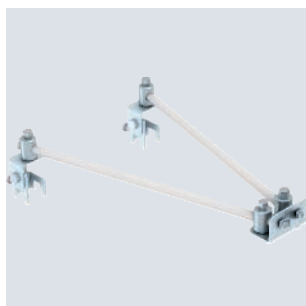


Type	Dim.	Dim.	Dim.	Pack Piece	Weight kg/100 pc.	Item no.
	D Ø mm	L mm	H mm			
101 3-ES-16	16	750	1500	1	207.100	5408976

3-corner fastening for an insulated air-termination unit at the separating distance s.

- Mounting on walls and roof structures with two fastening plates
- For maintenance of the separation distance to electrically conductive parts according to VDE 0185-305-3 (IEC 62305-3)
- Acceptance of air-termination rods and round conductors with 8, 16 and 20 mm diameter
- UV-stabilised and weatherproof
- Continuous temperature range -50 °C to +100 °C
- Material factor km = 0.7

Insulated lightning protection set, IR fastening

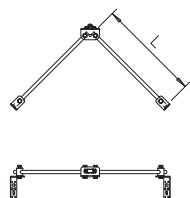
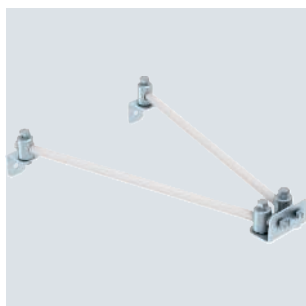


Type	Dim.	Dim.	Pack Piece	Weight kg/100 pc.	Item no.
	D Ø mm	L mm			
101 FS-16	16	750	1	235.500	5408980

Fold fastening for an insulated air-termination unit at the separating distance s.

- Mounting on folds with a thickness of up to 20 mm
- For maintenance of the separation distance to electrically conductive parts according to VDE 0185-305-3 (IEC 62305-3)
- Acceptance of air-termination rods and round conductors with 8, 16 and 20 mm diameter
- UV-stabilised and weatherproof
- Continuous temperature range -50 °C to +100 °C
- Material factor km = 0.7

Insulated lightning protection set, V fastening

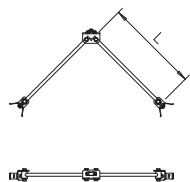
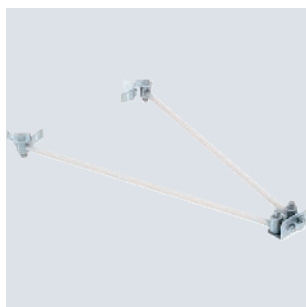


Type	Dim.	Dim.	Pack Piece	Weight kg/100 pc.	Item no.
	D Ø mm	L mm			
101 VS-16	16	750	1	201.800	5408978

V fastening for an insulated air-termination unit at the separating distance s.

- Mounting on walls and roof structures with two wall connection brackets
- For maintenance of the separation distance to electrically conductive parts according to VDE 0185-305-3 (IEC 62305-3)
- Acceptance of air-termination rods and round conductors with 8, 16 and 20 mm diameter
- UV-stabilised and weatherproof
- Continuous temperature range -50 °C to +100 °C
- Material factor km = 0.7

Insulated lightning protection set, VRS fastening



Type	Dim.	Dim.	Pack Piece	Weight kg/100 pc.	Item no.
	D Ø mm	L mm			
101 VRS-16	16	750	1	209.400	5408982

Pipe V fastening for an insulated air-termination unit at the separating distance s.

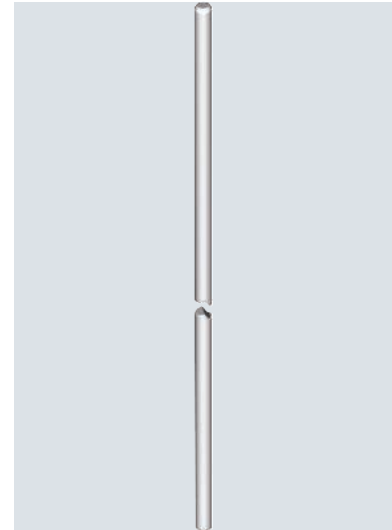
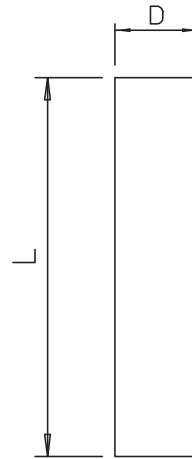
- Mounting on pipes with two pipe clips
- Including 2 m tightening strip and tension jack
- For maintenance of the separation distance to electrically conductive parts according to VDE 0185-305-3 (IEC 62305-3)
- Acceptance of air-termination rods and round conductors with 8, 16 and 20 mm diameter
- UV-stabilised and weatherproof
- Continuous temperature range -50 °C to +100 °C
- Material factor km = 0.7



Insulating rod

Type	Nominal size \varnothing mm	Length mm	Pack Piece	Weight kg/100 pc.	Item no.
101 20-3000	20	3000	5	190.000	5408105
101 20-6000	20	6000	5	380.000	5408148
101 16-750	16	750	5	30.000	5408107
101 16-1500	16	1500	5	60.000	5408108
101 16-3000	16	3000	5	120.000	5408109

- For the erection of insulated air-termination systems to VDE 0185-305 (IEC 62305)
- UV-stabilised and weatherproof
- Continuous temperature range -50 °C to +100 °C
- Material factor $k_m = 0.7$

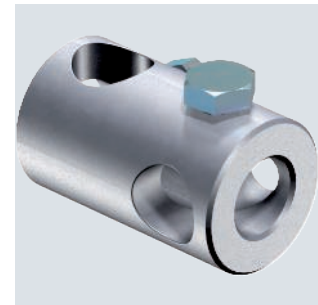
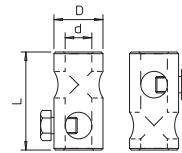


Alu

T connector

Type	Dimension d \varnothing mm	Length mm	Dim. D \varnothing mm	Pack Piece	Weight kg/100 pc.	Item no.
101 IT	20	65	40	10	16.120	5408156
101 IT-16	16	60	30	10	11.475	5408158

- T connector for installation of insulating rods
- With M10 bolts

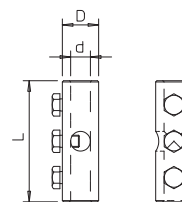


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K connector

Type	Dimension d \varnothing mm	Length mm	Dim. D \varnothing mm	Pack Piece	Weight kg/100 pc.	Item no.
101 IK	20	100	40	10	20.000	5408296
101 IK-16	16	100	30	10	17.500	5408298

- K connector for installation of insulating rods
- With M10 bolts

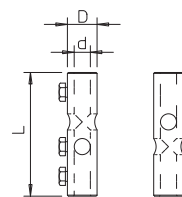


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DK connector

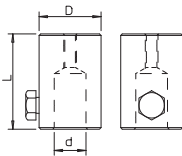
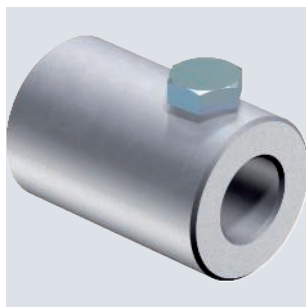
Type	Dimension d \varnothing mm	Length mm	Dim. D \varnothing mm	Pack Piece	Weight kg/100 pc.	Item no.
101 IDK	20	125	40	10	35.300	5408245

- DK connector link for installing insulating rods
- With M10 bolts



Wall connection

Alu

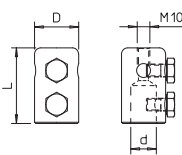
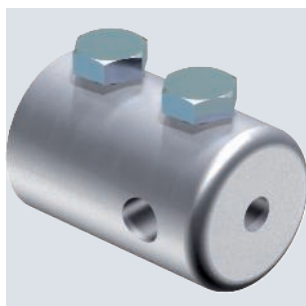


Type	Dimension		Dim.	Pack Piece	Weight kg/100 pc.	Item no.
	d Ø mm	Length mm	D Ø mm			
101 IW-M10	20	60	40	10	20.000	5408687
101 W-16	16	60	30	10	14.200	5408689

- For mounting insulating rods to structures or walls
- With M8 internal thread, e.g. for mounting the cable bracket type 177 (5207347) for loose conductor routing of round conductors
- Incl. M10 bolts

End piece

Alu

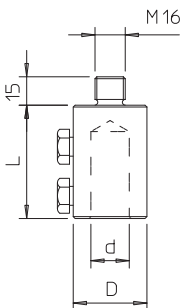


Type	Dimension		Dim.	Pack Piece	Weight kg/100 pc.	Item no.
	d Ø mm	Length mm	D Ø mm			
101 IES	20	60	35	10	20.000	5408393
101 IES-16	16	60	30	10	10.000	5408395

- End piece for attaching round conductors Rd 8-10 and air-termination tips, type 101 ISP
- With M10 internal thread, e.g. for mounting a Vario quick connector for fixed conductor routing at intersections
- With M10 bolts

Connection piece

Alu

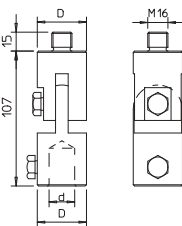


Type	Dimension		Dim.	Pack Piece	Weight kg/100 pc.	Item no.
	d Ø mm	Length mm	D Ø mm			
101 A-M16	20	60	40	10	20.000	5408350
101 A-16	16	60	30	10	13.000	5408352

- Fitting with M16 thread
- For mounting on stands with M16 female thread such as type 101 (5402891,5402958)
- With M10 bolts

Connection joint

Alu



Type	Dimension		Dim.	Pack Piece	Weight kg/100 pc.	Item no.
	d Ø mm	Length mm	D Ø mm			
101 IAG	20	107	40	10	40.000	5408504

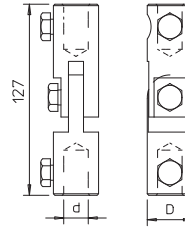
- Attaching link for installation on concrete stones
- With thread M16 on slanting roof surfaces
- With M10 bolts

Alu

Articulated connector

Type	Dimension		Dim.		Pack Piece	Weight kg/100 pc.	Item no.
	d Ø mm	Length mm	D Ø mm	Ø mm			
101 IGL-16	16	127	30		10	32.000	5408630

Link for installation of insulation pipes, including M10 screws.

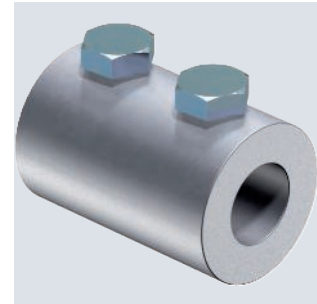
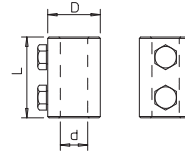


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Extension

Type	Dimension		Dim.		Pack Piece	Weight kg/100 pc.	Item no.
	d Ø mm	Length mm	D Ø mm	Ø mm			
101 IV-16	16	60	30		10	16.000	5408557

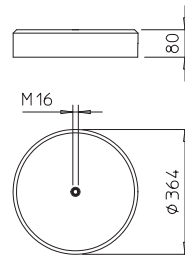
- Extension of insulating rods
- With M10 bolts



Concrete base min. 16 kg with female thread

Type	Nominal size Ø		Pack Piece	Weight kg/100 pc.	Item no.
	mm	Thread			
101 B2-16 M16	364	M16	1	1,600.000	5402958

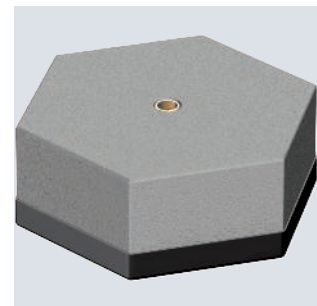
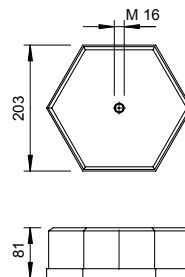
- Weight min. 16 kg
- Frost-resistant concrete
- Female thread M16
- Recommended air-termination rod length max. 3.0 m, depending on wind load zone



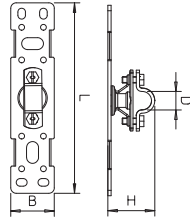
Stand 6.9 kg with female thread

Type	Thread		Pack Piece	Weight kg/100 pc.	Item no.
	M16				
101 ST	M16		4	690.000	5402891

- Weight 6.9 kg
- Frost-resistant concrete
- Female thread M16
- Recommended air-termination rod length max. 1.0 m



Fastening plate

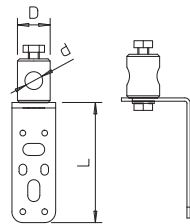


Type	Dim.	Dim.	Dim.	Dim.	Pack Piece	Weight kg/100 pc.	Item no.
	L	B	D	H			
101 BP-16	175	40	16	42	1	21.200	5408984

- To mount insulating rods on constructions or walls
- Plate made of VA stainless steel
- Holder and crosspiece for 16 and 20 mm rods and Rd 8–10 mm

Wall connection, angled

VA

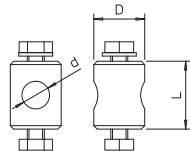


Type	Dimension d Ø	Dim. L	Dim. D	Pack Piece	Weight kg/100 pc.	Item no.
	mm	mm	Ø mm			
101 WG-16	16	110	30	1	27.960	5408986

- Wall connection for GFK rods
- Dimension D Ø: 16 mm

Fastening bolts

Alu

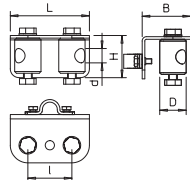
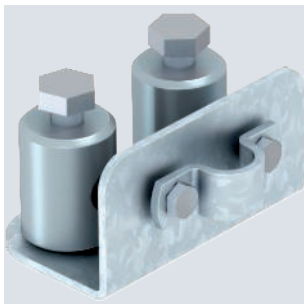


Type	Dimension d Ø	Dim. L	Dim. D	Pack Piece	Weight kg/100 pc.	Item no.
	mm	mm	Ø mm			
101 BB-16	16	40	30	1	13.920	5408988

- For GFK rods
- Dimension D Ø: 16 mm

Holder, V support

VA



Type	Dimension d Ø	Dim. L	Dim. H	Dim. B	Pack Piece	Weight kg/100 pc.	Item no.
	mm	mm	mm	mm			
101 HV-16	16	90	55	48	1	50.700	5408990

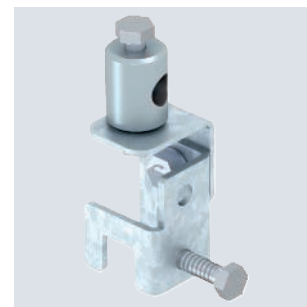
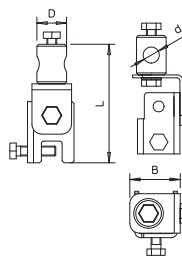
- Rod holder to accept two GRP rods
- Bracket and crossbar for 16 and 20 mm rods and Rd 8-10 mm

VA

Fold fastening

Type	Dimension	Dim.	Dim.	Dim.	Pack Piece	Weight kg/100 pc.	Item no.
	d Ø mm	L mm	D Ø mm	B mm			
101 F-16	16	121	30	51	1	45.120	5408992

- To fasten a GFK rod on constructions of 4 to 20 mm
- Dimension D Ø: 16 mm

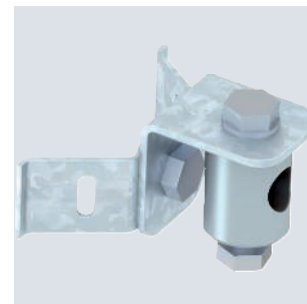
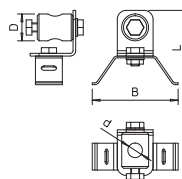


VA

Pipe fastening

Type	Dimension	Dim.	Dim.	Dim.	Pack Piece	Weight kg/100 pc.	Item no.
	d Ø mm	L mm	D Ø mm	B mm			
101 R-16	16	81	30	96	1	26.830	5408994

- For pipe fastening of a GRP rod using a tightening strap
- Slot width (l x w) 17 x 6 mm

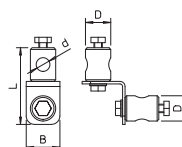


VA

Multi adapter

Type	Dimension	Dim.	Dim.	Dim.	Pack Piece	Weight kg/100 pc.	Item no.
	d Ø mm	L mm	D Ø mm	B mm			
101 MA-16	16	91	30	40	1	36.280	5408996

- Connector for two GFK rods
- Dimension D Ø: 16 mm

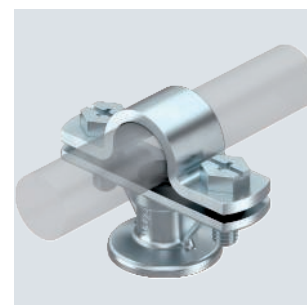
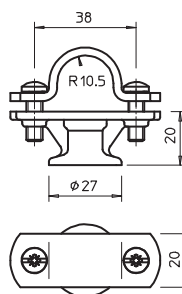


Zn

Rod holder, 20 mm

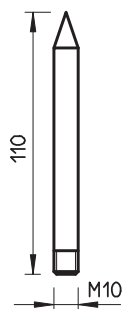
Type	Fit	Pack Piece	Weight kg/100 pc.	Item no.
	mm			
113 Z-20	Rd 20	20	8.200	5230527

- Installed with over-piece and hex-head screws M6 x 16
- With female thread M8 or through hole Ø 7 mm



Air-termination tip

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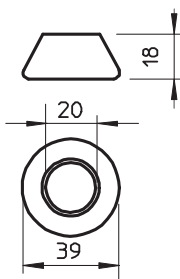
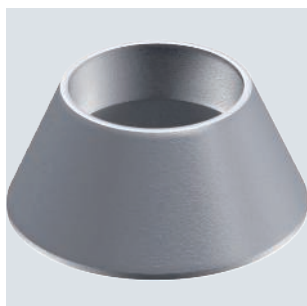


Type	Length mm	Pack Piece	Weight kg/100 pc.	Item no.
101 ISP M10	110	10	10.000	5408458

Air-termination tip for attaching to end piece, type 101 IES, with M10 thread

Water repellent

Alu



Type	Length mm	Pack Piece	Weight kg/100 pc.	Item no.
101 IAB	18	10	2.000	5408733

Water repellent for mounting on insulation rods with d = 20 mm

Adjustable insulating beam – pipe

GFK



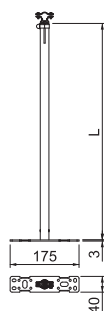
Type	Pack Piece	Weight kg/100 pc.	Item no.
ISAV1000R	1	130.000	5408849

Variable spacer for conductors and air-termination rods to maintain the separation distance.

- Infinitely adjustable distance range (L = 550–1,000 mm)
- Made of fibre-glass-reinforced plastic (km = 0.7)
- For pipe mounting (including 2 m tightening strap and tension jack)

Adjustable insulating beam – wall

GFK



Type	Pack Piece	Weight kg/100 pc.	Item no.
ISAV1000W	1	130.000	5408852

Variable spacer for conductors and air-termination rods to maintain the separation distance.

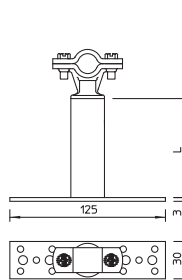
- Infinitely adjustable distance range (L = 550–1,000 mm)
- Made of fibre-glass-reinforced plastic (km = 0.7)
- For wall mounting with 10 fastening holes (4.2 mm) and 4 fastening holes (6.9 mm)

Alu PA

Insulated spacer

Type	Length mm	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
ISO-A-150 8	150	Rd 8	15	13.800	5408800
ISO-A-500	500	Rd 16	1	36.000	5408806
ISO-A-800	800	Rd 16	1	55.000	5408814
ISO-A-1030	1030	Rd 16	1	68.000	5408820

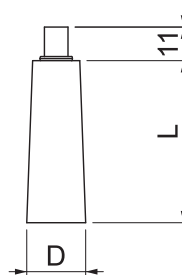
- Mounting foot with 10 connection holes \varnothing 6.5 mm and 4 connection holes \varnothing 8.5 mm
- Type ...150 8 with holder suitable for round conductor RD 8
- Application for shelters, e.g. golf, barbecue or mountain huts

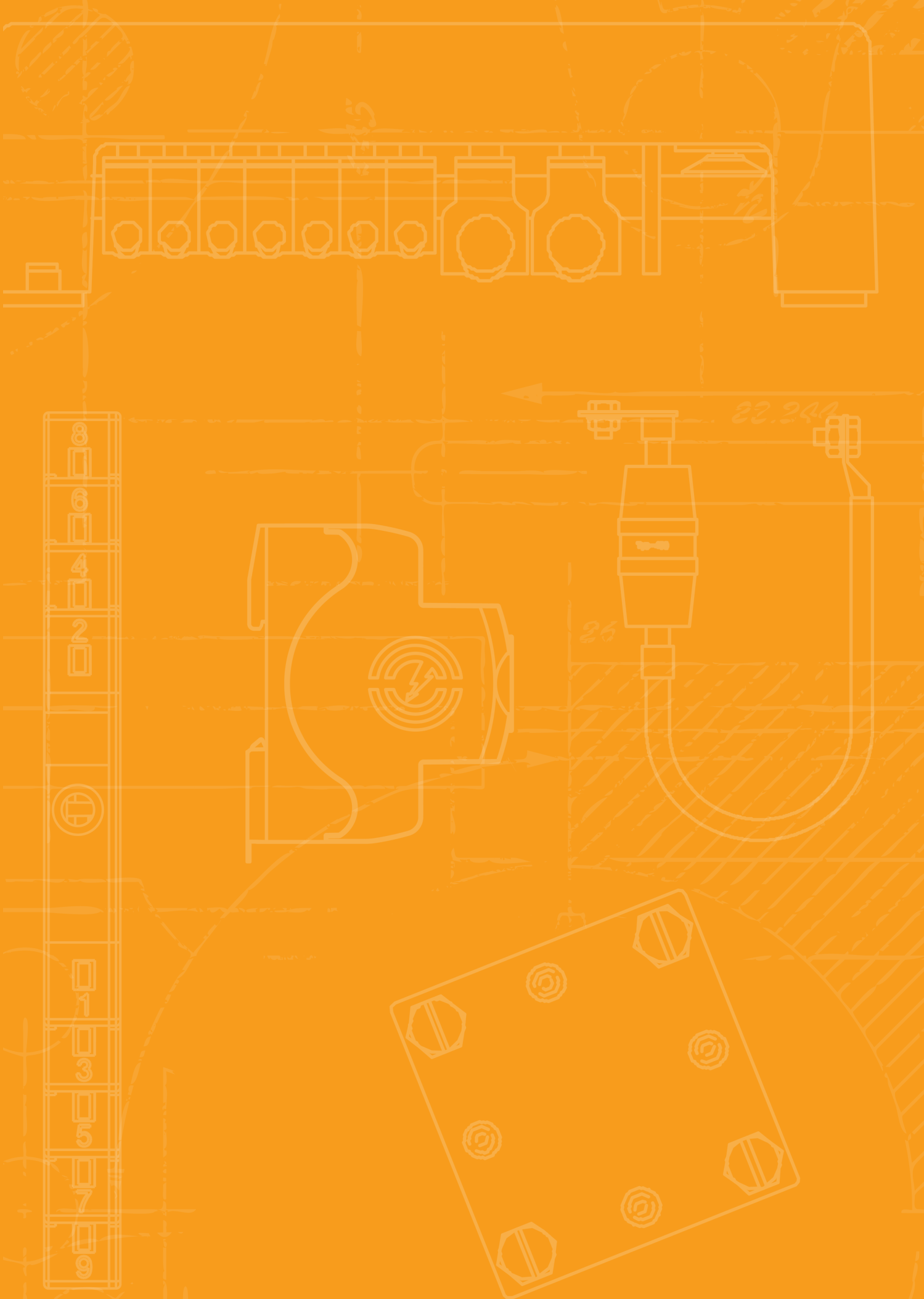


Spacer

Type	Dimension	Pack Piece	Weight kg/100 pc.	Item no.
196 55	55mm	20	1.840	5207541

Grey plastic extension for M8 thread, e.g. to mount cable brackets





Roof cable holders and cable brackets



Roof cable holders

152



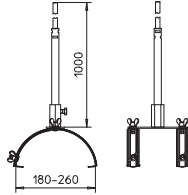
Cable brackets

168



VA

Air-termination rod holder for ridge tiles



Type	Dim.		Pack Piece	Weight kg/100 pc.	Item no.
	L	mm			
F-FIX-132	110		1	62.000	5403330
F-Fix-132-300	300		1	78.000	5403333

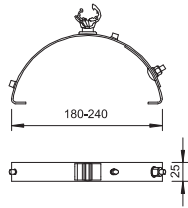
Rod holder for ridge tiles, for simple, quick and safe fastening of Ø 16 mm air-termination rods

- System consisting of holder made of V2A stainless steel and aluminium air-termination rods
- Quick and easy mounting thanks to pre-mounted air-termination rod
- Air-termination rod length: 1,000 mm
- Width adjustable between 180–260 mm
- Spacing of the ridge holders: 110 mm (5403330)
- Spacing of the ridge holders: 300 mm (5403333)

Application: To protect roof structures such as photovoltaic and TV/SAT systems.

Roof cable holder for ridge tiles, 180–240 mm, Rd 8–10

St FT

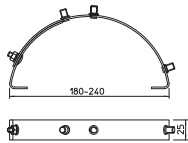


Type	Fit mm	Installation height mm	Pack Piece	Weight kg/100 pc.	Item no.

- Adjustable from 180–240 mm
- With conductor 177/20, polyamide, grey
- With 3 M8 threaded nipples for positioning the holder

Roof conductor holder for ridge tiles with M8 threaded bolts

St FT

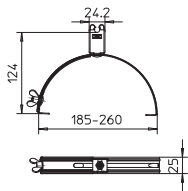


Type	Installation height mm	Pack Piece	Weight kg/100 pc.	Item no.

- Adjustable from 180–240 mm
- With conductor 177/20, polyamide, grey
- With 3 M8 threaded nipples for positioning the holder

Roof conductor holder for ridge tiles, 185–260 mm, Rd 8

VA



Type	Fit mm	Installation height mm	Pack Piece	Weight kg/100 pc.	Item no.

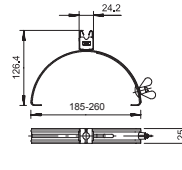
- Adjustable width from 185-260 mm
- Fast installation using wing screw

VA

Roof conductor holder for ridge tiles, 185–260 mm, Rd 8

Type	Installation		Pack Piece	Weight kg/100 pc.	Item no.
	Fit mm	height mm			
132 VA	Rd 8	20	20	12.900	5202833

- Adjustable width from 185-260 mm
- Fast installation using wing screw

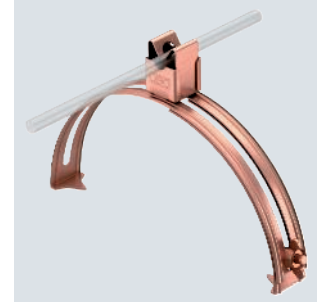
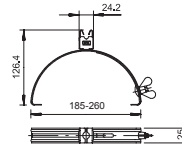


Cu

Roof conductor holder for ridge tiles, 185–260 mm, Rd 8

Type	Installation		Pack Piece	Weight kg/100 pc.	Item no.
	Fit mm	height mm			
132 CU	Rd 8	20	10	13.400	5202868

- Adjustable width from 185-260 mm
- Fast installation using wing screw

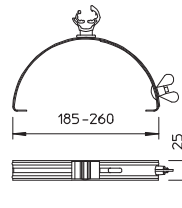


VA

Roof conductor holder for ridge tiles, 185–260 mm, Rd 8–10

Type	Installation		Pack Piece	Weight kg/100 pc.	Item no.
	Fit mm	height mm			
132 K-VA	Rd 8-10	20	20	10.900	5202515

- Adjustable width from 185-260 mm
- Bottom part made of non-rusting stainless steel (V2A)
- Infinitely adjustable conductor holder
- Conductor holder of polyamide
- Fast installation using wing screw

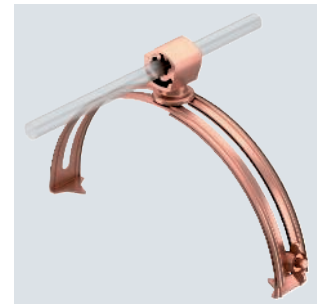
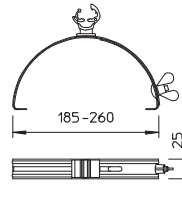


Cu

Roof conductor holder for ridge tiles, 185–260 mm, Rd 8–10

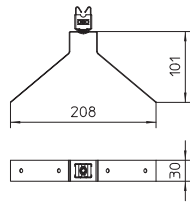
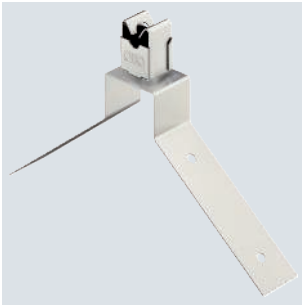
Type	Installation		Pack Piece	Weight kg/100 pc.	Item no.
	Fit mm	height mm			
132 K-CU	Rd 8-10	20	10	11.600	5202590

- Adjustable width from 185-260 mm
- Bottom part made of copper
- Infinitely adjustable conductor holder
- Conductor holder of polyamide
- Fast installation using wing screw



Roof conductor holder for ridge tiles, metal roofs, Rd 8

VA

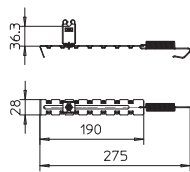


Type	Installation		Pack Piece	Weight kg/100 pc.	Item no.
	Fit mm	height mm			
132 P VA	Rd 8	20	20	8.420	5202510

- For round conductors Rd 8
- Suitable for metal roofs

Ridge conductor holder with tensioning spring

VA

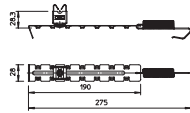


Type	Installation		Pack Piece	Weight kg/100 pc.	Item no.
	Fit mm	height mm			
132 U 35	RD 8	35	20	6.800	5203018

- For round conductor Rd 8
- Clamping range 280-380 mm

Ridge conductor holder with tensioning spring

VA

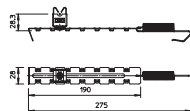
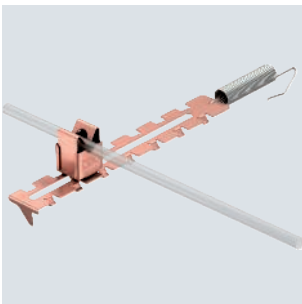


Type	Installation		Pack Piece	Weight kg/100 pc.	Item no.
	Fit mm	height mm			
132 U	RD 8	20	20	6.000	5203015

- For round conductor Rd 8
- Clamping range 280-380 mm

Ridge conductor holder with tensioning spring

VA Cu



Type	Installation		Pack Piece	Weight kg/100 pc.	Item no.
	Fit mm	height mm			
132 U-CU	RD 8	20	10	0.600	5203023

- For round conductor Rd 8
- Clamping range 280-380 mm

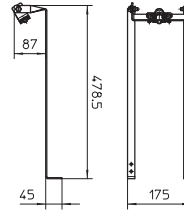
VA

Air-termination rod holder for sloping roof

Type	Pack Piece	Weight kg/100 pc.	Item no.
SD-Fix	1	81.000	5403335

Stand system: rod holder for sloping roofs, for simple, quick and secure fastening of Ø 16 mm air-termination rods.

- System consists of a bracket made of V2A stainless steel
- Quick and easy mounting
- Adjustable angle
- In the case of high air-termination rods (> 1 m), additional fastening with insulated spaces is necessary

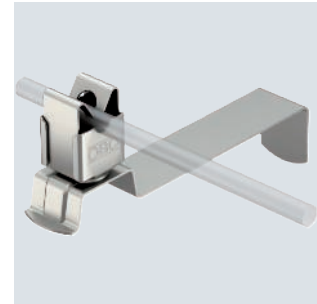
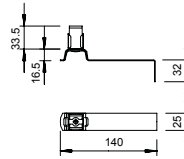


Alu

Roof conductor holder for tiled roofs, angled, Rd 8

Type	Installation			Pack Piece	Weight kg/100 pc.	Item no.
	Fit mm	height mm	Length mm			
157 FX-AL	Rd 8	26.5	140	20	3.900	5215875

- With flexible bottom section from aluminium for matching to roof tiles (easy to flex)
- Holder from stainless steel (V2A)
- Curved bottom section for quick installation

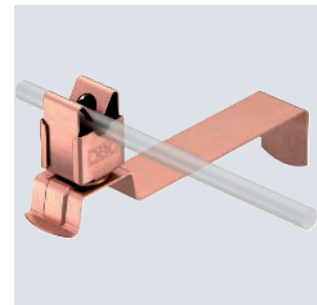
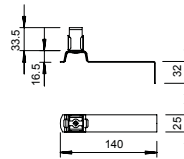


Cu

Roof conductor holder for tiled roofs, angled, Rd 8

Type	Installation			Pack Piece	Weight kg/100 pc.	Item no.
	Fit mm	height mm	Length mm			
157 FX-CU	Rd 8	26.5	140	10	7.500	5215879

- With flexible bottom section from copper for matching to roof tiles (easy to flex)
- Holder from copper plated stainless steel (V2A)
- Curved bottom section for quick installation

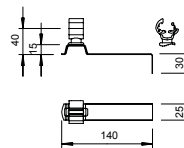


VA

Roof conductor holder for tiled roofs, angled, Rd 8–10

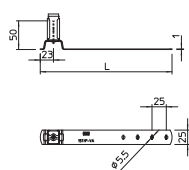
Type	Installation			Pack Piece	Weight kg/100 pc.	Item no.
	Fit mm	height mm	Length mm			
157 IK-VA	Rd 8-10	40	140	20	7.150	5215668

- Conductor holder of polyamide
- Curved bottom strip for quick installation



Roof conductor holder for tiled roofs, Rd 8

VA

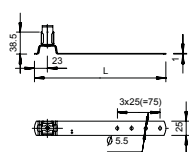
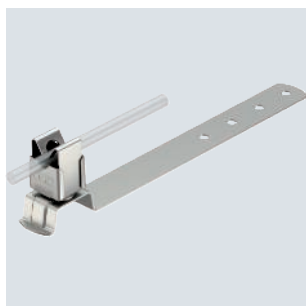


Type	Installation			Pack Piece	Weight kg/100 pc.	Item no.
	Fit mm	height mm	Length mm			
157 F-VA 230 35	Rd 8	50	230	20	8.300	5215555
157 F-VA 280 35	Rd 8	50	280	20	9.700	5215582

- Conductor holder from stainless steel (V2A)
- Including drill hole in bottom section for quick installation

Roof conductor holder for tiled roofs, Rd 8

VA

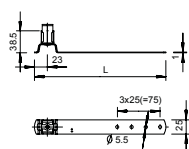
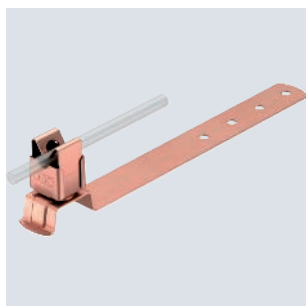


Type	Installation			Pack Piece	Weight kg/100 pc.	Item no.
	Fit mm	height mm	Length mm			
157 F-VA 230	Rd 8	38.5	230	20	8.350	5215552
157 F-VA 280	Rd 8	38.5	280	20	10.170	5215579
157 F-VA 410	Rd 8	38.5	410	20	14.880	5215595

- Conductor holder from stainless steel (V2A)
- Including drill hole in bottom section for quick installation

Roof conductor holder for tiled roofs, Rd 8

Cu

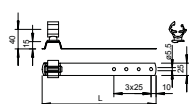


Type	Installation			Pack Piece	Weight kg/100 pc.	Item no.
	Fit mm	height mm	Length mm			
157 F-CU 230	Rd 8	38.5	230	10	10.300	5216192
157 F-CU 280	Rd 8	38.5	280	10	11.100	5216206
157 F-CU 410	Rd 8	38.5	410	10	14.500	5216257

- Conductor holder from copper plated stainless steel (V2A)
- Including drill hole in bottom section for quick installation

Roof conductor holder for tiled roofs, Rd 8-10

VA



Type	Installation			Pack Piece	Weight kg/100 pc.	Item no.
	Fit mm	height mm	Length mm			
157 FK-VA 230	Rd 8-10	40	230	20	7.800	5215544
157 FK-VA 280	Rd 8-10	40	280	20	10.170	5215587
157 FK-VA 410	Rd 8-10	40	410	20	10.250	5215609

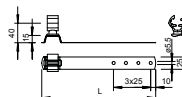
- Conductor holder of polyamide
- Including drill hole in bottom section for quick installation

Cu

Roof conductor holder for tiled roofs, Rd 8–10

Type	Installation			Pack Piece	Weight kg/100 pc.	Item no.
	Fit mm	height mm	Length mm			
157 FK-CU 230	Rd 8-10	40	230	10	8.800	5216184
157 FK-CU 280	Rd 8-10	40	280	10	9.600	5216214

- Conductor holder of polyamide
- Including drill hole in bottom section for quick installation

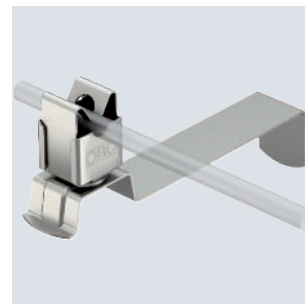
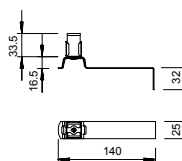


VA

Roof conductor holder for tiled roofs, angled, Rd 8

Type	Installation			Pack Piece	Weight kg/100 pc.	Item no.
	Fit mm	height mm	Length mm			
157 I-VA	Rd 8	26.5	140	20	7.150	5215625

- Conductor holder high-grade stainless steel (V2A)
- Curved bottom strip for quick installation

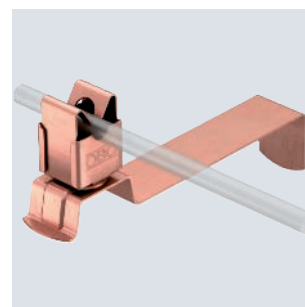
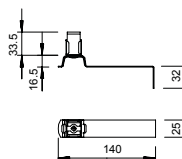


Cu

Roof conductor holder for tiled roofs, angled, Rd 8

Type	Installation			Pack Piece	Weight kg/100 pc.	Item no.
	Fit mm	height mm	Length mm			
157 I-CU	Rd 8	26.5	140	10	7.800	5215749

- Conductor holder copper plated high-grade stainless steel (V2A)
- Curved bottom strip for quick installation



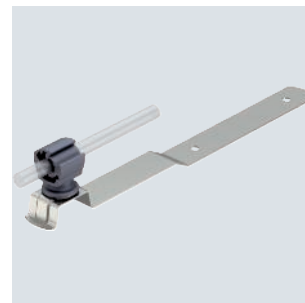
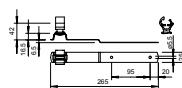
Roof conductor holders, slated roofs

VA

Roof conductor holder for slated roofs, crimped, Rd 8–10

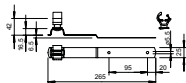
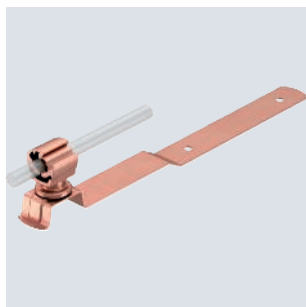
Type	Installation			Pack Piece	Weight kg/100 pc.	Item no.
	Fit mm	height mm	Length mm			
157 EK-VA	Rd 8-10	42	265	20	7.800	5215838

- Conductor holder of polyamide
- With Ø 5.5 mm drill hole



Roof conductor holder for slated roofs, crimped, Rd 8–10

Cu

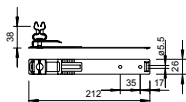
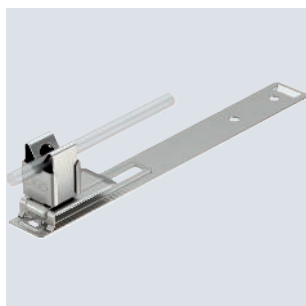


Type	Fit mm	Installation		Pack Piece	Weight kg/100 pc.	Item no.
		height mm	Length mm			
157 EK-CU	Rd 8-10	42	265	10	8.800	5215854

- Conductor holder of polyamide
- With Ø 5.5 mm drill hole

Roof conductor holder for slated roofs, Rd 8

VA

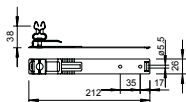
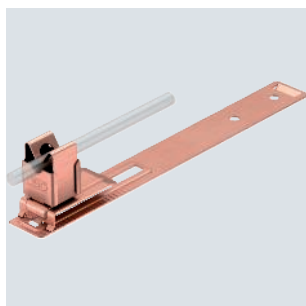


Type	Fit mm	Installation		Pack Piece	Weight kg/100 pc.	Item no.
		height mm	Length mm			
157 L-VA	Rd 8	32	212	20	8.000	5215439

- With Ø 5.5 mm drill hole and beading

Roof conductor holder for slated roofs, Rd 8

Cu

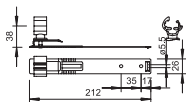


Type	Fit mm	Installation		Pack Piece	Weight kg/100 pc.	Item no.
		height mm	Length mm			
157 L-CU	Rd 8	32	212	10	9.900	5215471

- With Ø 5.5 mm drill hole and beading

Roof conductor holder for slated roofs, Rd 8–10

VA



Type	Fit mm	Installation		Pack Piece	Weight kg/100 pc.	Item no.
		height mm	Length mm			
157 LK-VA	Rd 8-10	38	212	20	8.000	5215374

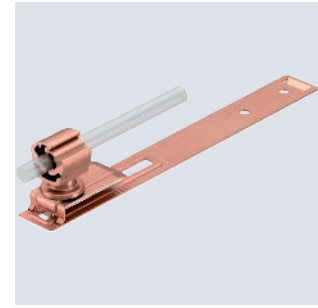
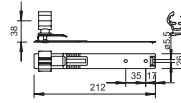
- With Ø 5.5 mm drill hole and beading
- Conductor holder of polyamide

Cu

Roof conductor holder for slated roofs, Rd 8–10

Type	Fit mm	Installation		Pack Piece	Weight kg/100 pc.	Item no.
		height mm	Length mm			
157 LK-CU	Rd 8-10	38	212	10	8.400	5215382

- With Ø 5.5 mm drill hole and beading
- Conductor holder of polyamide

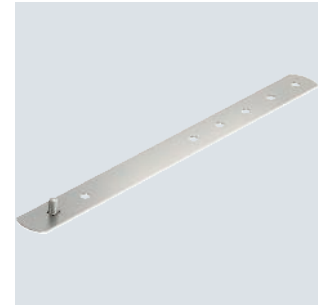
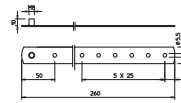


VA

Roof conductor holder for slated roofs

Type	Fit mm	Installation		Pack Piece	Weight kg/100 pc.	Item no.
		height mm	Length mm			
157 GB-M8	Rd 8-10	27	260	20	5.000	5202569

- With Ø 5.5 mm drill hole
- With 3 M8 threaded nipples for positioning the holder



Type 165 MBG 8-10

Roof conductor holder

For both Ø 8 and 10 mm round wire



Now with larger base for green (living) flat roofs



Mounting of any round conductor of Ø 8 mm or Ø 10 mm

UV-stabilised and weather-resistant closed shape with base

Can be used on almost all roofing felt systems

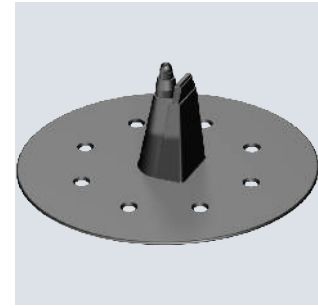
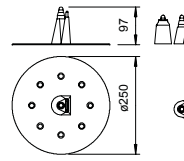


PA

Roof penetration

Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
330 K	Rd 8-16/ FL20 u. FL30	5	14.400	5201101

- For round conductors 8-10, air-termination rods 16 mm
- Flat conductors 20 mm/30 mm
- Colour: Black, UV-resistant
- For penetration and sealing of roofs

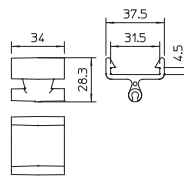


PP

Flat conductor adapter for roof conductor holder, type 165/MBG

Type	Fit Colour mm	Pack Piece	Weight kg/100 pc.	Item no.
165 MBG HFL	Black FL 30x3,5	12	0.658	5218885

- Flat conductor holder FL 30 x 3.5 mm
- For fastening to 165/MBG in fit Rd 8

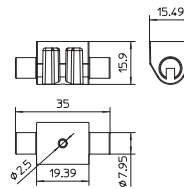


PP

Universal flat conductor adapter for roof conductor holder, type 165/MBG

Type	Fit Colour mm	Pack Piece	Weight kg/100 pc.	Item no.
165 MBG UH	Black Rd 8	25	0.254	5218882

- Universal adapter with drill hole Ø 2.5 mm
- E.g. for OBO Golden Sprint screw, type 4758 4 x L (L = depending on application)
- For fastening to 165/MBG

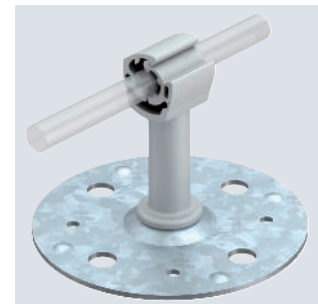
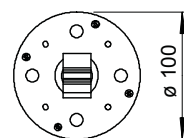


PA

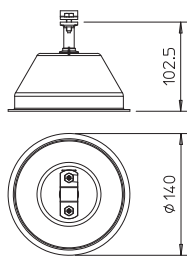
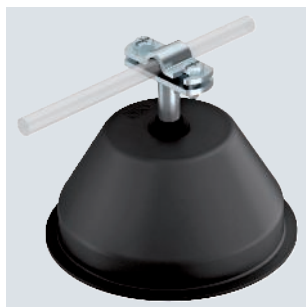
Roof conductor holder 55 mm

Type	Fit mm	Dim.		Pack Piece	Weight kg/100 pc.	Item no.
		H mm	Length mm			
165 NBK 55	Rd 8-10	55	100	75	13.540	5218314

- Suitable for bonding straight to flat roofs
- Conductor holder of polyamide
- Bottom section, hot-dip galvanised steel
- Bottom section Ø 100 mm



Roof conductor holder for flat roofs, with raised cable bracket

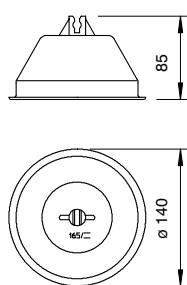


Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
165 KRB SO	Rd 8-10	9	120.000	5218977

- Filling weight 1 kg (frost-resistant concrete)
- With conductor holder, type 168 DIN-K
- Die-cast zinc conductor holder, electrogalvanised
- Polyethylene sleeve, black

Roof conductor holder for flat roofs, only plastic sleeve

PE

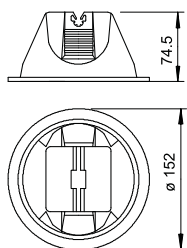
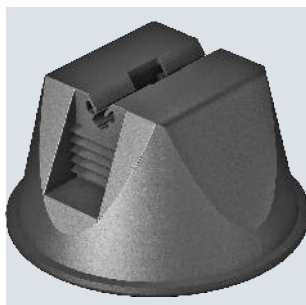


Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
165 KR	Rd 8	50	5.449	5218861

- For self-filling with concrete
- Potential filling weight: approx. 1.3 kg
- Sleeve from polyethylene, black

Roof conductor holder for flat roofs, without base

PE

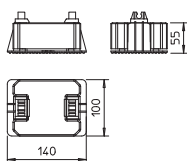


Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
165 OBG-8	Rd 8	12	100.000	5218683

- Without bottom
- With double conductor holder
- Filling weight 1 kg (frost-resistant concrete)
- Sleeve from polyethylene, black

Roof conductor holder for flat roofs

PE



Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
165 R-8-10	Rd 8-10	10	106.000	5218997

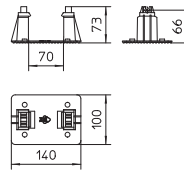
- For round conductors Rd 8–10
- With polyethylene plastic holder, black
- Block made of frost-resistant concrete
- Weight 1 kg
- Block can be split into plastic and concrete (recyclable)

PE

Roof conductor holder, for plastic film roofs

Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
165 R-8-10 OBG	Rd 8-10	100	6.760	5218999

- For flat roofs
- For round conductors Rd 8 to 10
- Polyethylene plastic holder, light grey
- For clamping in roof strips
- When installing round conductors, expansion elements are to be used for thermal compensation

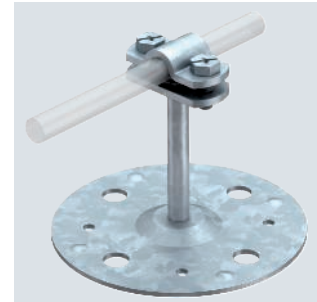
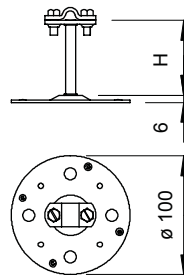


St FT

Roof conductor holder, suitable for direct bonding

Type	Fit mm	Installation height mm	Pack Piece	Weight kg/100 pc.	Item no.
165 B 60	Rd 8-10	60	50	26.100	5218810

- With conductor holder and bottom section, hot-dip galvanised steel
- Bottom section Ø 100 mm

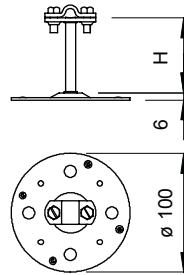


St FT

Roof conductor holder, suitable for direct bonding

Type	Fit mm	Installation height mm	Pack Piece	Weight kg/100 pc.	Item no.
165 B 100	Rd 8-10	100	50	27.700	5218829

- With conductor holder and bottom section, hot-dip galvanised steel
- Bottom section Ø 100 mm

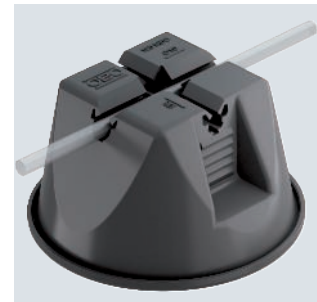
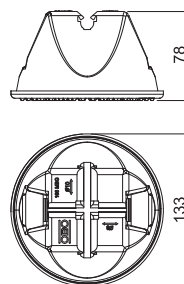


PA/PE

Roof conductor holder for flat roofs, black

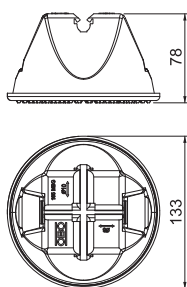
Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
165 MBG-6SO	Rd 6	12	106.000	5218780
165 MBG-8-10	Rd 8-10	12	97.220	5218700
165 MBG-8-10 FO	Rd 8-10	12	100.000	5218704

- Closed form with base
- With double conductor holder
- Filling weight 1 kg (frost-resistant concrete)
- Sleeve made of polyethylene, black, bottom polypropylene, black
- Base made of polyamide PA 6, black, UV-stabilised and weather-resistant
- Base can be used on almost all roofing felt systems (bitumen, PVC)
- Types 165 MBG...FO: Packed in foil bag



Roof conductor holder for flat roofs, grey

PA/
PE

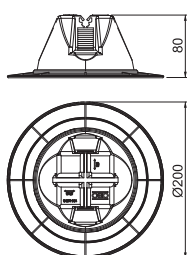


Type	Fit mm	Colour	Pack Piece	Weight kg/100 pc.	Item no.
165 MBG-8-10 GR	Rd 8-10	Grey	12	100.000	5218708

- Closed form with base
- With double conductor holder
- Filling weight 1 kg (frost resistant concrete)
- Case made from polyethylene, light grey, UV-stabilised and weatherproof
- Base made from polyamide PA 6, light grey, UV-stabilised and weatherproof
- Base suitable for nearly all roofing membrane systems (bitumen, PVC)

Roof conductor holder for flat roofs, with increased base section

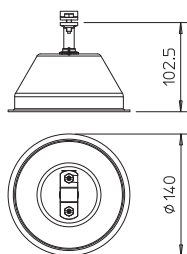
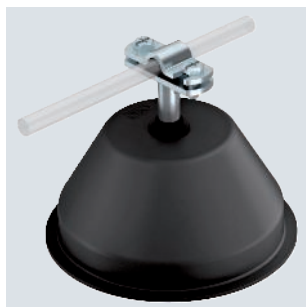
PA/
PE



Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
165 MBG-8-10 200	Rd 8-10	12	100.000	5218716

- DIN 48829 Form B 1
- Closed form with bottom
- With double conductor holder
- Filling weight 1 kg (frost-resistant concrete)
- Sleeve from polyethylene, black, bottom polypropylene, black
- With larger bottom section (Ø 200 mm) for improved stability

Roof conductor holder for flat roofs, with raised cable bracket

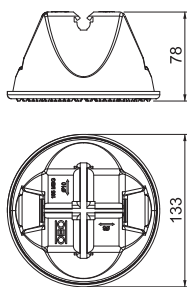
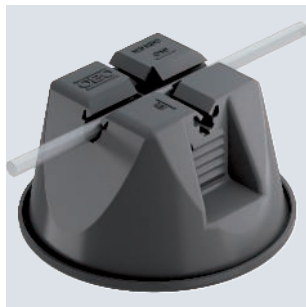


Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
165 KRB-I	FL 30	9	144.000	5218888

- Filling weight 1.3 kg (frost-resistant concrete)
- With cable holder, type 168 DIN 30
- Die-cast zinc cable holder, electrogalvanised
- Polyethylene sleeve, black

Roof conductor holder for flat roofs, black

PE



Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
165 MBL-8-10	Rd 8-10	100	7.679	5218616

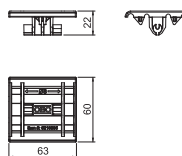
- Closed form with base
- With double conductor holder
- Filling weight 1 kg (frost-resistant concrete)
- Sleeve made of polyethylene, black, bottom polypropylene, black
- Base made of polyamide PA 6, black, UV-stabilised and weather-resistant
- Base can be used on almost all roofing felt systems (bitumen, PVC)
- Types 165 MBG...FO: Packed in foil bag

PP

Mesh cable tray adapter for roof conductor holder, type 165 MBG 8-10

Type	Fit	Colour	Pack Piece	Weight kg/100 pc.	Item no.
165 MBG HGRM	Rd 8	Black	50	1.340	5218886

- Adapter for GR-Magico® mesh cable trays with a mesh width of 50 mm or 20 mm
- For fastening to type 165 MBG 8-10
- Mounting without tools



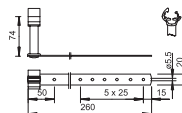
Roof conductor holders for tiled, slated, corrugated roofs

VA

Roof conductor holder for tiled and slated roofs

Type	Fit	Installation height	Length	Pack Piece	Weight kg/100 pc.	Item no.
157 ND-VA	Rd 8-10	74	260	20	6.000	5215307

- High roof conductor holder: 74 mm
- With perforation Ø 5.5 mm
- Polyamide cable bracket

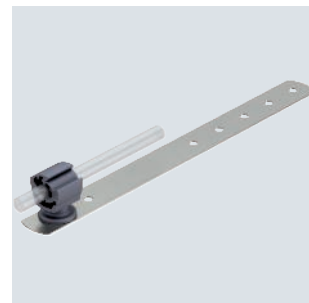
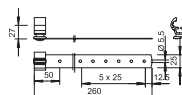


VA

Roof conductor holder for tiled and slated roofs

Type	Fit	Installation height	Length	Pack Piece	Weight kg/100 pc.	Item no.
157 NB-VA	Rd 8-10	27	260	20	6.000	5215277

- With Ø 5.5 mm drill hole
- Conductor holder of polyamide

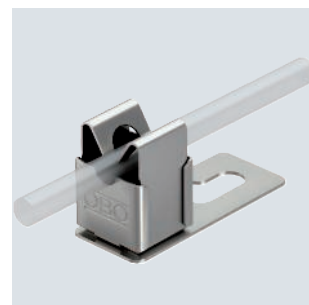
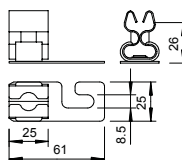


VA

Roof conductor holder for tiled, slated and corrugated roofs, Rd 8

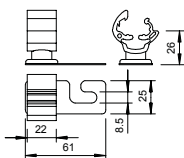
Type	Fit	Installation height	Pack Piece	Weight kg/100 pc.	Item no.
159 VA-V	Rd 8	21	20	3.900	5217075

- Bottom section and conductor holder stainless steel (V2A)
- Bottom section with Ø 8.5 mm slot



Roof conductor holder for tiled, slated and corrugated roofs, Rd 8-10

VA

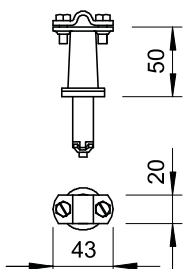


Type	Fit mm	Installation height mm	Pack Piece	Weight kg/100 pc.	Item no.
159 K-VA	Rd 8-10	21	20	2.540	5216818

- Bottom section stainless steel (V2A)
- Bottom section with Ø 8.5 mm slot
- Conductor holder of polyamide

Roof conductor holder for tiled, slated and corrugated roofs, with crossbar

PA

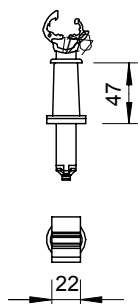


Type	Fit mm	Installation height mm	Pack Piece	Weight kg/100 pc.	Item no.
133 A	Rd 8-10	50	20	8.217	5202248

- With weatherproof clamping collar from soft PVC
- Required drill hole Ø = 16 mm
- Spacer from polyamide, grey

Roof conductor holder for tiled, slated and corrugated roofs, with cable bracket

PA



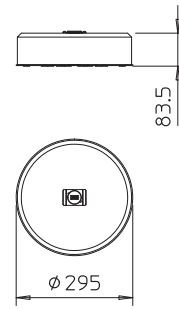
Type	Fit mm	Installation height mm	Pack Piece	Weight kg/100 pc.	Item no.
133 NB	Rd 8-10	67	20	4.338	5202213

- With weather-proof clamping collar from soft-PVC
- Required drill hole Ø = 16 mm
- Spacer and conductor holder from polyamide, grey

Stand - TrayFix set 10 S

Type	From tray width mm	Pack Piece	Weight kg/100 pc.	Item no.
TrayFix-10-S	100	1	1,000.000	5403102

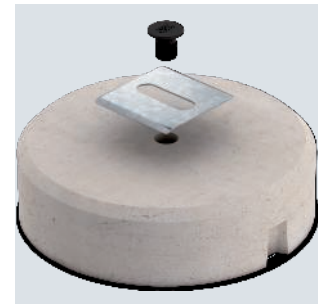
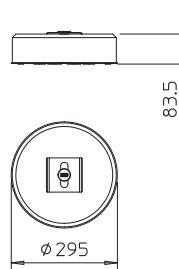
- Mounting system for the fastening of mesh cable trays with the FangFix stone, e.g. cable routing on a flat roof
- Matches to OBO mesh cable tray systems with a minimum width of 100 mm
- Set consisting of TrayFix mounting adapter and concrete block including base for FangFix system 10 kg



Stand - TrayFix set 10 L

Type	From tray width mm	Pack Piece	Weight kg/100 pc.	Item no.
TrayFix-10-L	100	1	1,100.000	5403101

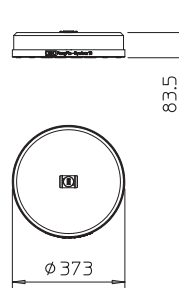
- Mounting system for the fastening of mesh cable trays with the FangFix stone, e.g. cable routing on a flat roof
- Matched to OBO cable tray systems MKSM and SKSM
- Matched to OBO mesh cable systems with a minimum width of 100 mm
- Set consisting of TrayFix mounting adapter and concrete block including base for FangFix system 10 kg



Stand - TrayFix set 16 S

Type	From tray width mm	Pack Piece	Weight kg/100 pc.	Item no.
TrayFix-16-S	100	1	1,700.000	5403099

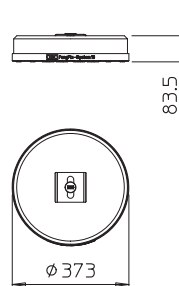
- Mounting system for the fastening of mesh cable trays with the FangFix base, e.g. for cable routing on a flat roof
- Matches OBO mesh cable tray systems with a minimum width of 100 mm
- Set consisting of TrayFix mounting adapter and concrete block incl. base for FangFix system 16 kg



Stand - TrayFix set 16 L

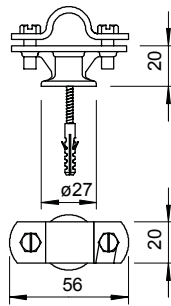
Type	From tray width mm	Pack Piece	Weight kg/100 pc.	Item no.
TrayFix-16-L	100	1	1,700.000	5403098

- Mounting system for the fastening of mesh cable trays with the FangFix stone, e.g. cable routing on a flat roof
- Matched to OBO cable tray systems MKSM and SKSM
- Matched to OBO mesh cable systems with a minimum width of 100 mm
- Set consisting of TrayFix mounting adapter and concrete block including base for FangFix system 16 kg.



Rod holder, 16 mm, with screw and anchor

Zn Cu

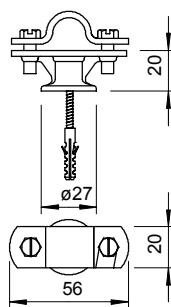


Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
113 B-HD-16	Rd 16	100	10.100	5412811

- For lightning and ground insertion rods Rd 16
- Installed with over-piece and hexagonal bolts M6 x 16 (VA)
- Female thread M8 for screwing and through hole for wood screws
- Pre-mounted with wood screw 5 x 60 and plastic dowels 8 x 40

Rod holder, 16 mm, with screw and anchor

Zn

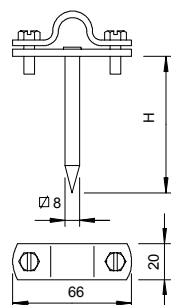


Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
113 B-Z-HD	Rd 16	100	6.000	5412803

- For lightning and ground insertion rods Rd 16
- Installed with over-piece and hexagonal bolts M6 x 16 (VA)
- Female thread M8 for screwing and through hole for wood screws
- Pre-mounted with wood screw 5 x 60 and plastic dowels 8 x 40

Rod holder, 16 mm, with square pin

St F

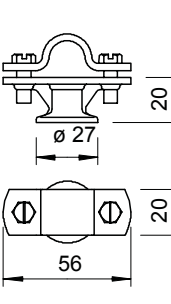


Type	Fit mm	Dim. H mm	Pack Piece	Weight kg/100 pc.	Item no.
112 DIN-100	Rd 16	100	10	12.412	5410096

- For lightning and ground insertion rods
- Over-piece with 2 hexagonal bolts M6 x 16 (VA)
- With square pin

Rod holder, 16 mm

Zn Cu



Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
113 ZN-16	Rd 16	10	10.100	5412633

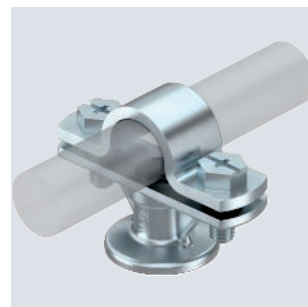
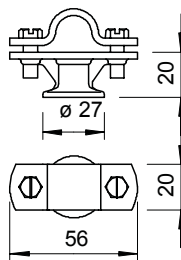
- For lightning and ground insertion rods Rd 16
- Installed with over-piece and hex-head screws M6 x 16
- With female thread M8 or through hole Ø 7 mm

Zn

Rod holder, 16 mm

Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
113 Z-16	Rd 16	10	6.000	5412609

- For lightning and ground insertion rods Rd 16
- Installed with over-piece and hex-head screws M6 x 16
- With female thread M8 or through hole Ø 7 mm

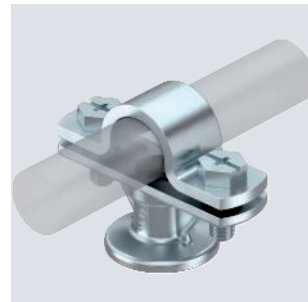
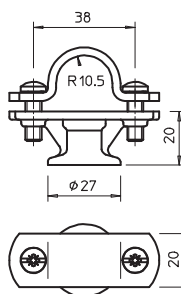


Zn

Rod holder, 20 mm

Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
113 Z-20	Rd 20	20	8.200	5230527

- Installed with over-piece and hex-head screws M6 x 16
- With female thread M8 or through hole Ø 7 mm



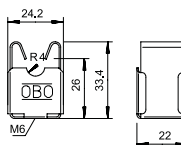
Screwless cable brackets

VA

Cable bracket for Rd 8 mm, through-way Ø 7 mm

Type	Installation		Pack Piece	Weight kg/100 pc.	Item no.
	Fit mm	height mm			
177 20 VA M8	Rd 8	20	20	1.838	5207347

- With female thread M8 or through hole Ø 5 mm
- From stainless steel (V2A)

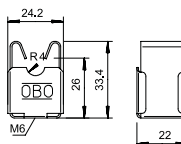


VA

Cable bracket for Rd 8 mm, through-way Ø 5 mm

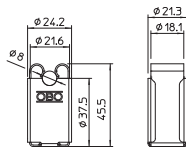
Type	Installation		Pack Piece	Weight kg/100 pc.	Item no.
	Fit mm	height mm			
177 20 VA M6	Rd 8	20	20	2.500	5207339

- With female thread M6 or through hole Ø 5 mm
- From stainless steel (V2A)



Cable bracket, raised construction type, for Rd 8 mm, through-way Ø 5 mm

VA

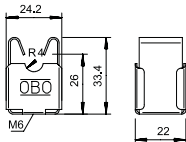
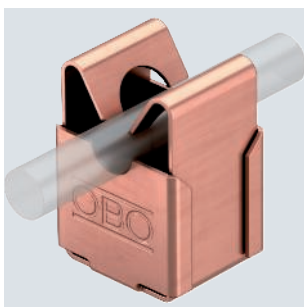


Type	Fit mm	Installation height mm	Pack	Weight	Item no.
			Piece	kg/100 pc.	
177 35 VA M6	Rd 8	35	20	2.680	5207342

- With female thread M6 or through hole Ø 5 mm
- From stainless steel (V2A)

Cable bracket for Rd 8 mm, through-way Ø 5 mm, copper-plated

VA Cu

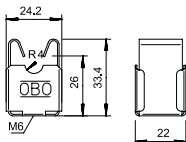
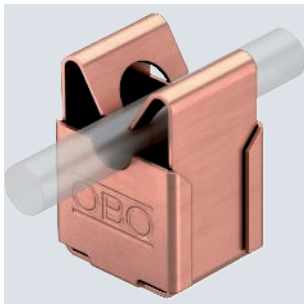


Type	Fit mm	Installation height mm	Pack	Weight	Item no.
			Piece	kg/100 pc.	
177 20 VA-VK M6	Rd 8	20	20	2.500	5207800

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

Cable bracket for Rd 8 mm, through-way Ø 7 mm, copper-plated

VA Cu



Type	Fit mm	Installation height mm	Pack	Weight	Item no.
			Piece	kg/100 pc.	
177 20 VA-VK M8	Rd 8	20	20	1.900	5207819

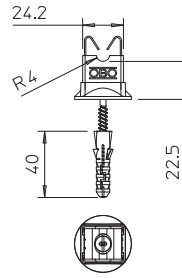
- With female thread M8 or through hole Ø 5 mm
- From stainless steel (V2A)
- VA-VK: copper-plated

VA

Cable bracket for Rd 8 mm, fastening with screw and anchor

Type	Fit mm	Installation		Pack Piece	Weight kg/100 pc.	Item no.
		height mm				
177 20 VA B-HD	Rd 8	20		50	2.900	5207901

- With female thread M8 or through hole Ø 5 mm
- From stainless steel (V2A)
- With pre-mounted wood screws (5 x 60) and plastic dowels (8 x 40)

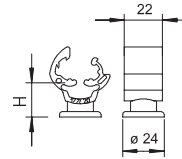


PA

Cable bracket Rd 8–10 mm with pre-mounted wood screw

Type	Fit mm	Installation		Pack Piece	Weight kg/100 pc.	Item no.
		height mm				
177 B-HD20	Rd 8-10	20		50	1.930	5207851
177 B-HD30	Rd 8-10	30		50	1.503	5207878

- With female thread M8 for screwing and through hole for wood screws
- For round conductor Rd 8-10
- Weather and temperature-resistant from -35 °C to +90 °C
- With pre-mounted wood screws (5 x 60) and plastic dowels (8 x 40)

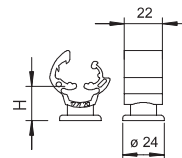


PA

Cable bracket Rd 8–10 mm

Type	Fit mm	Installation		Pack Piece	Weight kg/100 pc.	Item no.
		height mm				
177 20 M8	Rd 8-10	20		20	0.723	5207444
177 30 M8	Rd 8-10	30		20	0.790	5207460
177 55 M8	Rd 8-10	55		20	1.007	5207487

- With female thread M8 or through hole Ø 7 mm
- Weather and temperature-resistant from -35 °C to +90 °C

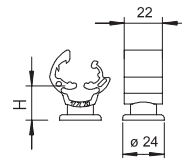


PA

Cable bracket Rd 8–10 mm, copper-plated

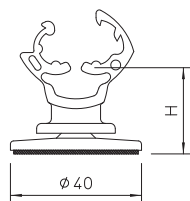
Type	Fit mm	Installation		Pack Piece	Weight kg/100 pc.	Item no.
		height mm				
177 20 CU	Rd 8-10	20		10	0.718	5207746
177 30 CU	Rd 8-10	30		10	0.784	5207754
177 55 CU	Rd 8-10	55		10	1.450	5207762

- With female thread M8 for screwing and through hole for wood screws
- Colour: copper
- Weather and temperature-resistant from -35 °C to +90 °C



Cable bracket, Rd 8–10 mm with bonding base

PA



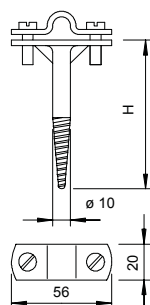
Type	Dim. H mm	Pack Piece	Weight kg/100 pc.	Item no.

- For bonding to concrete, steel or smooth substrates
- Not suitable for rough surfaces such as plaster, wood, bitumen strips
- Processing at > +15 °C and on cleaned substrate
- When installing flat conductors and round conductors, expansion elements are to be used for thermal compensation
- Use on film roofs after consultation with the responsible roof construction company

Cable bracket with crossbar

Cable bracket Rd 8–10 mm, with wood screw thread

TG F

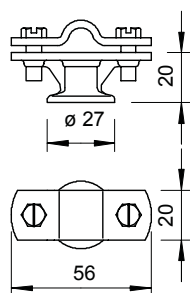


Type	Fit mm	Dim. H mm	Pack Piece	Weight kg/100 pc.	Item no.
176 A 80	Rd 8-10	80	50	10.025	5227089
176 A 100	Rd 8-10	100	50	11.500	5227100
176 A 150	Rd 8-10	150	20	13.100	5227151

- Also for flat conductor to FL 30
- With wood screw thread
- Bottom section, hot-dip galvanised cast iron
- Over-piece and screws, hot dipped galvanised steel

Cable bracket Rd 8–10 mm with wood screw, plastic anchor

Zn Cu

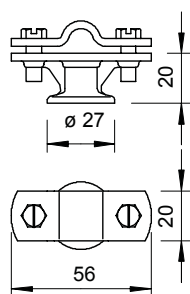


Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
113 B-MS-HD 8-10	Rd 8-10	100	7.280	5230365

- With female thread M8 or through hole Ø 7 mm
- Over-piece installed with 2 hexagonal bolts
- Version HD with wood screws (5 x 60) and plastic dowels (8 x 40)

Cable bracket Rd 8–10 mm with wood screw, plastic anchor

Zn



Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
113 B-Z-HD	Rd 8-10	100	6.580	5230322

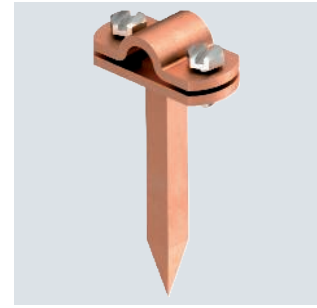
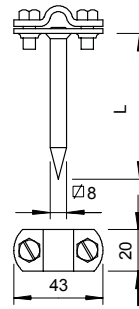
- With female thread M8 or through hole Ø 7 mm
- Over-piece installed with 2 hexagonal bolts
- Version HD with wood screws (5 x 60) and plastic dowels (8 x 40)

Cu

Cable bracket Rd 8–10 mm, with square pin, copper-plated

Type	Fit mm	Length mm	Pack Piece	Weight kg/100 pc.	Item no.
163 100 CU	Rd 8-10	100	10	10.840	5223601

- Complete with crossbar and hexagonal bolts
- With square pin for rapid mounting
- With hexagonal bolts made of VA

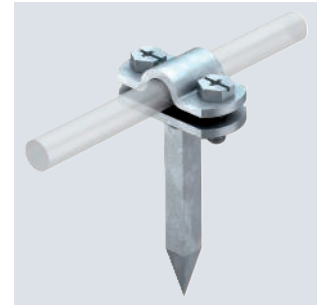
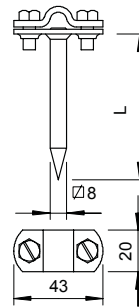


St FT

Cable bracket Rd 8–10 mm, with square pin

Type	Fit mm	Length mm	Pack Piece	Weight kg/100 pc.	Item no.
163 70 FT	Rd 8-10	70	50	8.476	5223075
163 100 FT	Rd 8-10	100	50	10.056	5223105
163 200 FT	Rd 8-10	200	20	18.880	5223202

- Complete with crossbar and hexagonal bolts
- With square pin for rapid mounting
- With hexagonal bolts made of VA

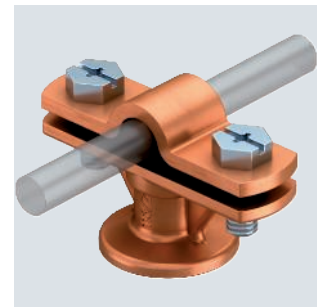
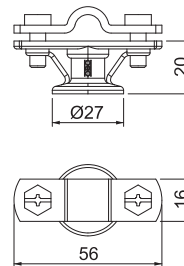


Zn Cu

Cable bracket Rd 8–10 mm

Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
113 8-10	Rd 8-10	20	6.247	5230217

- With female thread M8 or through hole \varnothing 7 mm
- Over-piece installed with 2 hexagonal bolts



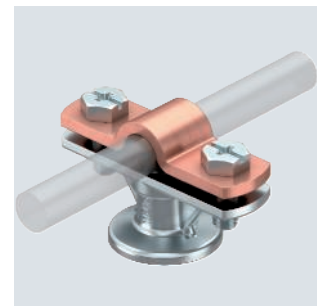
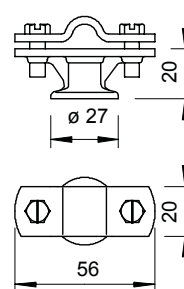
Zn

Cable bracket with Cu crossbar Rd 8–10 mm

Type	Material	Surface	Pack Piece	Weight kg/100 pc.	Item no.
113 B-Z16	Zn	VZ	100	6.000	5412706

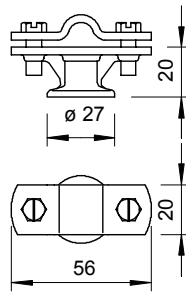
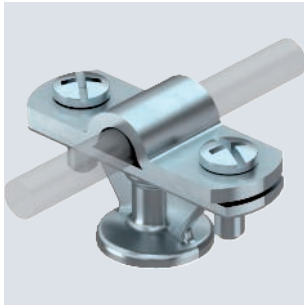
113/BZ...: Cable bracket with crossbar

- With female thread M8 or through hole for wood screws
- For flat conductor FL30
- Sliding crossbar for quick mounting



Cable bracket with crossbar Rd 8–10 mm

Zn G

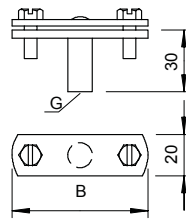
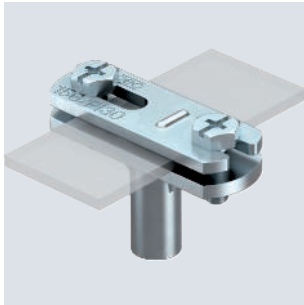


Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
113 Z8-10	Rd 8-10	20	5.956	5229960

- With female thread M8 or through hole Ø 7 mm
- Over-piece installed with 2 hexagonal bolts
- Version HD with wood screws (5 x 60) and plastic dowels (8 x 40)

Cable bracket for flat conductors

Zn G

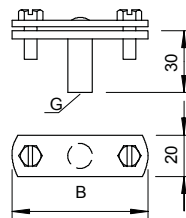
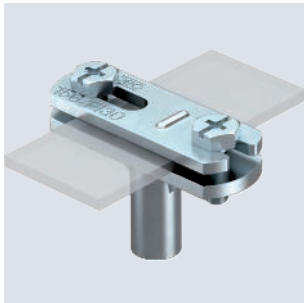


Type	Dim. B mm	Fit mm	Thread	Pack Piece	Weight kg/100 pc.	Item no.
168 FL30-M6	56	FL 30	M6	20	7.640	5229464
168 DIN 30	56	FL 30	M8	20	6.570	5229480

- For flat strip
- With female thread (G)
- Installed height 30 mm

Cable bracket for flat conductors

TG FT

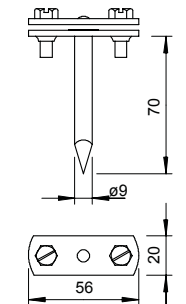


Type	Dim. B mm	Fit mm	Thread	Pack Piece	Weight kg/100 pc.	Item no.
168 FL40-M8	66	FL 40	M8	20	8.200	5229553

- For flat strip
- With female thread (G)
- Installed height 30 mm

Cable bracket for flat conductors, with round pin

St FT



Type	Fit mm	Length mm	Pack Piece	Weight kg/100 pc.	Item no.
166 LS 70	FL30	70	50	9.140	5226570

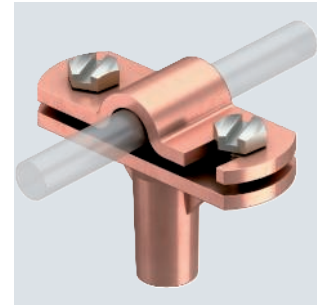
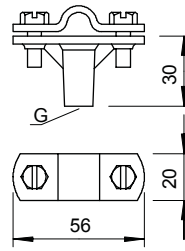
- With crossbar and 2 hexagonal bolts (VA)
- With loose round pin Ø 9 mm

Zn Cu

Cable bracket with hinged crossbar

Type	Fit mm	Thread	Pack Piece	Weight kg/100 pc.	Item no.
168 ZN-M6	Rd 8-10	M6	20	8.660	5229367
168 DIN-K-M8	Rd 8-10	M8	20	8.440	5229383

- With female thread (G)
- With over-piece and 2 hexagonal bolts
- Installed height 30 mm

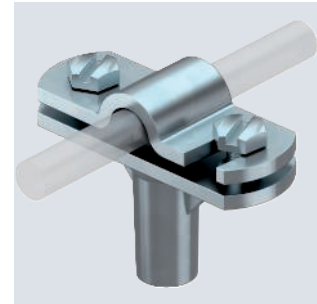
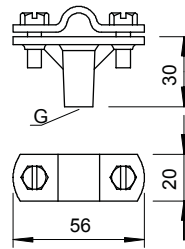


Zn G

Cable bracket Rd 8–10 mm, 30 mm mounting height

Type	Fit mm	Thread	Pack Piece	Weight kg/100 pc.	Item no.
168 8-10 M6	Rd 8-10	M6	20	7.800	5229162
168 DIN-K-M8	Rd 8-10	M8	20	7.780	5229839

- With female thread (G)
- With over-piece and 2 hexagonal bolts
- Installed height 30 mm

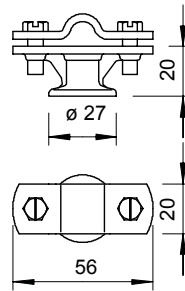


Zn G

Cable bracket with hinged crossbar Rd 8–10 mm

Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
113 Z-K 8-10	Rd 8-10	20	6.202	5229961

- With female thread M8 or through hole Ø 7 mm
- Hinge crossbar for quick swivel mounting
- Crossbar mounted with 2 hexagonal bolts



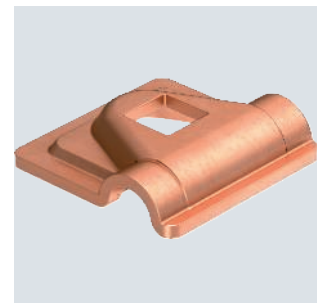
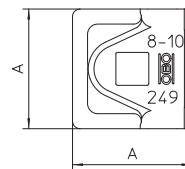
Quick connector, covers

Cu

Quick connector, upper part Rd 8–10 mm

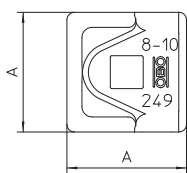
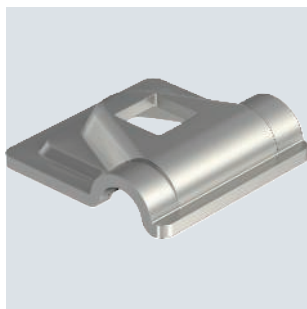
Type	Fit mm	Dim. A mm	Pack Piece	Weight kg/100 pc.	Item no.
249 8-10 CU-OT	Rd 8-10	40	100	3.580	5311530

- For round conductor fastening Rd 8-10
- Suitable for M10 bolts



Quick connector, upper part Rd 8–10 mm

VA

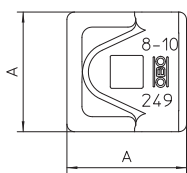
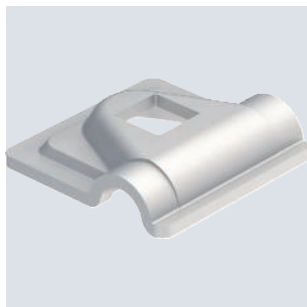


Type	Fit mm	Dim. A mm	Pack	Weight	Item no.
			Piece	kg/100 pc.	
249 8-10 VA-OT	Rd 8-10	40	100	3.130	5311554

- For round conductor Rd 8-10
- Suitable for M10 bolts

Quick connector, upper part Rd 8–10 mm

Alu

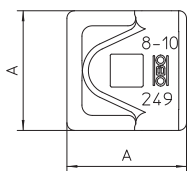
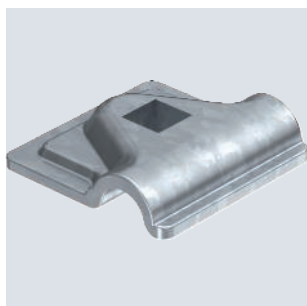


Type	Fit mm	Dim. A mm	Pack	Weight	Item no.
			Piece	kg/100 pc.	
249 8-10 ALU-OT	Rd 8-10	44	100	2.100	5311585

- For round conductor fastening Rd 8-10
- Suitable for M10 bolts

Quick connector, upper part Rd 8–10 mm

St FT



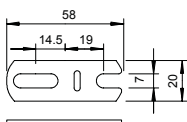
Type	Fit mm	Dim. A mm	Pack	Weight	Item no.
			Piece	kg/100 pc.	
249 8-10 ST-OT	Rd 8-10	40	100	3.240	5311503

- For round conductor fastening RD 8-10
- Suitable for M10 bolts

Hinge crossbar

Cable bracket, upper part for FL 30 mm

St FT



Type	Fit mm	Pack	Weight	Item no.
		Piece	kg/100 pc.	
156 FL	FL30	50	2.460	5228328

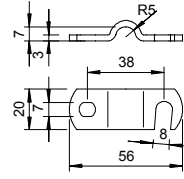
- With slot for quick installation

St FT

Cable bracket, upper part for Rd 8–10 mm

Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
156 8-10	Rd 8-10	100	2.680	5228026

- With open slot for quick installation



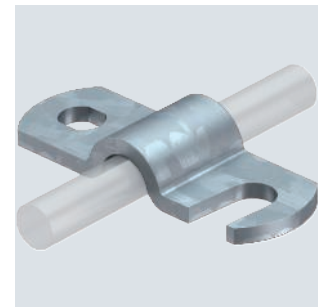
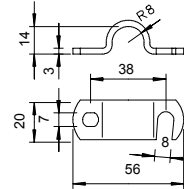
Crossbar

St FT

Cable bracket, round conductors and air-termination rods 16 mm

Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
156 16	Rd 16	50	3.230	5228220

- With open slot for quick installation

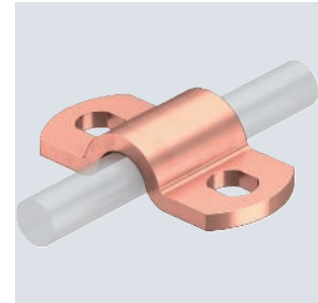
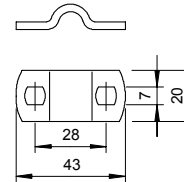


Cu

Cable bracket, upper part for Rd 8–10 mm, copper

Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
156 K8-10 CU	Rd 8-10	100	2.260	5228131

- For Rd 8–10 mm

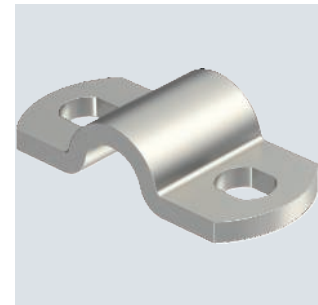
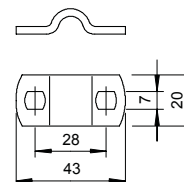


VA

Cable bracket, upper part for Rd 8–10 mm, stainless steel

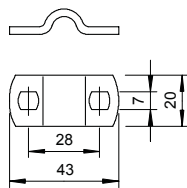
Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
156 K8-10 VA	Rd 8-10	100	2.100	5228134

- For Rd 8–10 mm



Cable bracket, upper part for Rd 8–10 mm, steel

St FT



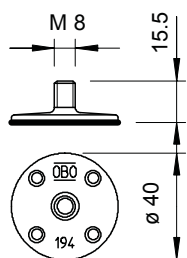
Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
156 K8-10 ST	Rd 8-10	100	2.000	5228123

- For Rd 8–10 mm

Accessories

Bonding base including industrial bonding pad

PA

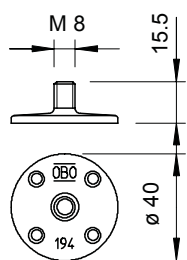


Type	Colour	Thread	Pack Piece	Weight kg/100 pc.	Item no.
194 K	Grey	M8	20	0.600	5207266

- With threaded stem M8
- For mounting cable supports with M8 female thread
- For bonding to concrete, steel or smooth substrates
- Not suitable for rough surfaces such as plaster, wood, bitumen strips
- Processing at > +15 °C and on cleaned substrate
- When installing flat conductors and round conductors, expansion elements are to be used for thermal compensation
- Use on film roofs after consultation with the responsible roof construction company

Bonding base

PA

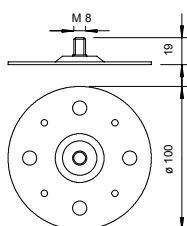
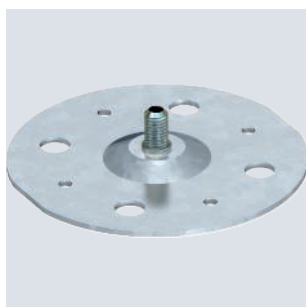


Type	Colour	Thread	Pack Piece	Weight kg/100 pc.	Item no.
194	Grey	M8	100	0.389	5207258

- With threaded stem M8
- For mounting cable supports with M8 female thread
- For bonding to concrete, steel or brickwork
- When installing flat conductors and round conductors, expansion elements are to be used for thermal compensation

Base plate

St FS



Type	Thread	Pack Piece	Weight kg/100 pc.	Item no.
199 DIN	M8	10	14.200	5208017

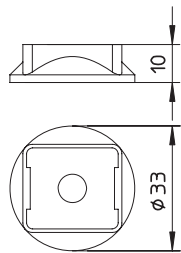
- With threaded pin M8
- Suitable for direct bonding
- Threaded pin brass and base plate hot-dip galvanised steel

PP

Washer for cable bracket, type 177

Type	Colour	Pack Piece	Weight kg/100 pc.	Item no.
177 U	Light grey	20	0.286	5207371

- For simple wall installation
- UV-resistant

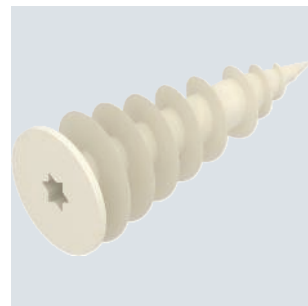


PA

Hard foam plate anchor

Type	Length mm	Dowel Ø mm	Wood screws Ø mm	Break load kN	Pack Piece	Weight kg/100 pc.	Item no.
177 WDVS 64x25 B	63.5	9	4-5	0.05	50	0.658	5207375

Anchor for universal light-duty fastening in plastered composite heat insulation systems (WDVS). The self-tapping point makes pre-drilling superfluous.





Connection and separating terminals



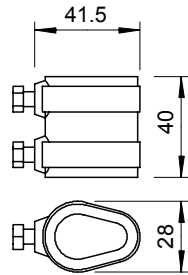
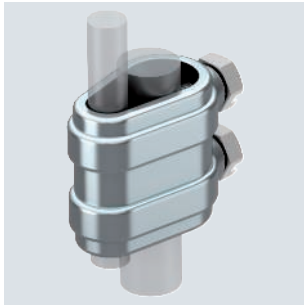
Connection and separating terminals

180



Separating piece, open

Zn G

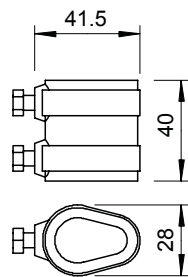


Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
223 O DIN ZN	Rd 8-10/16	20	12.500	5335140

- With 2 hexagonal bolts, stainless steel (VA)
- Clamping element, die-cast zinc

Separating piece, open

Zn Cu

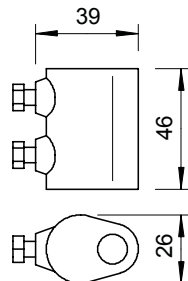
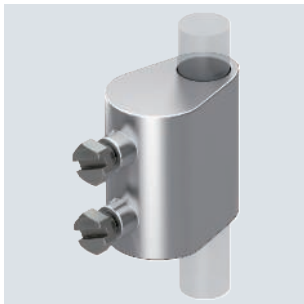


Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
223 O DIN MS	Rd 8-10/16	20	14.900	5335167

- With 2 hexagonal bolts, stainless steel (VA)
- Clamping element, copper-plated die-cast zinc

Separating piece, closed

Zn G

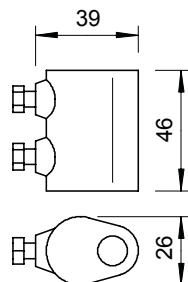
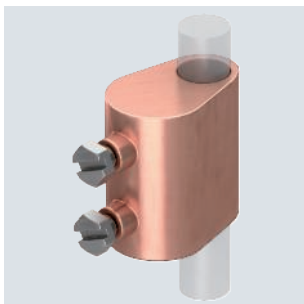


Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
223 DIN ZN	Rd 8-10/16	20	12.406	5335205

- For fitting round conductors Rd 8-10 to ground insertion rods Rd 16
- Including 2 hexagonal bolts, high-grade stainless steel (V2A)
- Conforms to the requirements according to DIN VDE 0185-305 (IEC 62305)

Separating piece, closed

Zn Cu



Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
223 DIN MS	Rd 8-10/16	10	11.700	5335256

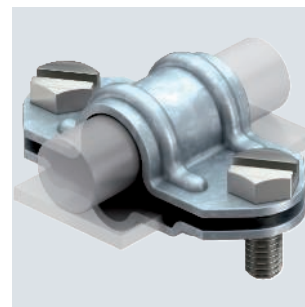
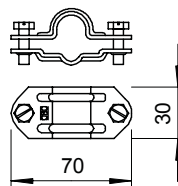
- For fitting round conductors Rd 8-10 to ground insertion rods Rd 16
- Including 2 hexagonal bolts, high-grade stainless steel (V2A)
- Conforms to the requirements according to DIN VDE 0185-305 (IEC 62305)

St FT



Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
226 8-10	Rd 8-10/FL30 x 16	20	8.600	5336007

- For fitting round conductors Rd 8–10 to Rd 16 or flat conductors FL30
- Including 2 hexagonal bolts M8 x 20 high-grade stainless steel (V2A)
- Conforms to the requirements according to VDE 0185-305 (IEC 62305)



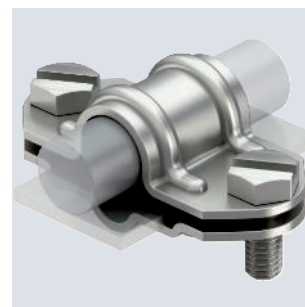
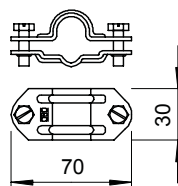
Universal separating piece

VA



Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
226 VA	Rd 8-10/FL30 x 16	10	8.700	5336058

- For fitting round conductors Rd 8–10 to Rd 16 or flat conductors FL30
- Including 2 hexagonal bolts M8 x 20 high-grade stainless steel (V2A)
- Conforms to the requirements according to VDE 0185-305 (IEC 62305)



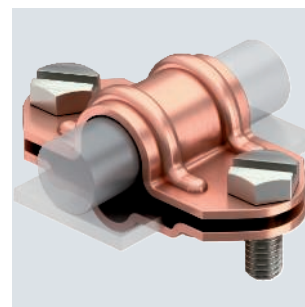
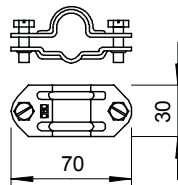
Universal separating piece

Cu



Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
226 CU	Rd 8-10/FL30 x 16	10	9.700	5336023

- For fitting round conductors Rd 8–10 to Rd 16 or flat conductors FL30
- Including 2 hexagonal bolts M8 x 20 high-grade stainless steel (V2A)
- Conforms to the requirements according to VDE 0185-305 (IEC 62305)

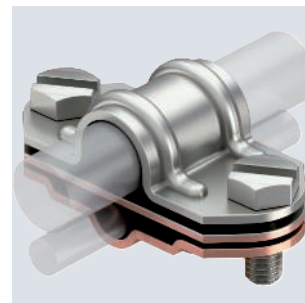
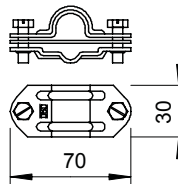


Universal separating piece

Cu

Type	Fit mm	Material upper part	Material lower part	Pack Piece	Weight kg/100 pc.	Item no.
226 ZV VA	Rd 8-10/FL30 x 16	VA	Cu	10	11.000	5336074

- Fit: Rd 8-10 x 16, FL 30 x Rd 16
- With 2 hexagonal bolts M8 x 20, stainless steel (VA)
- Intermediate plate, aluminium/copper

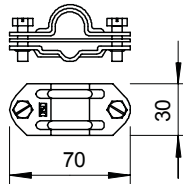
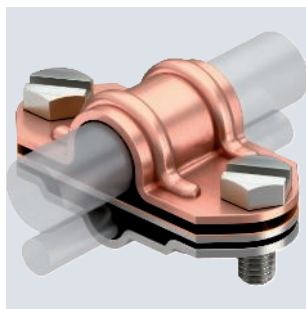


Universal bi-metal separating piece



Universal bi-metal separating piece

VA

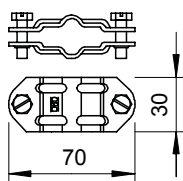
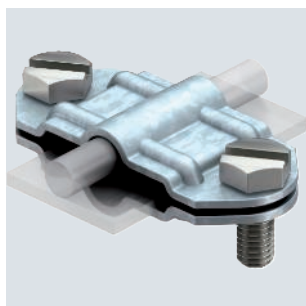


Type	Fit mm	Material upper part	Material lower part	Pack Piece	Weight kg/100 pc.	Item no.
226 ZV CU	Rd 8-10/FL30 x 16	Cu	VA	10	11.900	5336090

- Fit: Rd 8-10 x 16, FL 30 x Rd 16
- With 2 hexagonal bolts M8 x 20, stainless steel (VA)
- Intermediate plate, aluminium/copper

Separating piece for Rd 8–10 and FL 30 mm

St FT

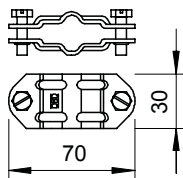
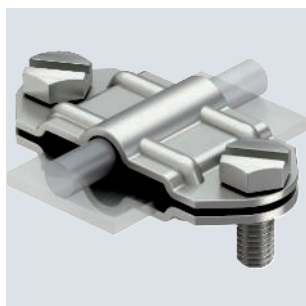


Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
233 8	Rd 8-10/FL30 x Rd 8-10/FL30	20	8.200	5336309

- To fit round conductors Rd 8-10 or flat conductors FL 30
- With 2 hexagonal bolts M8 x 20 made of rustproof steel (VA)
- Short-circuit current I_k (50 Hz), time 0.6 s, temp. max. 300 °C: 8.5 kA

Separating piece for Rd 8–10 and FL 30 mm

VA

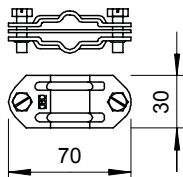
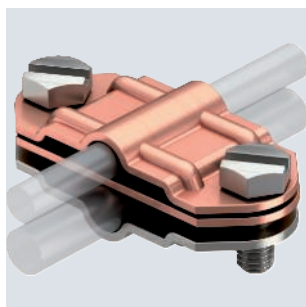


Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
233 VA	Rd 8-10/FL30 x Rd 8-10/FL30	10	8.300	5336341

- For fitting round conductors Rd 8-10 or flat conductors FL 30
- With 2 hexagonal bolts M8 x 20, stainless steel (VA)

Bi-metal separating piece for Rd 8–10 and FL 30 mm

VA



Type	Fit mm	Material upper part	Material lower part	Pack Piece	Weight kg/100 pc.	Item no.
233 ZV	Rd 8-10/FL30 x Rd 8-10/FL30	Cu	VA	10	10.100	5336376

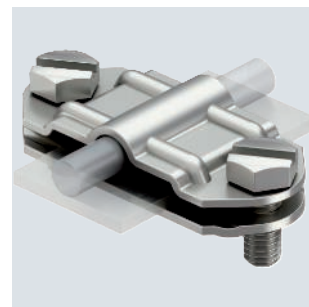
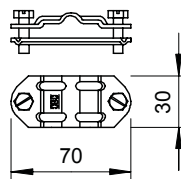
- For fitting round conductors Rd 8-10 to flat conductors FL 30
- With 2 hexagonal bolts M8 x 20, stainless steel (VA)
- Intermediate plate aluminium/copper, top section copper, bottom section stainless steel

VA

Separating piece for Rd 8–10 and FL 30–40 mm

Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
233 A VA	8-10xFL30-40	10	7.851	5336457

- Fit: Rd 8-10 x FL 30-40
- With 2 hexagonal bolts M8 x 20 (VA)

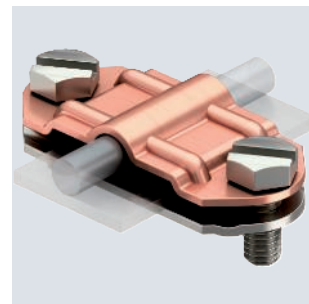
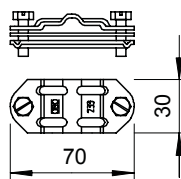


Cu

Bi-metal separating piece for Rd 8–10 and FL 30–40 mm

Type	Fit mm	Material upper part	Material lower part	Pack Piece	Weight kg/100 pc.	Item no.
233 A ZV	Rd 8-10 x FL 30-40	Cu	VA	10	10.400	5336503

- Fit: Rd 8-10 x FL 30-40, FL 30 x FL 30-40
- With 2 hexagonal bolts M8 x 20, stainless steel (VA)
- Intermediate plate, aluminium/copper
- Top section copper, bottom section stainless steel

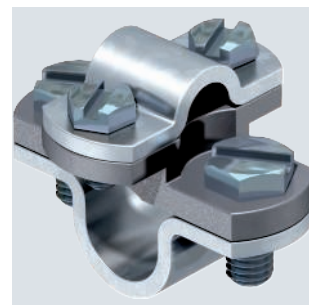
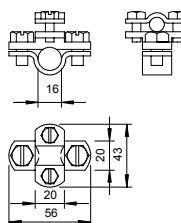


St FT

Rod clamp

Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
108 B DIN	Rd 8-10/16	10	13.970	5416566

- Rod clamp for connecting round conductors Rd 8–10 to connector rods Rd 16
- Mounted with 2 hexagonal bolts M8 x 16 and M6 x 12
- Adapter from malleable iron
- Crossbar and bolts from hot dip galvanized steel

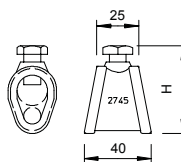


CuZn
37 Cu

Connection clamp for earth rod or cables

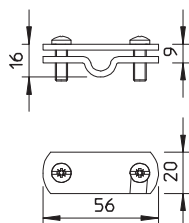
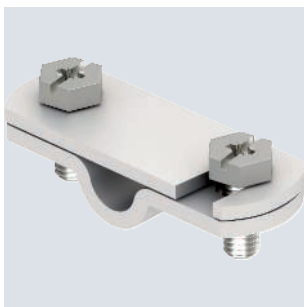
Type	For earth rods	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
2745 20 MS	20	7-12,5/S95 mm ²	5	16.000	5001560

- For earth rods Ø 20 or conductors of 95 mm²
- For round conductor attachments Rd 7–12.5 with hexagonal bolts M10 x 25



Alu

Number plates

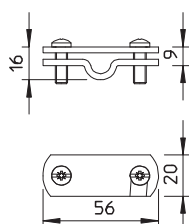


Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
311 N-ALU 8-10	RD 8-10/FL30	5	2.500	3049256
311 N-ALU 16	RD 16-FL30	5	2.800	3049345

- To identify the point of separation to DIN 48821
- Suitable for universal labelling (e.g. stamped numbers)

Number plates

A2

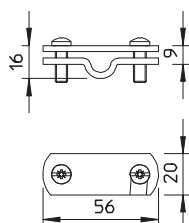
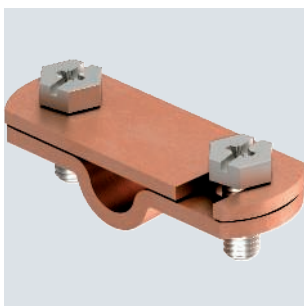


Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
311 N-VA 8-10	RD 8-10/FL30	5	5.600	3049221
311 N-VA 16	RD 16-FL30	5	6.400	3049329

- To identify the point of separation to DIN 48821
- Suitable for universal labelling (e.g. stamped numbers)

Number plates

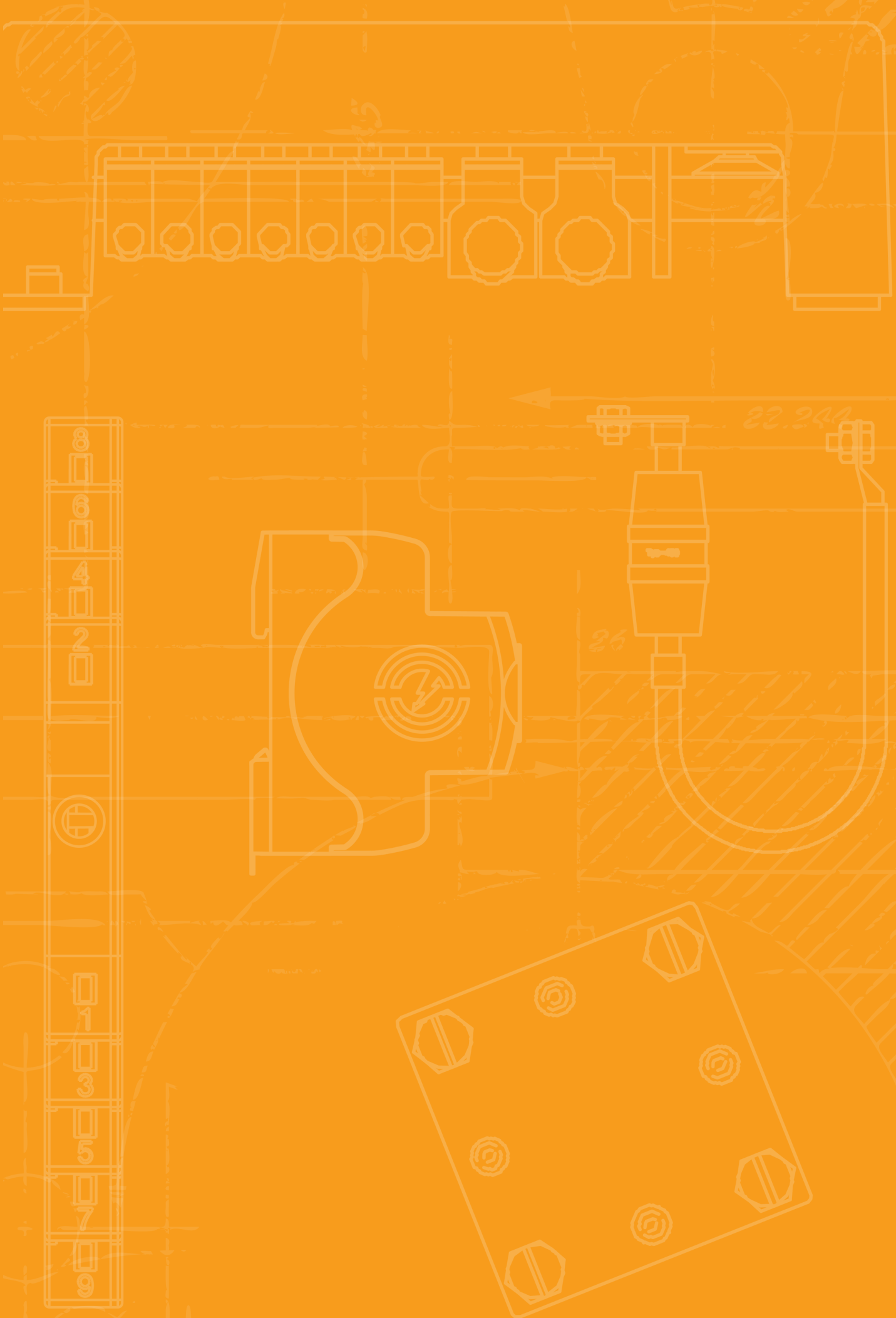
Cu



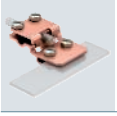
Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
311 N-CU 8-10	RD 8-10/FL30	5	6.400	3049205

- To identify the point of separation to DIN 48821
- Suitable for universal labelling (e.g. stamped numbers)





Connection clamps and connection terminals



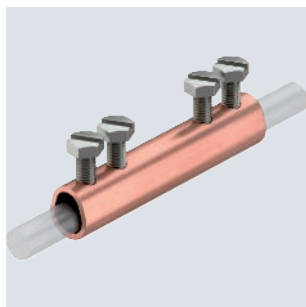
Connection clamps and connection terminals

190



Straight connector Rd 6–10 mm

Cu



Type	Fit mm	Lightning current carrying capacity kA	Pack	Weight	Item no.
			Piece	kg/100 pc.	
237 N CU	Rd 6-10	H/100	10	8.760	5328284

- With 4 hexagonal bolts M6 x 12
- Complies with the requirements of VDE 0185-305-3 (IEC/EN 62305-3)

Straight connector Rd 8–10 mm

St F

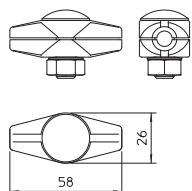


Type	Fit mm	Lightning current carrying capacity kA	Pack	Weight	Item no.
			Piece	kg/100 pc.	
237 N FT	Rd 8-10	H/100	20	8.560	5328209

- With 4 hexagonal bolts M6 x 10
- Complies with the requirements of VDE 0185-305-3 (IEC/EN 62305-3)

Straight connector Rd 8 mm

Zn G



Type	Fit mm	Lightning current carrying capacity kA	Pack	Weight	Item no.
			Piece	kg/100 pc.	
239	Rd 8	N/50	20	12.510	5329078

- With truss-head bolt M10 x 30 and hexagonal nut M10
- Complies with the requirements of VDE 0185-305-3 (IEC/EN 62305-3)

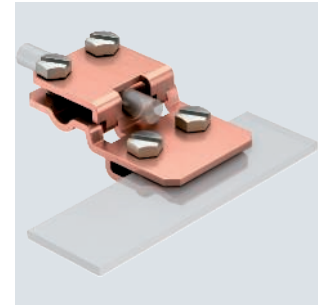
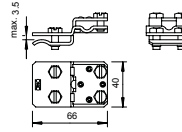
Cu



Folding clamp and connection terminal up to 10 mm plate thickness

Type	Fit mm	Clamping range mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
274 CU	Rd 8-10	- 10	N/50	10	11.340	5317479

- Plate thickness to 10 mm
- For conductor routing transverse and longitudinal to plate
- 4 hexagonal bolts M6 x 16
- Conforms to the requirements according to DIN VDE 0185-305 (IEC 62305)



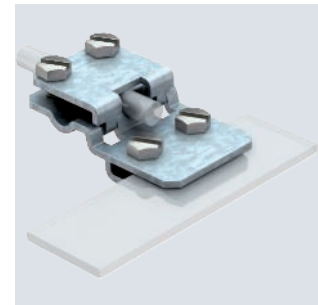
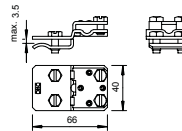
St FT



Folding clamp and connection terminal up to 10 mm plate thickness

Type	Fit mm	Clamping range mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
274 8-10	Rd 8-10	- 10	N/50	20	10.400	5317428

- Plate thickness to 10 mm
- For conductor routing transverse and longitudinal to plate
- 4 hexagonal bolts M6 x 16
- Conforms to the requirements according to DIN VDE 0185-305 (IEC 62305)



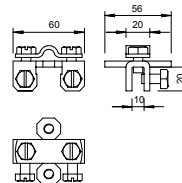
St FT



Folding clamp up to 10 mm plate thickness

Type	Fit mm	Clamping range mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
273 8-10	Rd 8-10	- 10	N/50	50	17.200	5317223

- Plate thickness to 10 mm
- Conductor routing transverse and longitudinal to plate with 2 hexagonal bolts M8 x 10 and 2 hexagonal bolts M8 x 16 (F)



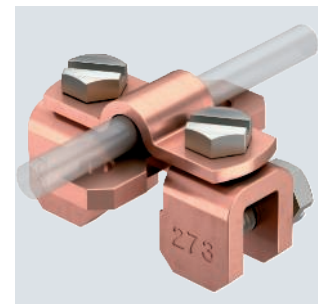
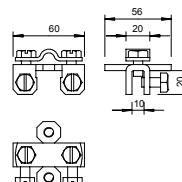
Cu



Folding clamp up to 10 mm plate thickness

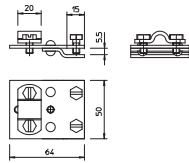
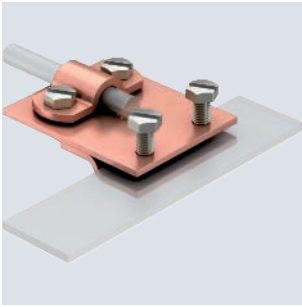
Type	Fit mm	Clamping range mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
273 CU	Rd 8-10	- 10	N/50	10	18.500	5317274

- Plate thickness to 10 mm
- Conductor routing transverse and longitudinal to plate with 2 hexagonal bolts M8 x 10 and 2 hexagonal bolts M8 x 16 (F)
- 273 Cu: with hexagonal bolts, stainless steel (VA)



Folding clamp up to 5 mm plate thickness

Cu

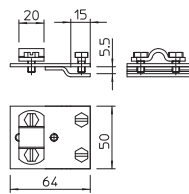
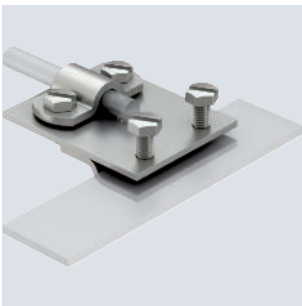


Type	Fit mm	Clamping range mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
271 CU	Rd 8-10	-5	N/50	10	15.230	5317452

- Plate thickness to 5 mm
- For conductor routing transverse and longitudinal to plate
- With 4 hexagonal bolts M6 x 12
- Conforms to the requirements according to DIN VDE 0185-305 (IEC 62305)
- 271 Cu: with hexagonal bolts stainless steel (VA)

Folding clamp up to 5 mm plate thickness

VA

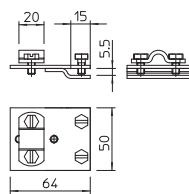
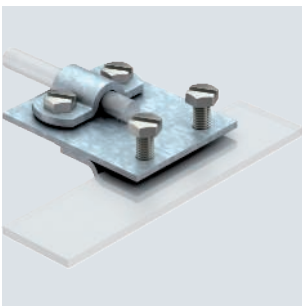


Type	Fit mm	Clamping range mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
271 8-10 VA	Rd 8-10	-5	N/50	10	15.000	5317481

- Plate thickness to 5 mm
- For conductor routing transverse and longitudinal to plate
- With 4 hexagonal bolts M6 x 12
- Conforms to the requirements according to DIN VDE 0185-305 (IEC 62305)
- 271 Cu: with hexagonal bolts stainless steel (VA)

Folding clamp up to 5 mm plate thickness

St FT

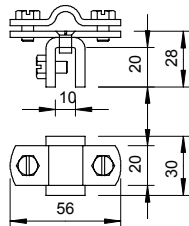
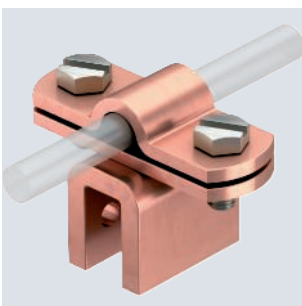


Type	Fit mm	Clamping range mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
271 8-10	Rd 8-10	-5	N/50	20	14.060	5317401

- Plate thickness to 5 mm
- For conductor routing transverse and longitudinal to plate
- With 4 hexagonal bolts M6 x 12
- Conforms to the requirements according to DIN VDE 0185-305 (IEC 62305)
- 271 Cu: with hexagonal bolts stainless steel (VA)

Folding clamp Rd 8-10 up to 10 mm plate thickness

Cu



Type	Fit mm	Clamping range mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
270 8-10 CU	Rd 8-10	-10	H/100	10	14.740	5317258

- Metal thickness to 10 mm
- For conductor routing transverse and in parallel to the plate
- Corresponds to the requirements to DIN V VDE V 0185-3 section 4.5

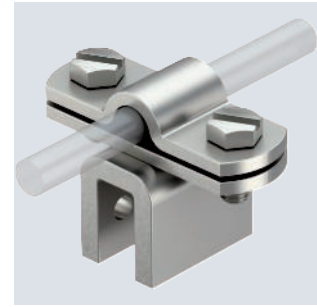
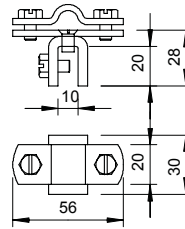
VA



Folding clamp Rd 8-10 up to 10 mm plate thickness

Type	Fit mm	Clamping range mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
270 8-10 VA	Rd 8-10	-10	N/50	10	13.800	5317208

- Metal thickness to 10 mm
- For conductor routing transverse and in parallel to the plate
- Corresponds to the requirements to DIN V VDE V 0185-3 section 4.5



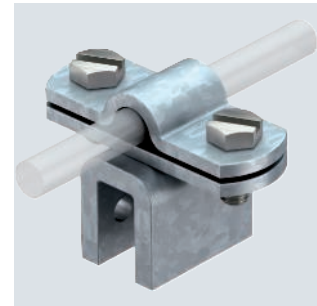
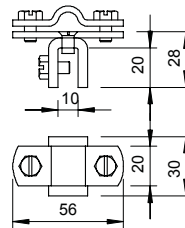
St FT



Folding clamp Rd 8-10 up to 10 mm plate thickness

Type	Fit mm	Clamping range mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
270 8-10 FT	Rd 8-10	-10	N/50	20	13.810	5317207

- Metal thickness to 10 mm
- For conductor routing transverse and in parallel to the plate
- Corresponds to the requirements to DIN V VDE V 0185-3 section 4.5



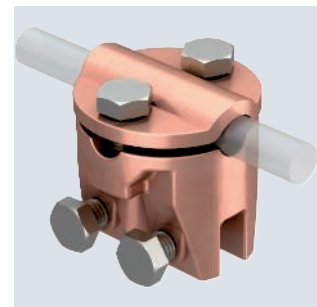
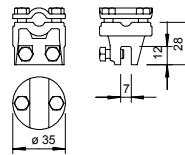
Zn Cu



Folding clamp up to 7 mm plate thickness

Type	Fit mm	Clamping range mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
269 MS	Rd 8-10	-7	H/100	10	14.480	5317053

- Plate thickness to 7 mm
- For conductor arrangement transverse and parallel to plate with 4 hexagonal bolts M6 x 16
- Conforms to the requirements according to DIN VDE 0185-305 (IEC 62305)



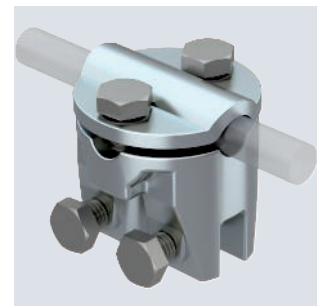
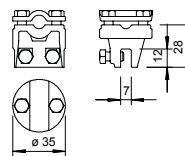
Zn G



Folding clamp up to 7 mm plate thickness

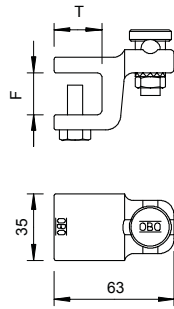
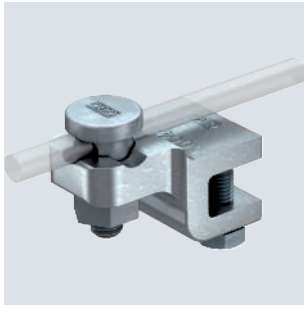
Type	Fit mm	Clamping range mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
269 8-10	Rd 8-10	-7	N/50	20	14.460	5317010

- Plate thickness to 7 mm
- For conductor arrangement transverse and parallel to plate with 4 hexagonal bolts M6 x 16
- Conforms to the requirements according to DIN VDE 0185-305 (IEC 62305)



Folding and construction clamp, 10–20 mm

TG FT

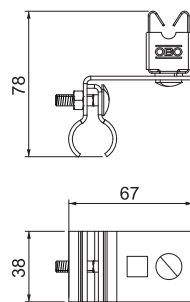
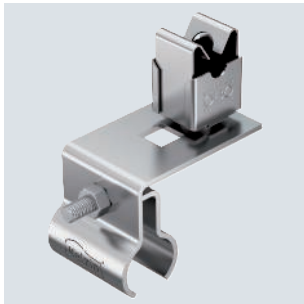


Type	Fit mm	Clamping range mm	Dim. T mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
5004 DIN-FT 12	Rd 8-10	-12	20	N/50	10	18.730	5304407
5004 DIN-FT 20	Rd 8-10	10-20	25	N/50	10	30.600	5304504

- Flange thickness to 12 or 10–20 mm
- With pre-mounted Fix contact clamping screw 5000
- 2 hexagonal bolts M8 x 20, bolts made of hot galvanised steel
- Terminal block made of malleable iron, hot galvanised
- Mounting of the round conductors either vertical or transverse to structure
- Corresponds to the requirements of DIN VDE 0185-305-3

Folding and construction clamp

VA

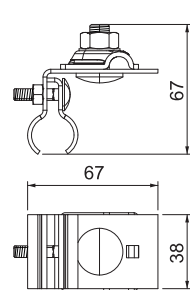
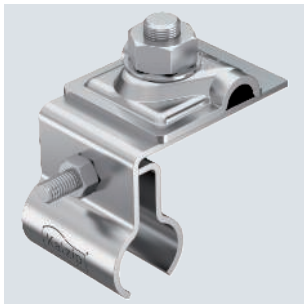


Type	Fit mm	Clamping range mm	Pack Piece	Weight kg/100 pc.	Item no.
RSF 177 20 VA M8	8	8	50	13.400	5317512

- For round standing seam systems, loose cable routing
- Manufacturer release by Kalzip
- Tested according to VDE 0185-561-4 (IEC/EN 62561-4)

Folding and construction clamp

VA



Type	Fit mm	Clamping range mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
RSF 249 8-10 VA	Rd 8-10	-10	N/50	50	14.200	5317502

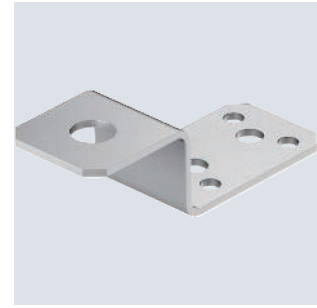
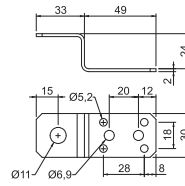
- For round standing seam systems, fixed cable routing
- Manufacturer release by Kalzip
- Tested according to VDE 0185-561-1 (IEC/EN 62561-1)

Alu

Connection component

Type	Pack Piece	Weight kg/100 pc.	Item no.
287	20	1.600	5320704

- With 1 attaching hole Ø 11 mm
- 4 mounting holes Ø 5.2 mm
- 2 mounting holes Ø 6.9 mm

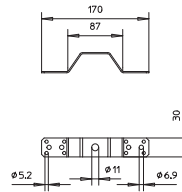


Alu

Connection and bridging component

Type	Pack Piece	Weight kg/100 pc.	Item no.
288 DIN	20	2.900	5320712

- With 1 attaching hole Ø 11 mm
- With 2 x 4 mounting holes Ø 5.2 mm
- With 2 x 2 mounting holes Ø 6.9 mm

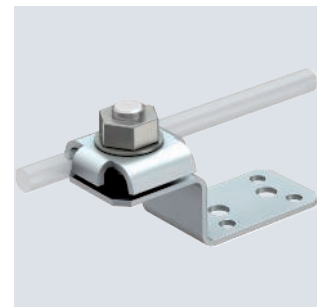
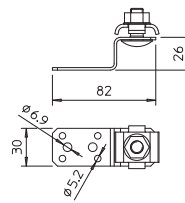


Alu

Connection component with double crossbar

Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
287 DCT	8	N/50	10	6.450	5320707

- Quick mounting thanks to an M10 x 30 bolt made of rustproof stainless steel
- With spring washer
- 4 fastening holes Ø 5.2 mm
- 2 fastening holes Ø 6.9 mm
- Corresponds to the requirements of VDE 0185-305 (IEC 62305)

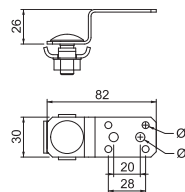


A2

Connection component with double crossbar

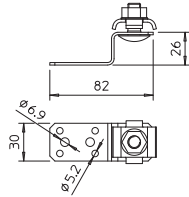
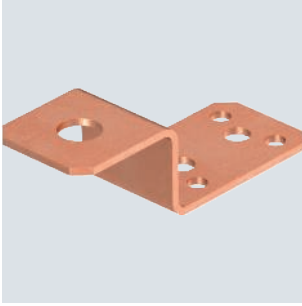
Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
287 DCT A2	Rd 6-8	H/100	10	9.320	5320709

- Quick mounting thanks to an M10 x 30 bolt made of stainless steel
- With spring washer
- 4 fastening holes Ø 5.2 mm, incl. rivets
- 2 fastening holes Ø 6.9 mm
- Corresponds to the requirements of VDE 0185-305 (IEC 62305)



Connection component

Cu



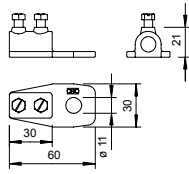
Type	Fit	Pack Piece	Weight kg/100 pc.	Item no.
287 CU		10	5.600	5320690

- With 1 attaching hole \varnothing 11 mm
- 4 mounting holes \varnothing 5.2 mm
- 2 mounting holes \varnothing 6.9 mm

End pieces

End piece

Zn G

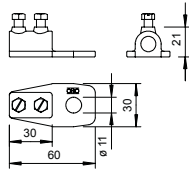


Type	Fit	Pack Piece	Weight kg/100 pc.	Item no.
280 8-10	Rd 8-10	20	6.300	5320011

- With \varnothing 11 mm attaching hole
- 2 hexagonal bolts M6 x 12, bolts hot-dip galvanised steel or VA
- Clamping element from die-cast zinc or copper-plated die-cast zinc

End piece

Zn



Type	Fit	Pack Piece	Weight kg/100 pc.	Item no.
280 VK	Rd 8-10	20	9.000	5320054

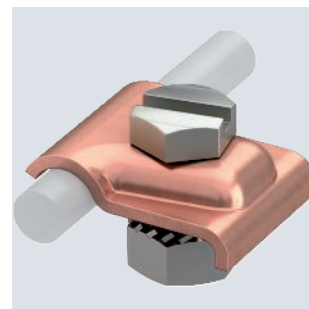
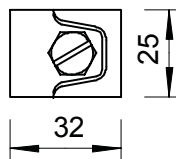
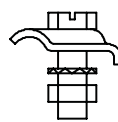
- With \varnothing 11 mm attaching hole
- 2 hexagonal bolts M6 x 12, bolts hot-dip galvanised steel or VA
- Clamping element from die-cast zinc or copper-plated die-cast zinc

Cu

Universal clamping block Rd 8–10 mm

Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
324 S-CU	Rd 8-10	10	3.660	5326338

• Including hexagonal bolt M8 x 25, washer and nuts

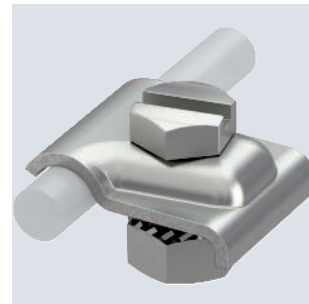
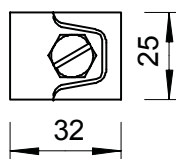
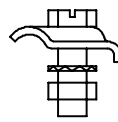


VA

Universal clamping block Rd 8–10 mm

Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
324 S-VA	Rd 8-10	10	3.400	5326311

• Including hexagonal bolt M8 x 25, washer and nuts

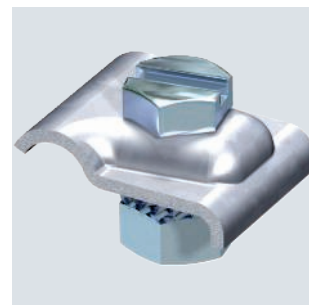
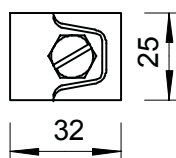
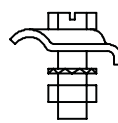


St FT

Universal clamping block Rd 8–10 mm

Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
324 S-FT	Rd 8-10	20	3.400	5326303

• Including hexagonal bolt M8 x 25, washer and nuts



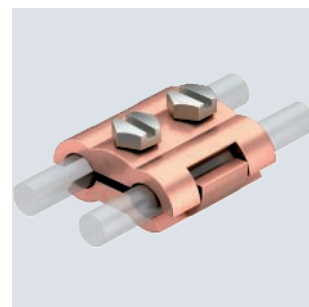
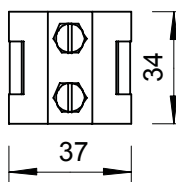
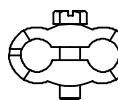
Parallel connector

CuZn 37 Cu

Parallel connector Rd 6–10 mm, M6 x 20

Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
260 8-10 MS	Rd 6-10	N/50	50	15.820	5315654

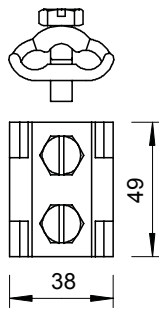
• With 2 hexagonal bolts M6 x 20 made of stainless steel (V2A)



Parallel connector

Parallel connector Rd 8–10 mm, M8 x 25

TG FT

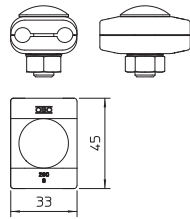
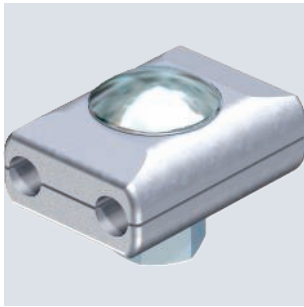


Type	Fit mm	Lightning current carrying capacity kA	Pack	Weight	Item no.
			Piece	kg/100 pc.	
259 8-10	Rd 8-10	N/50	25	13.230	5315506

• With 2 hex-head bolts M8 x 25, hot-dip galvanised steel

Parallel connector Rd 8 mm, M10 x 30

Zn G



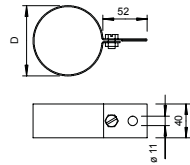
Type	Fit mm	Lightning current carrying capacity kA	Pack	Weight	Item no.
			Piece	kg/100 pc.	
260 8	Rd 8	H/100	50	13.930	5315700

• With flat, round bolt M10 x 30 and hexagonal nut, hot-dip galvanised steel

Downpipe clips

Downpipe clip

Cu



Type	For pipe mm	Pack	Weight	Item no.
		Piece	kg/100 pc.	
301 CU-80	80	10	22.500	5350689
301 CU-100	100	10	26.230	5350700

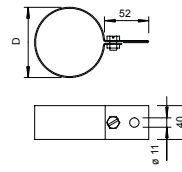
• With 1x hexagonal bolt M8 x 20
 • With 1x hexagonal nut M8 and 1 serrated disc made of rustproof steel
 • With connection hole Ø 11 mm

St FS

Downpipe clip

Type	For pipe mm	Pack Piece	Weight kg/100 pc.	Item no.
301 DIN-80	80	10	19.580	5350085
301 DIN-90	90	10	21.880	5350093
301 DIN-100	100	10	19.880	5350107
301 DIN-110	110	10	24.920	5350115
301 DIN-120	120	10	26.240	5350123

- To connect conductors and downpipes
- Similar to DIN 48818 C
- Strip galvanised (rd. 275 g/m² = 40 µm average value)
- With 1x hexagonal bolt M8 x 20
- With 1x hexagonal nut M8 and 1 stainless steel serrated washer
- With connection hole Ø 11 mm



St FS

Downpipe clip for routing Rd 8–10 mm behind pipe

Type	For pipe mm	Pack Piece	Weight kg/100 pc.	Item no.
301 S-100	100	10	5.200	5351057
301 S-120	120	10	5.950	5351073

- With beading
- For round conductor Rd 8-10
- Including hexagonal bolt M6 x 20 and nuts M6



Alu

Downpipe clip for routing Rd 8–10 mm behind pipe

Type	For pipe mm	Pack Piece	Weight kg/100 pc.	Item no.
301 S-AL-100	100	10	4.100	5351359
301 S-AL-120	120	10	4.600	5351375

- With beading
- For round conductor Rd 8-10
- Including hexagonal bolt M6 x 20 and nuts M6



VA

Downpipe clip for routing Rd 8–10 mm behind pipe

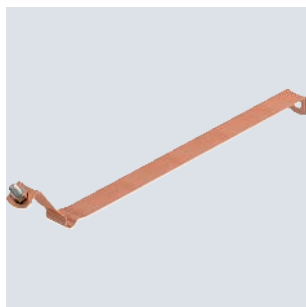
Type	For pipe mm	Pack Piece	Weight kg/100 pc.	Item no.
301 S-VA-100	100	10	5.200	5351251
301 S-VA-120	120	10	5.950	5351286

- With beading
- For round conductor Rd 8-10
- Including hexagonal bolt M6 x 20 and nuts M6



Downpipe clip for routing Rd 8–10 mm behind pipe

Cu

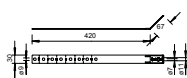
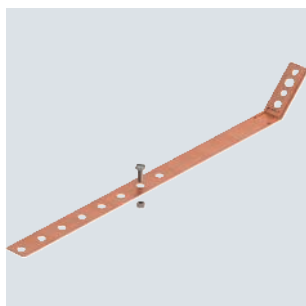


Type	For pipe mm	Pack Piece	Weight kg/100 pc.	Item no.
301 S-CU-100	100	10	5.850	5351456
301 S-CU-120	120	10	6.700	5351472

- With beading
- For round conductor Rd 8-10
- Including hexagonal bolt M6 x 20 and nuts M6

Universal downpipe clip 60–130 mm

Cu

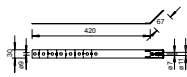
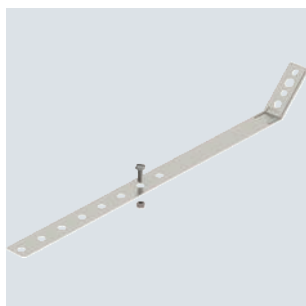


Type	Pack Piece	Weight kg/100 pc.	Item no.
301 V-CU	5	13.500	5350883

- Adjustable for pipes from 60-130 mm
- With 2x attaching holes Ø 7 mm
- With 1x attaching hole Ø 9 mm
- With 1x attaching hole Ø 11 mm
- Including hexagonal bolt M6 x 20 and nuts M6

Universal downpipe clip 60–130 mm

VA

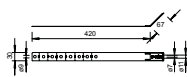
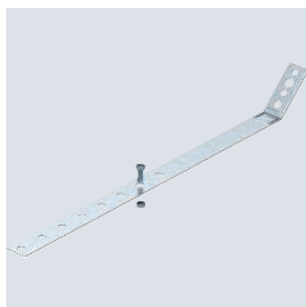


Type	Pack Piece	Weight kg/100 pc.	Item no.
301 V-VA	5	11.800	5350905

- Adjustable for pipes from 60-130 mm
- With 2x attaching holes Ø 7 mm
- With 1x attaching hole Ø 9 mm
- With 1x attaching hole Ø 11 mm
- Including hexagonal bolt M6 x 20 and nuts M6

Universal downpipe clip 60–130 mm

St FS



Type	Pack Piece	Weight kg/100 pc.	Item no.
301 V	5	11.900	5350867

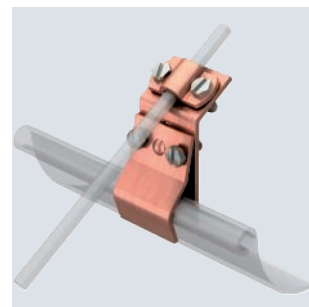
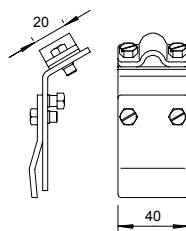
- Adjustable for pipes from 60-130 mm
- With 2x attaching holes Ø 7 mm
- With 1x attaching hole Ø 9 mm
- With 1x attaching hole Ø 11 mm
- Including hexagonal bolt M6 x 20 and nuts M6

Cu

Roof gutter clamp for all bead thicknesses

Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
262 CU	Rd 8-10	10	20.940	5316154

- With 4 hexagonal bolts M6 x 16
- Fits all bead thicknesses

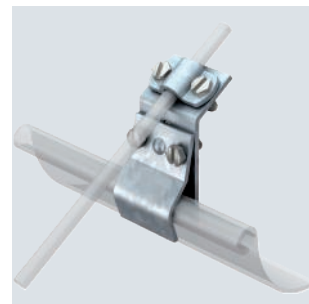
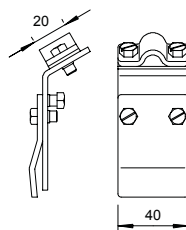


St FT

Roof gutter clamp for all bead thicknesses

Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
262	Rd 8-10	25	20.300	5316014

- With 4 hexagonal bolts M6 x 16
- Fits all bead thicknesses

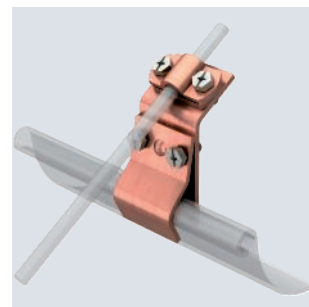
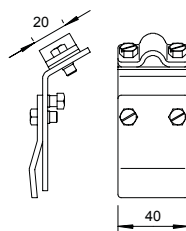


St FT

Bi-metal roof gutter clamp for all bead thicknesses

Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
262 ZM	Rd 8-10	10	23.100	5316170

- Fits all bead thicknesses
- Bi-metal for attaching round conductors aluminium or steel to roof gutters without corrosion to different metals



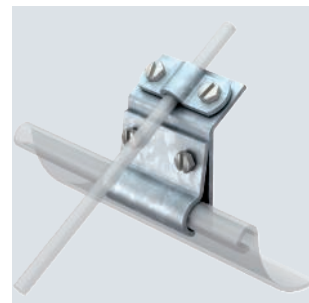
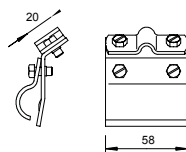
Roof gutter clamps

St FT

Gutter clamp for bead thickness 15–22 mm

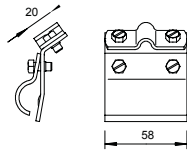
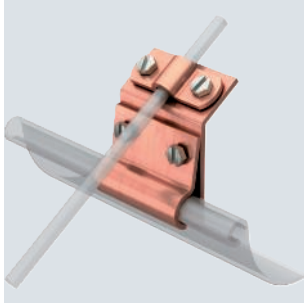
Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
262 A-DIN FT	Rd 8-10	25	19.610	5316219

- Suitable for bulge thickness 15–22 mm
- With 4 hexagonal bolts M6 x 16 (VA)



Gutter clamp for bead thickness 15–22 mm

Cu

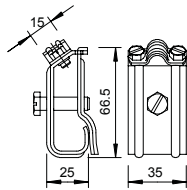
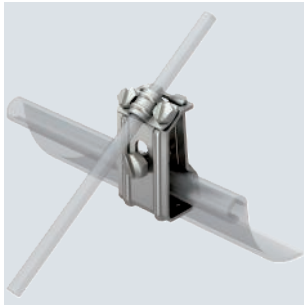


Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
262 A-DIN CU	Rd 8-10	10	20.840	5316251

- Suitable for bulge thickness 15–22 mm
- With 4 hexagonal bolts M6 x 16 (VA)

Gutter clamp for all bead thicknesses

VA

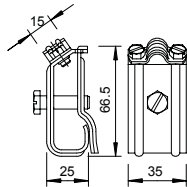
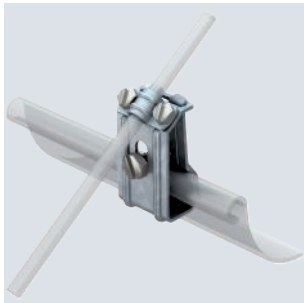


Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
267 VA	Rd 8-10	10	11.360	5316324

- Fits all bead thicknesses
- With 1 hexagonal bolt M8 x 30
- 2 hexagonal bolts M6 x 12
- VA version also for use as bimetal conductor (holder)

Gutter clamp for all bead thicknesses

St FT

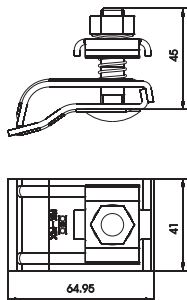
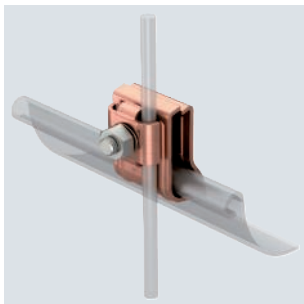


Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
267	Rd 8-10	25	13.950	5316308

- Fits all bead thicknesses
- With 1 hexagonal bolt M8 x 30
- 2 hexagonal bolts M6 x 12

Gutter clamp RK-FIX

VA Cu



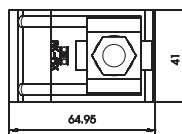
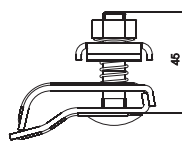
Type	Fit mm	Lightning current carrying capacity kA	Material	Pack Piece	Weight kg/100 pc.	Item no.
RK-FIX CU	2xRd 8/ 2xRd 6	H/100	A2	10	21.000	5316468

- For up to 2 conductors Rd 6 or Rd 8
- Suitable for all bead thicknesses (15–25 mm)
- With 1 truss-head bolt M10 x 45
- Nut and bolt made of VA stainless steel
- With spring for prefixing on rain gutter
- Tested to VDE 0185-561-1 (IEC/EN 62561-1)

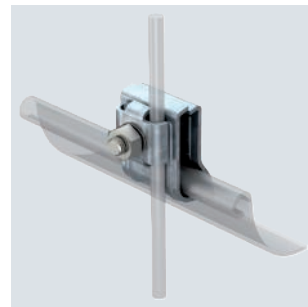
St FT

Type	Fit mm	Lightning current carrying capacity kA	Material	Pack Piece	Weight kg/100 pc.	Item no.
RK-FIX	2xRd 8	H/100	St	25	19.100	5316450

- For up to 2 round conductors Rd 8
- Suitable for all bead thicknesses (15–25 mm)
- With 1 truss-head bolt M10 x 45
- Nut and bolt made of VA stainless steel
- With spring for prefixing on rain gutter
- Tested to VDE 0185-561-1 (IEC/EN 62561-1)



Gutter clamp RK-FIX

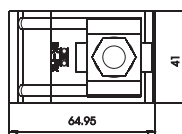
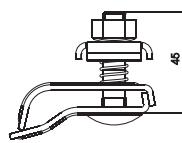


VA

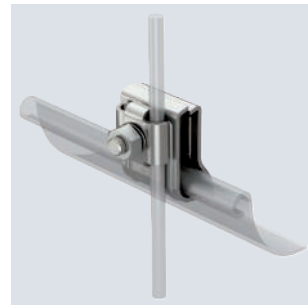


Type	Fit mm	Lightning current carrying capacity kA	Material	Pack Piece	Weight kg/100 pc.	Item no.
RK-FIX VA	2xRd 8/2xRd 6	H/100	A2	10	19.100	5316459

- For up to 2 round conductors Rd 6 or Rd 8
- Suitable for all bead thicknesses (15–25 mm)
- With 1 truss-head bolt M10 x 45
- Nut and bolt made of VA stainless steel
- With spring for prefixing on rain gutter
- Tested to VDE 0185-561-1 (IEC/EN 62561-1)



Gutter clamp RK-FIX

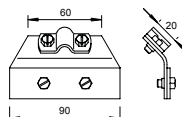


Snow catching grate clamps

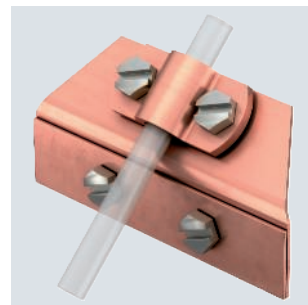
Cu

Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
264 CU	Rd 8-10	10	21.140	5316553

- Plate thickness to 8 mm
- With 4 hexagonal bolts M6 x 16



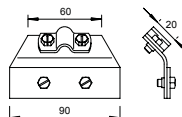
Snow catching grate clamp



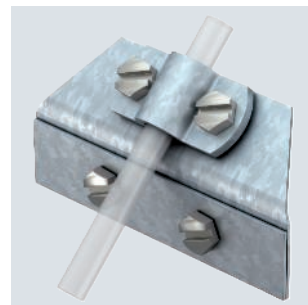
St F

Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
264	Rd 8-10	25	18.640	5316510

- Plate thickness to 8 mm
- With 4 hexagonal bolts M6 x 16

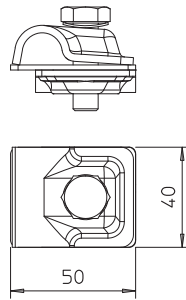
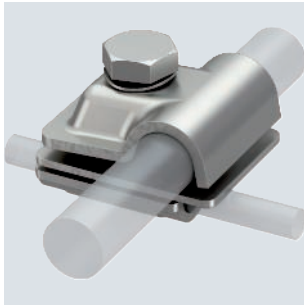


Snow catching grate clamp



Vario quick connector Rd 8-10x16

VA

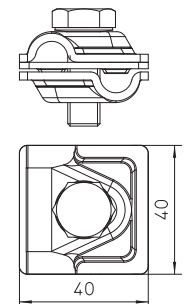
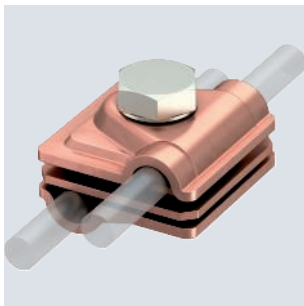


Type	Fit mm	Dim. A mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
249 8-10X16 VA	8-10x16	40	H/100	10	14.958	5311590

- For T, intersection and parallel connections with adapter plates
- Quick mounting using an M10 x 30 bolt, made from rustproof stainless steel
- With sprung washer to DIN 137
- Corresponds to the requirements of VDE 0185-305 (IEC 62305)

Variable earthing connector Rd 6-8 / 8-10 mm

Cu

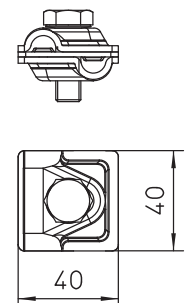
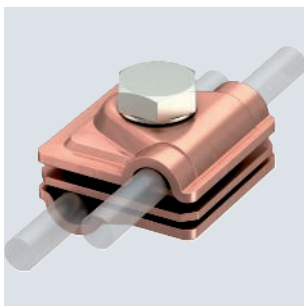


Type	Fit mm	Dim. A mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
249 6-10 CU	RD 6-8 / 8-10	40	H/100	10	14.540	5311417

- For T, cross-over and parallel connections with adapter plates
- Quick mounting using an M10 x 30 bolt, made from rustproof stainless steel A2
- With sprung washer to DIN 137
- Corresponds to the requirements of VDE 0185-305 (IEC 62305)

Vario quick connector Rd 6-8 / Rd 6-8 mm

Cu

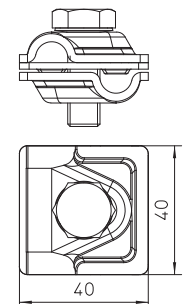


Type	Fit mm	Dim. A mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
249 6-8 CU	RD 6-8 / 6-8	40	H/100	10	12.710	5311407

- For T, cross-over and parallel connections with adapter plates
- Quick mounting using an M10 x 30 bolt, made from rustproof stainless steel (A2)
- With sprung washer to DIN 137
- Corresponds to the requirements of VDE 0185-305 (IEC 62305)

Variable earthing connector Rd 6-8 / 8-10 mm

St FT



Type	Fit mm	Dim. A mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
249 6-10 ST	RD 6-8 / 8-10	40	H/100	20	13.100	5311410

- For T, intersection and parallel connections with adapter plates
- Quick mounting using an M10 x 30 bolt, made from rustproof stainless steel
- With sprung washer to DIN 137
- Corresponds to the requirements of VDE 0185-305 (IEC 62305)

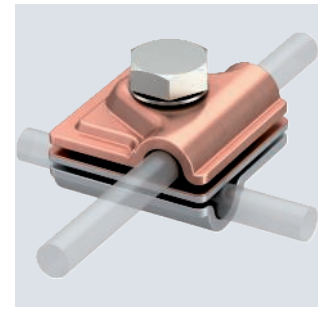
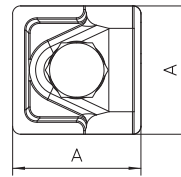
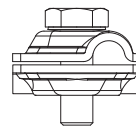
Cu



Type	Fit mm	Dim. A mm	Lightning current carrying capacity kA	Material	Pack Piece	Weight kg/100 pc.	Item no.
249 8-10 ZV	Rd 8-10	44	H/100	Cu	10	14.220	5311535

- Intermediate plate, copper/aluminium, top section copper and aluminium
- For T, cross and parallel connectors
- Quick installation using hexagonal bolt M10 x 30, high-grade stainless steel
- With spring washer according to DIN 137
- Conforms to the requirements according to DIN VDE 0185-305 (IEC 62305)

Variable bi-metal quick connector



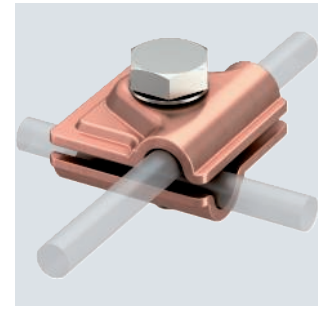
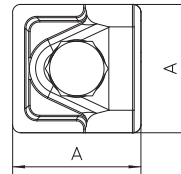
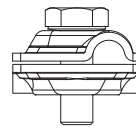
Cu



Type	Fit mm	Dim. A mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
249 8-10 CU	Rd 8-10	40	H/100	10	11.900	5311527

- For T, cross and parallel connectors
- Quick installation using hexagonal bolt M10 x 30, high-grade stainless steel
- Conforms to the requirements according to DIN VDE 0185-305 (IEC 62305)

Vario quick connector



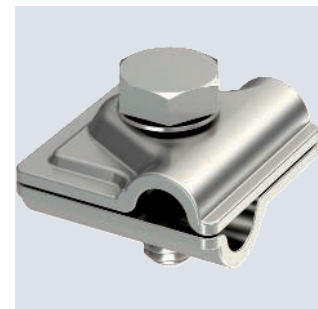
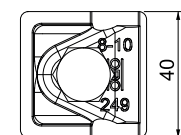
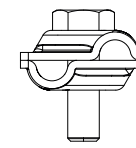
VA



Type	Fit mm	Lightning current carrying capacity kA	Short-circuit current (50 Hz) (1 s; ≤300 °C) kA	Pack Piece	Weight kg/100 pc.	Item no.
249 8-10 V4A	Rd 8-10	H/100	1.4	10	9.500	5311404

- For T, cross-over and parallel connections
- Complete component made of A4
- Quick mounting using an M10 x 30 bolt, made from rustproof stainless steel
- Meets the requirements of VDE 0185-305 (IEC 62305)

Vario quick connector



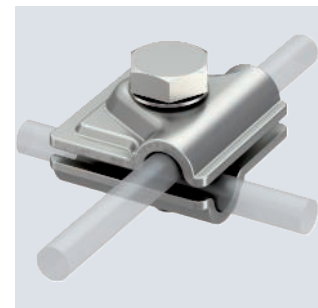
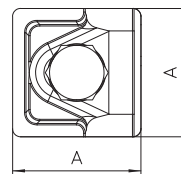
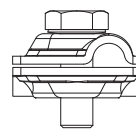
VA



Type	Fit mm	Dim. A mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
249 8-10 VA	Rd 8-10	40	H/100	10	9.276	5311551

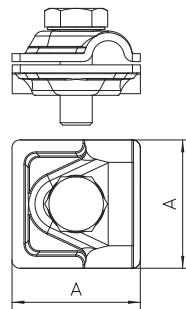
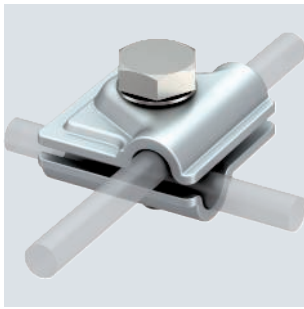
- For T, cross and parallel connectors
- Quick installation using hexagonal bolt M10 x 30, high-grade stainless steel
- Conforms to the requirements according to DIN VDE 0185-305 (IEC 62305)

Vario quick connector



Vario quick connector

Alu

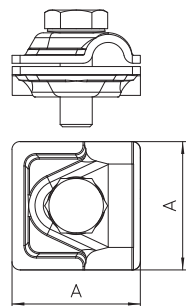
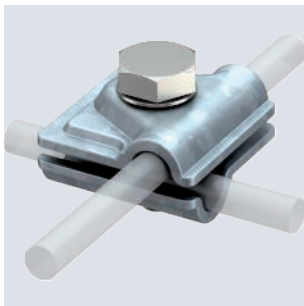


Type	Fit mm	Dim. A mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
249 8-10 ALU	Rd 8-10	44	H/100	30	6.600	5311519
249 B ALU	Rd 8-10	44	H/100	100	7.250	5311713

- For T, cross and parallel connectors
- Quick installation using hexagonal bolt M10 x 30, high-grade stainless steel
- Conforms to the requirements according to DIN VDE 0185-305 (IEC 62305)

Vario quick connector

St FT



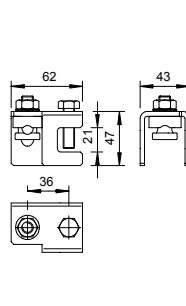
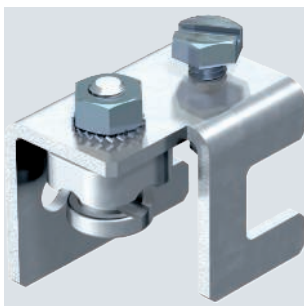
Type	Fit mm	Dim. A mm	Short-circuit current (50 HZ) (1 s; ≤300 °C) kA	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
249 8-10 ST	Rd 8-10	40	5.6	H/100	20	9.306	5311500
249 B ST	Rd 8-10	40	5.6	H/100	100	10.800	5311705

- For T, cross and parallel connectors
- Quick installation using hexagonal bolt M10 x 30, high-grade stainless steel
- Conforms to the requirements according to DIN VDE 0185-305 (IEC 62305)

Accessories, connection clamps and connection terminals

Construction clamp to 20 mm

St FT



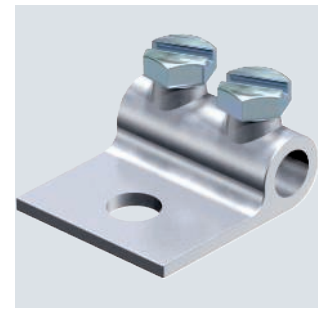
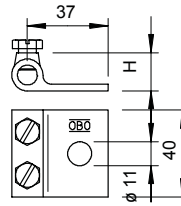
Type	Fit mm	Clamping range mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
5010 20 FT	Rd 8-10	4-20	N/50	10	30.600	5304520

- Mounting of the round conductor possible vertically or transverse to construction
- For fastening to constructions up to a flange thickness of 20 mm
- Fastening to constructions using a hexagonal bolt M10
- Meets the requirements of VDE 0185-305 (IEC 62305)

TG F

Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
319 8	Rd 8	25	7.800	5325307
319 10	Rd 10	25	9.650	5325315

- With \varnothing 11 mm attaching hole
- 2 hexagonal bolts M8 x 16
- Bolts hot-dip galvanised steel and clamping element hot dipped galvanised cast steel



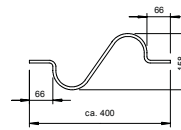
Clamping shoe

Alu



Type	Pack Piece	Weight kg/100 pc.	Item no.
172 AR	10	7.500	5218926

- For equalising temperature-related length changes
- Necessary on conductor lengths over 20 m
- From round conductor Rd 8-Al



Expansion piece

Cu



Type	Dim. L mm	Pack Piece	Weight kg/100 pc.	Item no.
853 200	200	10	4.840	5331008
853 300	300	10	7.260	5331013
853 400	400	10	9.680	5331017

- With aluminium cable lugs
- From flexible copper cable 16 mm²
- Coating: Black, chlorinated EM5 natural rubber mixture
- With 1 fastening hole \varnothing 10.5 mm per attachment side
- With 2 fastening holes \varnothing 6.5 mm per attachment side
- Suitable for applications outside or inside
- Temperature range -25°C to $+80^{\circ}\text{C}$ (moved) and -40°C to $+80^{\circ}\text{C}$ (not moved)
- UV-stable



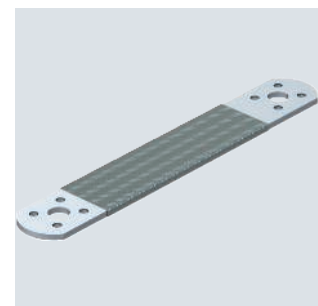
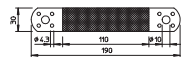
Bridging cable

Cu



Type	Pack Piece	Weight kg/100 pc.	Item no.
856	10	8.125	5331501

- Copper strip 35 mm², tin-plated
- Highly flexible with rigid ends
- Each end with 1 fastening hole \varnothing 10 mm and 4 fastening holes \varnothing 4.3 mm

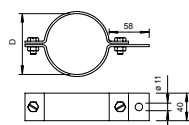


Connection and expansion strip



Pipe clamp

St FT

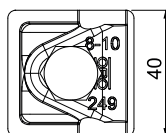
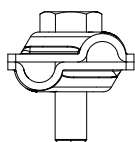
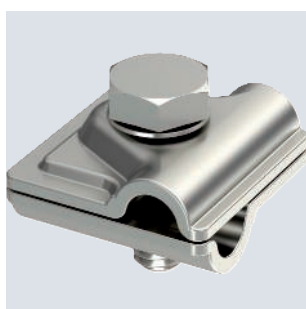


Type	For pipe mm	For pipe inch	Pack Piece	Weight kg/100 pc.	Item no.
303 DIN-3/8	17.2	3/8	5	22.600	5102057
303 DIN-1/2	21.3	1/2	5	23.280	5102073
303 DIN-3/4	26.9	3/4	5	25.640	5102081
303 DIN-1	33.7	1	5	28.300	5102111
303 DIN-1 1/4	42.4	1 1/4	5	31.300	5102138
303 DIN-1 1/2	48.3	1 1/2	5	33.220	5102154
303 DIN-2	60.3	2	5	36.840	5102197
303 DIN-2 1/2	76.1	2 1/2	10	39.400	5102219
303 DIN-3	88.9	3	10	43.300	5102235
303 DIN-3 1/2	100	3 1/2	10	64.900	5102251
303 DIN-4	114.3	4	10	66.800	5102278

- DIN 48818, Form D
- With Ø 11 mm mounting hole
- 2 hexagonal bolts M8 x 20 (4 inch = M10)
- 2 hex-head nuts M8 (4 inch = M10)

Vario quick connector

VA

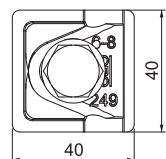
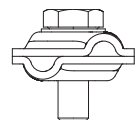


Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
249 S7 V4A	Rd 8-10	H/100	5000	9.500	5311405

- For T, cross-over and parallel connections
- Complete component made of A4
- Quick mounting using an M10 x 30 bolt, made from rustproof stainless steel
- Meets the requirements of VDE 0185-305 (IEC 62305)

Vario quick connector Rd 6-8 / Rd 6-8 mm

A2



Type	Fit mm	Dim. A mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
249 6-8 VA CH	RD 6.8 / 6.8	40	H/100	10	9.140	5311423

- For T, cross and parallel connectors
- Quick installation using hexagonal bolt M10 x 30, high-grade stainless steel
- Conforms to the requirements according to DIN VDE 0185-305 (IEC 62305)

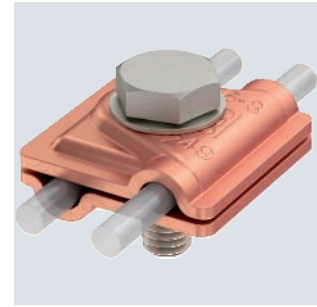
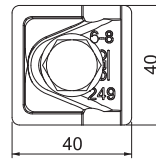
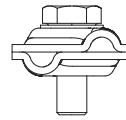
Cu



Vario quick connector Rd 6-8 / Rd 6-8 mm

Type	Fit mm	Dim. A mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
249 6-8 CU CH	Rd 6-8/6-8	40	H/100	10	9.951	5311421

- For T, cross-over and parallel connections
- Quick mounting using an M10 x 30 bolt, made from rustproof stainless steel (A2)
- Meets the requirements of VDE 0185-305 (IEC 62305)

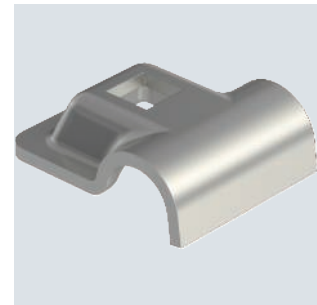
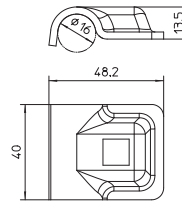


VA

Quick connector, upper part Rd 16 mm

Type	Fit mm	Pack Piece	Weight kg/100 pc.	Item no.
249 VA-OT	16	100	5.700	5311573

- For round conductor fastening RD 16
- Suitable for M10 bolts



T connector

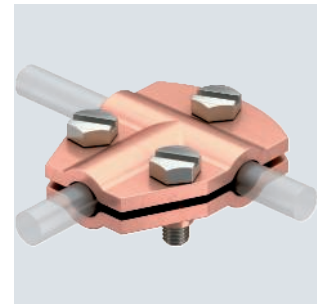
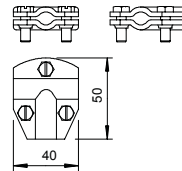
Cu



T connector Rd 8-10 mm, triple-screwed

Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
247 8-10 CU	Rd 8-10	N/50	10	10.750	5311268

- With 3 hexagonal bolts M6 x 16 (VA)
- Complies with the requirements of VDE 0185-305-3 (IEC/ EN 62305-3)

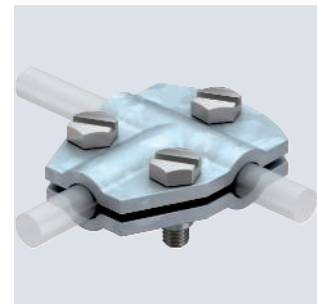
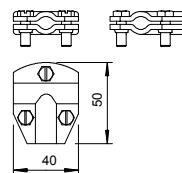


St FT

T connector Rd 8-10 mm, triple-screwed

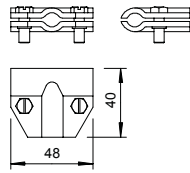
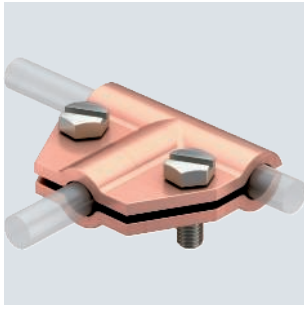
Type	Fit mm	Lightning current carrying capacity kA	Pack Piece	Weight kg/100 pc.	Item no.
247 8-10 FT	Rd 8-10	N/50	10	10.934	5311209

- With 3 hexagonal bolts M6 x 16 (VA)



T connector Rd 8–10 mm

Cu

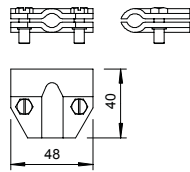


Type	Fit mm	Lightning current carrying capacity kA	Pack	Weight	Item no.
			Piece	kg/100 pc.	
245 8-10 CU	Rd 8-10	N/50	10	11.560	5311152

- With 2 hexagonal bolts M6 x 16 (VA)
- Complies with the requirements of VDE 0185-305-3 (IEC/ EN 62305-3)

T connector Rd 8–10 mm

St FT

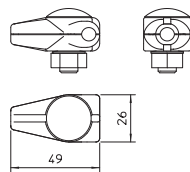
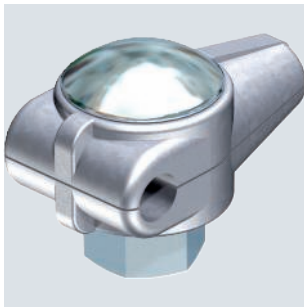


Type	Fit mm	Lightning current carrying capacity kA	Pack	Weight	Item no.
			Piece	kg/100 pc.	
245 8-10 FT	Rd 8-10	N/50	10	9.401	5311101

- With 2 hexagonal bolts M6 x 16 (VA)
- Complies with the requirements of VDE 0185-305-3 (IEC/ EN 62305-3)

T connector Rd 8 mm

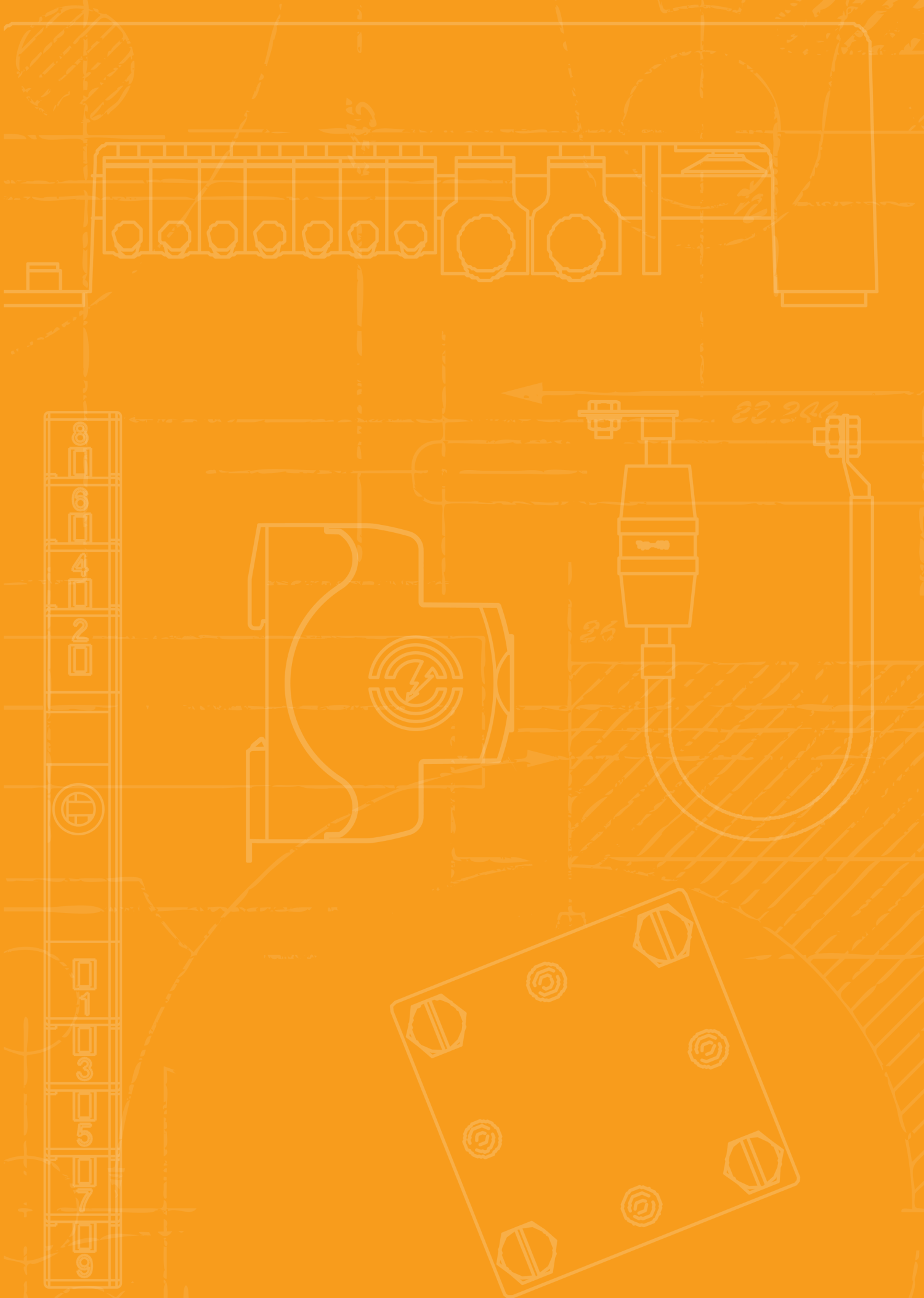
Zn G



Type	Fit mm	Lightning current carrying capacity kA	Pack	Weight	Item no.
			Piece	kg/100 pc.	
244	Rd 8	N/50	10	11.580	5311039

- With truss-head bolt M10 x 30 and hexagonal nut M10
- Complies with the requirements of VDE 0185-305-3 (IEC/ EN 62305-3)





Protection and spark gaps

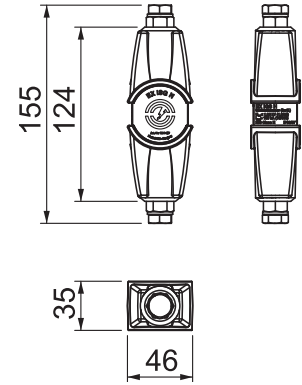
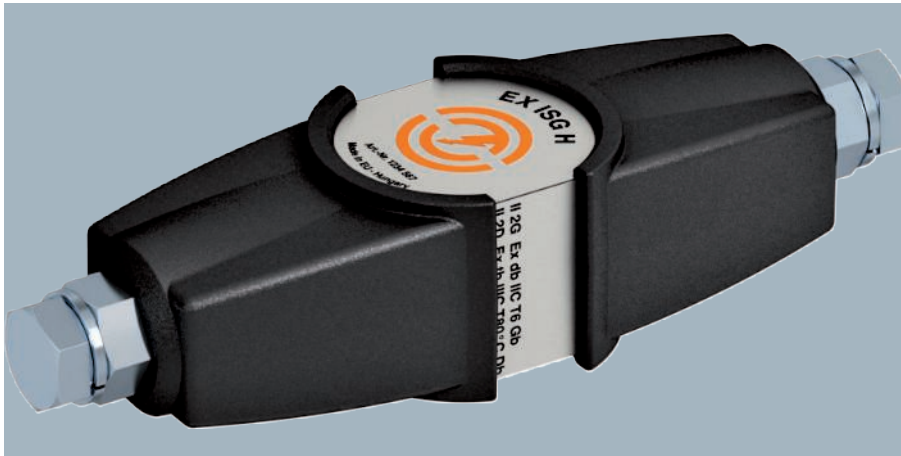


Protection and spark gaps

214



EX ISG H spark gap, with 2 cables



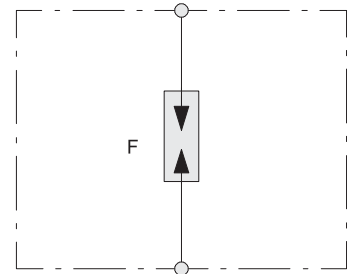
Type	Pack Piece	Weight kg/100 pc.	Item no.
EX ISG H 350 2L	1	74.155	5240033

- Spark gap to VDE 0185-561-3 (IEC 62561-3)
- Ex certificate to ATEX
- Labelling to EN 60079-0/-1: II 2 G Ex db IIC T6 Gb
- Labelling to EN 60079-0/-31: II 2 D Ex td IIIC T80 °C Db IP67
- Ex certificate to IECEx
- Labelling to IEC 60079-0/-1: Ex db IIC T6 Gb
- Labelling to IEC 60079-0/-31: Ex td IIIC T80 °C Db IP67
- Ex certificate to INMETRO
- Labelling to ABNT NBR IEC 60079-0/-1: Ex db IIC T6 Gb
- Labelling to ABNT NBR IEC 60079-31: Ex tb IIIC T80 °C Db IP67

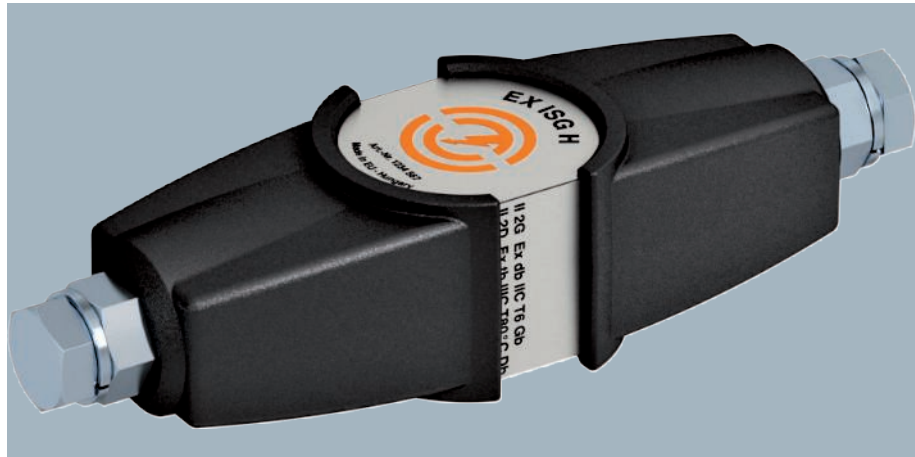
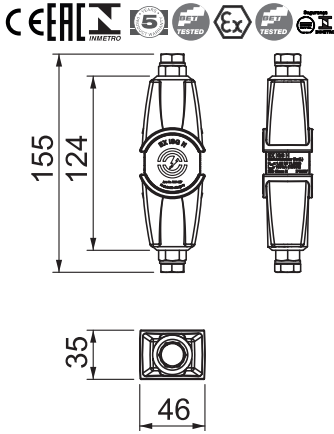
Application: In potentially explosive areas zones 1/21 and 2/22, indirect bridging of insulating flanges and insulating glands, e.g. in cathodic, corrosion-protected (KKS) systems.

EX ISG H 350 2L		
Connecting cable length		0.35 m
Rated impulse sparkover voltage	$U_{f,imp}$	1.25 kV
Rated DC withstand voltage	U_{wDC}	354 V
Rated power frequency withstand voltage	U_{wAC}	250 V
Power frequency spark-over voltage	U_{AS}	0.56 kV
Impulse discharge current (10/350)	I_{imp}	100 kA
Nominal discharge current (8/20)	I_n	100 kA
Lightning current carrying capacity		H/100 kA
Temperature range	ϑ	-20 - +60 °C

Connection options



EX ISG H spark gap

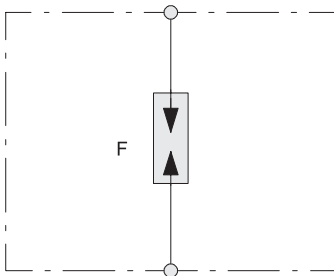


- Spark gap to VDE 0185-561-3 (IEC 62561-3)
- Ex certificate to ATEX
- Labelling to EN 60079-0/-1: II 2 G Ex db IIC T6 Gb
- Labelling to EN 60079-0/-31: II 2 D Ex td IIIC T80 °C Db IP67
- Ex certificate to IECEx
- Labelling to IEC 60079-0/-1: Ex db IIC T6 Gb
- Labelling to IEC 60079-0/-31: Ex td IIIC T80 °C Db IP67
- Ex certificate to INMETRO
- Labelling to ABNT NBR IEC 60079-0/-1: Ex db IIC T6 Gb
- Labelling to ABNT NBR IEC 60079-31: Ex tb IIIC T80 °C Db IP67

Application: In potentially explosive areas zones 1/21 and 2/22, indirect bridging of insulating flanges and insulating glands, e.g. in cathodic, corrosion-protected (KKS) systems.

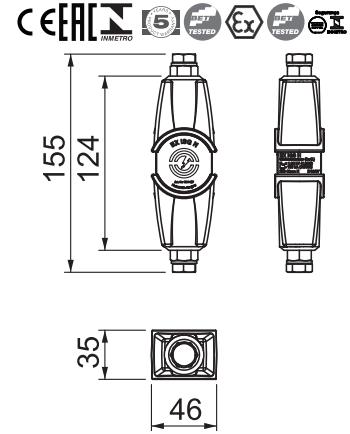
Type	Pack Piece	Weight kg/100 pc.	Item no.
EX ISG H	1	41.360	5240030

Connection options



EX ISG H		
Connecting cable length		0 m
Rated impulse sparkover voltage	$U_{f \text{ imp}}$	1.25 kV
Rated DC withstand voltage	U_{wDC}	354 V
Rated power frequency withstand voltage	U_{wAC}	250 V
Power frequency spark-over voltage	U_{AS}	0.56 kV
Impulse discharge current (10/350)	I_{imp}	100 kA
Nominal discharge current (8/20)	I_n	100 kA
Lightning current carrying capacity		H/100 kA
Temperature range	ϑ	-20 - +60 °C

EX ISG H spark gap, with one cable



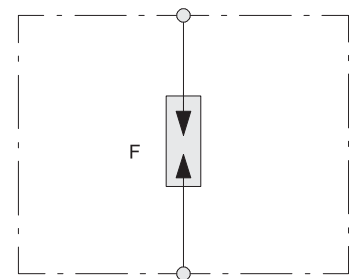
Type	Pack Piece	Weight kg/100 pc.	Item no.
EX ISG H 350	1	57.260	5240031

- Spark gap to VDE 0185-561-3 (IEC 62561-3)
- Ex certificate to ATEX
- Labelling to EN 60079-0/-1: II 2 G Ex db IIC T6 Gb
- Labelling to EN 60079-0/-31: II 2 D Ex td IIIC T80 °C Db IP67
- Ex certificate to IECEx
- Labelling to IEC 60079-0/-1: Ex db IIC T6 Gb
- Labelling to IEC 60079-0/-31: Ex td IIIC T80 °C Db IP67
- Ex certificate to INMETRO
- Labelling to ABNT NBR IEC 60079-0/-1: Ex db IIC T6 Gb
- Labelling to ABNT NBR IEC 60079-31: Ex tb IIIC T80 °C Db IP67

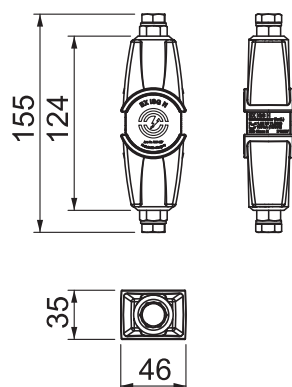
Application: In potentially explosive areas zones 1/21 and 2/22, indirect bridging of insulating flanges and insulating glands, e.g. in cathodic, corrosion-protected (KKS) systems.

EX ISG H 350		
Connecting cable length		0.35 m
Rated impulse sparkover voltage	$U_{r\text{imp}}$	1.25 kV
Rated DC withstand voltage	U_{wDC}	354 V
Rated power frequency withstand voltage	U_{wAC}	250 V
Power frequency spark-over voltage	U_{AS}	0.56 kV
Impulse discharge current (10/350)	I_{imp}	100 kA
Nominal discharge current (8/20)	I_n	100 kA
Lightning current carrying capacity		H/100 kA
Temperature range	ϑ	-20 - +60 °C

Connection options



EX ISG H spark gap, jacketed

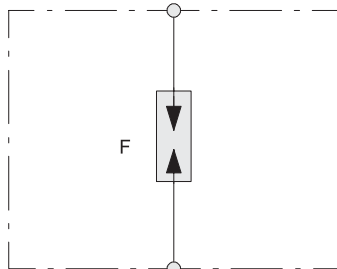


- Spark gap to VDE 0185-561-3 (IEC 62561-3)
- Ex certificate to ATEX
- Labelling to EN 60079-0/-1: II 2 G Ex db IIC T6 Gb
- Labelling to EN 60079-0/-31: II 2 D Ex td IIIC T80 °C Db IP67
- Ex certificate to IECEx
- Labelling to IEC 60079-0/-1: Ex db IIC T6 Gb
- Labelling to IEC 60079-0/-31: Ex td IIIC T80 °C Db IP67
- Ex certificate to INMETRO
- Labelling to ABNT NBR IEC 60079-0/-1: Ex db IIC T6 Gb
- Labelling to ABNT NBR IEC 60079-31: Ex tb IIIC T80 °C Db IP67

Application: In potentially explosive areas zones 1/21 and 2/22, indirect bridging of insulating flanges and insulating glands, e.g. in cathodic, corrosion-protected (KKS) systems.

Type	Pack Piece	Weight kg/100 pc.	Item no.
EX ISG H KU	1	210.300	5240032

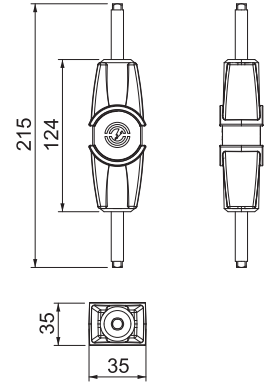
Connection options



EX ISG H KU

Connecting cable length		2 m
Rated impulse sparkover voltage	$U_{r,imp}$	1.25 kV
Rated DC withstand voltage	U_{wDC}	354 V
Rated power frequency withstand voltage	U_{wAC}	250 V
Power frequency spark-over voltage	U_{AS}	0.56 kV
Impulse discharge current (10/350)	I_{imp}	100 kA
Nominal discharge current (8/20)	I_n	100 kA
Lightning current carrying capacity		H/100 kA
Temperature range	ϑ	-20 - +60 °C

ISG N spark gap

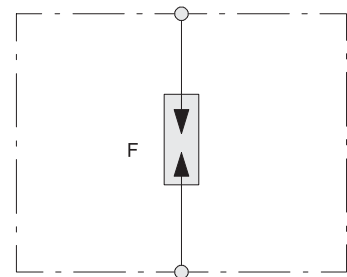


Type	Pack Piece	Weight kg/100 pc.	Item no.
ISG N	1	41.300	5240089

- For indirect connection of operatively separated system parts in case of lightning impact
- Use according to lightning protection equipotential bonding according to DIN EN 62305/VDE 0185
- With corrosion-resistant stainless steel connections
- Suitable for installation in indoor and outdoor areas and in wet rooms
- Low maintenance thanks to long-life graphite technology
- Particularly low rated contact surge voltage

ISG N		
Connecting cable length		0 m
Rated impulse sparkover voltage	$U_{f,imp}$	1.5 kV
Rated DC withstand voltage	U_{wDC}	354 V
Rated power frequency withstand voltage	U_{wAC}	250 V
Power frequency spark-over voltage	U_{AS}	640 kV
Impulse discharge current (10/350)	I_{imp}	50 kA
Nominal discharge current (8/20)	I_n	100 kA
Lightning current carrying capacity		N/50 kA
Temperature range	ϑ	-20 - +80 °C

Connection options

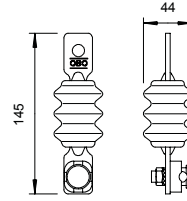


Protective spark gap

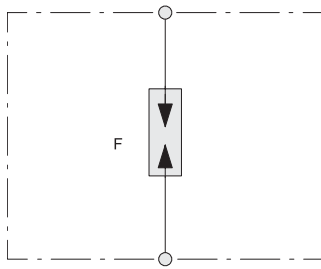
Type	Protection level kV	Nominal discharge current (8/20) kA	Power frequency spark-over voltage kV	Pack Piece	Weight kg/100 pc.	Item no.
482	<10	25	10	1	56.000	5240050

Closed spark gap for bridging a proximity point between roof standard of low-voltage system and components of outer lightning protection system.

- Protection rating IP 54
- With pre-mounted type 5001 connector for attaching round conductors Rd 8 - 10



Connection options



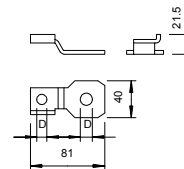
Accessories

St F

Connection bracket for Parex spark gap

Type	Drill hole Ø mm	Version	Pack Piece	Weight kg/100 pc.	Item no.
484 M12	13	For M12 bolt	2	8.100	5240220
484 M16	17	For M16 bolt	2	7.700	5240239
484 M20	21	For M20 bolt	2	7.300	5240247
484 M24	25	For M24 bolt	2	6.800	5240255

Attaching flange for installing OBO Parex spark gap 480 on insulating flanges.

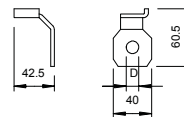


St F

Connection bracket for Parex spark gap

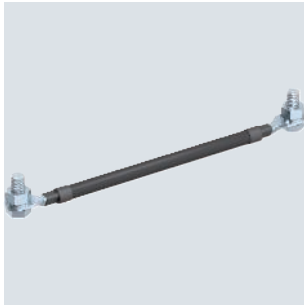
Type	Drill hole Ø mm	Version	Pack Piece	Weight kg/100 pc.	Item no.
485 M12	13	For M12 bolt	2	8.100	5240328
485 M10	11	For M10 bolt	2	8.300	5240301
485 M16	17	For M16 bolt	2	7.700	5240336

Attaching flange for installing OBO Parex spark gap 480 on insulating flanges.



Connection cable – AL EX ISG

Cu

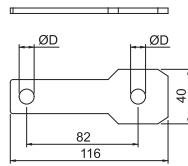


Type	Dimension mm	Pack Piece	Weight kg/100 pc.	Item no.
AL EX ISG 100	100	1	9.600	5240102
AL EX ISG 200	200	1	12.300	5240104
AL EX ISG 300	300	1	15.200	5240106

UV-resistant connection cable (copper 25 mm²) for mounting the OBO Ex spark gap, type EX ISG, on insulating flanges and insulating pieces. With cable shoe for M10 bolts on both sides, on one side with M10 bolt, nuts and spring ring.

Connection clamp AB EX ISG, straight

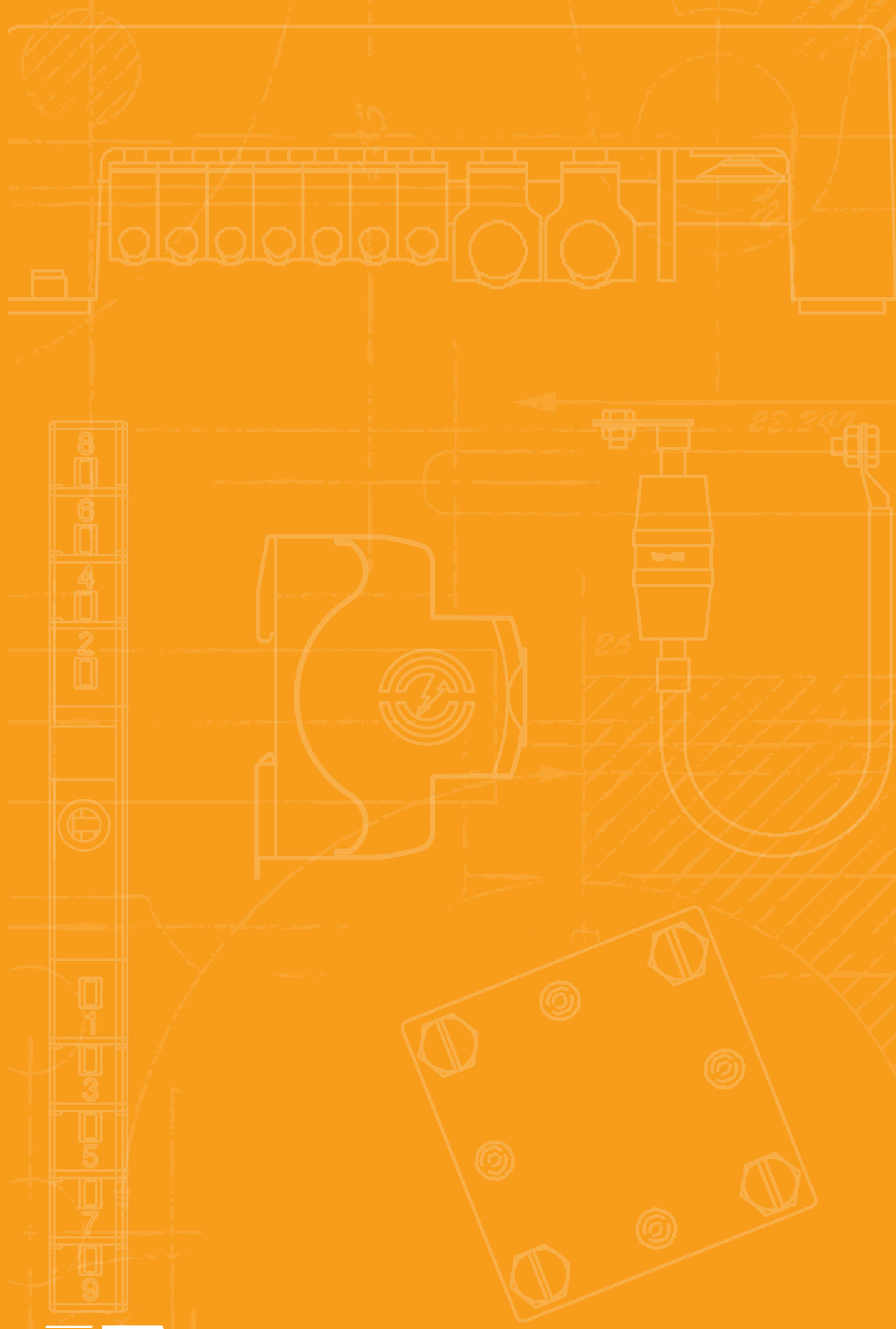
St FT



Type	Drill hole Ø mm	Version	Pack Piece	Weight kg/100 pc.	Item no.
AB EX ISG S M10	11	For M10 bolt	2	9.000	5240360
AB EX ISG S M12	14	For M12 bolt	2	8.900	5240362
AB EX ISG S M16	18	For M16 bolt	2	8.600	5240366
AB EX ISG S M20	22	For M20 bolt	2	8.200	5240370
AB EX ISG S M24	26	For M24 bolt	2	7.800	5240374

Connection clamp for mounting the OBO Ex spark gap, type EX ISG, on insulating flanges and insulating pieces.





Accessories, external lightning protection

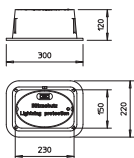


Accessories

222



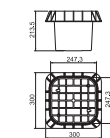
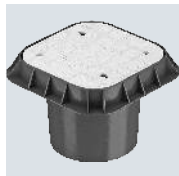
Underfloor test box



Type	Pack Piece	Weight kg/100 pc.	Item no.
5700	1	720.000	5106002

- Without base
- Cast iron, painted black
- Without cut-off unit
- To VDE 0185-561-5 (IEC 62561-5) suitable for heavy loads (up to 40 kN/ 4.0 t)

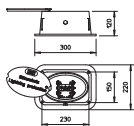
Underfloor test box



Type	Pack Piece	Weight kg/100 pc.	Item no.
5700 PIP	1	180.000	5106045

- Made of plastic
- Without separating piece
- According to VDE 0185-561-5 (IEC 62561-5)

Inspection pit with integrated separation piece

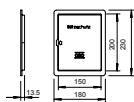


Type	Pack Piece	Weight kg/100 pc.	Item no.
5700 SP	1	770.000	5106003

- Without base
- Cast iron, painted black
- With built-in cut-off unit for round conductors Rd 8-10 and flat conductors to FL 40
- To VDE 0185-561-5 (IEC 62561-5) suitable for heavy loads (up to 40 kN/ 4.0 t)

Inspection door

St FS

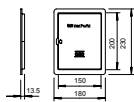


Type	Pack Piece	Weight kg/100 pc.	Item no.
5800 VZ	1	46.000	5106133

- Lightweight design for flush-mounted separation points
- With fastening straps to be bent

Inspection door

VA



Type	Pack Piece	Weight kg/100 pc.	Item no.
5800 VA	1	46.000	5106141

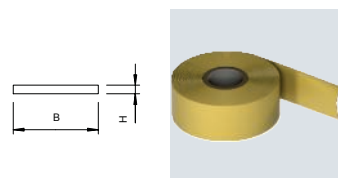
- Lightweight design for flush-mounted separation points
- With fastening straps to be bent

PETR

Corrosion protection strip

Type	Dimension		Pack Piece	Weight kg/100 pc.	Item no.
	Width mm	Length m			
356 50	50	10	1	59.000	2360055
356 100	100	10	1	122.200	2360101

- Approx. 1.1 mm thick
- Width: 50 mm or 100 mm, made of petrolatum-coated chemical fibre fabric
- Can be processed cold



Zinc repairs

Type	Dimension		Pack Piece	Weight kg/100 pc.	Item no.
	Width mm	Length mm			
ZSF	400ml		1	45.000	2362970

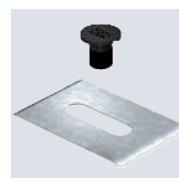
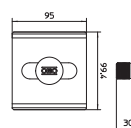
Zinc spray for treatment of unprotected surfaces and cutting edges. Can contents: 400 ml.



TrayFix mounting adapter for mesh cable trays on FangFix system

Type	Dimension		Pack Piece	Weight kg/100 pc.	Item no.
	Width mm	Length mm			
TrayFix	ø20mm		25	9.850	5403100

- Mounting system for the fastening of mesh cable trays and cable trays on FangFix stone, e.g. cable routing on a flat roof
- Adapted to OBO cable tray systems MKSM, SKSM and IKSM
- Adapted to OBO mesh cable tray systems with a minimum width of 100 mm

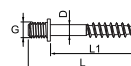


St G

Screw-in anchor with M6 thread

Type	Dim. L	Dim. L1	Dim. D	Dim. G	Shipping box	Pack Piece	Weight kg/100 pc.	Item no.
	mm	mm	mm	mm	Piece			
985 M6 25	35	25	4.3	M6	3000	100	0.412	3133028
985 M6 35	45	35	4.3	M6	2000	100	0.533	3133036

With wood screw shank and M6 thread.

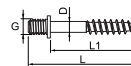


St G

Screw-in anchor with M8 thread

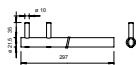
Type	Dim. L	Dim. L1	Dim. D	Dim. G	Shipping box	Pack Piece	Weight kg/100 pc.	Item no.
	mm	mm	mm	mm	Piece			
985 M8 35	47	35	5.2	M8	1200	100	0.950	3133230

With wood screw shank and M8 thread.



St FT

Directional irons

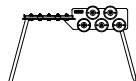


Type	Length mm	Pack Piece	Weight kg/100 pc.	Item no.
364	297	1	35.000	3051013

- Directional iron for bending and aligning conductors

Wire straightening machine

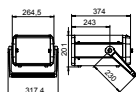
St



Type	Pack Piece	Weight kg/100 pc.	Item no.
5900	1	3,300.000	3059006

- Factory-set for round conductor Rd 8
- Structure, steel, painted
- Straightening rolls, galvanised cast iron

Card reader PCS-CS..



Type	Country version	Nom. V	Measuring range	Measuring tolerances	Pack Piece	Weight kg/100 pc.	Item no.
PCS-CS-GB	GB	230	3--120 kA	<2 kA (<2%)	1	750.000	5091691

Magnetic card reader for reading and analysing PCS cards.

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

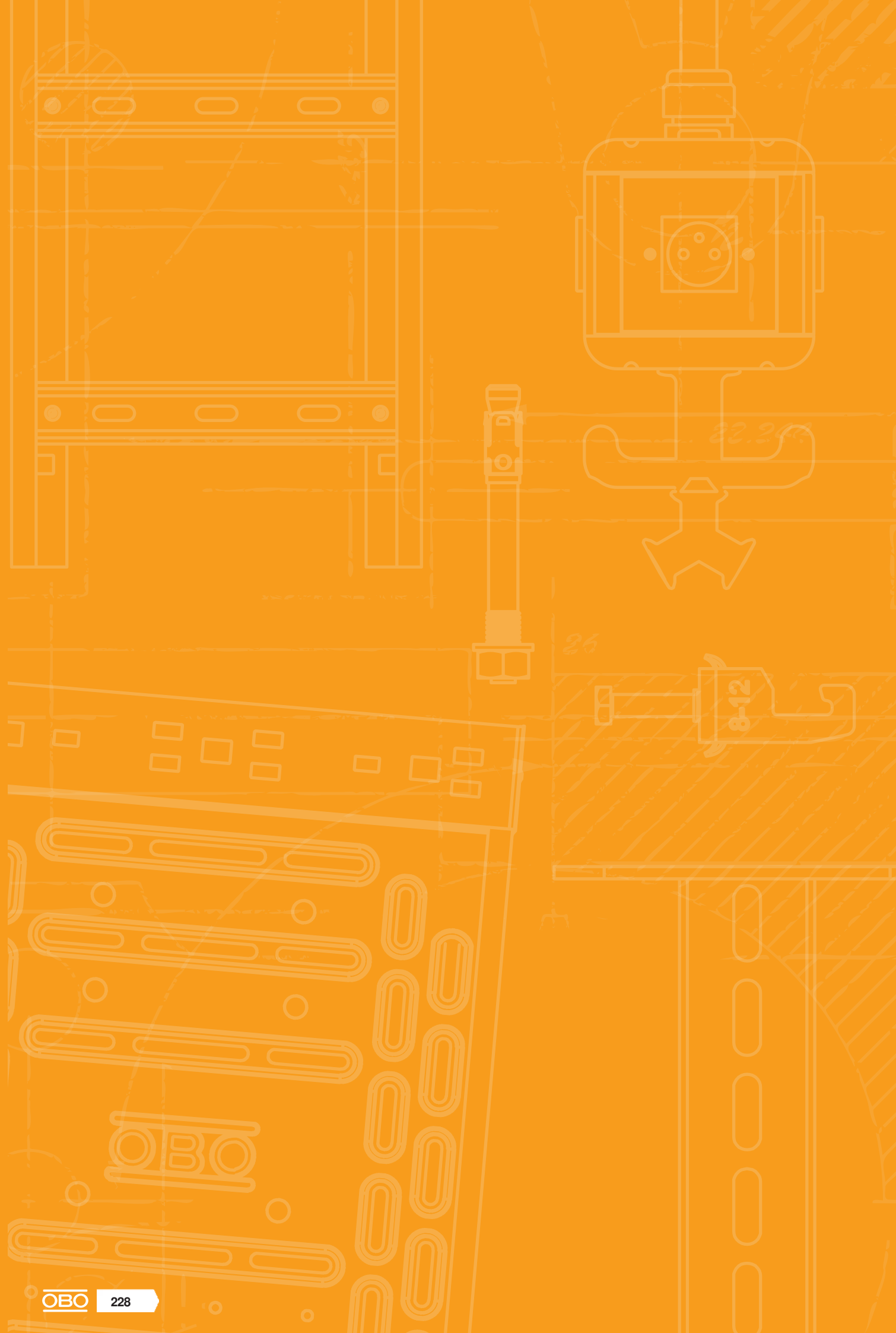
Straightening roller for wire straightening machine









Type	Pack Piece	Weight kg/100 pc.	Item no.
5900 R	1	120.000	3059014

5900/R: For wire straightening machine 5900, complete with axis, roller made of galvanised cast iron












































Directories

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	For the latest general conditions of sale and delivery please see obo.de/vlb .	



Test marks
























	American Bureau of Shipping, USA		Underwriters Laboratories Inc., USA + CSA, Canada
	AENOR, Producto Certificado, Spain		Österreichischer Verband für Elektrotechnik, Austria
	STOWARZYSZENIE ELEKTRYKÓW POLSKICH, Poland		ISTITUTO ITALIANO DEL MARCHO DI QUALITÀ, Italy
	Lightning current-tested		RINA 1861, Ship Classification, Certification and Services
	Lightning current-tested, Class H (100 kA)		Underwriters Laboratories Inc., USA
	CEBEC, Belgium		SEMKO An Inchcape Testing Services Company, Sweden
	Canadian Standards Association, Canada		Eidgenössisches Starkstrominspektorat, Switzerland
	DEMKO, Danmarks Elektriske Materielkontrol, Denmark		South African Bureau of Standards
	Deutsches Institut für Bautechnik Berlin, Germany		Shock-tested, Bundesamt für Zivilschutz, Germany
	Det Norske Veritas		Sähkötarkastuskeskus Elinspektionscentralen Electrical Inspectorate, Finland
	ENEC Austria		Underwriters Laboratories Inc., USA
	ATEX certificate for explosive areas		Underwriters Laboratories Inc., USA
	ELEKTROTECHNICKÝ ZKUŠEBNÍ ÚSTAV, Czech Republic		Verband der Elektrotechnik, Elektronik, Informationstechnik e.V., Germany
	FIMKO, Finland		German Association of Electricians, tested safety
	Forschungs- und Materialprüfungsanstalt, Germany		5-year warranty
	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		







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

	Communautés Européennes, EC declaration of conformity according to EC directives
	RoHS-conformant



















Quality marks

	Halogen-free; without chlorine, fluorine and bromine
	Flame resistant 650 °C
	Flame resistant 750 °C
	Flame resistant 960 °C
	UV-resistant




Specific product symbols

	Diameter 60 mm
	Diameter 68 mm
	Protection device to DIN EN 61643-11 or IEC 61643-11
	Transition from LPZ 2 to LPZ 3
	Acoustic signalling



Applications

	Remote signalling
	Acoustic signalling
	Integrated Service Digital Network, ISDN applications
	Digital Subscriber Line, DSL applications
	Analogue telecommunication
	Category 5 TwisterPair
	Channel Performance to American EIA/TIA standard
	Measuring, controlling and regulating systems
	TV applications
	SAT-TV applications
	MultiBase base
	LifeControl
	Intrinsically safe protection device for potentially explosive areas
	Channel Performance to ISO/IEC 11801
	Power over Ethernet
	230/400 V system
	Protection rating IP 54
	Protection rating IP 65







Lightning protection classes

	Protection device to DIN EN 61643-11 or IEC 61643-11
	Combination protection device made of type 1 and type 2
	Protection device to DIN EN 61643-11 or IEC 61643-11






Lightning protection classes

	Protection device to DIN EN 61643-11 or IEC 61643-11
	Protection device to DIN EN 61643-11 or IEC 61643-11



Lightning protection zone

	Transition from LPZ 0 to LPZ 1
	Transition from LPZ 0 to LPZ 2
	Transition from LPZ 0 to LPZ 3
	Transition from LPZ 1 to LPZ 2
	Transition from LPZ 1 to LPZ 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

	Maintenance of electrical function class E30
	Maintenance of electrical function class E90














Clamp clip base shapes

	Clamp clip for C profile rail, slot width 11–12 mm
	Clamp clip for C profile rail, slot width 16–17 mm
	Clamp clip for C profile rail, slot width 18–22 mm



Diameter

	Diameter 60 mm
	Diameter 68 mm
	Diameter 70 mm
	Diameter 74 mm





Entries

	4 cable entries
	6 cable entries
	7 cable entries
	8 cable entries
	9 cable entries
	10 cable entries
	12 cable entries
	10 cable entries ECO
	12 cable entries ECO
	14 cable entries ECO
	16 cable entries
	18 cable entries ECO
	24 cable entries






Gland thread

	Thread metric
	Thread Pg





Entry size

	M20 entry
	M25 entry
	M32 entry
	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

Pictogram explanation





Nominal cross-section

	Nominal cross-section 1.5 mm ²
	Nominal cross-section 1.5–2.5 mm ²
	Nominal cross-section 2.5 mm ²
	Nominal cross-section 2.5–4 mm ²
	Nominal cross-section 4 mm ²
	Nominal cross-section 4–6 mm ²
	Nominal cross-section 6 mm ²
	Nominal cross-section 10 mm ²
	Nominal cross-section 16 mm ²













Nominal voltage

	Nominal voltage 400 V
	Nominal voltage 500 V
	Nominal voltage 660 V





Polarity

	3-pole
	5-pole
	7-pole
	8-pole
	10-pole
	12-pole



Slot widths

	Slot width 7.5 mm
	Slot width 11 mm
	Slot width 11–12 mm
	Slot width 12 mm
	Slot width 15 mm
	Slot width 16 mm
	Slot width 16.5 mm
	Slot width 16–17 mm
	Slot width 17 mm
	Slot width 18 mm
	Slot width 22 mm
	Slot width 35 mm











Screw heads

	Phillips screw
	Torx screw
	Phillips screw
	Pozidriv











Firing devices

	Bolt-firing tool
	Nail device





Protection rating

	Protection rating IP 20
	Protection rating IP 30
	Protection rating IP 31
	Protection rating IP 44
	Protection rating IP 54
	Protection rating IP 55
	Protection rating IP 65
	Protection rating IP 66
	Protection rating IP 67
	Protection rating IP 68

Metals

	Aluminium
	Aluminium/steel
	Stainless steel, rustproof
	Stainless steel, rustproof
	Stainless steel, rustproof
	Copper
	Brass
	Steel
	Malleable iron
	Die-cast zinc

Plastics

	Acrylonitrile butadiene styrene
	Duroplast, Aminoplast, type 131.5
	Duroplast, melamine resin, type 150
	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 PE	Cellular polyethylene



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5002 DIN-FT	5416050	5304202	65	985 M6 25	5250395	3133028	115
5002 N-VA	5892847	5304270	64	985 M6 25	5250395	3133028	225
				985 M6 35	5250456	3133036	115
5004 DIN-FT 12	5416357	5304407	79	985 M6 35	5250456	3133036	225
5004 DIN-FT 12	5416357	5304407	194	985 M8 35	5250579	3133230	116
5004 DIN-FT 20	5416418	5304504	79	985 M8 35	5250579	3133230	225
5004 DIN-FT 20	5416418	5304504	194			/pc.	
				AB EX ISG S M10	6524181	5240360	220
5005 DIN-FT	5416470	5304601	67	AB EX ISG S M12	6524242	5240362	220
5005 N-FT	5817758	5304660	66	AB EX ISG S M16	6524259	5240366	220
				AB EX ISG S M20	6524273	5240370	220
5009	5416951	5304970	67	AB EX ISG S M24	6524297	5240374	220
5010 20 FT	5503057	5304520	88	AL EX ISG 100	6521159	5240102	220
5010 20 FT	5503057	5304520	206	AL EX ISG 200	6521166	5240104	220
				AL EX ISG 300	6521173	5240106	220
5011	5417071	5304997	67			/100 pc.	
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5011 VA M10	5629115	5334934	67				
5011 VA M10	5629115	5334934	106	DW RD10	6421046	2360041	105
5011 VA M12	5959663	5334942	67				
5011 VA M12	5959663	5334942	106			/pc.	
		price/100		EX ISG H	6517381	5240030	215
5052 DIN 30X3.5	5680475	5019345	46	EX ISG H 350	6521180	5240031	216
5052 DIN 30X3.5	5680482	5019347	46	EX ISG H 350 2L	6522965	5240033	214
5052 DIN 40X4	5680505	5019355	46	EX ISG H KU	6522941	5240032	217
5052 DIN 40X5	5680512	5019360	46			/100 pc.	
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		price/100		F-FIX-10B	5070061	5403110	133
5052 V2A 30X3.5	5800415	5018501	46			/pc.	
5052 V4A 30X3.5	5800477	5018706	46	F-FIX-132	5613572	5403330	139
5052 V4A 30X3.5	5022015	5018730	46	F-FIX-132	5613572	5403330	152
		/pc.		F-Fix-132-300	5813903	5403333	139
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