J.PRÖPSTER GmbH

over 30 years J.P since 1979

External lightning protection
Insulated lightning protection
Earthing material
Surge protection

LIGHTNING PROTECTION J.PRÖPSTER MADE IN GERMANY

Always safely one idea ahead!

Main Catalogue 2014

J. Pröpster GmbH

a strong family business – past, present and future

Humaneness & emotion

shape our thinking, our actions and our company culture. A company I like to visit, where I find more than I expected and people who listen to what I am saying.

Reliability & honesty

are our outstanding characteristics. Without fail you receive tried and tested quality. You can rely on us for honest opinions and competent promises.

Respect & trust

form the basis of our mutual high regard. With the customer in mind, we find solutions to problems and fulfil wishes quickly and effectively. Your contacts here are specialists who actively support you in achieving your goals.

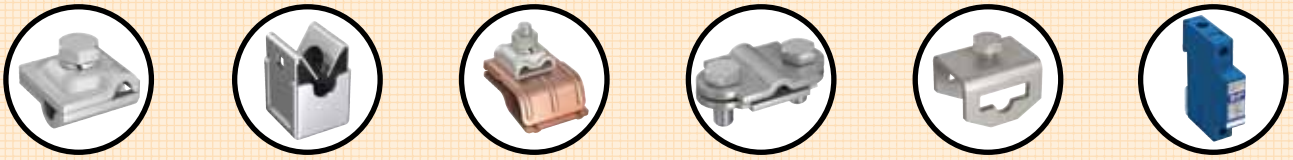
Joy & enthusiasm

are both the driving force and the guarantee of success. You are held in high esteem and recognition by people who take pleasure in working towards your success. You can share this joy and experience our enthusiasm.

Our promise

"Always safely one idea ahead!"

not only encompasses innovations and inventions, but also simplified work processes, safety and quality at extremely stable prices, and high availability.



Quality is also a priority for us when offering support on projects and providing you with favourably priced custom-built components and a perfect delivery service.

Our free winter seminars, which are training sessions and not sales events, are always well-visited and get great feedback.

Since our company was founded more than 30 years ago, you as the customer have been at the heart of our thinking and actions. In order to offer you price stability, we have expanded our warehouse capacity by a new building with a storage area of over 3000 m².

Factory I - Neumarkt: New warehouse 2012

Inventions and innovations in lightning protection by J. Pröpster from 1980 - 2013.

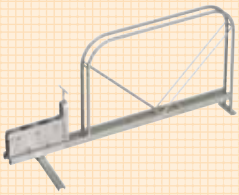
With our numerous inventions and innovations, according to the slogan of our company

„Always safely one idea ahead!"

we have, since 1980, developed lightning protection components which were previously neither available on the market nor required by the standards. Easy mounting systems, multifunctionality, high quality standard and long life were rare up to this time.

From the following examples you, as a skilled lightning protection specialist, will quickly realize the benefits of our products for yourself and your customers.

1980 Straightening device for strips



Essential for the installation of flat strips used as a foundation earth electrode or ring earth electrode.

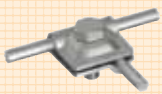
Benefits:
- Uncoil, straighten and install in one step.
- Operated by one person.
- Time saving up to 70%.

Page 92

1981 System Multi-clamp

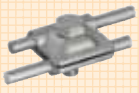
The **original Multi-clamp** was invented by J. Pröpster in 1981 and since than been established a million times worldwide. It is the most varied lightning protection component and the centerpiece of the multifunctional system of J. Pröpster. Huge benefits for planning, storage, installation, calculation, installation time and price.

Page 53



T-connection

cross-connection



parallel-connection

end to end connection

stem clamp trestle

Multi-Plus as terminal clamp

1982 System USV-clamp

Easy-to-assemble connection system e.g. for earth conductors in concrete.
Universal connection clamp for flat and round conductors e.g. 30 x 3.5 mm / ø 10 mm.

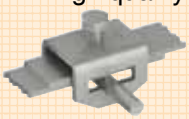
Benefits:
- Considerably shorter and easier installation in high quality.

Page 74

flat/flat connection

flat/flat T-connection

flat/round ø 8-10 mm parallel connection



flat/flat connection and round T connection

flat/flat/round cross connection

Systematic introduction of aluminium alloy components

AlMgSi 0.5 as lightning protection down conductor ø 8 mm with appropriate clamps and holders made of aluminium and screws made of stainless steel.

Benefits:
- High electric conductivity.
- Low transport weight (0.135 kg/m; weight per ring 15-20 kg).
- Good mechanical strength (150 - 160 N/mm²).
- Good resistance to corrosion.
- Easy and fast installation.

Page 21

1982

Introduction of stainless steel wires and strips

made of 1.4301 (stainless steel V2A) and 1.4571 (stainless steel V4A) for earth termination systems instead of lead coated material.

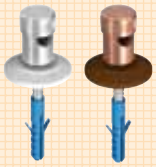
Page 20/21

Invention of a complete product series made of stainless steel: clamps, pipe clamps and holders for lightning protection and earth termination systems

1982

SK - conductor fastener

made of aluminium and copper-alloy for a decorative appearance.



Page 31

1983

System Multi Plus (J.P.-patent)

A further development of the original Multi-clamp, with an additional large contact surface (10 cm²) for all wire connections and also as a metal sheet terminal clamp according to VDE 0185.

Page 53

System Bimetal

The ideal system -standard conform- for all connections and terminals between different materials.

Benefit:

- Non-corrosive connections between copper conductors and components made of a different material e.g. aluminium or hot-galvanized steel for earth lead-in rods, test joints, skylights and metal constructions.

Page 62-63

Multi clamp

Vario-clamp

Gutter connection clamp

Saddle clamp

System Vario-clamp

The **original system Vario-clamp** is a practical solution for the connection of differently shaped conductors. All components are manufactured using stamping technology and are inter-changeable.

Page 58

ø 8-10/8-10 mm

ø 8-10/16 mm

ø 8-10/30x3.5 mm
ø 8-10/40x4 mm

30x3.5/30x3.5 mm
40x4/40x4 mm

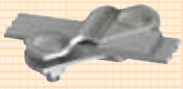
1984

System diagonal-cross clamp

The easy-to-assemble connection system for earth conductors flat/round.

Benefits:
- Shorter and easier installation.
- Two screws M10 with anti-turn device.

Page 74



flat/flat
parallel connection

flat/flat
cross connection

flat/flat + round
cross connection

round/round
cross connection

flat/flat + round
parallel connection

System Niro-Clip (J.P.-patent)

The **Niro-Clip** conductor fastener - made of 100% stainless steel - used as a roof and wall conductor fastener.

Benefits:
- Maximum mechanical strength.
- 100% weather resistant.
- Easy to use: Simply push in the wire and it is secured as if it were screwed.
- Available as fixed or loose conductor leading.

Page 30/31

Trapezoidal support - 100% stainless steel

For running conductor lengthwise and crosswise, stability due to trapezoidal double support and embossing.

Page 38

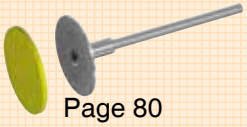
Earth lead in rods with terminal lug - insulated

Welded connection from ø 16 mm to ø 10 mm, hot galvanized and additionally protected against corrosion by a shrink-on tube in the dry/wet area of earth entry.

Benefits:
- Significantly time saving and easier installation.
- Direct connection to the ring earth electrode.
- No inconvenient screwing, welding and winding on the building wall
- The terminals can be easily bent into shape.
- No need for a connection in areas with a high risk of corrosion.

Page 72

Fixed earthing terminals with different connections

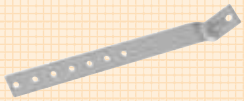


Benefit:
- Completely safe, corrosion resistant earthing terminal - large contact plate ø 80 mm made of stainless steel.

Page 80

1985

Universal downpipe clamp



Individual lengths as required - 2 different types for all common diameters of downpipes.

Page 68

Wedge connector with catch

For the connection of earth conductors flat/flat and flat/round in concrete.
Installation note: Wedge has to be installed crosswise to the top conductor.

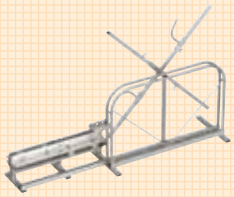
Page 76

1986 **Duo-Gutter clamp** (J.P-patent)

- **Benefits:** Large contact surface.
- Only 1 screw M10.
- With double terminal clamp - also conductor connection possible.
- Significantly shorter and easier installation.

Page 52

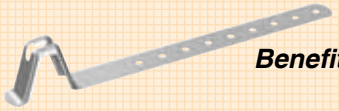
1987 **Straightening device for round wires and strips**



- **Benefit:** Levelling rolls easily adjustable, for use with wires with different degrees of hardness

Page 92

1988 *Roof conductor holder* (J.P-patent)



- **Benefits:** No screws or plastic parts, completely made of stainless steel. Quick and easy installation, sturdy because of trapezoidal shape with double support.

Page 38

1989 **PRÖ COLOR**

Coated lightning protection components in different colours for a more decorative look.

Page 47-49

1990 **Complete programme of earthing busbars and equipotential bonding bars**

For industrial use and power supply.

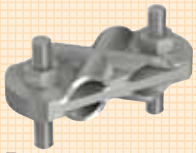
Page 88/89

1991 **Öko 1-Roof conductor holder for flat roofs**

With frostproof natural stone filling, easy to recycle, without concrete.

Page 45

Parallel- and cross-terminal clamp



Ideal for the connection of a fixed earthing terminal to the reinforcement.

- **Benefits:** Installation is possible in just 2 steps, because of 2 threaded bolts M10x60 mm in the middle plate:
  1. Connect the foundation earth electrode to the reinforcement and
  2. Connect and fix the fixed earthing terminal to the reinforcement - parallel and cross connection possible!

Page 80

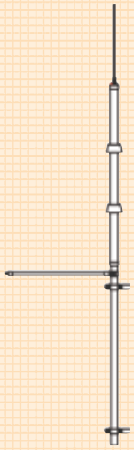
1992 **Öko 2-Roof conductor holder for flat roofs** (J.P-patent)

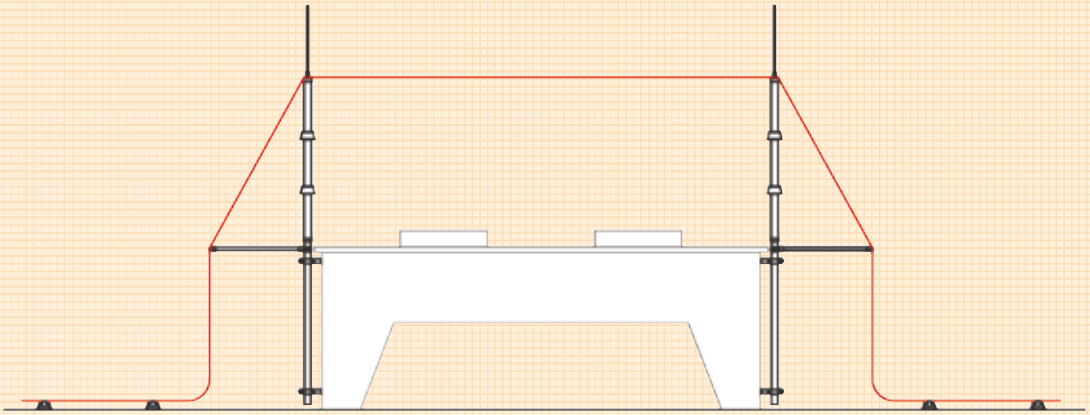
Pressed concrete block - 100% recyclable
The conductor holder can be fixed onto synthetic roofing membranes with securing strips.

Page 45

1993 Air termination pole for insulated lightning protection

System component for insulated lightning protection.





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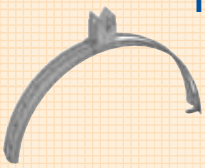
Roof conductor holder-universal (JP-patent)



Benefits:
- Optically appealing. Suitable for all sizes of tiles.
- Conductor holder universally adjustable.

1994 DIN ISO 9001 certification

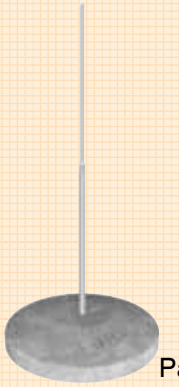
Certification of factory I Neumarkt and factory II Frankenberg/SN according to DIN ISO 9001 by the DQS and also EN 29000 for 16 European countries.

1995 Metal sheets terminal clamp (JP-utility patent)

For the damage-free and lightning current carrying capable connection with different kinds of metal sheets.

Page 60

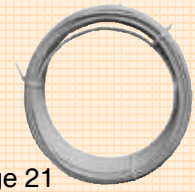
1996 Optimal air termination rod ø 16 mm / ø 10 mm



Benefits:
- Proven successful a million times.
- Visually pleasing - optimal static design.
- Ideal coordination of protective effect and materials input.
- Minimum surface area exposed to the wind and maximum protection.
- Reduced load pressure on roof covering and insulation.

Page 22

1998 ISO - Fugal-down conductor wire ø 8 mm



With halogen-free plastic coating.

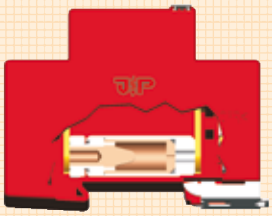
Benefit:
- Time saving due to easier and faster processing compared with ø 8 mm steel wire with pvc-coat and also better conductivity.

Page 21

1998

Lightning current arrester P-BM, Type 1 (J.P-patent)

Benefits:
- On spark gap basis, smallest encapsulated Type 1 arrester (35 kA) in the world, to protect electrical installations against direct lightning current.
- High energy, encapsulated, non-exhausting spark gap.
- Test according to standard in certified testing institutes with current pulses of the high-energy curve shape 10/350 µs.
- Multipole specification, dimensioned for a maximal lightning current of 100 kA in all mains systems.



Page 112

1999

Test badge for lightning protection system

For disconnection clamps and conductor holders, for the regular documentation of tests.

Page 66

2000

Niro-Clip with loose conductor leading (J.P-patent)

Benefit:
- Conductor stays straight despite heat expansion.

Page 30/31

2001

Saddle clamp (J.P-utility patent)

For secure connection to metal sheets and steel constructions

Page 60

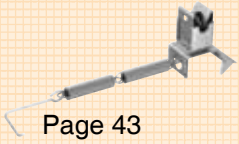
2002

Öko 3-Roof conductor holder for flat roofs (J.P-patent) with stainless steel clip

Benefits:
- High quality: Stainless steel clip with loose conductor leading.
- Specification: Compressed concrete block (weight: 1.2 kg).
- No frost-sensitive cavities and recesses - totaly frost-proof and 100% recyclable.

Page 45

Roof conductor holder with tension springs (J.P-patent)



Universally useable for ridge tiles.

Page 43

2003

Earthing kits for lightning protection systems and railway, bridge and tunnel constructions which are approved by the federal railway authority EBA

Page 85-86

2003

Combined lightning current and surge arrester P-HMS Type 1+2 (class I+II)

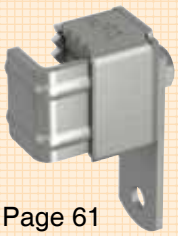
Benefits:
- Reasonable and practical lightning current and surge arrester for internal lightning protection.
- High energy varistor technology for the highest surge withstand.
- Use as a combined lightning current and surge arrester Type 1+2.
- No danger of follow currents due to arrester with varistor technology.
- The surge protective device does not only responds to lightning currents, but also to switching surges according to the varistor characteristics.

Page 113

Fixed earthing terminal system (JP-patent)

Benefits:
- Easy installation with flexible connections, flat and round.
- Non-corrosive connection with stainless steel external contact.
- Also suitable as test joint.

Page 82/83



Terminal clamp, heavy-duty type (JP-patent)

Benefits:
- Contact stable connections to steel structures with max. 52 mm clamping range.
- Variable connections through rotating terminal lugs (360°).
- Connection with KS-Clamp, Vario-clamp or punched strip possible.
- Mounted with spring lock washer and stainless steel screw M10 for hazardous areas

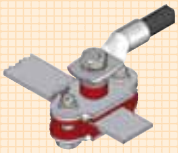
Page 61

2004

Roof conductor holder for Kal-Zip-roofs (JP-patent)

The reasonably priced solution for fixing conductors to round seams.

Page 41



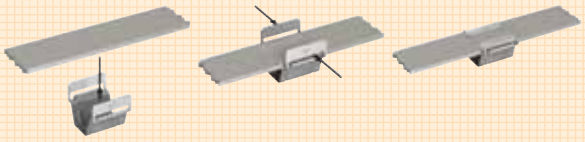
Clamps and pipe clamps for safe (JP-patent) connections in hazardous areas

Not yet fully realized because of lack of test specification.

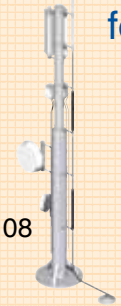
Screwless tape conductor holder (JP-patent)

The reasonably priced and practical solution for fixing of 30 mm flat strips.

Benefit:
- Less work - insert the strip, bend the lug - ready.



Page 35



JP-MBF lightning protection system (JP-utility patent) for antennas and roof installations

ISO air termination system for complex roof installations

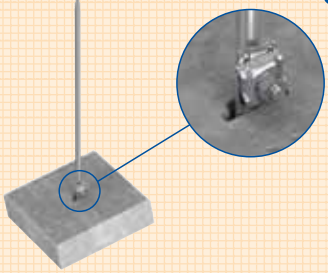
Benefits:
- Reduces the separation distance "s".
- Standardized (down conductor 50 mm²).
- Optically unobtrusive.
- Cut to the right length on site.
- Installation is necessary only in the area where the separation distance is not kept.
- Easy-to-assemble.
- Insulated specification.
- Reasonably priced solution.

Page 108

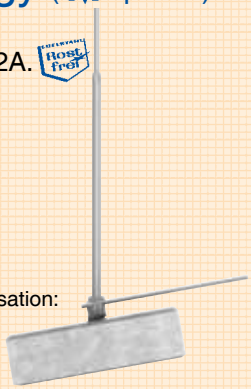
2005

Concrete base with J.Pröpster wedge technology (J.P-patent)

Benefits:
- Fitting of the air termination rod adjustable to the roof.
- High quality: wedge + clamp completely of stainless steel V2A.
- Wedge with integrated double connection clamp

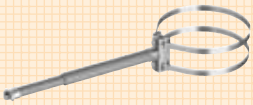


Roof pitch compensation:



Page 23

Telescopic insulated stand-off with tape clamp



Benefits:
- Infinitely adjustable.
- Heavy-duty specification (GRP ø 40/32 mm).
- For free carrying of air termination rods.

Page 98

Surge arrester for photovoltaic systems with integrated decoupling coil

Benefits:
- Specially designed for the use in the DC side of photovoltaic systems .
- Fault resistant Y circuit.
- Energetic coordination to a surge protective device integrated in the inverter without additional conductor length.

Page 130

2006

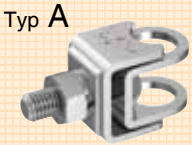
Touch voltage protection measure for lightning protection systems

For protection against dangerous touch voltage,
also with integrated disconnecting clamp.

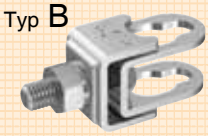
Page 109

J.Pröpster CC Clamp system

Typ A



Typ B



Typ C

For terminals and connections ø 8-10 / ø 16 mm with clamps, pipe clamps or steel constructions.

Benefits:
- Clamping system for round conductors ø 8-10 / ø 16 mm.
- Variable fixing lengths by easy swap of the hexagonal bolt M10.
- Also usable in hazardous areas (with spring lock washer) - 100 kA tested -.

Type A: Connection of air termination rods or earth lead-in rods ø 16 mm to clamps, pipe clamps or steel constructions.

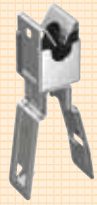
Type B: Connection of rods ø 16 mm and conductors ø 8-10 mm to clamps, pipe clamps or steel constructions

Type C: Connection and disconnection clamp ø 8-10 / ø 16 mm - also suitable for cable connections.

Page 55

2007 Roof conductor holder for RIB-Roof 500 System (JP-patent)

The reasonably priced solution for installing round conductors to RIB-Roof 500 system.



Page 41

Connection clamp for earth rods

Connection of strips 30 x 3.5 mm, round conductors ø 10 mm and earth rods ø 25 mm.

Page 77

2008 Connection clamp

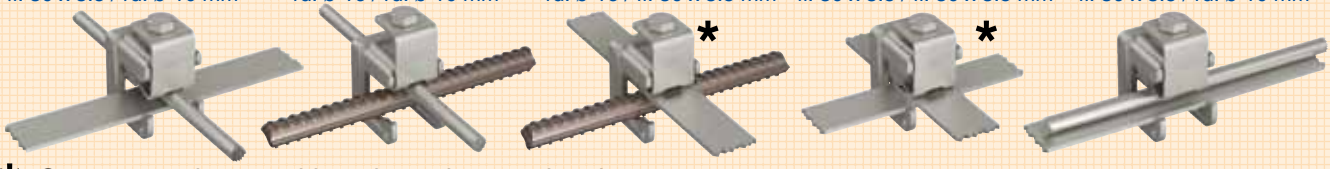
For different combinations ø 6-20 mm and flat 30 x 3.5 mm or ø 10 mm;
with M10 clamping screw.

Benefits:
- Maximum contact security through consistent contact pressure.
- Shorter and easier installation - only 1 screw M10.
- Universal usage and lightning current carrying capable connection - reinforcement irons and earthing conductors are positioned in the part by the guide beading and are connected with just one clamping screw.

Page 75

EDELSTAHL Rostfrei

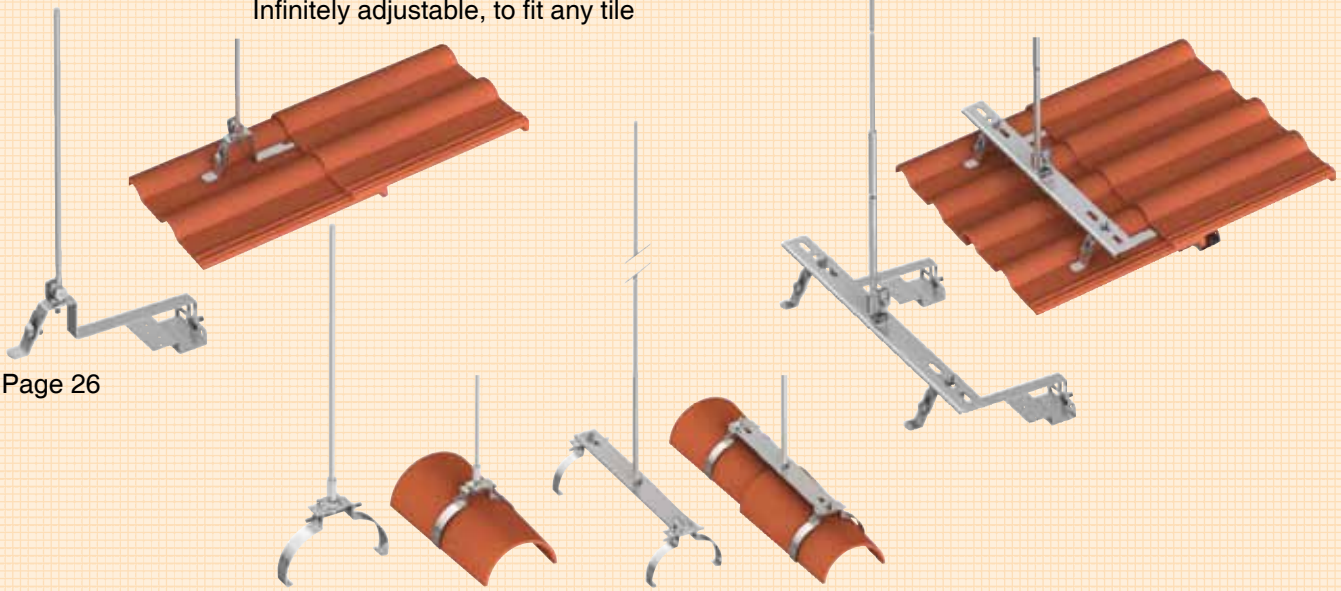
fl. 30 x 3.5 / rd. ø 10 mm | rd. ø 16 / rd. ø 10 mm | rd. ø 16 / fl. 30 x 3.5 mm | fl. 30 x 3.5 / fl. 30 x 3.5 mm | fl. 30 x 3.5 / rd. ø 10 mm



* Connection also possible without clamping bracket.

2009 Air termination rod system for all common types of roof tiles.

Infinitely adjustable, to fit any tile



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2009

Clamping piece

Suitable for the use of round conductors ø 10 mm as spacers for the installation of foundation earth electrodes flat 30 x 3.5 mm on end or round ø 10 mm.

Benefit: ● Infinitely ajustable height for different foundations (soil, sand, mineral concrete) or blinding layer.

Distance pins have to be installed by the customer.

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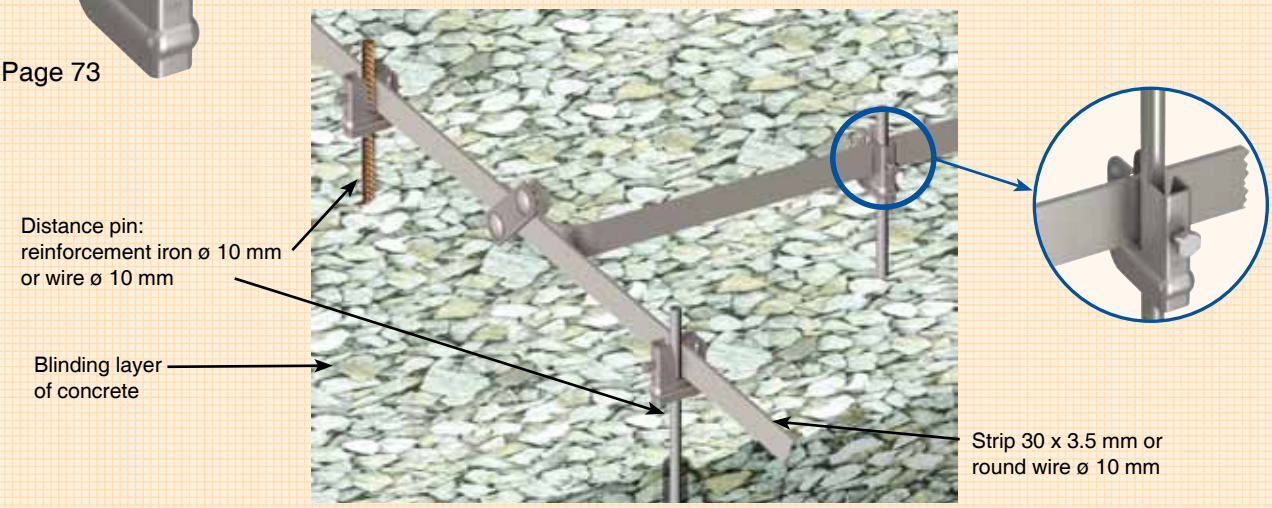
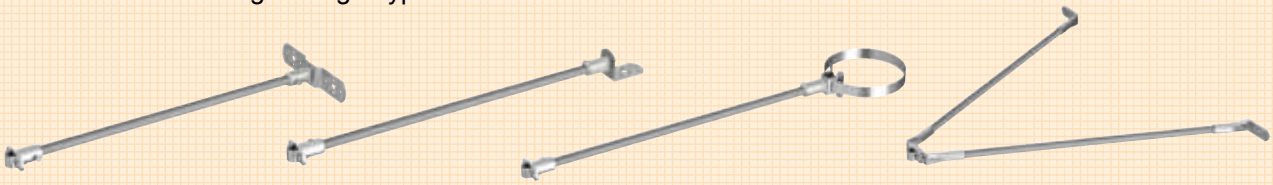


Fixing system for insulated stand-offs 16plus

Light-weight type for the fixiation of air termination rods with additional concrete base.



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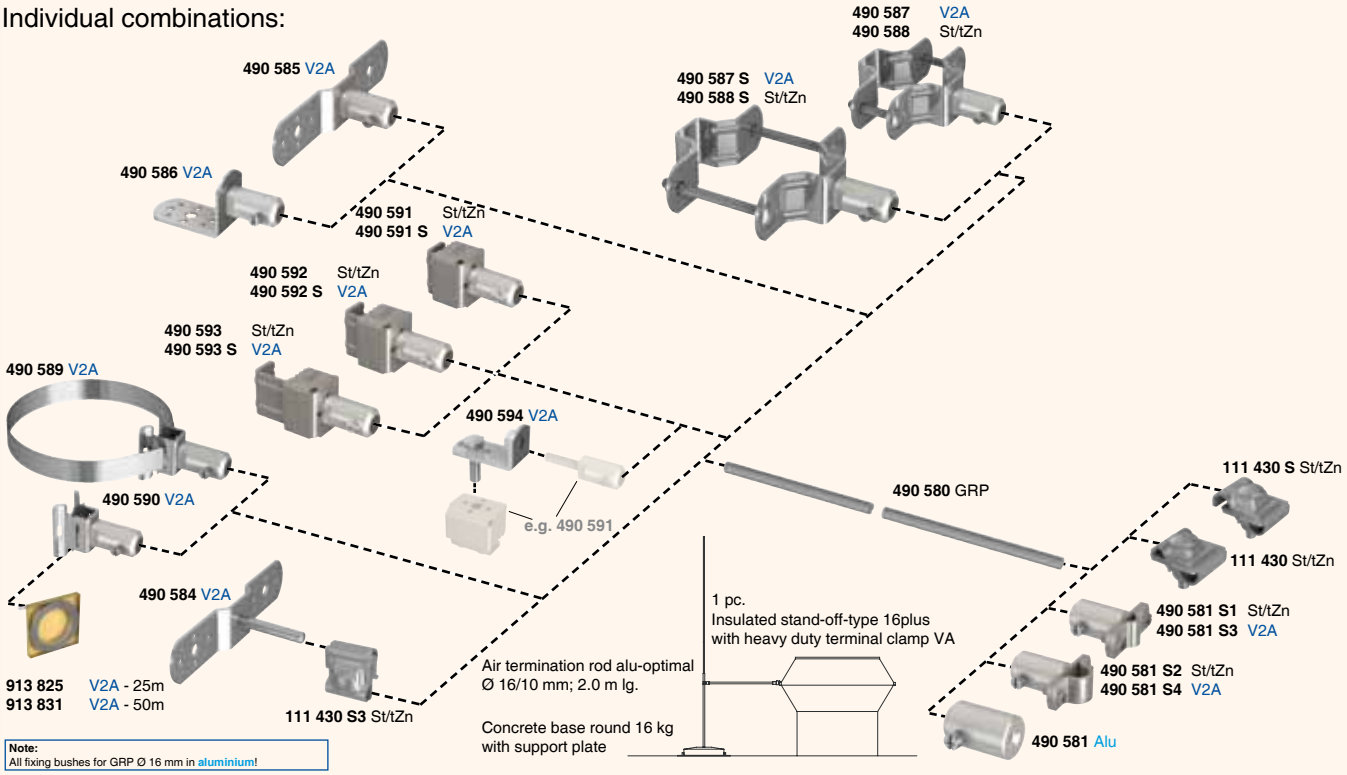
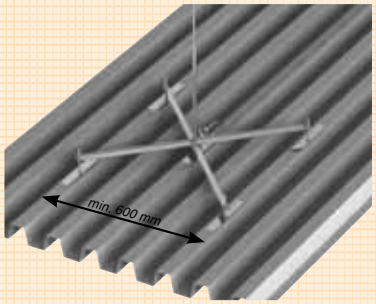
Individual combinations:

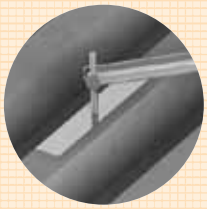


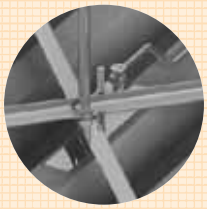
2010 Air termination rod system (JP-utility patent) for metal / tin roofs

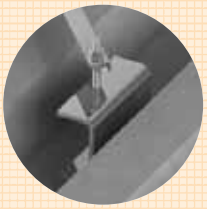
with magnetic plate (also for a roof pitch up to 10°).
Air termination rod system with fixing cross,
base with magnetic plate and KS-connector.

EDELSTAHL Rostfrei





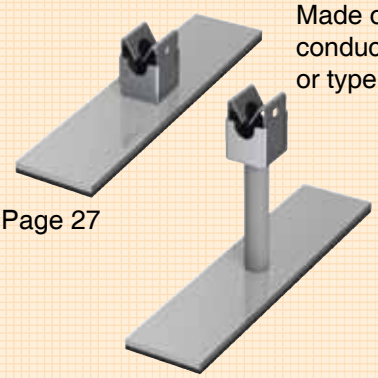




Page 27

2011 Conductor fastener for metal / tin roofs

Made of stainless steel V2A with magnetic plate and Niro-Clip V2A for ø 8 mm loose conductor leading inclusive plate V2A 180x40x2 mm,
or type with spacer to raise the height of the conductor leading to 80 mm.



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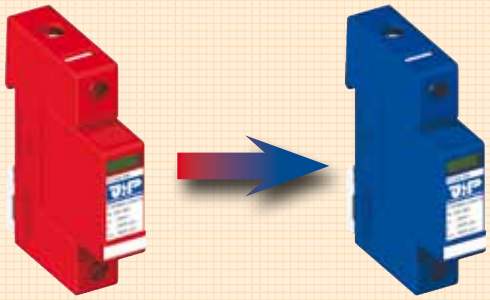
A change of colour for all our surge protection devices from red to blue, our company colour.

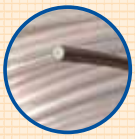


Prö Cu/Al-wire - round wire made of bimetal-composite Cu/Al

The aluminium core is crimped with the copper coating.
In this way both materials are bonded together to be non-corrosive.

Benefits:

- Cost saving - favourable price-performance ratio.
- Lower price fluctuation due to less copper content.
- Torsionable - can be worked like soft wires.
- Non-corrosive connection between aluminium and copper.
- No problems with corrosion at the cut surface, because of the surface ratio of copper and aluminium.
- Conforming to standards.



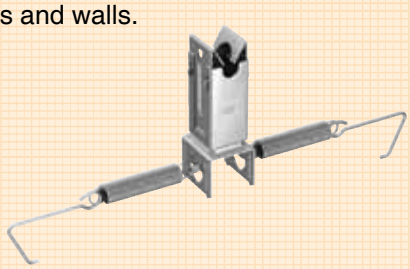
Page 21

2012

Niro-Clip conductor fastener (JP-trade mark rights registered) -raised version-

Height of conductor leading: 36 mm.
Conductor fastener for fixing round conductors to roofs and walls.
Snap mechanism and base made of metal.



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System Vario-clamp - M8-Plus (JP-patent) with cylindrical collar

The **system Vario-clamp M8-Plus** is a reasonably priced, practical solution for connecting differently shaped conductors.

Benefits:
- The cylindrical, patented collar on the top part, considerably improves assembly.


ø 8-10/8-10 mm


ø 8-10/16 mm


ø 8-10/30x3.5 mm
ø 8-10/40x4 mm


30x3.5/30x3.5 mm
40x4/40x4 mm


System Bimetal
ø 8-10/30x3.5 mm

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Surge protective devices - mains systems Type 1+2 and Type 2

Benefits:
- Safe plug-in fixation and contacting due to module locking mechanism.
- P-HMS 280 R with 12.5 kA (10/350 µs) per pole and 50 kA (10/350 µs) 4-pole.
- **P-HMS 280** ***max*** with 25 kA (10/350 µs) per pole and 100 kA (10/350 µs) 4-pole.
- Optimum price-performance ratio.
- High preliminary fuse values.


P-HMS 280 Fm ***max***


P-HMS 280 Fm ***max*** 2


P-HMS 280 ***max*** 3+1


P-HMS 280 R 3

Pages 114-123

Surge protective devices - photovoltaic systems Type 1+2 and Type 2

Benefits:
- Safe plug-in fixation and contacting due to module locking mechanism.
- Type 1+2 with 12.5 kA (10/350 µs) per pole.
- Optimal price-performance ratio.


P-HYS 605 Fm R PV

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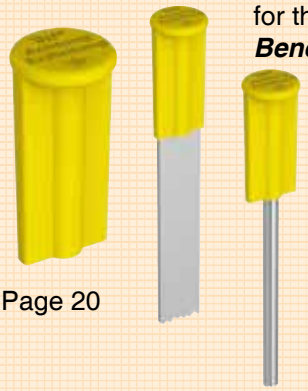
P-VYS 605 Fm R PV


P-HYS 805 R PV


P-VYS 1005 R PV

2013

Protective cap for earthing conductors



for the injury prevention and for marking during the building stage

Benefits:

- Distinct marking of the earth lead-in terminal lug during the building stage (requirement according to DIN 18014).
- Injury prevention.
- Easy and fast fitting on conductor ends.
- For ø 10 mm or 30x3,5 mm.
- Cost-effectively but safe.

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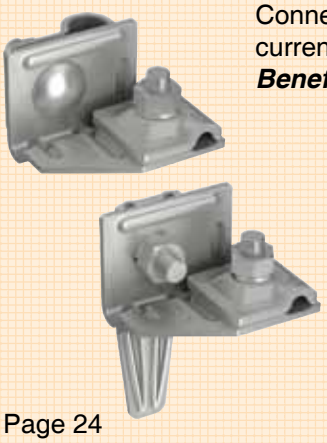
k_c-clamp

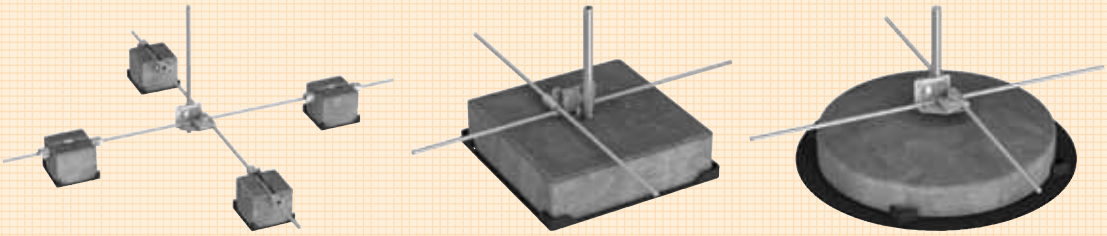


Connection-clamp to reduce the k_c-value to the factor 0.25 by partitioning the lightning current flowing through the air-termination rod amongst down conductors.

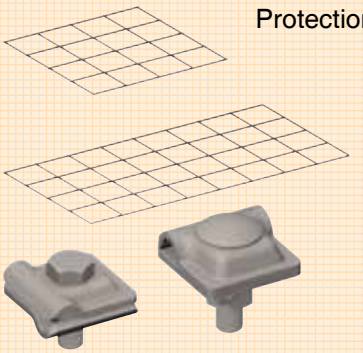
Benefits:

- All connection types (cross-, T-, corner-, parallel-, end to end connection) and additional connection to a air-termination rod resp. tip with only one clamp possible.
- Connection for crossing points of the conductor routing with an air-termination tip is also possible without a conrete base.
- The k_c-clamp easily reduce the value of k_c to the factor 0.25 by partitioning the lightning current flowing through the air-termination rod amongst down conductors.
- The k_c-clamp is also useable in already installed systems.

Page 24



Protection measures against step voltages



Protection against step voltages in shelter hats with interconnected wire mesh mats.

- Potential control with mesh size of wire mesh mats 250 mm x 250 mm.
- Diameter of wires 4 mm.
- Completely made of stainless steel V4A.
- To be laid in the ground at a depth of max. 250 mm.

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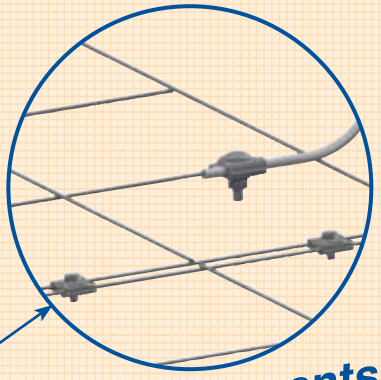

J.P-developments and innovations become lightning protection standards!

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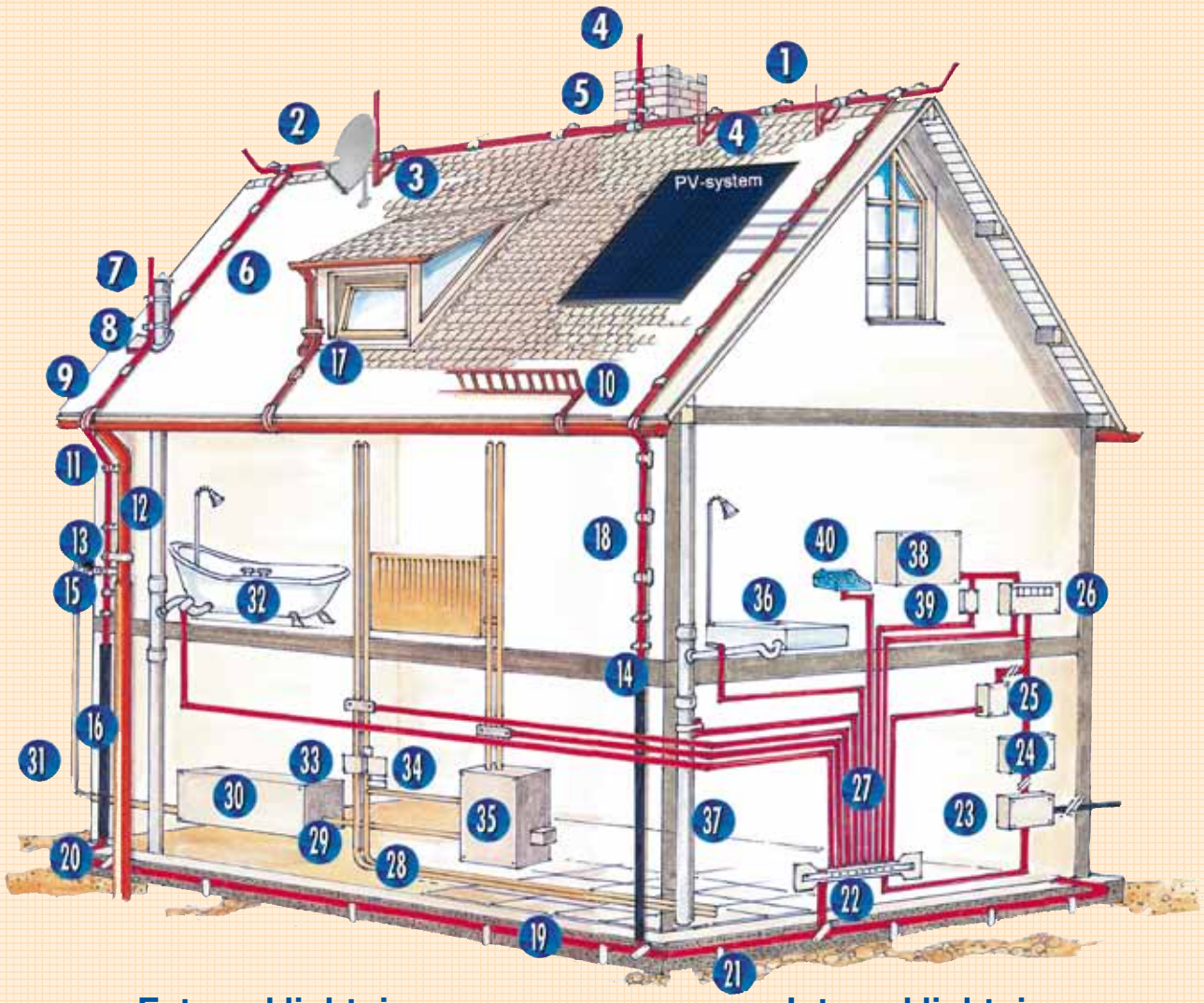
Print No. JP-1118 08/13



External lightning protection system

1 Roof conductor holder for ridge tiles
2 Multi-clamp
3 Air termination rod with insulated stand-off
4 Air termination rod
5 Rod holder
6 Roof conductor holder
7 Pipe clamp
8 KS clamp
9 Gutter clamp
10 Snow guard clamp
11 Wall conductor holder
12 Downpipe conductor fastener
13 Isolating spark gap
14 Disconnecting clamp flat/round
15 Tape conductor holder
16 Insulation
17 Saddle clamp
18 Down conductor
19 Earth electrode
20 Diagonal-cross clamp
21 Spacer for conductor

Internal lightning protection system

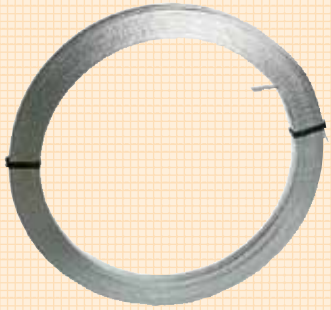
22 Main earthing terminal
23 House connection box
24 Electricity meter
25 Surge arrester
26 Distribution board
27 Equipotential bonding conductor
28 Water supply
29 Gas supply
30 Oil tank
31 Oil tank ventilation
32 Bathtub
33 Gas meter
34 Water meter
35 Central heating
36 Shower
37 Wastewater pipe
38 Electronic device
39 Surge arrester type 3
40 Telephone system

Round wires
Strips
Cables
Air termination systems

Conductors for lightning protection and earthing systems

- Different materials.
- Available in various dimensions.

Strips



Strips according to EN 62561-2.

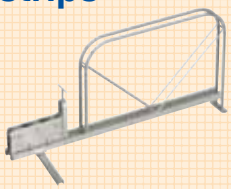
Specification		Size	Weight/m	PU	Ord. no.
Steel, hot galvanized	Z 500	30 x 3.0 mm	0.72 kg	50 kg	100 330
Steel, hot galvanized	Z 500	30 x 3.0 mm	0.72 kg	25 kg	100 331
Steel, hot galvanized	Z 500	30 x 3.5 mm	0.84 kg	50 kg	100 336
Steel, hot galvanized	Z 500	30 x 3.5 mm	0.84 kg	25 kg	100 336k
Steel, hot galvanized	Z 500	30 x 4.0 mm	0.96 kg	50 kg	113 231
Steel, hot galvanized	Z 500	40 x 4.0 mm	1.28 kg	50 kg	100 440
Steel, hot galvanized	Z 500	40 x 5.0 mm	1.60 kg	50 kg	100 540
Steel, hot galvanized	Z 500	20 x 2.5 mm	0.40 kg	50 kg	100 225
Stainless steel 1.4301	V2A	30 x 3.5 mm	0.83 kg	50 kg	100 114
Stainless steel (e.g. 1.4571)	V4A	30 x 3.5 mm	0.83 kg	50 kg	100 112
E-copper	medium	20 x 2.5 mm	0.45 kg	run.m.	100 118

Perforated strips on request (hole pattern to order).

Earthing components, like connection clamps, fixed earthing terminals, etc. on page 71.

Example for the on end installation of flat strips in the foundation area
Ord. no. 1321, 1319 or 1321 S on page 73:

Straightening device for strips



Ord. no. 111 083

Straightening device for strips
with 5 levelling rolls, for strips 30 x 3.5 mm.

Specification	PU	Ord. no.
Technical data: Weight: 23 kg, Length: 1390 mm, width*: 120 mm, height: 670 mm (* base can be swivelled in) Uncoil, straighten and install in one step. Very easy handling, time saving due to clean, effortless and quick installation of earth strips.	1	111 083

Cables

Cables according to EN 62561-2.

Specification		Size	Weight/m	PU	Ord. no.
Aldrey rope		50 mm²	0.135 kg	run.m.	100 058
E-copper	bare	50 mm²	0.438 kg	run.m.	100 033
E-copper	bare	70 mm²	0.597 kg	run.m.	100 034
E-copper	bare	95 mm²	0.846 kg	run.m.	100 035
E-copper	bare	120 mm²	1.061 kg	run.m.	100 036
E-copper	tinned	50 mm²	0.438 kg	run.m.	100 037
E-copper	tinned	70 mm²	0.597 kg	run.m.	100 038
E-copper	tinned	95 mm²	0.846 kg	run.m.	100 039
E-copper	tinned	120 mm²	1.061 kg	run.m.	100 040
NYY-I underground cable E-copper 1 kV		50 mm²	0.615 kg	run.m.	100 043

Specification	Size	Weight/m	PU	Ord. no.
Steel, hot galvanized	ø 10 mm	0.380 kg	run.m.	100 030
Stainless steel V4A 1.4401	ø 8 mm	0.250 kg	run.m.	100 041
Stainless steel V4A 1.4401	ø 10 mm	0.380 kg	run.m.	100 042

Conductor holder for cables on page 34

Protective cap NEW!

Ord. no. 102 219

Protective cap for earthing conductor

Specification	Fit	PU	Ord. no.
Plastic (HD-PE) yellow	ø 10 mm or flat 30 x 3,5 mm	50	102 219

Round wires according to EN 62561-2.

Specification		Size	Weight/m	PU	Ord. no.
Steel, hot galvanized	Z 350	ø 8 mm	0.40 kg	40 kg	100 008
Steel, hot galvanized	Z 350	ø 10 mm	0.62 kg	50 kg	100 010
Aluminium AlMgSi 0.5	medium F 15	ø 8 mm	0.135 kg	20 kg	100 018
Aluminium AlMgSi 0.5	soft F 9	ø 8 mm	0.135 kg	20 kg	100 019
Aluminium	soft F 6	ø 10 mm	0.212 kg	20 kg	100 020
E-Copper	medium F 25	ø 8 mm	0.45 kg	50 kg	100 028
E-Copper	soft F 22	ø 8 mm	0.45 kg	50 kg	100 029
Stainless steel 1.4301	V2A	ø 8 mm	0.40 kg	~ 40 kg	100 011
Stainless steel 1.4301	V2A	ø 10 mm	0.62 kg	~ 62 kg	100 012
Stainless steel (e.g. 1.4571)	V4A	ø 8 mm	0.40 kg	~ 40 kg	100 014
Stainless steel (e.g. 1.4571)	V4A	ø 10 mm	0.62 kg	~ 62 kg	100 015
Steel with PVC coating		ø 10/ø 13 mm	0.68 kg	50 kg	100 013
Steel with PVC coating		ø 8/ø 11 mm	0.44 kg	50 kg	100 121
ISO - Fugal down conductor wire made of aluminum alloy AlMgSi 0.5 with halogen-free plastic coating		ø 8/ø 11 mm	0.20 kg	20 kg	100 123

Varnished Aluminium-wire on request. For colour scale see page 49, or RAL-Numbers

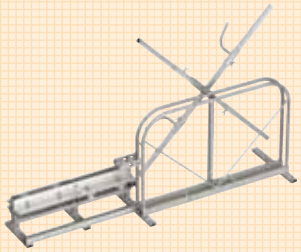
Round wire

Universal straightening device, with vertical reel-off unit,

to be used for round wire Ø 8 - 10 mm and for earth strips 30 x 3.5 mm.

Specification	PU	Ord. no.
Technical data: Weight: 47 kg; Straightening device (as described on page 92) Vertical reel-off unit, adjustable to different ring diameters. Uncoiling of earth strips 30 x 3.5.	1	111 082

Universal straightening device



Ord. no. 111 082

PröCu/Al-wire - Round wire made of Bi-metal composite material Cu/Al

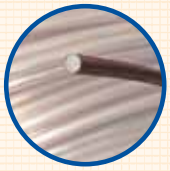
The aluminium core is crimped with the copper coating.
In this way both materials are bonded together to be non-corrosive

Benefits:

- Cost saving - favourable price-performance ratio.
- Lower price fluctuation due to less copper content.
- Torsionable - can be worked like soft wires.
- Non-corrosive connection between aluminium and copper.
- No problems with corrosion at the cut surface, because of the surface ratio of copper and aluminium.
- Conforming to standards.

Round wire made of aluminium with copper coating

Specification		Size	Weight/m	PU	Ord. no
Aluminium core with copper coating (Al/Cu)	soft	ø 8 mm	0.18 kg	20 kg	100 022



Round wire PröCu/AL

Optimal air termination rod with M16 thread

Ord. no. 103 111

Air termination rod with M16 thread

Ord. no. 103 100

Concrete base with M16 female thread

Ord. no. 103 103

Support plate

Ord. no. 103 102

J.Pröpster optimal air termination rods with air termination tip

Technical benefits that convince the experts:

- Visually pleasing - optimal static design
- Ideal coordination of protective effects and material requirements
- Minimum surface area exposed to the wind and maximum protection
- Reduced load pressure on roof covering and insulation.

Optimal air termination rods with M16 thread according to EN 62561-2.

Specification	Length	PU	Ord. no.
Aluminium AlMgSi 0.5 ø 16 mm with M16 thread	1500 mm	10	103 111
and air termination tip ø 10 mm, 1 m long	2000 mm	10	103 112
longer than 2500 mm with lock nut	2500 mm*)	10	103 113
	3000 mm*)	10	103 114
	4000 mm*)	10	103 117
	5000 mm*)	10	103 128
	6000 mm*)	10	103 143

*) only with additional, insulated stand-off (see page 97-102)
From 5 m also available in 2-parts (price on request)

Air termination rods with M16 thread
for flat roofs and the protection of roof installations according to EN 62561-2

Specification	Length	PU	Ord. no.
Air termination rods ø 16 mm made of			
Aluminium AlMgSi 0.5 with M16 thread	1000 mm	10	103 100
Aluminium AlMgSi 0.5 with M16 thread	1500 mm	10	103 150
Aluminium AlMgSi 0.5 with M16 thread	2000 mm	10	103 200
Aluminium AlMgSi 0.5 with M16 thread	2500 mm*)	10	103 250
longer than 2500 mm with lock nut			

Additional lengths on request!
*) only with additional, insulated stand-off (see page 97-102)

Concrete base with stainless steel threaded sleeve for air termination rods with M16 thread for flat roofs to protect roof installations.

Specification	Weight	Diameter	PU	Ord. no.
Concrete base	12 kg	ø 380 mm	1	103 103
with female thread M16	16 kg	ø 380 mm	1	103 101
as socket for air termination rods	20 kg	ø 380 mm	1	103 110
	25 kg	ø 420 mm	1	103 118

Support plate for concrete base round (up to ø 445) and concrete base (300 x 300 mm) to protect roofing material. Neutral to all conventional roof foils.

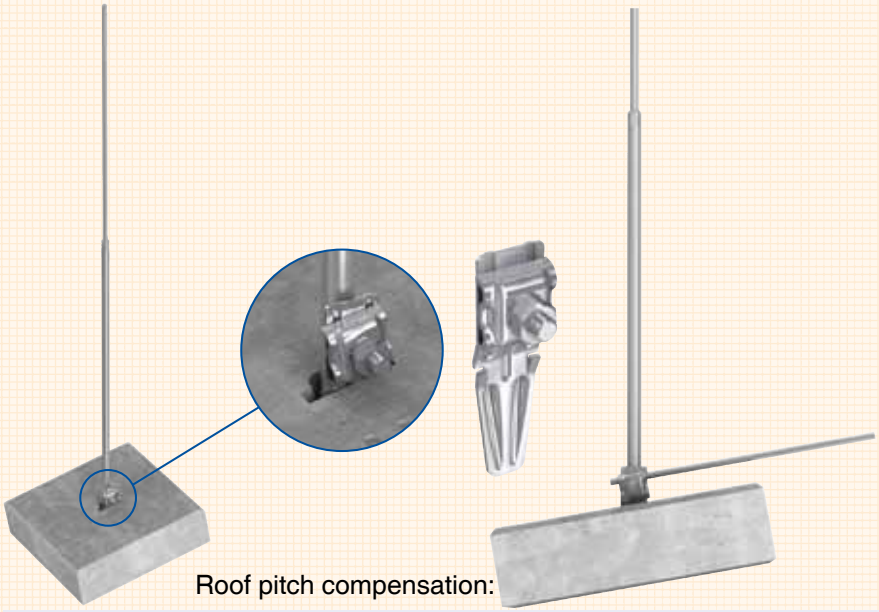
Specification	Diameter	PU	Ord. no.
Plastic, black - without plasticizer	ø 445 mm 300 x 300 mm	1	103 102

The support plate for concrete base is necessary on synthetic roofing membranes.

Concrete base with J.Pröpster - wedge technology

Benefits:

- Tilting of the air termination rod adjustable to the roof.
- Cranking the air termination rod is no longer required.
- High quality: Wedge + clamp completely made of stainless steel V2A.
- Safety - “100 kA tested”.
- Specification: Compressed frost-proof concrete base 16 kg - with recessed grip.
- Installation and price benefits: J.Pröpster wedge technology including connection clamp for the roof conductor -all in one.



Roof pitch compensation:

J.Pröpster - Optimal air termination rods without thread

for concrete base 16 kg with J.Pröpster - wedge technology, according to EN 62561-2.

Specification	Length	PU	Ord. no.
Optimal air termination rod ø 16 mm	1500 mm	10	103 180
with air termination tip ø 10 mm, 1 m long	2000 mm	10	103 181
Material: Aluminium AlMgSi 0.5	2500 mm*)	10	103 182
	3000 mm*)	10	103 183
Tube air termination rod, Tube ø 16 x 3 mm	1500 mm	10	103 170
with air termination tip ø 10 mm, 1 m long	2000 mm	10	103 171
Material: Aluminium AlMgSi 0.5	2500 mm*)	10	103 172
	3000 mm*)	10	103 173
	4000 mm*)	10	103 174
	5000 mm*)	10	103 174 S
	6000 mm*)	10	103 168

*) only with additional, insulated stand-off (see page 97-102)
From 5 m also available in 2-parts (price on request)

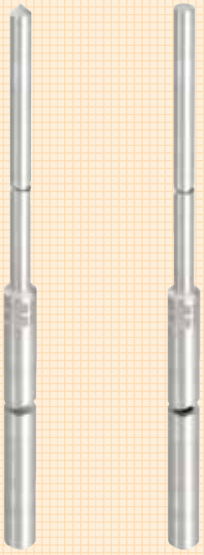
Concrete base **with** J.Pröpster - wedge technology,

for air termination rods for flat roofs to protect roof installations.

Specification	Fit wege	PU	Ord. no.
Concrete base 16 kg; 300 x 300 x 80 mm **with** wedge connection clamp stainless steel V2A for air termination rod ø 16 mm	ø 8 mm	1	103 191
Support plate; Neutral towards all synthetic roofing membranes Plastic, black - without plasticizer		1	103 188

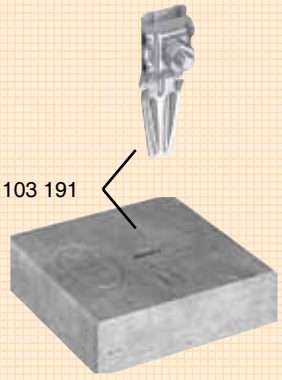
The support plate for concrete base is necessary on synthetic roofing membranes.

Optimal air termination rod without thread



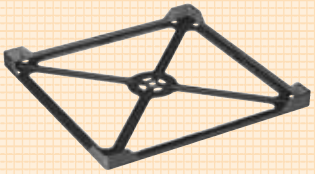
Ord. no. 103 180 Ord. no. 103 170

Concrete base with wedge technology



Ord. no. 103 191

Support plate



Ord. no. 103 188

Air termination rods

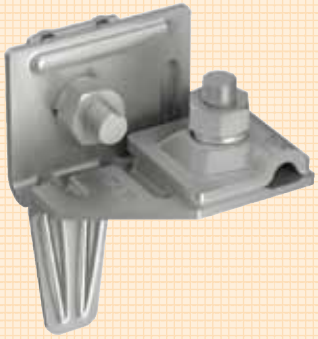
Ord. no. 100 750

Air termination tip

Ord. no. 103 158

k_c-clamp NEW!

Ord. no. 103 158



Ord. no. 103 158

Air termination rods, ø16 mm, with chanfered ends, according to EN 62561-2.

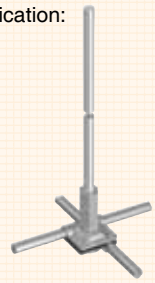
Specification	Fit	Length	PU	Ord. no.
Steel, hot galvanized	ø 16 mm	750 mm	10	100 750
Steel, hot galvanized	ø 16 mm	1000 mm	10	101 000
Steel, hot galvanized	ø 16 mm	1200 mm	10	101 200
Steel, hot galvanized	ø 16 mm	1500 mm	10	101 500
Steel, hot galvanized	ø 16 mm	2000 mm	10	101 002
E-Copper	ø 16 mm	1000 mm	10	101 005
E-Copper	ø 16 mm	1200 mm	10	101 205
E-Copper	ø 16 mm	1500 mm	10	101 505
Stainless steel V2A	ø 16 mm	1000 mm	10	102 005
Stainless steel V2A	ø 16 mm	1200 mm	10	102 205
Stainless steel V2A	ø 16 mm	1500 mm	10	102 505
Stainless steel V4A	ø 16 mm	1000 mm	10	103 137
Stainless steel V4A	ø 16 mm	1200 mm	10	102 207
Stainless steel V4A	ø 16 mm	1500 mm	10	910 347
Aluminium AlMgSi 0.5	ø 16 mm	1000 mm	10	102 000
Aluminium AlMgSi 0.5	ø 16 mm	1200 mm	10	102 200
Aluminium AlMgSi 0.5	ø 16 mm	1500 mm	10	102 550

Additional lengths on request!
Connection clamps ø 8-10 mm / ø 16 mm see page 28.

Aluminium-air termination tip ø 10 mm with thread M10, for direct connection to Multi-clamps, for T- and cross connections, according to EN 62561-2.

Specification	Length	PU	Ord. no.
Aluminium AlMgSi 0.5 ø 10 mm	250 mm	10	103 158
with female thread M10	500 mm	10	103 121
	750 mm	10	103 122

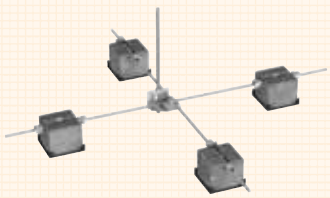
Air termination tips in stainless steel V2A on request
Example of application:

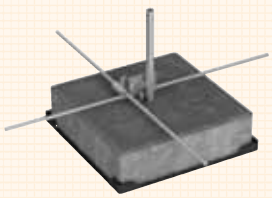


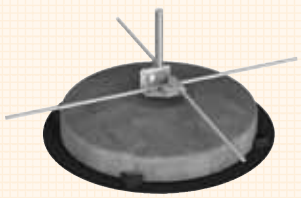
k_c-clamp, according to EN 62561-1.

Specification	Fit	Air termination rod	PU	Ord. no.
Aluminium - steel, hot galvanized	ø 8 mm / ø 8 mm	ø 16 mm	10	111 298 NEW!
Aluminium - stainless steel V2A	ø 8 mm / ø 8 mm	ø 16 mm	10	111 299 NEW!
Aluminium - stainless steel V2A	ø 8 mm / ø 8 mm	ø 10 mm	10	111 297 NEW!
with integrated wedge Aluminium - stainless steel V2A	ø 8 mm / ø 8 mm	ø 16 mm	10	111 296 NEW!

Example of application:







Air termination rods with M10 thread
for flat roofs to protect roof installations, according to EN 62561-2.

Specification	Length	PU	Ord. no.
Air termination rods ø 10 mm made of			
Aluminium AlMgSi 0.5 with M10 thread	500 mm	10	103 147
Aluminium AlMgSi 0.5 with M10 thread	750 mm	10	103 148
Aluminium AlMgSi 0.5 with M10 thread	1000 mm	10	103 124
Air termination rods ø 10 mm made of			
Stainless steel V2A with M10 thread	1000 mm	10	103 106
Stainless steel V2A with M10 thread	1200 mm	10	103 107

Additional lengths on request

Concrete base for air termination rods
for flat roofs to protect roof installations.

Specification	Weight	PU	Ord. no.
Concrete base 300 x 300 x 60 mm with female thread M10	12 kg	1	103 104
Concrete base 300 x 300 x 80 mm with female thread M10	16 kg	1	103 146

Support plate for concrete base
to protect roofing material. Neutral with all roofing materials.

Specification	Size	PU	Ord. no.
Plastic, black - without plasticizer	300 x 300 mm	1	103 188

The support plate for concrete base is necessary on synthetic roofing membranes.

Carrying bag for concrete base

Specification	Size	PU	Ord. no.
Nylon, white	440 x 430 x 100 mm	1	103 189

Air termination stud for pedestrian and vehicular flat roof

Specification	Fit	PU	Ord. no.
Aluminium/Steel, hot galvanized	ø 8-10 mm	10	2040
Distance bottom edge clamp / bottom edge air termination stud 50-60 mm			

Flat strips design on request.

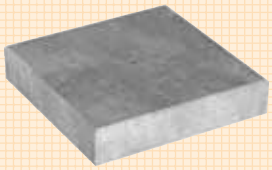
Air termination tip for screwing on conductor ends.

Specification	Fit	PU	Ord. no.
Aluminium with V2A-bolt M6 x 8 mm	ø 8 mm	100	1252
Copper-alloy with V2A-bolt copper plated M6 x 8 mm	ø 8 mm	100	1253

Air termination rod with M10 thread

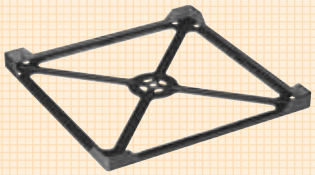
Ord. no. 103 147

Concrete base with M10 female thread



Ord. no. 103 104

Support plate



Ord. no. 103 188

Carrying bag

Ord. no. 103 189

Air termination stud

Ord. no. 2040

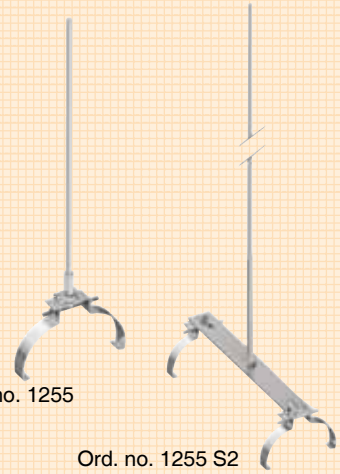
Air termination tip

Ord. no. 1252

Air termination tip with base

Ord. no. 103 125

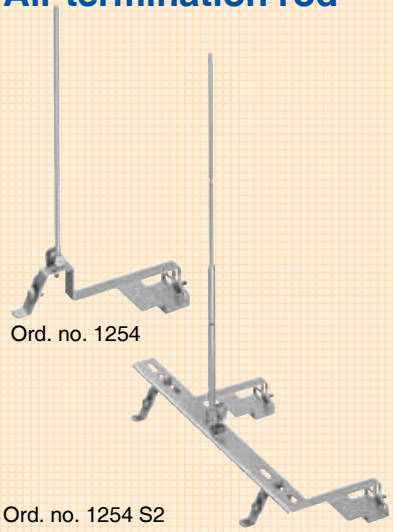
Air termination rod



Ord. no. 1255

Ord. no. 1255 S2

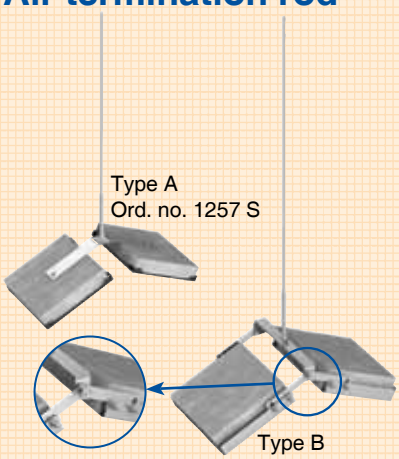
Air termination rod



Ord. no. 1254

Ord. no. 1254 S2

Air termination rod



Type A
Ord. no. 1257 S

Type B
Ord. no. 1259

Air termination tip with base for flat roofs, to protect small roof installations.
e.g. ventilation systems. For installation along the conductor routing, according to EN 62561-2.

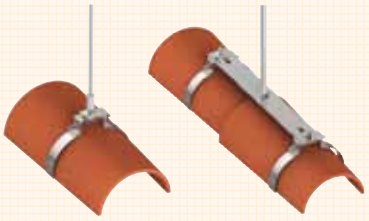
Specification	PU	Ord. no.
Air termination tip with base consisting of: plastic cover (same as PR-ÖKO 1; page 45), but with 2 kg frost proof concrete filling, contact clamp for conductors ø 8 mm and air termination tip ø 10 mm Aluminium, 1.0 m long	1	103 125

Air termination rod system for ridge tiles (size 200 - 220 mm)
according to EN 62561-2.

Specification	Length	PU	Ord. no.
1x Holder in stainless steel V2A and Air termination rod aluminium ø 10 mm	1050 mm	1	1255
2x Holder in stainless steel V2A and Air termination rod aluminium ø 16/10 mm	1350 mm	1	1255 S2

Additional lengths on request!

Example of application:

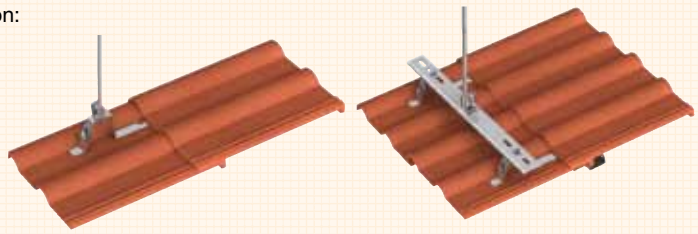


Air termination rods for all common types of roof tiles
Infinitely ajustable to fit the tile, according to EN 62561-2.

Specification	Length	PU	Ord. no.
1x Holder in stainless steel V2A - with air termination rod aluminium ø 10 mm	1000 mm	1	1254
2x Holder with connection bar in stainless steel V2A - with air termination rod aluminium ø 16/10 mm	1500 mm	1	1254 S2
1x Holder in stainless steel V2A - without air termination rod	-	1	1254 S1
2x Holder with connection bar in stainless steel V2A - without air termination rod	-	1	1254 S3

On request also available in desired RAL-colour.

Example of application:



Air termination rods for ridge area in stainless steel V2A;
infinitely adjustable, according to EN 62561-2.

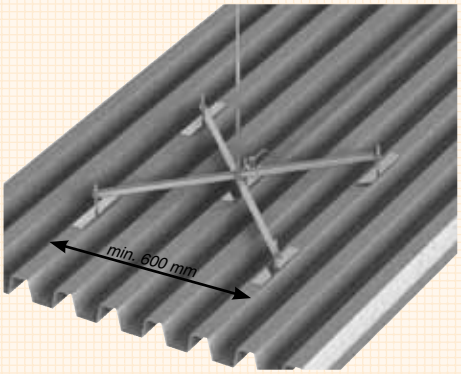
Specification	Length	PU	Ord. no.
Holder stainless steel V2A **Type A:**			
with air termination tip aluminium ø 10 mm	1000 mm	1	1257
with air termination rod aluminium ø 16/10 mm	1500 mm	1	1257 S
Holder stainless steel V2A **Type B** (adjustable to fit the roof inclination)**:**			
with air termination rod aluminium ø 16/10 mm	2000 mm	1	1259
with air termination rod aluminium ø 16/10 mm	2500 mm	1	1259 S

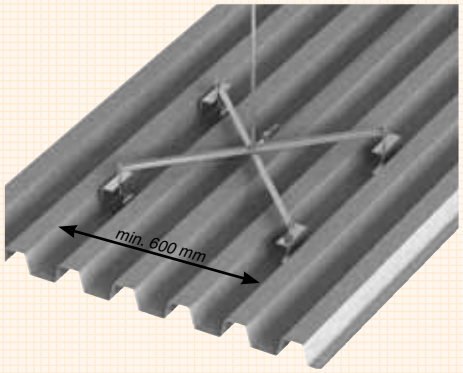
Air termination rod system for metal / tin roofs

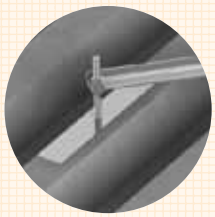
(also for roofs with tilting up to 10°)

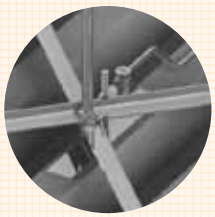
Air termination rod system with mounting cross, bases incl. **magnetic plates** and KS-Connector, according to EN 62561-2.

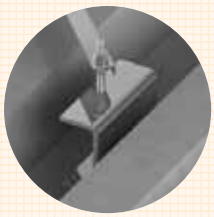
Specification	Length	PU	Ord. no.
Mounting cross stainless steel V2A with 5 bases stainless steel V2A incl. magnetic plate, Air termination rod aluminium ø 16/10 mm, 1.5 m length and connection with KS-connector	1500 mm	1	919 860
Mounting cross stainless steel V2A with 4x St-profile each ~ 1.5 kg, magnetic plate, Air termination rod aluminium ø 16/10 mm 2.0 m length and connection with KS-connector	2000 mm	1	919 860 S
Mounting cross stainless steel V2A with 4x St-profile each ~ 2.0 kg, magnetic plate, Air termination rod aluminium ø 16/10 mm, 2.5 m length and connection with KS-connector	2500 mm	1	919 860 S1











Conductor fastener for metal / tin roofs

Conductor fastener, stainless steel V2A with magnetic plate and Niro-Clip V2A; for ø 8 mm loose conductor leading incl. plate V2A 180x40x2 mm.

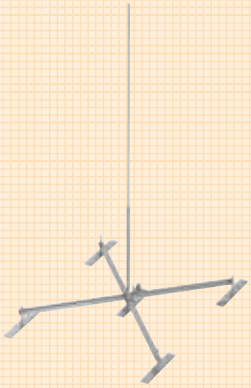
Specification	Fit	PU	Ord. no.
Stainless steel V2A with Niro Clip	ø 8 mm / *Typ B*	1	920 860

Conductor fastener, stainless st. V2A with magnetic plate, Niro-Clip V2A and spacer to raise the conductor distance for ø 8 mm loose conductor leading incl. plate V2A 180x40x2 mm

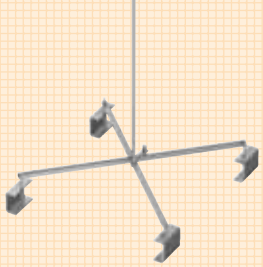
Specification	Height	Fit	PU	Ord. no.
Stainless steel V2A with Niro Clip	80 mm	ø 8 mm / *Typ B*	1	920 860 B

*) ***Type A (fI)*** = *f*ixed conductor leading; ***Type B (II)*** = *l*oose conductor leading

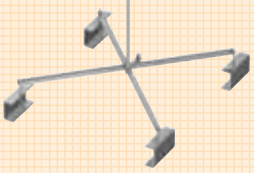
Air termination rod system



Ord. no. 919 860

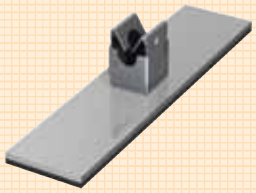


Ord. no. 919 860 S



Ord. no. 919 860 S1

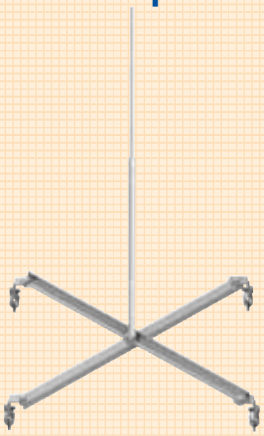
Conductor fastener



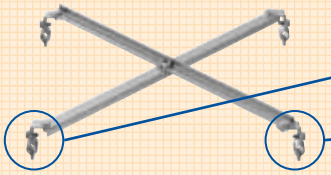
Ord. no. 920 860

Ord. no. 920 860 B

Air termination rod system Kal-Zip



Ord. no. 910 247



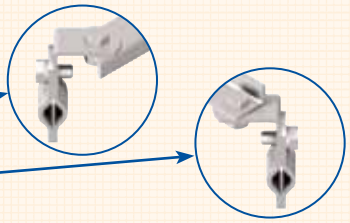
Ord. no. 910 248

Air termination rods with mounting cross for Kal-Zip

according to EN 62561-2.

Specification	Length	PU	Ord. no.
Stainless steel V2A complete **with Optimal air termination rod** (aluminium) and 4 Kal-Zip-mounting clamps (stainless steel V2A)	2000 mm	1	910 247
Stainless steel V2A **without Optimal air termination rod** with 4 Kal-Zip-mounting clamps (stainless steel V2A)	---	1	910 248
Order the optimal air termination rod with thread in desired length separately.			
Optimal air termination rod			
Aluminium AlMgSi 0.5 ø 16 mm with M16 thread	1500 mm	10	103 111
and air termination tip ø 10 mm, 1 m long	2000 mm	10	103 112

More clamps on request.



Roof pitch compensation

NEW!

Ord. no. 920 181 S

Ord. no. 920 181

Roof pitch compensation stainless steel infinitely adjustable!

Also for use with concrete bases.

Specification	Fit	PU	Ord. no.
Roof pitch compensation stainless steel V2A for air termination rods ø 16/10 mm **max. 1.5m in length** and fixing with CC-Clamp.	ø 16 mm	1	920 181
Roof pitch compensation stainless steel V2A for air termination rods ø 16/10 mm **over 1.5m in length.** and fixing with Vario-clamp.	ø 16 mm	1	920 181 S

Terminal and connection clamps for air termination rods

U-Connector

Ord. no. 111 410

U-Connector

with M10 hexagonal screw V2A for conductors ø 8-10 mm and air termination rods ø 16 mm.

Specification	Fit	PU	Ord. no.
Steel, hot galvanized	ø 8-10/ø 16 mm	100	111 410
Copper	ø 8-10/ø 16 mm	100	111 411
Stainless steel V2A	ø 8-10/ø 16 mm	100	111 412

Multi-Clamp ø 8-10 mm / ø 16 mm

Ord. no. 111 430

Multi-Clamp ø 8-10 mm / ø 16 mm

Benefits: The approved System Multi-Clamp for rod connections ø 16 mm.

Specification	Fit	PU	Ord. no.
Steel, hot galvanized	ø 8-10/ø 16 mm	50	111 430
Copper	ø 8/ø 16 mm	50	111 432
Stainless steel V2A	ø 8-10/ø 16 mm	50	111 433

Connection clamp for air termination rods ø 16 mm

Ord. no. 2108

Connection clamp for air termination rods ø 16 mm,

for the connection of 2 air termination rods ø 16 mm.

Specification	Fit	PU	Ord. no.
Aluminium, mounted with four M8 hexagonal screw stainless steel V2A	ø 16 mm	25	2108

Wall and roof conductor holders

Niro-Clip conductor fastener

The **original-Niro-Clip**, the first stainless steel Clip in lightning protection, is a multifunctional fastener system for all round conductor attachments to roofs and walls.

Since its invention by J.PRÖPSTER in 1984, the Niro-Clip has been extremely successful. The unique construction of the patented orginal Niro-Clip has many benefits.

Benefits:

- Maximal mechanical strength.
- 100% weather resistant
- Easy handling: simply push in the round conductor and it is secured as if it were screwed on.

Example of application:

Special features:

The Niro-Clip System is available in 2 different designs

- ***Niro-Clip Type A*** = ***f*ixed conductor leading** - round conductor is clamped down as securely as if it were screwed.
- ***Niro-Clip Type B*** = ***l*oose conductor leading** - round conductor can shift inside fastener e.g. when round conductor expands.

Note:
Round conductor can be removed with the special tool (Ord. no. 1049; page 92)

Components for conductors ø 10 mm available on request.

Niro-Clip conductor fastener

Ord. no. 111 001

Niro-Clip conductor fastener NEW!

Ord. no. 111 501

Niro-Clip conductor fastener

for fixing round conductor to walls. Fastener and base made of metal.

Specification **fastener / base**	Bore / thread	Fit *)	PU	Ord. no.
Stainless steel V2A / Stainless steel V2A	ø 6.5 mm	ø 8 mm / *Type A*	200	111 001
Stainless steel V2A / Stainless steel V2A	ø 6.5 mm	ø 8 mm / *Type B*	200	110 090
Stainless steel V2A coppered / Copper	ø 6.5 mm	ø 8 mm / *Type A*	200	111 002
Stainless steel V2A coppered / Copper	ø 6.5 mm	ø 8 mm / *Type B*	200	110 091
Stainless steel V2A / Stainless steel V2A	M6	ø 8 mm / *Type A*	200	111 005
Stainless steel V2A / Stainless steel V2A	M6	ø 8 mm / *Type B*	200	110 095
Stainless steel V2A coppered / Copper	M6	ø 8 mm / *Type A*	200	111 006
Stainless steel V2A coppered / Copper	M6	ø 8 mm / *Type B*	200	110 096
Stainless steel V2A / Stainless steel V2A	ø 7 mm	ø 10 mm / *Type A*	200	110 090 S
Stainless steel V2A / Stainless steel V2A	M6	ø 10 mm / *Type A*	200	110 095 S

For washer and spacer see page 36

Niro-Clip conductor fastener **-raised version-** (Cond. height up to: 36 mm)

for fixing round conductors to walls. Fastener and base made of metal.

Specification **fastener / base**	Bore / thread	Fit *)	PU	Ord. no.
Stainless steel V2A / Stainless steel V2A	ø 6.5 mm	ø 8 mm / *Type* A	100	111 501 NEW!
Stainless steel V2A / Stainless steel V2A	ø 6.5 mm	ø 8 mm / *Type* B	100	111 505 NEW!
Both stainless steel V2A coppered	ø 6.5 mm	ø 8 mm / *Type* A	100	111 502 NEW!
Both stainless steel V2A coppered	ø 6.5 mm	ø 8 mm / *Type* B	100	111 506 NEW!
Stainless steel V2A / Stainless steel V2A	M6	ø 8 mm / *Type* A	100	111 503 NEW!
Stainless steel V2A / Stainless steel V2A	M6	ø 8 mm / *Type* B	100	111 507 NEW!
Both stainless steel V2A coppered	M6	ø 8 mm / *Type A*	100	111 504 NEW!
Both stainless steel V2A coppered	M6	ø 8 mm / *Type B*	100	111 508 NEW!
Stainless steel V2A / Stainless steel V2A	ø 7 mm	ø 10 mm / *Type A*	100	111 509 NEW!
Stainless steel V2A / Stainless steel V2A	M6	ø 10 mm / *Type A*	100	111 510 NEW!

*) ***Type A (fI)*** = *f*ixed conductor leading; ***Type B (lI)*** = *l*oose conductor leading

Niro-Clip conductor fastener with washer, screw and ø 8 mm dowel.

Specification **fastener / base**	Height	Fit *)	PU	Ord. no.
Stainless steel V2A / Stainless steel V2A	18 mm	ø 8 mm / *Type A*	100	111 031
Stainless steel V2A / Stainless steel V2A	17 mm	ø 8 mm / *Type B*	100	110 080
Stainless steel V2A coppered / Copper	18 mm	ø 8 mm / *Type A*	100	111 032
Stainless steel V2A coppered / Copper	17 mm	ø 8 mm / *Type B*	100	110 081
Stainless steel V2A / Stainless steel V2A	42 mm	ø 8 mm / *Type A*	50	110 500
Stainless steel V2A / Stainless steel V2A	41 mm	ø 8 mm / *Type B*	50	110 501
Both stainless steel V2A coppered	42 mm	ø 8 mm / *Type A*	50	110 502
Both stainless steel V2A coppered	41 mm	ø 8 mm / *Type B*	50	110 503

Niro-Clip conductor fastener, for fixing round conductors to walls.
Fastener made of stainless steel V2A, base made of Polyamid 6 (PA 6).

Specification **fastener / base**	Bore / thread	Fit	PU	Ord. no.
Stainless steel V2A / PA 6-base grey	ø 7 mm	ø 8 mm	100	111 003
Stainless steel V2A / PA 6-base brown	ø 7 mm	ø 8 mm	100	111 004
Stainless steel V2A / PA 6-base grey	M6	ø 8 mm	100	111 007

Niro-Clip conductor fastener with screw, base made of Polyamid 6 (PA 6).

Specification **fastener / base**	Height	Fit	PU	Ord. no.
Stainless steel V2A / PA 6 grey	18 mm	ø 8 mm	100	111 029
Stainless steel V2A / PA 6 brown	18 mm	ø 8 mm	100	111 030

Niro-Clip cover cap, additional locking and edge protection.

Specification	PU	Ord. no.
Stainless steel V2A	100	111 000
Stainless steel V2A coppered	100	110 999

Screw cap conductor fastener (SK) with washer, screw and dowel.

Specification	Height	Fit	PU	Ord. no.
Aluminium	17 mm	ø 8 mm	100	1010
Aluminium	27 mm	ø 8 mm	100	1011
Copper-alloy	17 mm	ø 8 mm	100	1014
Copper-alloy	27 mm	ø 8 mm	100	1015

Also available without screw and dowel.

Plastic conductor fastener -discontinued model- for fixing round conductors to walls. Conductor fastener for low load, made of Nylon. Additional ø e.g. 6 or 10 mm on request.

Specification		Height	Fit	PU	Ord. no.
Grey	M6 thread	22 mm	ø 8 mm	100	1152
Grey	M8 thread	22 mm	ø 8 mm	100	1153
Copper-coloured	M6 thread	22 mm	ø 8 mm	100	1158
Copper-coloured	M8 thread	22 mm	ø 8 mm	100	1159
Grey	M6 thread	40 mm	ø 8 mm	100	1150
Copper-coloured	M6 thread	40 mm	ø 8 mm	100	1151
Grey	Dowel 6 x 35 mm	22 mm	ø 8 mm	100	1154
Grey	Dowel 8 x 35 mm	22 mm	ø 8 mm	100	1155

*) ***Type A (fl)*** = fixed conductor leading; ***Type B (ll)*** = loose conductor leading

Niro-Clip conductor fastener


Ord. no. 111 031


Ord. no. 110 502

Niro-Clip conductor fastener


Ord. no. 111 003


Ord. no. 111 004

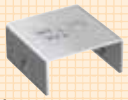
Niro-Clip conductor fastener

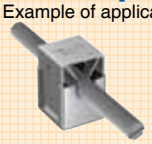

Ord. no. 111 029


Ord. no. 111 030

Niro-Clip cover cap

Example of application:


Ord. no. 111 000



Screw cap conductor fastener (SK)


Ord. no. 1010

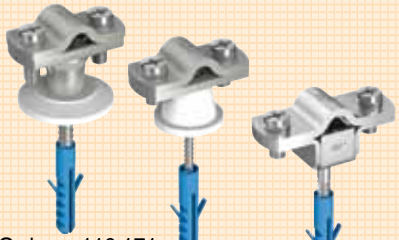

Ord. no. 1014

Plastic conductor fastener


Ord. no. 1152


Ord. no. 1154

Conductor fastener

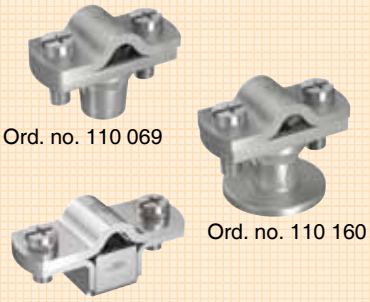


Ord. no. 110 171

Ord. no. 1034

Ord. no. 1132

Conductor fastener



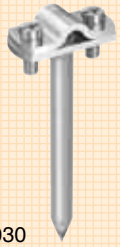
Ord. no. 110 069

Ord. no. 110 160

Ord. no. 1137

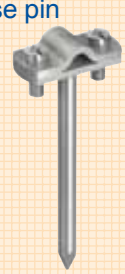
Conductor fastener

with fixed pin



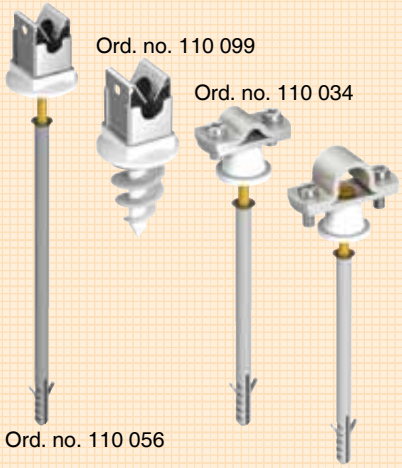
Ord. no. 2030

with loose pin



Ord. no. 110 045

Conductor fastener



Ord. no. 110 099

Ord. no. 110 034

Ord. no. 110 056

Ord. no. 110 038

Conductor fastener for round conductor ø 8-10 mm, mounted with screw M6 V2A, washer or spacer, fastening screw and ø 8 mm dowel.

Specification	Fastener	Female thread	Height	PU	Ord. no.
Zinc die-cast	Steel, hot galv.	M8	24 mm	100	110 171
Zinc die-cast	Stainl. st. V2A	M8	24 mm	100	110 180
Red brass	Copper	M8	24 mm	100	110 172
Steel, hot galvanized - plastic	Steel, hot galv.		20 mm	100	1034
Aluminium - plastic	Aluminium		20 mm	100	1033
Copper - plastic	Copper		20 mm	100	1032
Stainless steel V2A - plastic	Stainl. st. V2A		20 mm	100	1031
Stainless steel V2A	Stainl. st. V2A		15 mm	100	1132

Conductor fastener for round conductor ø 8-10 mm, mounted with screw M6 V2A.

Specification	Fastener	Female thread	Height	PU	Ord. no.
Zinc die-cast	Steel, hot galv.	M6	20 mm	100	110 069
Zinc die-cast	Stainl. st. V2A	M6	20 mm	100	110 188
Zinc die-cast	Steel, hot galv.	M8	20 mm	100	110 071
Zinc die-cast	Stainl. st. V2A	M8	20 mm	100	110 189
Zinc die-cast with washer	Steel, hot galv.	M6	23 mm	100	110 160
Zinc die-cast with washer	Stainl. st. V2A	M6	23 mm	100	110 190
Zinc die-cast with washer	Steel, hot galv.	M8	23 mm	100	110 161
Zinc die-cast with washer	Stainl. st. V2A	M8	23 mm	100	110 191
Red brass	Copper	M8	20 mm	100	110 072
Stainless steel V2A	Stainl st. V2A	M8	15 mm	100	1137

Conductor fastener **with fixed** or **loose pin** for round conductor ø 8-10 mm, mounted with screw M6 V2A

Specification with fixed pin	Length	PU	Ord. no.
Steel, hot galvanized	100 mm	100	1038
Steel, hot galvanized	150 mm	50	1039
Copper-alloy	100 mm	100	1035
Copper-alloy	120 mm	100	1036
Copper-alloy	150 mm	50	1037
Stainless steel V2A	100 mm	50	2030

Specification with loose pin	Length	PU	Ord. no.
Aluminium with steel pin	70 mm	100	110 270
Aluminium with steel pin	100 mm	100	110 271
Aluminium with steel pin	150 mm	50	110 272
Steel, hot galvanized with steel pin	70 mm	100	110 050
Steel, hot galvanized with steel pin	100 mm	100	110 045
Steel, hot galvanized with steel pin	150 mm	50	110 047
Stainless steel V2A with stainless steel pin	100 mm	100	110 276
Stainless steel V2A with stainless steel pin	150 mm	50	110 277
Copper with stainless steel pin	100 mm	100	110 280
Copper with stainless steel pin	150 mm	50	110 281

Conductor fastener for insulated walls with insulation thickness of 40-170 mm.

Specification	Insulation thickness	Fit	PU	Ord. no.
Conductor fastener *)				
Niro-Clip stainless steel V2A	up to 60 mm	ø 8 mm *Type A*	50	110 030
Niro-Clip copper	up to 60 mm	ø 8 mm *Type A*	50	110 031
Niro-Clip stainless steel V2A	up to 120 mm	ø 8 mm *Type A*	50	110 056
Niro-Clip stainless steel V2A	up to 170 mm	ø 8 mm *Type B*	50	110 056 S3
Niro-Clip stainless steel V2A with dowel	min. 50 mm	ø 8 mm *Type B*	50	110 099
Fastener aluminium	up to 60 mm	ø 8 mm	50	110 034
Fastener aluminium	up to 170 mm	ø 8 mm	50	110 034 S3
Fastener copper	up to 60 mm	ø 8 mm	50	110 035
Rod holder				
Fastener aluminium	up to 60 mm	ø 16 mm	50	110 038
Fastener aluminium	up to 170 mm	ø 16 mm	50	110 038 S1

Fastener for additional insulation thicknesses available on request!

*) ***Type A (fl)*** = *f*ixed conductor *l*eading; ***Type B (ll)*** = *l*oose conductor *l*eading

Downpipe conductor fastener with beading for ø 8 mm, to install conductors behind downpipes. **Benefit:** No additional wall fastener required! Fast, clean installation without drilling.

Specification	Diameter of pipe	PU	Ord. no.
With M6 bolt and nut			
Steel, hot galvanized	ø 80 mm	25	111 222
Steel, hot galvanized	ø 100 mm	25	111 225
Steel, hot galvanized	ø 120 mm	25	111 227
Copper	ø 80 mm	25	111 232
Copper	ø 100 mm	25	111 235
Copper	ø 120 mm	25	111 237
Aluminium	ø 100 mm	25	111 265
Aluminium	ø 110 mm	25	111 266
Aluminium	ø 120 mm	25	111 267
With M6 bolt and through-hole thread (without nut)			
Steel, hot galvanized	ø 80 mm	25	111 222 G
Steel, hot galvanized	ø 100 mm	25	111 225 G
Steel, hot galvanized	ø 120 mm	25	111 227 G
Copper	ø 80 mm	25	111 232 G
Copper	ø 100 mm	25	111 235 G
Copper	ø 120 mm	25	111 237 G
Aluminium	ø 100 mm	25	111 265 G
Aluminium	ø 110 mm	25	111 266 G
Aluminium	ø 120 mm	25	111 267 G

Additional diameters on request!

Universal downpipe conductor fastener, to install conductors behind downpipes. **Benefit:** No additional wall fastener required! Fast, clean installation without drilling.

Specification	Diameter of pipe	PU	Ord. no.
Stainless steel V2A	ø 60-120 mm	50	110 250
Stainless steel V2A	ø 80-150 mm	50	110 251
Stainless steel V2A (without strip)	--	50	110 249
Copper	ø 60-120 mm	50	110 252
Copper	ø 80-150 mm	50	110 253

Stainless steel - tensioning strap
in practical cut-to length packaging

Specification	Length	Fit	PU	Ord. no.
Strip stainless steel V2A	25m	15 x 0.4 mm	1	110 248

Downpipe conductor fastener with beading for ø 8-10 mm, to install conductors behind downpipes. **Benefit:** No additional wall fastener required! Fast, clean installation without drilling.

Specification	Diameter of pipe	PU	Ord. no.
Steel, hot galvanized	ø 80/90/100/110/120 mm	25	110 255
Aluminium	ø 80/90/100/110/120 mm	25	110 256
Copper	ø 80/90/100/110/120 mm	25	110 257
Stainless steel V2A	ø 80/90/100/110/120 mm	25	110 258

Downpipe conductor fastener with beading for ø 8-10 mm, to install conductors behind downpipes. **Benefit:** No additional wall fastener required! Fast, clean installation without drilling.

Specification	Dimensons of pipe	PU	Ord. no.
Steel, hot galvanized	80 x 80 mm	25	911 654
Steel, hot galvanized	100 x 100 mm	25	911 280
Aluminium	80 x 80 mm	25	911 654 S
Aluminium	100 x 100 mm	25	911 280 S
Copper	80 x 80 mm	25	913 610
Copper	100 x 100 mm	25	913 611

Conductor fastener for insulated mounting
of earth lead-in rods and terminal lugs to the downpipes.

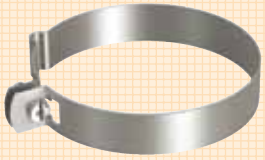
Specification	Fit of holder	PU	Ord. no.
Stainless steel V2A	ø 16 mm	50	111 396
Benefits: universally mountable to the downpipe conductor fasteners with a M8 hexagonal screw (e.g. Ord. no. 111 213, 111 120 or 111 391).	ø 10 mm	50	111 397
	fl. 30 mm	50	111 398
	ø 13 mm	50	111 399

Note: For pipe clamps for fixing the conductor fastener to the downpipe see page 68 - 69.

Downpipe conductor fastener with beading
with M6 nut

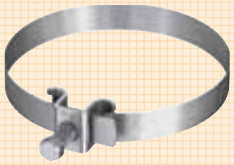
Ord. no. 111 265

with M6 through thread

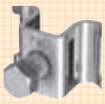


Ord. no. 111 225 G

Universal downpipe conductor fastener



Ord. no. 110 250



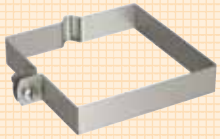
Ord. no. 110 249

Ord. no. 110 248

Downpipe conductor fastener with beading

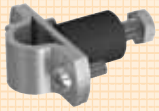
Ord. no. 110 256

Downpipe conductor fastener with beading



Ord. no. 911 280

Conductor fastener

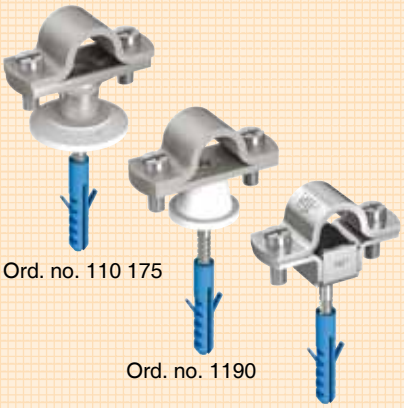


Ord. no. 111 396

Ord. no. 111 398

Example of application:

Rod holder



Ord. no. 110 175

Ord. no. 1190

Ord. no. 1142

Rod holder

Ord. no. 110 073

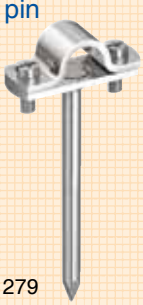
Ord. no. 110 164

Ord. no. 1147

Rod holder
with fixed pin

Ord. no. 1195

with loose pin



Ord. no. 110 279

Conductor holder

Ord. no. 110 265

Rod holder for fixing air termination rods and earth lead-in rods, with screws M6 V2A, washer or spacer, fixing screw and ø 8 mm dowel.

Specification	Fastener	Fem. thread	Fit	Height	PU	Ord. no.
Zinc die-cast	Steel, hot galv.	M8	ø16 mm	24 mm	50	110 175
Zinc die-cast	Stainl. st. V2A	M8	ø16 mm	24 mm	50	110 182
Red brass	Copper	M8	ø16 mm	24 mm	50	110 176
Zinc die-cast	Steel, hot galv.	M8	ø13 mm	24 mm	50	110 187
Zinc die-cast	Stainl. st. V2A	M8	ø13 mm	24 mm	100	110 183
Steel, hot galv. - plastic	Steel, hot galv.		ø16 mm	20 mm	100	1190
Aluminium - plastic	Aluminium		ø16 mm	20 mm	100	1187
Copper - plastic	Copper		ø16 mm	20 mm	100	1188
Stainless steel V2A - plastic	Stainl. st. V2A		ø16 mm	20 mm	100	1189
Steel, hot galv. - plastic	Steel, hot galv.		ø13 mm	20 mm	100	1194
Stainless steel V2A	Stainl. st. V2A		ø16 mm	15 mm	100	1142

Rod holder for fixing air termination rods and earth lead-in rods, with screws M6 V2A.

Specification	Fastener	Fem. thread	Fit	Height	PU	Ord. no.
Zinc die-cast	Steel, hot galv.	M6	ø16 mm	20 mm	100	110 073
Zinc die-cast	Stainl. st. V2A	M6	ø16 mm	20 mm	100	110 196
Zinc die-cast	Steel, hot galv.	M8	ø16 mm	20 mm	100	110 075
Zinc die-cast	Stainl. st. V2A	M8	ø16 mm	20 mm	100	110 197
Zinc die-cast with washer	Steel, hot galv.	M6	ø16 mm	23 mm	100	110 164
Zinc die-cast with washer	Stainl. st. V2A	M6	ø16 mm	23 mm	100	110 198
Zinc die-cast with washer	Steel, hot galv.	M8	ø16 mm	23 mm	100	110 165
Zinc die-cast with washer	Stainl. st. V2A	M8	ø16 mm	23 mm	100	110 199
Red brass	Copper	M8	ø16 mm	20 mm	100	110 076
Zinc die-cast	Steel, hot galv.	M8	ø13 mm	20 mm	100	110 087
Zinc die-cast	Stainl. st. V2A	M8	ø13 mm	20 mm	100	110 179
Stainless steel V2A	Stainl. st. V2A	M8	ø16 mm	15 mm	100	1147

Rod holder **with fixed** or **loose pin,** for fixing air termination rods and earth lead-in rods, mounted with screws M6 V2A.

Specification with fixed pin	Fit	Length	PU	Ord. no.
Steel, hot galvanized	ø16 mm	100 mm	50	1195
Steel, hot galvanized	ø16 mm	150 mm	50	1196
Copper-alloy	ø16 mm	100 mm	100	1191
Copper-alloy	ø16 mm	120 mm	50	1192
Copper-alloy	ø16 mm	150 mm	50	1193

Specification with loose pin	Fit	Length	PU	Ord. no.
Steel, hot galvanized with steel pin	ø16 mm	100 mm	100	110 046
Steel, hot galvanized with steel pin	ø16 mm	150 mm	50	110 048
Stainless steel V2A with stainless steel pin	ø16 mm	100 mm	100	110 278
Stainless steel V2A with stainless steel pin	ø16 mm	150 mm	50	110 279
Copper with stainless steel pin	ø16 mm	100 mm	100	110 282
Copper with stainless steel pin	ø16 mm	150 mm	50	110 283

Conductor holder for fixing cables ø 10.5 - 14 mm, with button head screw V2A and ø 8 mm dowel.

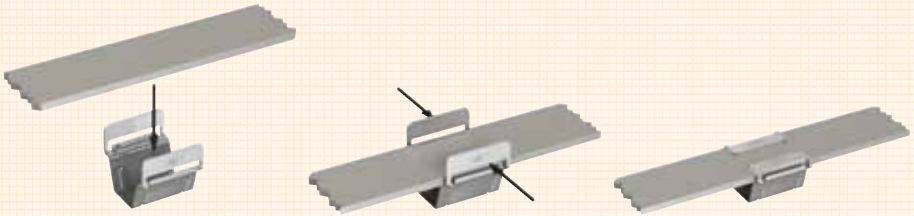
Specification	Fit	PU	Ord. no.
Stainless steel V2A	ø 10.5 - 14 mm	100	110 265

Tape conductor holder for 30 mm wide flat strips.

Benefit: less work - insert the strip, bend the lug - ready

Specification	Fit	PU	Ord. no.
Stainless steel V2A with stock screw and ø 8 mm dowel	fl. 30 mm	100	1178
Stainless steel V2A	fl. 30 mm	100	1178 S

Example of application:



Tape conductor holder for 30 mm wide flat strip, with screws M6 V2A, washer or base, fixing screw and ø 8 mm dowel.

Specification	Fastener	Fem. thread	Height	PU	Ord. no.
Zinc die-cast	Steel, hot galv.	M8	24 mm	100	110 178
Zinc die-cast	Stainl. st. V2A	M8	24 mm	100	110 181
Steel, hot galvanized - plastic	Steel, hot galv.		20 mm	100	1183
Aluminium - plastic	Aluminium		20 mm	100	1185
Stainless steel V2A - plastic	Stainl. st. V2A		20 mm	100	1184
Stainless steel V2A	Stainl. st. V2A		15 mm	100	1121

For 40 mm wide flat strips on request.

Tape conductor holder for 30 mm wide flat strip, with screws M6 V2A.

Specification	Fastener	Fem. thread	Height	PU	Ord. no.
Zinc die-cast	Steel, hot galv.	M6	20 mm	100	110 077
Zinc die-cast	Steel, hot galv.	M8	20 mm	100	110 078
Zinc die-cast with washer	Steel, hot galv.	M6	23 mm	100	110 162
Zinc die-cast with washer	Stainl. st. V2A	M6	23 mm	100	110 194
Zinc die-cast with washer	Steel, hot galv.	M8	23 mm	100	110 163
Zinc die-cast with washer	Stainl. st. V2A	M8	23 mm	100	110 195
Stainless steel V2A	Stainl. st. V2A	M8	15 mm	100	1128

For 40 mm wide flat strips on request.

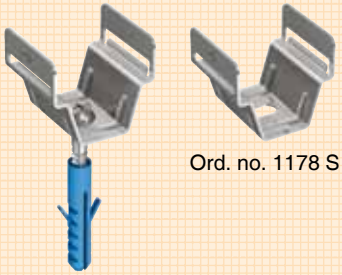
Tape conductor holder with button head screw V2A and ø 8 mm dowel

Specification	Height	Fit	PU	Ord. no.
Steel, hot galvanized	15 mm	fl. 30 mm	100	1180
Steel, hot galvanized	15 mm	fl. 40 mm	100	2037
Copper	15 mm	fl. 30 mm	100	1182
Copper	15 mm	fl. 40 mm	100	2039
Stainless steel V2A	15 mm	fl. 30 mm	100	1181

Tape conductor holder for wall mounting, with M8 screw and claming bracket.

Specification	Slot width	Distance to wall	PU	Ord. no.
Steel, hot galvanized	10 mm	18 mm	50	911 314
Copper	10 mm	18 mm	50	911 576
Stainless steel V2A	10 mm	18 mm	50	911 575

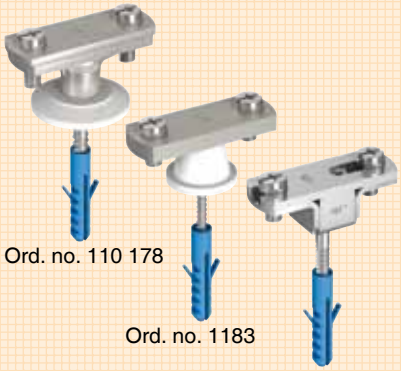
Tape conductor holder



Ord. no. 1178 S

Ord. no. 1178

Tape conductor holder

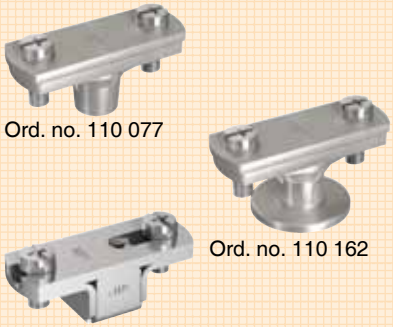


Ord. no. 110 178

Ord. no. 1183

Ord. no. 1121

Tape conductor holder



Ord. no. 110 077

Ord. no. 110 162

Ord. no. 1128

Tape conductor holder

Ord. no. 1181

Tape conductor holder

Ord. no. 911 314

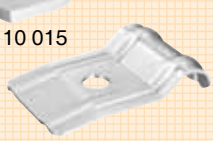
Fastener

Ord. no. 110 002

Ord. no. 110 003

Ord. no. 110 008

Ord. no. 110 015



Ord. no. 110 009

Ord. no. 110 014

Accessories

Ord. no. 1042

Ord. no. 1046

Ord. no. 1047

Ord. no. 1048

Ord. no. 111 049

Ord. no. 111 047

Ord. no. 111 048

Ord. no. 110 098

Fastener

Specification	Hole spacing	Fit	Material	PU	Ord. no.
with two bore holes	28 mm	ø 8-10 mm	Aluminium	100	110 001
elongated hole ø 6.5 x 8.5 mm	38 mm	ø 8-10 mm	Aluminium	100	110 002
	38 mm	ø 16 mm	Aluminium	100	110 003
	28 mm	ø 8-10 mm	Copper	100	110 004
	38 mm	ø 16 mm	Copper	100	110 005
	28 mm	ø 8-10 mm	Stainl. st. V2A	100	110 006
	38 mm	ø 16 mm	Stainl. st. V2A	100	110 007
	38 mm	flat 30 mm	Aluminium	100	110 008
Fastener for strip (flat 30 mm), for fixing directly to walls			Stainless steel V2A	100	110 015

Specification	Material	PU	Ord. no.
with one ø 6.5 mm bore hole for flush-mounted installation of conductors ø 8 - 11 mm	Stainl. st. V2A	100	110 009
	Copper	100	110 010
with plastic dowel (ø 6 mm) for flush-mounted installation of conductors ø 8 - 11 mm	Stainless steel V2A	100	110 014

Washers and spacers

Specification	Length	Material	PU	Ord. no.
Washer		Plastic grey	100	1042
Washer		Plastic brown	100	1046
Washer for Niro-Clip		Plastic grey	100	1047
Washer for Niro-Clip		Plastic brown	100	1048
Washer		Stainl. steel V2A	100	111 049
Spacer		Plastic grey	100	111 047
Spacer		Plastic brown	100	111 048
Dowel for composite head insulation systems	90 mm	Plastic white	25	110 097
	50 mm	Plastic white	50	110 098

Screws see page 93.

Roof conductor holder system Niro-Clip

Roof conductor holder with clamping plate,
for bitumen shingles and slate roofs or for tiles with large clamping range.

Specification		Clamp. range	Fit	PU	Ord. no.
Base	**Fastener*)**				
Stainless steel V2A	Niro-Clip/ *Type A*	max. 5 mm	ø 8 mm	100	111 010
Stainless steel V2A	Niro-Clip/ *Type B*	max. 5 mm	ø 8 mm	100	111 011
Stainless steel V2A	Niro-Clip/ *Type A*	max. 18 mm	ø 8 mm	100	111 525
Stainless steel V2A	Niro-Clip/ *Type B*	max. 18 mm	ø 8 mm	100	111 527
Copper	Niro-Clip/ *Type A*	max. 5 mm	ø 8 mm	100	111 012
Copper	Niro-Clip/ *Type B*	max. 5 mm	ø 8 mm	100	111 013
Copper	Niro-Clip/ *Type A*	max. 18 mm	ø 8 mm	100	111 526
Copper	Niro-Clip/ *Type B*	max. 18 mm	ø 8 mm	100	111 528

PRÖ-COLOR Roof conductor holder
for bitumen shingles and slate roofs or for tiles with large clamping range.

Specification		Clamp. range	Fit	PU	Ord. no.
Base	**Fastener*)**				
Steel, hot galvanized /coated	Niro-Clip/ *Type A*	max. 5 mm	ø 8 mm	100	111 010 az
Steel, hot galvanized /coated	Niro-Clip/ *Type B*	max. 5 mm	ø 8 mm	100	111 011 az
Steel, hot galvanized /coated	Niro-Clip/ *Type A*	max. 18 mm	ø 8 mm	100	111 525 ro
Steel, hot galvanized /coated	Niro-Clip/ *Type A*	max. 18 mm	ø 8 mm	100	111 525 az
Steel, hot galvanized /coated	Niro-Clip/ *Type B*	max. 18 mm	ø 8 mm	100	111 527 ro
Steel, hot galvanized /coated	Niro-Clip/ *Type B*	max. 18 mm	ø 8 mm	100	111 527 az

Specifications: ro - colour of the conductor holder: red brown
az - colour of the conductor holder: anthracite

Roof conductor holder with clamping plate **(clamping range max. 5 mm)**
for slate roofs; especially well-suited for later installation!

Specification		Length	Fit	PU	Ord. no.
Base	**Fastener*)**				
Stainless steel V2A with teeth	Niro-Clip/ *Type A*	180 mm	ø 8 mm	200	111 033
Stainless steel V2A with teeth	Niro-Clip/ *Type B*	180 mm	ø 8 mm	200	111 511
Stainless steel V2A without teeth	Niro-Clip/ *Type A*	180 mm	ø 8 mm	200	111 512
Stainless steel V2A without teeth	Niro-Clip/ *Type B*	180 mm	ø 8 mm	200	111 513
Copper with teeth	Niro-Clip/ *Type A*	180 mm	ø 8 mm	200	111 035
Copper with teeth	Niro-Clip/ *Type B*	180 mm	ø 8 mm	200	111 516

PRÖ-COLOR Roof conductor holder **(clamping range max. 5 mm)**
for slate roofs; especially well-suited for later installation!

Specification		Length	Fit	PU	Ord. no.
Base	**Fastener*)**				
Steel, hot galvanized/coated with teeth	Niro-Clip/ *Type A*	180 mm	ø 8 mm	200	111 033 az
Steel, hot galvanized/coated with teeth	Niro-Clip/ *Type B*	180 mm	ø 8 mm	200	111 511 az

Specification: az - color of the conductor holder in anthracite

Roof conductor holder with clamping jaws, for direct clamping
to smooth tiles, slabs and ridge tiles. **clamping range 9-15 mm**, clamp by twisting holder.

Specification		Height	Fit	PU	Ord. no.
Base	**Fastener*)**				
Stainless steel V2A	Niro-Clip/ *Type A*	30 mm	ø 8 mm	50	111 550
Stainless steel V2A	Niro-Clip/ *Type B*	29 mm	ø 8 mm	50	111 551
Copper	Niro-Clip/ *Type A*	30 mm	ø 8 mm	50	111 552
Copper	Niro-Clip/ *Type B*	29 mm	ø 8 mm	50	111 553
Stainless steel V2A	Niro-Clip/ *Type A*	52 mm	ø 8 mm	50	110 509
Stainless steel V2A	Niro-Clip/ *Type B*	51 mm	ø 8 mm	50	110 510
Copper	Niro-Clip/ *Type A*	52 mm	ø 8 mm	50	110 511
Copper	Niro-Clip/ *Type B*	51 mm	ø 8 mm	50	110 512

*) ***Type A (fI)*** = *f*ixed conductor *l*eading; ***Type B (II)*** = *l*oose conductor *l*eading

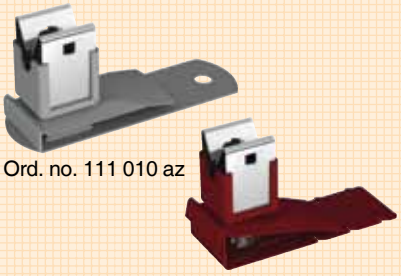
Roof conductor holder
with clamping plate & Niro-Clip

Ord. no. 111 010

Ord. no. 111 525

PRÖ COLOR

Roof conductor holder
with clamping plate & Niro-Clip



Ord. no. 111 010 az

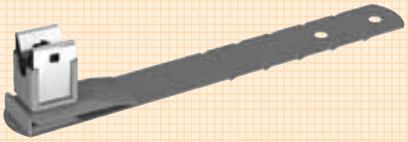
Ord. no. 111 525 ro

Roof conductor holder
with clamping plate & Niro-Clip

Ord. no. 111 033

PRÖ COLOR

Roof conductor holder
with clamping plate & Niro-Clip



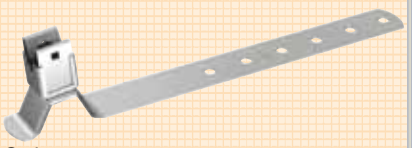
Ord. no. 111 033 az

Roof conductor holder
with clamping jaw & Niro-Clip

Ord. no. 111 550

Ord. no. 110 509

Roof conductor holder



Ord. no. 111 019

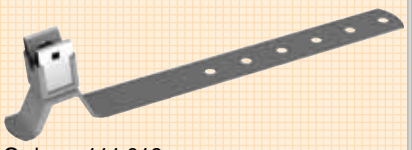
Ord. no. 111 020

Roof conductor holder for universal use.

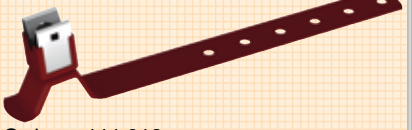
Specification		Length	Fit	PU	Ord. no.
Bottom part	**Fastener*)**				
Stainless steel V2A	Niro-Clip/ *Type A*	210 mm	ø 8 mm	100	111 019
Stainless steel V2A	Niro-Clip/ *Type B*	210 mm	ø 8 mm	100	111 540
Stainless steel V2A	Niro-Clip/ *Type A*	280 mm	ø 8 mm	100	111 015
Stainless steel V2A	Niro-Clip/ *Type B*	280 mm	ø 8 mm	100	111 541
Stainless steel V2A	Niro-Clip/ *Type A*	410 mm	ø 8 mm	50	111 535
Stainless steel V2A	Niro-Clip/ *Type B*	410 mm	ø 8 mm	50	111 536
Copper	Niro-Clip/ *Type A*	210 mm	ø 8 mm	100	111 020
Copper	Niro-Clip/ *Type B*	210 mm	ø 8 mm	100	111 545
Copper	Niro-Clip/ *Type A*	280 mm	ø 8 mm	100	111 016
Copper	Niro-Clip/ *Type B*	280 mm	ø 8 mm	100	111 546
Copper	Niro-Clip/ *Type A*	410 mm	ø 8 mm	50	111 537

PRÖ COLOR

Roof conductor holder with Niro-Clip



Ord. no. 111 019 az



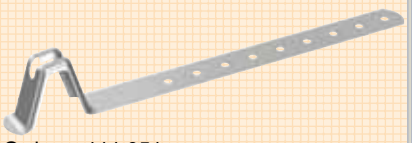
Ord. no. 111 019 ro

PRÖ-COLOR Roof conductor holder for universal use.

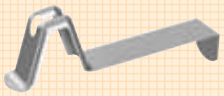
Specification		Length	Fit	PU	Ord. no.
Bottom part	**Fastener*)**				
Steel, hot galvanized/coated	Niro-Clip/ *Type A*	210 mm	ø 8 mm	100	111 019 az
Steel, hot galvanized/coated	Niro-Clip/ *Type B*	210 mm	ø 8 mm	100	111 540 az
Steel, hot galvanized/coated	Niro-Clip/ *Type A*	280 mm	ø 8 mm	100	111 015 az
Steel, hot galvanized/coated	Niro-Clip/ *Type B*	280 mm	ø 8 mm	100	111 541 az
Steel, hot galvanized/coated	Niro-Clip/ *Type A*	210 mm	ø 8 mm	100	111 019 ro
Steel, hot galvanized/coated	Niro-Clip/ *Type B*	210 mm	ø 8 mm	100	111 540 ro
Steel, hot galvanized/coated	Niro-Clip/ *Type A*	280 mm	ø 8 mm	100	111 015 ro
Steel, hot galvanized/coated	Niro-Clip/ *Type B*	280 mm	ø 8 mm	100	111 541 ro

Specifications:
- ro - colour of the conductor holder: red brown
- az - colour of the conductor holder: anthracite

J.Pröpster patented Roof conductor holder



Ord. no. 111 051



Ord. no. 111 052

Roof conductor holder for universal use. **Benefits**: one piece, no screws or plastic parts! Quick and easy installation! Made of corrosion resistant stainless steel!

Specification	Length	Fit	PU	Ord. no.
Stainless steel V2A	210 mm	ø 8 mm	200	111 050
Stainless steel V2A	280 mm	ø 8 mm	200	111 051
Stainless steel V2A	110 mm angled	ø 8 mm	200	111 052

Roof conductor holder with screw fastening

Ord. no. 1062

Roof conductor holder for universal use. Support riveted to holder.

Specification	Length	Fit	PU	Ord. no.
Stainless steel V2A with screw fastening	210 mm	ø 8 mm	100	1062
	280 mm	ø 8 mm	100	1063
	410 mm	ø 8 mm	50	1064
Copper with screw fastening	210 mm	ø 8 mm	100	1065
	280 mm	ø 8 mm	100	1066
	410 mm	ø 8 mm	50	1067

*) ***Type A (fl)*** = *f*ixed conductor *l*eading; ***Type B (ll)*** = *l*oose conductor *l*eading

Roof conductor holder for pantiled roofs.

Specification		Length	Fit	PU	Ord. no.
Bottom part	**Fastener*)**				
Stainless steel V2A	Niro-Clip/ *Type A*	120 mm	ø 8 mm	150	111 023
Stainless steel V2A	Niro-Clip/ *Type B*	120 mm	ø 8 mm	150	111 530
Copper	Niro-Clip/ *Type A*	120 mm	ø 8 mm	150	111 024
Copper	Niro-Clip/ *Type B*	120 mm	ø 8 mm	150	111 532

PRÖ-COLOR Roof conductor holder for pantiled roofs.

Specification		Length	Fit	PU	Ord. no.
Bottom part	**Fastener*)**				
Steel, hot galvanized/coated	Niro-Clip/ *Type A*	120 mm	ø 8 mm	150	111 023 az
Steel, hot galvanized/coated	Niro-Clip/ *Type B*	120 mm	ø 8 mm	150	111 530 az
Steel, hot galvanized/coated	Niro-Clip/ *Type A*	120 mm	ø 8 mm	150	111 023 ro
Steel, hot galvanized/coated	Niro-Clip/ *Type B*	120 mm	ø 8 mm	150	111 530 ro

Specifications:
- ro - colour of the conductor holder: red brown
- az - colour of the conductor holder: anthracite

Roof conductor holder for easy fitting; simply insert in seam, exert pressure and the support moulds itself to the seam. Aluminium type with stainless steel reinforced trapezoidal section.

Specification		Length	Fit	PU	Ord. no.
Bottom part	**Fastener*)**				
Aluminium	Niro-Clip/ *Type A*	120 mm	ø 8 mm	150	111 043
Aluminium	Niro-Clip/ *Type B*	120 mm	ø 8 mm	150	111 043 S
Copper	Niro-Clip/ *Type A*	120 mm	ø 8 mm	150	111 044
Copper	Niro-Clip/ *Type B*	120 mm	ø 8 mm	150	111 044 S
Aluminium	Niro-Clip/ *Type A*	170 mm	ø 8 mm	100	111 057
Aluminium	Niro-Clip/ *Type B*	170 mm	ø 8 mm	100	111 057 S
Copper	Niro-Clip/ *Type A*	170 mm	ø 8 mm	100	111 058
Copper	Niro-Clip/ *Type B*	170 mm	ø 8 mm	100	111 058 S

Roof conductor holder for hocking into "ergoldsbacher" interlocking tiles

Specification		Fit	PU	Ord. no.
Bottom part	**Fastener*)**			
Stainless steel V2A	Niro-Clip/ *Type A*	ø 8 mm	150	111 157
Copper	Niro-Clip/ *Type A*	ø 8 mm	150	111 158

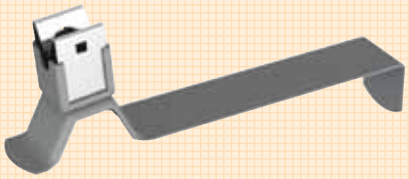
*) ***Type A (fI)*** = *f*ixed conductor *l*eading; ***Type B (lI)*** = *l*oose conductor *l*eading

Roof conductor holder with Niro-Clip

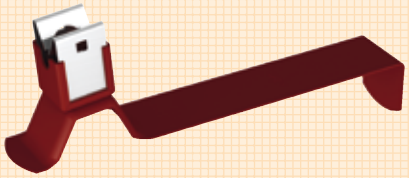
Ord. no. 111 023

PRÖ COLOR

Roof conductor holder with Niro-Clip

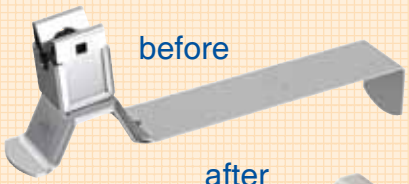


Ord. no. 111 023 az



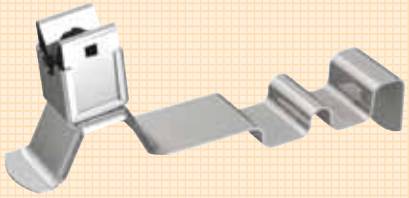
Ord. no. 111 023 ro

Roof conductor holder for interlocking tiles



Ord. no. 111 043

Roof conductor holder for interlocking tiles



Ord. no. 111 157

Roof conductor holder with Niro-Clip

Ord. no. 111 027

Roof conductor holder with Niro-Clip

Ord. no. 110 515

Ord. no. 111 451

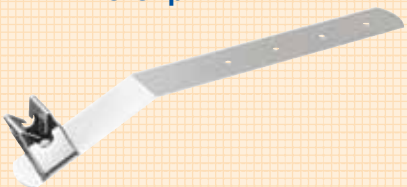
Roof conductor holder with Niro-Clip

Ord. no. 1095

Roof conductor holder with Niro-Clip

Ord. no. 1088

Roof conductor holder with Niro-Clip



Ord. no. 111 150

Roof conductor holder for corrugated sheet roofs, for installing round conductors, lengthwise and crosswise conductor leading

Specification		Height	Fit	PU	Ord. no.
Bottom part	**Fastener*)**				
Stainless steel V2A	Niro-Clip/ *Typ A*	18 mm	ø 8 mm	100	111 027
Stainless steel V2A	Niro-Clip/ *Typ B*	17 mm	ø 8 mm	100	111 045

With raised version of Niro-Clip on request.

Roof conductor holder for hooking into interlocking tiles.

Specification		Height	Fit	PU	Ord. no.
Bottom part	**Fastener*)**				
Stainless steel V2A	Niro-Clip/ *Type A*	18 mm	ø 8 mm	100	111 455
Stainless steel V2A	Niro-Clip/ *Type A*	39 mm	ø 8 mm	50	110 515
Stainless steel V2A	Niro-Clip/ *Type A*	48 mm	ø 8 mm	100	111 451
Stainless steel V2A	Niro-Clip/ *Type B*	47 mm	ø 8 mm	100	111 453
Copper	Niro-Clip/ *Type A*	48 mm	ø 8 mm	100	111 452
Copper	Niro-Clip/ *Type B*	47 mm	ø 8 mm	100	111 454

Roof conductor holder as intermediate support for installing round conductors to corrugated sheet roofs.

Specification		Fit	PU	Ord. no.
Bottom part	**Fastener*)**			
Stainless steel V2A	Niro-Clip/ *Type A*	ø 8 mm	100	1095

With raised version of Niro-Clip on request.

Roof conductor holder for corrugated sheet roofs; for installing in the valley of corrugation of corrugated sheet roofs.

Specification		Fit	PU	Ord. no.
Bottom part	**Fastener*)**			
Stainless steel V2A	Niro-Clip/ *Type A*	ø 8 mm	100	1088

Roof conductor holder for slate and bitumen roofs

Specification		Fit	PU	Ord. no.
Bottom part	**Fastener*)**			
Stainless steel V2A	Niro-Clip/ *Type A*	ø 8 mm	100	111 150
Stainless steel V2A	Niro-Clip/ *Type B*	ø 8 mm	100	111 153

*) ***Type A (fI)*** = *f*ixed conductor l*e*ading; ***Type B (II)*** = *l*oose conductor l*e*ading

Roof conductor holder (patent) for Kal-Zip,
for installing round conductors to Kal-Zip roof systems (conductor leading lengthwise and crosswise).

Specification		Fit	PU	Ord. no.
Bottom part	**Fastener*)**			
Stainless steel V2A	Niro-Clip/*Type B* crosswise to bead	ø 8 mm	100	111 750
Stainless steel V2A	Niro-Clip/ *Type B* lengthwise to bead	ø 8 mm	100	111 750 S

Roof conductor holder for Kal-Zip,
for installing round conductors to Kal-Zip roof systems (conductor leading lengthwise and crosswise).

Specification		Fit	PU	Ord. no.
Bottom part	**Fastener*)**			
Aluminium	Niro-Clip/ *Type A*	ø 8 mm	25	1309
Aluminium	Niro-Clip/ *Type B*	ø 8 mm	25	913 615
Stainless steel V2A	Niro-Clip/ *Type A*	ø 8 mm	25	913 616
Stainless steel V2A	Niro-Clip/ *Type B*	ø 8 mm	25	913 617
Aluminium	Dual cross terminal clamp aluminium	ø 6-8 mm	25	1309 S
Stainless steel V2A	Dual cross terminal clamp V2A	ø 6-8 mm	25	1308 S

Roof conductor holder for RIB-Roof 500, for installing round conductors to Rib-Roof 500 roof systems (conductor leading lengthwise and crosswise).

Specification		Fit	PU	Ord. no.
Bottom part	**Fastener*)**			
Stainless steel V2A	Niro-Clip/ *Type B* crosswise to bead	ø 8 mm	100	111 760
Stainless steel V2A	Niro-Clip/ *Type B* lengthwise to bead	ø 8 mm	100	111 761

Conductor fastener
for universal use, with standing seam clamp, **clamping range 1-8 mm.**

Specification		Fit	PU	Ord. no.
Bottom part	**Fastener*)**			
Steel, hot galvanized	Niro-Clip/ *Type B*	ø 8 mm	50	913 732
Copper	Niro-Clip/ *Type B*	ø 8 mm	50	913 733
Stainless steel V2A	Niro-Clip/ *Type B*	ø 8 mm	50	913 734
Aluminium	Niro-Clip/ *Type B*	ø 8 mm	50	913 420

Roof conductor holder suitable for all tile shapes; for ø 8 mm round conductor; to be used on the ridge and the roof surface. ø 12 mm bore hole.

Specification		Height	Fit	PU	Ord. no.
Bottom part	**Fastener*)**				
Grommet (PVC-soft)	SK-Holder aluminium	29 mm	ø 8 mm	100	1021
Grommet (PVC-soft)	Niro-Clip/ *Type A*	23 mm	ø 8 mm	100	1028
Grommet (PVC-soft)	Niro-Clip/ *Type B*	22 mm	ø 8 mm	100	1027
Grommet (PVC-soft)	Niro-Clip coppered/ *Type A*	23 mm	ø 8 mm	100	1029
Grommet (PVC-soft)	Niro-Clip/ *Type A*	44 mm	ø 8 mm	50	110 517
Grommet (PVC-soft)	Niro-Clip/ *Type B*	43 mm	ø 8 mm	50	110 518
Grommet (PVC-soft)	Niro-Clip coppered/ *Type A*	44 mm	ø 8 mm	50	110 519

*) ***Type A (fI)*** = *f*ixed conductor leading; ***Type B (II)*** = *l*oose conductor leading

Roof conductor holder
for Kal-Zip, with Niro-Clip


Ord. no. 111 750


Ord. no. 111 750 S

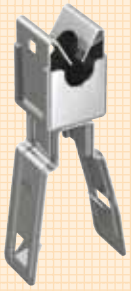
Roof conductor holder
for Kal-Zip


Ord. no. 1309


Ord. no. 1309 S

Roof conductor holder
for RIB-Roof 500, with Niro-Clip


Ord. no. 111 760


Ord. no. 111 761

Conductor fastener
with Niro-Clip


Ord. no. 913 420

Roof conductor holder


Ord. no. 1021


Ord. no. 1028


Ord. no. 110 517

Roof conductor holder
with Niro-Clip

Ord. no. 111 144 Ord. no. 110 520

Ord. no. 111 145 Ord. no. 110 522

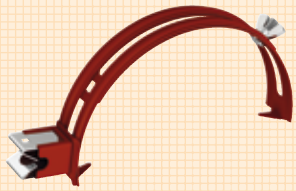
Roof conductor holder suitable for ridge tiles of all sizes
- universally adjustable installing round conductors. **Benefit:** one type fits all!

Specification		Height	Fit	PU	Ord. no.
Bottom part	**Fastener*)**				
Stainless steel V2A	Niro-Clip/ *Type A*	17 mm	ø 8 mm	100	111 144
Stainless steel V2A	Niro-Clip/ *Type B*	16 mm	ø 8 mm	100	111 136
Copper	Niro-Clip/ *Type A*	17 mm	ø 8 mm	100	111 145
Copper	Niro-Clip/ *Type B*	16 mm	ø 8 mm	100	111 137
Stainless steel V2A	Niro-Clip/ *Type A*	38 mm	ø 8 mm	50	110 520
Stainless steel V2A	Niro-Clip/ *Type B*	37 mm	ø 8 mm	50	110 521
Copper	Niro-Clip/ *Type A*	38 mm	ø 8 mm	50	110 522
Copper	Niro-Clip/ *Type B*	37 mm	ø 8 mm	50	110 523

PRÖ COLOR

Roof conductor holder
with Niro-Clip

Ord. no. 111 144 az



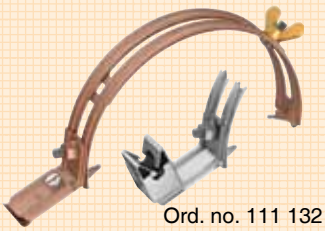
Ord. no. 111 144 ro

PRÖ-COLOR Roof conductor holder suitable for ridge tiles of all sizes
- universally adjustable installing round conductors. **Benefit:** one type fits for all!

Specification		Height	Fit	PU	Ord. no.
Bottom part	**Fastener*)**				
Steel, hot galvanized/coated	Niro-Clip/ *Type A*	17 mm	ø 8 mm	100	111 144 az
Steel, hot galvanized/coated	Niro-Clip/ *Type B*	16 mm	ø 8 mm	100	111 136 az
Steel, hot galvanized/coated	Niro-Clip/ *Type A*	17 mm	ø 8 mm	100	111 144 ro
Steel, hot galvanized/coated	Niro-Clip/ *Type B*	16 mm	ø 8 mm	100	111 136 ro

Specifications:
- ro - colour of the conductor holder: red brown
- az - colour of the conductor holder: anthracite

Roof conductor holder



Ord. no. 111 132

Ord. no. 111 141

Roof conductor holder suitable for ridge tiles of all sizes
- universally adjustable installing round conductors. **Benefit:** one type fits for all!

Specification		Fit	PU	Ord. no.
Stainless steel V2A		ø 8-10 mm	100	111 140
Copper		ø 8 mm	100	111 141
Bottom part	**Fastener*)**			
Stainless steel V2A	Niro-Clip/ *Type A*	ø 8 mm	100	111 132
Stainless steel V2A	Niro-Clip/ *Type B*	ø 8 mm	100	111 133
Copper	Niro-Clip/ *Type A*	ø 8 mm	100	111 134
Copper	Niro-Clip/ *Type B*	ø 8 mm	100	111 135

*) ***Type A (fl)*** = fixed conductor leading; ***Type B (ll)*** = loose conductor leading

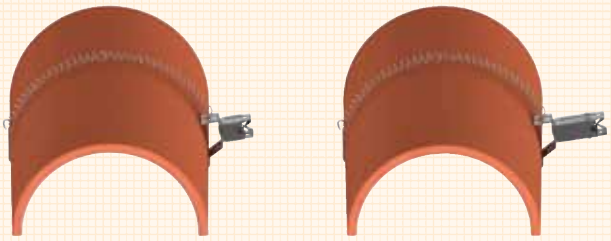
Roof conductor holder with springs (patent)

Universal use for the roof ridge

Roof conductor holder with two tension springs made of stainless steel V2A for permanent and fast installation on the roof ridge - with lateral conductor leading. Suitable for ridge tiles of all sizes.

Specification		Height	Fit	PU	Ord. no.
Bottom part	**Fastener*)**				
Stainless steel V2A	Niro-Clip/ *Type A*, **lateral**	37 mm	ø 8 mm	25	111 191
Stainless steel V2A	Niro-Clip/ *Type B*, **lateral**	36 mm	ø 8 mm	25	111 175
Stainless steel V2A/coppered	Niro-Clip/ *Type A*, **lateral**	37 mm	ø 8 mm	25	111 196
Stainless steel V2A/coppered	Niro-Clip/ *Type B*, **lateral**	36 mm	ø 8 mm	25	111 176
Stainless steel V2A	Niro-Clip/ *Type A*, **lateral**	58 mm	ø 8 mm	25	110 524
Stainless steel V2A	Niro-Clip/ *Type B*, **lateral**	57 mm	ø 8 mm	25	110 525
Stainless steel V2A/coppered	Niro-Clip/ *Type A*, **lateral**	58 mm	ø 8 mm	25	110 526
Stainless steel V2A/coppered	Niro-Clip/ *Type B*, **lateral**	57 mm	ø 8 mm	25	110 527

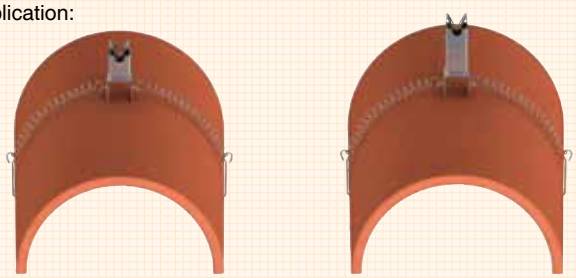
Example of applications:



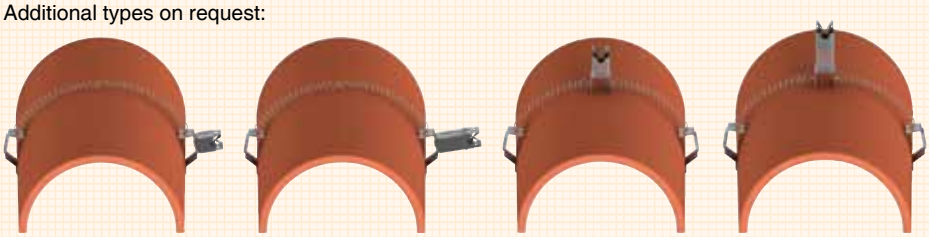
Roof conductor holder with two tension springs made of stainless steel V2A for permanent and fast installation on the roof ridge - with central conductor leading. Suitable for ridge tiles of all sizes

Specification		Height	Fit	PU	Ord. no.
Bottom part	**Fastener*)**				
Stainless steel V2A	Niro-Clip/ *Type A*, **central**	39 mm	ø 8 mm	25	111 192
Stainless steel V2A	Niro-Clip/ *Type B*, **central**	38 mm	ø 8 mm	25	111 177
Stainless steel V2A/coppered	Niro-Clip/ *Type A*, **central**	39 mm	ø 8 mm	25	111 197
Stainless steel V2A/coppered	Niro-Clip/ *Type B*, **central**	38 mm	ø 8 mm	25	111 178
Stainless steel V2A	Niro-Clip/ *Type A*, **central**	61 mm	ø 8 mm	25	110 528
Stainless steel V2A	Niro-Clip/ *Type B*, **central**	60 mm	ø 8 mm	25	110 529
Stainless steel V2A/coppered	Niro-Clip/ *Type A*, **central**	61 mm	ø 8 mm	25	110 530
Stainless steel V2A/coppered	Niro-Clip/ *Type B*, **central**	60 mm	ø 8 mm	25	110 531

Example of application:

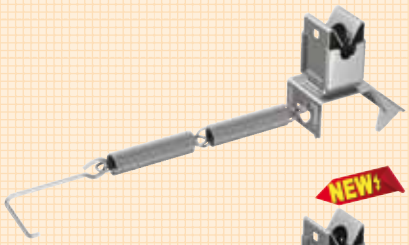


Additional types on request:

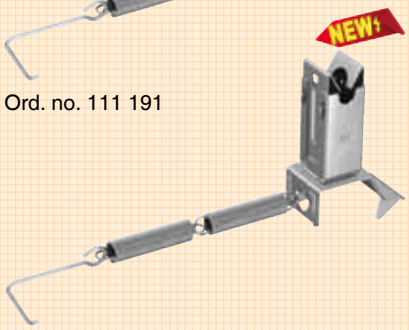


*) ***Type A (fl)*** = *f*ixed conductor *l*eading; ***Type B (ll)*** = *l*oose conductor *l*eading

Roof conductor holder with Niro-Clip (with lateral conductor leading)

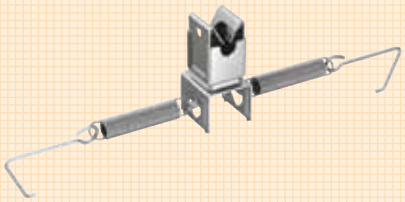


Ord. no. 111 191

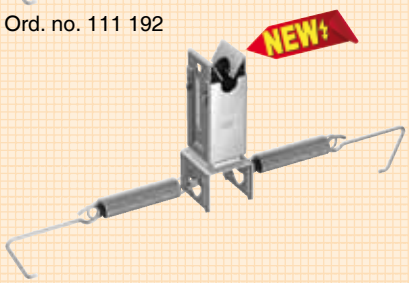


Ord. no. 110 524

Roof conductor holder with Niro-Clip (with central conductor leading)

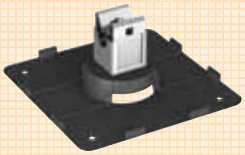


Ord. no. 111 192



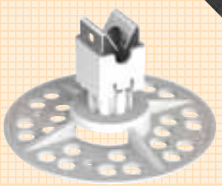
Ord. no. 110 528

Roof conductor holder
for synthetic roofing membranes



Ord. no. 111 604

Ord. no. 110 532



Ord. no. 111 635

Roof conductor holder
with Niro-Clip

Ord. no. 1167

Ord. no. 110 533

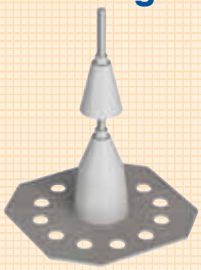
Ord. no. 1175

Roof conductor holder
with Niro-Clip

Ord. no. 111 661

Ord. no. 111 631

Roof bushing



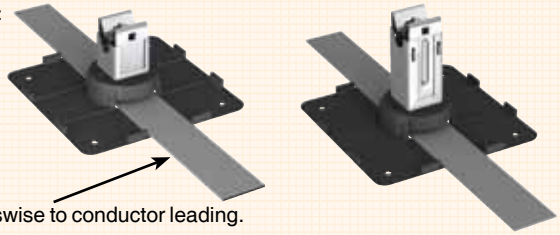
Ord. no. 111 598

Roof conductor holder for synthetic roofing membranes and bitumen roofs. To be fixed onto synthetic roofing membranes with weldable fastening strips; glued directly onto bitumen roofs (PA 6 = Polyamid 6).

Specification		Height	Fit	PU	Ord. no.
Bottom part	**Fastener*)**				
Base	Niro-Clip/ *Type B*	30 mm	ø 8 mm	100	111 604
Base	Niro-Clip/ *Type B*	51 mm	ø 8 mm	50	110 532
Round base for bitumen roofs	Niro-Clip with PA 6-base grey	41 mm	ø 8 mm	100	111 635

Upon request, the base can also be equipped with other conductor holders

Example of application:



Fastening strip crosswise to conductor leading.

Roof conductor holder for bitumen sheet roofs, flat roofs and walls. (PA 6 = Polyamid 6)

Holder with a height of 100 mm (No. 1175) for fixing the conductor onto flammable material.

Specification		Height	Fit	PU	Ord. no.
Plate	**Fastener*)**				
Stainless steel V2A	Niro-Clip/ *Type A*	21 mm	ø 8 mm	100	1167
Stainless steel V2A	Niro-Clip/ *Type A*	43 mm	ø 8 mm	50	110 533
Stainless steel V2A	Niro-Clip/ *Type A*	121 mm	ø 8 mm	50	1175
Steel, hot galvanized	Niro-Clip/ *Type A*	43 mm	ø 8 mm	100	1169

Additional types on request.

Roof conductor holder for metal roofs and surfaces

pre-glued: simply remove protective film and stick on.

Specification		Height	Fit	PU	Ord. no.
Support with	**Fastener*)**				
Adhesive pad aluminium	Niro-Clip/ *Type B*	21 mm	ø 8 mm	100	111 661
Adhesive pad grey	Niro-Clip/ *Type B*	23 mm	ø 8 mm	100	111 662
Adhesive pad aluminium	Niro-Clip/ *Type B*	43 mm	ø 8 mm	50	111 631
Adhesive pad grey	Niro-Clip/ *Type B*	45 mm	ø 8 mm	50	111 632

Note: The smooth surface to which the support should be attached must be thoroughly cleaned e.g. with isopropyl alcohol! Processing temperature +15 to +25°C. For additional important information please refer to the installation instructions.

Additional types on request.

Roof bushing for flat roofs, e.g. for internal down-conductors.

Specification	Fit	PU	Ord. no.
Nylon with PVC-sealing grommet (150 x 150 mm)	ø 8/10/16 mm	1	111 598

*) ***Type A (fI)*** = *f*ixed conductor *l*eading; ***Type B (II)*** = *l*oose conductor *l*eading

PR-ÖKO 3 (patent)
Roof conductor holder

Benefits* PR-ÖKO 3*:
- High quality: Stainless steel clip with loose conductor leading.
- Specification: Compressed concrete block (weight: 1.2 kg) - 100% recyclable.
- No frost-sensitive cavities and recesses - totally frost-resistant.
- Weather-resistant plastic base plate made of HD-PE material
- Application also without plastic base plate possible (e.g. on gravel roofs).

Roof conductor holder for flat roofs with stainless steel conductor holders ø 8 mm.

Specification	Fit	PU	Ord. no.
with plastic base plate	ø 8 mm	8	111 730
without plastic base plate for gravel roofs	ø 8 mm	8	111 731

PR-ÖKO 3 (patent) Roof conductor holder

Ord. no. 111 730

Ord. no. 111 731

PR-ÖKO 2

***Benefits* PR-ÖKO 2:**
- Weather-resistant plastic component made of HD-PE material, can be installed at cold temperatures of up to -10°C
- Specification: Compressed concrete block (weight: 1 kg) - 100% recyclable.
- No frost-sensitive cavities and recesses - totally frost-resistant.

Roof conductor holder for flat roofs with conductor holder ø 8 mm.

Specification	Fit	PU	Ord. no.
Without total encasing	ø 8 mm	10	111 630

PR-ÖKO 2 Roof conductor holder

Ord. no. 111 630

PR-ÖKO 1

Roof conductor holder for flat roofs; made of black, weather-resistant plastic and recylable natural stone filling with two conductor holders.

Specification	Fit	PU	Ord. no.
With closed plastic casing (weight: 1 kg)	ø 8 mm	10	111 600

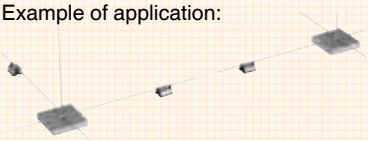
PR-ÖKO 1 Roof conductor holder

Ord. no. 111 600

Roof conductor holder with air termination tip, for fixing the conductor leading to synthetic roofing membranes and reducing the k_c-factor by dividing the current paths.

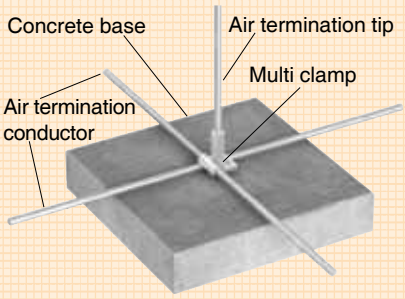
Specification	PU	Ord. no.
Air termination tip aluminium ø 10 mm, length: 1000 mm **Multi clamp** stainless steel V2A for air termination conductors ø 8 mm **Concrete base** 300 x 300 x 60 mm, weight: 12 kg with M10 thread bolt	1	103 099

Example of application:



For use with synthetic roofing membranes, the support plate (ord. no. 103 188) on page 25 for concrete base is essential.

Roof conductor holder

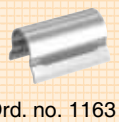


Ord. no. 103 099

Clamping bracket & fixing clip, to prevent flat roof holders (e.g. Ord. no. 111 630) from slipping on pitched synthetic membrane roofs.

Specification	Fit	PU	Ord. no.
Clamping bracket made of stainless steel V2A with M6 cylinder head screw V2A	ø 8-10 mm	100	910 097
Fixing clip made of stainless steel V2A	ø 8 mm	200	1163

Clamping bracket & fixing clip

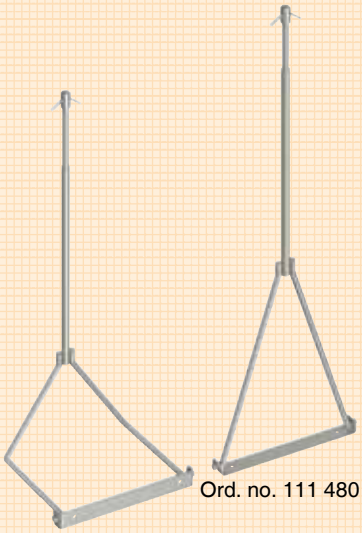


Ord. no. 1163

Ord. no. 910 097

Roof conductor holder for thatched roofs

Spacer for eaves



Ord. no. 111 480

Spacer for eaves in cranked type on request.

Spacer for eaves

Specification	Height (adjustable)	PU	Ord. no.
Spacer for eaves complete			
Steel, hot galvanized	1050-1165 mm	1	111 480
	1400-1510 mm	1	111 481
Stainless steel V2A	1050-1165 mm	1	111 482
	1400-1510 mm	1	111 483

Spacer for eaves in cranked type on request.

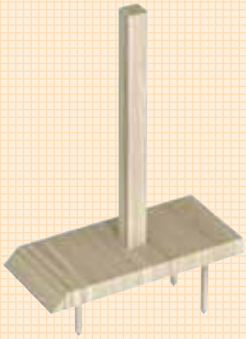
Covering and clamping cap

Ord. no. 111 485

Covering and clamping cap suitable for wooden stakes 90 x 90 mm.

Specification	PU	Ord. no.
Steel, hot galvanized	1	111 484
Stainless steel V2A	1	111 485

Roof conductor holder and mounting plate



Ord. no. 111 486

Ord. no. 111 487

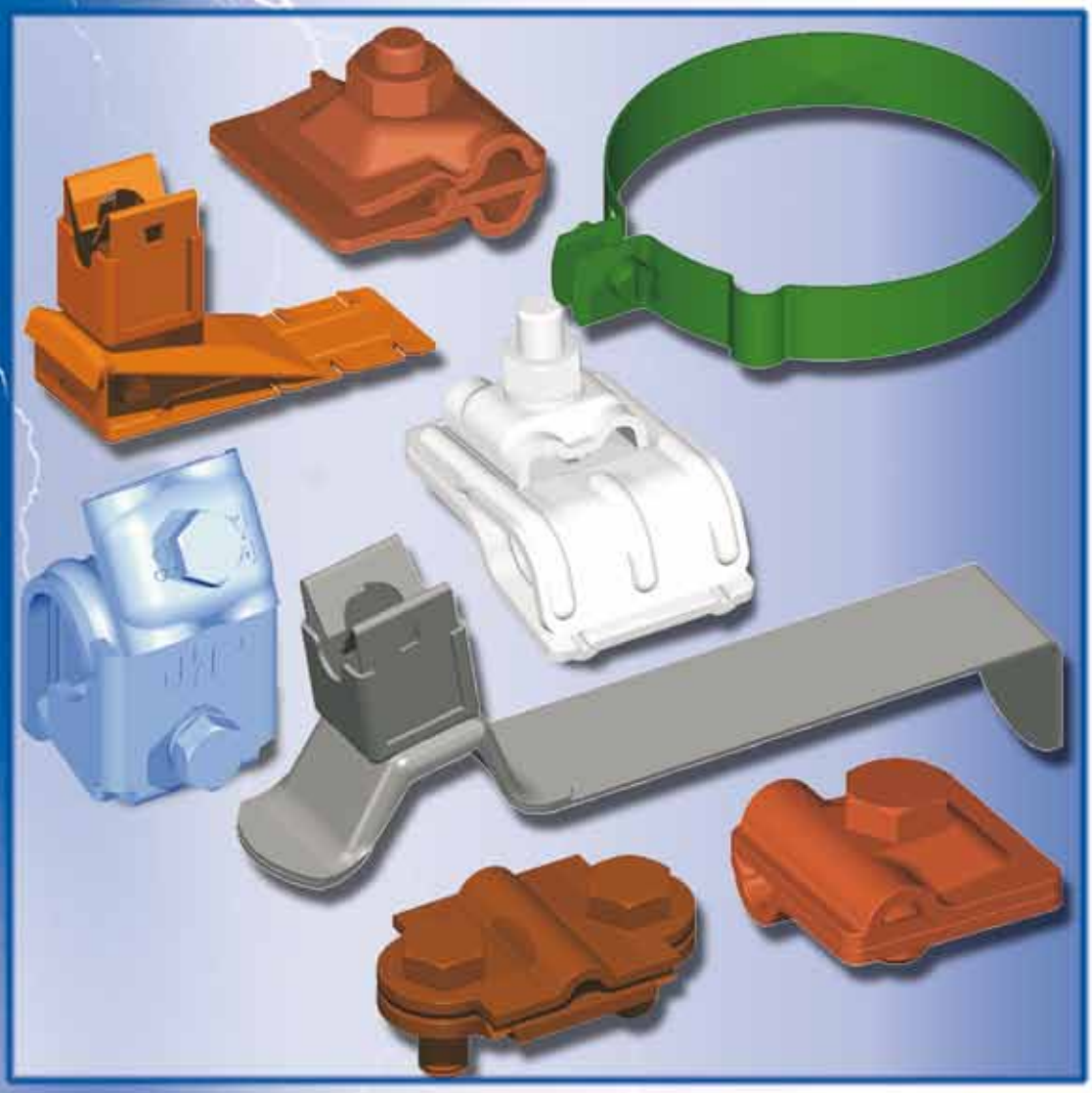
Ord. no. 111 488

Roof conductor holder and mounting plate

Specification	PU	Ord. no.
Roof conductor holder made of oak wood	1	111 486
Mounting plate 100 x 100 mm made of stainless steel V2A	1	111 487
Mounting plate 120 x 30 mm made of stainless steel V2A	1	111 488

PRÖ COLOR

COLOUR DESIGN in lightning protection



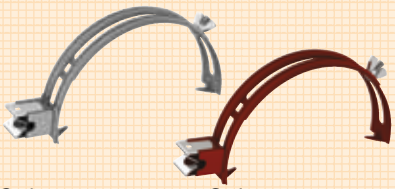
PRÖ COLOR

The benefits are obvious:

- Components made of hot galvanized steel and PRÖ COLOR coating.
- Decorative look and long-lasting.
- Higher quality than hot galvanized components.
- Cheaper than stainless steel V2A.
- Totally maintenance-free

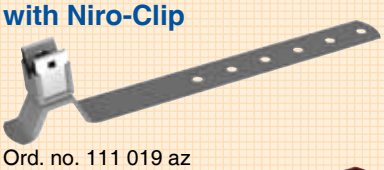
Specifications:
- ro - colour of the conductor holder: red brown
- az - colour of the conductor holder: anthracite

Roof conductor holder with Niro-Clip

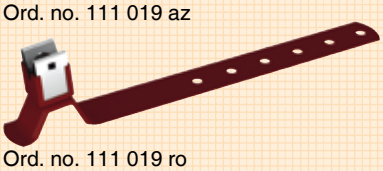


Ord. no. 111 144 az Ord. no. 111 144 ro

Roof conductor holder with Niro-Clip

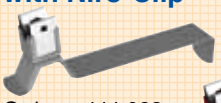


Ord. no. 111 019 az



Ord. no. 111 019 ro

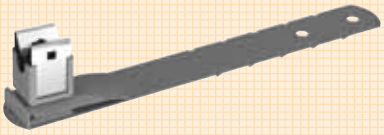
Roof conductor holder with Niro-Clip



Ord. no. 111 023 az

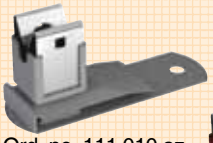
Ord. no. 111 023 ro

Roof conductor holder w. clamping bracket & Niro-Clip



Ord. no. 111 033 az

Roof conductor holder w. clamping bracket & Niro-Clip



Ord. no. 111 010 az

Ord. no. 111 525 ro

Roof conductor holder suitable for ridge tiles of all sizes

- universally adjustable installing round conductors. **Benefits:** one type fits all!

Specification		Height	Fit	PU	Ord. no.
Bottom part	**Fastener*)**				
Steel, hot galvanized/coated	Niro-Clip/ *Type A*	17 mm	ø 8 mm	100	111 144 az
Steel, hot galvanized/coated	Niro-Clip/ *Type B*	16 mm	ø 8 mm	100	111 136 az
Steel, hot galvanized/coated	Niro-Clip/ *Type A*	17 mm	ø 8 mm	100	111 144 ro
Steel, hot galvanized/coated	Niro-Clip/ *Type B*	16 mm	ø 8 mm	100	111 136 ro

Roof conductor holder for universal use.

Specification		Length	Fit	PU	Ord. no.
Bottom part	**Fastener*)**				
Steel, hot galvanized/coated	Niro-Clip/ *Type A*	210 mm	ø 8 mm	100	111 019 az
Steel, hot galvanized/coated	Niro-Clip/ *Type B*	210 mm	ø 8 mm	100	111 540 az
Steel, hot galvanized/coated	Niro-Clip/ *Type A*	280 mm	ø 8 mm	100	111 015 az
Steel, hot galvanized/coated	Niro-Clip/ *Type B*	280 mm	ø 8 mm	100	111 541 az
Steel, hot galvanized/coated	Niro-Clip/ *Type A*	210 mm	ø 8 mm	100	111 019 ro
Steel, hot galvanized/coated	Niro-Clip/ *Type B*	210 mm	ø 8 mm	100	111 540 ro
Steel, hot galvanized/coated	Niro-Clip/ *Type A*	280 mm	ø 8 mm	100	111 015 ro
Steel, hot galvanized/coated	Niro-Clip/ *Type B*	280 mm	ø 8 mm	100	111 541 ro

Roof conductor holder for pantiled roofs.

Specification		Length	Fit	PU	Ord. no.
Bottom part	**Fastener*)**				
Steel, hot galvanized/coated	Niro-Clip/ *Type A*	120 mm	ø 8 mm	150	111 023 az
Steel, hot galvanized/coated	Niro-Clip/ *Type B*	120 mm	ø 8 mm	150	111 530 az
Steel, hot galvanized/coated	Niro-Clip/ *Type A*	120 mm	ø 8 mm	150	111 023 ro
Steel, hot galvanized/coated	Niro-Clip/ *Type B*	120 mm	ø 8 mm	150	111 530 ro

Roof conductor holder with clamping bracket **(clamping range max 5 mm)**

for slate roofs; especially well suited for later installation!

Specification		Length	Fit	PU	Ord. no.
Bottom part	**Fastener*)**				
St/tZn coated with teeth	Niro-Clip/ *Type A*	180 mm	ø 8 mm	200	111 033 az
St/tZn coated with teeth	Niro-Clip/ *Type B*	180 mm	ø 8 mm	200	111 511 az

Roof conductor holder with clamping bracket,

for bitumen shingles and slate roofs or for tiles with large clamping range.

Specification		Clamping range	Fit	PU	Ord. no.
Bottom part	**Fastener*)**				
Steel, hot galvanized/coated	Niro-Clip/ *Type A*	till 5 mm	ø 8 mm	100	111 010 az
Steel, hot galvanized/coated	Niro-Clip/ *Type B*	till 5 mm	ø 8 mm	100	111 011 az
Steel, hot galvanized/coated	Niro-Clip/ *Type A*	till 18 mm	ø 8 mm	100	111 525 ro
Steel, hot galvanized/coated	Niro-Clip/ *Type A*	till 18 mm	ø 8 mm	100	111 525 az
Steel, hot galvanized/coated	Niro-Clip/ *Type B*	till 18 mm	ø 8 mm	100	111 527 ro
Steel, hot galvanized/coated	Niro-Clip/ *Type B*	till 18 mm	ø 8 mm	100	111 527 az

*) ***Type A (fl)*** = *f*ixed conductor *l*eading; ***Type B (ll)*** = *l*oose conductor *l*eading

COLOUR DESIGN in lightning protection

Innovation in colour

This wish is fulfilled by our COLOUR DESIGN in lightning protection, whose powder-coated components are coloured to match the roof, gutters and rainwater downpipes

The way to improve the appearance of an on-roof lightning protection system is to make it unobtrusive.

Components made of stainless steel, aluminium, hot galvanized steel and also aluminium wires are powder-coated using the sintering technique.

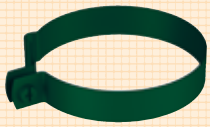
A selection of colours (Additional RAL-colours available!)

Brick-red - RAL 8023

Anthracite - RAL 7016

Brick-red brown - RAL 8015

Moss green - RAL 6005



Alu-brown - RAL 8014

Prefawhite - RAL 9016

Copper-brown- RAL 8004

Pigeon blue - RAL 5014

The illustrated colour examples may differ from the RAL-colour.

Product description

Components:

All lightning protection components are pre-treated and powder-coated in the RAL-colour of your choice.

Powder coating:

The coating powder consists basically of polyester resins, as well as the appropriate weather-, light- and heat- resistent pigments. The electrostatic charge makes the powder adhere to the component, the ensuing burn-in process binds the powder to the metal permanently. The thickness of the coating is about 60 to 90 µm.

To ensure optimal conductivity, the clamping area (e.g. inner surface of the Multi-clamp) remains uncoated.

Wire:

Aluminium wire soft, ø 8 mm (Ord. no. 100 019 S) per ring à 10 kg, powder coated.

Important! The following installation instructions must be adhered to:

When installing the wire, the coating must be removed in the area of the clamping connection without changing the cross section, so that a faultlessly conductive and lightning current proof connection is guaranteed .

The coating in the clamping area of the aluminium wire is scraped off with a “skinning tool”.

Prices for “colour design in lightning protection” on request.

Special components

Our long experience in the construction, development and manufacturing of lightning protection components, surge protective devices and earthing material has shown us that some lightning protection systems cannot be perfected using only the parts offered on the market.

For that reason, our company manufactures **special components according to your wishes and ideas** as

- punched parts
- turned parts
- cast parts
- welded constructions and
- special tools

according to drawings or samples out of

- stainless steel V2A and V4A
- copper
- steel or
- aluminium

in both small and large series.

Complete stainless steel range

EDELSTAHL Rostfrei

High-grade stainless steel quality is undisputed as a material for components in the building industry and has the following outstanding features:

- maximal mechanical strength
- decorative appearence and long lifetime
- high resistance against corrosion
- totally maintenance-free
- optimal weather and aging resistance

For that reason, we offer the complete stainless steel programm in material no. 1.4301 (V2A) or, if desired, in material no. 1.4571 (V4A) as standard materials.

Connection clamps
Terminal clamps
Pipe clamps

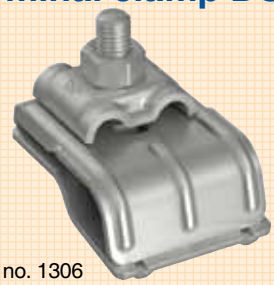
Gutter clamps

Benefits:
- Perfect, large clamping area below the bead.
- Slim conductor holder design - only 32 mm wide, safety tested.
- Clamping screws always made of stainless steel V2A.
- Installation: Clamp and down conductor wire can be mounted separately.

Gutter clamp - ideal (patent)

Ord. no. 111 670

Gutter terminal clamp DUO



Ord. no. 1306

Gutter clamp - small

Ord. no. 111 675

Gutter clamp

Ord. no. 1302

Conductor collar

Ord. no. 1042 S

Gutter clamp - ideal (patent),
for secure connections on gutters with max. ø 20 mm bead thicknesses.

Specification		Fit	PU	Ord. no.
Steel, hot galvanized		ø 6-8 mm	25	111 670
Aluminium		ø 6-8 mm	25	111 671
Copper		ø 6-8 mm	25	111 672
Stainless steel V2A		ø 6-8 mm	25	111 673
Bimetal	Wire clamp - aluminium Bead clamp - copper	ø 6-8 mm	25	111 674
Bimetal	Wire clamp - stainless steel V2A Bead clamp - copper	ø 6-8 mm	25	111 674 S

Gutter terminal clamp to fix air termination conductors and down conductors to the gutter. Fits for bead thicknesses ø 15 mm - ø 20 mm.

Specification		Fit	PU	Ord. no.
Steel, hot galvanized		ø 8-10 mm	25	1306
Aluminium		ø 8 mm	25	1305
Copper		ø 8 mm	25	1307
Stainless steel V2A		ø 8-10 mm	25	1308
Aluminium with stainless steel V2A - screw		ø 8 mm	25	1305 S
Bimetal	Wire clamp - aluminium Bead clamp - copper	ø 8 mm	25	1307 Z

Gutter clamp to fix air termination conductors and down conductors to the gutter. Fits for bead thicknesses with max ø 20 mm.

Specification		Fit	PU	Ord. no.
Steel, hot galvanized		ø 6-8 mm	50	111 675
Aluminium		ø 6-8 mm	50	111 676
Copper		ø 6-8 mm	50	111 677
Stainless steel V2A		ø 6-8 mm	50	111 678
Bimetal	Wire clamp - aluminium Bead clamp - copper	ø 6-8 mm	50	111 679
Bimetal	Wire clamp - stainless steel V2A Bead clamp - copper	ø 6-8 mm	50	111 679 S

Gutter clamp fits for bead thicknesses ø 10 mm - ø 20 mm.

Specification		Fit	PU	Ord. no.
Steel, hot galvanized		ø 8-10 mm	50	1302
Aluminium		ø 8 mm	50	1301
Copper		ø 8 mm	50	1300
Stainless steel V2A		ø 8 mm	50	2001
Bimetal	Wire clamp - aluminium Bead clamp - copper	ø 8 mm	50	1300 Z

Conductor collar for down conducters in the gutter area to protect the frontage and wall from running rainwaters

Specification	Fit	PU	Ord. no.
Plastic grey for conductors	ø 8 mm	100	1042 S
Plastic copper - coloured for conductors	ø 8 mm	100	1046 S

More information about the Bimetal system on pages 62 and 63.

System Multi-clamp

The **original Multi-clamp** was invented by J. Pröpster in 1981 and since than been established a million times worldwide. It is the most varied lightning protection component and the centerpiece of the multifunctional system of J. Pröpster.
The universal use of the Multi-Clamp as T-, cross, parallel, thrust and connection clamp is unmatched.

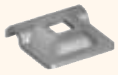
Benefits:
- Only one clamp for all wire connections
- Maximum contact due to consistent clamping
- Extremely shortened installation time - only one screw M10
- Optimal handling at planning, acquisition and storage


T-connection


cross-connection


parallel-connection


end to end connection


stem clamp trestle


Multi-Plus as terminal clamp

Multi-clamp, for the universal use as T, cross, parallel and end to end connection.

Specification	Fit	PU	Ord. no.
Steel, hot galvanized	ø 8-10 mm	100	1270
Aluminium 4 mm	ø 8 mm	100	1271
Copper	ø 8 mm	100	1272
Stainless steel V2A	ø 8-10 mm	100	1273
Bimetal aluminium/copper	ø 8 mm	100	1274
Steel, hot galvanized/V2A-hexagonal screw	ø 8-10 mm	100	1275
Aluminium 4 mm/V2A-hexagonal screw	ø 8 mm	100	1276
Steel, hot galvanized 4 mm	ø 8-10 mm	75	1277
Steel, hot galvanized for reinforcements	ø 4-6 mm	100	111 279
Steel bare	ø 8-10 mm	100	911 224
Copper with V2A-carriage bolt	ø 8 mm	100	910 101
Stainless steel V2A with carriage bolt	ø 8-10 mm	100	910 107

Multi-Plus metal sheet terminal and connection clamp. Same connection configurations as the original Multi-clamp with at least 10 cm² contact surface, clamping range max. 8 mm.

Specification	Fit	PU	Ord. no.
Steel, hot galvanized	ø 8-10 mm	50	111 270
Steel, hot galvanized with V2A-screw	ø 8-10 mm	50	111 270 S
Aluminium 4 mm	ø 8 mm	50	111 271
Aluminium 4 mm with V2A-screw	ø 8 mm	50	111 271 S
Copper	ø 8 mm	50	111 272
Stainless steel V2A	ø 8-10 mm	50	111 273
Bimetal aluminium/copper	ø 8 mm	50	111 274

All specifications also available with ø 4-6 mm clamping range

Multi-clamp ø 10 mm, heavy-duty type for the universal use as T, cross, parallel and end to end connection.

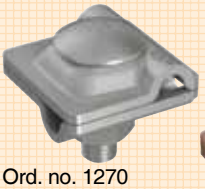
Specification	Fit	PU	Ord. no.
Steel, hot galvanized	ø 10 mm	75	1278
Stainless steel V2A	ø 10 mm	75	1279
Stainless steel V4A	ø 10 mm	75	1279 S
Copper	ø 10 mm	75	111 280

Multi-Max-clamp ø 8-10 mm / ø 16 mm

Benefits: The reliable Multi-clamp system for ø 16 mm rod connections.

Specification	Fit	PU	Ord. no.
Steel, hot galvanized	ø 8-10/ø 16 mm	50	111 430
Copper	ø 8/ø 16 mm	50	111 432
Stainless steel V2A	ø 8-10/ø 16 mm	50	111 433

Original J.Pröpster Multi-clamp


Ord. no. 1270


Ord. no. 1272


Ord. no. 1276

Multi-Plus terminal clamp


Ord. no. 111 270

Multi-clamp ø 10 mm


Ord. no. 1278

Multi-Max-clamp ø 8-10 mm / ø 16 mm


Ord. no. 111 430

Connectors

Clamping jaw

Ord. no. 1284

Ord. no. 111 284

Dual-cross terminal and connection clamp

Ord. no. 1280

Ord. no. 1483

U-Connector

Ord. no. 111 410

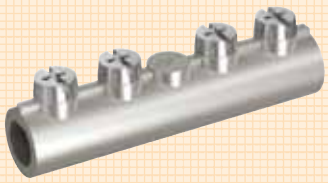
Multi-Max-clamp ø 8-10 mm / ø 16 mm

Ord. no. 111 430

ES-connector

Ord. no. 2105

Connection Clamp



Ord. no. 2100

Clamping jaw, suitable for one or two round conductors with □ 11 mm square hole, light-weight type with ø 8.5 mm.

Specification		Bore hole	Fit	PU	Ord. no.
Steel, hot galvanized		□ 11 mm	ø 8-10 mm	100	1284
Aluminium			ø 8 mm	100	1285
Copper			ø 8 mm	100	1286
Stainless steel V2A			ø 8-10 mm	100	1287
Steel, hot galvanized	light-weight type	ø 8.5 mm	ø 6-8 mm	100	111 284
Aluminium	light-weight type		ø 6-8 mm	100	111 285
Copper	light-weight type		ø 6-8 mm	100	111 286
Stainless steel V2A	light-weight type		ø 6-8 mm	100	111 287

Dual-cross terminal and connection clamps

Specification	Fit	PU	Ord. no.
Suitable for one or two round conductors with M10 screw and nut, with base plate 32x32x3 mm.			
Steel, hot galvanized	ø 8-10 mm	100	1280
Aluminium	ø 8 mm	100	1281
Copper	ø 8 mm	100	1282
Stainless steel V2A	ø 8-10 mm	100	1283
Suitable for three or four round conductors with M10 screw and nut, with base plate 32x32x3 mm.			
Steel, hot galvanized	ø 8-10/ø 8-10 mm	100	1480
Aluminium	ø 8/ø 8 mm	100	1481
Stainless steel V2A	ø 8-10/ø 8-10 mm	100	1483

U-Connector with M10 V2A hexagonal screw for round connector ø 8-10 mm and air termination rods ø 16 mm.

Specification	Fit	PU	Ord. no.
Steel, hot galvanized	ø 8-10/ø 16 mm	100	111 410
Copper	ø 8-10/ø 16 mm	100	111 411
Stainless steel V2A	ø 8-10/ø 16 mm	100	111 412

Multi-Max-clamp ø 8-10 mm / ø 16 mm

Benefit: The reliable Multi-clamp system for ø 16 mm rod connections.

Specification	Fit	PU	Ord. no.
Steel, hot galvanized	ø 8-10/ø 16 mm	50	111 430
Copper	ø 8/ø 16 mm	50	111 432
Stainless steel V2A	ø 8-10/ø 16 mm	50	111 433

ES-connector with screw and nut M10 for the connection of round conductors.

Specification	Fit	PU	Ord. no.
Zinc die-cast with hot galvanized steel-screw	ø 8 mm	100	2105
Zinc die-cast with V2A-screw and nut	ø 8 mm	100	2106

Connection clamp for the connection of two round conductors.

Specification	Fit	PU	Ord. no.
Zinc die-cast	ø 8-10 mm	100	2100
Aluminium	ø 8 mm	100	2101
Aluminium continuous casting	ø 8-10 mm	100	2104
Copper	ø 8 mm	100	2102
Stainless steel V2A	ø 8 mm	100	2103
Stainless steel V2A	ø 10 mm	50	2107
Aluminium, mounted with four M8 hexagonal screws stainless steel V2A	ø 16 mm	25	2108

J.Pröpster CC-Clamping system

for connections ø 8-10 / ø 16 mm to clamps, pipe clamps or steel constructions.

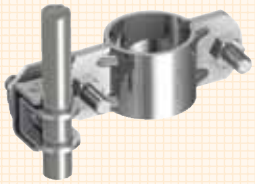
- ***Type A:*** Connection of air termination rods or earth lead-in rods ø 16 mm to clamps, pipe clamps or metal constructions.
- ***Type B:*** Connection of rods ø 16 mm and conductors ø 8-10 mm to clamps, pipe clamps or metal constructions.
- ***Type C:*** Connection and disconnection clamp ø 8-10 / ø 16 mm - also suitable for cable connections.

Benefits:

- Clamping system for round connectors ø 8-10 / ø 16 mm.
- Variable fixing lengths by easy swap of the hexagonal bolt M10.
- For the use in hazardous areas (with spring lock washer VA) - 100 kA tested.

Type A

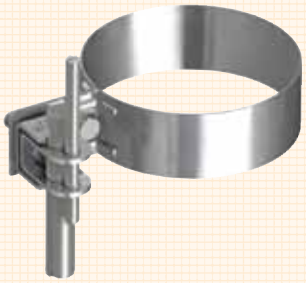
ø 16 mm
Terminal clamp



ø 16 mm
Terminal clamp on earth pipe clamp

Type B

ø 8-10/ø 16 mm
Connection clamp



ø 8-10/ø 16 mm
Connection clamp on pipe clamp

Type C

ø 8-10/ø 16 mm
Connection and disconnection clamp

J.Pröpster CC-Clamping system

for the connection of round connectors ø 8-10 mm and air termination rods ø 16 mm.

Specification	Type	Fit	PU	Ord. no.
Steel, hot galvanized	**A**	ø 16 mm	50	1455
Stainless steel V2A	**A**	ø 16 mm	50	1460
Steel, hot galvanized	**B**	ø 8-10/ø 16 mm	50	1456
Stainless steel V2A	**B**	ø 8-10/ø 16 mm	50	1461

Specification	Type	Fit	PU	Ord. no.
Steel, hot galvanized	**C**	ø 8-10/ø 16 mm	50	1457
Stainless steel V2A	**C**	ø 8-10/ø 16 mm	50	1458
Copper	**C**	ø 8-10/ø 16 mm	50	1459

Also suitable for cable connection.

KS-Connector, single

Clamping screw with M10 hexagonal nut suitable for ø 6-10 mm round conductor.

Specification	Fit	PU	Ord. no.
Steel, hot galvanized / aluminium clamping ring	ø 6-10 mm	100	1360
Steel, hot galvanized with square clamping bracket	ø 8-10 mm	100	1359
Copper-alloy	ø 6-10 mm	100	1361
Stainless steel V2A	ø 6-10 mm	100	1362
Stainless steel **V4A**	ø 8-10 mm	100	1462

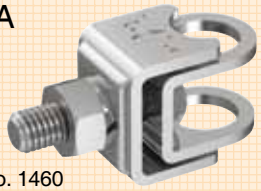
KS-Connector, double

Clamping screw with M10 hexagonal nut suitable for ø 6-10 mm round conductor.

Specification	Fit	PU	Ord. no.
Steel, hot galvanized / aluminium clamping ring	ø 6-10 mm	50	111 370
Copper-alloy	ø 6-10 mm	50	111 371
Stainless steel V2A	ø 6-10 mm	50	2000

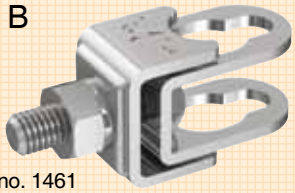
J.Pröpster CC-Clamp

Type A



Ord. no. 1460

Type B



Ord. no. 1461

J.Pröpster CC-Disconnection Clamp

Type C

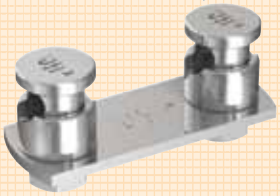
Ord. no. 1458

KS-Connector, single

Ord. no. 1362

Ord. no. 1462

KS-Connector, double



Ord. no. 2000

Terminal angle

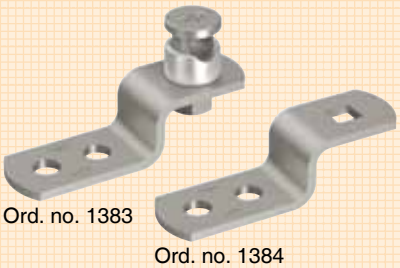
Ord. no. 1363

Ord. no. 1381

Terminal angle for the connection to metal constructions. With or without clamping jaw.

Specification	Fit	PU	Ord. no.
Aluminium with connector	ø 8 mm	50	1363
Aluminium without connector	---	50	1381
Copper with connector	ø 8 mm	50	1364
Copper without connector	---	50	1382
Stainless steel V2A with connector	ø 8-10 mm	50	1390 S
Stainless steel V2A without connector	---	50	1390

Terminal angle



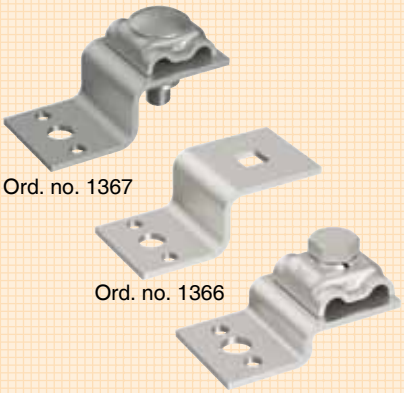
Ord. no. 1383

Ord. no. 1384

Terminal angle to be screwed or welded on metal constructions.
Bore hole: 2x ø 11 mm; 1x □ 11 mm

Specification	Fit	PU	Ord. no.
Steel, hot galvanized with KS-Connector	ø 6-10 mm	50	1383
Steel, hot galvanized without KS-Connector	---	100	1384
Stainless steel V2A without KS-Connector	---	100	1385

Terminal angle with terminal clamp



Ord. no. 1367

Ord. no. 1366

Ord. no. 910 183

Terminal angle for the connection of metal structural cladding.
With or without clamping jaw.

Specification	Fit	PU	Ord. no.
Aluminium with connector, screw and nut	ø 8 mm	50	1367
Copper with connector, screw and nut	ø 8 mm	50	1368
Aluminium without connector	---	50	1366

Also available with KS-Connector

Specification	Fit	PU	Ord. no.
Aluminium with connector, hexagonal screw and thread	ø 8 mm	50	910 183

Disconnection clamp

Disconnection clamp according to EN 62561-1 fits for ø 8-10 / ø 16 mm or ø 8 / ø 10 mm round conductors, mounted with two M8 hexagonal screws stainless steel V2A.

Specification	Fit	PU	Ord. no.
Aluminium	ø 8-10/ø 16 mm	50	1330

Disconnection clamp

Ord. no. 1330

Specification	Fit	PU	Ord. no.
Aluminium	ø 8-10/ø 10 mm	50	1332

Ord. no. 1332

Specification	Fit	PU	Ord. no.
Copper-alloy	ø 8-10/ø 16 mm	50	1331
Zinc die-cast, closed type	ø 8-10/ø 16 mm	50	111 405

See also Vario-Disconnection clamp on pages 58/59.

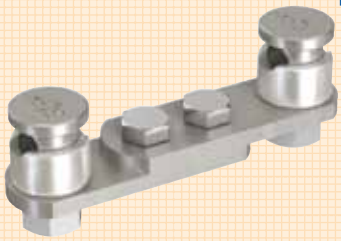
Ord. no. 111 405

Disconnection clamp according to EN 62561-1, with two KS-Connectors steel, hot galvanized M10 and two hexagonal screws M8 stainless steel V2A.

Specification	Fit	PU	Ord. no.
Steel, hot galvanized / aluminium	ø 6-10/ø 6-10 mm	50	111 375

Clamp in copper or bimetal on request.

Disconnection clamp



Ord. no. 111 375

Disconnection clamp suitable for the connection of round connectors ø 8 mm to ø 10 mm, with one screw M10 and nut.

Specification	Fit	PU	Ord. no.
Stainless steel **V2A**	ø 8/ø 10 mm	50	1333

Disconnection clamp

Ord. no. 1333

System Vario-clamp

with M10 screws, made of material 40x4 mm

The **original system Vario-clamp** is a practical solution for connecting differently shaped conductors.
All parts are manufactured using punching technology and are interchangeable.

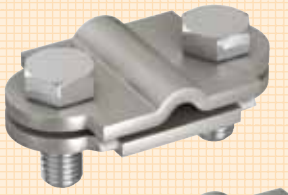
ø 8-10/8-10 mm

ø 8-10/16 mm

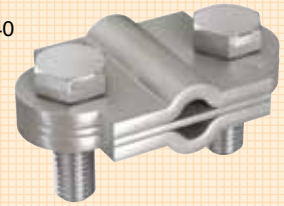
ø 8-10/30x3.5 mm
ø 8-10/40x4 mm

30x3.5/30x3.5 mm
40x4/40x4 mm

Vario-Disconnection clamp



Ord. no. 1340



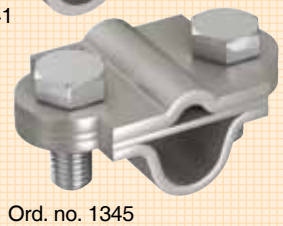
Ord. no. 111 339

Vario-Disconnection clamp, for test joints round/flat, flat/flat and round/round; mounted with two M10 stainless steel V2A hexagonal screws.

Specification			Fit	PU	Ord. no.
Steel, hot galvanized	two-part	round/flat	ø 8-10/30 mm	50	1340
Steel, hot galvanized	two-part	round/flat	ø 8-10/40 mm	50	1346
Steel, hot galvanized	two-part	flat/flat	30/30 mm	50	1343
Steel, hot galvanized	two-part	flat/flat	40/40 mm	50	2044
Steel, hot galvanized	two-part	round/round	ø 8-10/ø 8-10 mm	50	1339
Stainless steel V2A	two-part	round/flat	ø 8-10/30 mm	50	2012
Stainless steel V2A	two-part	flat/flat	30/30 mm	50	2014
Stainless steel V2A	two-part	round/round	ø 8-10/ø 8-10 mm	50	2016
Copper	two-part	round/round	ø 8-10/ø 8-10 mm	50	1337
Steel, hot galvanized	three-part	round/round	ø 8-10/ø 8-10 mm	50	111 339
Copper	three-part	round/round	ø 8-10/ø 8-10 mm	50	111 337
Copper-steel, hot galv.	three-part	round/flat	ø 8-10/30 mm	50	1342 Z
Stainless steel V2A	three-part	round/round	ø 8-10/ø 8-10 mm	50	910 579

Vario-Disconnection clamp

Ord. no. 1341



Ord. no. 1345

Vario-Disconnection clamp, for test joints round/round; mounted with two M10 hexagonal screws stainless steel V2A.

Specification			Fit	PU	Ord. no.
Steel, hot galvanized	two-part	round/round	ø 8-10/ø 16 mm	50	1341
Aluminium	two-part	round/round	ø 8-10/ø 16 mm	50	1344
Copper	two-part	round/round	ø 8-10/ø 16 mm	50	111 341
Stainless steel V2A	two-part	round/round	ø 8-10/ø 16 mm	50	2006
Copper-steel, hot galv.	three-part	round/round	ø 8-10/ø 16 mm	50	1348 Z
Steel, hot galvanized	three-part	round/round	ø 8-10/ø 16 mm	50	1345
Aluminium	three-part	round/round	ø 8-10/ø 16 mm	50	111 344
Copper	three-part	round/round	ø 8-10/ø 16 mm	50	111 345
Stainless steel V2A	three-part	round/round	ø 8-10/ø 16 mm	50	2007
Steel, hot galv.-copper	three-part	round/round	ø 8-10/fl.30/ø 16 mm	50	1349 Z
Copper-steel, hot galv.	three-part	round/round	ø 8-10/ø 8-10 mm	50	1343 Z

Vario-Connection clamp, two-part

Ord. no. 1342

Vario-Connection clamp,
for flat/round and flat/flat connections; mounted with two M10 screws steel, hot galvanized.

Specification			Fit	PU	Ord. no.
Steel, hot galvanized	two-part	round/flat	ø 8-10/30 mm	50	1342
Steel, hot galvanized	two-part	round/flat	ø 8-10/40 mm	50	2043
Steel, hot galvanized	two-part	flat/flat	30/30 mm	50	1347

More information about the bimetal Vario-clamp can be found on pages 62 and 63.

System Vario-clamp M8-Plus

NEW

with M8 screws, made of material 30x3 mm

The **original system Vario-clamp M8-Plus**, is a reasonably priced, practical solution for connecting differently shaped conductors. All parts are manufactured using punching technology and are interchangeable.
Benefits: The patented cylindrical attachment on the upper part significantly improves installation.


ø 8-10/8-10 mm


ø 8-10/16 mm


ø 8-10/30x3.5 mm


30x3.5/30x3.5 mm


System Bimetal
ø 8-10/30x3.5 mm

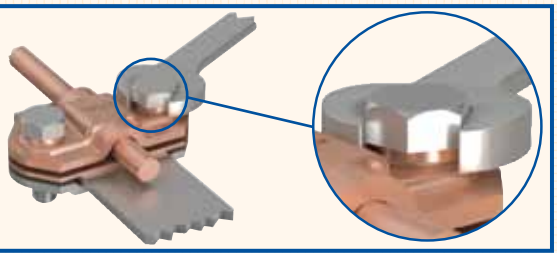
Vario-Disconnection clamp M8-Plus,

for test joints round/flat, flat/flat und round/round; mounted with two M8 V2A hexagonal screws.

Specification			Fit	PU	Ord. no.
Steel, hot galvanized	two-part	round/flat	ø 8-10 / 30 mm	50	111 716
Steel, hot galvanized	two-part	flat/flat	30 / 30 mm	50	111 718
Steel, hot galvanized	two-part	round/round	ø 8-10 / ø 8-10 mm	50	111 710
Stainless steel V2A	two-part	round/flat	ø 8-10 / 30 mm	50	111 717
Stainless steel V2A	two-part	flat/flat	30 / 30 mm	50	111 719
Stainless steel V2A	two-part	round/round	ø 8-10 / ø 8-10 mm	50	111 711
Copper	two-part	round/round	ø 8-10 / ø 8-10 mm	50	111 712
Steel, hot galvanized	three-part	round/round	ø 8-10 / ø 8-10 mm	50	111 713
Copper	three-part	round/round	ø 8-10 / ø 8-10 mm	50	111 715
Copper-steel, hot galv.	three-part	round/flat	ø 8-10 / 30 mm	50	111 727
Stainless steel V2A	three-part	round/round	ø 8-10 / ø 8-10 mm	50	111 714

Sure torque transmission thanks to a better form fit. (open-ended spanner rests securely on the screw head).

Screw head sits higher due to collar



Vario-Disconnection clamp M8-Plus,

for test joints round/round; mounted with two hexagonal screws M8 stainless steel V2A.

Specification			Fit	PU	Ord. no.
Steel, hot galvanized	two-part	round/round	ø 8-10 / ø 16 mm	50	111 720
Copper	two-part	round/round	ø 8-10 / ø 16 mm	50	111 722
Stainless steel V2A	two-part	round/round	ø 8-10 / ø 16 mm	50	111 721
Steel, hot galvanized	three-part	round/round	ø 8-10 / ø 16 mm	50	111 723
Copper	three-part	round/round	ø 8-10 / ø 16 mm	50	111 725
Stainless steel V2A	three-part	round/round	ø 8-10 / ø 16 mm		111 724
Copper-steel, hot galv.	three-part	round/round	ø 8-10 / ø 16 mm	50	111 728
Steel, hot galv.-copper	three-part	round/round	ø 8-10/fl.30/ø 16 mm	50	111 729
Copper-steel, hot galv.	three-part	round/round	ø 8-10 / ø 8-10 mm	50	111 726

Test plates used for Vario-Disconnection clamp and Vario-Disconnection clamp M8-Plus on page 66.

NEW

Vario-Disconnection clamp M8-Plus


Ord. no. 111 717


Ord. no. 111 727


Ord. no. 111 714

NEW

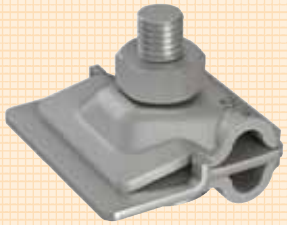
Vario-Disconnection clamp M8-Plus


Ord. no. 111 721


Ord. no. 111 724

Saddle clamps

Multi-Plus terminal clamp



Ord. no. 111 270

Multi-Plus, metal sheet terminal and connection clamp, with at least 10 cm² contact surface for metal sheet connections. **Clamping range max. 8 mm.**

Specification	Fit	PU	Ord. no.
Steel, hot galvanized	ø 8 - 10 mm	50	111 270
Steel, hot galvanized with V2A-screw	ø 8 - 10 mm	50	111 270 S
Aluminium 4 mm	ø 8 mm	50	111 271
Aluminium 4 mm with V2A-screw	ø 8 mm	50	111 271 S
Copper	ø 8 mm	50	111 272
Stainless steel V2A	ø 8- 10 mm	50	111 273
Bimetal aluminium/copper	ø 8 mm	50	111 274

All specifications also available with fitting ø 4-6 mm.

Saddle clamp

Ord. no. 1334

Saddle clamp with at least 10 cm² contact surface for metal sheet connections. **Clamping range max. 5 mm.**

Specification	Fit	PU	Ord. no.
Steel, hot galvanized	ø 8 mm	50	1334
Copper	ø 8 mm	50	1336
Aluminium/stainless steel V2A	ø 8 mm	50	1335

Saddle clamp

Ord. no. 111 680

Saddle clamp for secure contact connection to metal sheets and constructions. **Clamping range max. 6 mm.**

Specification	Fit	PU	Ord. no.
Steel, hot galvanized	ø 8-10 mm	50	111 680
Copper	ø 8 mm	50	111 681
Aluminium/stainless steel V2A	ø 8 mm	50	111 682
Stainless steel V2A	ø 8-10 mm	50	111 683
Bimetal copper/aluminium	ø 8 mm	50	111 684

Saddle clamp

Ord. no. 1292

Saddle clamp for the connection to saddles, lengthwise and crosswise conductor installation. **Clamping range max. 5 mm.**

Specification	Fit	PU	Ord. no.
Steel, hot galvanized	ø 8-10 mm	50	1292
Copper	ø 8-10 mm	50	1293
Stainless steel V2A	ø 8-10 mm	50	910 105
Aluminium	ø 8-10 mm	50	1263

Cross-saddle clamp

Ord. no. 1297

Ord. no. 1296

Cross-saddle clamp mounted with four cylinder head screws M6 V2A. Upper part securely riveted, for lengthwise and crosswise conductor installation. **Clamping range max. 8 mm.**

Specification	Fit	PU	Ord. no.
Steel, hot galvanized	ø 8-10 mm	50	1297
Copper	ø 8-10 mm	50	1298
Stainless steel V2A	ø 8-10 mm	50	1299
Aluminium	ø 8-10 mm	50	1264
Zinc die-cast **clamping range max. 5 mm**	ø 8-10 mm	50	1296

Terminal clamp, heavy-duty type

- Secure contact connections to steel constructions with max. 52 mm clamping range.
- Variable connections through rotating terminal lugs. (360°).
- Connection with KS-Connector, Vario-clamp or with perforated strip possible.
- Mounted with spring lock washer and stainless steel M10 bolt in hazardous areas.

Specification	Clamping range	Fit	PU	Ord. no.
Terminal clamp (heavy-duty type) with terminal lug (bore hole ø 11 mm)				
Steel, hot galvanized	5 - 19 mm		25	111 384
Steel, hot galvanized	19 - 36 mm		25	111 385
Steel, hot galvanized	36 - 52 mm		25	111 386
Stainless steel V2A	5 - 19 mm		25	111 387
Stainless steel V2A	19 - 36 mm		25	111 388
Stainless steel V2A	36 - 52 mm		25	111 389
Terminal clamp (heavy-duty type) with double terminal clamp				
Steel, hot galvanized	5 - 19 mm	ø 8-10 mm	25	111 884
Steel, hot galvanized	19 - 36 mm	ø 8-10 mm	25	111 885
Steel, hot galvanized	36 - 52 mm	ø 8-10 mm	25	111 886
Stainless steel V2A	5 - 19 mm	ø 8-10 mm	25	111 887
Stainless steel V2A	19 - 36 mm	ø 8-10 mm	25	111 888
Stainless steel V2A	36 - 52 mm	ø 8-10 mm	25	111 889

Terminal clamp

Terminal clamp for the secure contact connections to metal sheets and steel constructions.

Specification	Clamping range	Fit	PU	Ord. no.
Steel, hot galvanized	1 - 5 mm	ø 6-8 mm	50	111 685
Copper	1 - 5 mm	ø 6-8 mm	50	111 686
Aluminium/stainless steel V2A	1 - 5 mm	ø 6-8 mm	50	111 687
Stainless steel V2A	1 - 5 mm	ø 6-8 mm	50	111 688
Bimetal copper/aluminium	1 - 5 mm	ø 6-8 mm	50	111 689

Terminal clamp for steel constructions. Lengthwise and crosswise connections possible.

Specification	Clamping range	Fit	PU	Ord. no.
Steel, hot galvanized	5 - 18 mm	ø 8-10 mm	50	111 381
Stainless steel V2A	5 - 18 mm	ø 8-10 mm	50	111 382

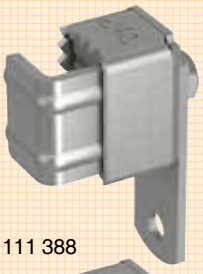
Terminal clamp for steel constructions. Lengthwise and crosswise connections possible.

Specification	Clamping range	Fit	PU	Ord. no.
Terminal clamp with KS-Connector				
Steel, hot galvanized	5 - 18 mm	ø 6-10 mm	25	1379
Steel, hot galvanized	18 - 35 mm	ø 6-10 mm	25	111 379
Stainless steel V2A	5 - 18 mm	ø 6-10 mm	25	2002
Stainless steel V2A	18 - 35 mm	ø 6-10 mm	25	111 380
Terminal clamp with claming jaw				
Steel, hot galvanized	5 - 18 mm	ø 8-10 mm	25	1479
Steel, hot galvanized	18 - 35 mm	ø 8-10 mm	25	111 779

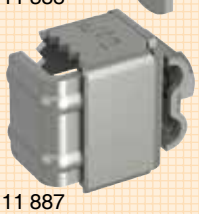
Terminal clamp for steel constructions. Lengthwise and crosswise connections possible.

Specification	Clamping range	Fit	PU	Ord. no.
Steel, hot galvanized	max 12 mm	ø 8-10 mm	50	111 376
Red brass	max 12 mm	ø 8-10 mm	50	1377

Terminal clamp, heavy-duty type (patent)



Ord. no. 111 388



Ord. no. 111 887

Terminal clamp (patent)

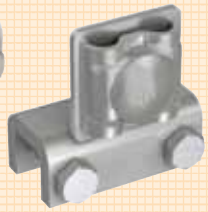
Ord. no. 111 685

Terminal clamp

Ord. no. 111 381

Terminal clamp

Ord. no. 1379



Ord. no. 1479

Terminal clamp

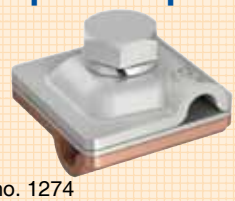
Ord. no. 111 376

Bimetallic product series

The "right" connection between different materials. J.Pröpster offers a conform to standards clamping system, which is tested and practice-oriented. It provides a practical and economical way of joining and connecting different materials: copper, hot galvanized steel, aluminium, etc.

Benefits:
- Simple handling – no messing about with self-made bimetallic strips.
- Corrosion-free connections between copper wires and wires made of other materials (e.g. steel, aluminium).
- Corrosion-free connections between copper wires and components made of other materials
  - earth lead-in rods
  - test joints
  - skylights
  - metal constructions

Bimetal Multi-clamp three-part



Ord. no. 1274

Bimetal double-connection clamp

Ord. no. 1288

Bimetal connection Vario-clamp

Ord. no. 1342 Z

Bimetal Vario-clamp M8-Plus NEW!

Ord. no. 111 727

Bimetallic bush and bimetallic strips

Ord. no. 1051

Ord. no. 1052

Ord. no. 1053

Bimetal Multi-clamp, **three-part, upper piece**: aluminium.
intermediate plate: bimetal aluminium/copper. **bottom piece:** copper.

Specification	Fit	PU	Ord. no.
Multi-connection clamp aluminium/copper	ø 8 mm	100	1274
Multi-Plus-connection clamp aluminium/copper with guaranteed 10 cm^2 contact surface. (for picture see page 60)	ø 8 mm	50	111 274

Bimetal double connection clamp
For the connection between different materials e.g. aluminium and copper.

Specification	Fit	PU	Ord. no.
Upper plate: aluminium + bimetall - plate	ø 8 mm	100	1288
Upper plate: copper + bimetall - plate	ø 8 mm	100	1289

Bimetal Vario-clamp
with M10 screw, made of material 40x4 mm.

Specification	Fit	PU	Ord. no.
Round copper on flat steel, hot galvanized	ø 8-10/ fl. 30 mm	50	1342 Z
Round copper on round (ø 16) steel, hot galvanized	ø 8-10/ø 16 mm	50	1348 Z
Round copper on round/flat steel, hot galvanized	ø 16/fl. 30/ø 8-10 mm	50	1349 Z
Round copper on round steel, hot galvanized	ø 8-10/ø 8-10 mm	50	1343 Z

Bimetal Vario-clamp M8-Plus
with M8 screw, made of material 30x3 mm.

Specification	Fit	PU	Ord. no.
Round copper on flat steel, hot galvanized	ø 8-10/ fl. 30 mm	50	111 727 NEW!
Round copper on round (ø 16) steel, hot galvanized	ø 8-10/ø 16 mm	50	111 728 NEW!
Round copper on round/flat steel, hot galvanized	ø 16/fl. 30/ø 8-10 mm	50	111 729 NEW!
Round copper on round steel, hot galvanized	ø 8-10/ø 8-10 mm	50	111 726 NEW!

Bimetallic bush and strips
for corrosion resistant connections between steel/aluminium and copper.

Specification	Length	Fit	PU	Ord. no.
Aluminium outside/ copper inside	40 mm	ø 8 mm	100	1051
Aluminium inside/ copper outside	40 mm	ø 8 mm	100	1052
Bimetallic strips 40 mm wide; 0.5 mm thick	500 mm	---	1	1053

Bimetal gutter clamp for secure contact connections between different materials on gutters. Maximum safety due to perfect clamping; no bead damage.

Specification	Fit	PU	Ord. no.
Wire clamp - aluminium Bead clamp - copper	ø 6-8 mm Bead max. ø 20 mm	25	111 674
Wire clamp - stainless steel V2A Bead clamp - copper	ø 6-8 mm Bead max. ø 20 mm	25	111 674 S

Bimetal gutter clamp for secure contact connections between different materials on gutters. Maximum safety due to perfect clamping; no bead damage.

Specification	Fit	PU	Ord. no.
Wire clamp - aluminium Bead clamp - copper	ø 6-8 mm Bead max. ø 20 mm	50	111 679
Wire clamp - stainless steel V2A Bead clamp - copper	ø 6-8 mm Bead max. ø 20 mm	50	111 679 S

Bimetal gutter connection clamp DUO,
to connect air termination conductors and down conductors with gutters.

Specification	Fit	PU	Ord. no.
Wire clamp - aluminium; Bead clamp - copper	ø 8 mm Bead ø 15-20 mm	25	1307 Z

Bimetal gutter clamp
Upper piece: Aluminium, **intermediate plate**: Bimetall Al/Cu, **bottom pieces:** both plate copper.

Specification	Fit	PU	Ord. no.
Wire clamp aluminium; Bead clamp copper	ø 8 mm Bead ø 10-20 mm	50	1300 Z

Bimetal saddle clamp, for the connection between different materials.

Specification	Fit	PU	Ord. no.
for wire connections ø 8-10 mm aluminium; on saddles up to 6 mm copper	ø 8-10 mm	50	1290 Z
for wire connections ø 8-10 mm copper on saddles up to 6 mm steel, hot galvanized or aluminium	ø 8-10 mm	50	1297 Z

Bimetal gutter clamp -ideal- (patent)

Ord. no. 111 674

Bimetal gutter clamp -small-

Ord. no. 111 679

Bimetal gutter connection clamp DUO

Ord. no. 1307 Z

Bimetal gutter clamp

Ord. no. 1300 Z

Bimetal saddle clamp three-part

Ord. no. 1290 Z

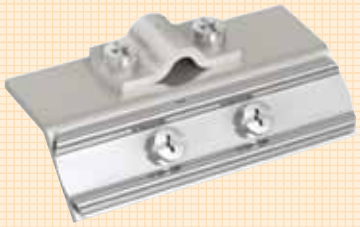
Rod clamp

Ord. no. 1312

Rod clamp
to connect ø 8-10 mm round conductors to rods ø 16 and 20 mm.

Specification	Fit	PU	Ord. no.
Steel, hot galvanized	ø 8-10 / ø 16 mm	50	1312
Steel, hot galvanized	ø 8-10 / ø 20 mm	50	1313
Stainless steel V2A	ø 8-10 / ø 16 mm	50	1314
Stainless steel V2A	ø 8-10 / ø 20 mm	50	1315

Snow guard clamp



Ord. no. 1311

Snow guard clamp, mounted with cylinder head screw M6 V2A.

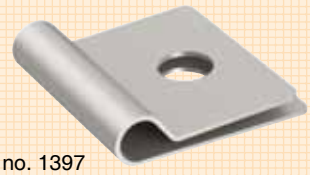
Specification	Fit	PU	Ord. no.
Aluminium/stainless steel V2A	ø 8-10 mm	50	1311
Copper	ø 8-10 mm	50	1310

Clamping shoe

Ord. no. 111 365

Clamping shoe, according to EN 62561-1
with one elongated hole ø 9 x 12 mm for screwing on and four holes ø 5.2 mm for riveting!

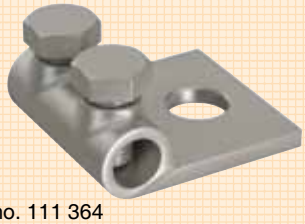
Specification	Fit	PU	Ord. no.
Steel, hot galvanized	ø 8 mm	100	1365
Copper	ø 8 mm	100	111 366
Aluminium	ø 8 mm	100	111 365
Stainless steel V2A	ø 8 mm	100	111 362



Ord. no. 1397

Clamping shoe, according to EN 62561-1
with one hole ø 10.5 mm for screwing on.

Specification	Fit	PU	Ord. no.
Steel, hot galvanized	ø 8 mm	100	1395
Copper	ø 8 mm	100	1396
Aluminium	ø 8 mm	100	1397
Stainless steel V2A	ø 8 mm	100	111 363



Ord. no. 111 364

Clamping shoe, according to EN 62561-1
with one hole ø 11 mm for screwing on according to the Austrian Standard.

Specification	Fit	PU	Ord. no.
Cast/hot galvanized	ø 8-10 mm	100	111 364

Bridging bracket for connecting and joining of metal structural claddings
(Hole pattern: 4x ø 6.5 mm; 8x ø 5.2 mm)

Specification	Length	PU	Ord. no.
Aluminium	228 mm	100	1369
Copper	228 mm	100	1370
Aluminium with central bore hole ø 10.5 mm	228 mm	100	111 404

Bridging cable, highly flexible, for the connection of metal structural claddings or as expansion piece 16 mm². Copper with aluminium cable lug; pressed airtight.

Specification	Length	PU	Ord. no.
For screws M8	400 mm	50	1371
Copper/aluminium	300 mm	100	1372
For screws M10	400 mm	50	1373
Copper/aluminium	300 mm	100	1374

Additional cable types, lengths and cross sections on request.

Bridging cable set , highly flexible bridging cable set 16 mm² for connecting and joining of metal structural claddings, with Multi-Plus clamping jaws (ø 8 mm / flat).

Specification	Length	PU	Ord. no.
Cable copper/aluminium with	400 mm	25	910 096
two stainless steel V2A - clamps	300 mm	25	910 096 S

Additional cable types, lengths and cross sections on request.

Bridging braid, highly flexible, for the connection of metal structural claddings or as expansion piece (50 mm²). (Hole pattern: 4x ø 6.5 mm; 8x ø 5.1 mm; 2x ø 10.5 mm).

Specification	Length	PU	Ord. no.
Copper	180 mm	100	1375
Aluminium	180 mm	100	1376
Aluminium with central hole ø 10 mm	300 mm	100	911 688

Additional hole patterns on request.

Expansion piece, for the compensation of the temperature-dependent changes in length of air termination conductors, e.g. connection with two multi clamps.

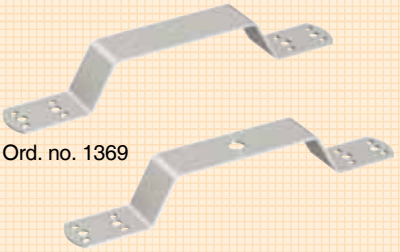
Specification	Length	Fit	PU	Ord. no.
Aluminium AlMgSi 0.5	600 mm	ø 8 mm	25	1380
Copper	600 mm	ø 8 mm	25	911 178

Drilling screw and blind rivet

Specification	Material	Dimensions	PU
DIN 7504 drilling screw WZ10 - hexagonal	Stainless steel V2A	6.3x19 mm	100
Blind rivet DIN 7337	Stainless steel V2A	5.0x12 mm	500
	Stainl. st. V2A/aluminium	5.0x12 mm	500

Additional dimensions on request.

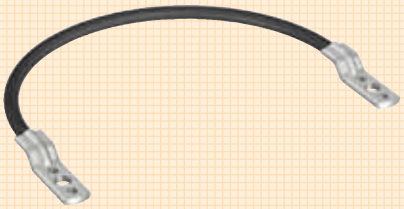
Bridging bracket



Ord. no. 1369

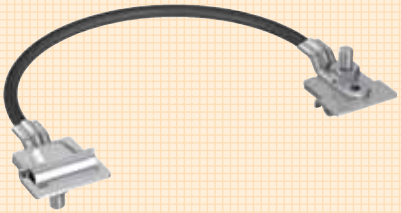
Ord. no. 111 404

Bridging cable



Ord. no. 1371

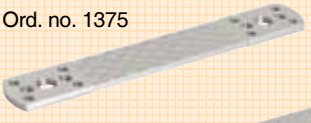
Bridging cable set



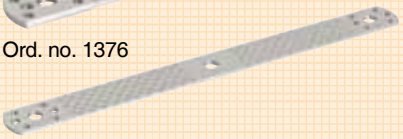
Ord. no. 910 096

Bridging braid

Ord. no. 1375

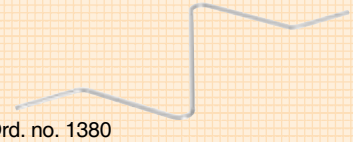


Ord. no. 1376



Ord. no. 911 688

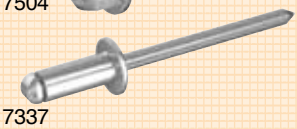
Expansion piece



Ord. no. 1380

Drilling screw and blind rivet

DIN 7504



DIN 7337

Number plate

Typ A

Ord. no. 111 624

Ord. no. 1056

Typ B

Ord. no. 111 640

Typ C

Ord. no. 111 620

Ord. no. 111 629

Typ D

NEW!

Ord. no. 111 639

Ord. no. 111 629

Number plate

Used for marking test joints on conductors and rods.
State the desired number when ordering.

Specification	Fit	PU	Ord. no.
Type A: Number plate, **without numbers**, for flexible use with hand punches.			
Aluminium	ø 8-10 mm	100	111 624
Aluminium	ø 16 mm	200	111 625
Aluminium	fl. 30 mm	100	111 626
Copper	ø 8-10 mm	100	111 627
Copper	ø 16 mm	100	111 628
Hand punches 0-9, size 10 mm		1	1059
Type A: Number plate, **including stamped in numbers, customised**			
Aluminium	ø 8-10 mm	1	1056
Aluminium	ø 16 mm	1	1057
Aluminium	fl. 30 mm	1	1058
Copper	ø 8-10 mm	1	1060

Specification	PU	Ord. no.
Type B: Test plate, with hole spacing of 28 - 38 mm, suitable for number plates		
Aluminium	100	111 640
Copper	100	111 641

Example of application:

Specification	PU	Ord. no.
Type C: Test plate, suitable for Vario-Disconnection clamp.		
Aluminium	100	111 620
Copper	100	111 623
Test badge	20	111 629

Test badge with company logo on request.

Example of application:

Specification	PU	Ord. no.
Type D: Test plate, for test badge max ø 50 mm (e.g. **test badge**) with hole spacing of 28 - 38 mm, suitable for Vario-Disconnection clamp M8-Plus		
Stainless steel V2A	100	111 639 NEW!
Stainless steel V2A/ coppered	100	111 638 NEW!
Test badge	20	111 629

Test badge with company logo on request.

Example of application:

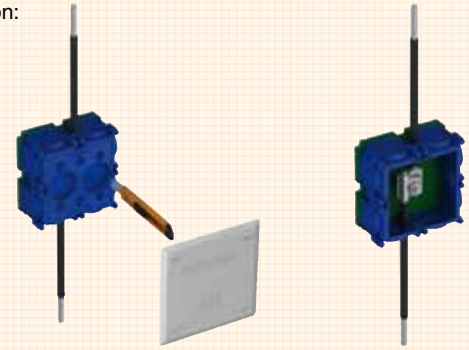
Inspection door to be used for flush-mounted test joints.

Specification	Mounting dimensions	PU	Ord. no.
Steel, hot galvanized, stamped	155 x 205 mm	1	1044
Stainless steel V2A, stamped	155 x 205 mm	1	1040
Copper, patinated	155 x 205 mm	1	1050
Copper	155 x 205 mm	1	111 582
Steel, hot galvanized, stamped	140 x 250 mm	1	1041
Stainless steel V2A, stamped	140 x 250 mm	1	1045
Steel, hot galvanized with angular frame	150 x 200 mm	1	1054

Test joint box to be used for flush-mounted and concrete building installations with integrated test joint and flexible connection cable for round conductor ø 8-10 mm or flat strips.

Specification	PU	Ord. no.
Test joint box made of unbreakable plastic 142 x 142 x 70 mm with built-in test joint and flexible insulated connection rope. Cover made of stainless steel V2A	1	111 580

Example of application:



Earth electrode inspection housing
for underfloor installation. Heavy-duty type - can be driven over.

Specification	Mounting dimensions	PU	Ord. no.
Grey cast iron black; opening: oval			
without test joint	230 x 150 x 120 mm	1	1055
with built-in test joint	230 x 150 x 120 mm	1	1043
Stainless steel V2A; opening: rectangular; V2A-cover; material thickness: **6 mm**			
without test joint	260 x 210 x 120 mm	1	1055 S1
with built-in test joint	260 x 210 x 120 mm	1	1043 S1

Inspection door

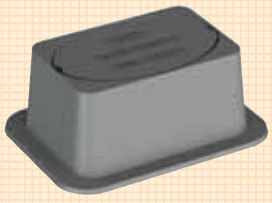
Ord. no. 1044

Ord. no. 1045

Test joint box

Ord. no. 111 580

Earth electrode inspection housing

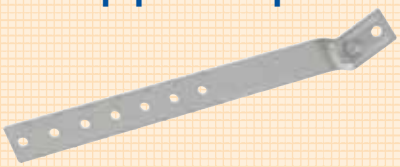


Ord. no. 1055

Ord. no. 1055 S1

Rainwater downpipe clamp

Universal downpipe clamp



Ord. no. 111 212

Universal downpipe clamp (cut to length as needed) - with holes ø 9 mm, hexagonal screws M8 and nuts. **Benefits:** Only two types, for all common diameters of downpipes.

Specification	Fit	PU	Ord. no.
Steel, hot galvanized	ø 60 - 120 mm	25	111 214
Aluminium	ø 60 - 120 mm	25	111 212
Copper	ø 60 - 120 mm	25	111 210
Stainless steel V2A	ø 60 - 120 mm	25	111 216
Steel, hot galvanized	ø 90 - 150 mm	25	111 215
Aluminium	ø 90 - 150 mm	25	111 213
Copper	ø 90 - 150 mm	25	111 211
Stainless steel V2A	ø 90 - 150 mm	25	111 217

Additional diameters on request.

Note: Holder for insulated conductor fastening to the downpipe see page 33.

Downpipe clamp

Ord. no. 111 100

Downpipe clamp, hexagonal screws M8 and nuts, according to EN 62561-1.

Specification	Fit	PU	Ord. no.
Steel, hot galvanized	ø 100 mm	25	111 100
Steel, hot galvanized	ø 120 mm	25	111 120
Copper	ø 100 mm	25	111 205
Copper	ø 120 mm	25	111 207

Additional dimensions with fixed measurements on request!

Note: Holder for insulated conductor fastening to the downpipe see page 33.

Earthing pipe clamp

Ord. no. 111 654

Earthing pipe clamp for cross section of earthing connections **lengthwise and crosswise from 6 - 50 mm²**.

Specification	Fit	Fit in inch	PU	Ord. no.
Steel, hot galvanized	ø 13.5 - 17.2 mm	1/4" - 3/8"	100	111 650
Steel, hot galvanized	ø 21.3 - 26.9 mm	1/2" - 3/4"	25	111 651
Steel, hot galvanized	ø 33.7 mm	1"	50	111 652
Steel, hot galvanized	ø 42.4 - 48.3 mm	1 1/4" - 1 1/2"	50	111 653
Copper	ø 13.5 - 17.2 mm	1/4" - 3/8"	50	111 654
Copper	ø 21.3 - 26.9 mm	1/2" - 3/4"	50	111 655
Copper	ø 33.7 mm	1"	50	111 656

Earthing pipe clamp

Ord. no. 111 261

Earthing pipe clamp for cross section of connecting conductors from 6 - 50 mm².

Specification	Fit	Fit in inch	PU	Ord. no.
Copper/galvanized Sn	ø 17.2 - 26.9 mm	3/8" - 3/4"	75	111 261
Copper/galvanized Sn	ø 25 - 36 mm	~ 3/4" - 1"	50	298 900

Earthing pipe clamp for antenna standpipes. For pipe diameters from 1”- 6”, cross-section of connecting conductor from 10 mm² (ø 4 mm) to max. 50 mm² (ø 8 mm).

Specification	Fit	Fit in inch	PU	Ord. no.
Stainless steel V2A	ø 33.7 - 88.9 mm	1”- 3”	25	111 390
	ø 33.7 - 168 mm	1”- 6”	25	111 391
Steel, hot galvanized	ø 33.7 - 88.9 mm	1”- 3”	25	111 393
	ø 33.7 - 168 mm	1”- 6”	25	111 394

Note: Holder for insulated conductor fastening to the downpipe see page 33.

Earthing pipe clamp for steel and copper pipes ranging between ø 17-115 mm, for for cross section of connecting conductors from 4 mm² (ø 2.3 mm) to max. 50 mm² (ø 8 mm).

Specification	Fit	Fit in inch	PU	Ord. no.
Stainless steel V2A	ø 17 - 50 mm	3/8”- 1 1/2”	25	111 441
Stainless steel V2A	ø 27 - 115 mm	3/4”- 4”	25	111 442

Turnbuckle without strip for antenna standpipes for for cross section of connecting conductors from 10 mm² (ø 4 mm) to max. 50 mm² (ø 8 mm).

Specification	PU	Ord. no.
Stainless steel V2A	50	111 392
Steel, hot galvanized	50	111 395

Note: Holder for insulated conductor fastening to the downpipe see page 33.

Turnbuckle without strip for for cross section of connecting conductors from 4 mm² (ø 2.3 mm) to max. 50 mm² (ø 8 mm).

Specification	PU	Ord. no.
Stainless steel V2A	100	111 449

Stainless steel tensioning strap in a practical box for cutting individual lengths.

Specification	Fit	Length	PU	Ord. no.
Strip Stainless steel V2A	22 x 0.4 mm	25 m	1	913 825
Strip Stainless steel V2A	22 x 0.4 mm	50 m	1	913 831

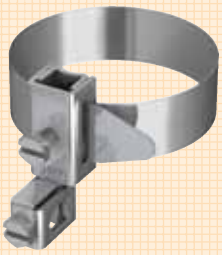
Earthing pipe clamp for steel and copper pipes between ø 10 - 50 mm, for conductors from 2.5 mm² to 16 mm².

Specification	Fit	Fit in inch	PU	Ord. no.
Grip head steel, hot galvanized	ø 10.2 - 48.3 mm	1/8” - 1 1/2”	50	111 260
Grip strip bronze/nickel-plated	ø 33.7 - 115 mm	1" - 4”	25	111 440

Earthing pipe clamp for antenna standpipes

Ord. no. 111 390

Earthing pipe clamp



Ord. no. 111 442

Turnbuckle

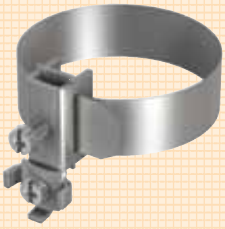
Ord. no. 111 392

Ord. no. 111 449

Tensioning strap

Ord. no. 913 825

Earthing pipe clamp



Ord. no. 111 260

Earthing pipe clamp

Ord. no. 1244

Earthing pipe clamp for pipes, made of stainless steel V2A or steel, hot galvanized according to EN 62561-1.

Specification	Fit	Fit in inch	PU	Ord. no.
Steel, hot galvanized	ø 17.2 mm	3/8”	25	1240
Steel, hot galvanized	ø 21.3 mm	1/2”	25	1241
Steel, hot galvanized	ø 26.9 mm	3/4”	25	1242
Steel, hot galvanized	ø 33.7 mm	1”	25	1243
Steel, hot galvanized	ø 42.4 mm	1 1/4”	25	1244
Steel, hot galvanized	ø 48.3 mm	1 1/2”	25	1245
Steel, hot galvanized	ø 54.5 mm	1 3/4”	25	1249
Steel, hot galvanized	ø 60.3 mm	2”	25	1246
Steel, hot galvanized	ø 76.1 mm	2 1/2”	25	1247
Steel, hot galvanized	ø 88.9 mm	3”	25	1248
Steel, hot galvanized	ø 114.3 mm	4”	25	910 286
Stainless steel V2A	ø 17.2 mm	3/8”	25	111 240
Stainless steel V2A	ø 21.3 mm	1/2”	25	111 241
Stainless steel V2A	ø 26.9 mm	3/4”	25	111 242
Stainless steel V2A	ø 33.7 mm	1”	25	111 243
Stainless steel V2A	ø 42.4 mm	1 1/4”	25	111 244
Stainless steel V2A	ø 48.3 mm	1 1/2”	25	111 245
Stainless steel V2A	ø 54.5 mm	1 3/4”	25	111 249
Stainless steel V2A	ø 60.3 mm	2”	25	111 246
Stainless steel V2A	ø 76.1 mm	2 1/2”	25	111 247
Stainless steel V2A	ø 88.9 mm	3”	25	111 248
Stainless steel V2A	ø 114.3 mm	4”	25	910 572

Earthing pipe clamp also available in copper.

KS-Connector, single

Ord. no. 1360

Ord. no. 1359

Ord. no. 1462

KS-Connector, single

Clamp screw with M10 hexagonal nut suitable for ø 6-10 mm round conductors.

Specification	Fit	PU	Ord. no.
Steel, hot galvanized/aluminium	ø 6-10 mm	100	1360
Copper-alloy	ø 6-10 mm	100	1361
Stainless steel V2A	ø 6-10 mm	100	1362
Steel, hot galvanized with square clamping bracket	ø 8-10 mm	100	1359
Stainless steel **V4A**	ø 8-10 mm	100	1462

Multi-clamping jaw

Ord. no. 1270 S3

Multi-clamping jaw,

suitable for round conductor max. ø 10 mm,with carriage bolt M10 and nut.

Specification	Fit	PU	Ord. no.
Steel, hot galvanized	ø 8 - 10 mm	100	1270 S3
Aluminium	ø 8 mm	100	1271 S
Stainless steel V2A	ø 8 - 10 mm	100	1273 S1

Earth lead-in rods
Connection clamps
Earth Rods
Fixed earthing terminals

Earth lead-in rods

Ord. no. 101 000

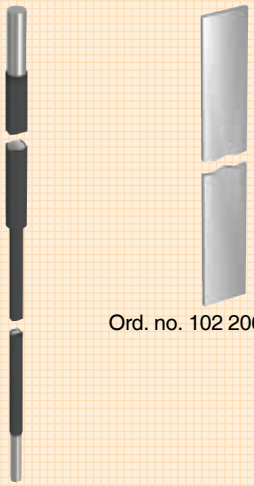
Earth lead-in rods

Earth lead-in rods, according to EN 62561-2, ø 16 mm, with chamfered edges.

Specification	Length	Fit	PU	Ord. no.
Steel, hot galvanized	750 mm	ø 16 mm	10	100 750
Steel, hot galvanized	1000 mm	ø 16 mm	10	101 000
Steel, hot galvanized	1200 mm	ø 16 mm	10	101 200
Steel, hot galvanized	1500 mm	ø 16 mm	10	101 500
Steel, hot galvanized	2000 mm	ø 16 mm	10	101 002
E-Copper	1000 mm	ø 16 mm	10	101 005
E-Copper	1200 mm	ø 16 mm	10	101 205
E-Copper	1500 mm	ø 16 mm	10	101 505
Stainless steel V2A	1000 mm	ø 16 mm	10	102 005
Stainless steel V2A	1200 mm	ø 16 mm	10	102 205
Stainless steel V2A	1500 mm	ø 16 mm	10	102 505
Stainless steel V4A	1000 mm	ø 16 mm	10	103 137
Stainless steel V4A	1200 mm	ø 16 mm	10	102 207
Stainless steel V4A	1500 mm	ø 16 mm	10	910 347

Connection clamps for earth lead-in rods see page 77.

Earth lead-in rods



Ord. no. 102 206 S1

Ord. no. 102 075

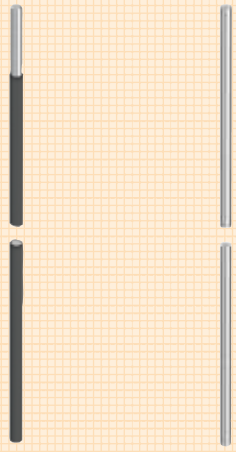
Earth lead-in rods with terminal lug for connecting down conductors to the earth termination system, corrosion resistant type, shrink-on tube insulated earth entry.

Specification	Fit / Length	PU	Ord. no.
Steel, hot galvanized	ø 16 = 750 / 1000 = ø 10 mm	10	102 075
Steel, hot galvanized	ø 16 = 1000 / 1000 = ø 10 mm	10	102 100
Steel, hot galvanized	ø 16 = 1200 / 1000 = ø 10 mm	10	102 120
Steel, hot galvanized	ø 16 = 1500 / 1000 = ø 10 mm	10	102 150
Stainless steel V2A 30 x 3.5 mm	2000 mm	10	102 206
Stainless steel V4A 30 x 3.5 mm	2000 mm	10	102 206 S1

Rods also available without insulation!

Note: Insulated down conductor (protection against touch voltage) see page 109.

Terminal lug



Ord. no. 102 211 Ord. no. 102 213

Terminal lug, straightened, with PVC cover, 60 mm is stripped on one side.

Specification	Fit	Length	PU	Ord. no.
Steel, hot galvanized	ø 10 mm	1500 mm	10	102 211
Steel, hot galvanized	ø 10 mm	3200 mm	10	102 212

Additional lengths on request!

Terminal lug, stainless steel V4A, straightened.

Specification	Fit	Length	PU	Ord. no.
Stainless steel V4A	ø 10 mm	1500 mm	10	102 213
Stainless steel V4A	ø 10 mm	3200 mm	10	102 214

Additional lengths on request!

Cross profiled earth rod, 50x50x3 mm.

Specification	Length	PU	Ord. no.
Steel, hot galvanized	1000 mm	5	110 100
Steel, hot galvanized	1500 mm	5	110 150
Steel, hot galvanized	2000 mm	5	110 200
Steel, hot galvanized	2500 mm	5	110 205
Steel, hot galvanized	3000 mm	5	110 300

Additional lengths on request!

Earth plate according to EN 62305-3 Tab. 7.

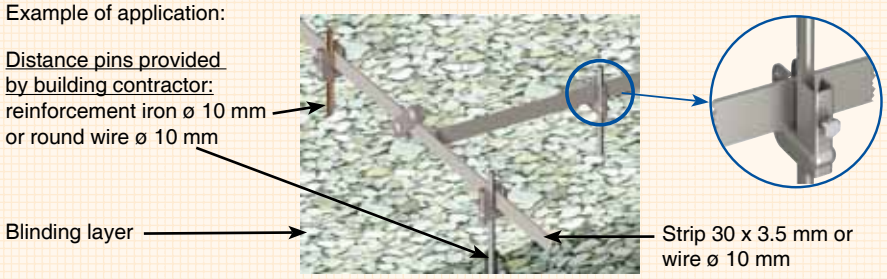
Specification	Length	PU	Ord. no.
Steel, hot galvanized, with terminal lug	500x500x3 mm	1	110 140
(ø 10 mm, insulated, length 1.5 m)	1000x500x3 mm	1	110 145
Copper, with welded connection	500x500x2 mm	1	110 130
cable (copper, 50 mm²; length 1.5 m)	1000x500x2 mm	1	110 135

Additional dimensions on request.

Clamping piece suitable for round conductors as a distance holder for installing foundation earth electrodes. **Benefits:** Infinitely adjustable height for different foundations (soil, blinding layer).

Specification	Fit	PU	Ord. no.
Steel, bare	ø 10 mm / fl. 30 x 3.5 mm	50	1321
Steel, hot galvanized	ø 10 mm / fl. 30 x 3.5 mm	50	1321 S

Example of application:



Spacer for foundation earth electrodes. Suitable for ø 10 mm round conductors and 30 x 3.5 mm strip.

Specification	Length	PU	Ord. no.
Steel, hot galvanized	280 mm	50	1319

Protection measures against step voltages in shelter hats

Wire mesh mat

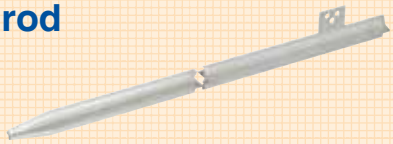
Specification	Dimensions (L x B)	PU	Ord. no.
Stainless steel V4A (ø 4 mm)	2,0 m x 1,0 m	1	912 125
Stainless steel V4A (ø 4 mm)	1,0 m x 1,0 m	1	912 126

Connection- / terminal clamp
completely made of stainless steel V4A.

Specification	Fit	PU	Ord. no.
Multi-clamp Mini (connection clamp)	ø 4-6 / ø 4-6 mm	100	111 313
Multi-clamp (terminal clamp)	ø 10 / ø 4-6 mm	100	111 319

Example see page 16

Cross profiled earth rod



Ord. no. 110 200

Earth plate

Ord. no. 110 130

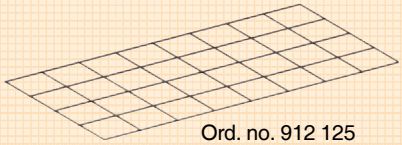
Clamping piece

Ord. no. 1321 S

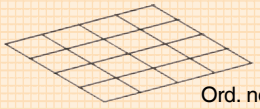
Spacer

Ord. no. 1319

Wire mesh mat NEW!



Ord. no. 912 125



Ord. no. 912 126

Connection clamp

Ord. no. 111 313

Terminal clamp

Ord. no. 111 319

Connection Clamp

Diagonal cross clamp

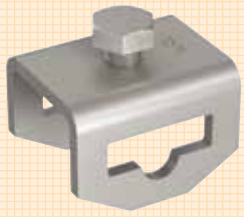
Ord. no. 111 353

Diagonal cross clamp, heavy-duty type
with two M10 screws for T- , cross and parallel connections, flat and round.

Specification			Fit	PU	Ord. no.
Steel, hot galvanized	two-part	flat/round	fl. 30 / ø 8-10 mm	50	1354
Steel, hot galvanized		flat/flat	fl. 30 / fl. 30 mm	50	111 352
Steel, hot galvanized		rd./rd.	ø 8-10 / ø 8-10 mm	50	111 353
Steel, hot galvanized		flat/round	fl. 40 / ø 8-10 mm	50	111 354
Stainless steel V2A	two-part	flat/round	fl. 30 / ø 10 mm	50	2008
Stainless steel V2A		flat/flat	fl. 30 / fl. 30 mm	50	2015
Stainless steel V2A		rd./rd.	ø 10 / ø 10 mm	50	2008 S
Stainless steel V4A	two-part	flat/flat	fl. 30 / fl. 30 mm	50	2015 S
Stainless steel V4A		round/flat	ø 10 / fl. 30 mm	50	2008 S1
Stainless steel V4A		rd./rd.	ø 10 / ø 10 mm	50	2008 S2

flat/flat parallel connector | flat/flat cross connector | flat/flat/round parallel cross connector | round/round (ø10 mm) cross connector | flat/flat/round parallel connector

USV-clamp



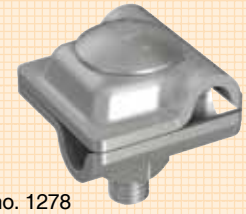
Ord. no. 111 425

USV - clamp
Easy-to-assemble connection system e.g. for earthing conductors in concrete.
Benefits: ◦ consideradly shorter and easier installation process ◦ universal use.

Specification		Fit	PU	Ord. no.
Steel, hot galvanized	flat/round/flat	30 / ø 8-10 / 30 mm	50	111 425
Stainless steel V2A	flat/round/flat	30 / ø 8-10 / 30 mm	50	111 426

flat/flat connection | flat/flat T-connection | flat/round ø 8-10 parallel connection | flat/flat connection and round T-connection | flat/flat/round cross connection

Multi-Clamp ø 10 mm



Ord. no. 1278

Multi-clamp ø 10 mm, heavy-duty type
universal use as T-, cross and parallel clamp for conductors ø 10 mm.

Specification	Fit	PU	Ord. no.
Steel, hot galvanized	ø 10 mm	75	1278
Stainless steel V2A	ø 10 mm	75	1279
Stainless steel V4A	ø 10 mm	75	1279 S
Copper	ø 10 mm	75	111 280

Connection clamp for different combinations,
ø 6 - 20 mm and flat 30 x 3.5 mm or ø10 mm; with M10 clamping screw.

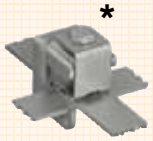
Specification	Fit		PU	Ord. no.
	Reinforcement	Earthing (flat or round)		
with clamping bracket (Type A)				
Steel, hot galvanized	ø6 - 20 mm	fl. 30x3.5 mm or ø10 mm	25	111 424
Steel, bare	ø6 - 20 mm	fl. 30x3.5 mm or ø10 mm	25	111 423
Stainless steel V2A	ø6 - 20 mm	fl. 30x3.5 mm or ø10 mm	25	111 424 S1
***without clamping bracket (Type B)**				
Steel, hot galvanized	ø6 - 20 mm	fl. 30x3.5 mm	25	111 424 S
Steel, bare	ø6 - 20 mm	fl. 30x3.5 mm	25	111 423 S
Stainless steel V2A	ø6 - 20 mm	fl. 30x3.5 mm	25	111 424 S2

rd. ø 10 / fl. 30 x 3.5 mm

rd. ø 16 / rd. ø 10 mm

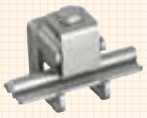
rd. ø 16 / fl. 30 x 3.5 mm *

fl. 30 x 3.5 / fl. 30 x 3.5 mm *



rd. ø 20 / fl. 30 x 3.5 mm *

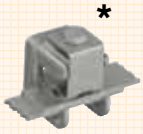
rd. ø 10 / fl. 30 x 3.5 mm



rd. ø 20 / fl. 30 x 3.5 mm

rd. ø 20 / fl. 30 x 3.5 mm *

fl. 30 x 3.5 / fl. 30 x 3.5 mm *



* Connection also without clamping bracket possible (Type B).

Connection clamp for the connection of **flat conductors with the reinforcement.**

Specification		Fit	PU	Ord. no.
Steel, hot galvanized	flat/round	fl. 30/40 mm/ø 30 mm	25	111 421
Steel, bare	flat/round	fl. 30/40 mm/ø 30 mm	25	111 420

Connection clamp for the connection of **round conductors with the reinforcement.**

Specification		Fit	PU	Ord. no.
Steel, hot galvanized	round/round	ø 10 mm / ø 25 mm	25	111 421 S2
Steel, bare	round/round	ø 10 mm / ø 25 mm	25	111 420 S2

Connection clamp

Type A

Ord. no. 111 424

Type B

Ord. no. 111 424 S

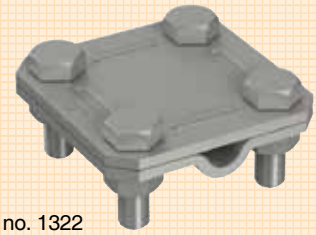
Connection clamp

Ord. no. 111 420

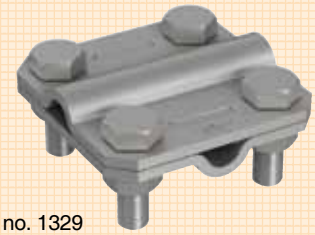
Connection clamp

Ord. no. 111 421 S2

Cross connector two-part and three-part



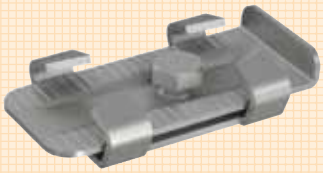
Ord. no. 1322



Ord. no. 1329

Wedge connector

Ord. no. 1320



Ord. no. 1320 S

Cross connector, two-part and three-part.

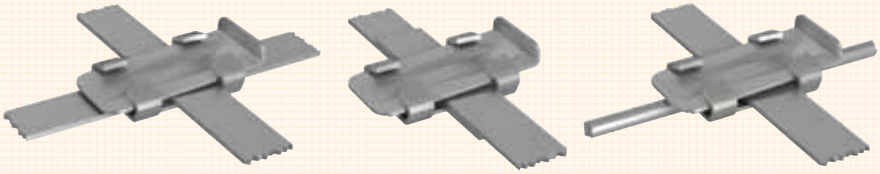
Specification			Fit	PU	Ord. no.
Steel, hot galvanized	two-part	round/flat	ø 8-10/30 mm	25	1322
Steel, hot galvanized		rd./rd.	ø 8-10/ø 8-10 mm	25	1329
Steel, hot galvanized		flat/flat	30/30 mm	25	1323
Steel, hot galvanized		flat/flat	40/40 mm	25	900 047
Steel, hot galvanized		round/flat	ø 8-10/40 mm	25	910 007
Steel, hot galvanized		rd./rd.	ø 8-10/ø 16 mm	25	1324
Steel, hot galvanized	three-part	round/flat	ø 8-10/30 mm	25	1325
Steel, hot galvanized		flat/flat	30/30 mm	25	1326
Steel, hot galvanized		rd./rd.	ø 8-10/ø 8-10 mm	25	1327 S
Steel, hot galvanized		rd./rd.	ø 8-10/ø 16 mm	25	1327
Stainless steel V2A	two-part	flat/flat	30/30 mm	25	2004
Stainless steel V2A		round/flat	ø 8-10/30 mm	25	2003
Stainless steel V2A		rd./rd.	ø 8-10/ø 8-10 mm	25	2005 S
Stainless steel V2A		rd./rd.	ø 8-10/ø 16 mm	25	2005
Stainless steel V4A	two-part	flat/flat	30/30 mm	25	910 494
Stainless steel V4A		round/flat	ø 8-10/30 mm	25	910 259
Stainless steel V4A		rd./rd.	ø 8-10/ø 8-10 mm	25	910 260

Wedge connector with safety catch, for T-, cross and parallel connections

Installation: Wedge has to be installed crosswise to the conductor.

Specification	Fit	PU	Ord. no.
Steel/electro-galvanized	ø 10/fl. 30 mm or fl. 30/fl. 30 mm	40	1320
Steel/electro-galvanized with hexagonal screw	ø 10/fl. 30 mm or fl. 30/fl. 30 mm	40	1320 S

Example of applications:



Earth rods

Modular plugable according to EN 62561-2.

Specification	Fit	PU	Ord. no.
Earth rod:			
Type A, Steel, hot galvanized with 3-fold knurling	ø 20/1000 mm	10	110 029
	ø 20/1500 mm	10	110 020
	ø 25/1500 mm	5	110 027
	ø 25/1000 mm	5	110 019
Type A, Stainless steel V2A	ø 20/1500 mm	10	110 120
	ø 20/1000 mm	10	910 095
Type A, Stainless steel V4A	ø 20/1500 mm	10	110 121
	ø 20/1000 mm	10	110 122
Type BP, Steel, hot galvanized with lead ball	ø 25/1000 mm	5	110 024
Tubular earth rod:			
Type C, Steel, hot galvanized	ø 25/1500 mm	10	110 021
Type C, Stainless steel V2A	ø 25/1500 mm	10	110 026
Type C, Stainless steel V4A	ø 25/1500 mm	10	110 018

Driving steel darts, suitable for earth rods.

Specification		Fit	PU	Ord. no.
Driving steel dart for ER Type A/ BP/ C	Steel, hot galvanized	ø 20 mm	1	2058
Driving steel dart for ER Type A/ BP	Steel, hot galvanized	ø 25 mm	1	2059

Connection clamp with 2 M10 screws suitable for parallel and cross connections.

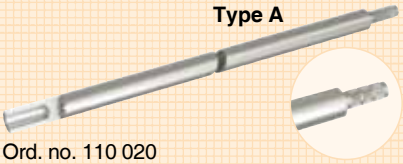
Specification		Fit	PU	Ord. no.
Steel, hot galvanized	three-part	ø 8-10 & fl. 30/ ø 16 mm	25	111 355
Steel, hot galvanized		ø 8-10 & fl. 30/ ø 20 mm	25	111 356
Steel, hot galvanized		ø 8-10 & fl. 30/ ø 25 mm	25	111 357
Stainless steel V2A	two-part	ø 10 & fl. 30/ ø 16 mm	25	2009
Stainless steel V2A		ø 10 & fl. 30/ ø 20 mm	25	2010
Stainless steel V2A		ø 10 & fl. 30/ ø 25 mm	25	2011
Stainless steel V4A	two-part	ø 10 & fl. 30/ ø 16 mm	25	2013
Stainless steel V4A		ø 10 & fl. 30/ ø 20 mm	25	2017

Connection clamp, suitable for earth rod and ø 10 mm round conductors.

Specification	Fit	PU	Ord. no.
Steel, hot galvanized	ø 10 & ER ø 20 mm	50	2020
Stainless steel V4A	ø 10 & ER ø 20 mm	50	2018
Steel, hot galvanized	flat 30x3.5; ø 10 & ER ø 25 mm	50	2021
Stainless steel V4A	flat 30x3.5; ø 10 & ER ø 25 mm	50	2025

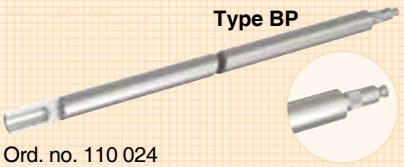
Earth rod and tubular earth rod

Type A



Ord. no. 110 020

Type BP



Ord. no. 110 024

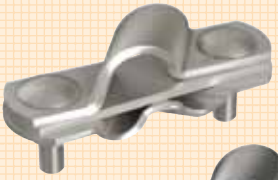
Type C

Ord. no. 110 018

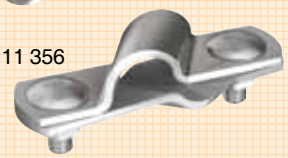
Driving steel dart

Ord. no. 2058

Connection clamp for earth rod and earth lead-in rod



Ord. no. 111 356



Ord. no. 2010

Connection clamp for earth rod

Ord. no. 2020

Ord. no. 2025

Earth rod driver

Ord. no. 111 461

Ord. no. 111 462

Earth rod driver

Specification		PU	Ord. no.
Brand:	**HITACHI H 90 SE**	1	111 460
Type:	electric motor		
Power:	1450 watt		
Weight:	32 kg		
Brand:	**WACKER**	1	111 461
Type:	BH 23 gasoline motor		
Weight:	27 kg		
Brand:	**WACKER**	1	111 462
Type:	EH23 - 230 electric motor		
Power:	2200 watt		
Weight:	22.4 kg		

Driving head/ Adapter

Ord. no. 2056

Ord. no. 111 465

Driving heads and adapters

for earth rod driver. Suitable for earth rods (tubular earth rods).

Specification		Fit	PU	Ord. no.
Driving head for	all ER (ø 20 mm)	ø 20 mm	1	2056
Driving head for	all ER (ø 25 mm)	ø 25 mm	1	2057
Adapter for Hitachi				
	all ER (ø 20 mm)	ø 20 mm	1	111 463
	all ER (ø 25 mm)	ø 25 mm	1	111 464
	ER Type C (tubular earth rod)	ø 25 mm	1	111 465
Adapter for Wacker				
	all ER (ø 20 mm)	ø 20 mm	1	111 466
	all ER (ø 25 mm)	ø 25 mm	1	111 467
	ER Type C (tubular earth rod)	ø 25 mm	1	111 468
Adapter for Bosch GSH27 / USH27				
	all ER (ø 20 mm)	ø 20 mm	1	111 479
	all ER (ø 25 mm)	ø 25 mm	1	111 479 S1
	ER Type C (tubular earth rod)	ø 25 mm	1	111 479 S

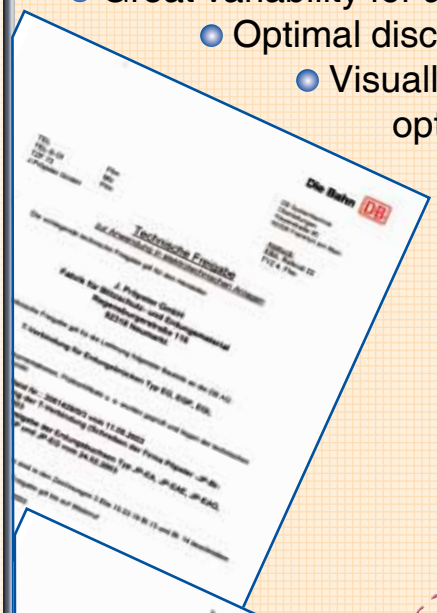
Additional adapters on request.

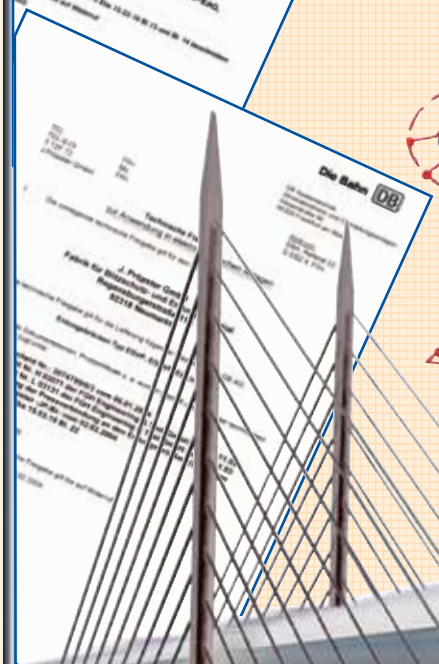
Professional equipotential bonding by using the “right” fixed earthing terminals and connection equipment

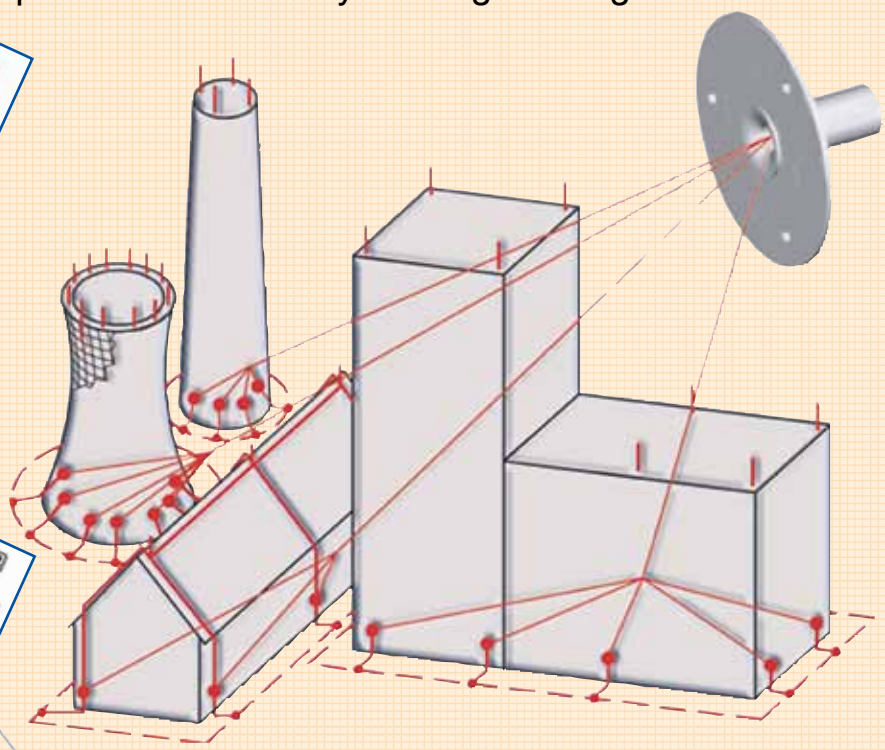
For specifications and order information refer to the following pages

Benefits:

- Absolutely safe, corrosion-resistent, maintenance-free earthing connection.
- Large surfaced contact plate made of stainless steel (V4A).
- Great variability for all standard earth conductor cross sections.
- Optimal disconnection clamp to measure the earthing system
- Visually pleasing fixed earthing terminal for connecting options inside already existing buildings.





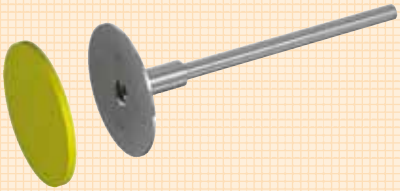


Fixed earthing terminals and connection sets

A complete range for connecting equipotential bonding conductors to the foundation earth electrode, to the reinforcement and to the lightning protection system.

Benefits:
- Easy assembly thanks to flexible connections.
- Corrosion-resistant, reliable connections thanks to stainless steel contacts.
- Also suitable as test joint.

Fixed earthing terminal with terminal stud



Ord. no. 112 000

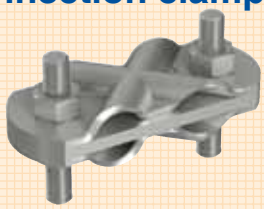
Fixed earthing terminal,
for the connection of earth termination systems to reinforcement and down conductors.

Specification	PU	Ord. no.
Contact plate ø 80 mm stainless steel V4A with 3 mounting holes ø 4 mm; **connection thread M10 / M12** with terminal stud ø 10 mm, total length 190 mm	1	112 000

Connection with diagonal cross clamp possible, see page 74!

Installation: **M10 connection thread (Thread length 35 mm)**
M12 connection thread (Thread length 19 mm)

Parallel and cross connection clamp

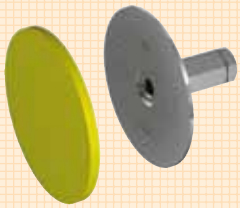


Ord. no. 111 400

Parallel and cross connection clamp for connecting fixed earthing terminals.

Specification	Fit	PU	Ord. no.
Steel, hot galvanized ***Benefits:*** Because of two threaded bolts M10x60 mm in the central plate two installation steps are possible: 1. Connect the foundation earth electrode to the reinforcement and 2. Connect and secure the fixed earthing terminal to the earth conductor - parallel and cross possible!	ø 8-10 mm and flat 30 mm ø 10-25 mm	25	111 400

Fixed earthing terminal for flexible connection



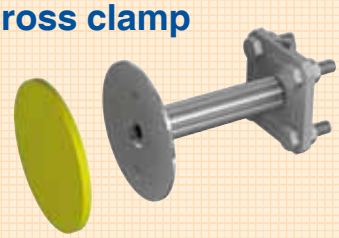
Ord. no. 112 007

Fixed earthing terminal
for the connection of earth termination systems to reinforcement and down conductors.

Specification	PU	Ord. no.
Contact plate ø 80 mm stainless steel V4A with 3 ø 4 mm mounting holes; **M10 connection thread** and M10 screw	1	112 007
Same as Ord. no. 112 007, but with **M12 connection thread**	1	112 004

Connection cable with cable lug on request!

Fixed earthing terminal with welded cross clamp



Ord. no. 112 008

Fixed earthing terminal
for the connection of earth termination systems to reinforcement and down conductors.

Specification	PU	Ord. no.
Contact plate ø 80 mm stainless steel V4A with 3 mounting holes ø 4 mm; **M10 connection thread** with terminal stud and cross clamp for flat 30 mm/ø 8-10 mm	1	112 008
Same as Ord. no. 112 008, but with **M12 connection thread**	1	112 002

Fixed earthing terminal,
for the connection of earth termination systems to reinforcement and down conductors.

Specification	PU	Ord. no.
Contact plate ø 50 mm stainless steel V4A Red plastic ring, ø 95 mm with 3 bore holes ø 3.4 mm; **M10 connection thread** with clamping pin ø 10 mm, total length 200 mm long	1	112 020
Same as Ord. no. 112 020, but with **M12 connection thread**	1	112 021

Connection with diagonal cross clamp possible, see page 74!

Fixed earthing terminal,
for the connection of earth termination systems to reinforcement and down conductors.

Specification	PU	Ord. no.
Contact plate ø 50 mm stainless steel V4A Red plastic ring, ø 95 mm with 3 bore holes ø 3.4 mm; **M10 connection thread** for connection with cable lug or steel strip	1	112 022
Same as Ord. no. 112 022, but with **M12 connection thread**	1	112 023

Connection cable with cable lug on request!

Fixed earthing terminal,
for the connection of earth termination systems to reinforcement and down conductors.

Specification	PU	Ord. no.
Contact plate ø 50 mm stainless steel V4A Red plastic ring, ø 95 mm with 3 bore hole ø 3.4 mm; **M10 connection thread** with connection stud and cross clamp for flat 30 mm / ø 8-10 mm	1	112 024
Same as Ord. no. 112 024, but with **M12 connection thread**	1	112 025

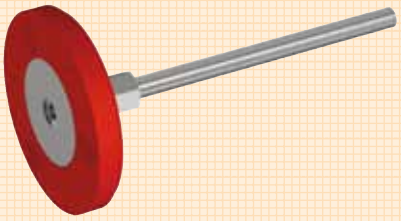
Connections for fixed earthing terminals with female thread

Specification	PU	Ord. no.
Cross clamp (60x60 mm) with 4 screws M8 x 25 mm for flat 30 mm / ø 8-10 mm; threaded bolt M12		
Steel, hot galvanized	25	112 005
Stainless steel V4A	25	112 039
End piece for fixed earthing terminals **with female thread**		
Stainless steel V4A 30 x 3.5 mm, ø 10.5 mm bore hole	100	112 017
Stainless steel V4A 30 x 3.5 mm, ø 12.5 mm bore hole	100	112 018
Connection with Vario-clamp or with diagonal cross clamp possible		

Fixed earthing terminal for the connection of earth termination systems to reinforcement and down conductors. **Lengths or wall thickness must be specified on ordering.**

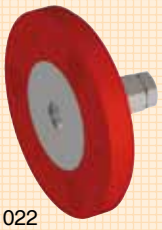
Specification	PU	Ord. no.
Interior and exterior connection possible Contact plate ø 80 mm stainless steel V4A with 3 ø 4 mm mounting holes on each plate; **M10 connection thread**; threaded rod M10 up to max. 400 mm (additional lengths on request)	1	112 009
Same as Ord. no. 112 009, but with **M12 connection thread**	1	112 003

Fixed earthing terminal with red plastic ring



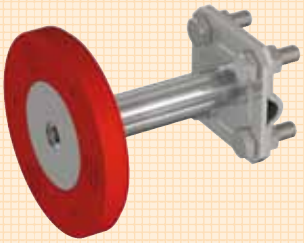
Ord. no. 112 020

Fixed earthing terminal for flexible connection



Ord. no. 112 022

Fixed earthing terminal with welded cross clamp



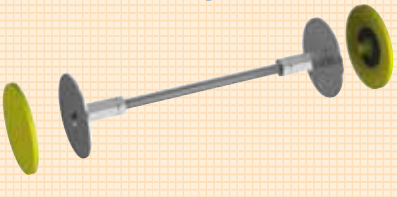
Ord. no. 112 024

Connections for fixed earthing terminals

Ord. no. 112 005

Ord. no. 112 018

Fixed earthing terminal wall bushing



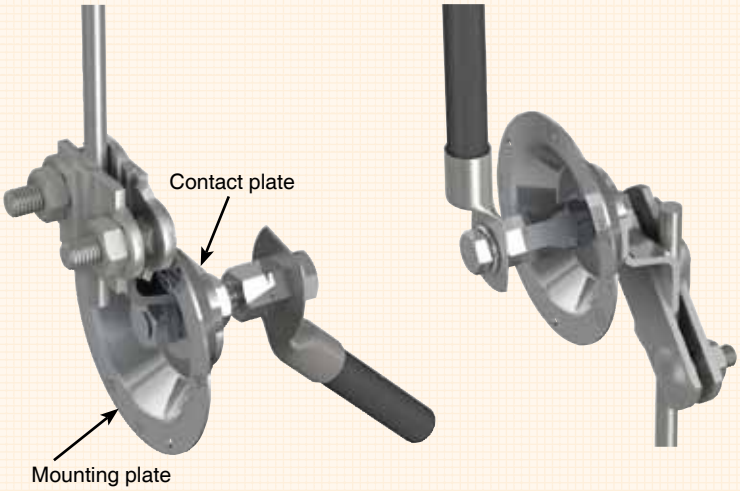
Ord. no. 112 009

Fixed earthing terminal system with connection set (patent)

With this complete range J.Pröpster expands the functionality of the traditional fixed earthing terminals many times over. The following benefits make this system unique and economical at the same time.

Benefits:
- New connection options because of the external thread
- Material saving: mounting plate is reusable
- Time saving: nails don't need to be clipped off
- There is no longer a danger of tearing off the contact plate when removing the shuttering (contact plate is screwed in place, without welding or coining).
- Low risk of corrosion, because steel nails can be removed.

Example of applications:



Fixed earthing terminal for flexible connection

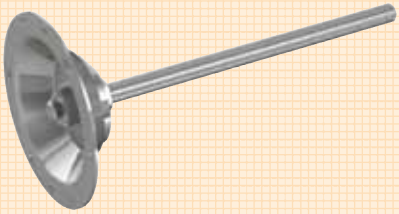
Ord. no. 112 031

Fixed earthing terminal for flexible connection,
for the connection of earth termination systems to reinforcement and down conductors.

Specification	PU	Ord. no.
Contact plate ø 44 mm stainless steel V4A mounting plate ø 98 mm stainless steel V2A with 3 mounting holes ø 4 mm **M12 connection thread** spring lock washer and M12 nut	1	112 031

Connection with cable lug on request!

Fixed earthing terminal with terminal stud



Ord. no. 112 032

Fixed earthing terminal with terminal stud,
for the connection of earth termination systems to reinforcement and down conductors.

Specification	PU	Ord. no.
Contact plate ø 44 mm stainless steel V4A mounting plate ø 98 mm stainless steel V2A with 3 mounting holes ø4 mm **M10 connection thread** with terminal stud ø 10 mm, 200 mm long	1	112 032

Fixed earthing terminal with **M12 connection thread** on request.

Connection with diagonal cross clamp possible!

All fixed earthing terminals on these 2 pages are also available without mounting plate on request.

Fixed earthing terminal with terminal lug,
for the connection of earth termination systems to reinforcement and down conductors.

Specification	PU	Ord. no.
Contact plate ø 44 mm stainless steel V4A mounting plate ø 98 mm stainless steel V2A with 3 mounting holes ø 4 mm **M10 connection thread**	1	112 034
Specification like Ord. no. 112 034, but with **M12 connection thread**	1	112 035

Fixed earthing terminal with double terminal lug,
for the connection of earth termination systems to reinforcement and down conductors.

Specification	PU	Ord. no.
Contact plate ø 44 mm stainless steel V4A mounting plate ø 98 mm stainless steel V2A with 3 mounting holes ø 4 mm **M10 connection thread**	1	112 036
Specification like Ord. no. 112 036, but with **M12 connection thread**	1	112 037

Fixed earthing terminal / wall bushing with terminal lug,
for the connection of earth termination systems to reinforcement and down conductors.

Specification	PU	Ord. no.
Contact plate ø 44 mm stainless steel V4A mounting plate ø 98 mm stainless steel V2A with 3 mounting holes ø 4 mm **M12 connection thread;** threaded bolt M12 wall bushing for 100 mm wall thickness	1	112 038

Fixed earthing terminal for additional wall thicknesses on request.

Connectors for fixed earthing terminals with external thread

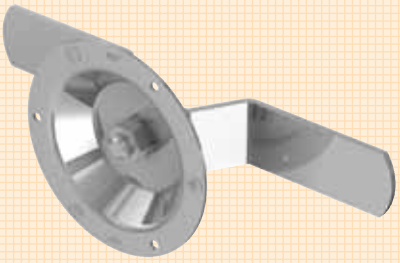
Specification	PU	Ord. no.
Union nut, stainless steel V2A		
M10 thread with washer and hexagonal screw	25	112 055
M12 thread with washer and hexagonal screw	25	112 056
Connection angle for fixed earthing terminals **with male thread**		
Stainless steel V4A 30 x 3.5 mm, bore hole ø 10.5 mm	10	112 053
Stainless steel V4A 30 x 3.5 mm, bore hole ø 12.5 mm	10	112 054

Connection with Vario-clamp or with diagonal cross clamp possible

Fixed earthing terminal with terminal lug

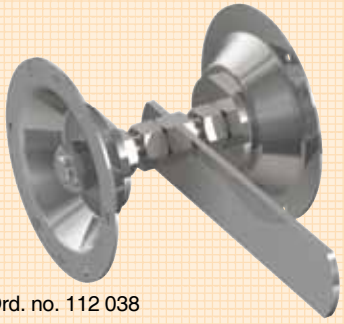
Ord. no. 112 034

Fixed earthing terminal with double terminal lug



Ord. no. 112 036

Fixed earthing terminal /wall bushing with terminal lug



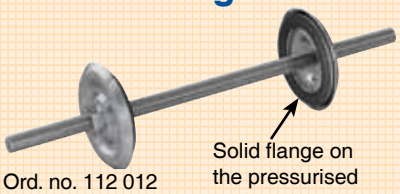
Ord. no. 112 038

Connectors for fixed earthing terminals

Ord. no. 112 055

Ord. no. 112 053

Wall bushing



Ord. no. 112 012

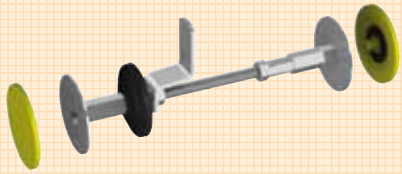
Solid flange on the pressurised water side

Wall bushing, used as wall bushing for earth electrodes.

Specification	Wall thickness	PU	Ord. no.
Stainless steel V2A			
thread: M12	100-200 mm	1	112 010
O-Ring-seal on both sides	180-300 mm	1	112 011
water pressure-tight & corrosion-proof	300-400 mm	1	112 012
diameter of flange: ø 80 mm	400-600 mm	1	112 013

Connection with, e.g. connection angle Ord. no. 112 018, see page 81.

Wall bushing with water barrier

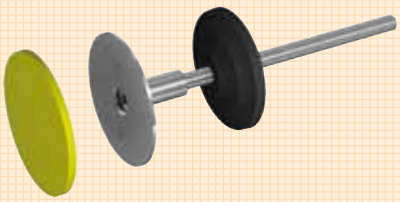


Ord. no. 112 113

Wall bushing with water barrier, for waterproof concrete
for the connection of earth termination systems, lightning protection and bonding bars.

Specification	Wall thickness	PU	Ord. no.
Connection inside and outside possible	**240 - 290 mm**	1	112 113
contact plate ø 80 mm stainless steel V4A	**290 - 340 mm**	1	112 114
with 3 mounting holes ø 4 mm	**340 - 390 mm**	1	112 115
M12 connection thread, M12 threaded rod	**390 - 440 mm**	1	112 116
	440 - 490 mm	1	112 117
	490 - 540 mm	1	112 118
	540 - 590 mm	1	112 119
Cut to individual lengths	**200 - 620 mm**	1	112 130

Fixed earthing terminal with water barrier



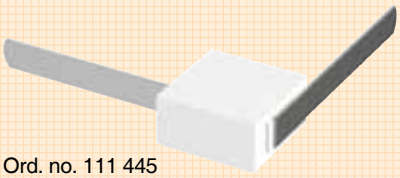
Ord. no. 112 100

Fixed earthing terminal with water barrier, for waterproof concrete
for the connection of earth termination systems, lightning protection and bonding bars.

Specification	PU	Ord. no.
Contact plate ø 80 mm stainless steel V4A with 3 mounting holes ø 4 mm **connection thread M10 / M12** with terminal stud ø 10 mm, total length 190 mm	1	112 100

Installation note: **M10 connection thread (Thread length 35 mm)**
M12 connection thread (Thread length 19 mm)

Expansion piece

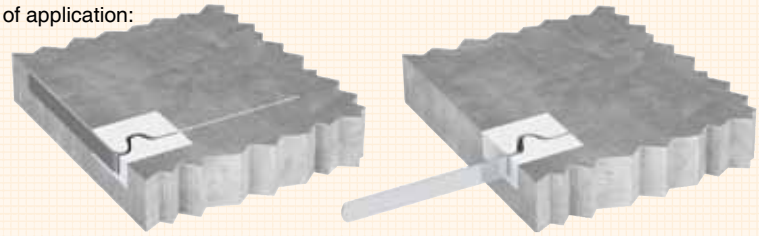


Ord. no. 111 445

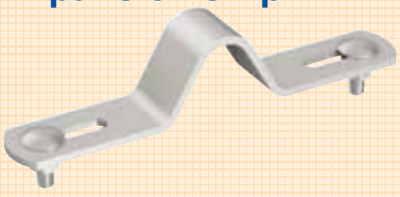
Expansion piece
as bridging component for expansion joints of foundation earth electrode

Specification		Fit	PU	Ord. no.
Strip	**Block**			
Stainless steel V2A	polystyrene	30 x 3.5 mm	1	111 445
Stainless steel V4A	polystyrene	40 x 4 mm	1	111 445 S

Example of application:



Expansion strip



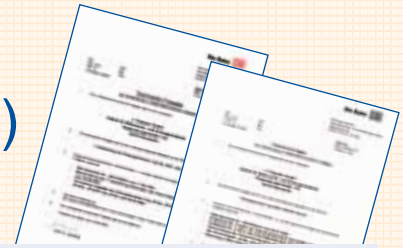
Ord. no. 111 448

Expansion strip, for a connection of the foundation earth electrode outside the concrete.

Specification	Length	Fit	PU	Ord. no.
Aluminium	250 mm	40 x 5.0 mm	1	111 448

Additional lengths on request!

Earthing kit,
DB (German railways) approved



Earthing kit, for connecting reinforcements
Approval: Eisenbahn Bundesamt (German railways); number of drawing 3 Ebs 15.03.19 Bl. 13

Specification	Cross section	Total Length	PU	Ord. no.
Version I	70 mm²	500 mm	1	113 085
for short circuit currents ≤ 25 kA	70 mm²	1000 mm	1	113 088
Fixed earthing terminal ø 50 mm made of Cu - alloy; with female thread M 16				
Version II	95 mm²	500 mm	1	113 105
for short circuit currents > 25 kA	95 mm²	1000 mm	1	113 108
Fixed earthing terminal ø 50 mm made of Cu - alloy; with female thread M 16				

Earthing kit, angled earthing kit, for connecting reinforcements
Approval: Eisenbahn Bundesamt (German railways); number of drawing 3 Ebs 15.03.19 Bl. 13

Specification	Cross section	Total Length	PU	Ord. no.
Version I	70 mm²	500 mm	1	113 260
for short circuit currents ≤ 25 kA	70 mm²	1000 mm	1	113 270
Fixed earthing terminal ø 50 mm made of Cu - alloy; with female thread M 16				
Version II	95 mm²	500 mm	1	113 290
for short circuit currents > 25 kA	95 mm²	1000 mm	1	113 300
Fixed earthing terminal ø 50 mm made of Cu - alloy; with female thread M 16				

Earthing kit, for connecting reinforcements.
Approval: Eisenbahn Bundesamt (German railways); number of drawing 3 Ebs 15.03.19 Bl. 13

Specification	Cross section	Total Length	PU	Ord. no.
Version I	70 mm²	500 mm	1	113 123
for short circuit currents ≤ 25 kA	70 mm²	1000 mm	1	113 125
2 terminal brackets steel/bare 40 x 5.0 mm				
Version II	95 mm²	500 mm	1	113 133
for short circuit currents > 25 kA	95 mm²	1000 mm	1	113 135
2 terminal brackets steel/bare 40 x 5.0 mm				

Earthing kit, crimped with terminal brackets
Approval: Eisenbahn Bundesamt (German railways); number of drawing 3 Ebs 15.03.19 Bl. 22

Specification	Cross section	Total Length	PU	Ord. no.
Version I	70 mm²	500 mm	1	114 400
for short circuit currents ≤ 25 kA	70 mm²	1000 mm	1	114 500
2 terminal brackets steel (coppered)				
Version II	95 mm²	500 mm	1	114 550
for short circuit currents > 25 kA	95 mm²	1000 mm	1	114 650
2 terminal brackets steel (coppered)				

Earthing kit, crimped
Approval: Eisenbahn Bundesamt (German railways); number of drawing 3 Ebs 15.03.19 Bl. 22

Specification	Cross section	Total Length	PU	Ord. no.
Version I	70 mm²	500 mm	1	114 700
for short circuit currents ≤ 25 kA	70 mm²	1000 mm	1	114 800
Fixed earthing terminal ø 50 mm made of Cu - alloy; with female thread M 16				
Version II	95 mm²	500 mm	1	114 850
for short circuit currents > 25 kA	95 mm²	1000 mm	1	114 950
Fixed earthing terminal ø 50 mm made of Cu - alloy; with female thread M 16				

Models available in all lengths.

JP-EG - Version I

Ord. no. 113 085

JP-EG - Version II

Ord. no. 113 260

JP-EGL - Version I

Ord. no. 113 123

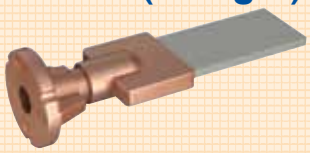
JP-EGLVP

Ord. no. 114 400

JP-EGVP

Ord. no. 114 700

Earthing terminal JP-EAG (straight)



Ord. no. 113 216

Bridging cable JP-EV

Ord. no. 113 029

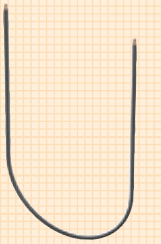
Earthing cable lug
open or closed

Ord. no.
T 14 A 0001 A

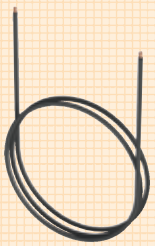
Ord. no.
T 14 B 0001 A

Ord. no.
T 14 B 0002 A

Earthing conductor



Ord. no. 410 000



Ord. no. 416 000

Earthing terminal, with weld-on lug for connecting to the reinforcement.
Approval: Eisenbahn Bundesamt (German railways); number of drawing 3 Ebs 15.03.19 Bl. 13

Specification	Total Length	PU	Ord. no.
For short circuit currents > 25 kA fixed earthing terminal ø 50 mm made of Cu - alloy with female thread M 16, welded with terminal bracket steel bare 40 x 5.0 mm	200 mm 500 mm	1 1	113 216 113 219

Bridging cable, for connecting earthing terminals or earthing kits.
Approval: Eisenbahn Bundesamt; number of drawing 3 Ebs 15.03.01 and 4 Ebs 15.03.17

Specification	Total Length	PU	Ord. no.
Version I for short circuit currents ≤ 25 kA cross section 50 mm², with heat shrink tubing (on both sides) copper cable with plastic coating (NYY-0)	250 mm	1	113 029
Version II for short circuit currents > 25 kA cross section 70 mm², with heat shrink tubing (on both sides) copper cable with plastic coating (NYY-0)	250 mm	1	113 030

Models available in all lengths.

Earthing material and earthing conductor

proven for over 30 years. (Operative range, e.g. German armed forces / technical containers)

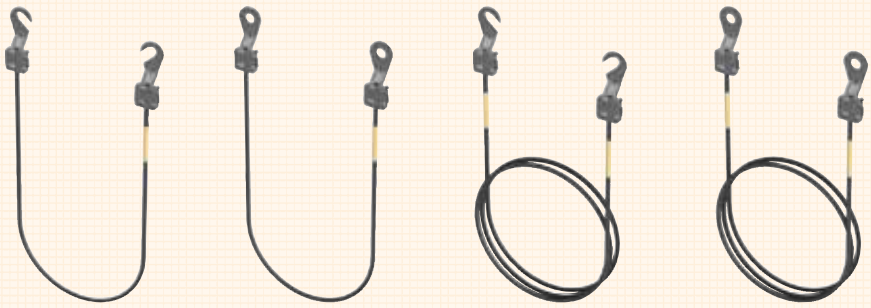
Earthing cable lug Ms/galSn for earthing conductors, frost-resistant up to -40°C.

Specification	Cross section	PU	Ord. no.
Cable lug open	6 - 16 mm²	100	T 14 A 0001 A
Cable lug closed; ø 8.5 mm	6 - 16 mm²	100	T 14 B 0001 A
Cable lug closed; ø 10.5 mm	6 - 16 mm²	100	T 14 B 0002 A

Earthing conductor made of highly flexible copper, frost-resistant up to -40°C.

Specification	Cross section	PU	Ord. no.
Copper	10 mm²	lfm	410 000
Copper	16 mm²	lfm	416 000

Possible combinations.

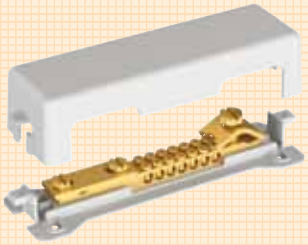


Marker sleeves for the conductors on request.

Equipotential bonding

Bonding bars

Bonding bar

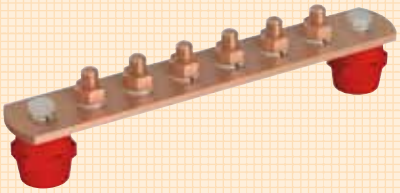


Ord. no. 111 070

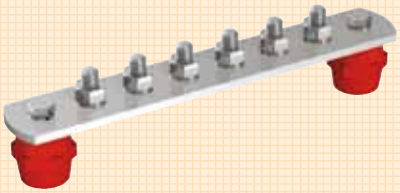
Bonding bar with plastic cover,
for equipotential bonding according to IEC 60364-4-41/60364-5-54.

Specification	PU	Ord. no.
Suitable for connecting: 1 x flat conductor up to 30 x 5 mm or ø 8-10 mm 1 x round conductor ø 8-12 mm 7 x conductor up to 25 mm² (single-core/stranded) or 16 mm² (finely stranded)	1	111 070

Bonding bar flat



Ord. no. 2072



Ord. no. 112 082

Bonding bar, for equipotential bonding according to IEC 60364-4-41/60364-5-54 and for lightning equipotential bonding according to EN 62305, complete with screw M10x25 mm, nuts, spring lock washers and insulators. Delivery incl. fastening screws.

Specification	Specification screws	Number of terminals	Dimensions Length / width x thickn.	PU	Ord. no.
Copper	V2A / coppered	5	220 / 40 x 5 mm	1	910 009
Copper	V2A / coppered	6	250 / 40 x 5 mm	1	2072
Copper	V2A / coppered	8	310 / 40 x 5 mm	1	910 375
Copper	V2A / coppered	10	370 / 40 x 5 mm	1	910 139
Copper	V2A / coppered	12	430 / 40 x 5 mm	1	910 193
Copper	V2A / coppered	14	490 / 40 x 5 mm	1	910 010
Copper	V2A / coppered	15	520 / 40 x 5 mm	1	910 359
Copper	V2A / coppered	16	550 / 40 x 5 mm	1	910 527
Copper	V2A / coppered	18	640 / 40 x 5 mm	1	910 540
Copper	V2A / coppered	20	700 / 40 x 5 mm	1	910 382
Stainless steel V2A	V2A	5	220 / 40 x 5 mm	1	910 011
Stainless steel V2A	V2A	6	250 / 40 x 5 mm	1	112 082
Stainless steel V2A	V2A	8	310 / 40 x 5 mm	1	910 385
Stainless steel V2A	V2A	10	370 / 40 x 5 mm	1	910 302
Stainless steel V2A	V2A	12	430 / 40 x 5 mm	1	910 012
Stainless steel V2A	V2A	14	490 / 40 x 5 mm	1	910 013
Stainless steel V2A	V2A	15	520 / 40 x 5 mm	1	910 018
Stainless steel V2A	V2A	16	550 / 40 x 5 mm	1	910 019
Stainless steel V2A	V2A	18	640 / 40 x 5 mm	1	910 020
Stainless steel V2A	V2A	20	700 / 40 x 5 mm	1	910 022

Note: Also suitable for explosible regions because the screw is fixed with a spring lock washer so it can't work itself loose.

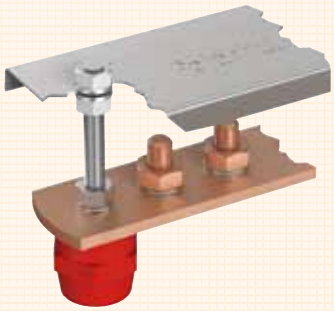
Stainless steel cover

Ord. no. 9106

Stainless steel cover V2A with fastening screws.

Specification	Number of terminals	Length	PU	Ord. no.
Stainless steel V2A	5	220 mm	1	9105
Stainless steel V2A	6	250 mm	1	9106
Stainless steel V2A	8	310 mm	1	9108
Stainless steel V2A	10	370 mm	1	9110
Stainless steel V2A	12	430 mm	1	9112
Stainless steel V2A	14	490 mm	1	9114
Stainless steel V2A	15	520 mm	1	9115
Stainless steel V2A	16	550 mm	1	9116
Stainless steel V2A	18	640 mm	1	9118
Stainless steel V2A	20	700 mm	1	9120

Example of application:



Earthing busbar (angled)

Earthing busbar, wall distance (height ~ 35 mm); connecting bores Ø 10,5 mm.

Specification	Number of terminals	Dimensions Length / width x thickness	PU	Ord. no.
Stainless steel V2A	2	135/ 30 x 3.5 mm	1	913 650
Stainless steel V2A	3	165/ 30 x 3.5 mm	1	913 651
Stainless steel V2A	4	195/ 30 x 3.5 mm	1	913 652
Stainless steel V2A	5	225/ 30 x 3.5 mm	1	913 653
Stainless steel V2A	6	255/ 30 x 3.5 mm	1	913 654
Stainless steel V2A	7	285/ 30 x 3.5 mm	1	913 655
Stainless steel V2A	8	315/ 30 x 3.5 mm	1	913 656
Stainless steel V2A	9	345/ 30 x 3.5 mm	1	913 657
Stainless steel V2A	10	375/ 30 x 3.5 mm	1	913 658

Earthing busbar, wall distance (height ~ 35 mm), Including screws M10x25 mm, nuts, spring lock washers

Specification	Specification screw	Number of terminals	Dimensions Length / width x thickness	PU	Ord. no.
Stainless steel V2A	V2A	2	135/ 30 x 3.5 mm	1	910 330
Stainless steel V2A	V2A	3	165/ 30 x 3.5 mm	1	910 331
Stainless steel V2A	V2A	4	195/ 30 x 3.5 mm	1	910 305
Stainless steel V2A	V2A	5	225/ 30 x 3.5 mm	1	910 306
Stainless steel V2A	V2A	6	255/ 30 x 3.5 mm	1	910 307
Stainless steel V2A	V2A	7	285/ 30 x 3.5 mm	1	910 332
Stainless steel V2A	V2A	8	315/ 30 x 3.5 mm	1	910 308
Stainless steel V2A	V2A	9	345/ 30 x 3.5 mm	1	910 333
Stainless steel V2A	V2A	10	375/ 30 x 3.5 mm	1	910 309

Earthing busbar, wall distance (height ~ 65 mm); connecting bores Ø 10,5 mm.

Specification	Number of terminals	Dimensions Length / width x thickness	PU	Ord. no.
Steel, hot galvanized	2 x 2	225 / 60 x 5 mm	1	913 666
Steel, hot galvanized	2 x 4	305 / 60 x 5 mm	1	913 667
Steel, hot galvanized	2 x 6	385 / 60 x 5 mm	1	913 668
Stainless steel V2A	2 x 2	225 / 60 x 5 mm	1	913 660
Stainless steel V2A	2 x 4	305 / 60 x 5 mm	1	913 661
Stainless steel V2A	2 x 6	385 / 60 x 5 mm	1	913 662

Earthing busbar, wall distance (height ~ 65 mm), Including screws M10x25 mm, nuts, spring lock washers

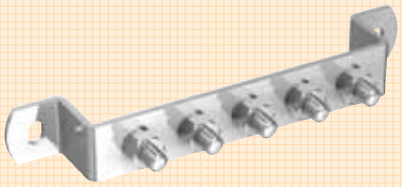
Specification	Specification screw	Number of terminals	Dimensions Length / width x thickness	PU	Ord. no.
Steel, hot galvanized	V2A	2 x 2	225 / 60 x 5 mm	1	910 223
Steel, hot galvanized	V2A	2 x 4	305 / 60 x 5 mm	1	910 023
Steel, hot galvanized	V2A	2 x 6	385 / 60 x 5 mm	1	910 301
Stainless steel V2A	V2A	2 x 2	225 / 60 x 5 mm	1	910 544
Stainless steel V2A	V2A	2 x 4	305 / 60 x 5 mm	1	910 545
Stainless steel V2A	V2A	2 x 6	385 / 60 x 5 mm	1	910 380

Additional dimensions, hole spacings, hole diameters or types of connection (e.g. KS-connector or Vario-clamp for flat strips) available on request.

Single row

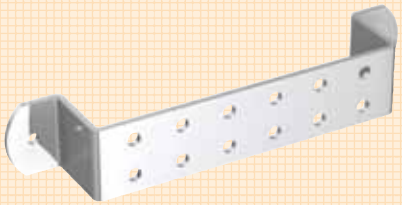
Ord. no. 913 653

Single row with connection screws



Ord. no. 910 306

Double row



Ord. no. 913 662

Double row with connection screws

Ord. no. 910 380

Notes:

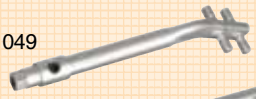
Accessories

Straightening device for round wires and strips, screws and earth testers

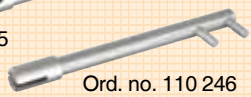
Straightening devices for round wires and strips

Straightening tools

Ord. no. 1049



Ord. no. 110 245

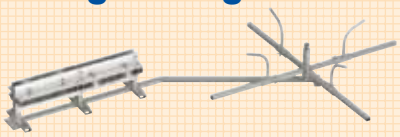


Ord. no. 110 246

Straightening device

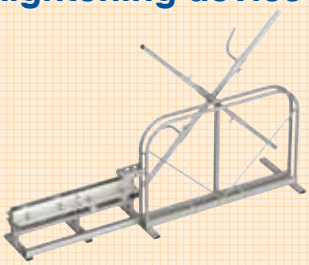
Ord. no. 111 080

Straightening device



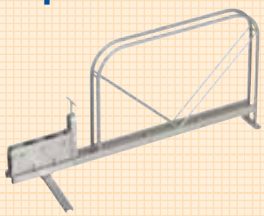
Ord. no. 111 081

Universal straightening device



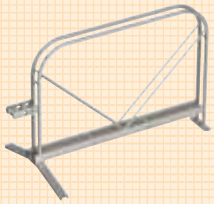
Ord. no. 111 082

Straightening device for strips



Ord. no. 111 083

Uncoiling unit



Ord. no. 111 084

Straightening tools - manual tool for straightening round wires and strips

Specification	Weight	Fit	PU	Ord. no.
Manual straightening and bending tool Steel, hot galvanized, to be used to unclip round wires from Niro-Clip and JP/concrete base.	500 g	ø 8 mm	1	1049
Manual straightening tool for round wires as tube with levelling studs.	330 g	ø 8-10 mm	1	110 245
Manual straightening tool for strips as tube with levelling studs and bending slots	600 g	ø 8-10/30 mm	1	110 246

Straightening device, **without reel-off unit.**
two-part for wire ø 8-10 mm.

Specification	PU	Ord. no.
Technical data: Weight: 15 kg Consists of 8 Aluminium brackets 60 x 60 x 5 x 350 mm and 6 levelling rolls - hardened steel with bronze bushing sleeve. Wire straightening at 4 levels. Levelling rolls can be adjusted to different degrees of hardness at 4 levels.	1	111 080

Straightening device, **with horizontal reel-off unit.**
two-part for wire ø 8-10 mm.

Specification	PU	Ord. no.
Technical data: Weight: 25 kg Straightening device (as described above) Horizontal reel-off unit, adjustable to different coil diameters. Demountable, space saving design.	1	111 081

Universal straightening device, **with vertical reel-off unit,**
to be used for round wire Ø 8 - 10 mm and strips 30 x 3.5 mm.

Specification	PU	Ord. no.
Technical data: Weight: 47 kg; Straightening device (as described above) Vertical reel-off unit, adjustable to different coil diameters. Uncoiling unit is also suitable for strips 30 x 3.5 mm.	1	111 082

Straightening device for strips
with 5 levelling rolls, for strips 30 x 3.5 mm.

Specification	PU	Ord. no.
Technical data: Weight: 23 kg, Length: 1390 mm, width*: 120 mm, height: 670 mm (* base can be swivelled in) Uncoil, straighten and install in one step. Very easy handling Time saving installation of strips	1	111 083

Uncoiling unit for strips 30 x 3.5 mm.

Specification	PU	Ord. no.
Technical data: Weight: 13 kg Length: 1060 mm, width*: 120 mm, height: 670 mm (* base can be swivelled in) Uncoil, straighten and install in one step. Very easy handling Any extra uncoiled strip can be rolled up again.	1	111 084

Corrosion prevention tape
for corrosion protection of conductor connections in the soil.

Specification	Width	PU	Ord. no.
Corrosion prevention tape	50 mm	1	1024
as 10 m long rolls	100 mm	1	1025
Corrosion prevention tape	50 mm	1	1068
with protective film (one-sided)	100 mm	1	1069
as 10 m long rolls			
No need to wear safety gloves			

Heat shrink tubing, for corrosion protection of connectors, strips and rods.

Specification	Fit	PU	Ord. no.
Heat shrink tubing (black)	ø 9-16 mm	50 m	102 208
	fl. 30 mm	50 m	102 209

Prönit - Special concrete with high swellability to be used as a compound to improve the earth resistance.

Specification	PU	Ord. no.
Powder in sacks	25 kg	111 446

Screws and accessories

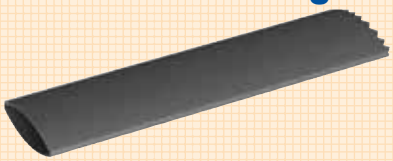
Specification	Material	Dimensions	PU
Cylinder head screw slotted and cross recessed (similar to DIN 84)	Stainless steel V2A	M6x12 mm	100
	Stainless steel V2A	M6x20 mm	100
	Stainless steel V2A/ coppered	M6x12 mm	100
	Stainless steel V2A/ coppered	M6x20 mm	100
DIN 933 Hexagon bolt	Stainless steel V2A	M8x25 mm	100
	Stainless steel V2A	M10x25 mm	100
	Stainless steel V2A/ coppered	M8x25 mm	100
	Stainless steel V2A/ coppered	M10x25 mm	100
DIN 934 Hexagon nut	Stainless steel V2A	M6	100
	Stainless steel V2A	M8	100
	Stainless steel V2A	M10	100
	Stainless steel V2A/ coppered	M6	100
	Stainless steel V2A/ coppered	M8	100
	Stainless steel V2A/ coppered	M10	100
DIN 7504 Drilling screw WS10	Stainless steel V2A-hexagon	6.3x19 mm	100
DIN 7981 Sheet-metal screw	Stainless steel V2A-cross recess	6.3x19 mm	100
DIN 127 B Spring lock washer	Stainless steel V2A	B8	100
	Stainless steel V2A	B10	100
DIN 7996 Halfround-wood screw - cross recessed	Stainless steel V2A	5x60 mm	100
	Stainless steel V2A	5x70 mm	100
Spax-screw with countersunk head cross recessed	Stainless steel V2A	5x60 mm	100
	Stainless steel V2A	5x70 mm	100
Shoulder screw	Steel electrogalvanized	M6 x 50 mm	100
	Steel electrogalvanized	M8 x 50 mm	100
Plastic dowel	Nylon	8x40 mm	500
	Nylon	10x50 mm	500
Plastic dowel with wood screw		8x120 mm	50
DIN 7337 Blind rivet	Stainless steel V2A	5.0x12 mm	500
	Stainless steel V2A/Aluminium	5.0x12 mm	500

Heavy-duty anchor bolts on page 106.
Additional dimensions on request.

Corrosion prevention tape

Ord. no. 1024

Heat shrink tubing

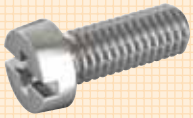


Ord. no. 102 209

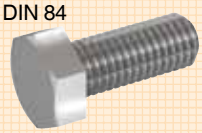
Prönit

Ord. no. 111 446

Screws and accessories

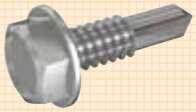


similar to DIN 84

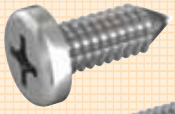


DIN 933

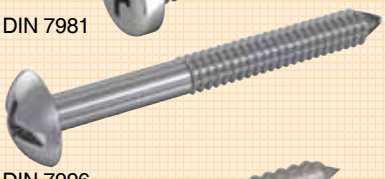
DIN 934 DIN 127



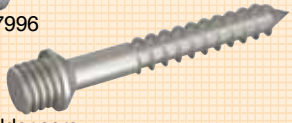
DIN 7504



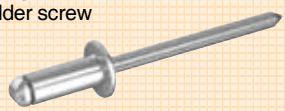
DIN 7981



DIN 7996



Shoulder screw



DIN 7337

Earth tester

Earth and soil resistivity tester

Ord. no. 2062

Ord. no. 2083

Accessory set for earth and soil resistivity tester

Ord. no. 2063

Clamp-on ground resistance tester

Ord. no. 2080

Tester for measuring earth and soil resistivity
with digital-display (LCD).

Specification	PU	Ord. no.
C.A 6460 - earth and soil resistivity tester Range: 0.00 ... /2000 Ω within three ranges automatic range change Measurement frequency: 128 Hz Case: 273 x 247 x 127 mm, IP 53 Weight: ~ 2.8 kg	1	2062
C.A 6462 - earth and soil resistivity tester same as C.A 6460 with an internal charger Weight: ~ 3.3 kg	1	2062 S
C.A 6423 - earth tester Range: 0.00 ... /2000 Ω automatic range change Measurement frequency: 128 Hz Case: 238 x 136 x 150 mm, IP 54 Weight: ~ 1.3 kg	1	2083

Earth tester case

Specification	PU	Ord. no.
Earth tester case including 2 earth spikes (T-shaped), cable: flat spool: green 10 m; wire coils: blue 1 x 150 m red 1 x 150 m, 1 set of connection clamps and hammer in carrying bag	1	2063

Clamp-on ground resistance tester
measuring instrument to review ground loops, with digital-display (LCD).

Specification	PU	Ord. no.
C.A 6410 - clamp-on ground resistance tester Range: 0.10 ... /1200 Ω automatic range change Measurement frequency: 2.4 kHz Case: 235 x 100 x 55 mm Weight: ~ 1.0 kg	1	2080
C.A 6412 - clamp-on ground resistance tester same as C.A 6410 but also measures the leakage current flowing to the ground	1	2089
C.A 6415 - clamp-on ground resistance tester same as C.A 6412, but also has alarm and measurement logging functions	1	2088
Calibration loop for clamp-on ground resistance tester	1	2090

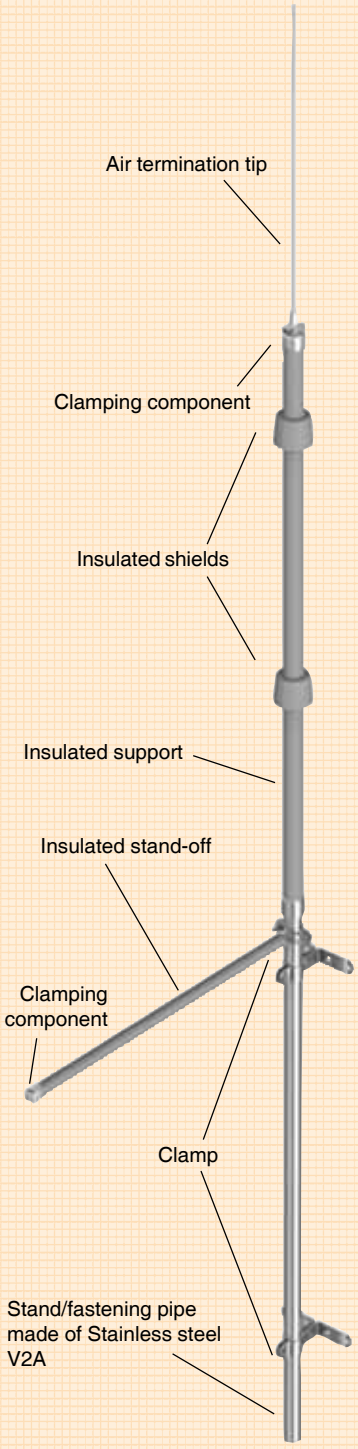
Air termination systems
Insulated lightning protection
JP-MBF system

Interesting facts about insulated lightning protection systems

Generally, we differentiate between insulated and partially insulated lightning protection systems. Partially insulated systems are more common. To design such a system, the well-known mesh method is used to install an air termination system. The area with the roof installations is then equipped with additional insulated air termination devices.

A decisive advantage of insulated or partially insulated lightning protection systems consists in the fact that no partial lightning currents can penetrate into the building.

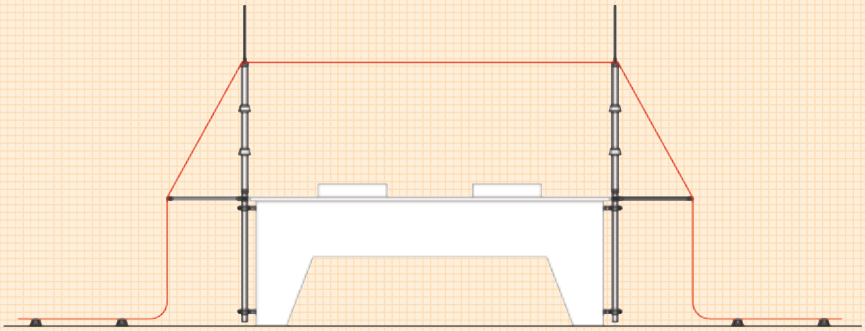
J.Pröpster offers an easy-to-assemble and well proved lightning protection system that guarantees maximum protection for your equipment. An insulated and/or partially insulated lightning protection system includes the following components:

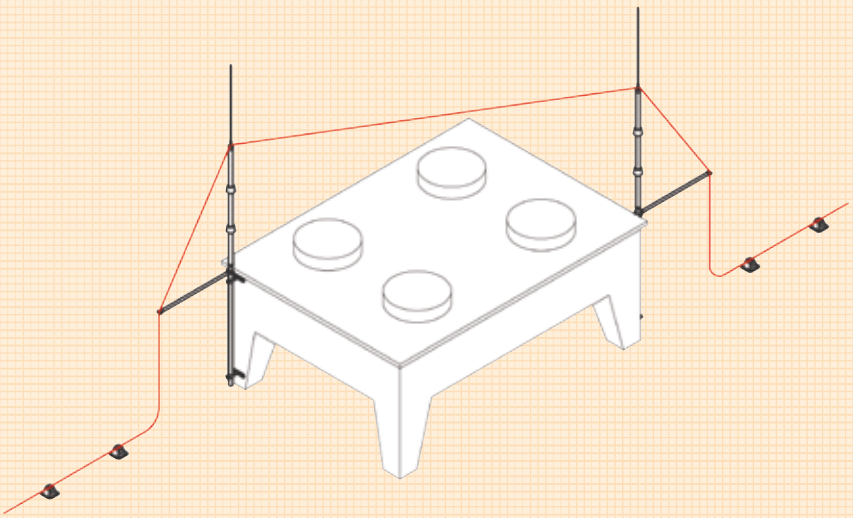


1. Insulated air termination pole, including:
   a) Stand/fastening pipe (stainless steel V2A) ø 42.3 mm with wall mounting clamp (stainless steel V2A)
   b) Insulated support GRP ø 48 mm, vertical with clamping component and two insulated shields
   c) Air termination tip aluminium ø 10 mm, length 0.75 m
   d) Insulated stand-off GRP ø 32 mm, horizontal with clamping component
2. Insulated stand-off for air termination rods and conductors
3. Insulated supports to increase the height of the conductor leading
4. Lightning protection air termination pole (stainless steel V2A) free standing
5. Lightning protection air termination pole (stainless steel V2A) for wall mounting
6. Lightning protection air termination pole (steel, hot galvanized) for block foundation

Please ask for our special catalogue “Insulated lightning protection” with examples of applications.

For further questions regarding the objects described or if you need detailed planning advice for your upcoming projects, our technical consultants will be pleased to assist you.





Insulated air termination pole

Air termination pole for insulated air termination systems
with lateral stand-off, to protect roof installations from direct lightning strikes.

Specification according to EN 62305-3 / EN 62561-2:					
Air termination tip:	Aluminium	0.75 m above air termination cond.			
Insulated support:	GRP	1.5 m			
Stand pipe length:	Stainless steel V2A	variable			
Conductor height	Total height	Stand-offs	Mounting clamps	PU	Ord. no.
3.0 m	3.75 m	1	2	1	111 490
3.5 m	4.25 m	1	2	1	111 491
4.0 m	4.75 m	1	2	1	111 492
4.5 m	5.25 m	2	3	1	111 493
5.0 m, 2-parts	5.75 m	2	3	1	111 494
5.5 m, 2-parts	6.25 m	2	3	1	111 495

Air termination pole for insulated air termination systems
without lateral stand-off - to support long conductors.

Conductor height	Total height	Stand-offs	Mounting clamps	PU	Ord. no.
3.0 m	3.75 m	without	2	1	111 496
3.5 m	4.25 m	without	2	1	111 497

Air termination pole also suitable for stainless steel base frame (Ord. no. 499 000; page 104).

Additional lengths or combinations on request.

Air termination conductor (not illustrated),
for free straddle of the protected equipment

Specification	Fit	Weight/m	PU	Ord. no.
Aldrey cable	50 mm²	~ 0.135 kg	rm	100 058

Insulated stand-off, height-adjustable (air termination pole) with clamping component for Alu-conductor ø 8-10 mm

Specification	PU	Ord. no.
0.5 m	1	490 405 V
0.8 m	1	490 408 V
1.0 m	1	490 410 V

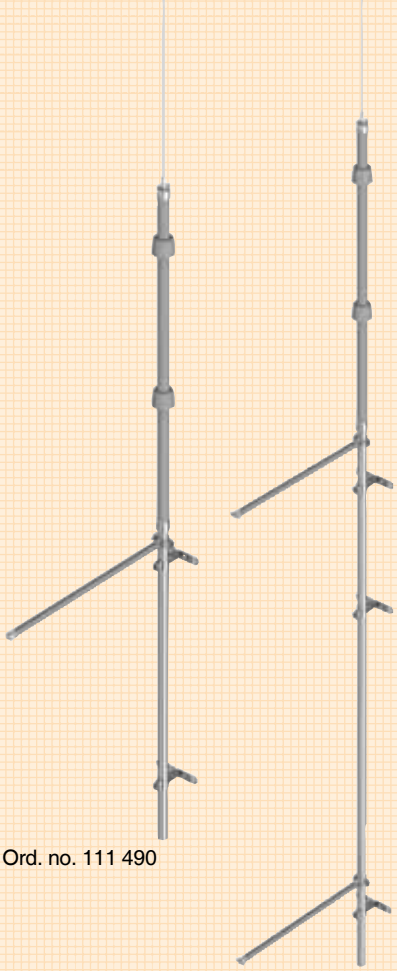
Additional lengths on request!

Air termination pole fastener for steel constructions (e.g. side rails)
consisting of: Holder V2A on profile and pole holder V2A (cross clamp)

Specification	Profile	Fit in inch	Square profile	PU	Ord. no.
Round profile					
Stainless steel V2A	ø 26.9 mm	3/4"		1	490 490
Stainless steel V2A	ø 42.4 mm	1 1/4"		1	490 491
Stainless steel V2A	ø 48.5 mm	1 1/2"		1	490 492
Square profile					
Stainless steel V2A		suitable for	20 x 20 mm to 50 x 50 mm	1	490 495

Additional diameters and dimensions on request.

Air termination pole for insulated system



Ord. no. 111 490

Ord. no. 111 493

Insulated stand-off, height-adjustable

Ord. no. 490 405 V

Air termination pole fastener on profiles

Ord. no. 490 491

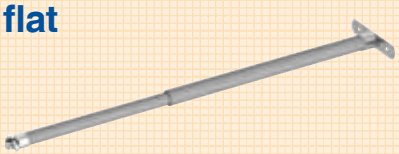
Ord. no. 490 495

Insulated stand-off

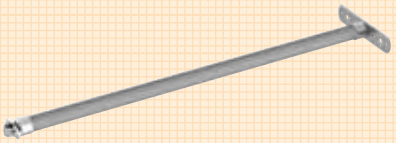
ISO-Stabil

All stand-offs for air termination rods (Al) ø 16 mm and down conductors ø 8 mm
Insulated stand-off for free carrying of aluminium air termination rods

Insulated stand-off with mounting plate, flat



Ord. no. 490 433

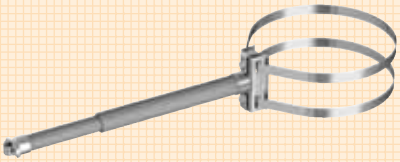


Ord. no. 490 431

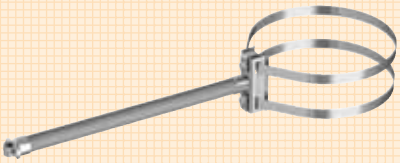
Insulated stand-off with flat mounting plate (stainless steel V2A) for mounting on walls and metal sheets.

Specification	Length	PU	Ord. no.
Infinitely adjustable:			
Telescopic insulated stand-off GRP,	350-500 mm	1	490 433 S
ø 32/40 mm for ø 16 mm and ø 8-10 mm	650-1000 mm	1	490 433
with fixed length:			
Insulated stand-off GRP,	0.5 m	1	490 430
ø 32 mm for ø 16 mm and ø 8-10 mm	0.8 m	1	490 431
	1.0 m	1	490 432

Insulated stand-off with tape clamp



Ord. no. 490 443



Ord. no. 490 513

Insulated stand-off with tape pipe clamp (stainless steel V2A).

Specification	Length	PU	Ord. no.
Infinitely adjustable:			
Telescopic insulated stand-off GRP,	350-500 mm	1	490 443
ø 32/40 mm for ø 16 mm and ø 8-10 mm	650-1000 mm	1	490 444
tape pipe clamp max. ø 800 mm			
with fixed length:			
Insulated stand-off GRP,	0.5 m	1	490 513
ø 32 mm for ø 16 mm and ø 8-10 mm	0.8 m	1	490 514
tape pipe clamp max. ø 800 mm	1.0 m	1	490 515

Insulated stand-off with mounting bracket for rotatable or adjustable fixing elements
The insulated stand-off is adjustable in all directions.

Specification	Length	PU	Ord. no.
Infinitely adjustable:			
Telescopic insulated stand-off GRP,	350 - 500 mm	1	490 535
ø 32/40 mm for ø 16 mm and ø 8-10 mm	650 - 1000 mm	1	490 536
mounting bracket ø 12.5 mm,			
with fixed length:			
Insulated stand-off GRP,	0.5 m	1	490 530
ø 32 mm for ø 16 mm and ø 8-10 mm	0.8 m	1	490 531
mounting bracket ø 12.5 mm	1.0 m	1	490 532

Fixing element for insulated stand-off with bracket.

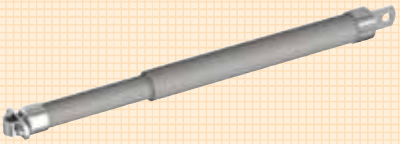
Specification	Clamping range	PU	Ord. no.
Fixing element stainless steel V2A	-	1	490 505
with flat mounting plate			
Fixing element stainless steel V2A	5 - 19 mm	1	490 506
with two terminal clamps, heavy-duty type	19 - 36 mm	1	490 507
	36 - 52 mm	1	490 508

Insulated stand-off for mounting on corners and building edges.

Specification	Length	PU	Ord. no.
with fixed length:	0.5 m	1	490 450
Insulated stand-off GRP,	0.8 m	1	490 451
ø 32 mm for ø 16 mm and ø 8-10 mm	1.0 m	1	490 452

Additional stand-off lengths on request!

Insulated stand-off with fixing bracket

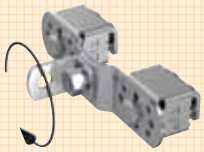


Ord. no. 490 535

Ord. no. 490 530

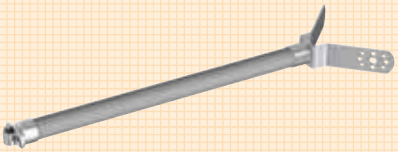
Fixing element
(adjustable in all directions)

Ord. no. 490 505



Ord. no. 490 506

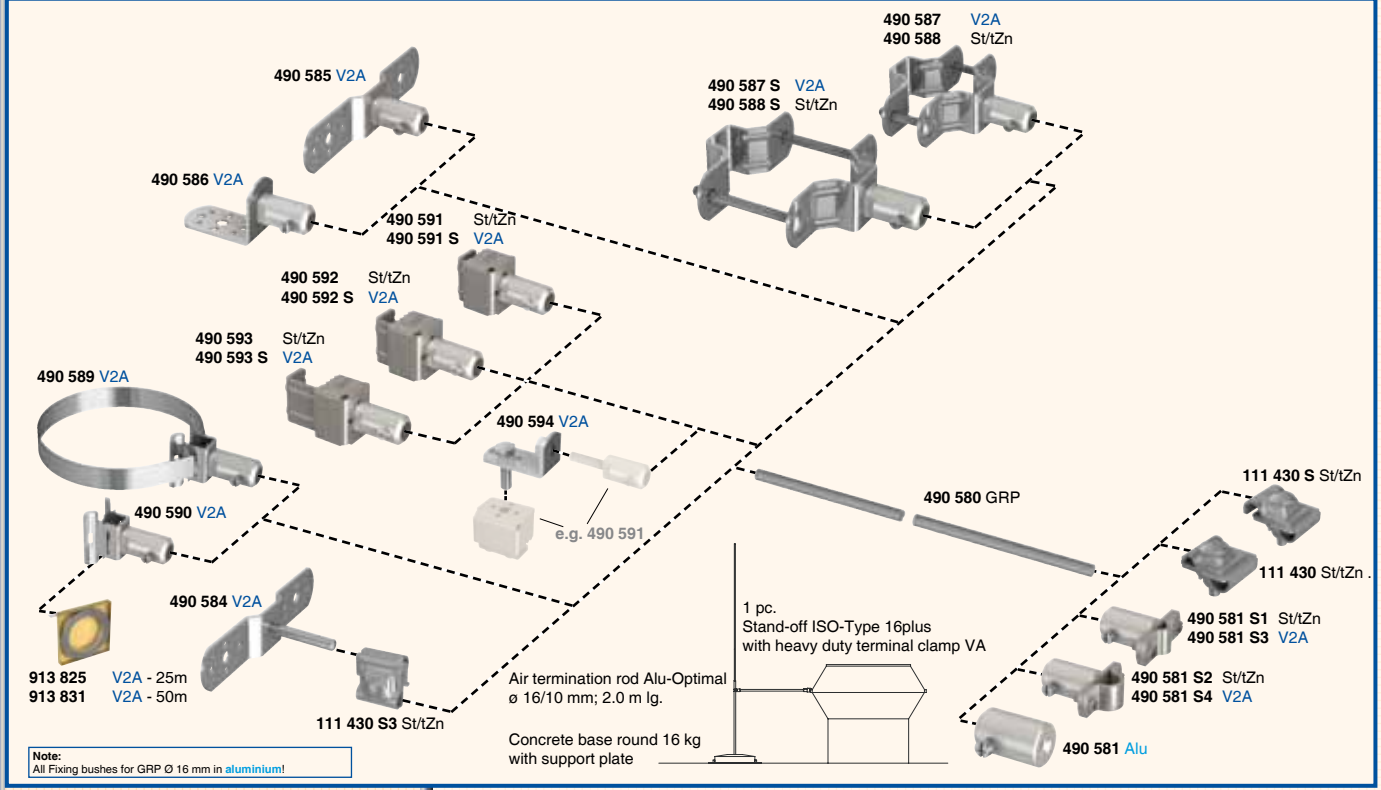
Insulated stand-off for corner mounting



Ord. no. 490 450

Insulated stand-offs - 16plus light-weight design

Individual combinations!



Ord. example: ***light-weight insulated stand-off***

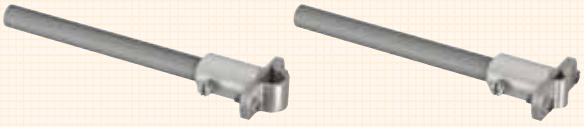
Fixing side object:	Solid rod GRP (Length "L" please select)	Fixing side conductor or air termination rod:
1x Ord. no. 490 592 S	1x Ord. no. 490 580	1x Ord. no. 490 581 S3

Fixing side conductor or air termination rod:

Fixing bush with fastener for fixing air termination rods ø 16 mm and down conductors ø 8-10 mm to the solid rod GRP ø 16 mm.

Specification	Length	PU	Ord. no.
Fixing bush aluminium, for GRP ø 16 mm; **for air termination rods ø 16 mm**			
with fastener steel, hot galvanized, for ø 16 mm	40 mm	25	490 581 S2
with fastener stainless steel V2A, for ø 16 mm	40 mm	25	490 581 S4
Fixing bush aluminium, for GRP ø 16 mm; **for down conductors ø 8 - 10 mm**			
with fastener steel, hot galvanized, for ø 8-10 mm	40 mm	25	490 581 S1
with fastener stainless steel V2A, for ø 8-10 mm	40 mm	25	490 581 S3
with female thread M6	40 mm	25	490 581

Example of application:



Fixing bush

Ord. no. 490 581 S2

Ord. no. 490 581 S1

Ord. no. 490 581

Solid rod GRP to be cut to length as required

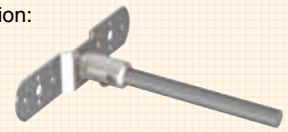
Specification	Length	PU	Ord. no.
Solid rod GRP, ø 16 mm	3.0 m	10	490 580

Fixing side object:

Mounting plate and angle bracket
for mounting on walls and metal sheets,with fixing bush aluminium, for GRP ø 16 mm.

Specification	PU	Ord. no.
Mounting plate stainless steel V2A	25	490 585
Angle bracket stainless steel V2A	25	490 586
Fixing bush aluminium, for GRP ø 16 mm with hexagonal screw M10 x 16 stainless steel V2A	25	490 582

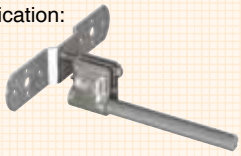
Example of application:



Mounting plate with bolt for mounting on walls and metal sheets.

Specification	PU	Ord. no.
Mounting plate with bolt ø 10 mm stainless steel V2A / 60 mm	25	490 584
Multi-clamp steel, hot galvanized (ø 10 / ø 16 mm)	50	111 430 S3

Example of application:



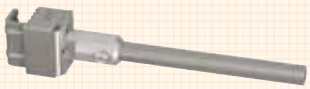
Multi-clamp

Specification	Fit	PU	Ord. no.
Steel, hot galvanized	ø 16 / ø 16 mm	25	111 430 S
Steel, hot galvanized	ø 8-10 / ø 16 mm	50	111 430

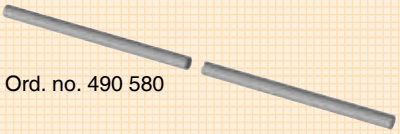
Terminal clamp, heavy-duty tpye for mounting on steel constructions or railings, with fixing bush aluminium, for GRP Ø 16 mm.

Specification	Fit	PU	Ord. no.
Steel, hot galvanized	5 - 22 mm	25	490 591
Steel, hot galvanized	20 - 37 mm	25	490 592
Steel, hot galvanized	35 - 52 mm	25	490 593
Stainless steel V2A	5 - 22 mm	25	490 591 S
Stainless steel V2A	20 - 37 mm	25	490 592 S
Stainless steel V2A	35 - 52 mm	25	490 593 S
Angle bracket stainless steel V2A, for terminal clamp, with hexagonal screw, nuts and spring lock washer	25		490 594

Example of application:



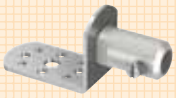
Solid rod GRP



Ord. no. 490 580

Mounting plate and angle bracket

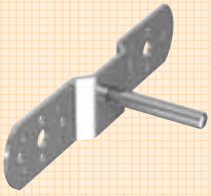
Ord. no. 490 585



Ord. no. 490 586

Ord. no. 490 582

Mounting plate with bolt



Ord. no. 490 584

Ord. no. 111 430 S3

Multi-clamp

Ord. no. 111 430 S

Ord. no. 111 430

Terminal clamp, heavy-duty type

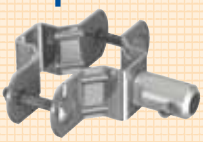
Ord. no. 490 591

Ord. no. 490 592

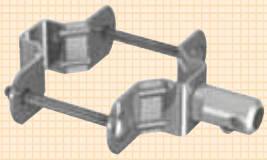
Ord. no. 490 593

Ord. no. 490 594

Pipe clamp



Ord. no. 490 587

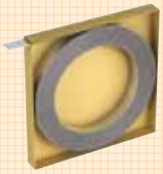


Ord. no. 490 588 S

Tape pipe clamp

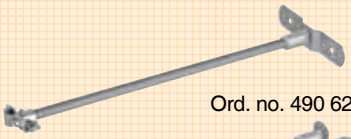
Ord. no. 490 589

Ord. no. 490 590

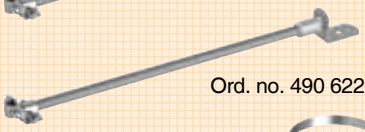


Ord. no. 913 825

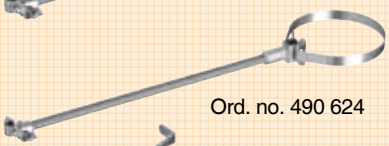
Insulated stand-off - light types



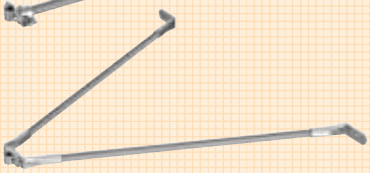
Ord. no. 490 620



Ord. no. 490 622

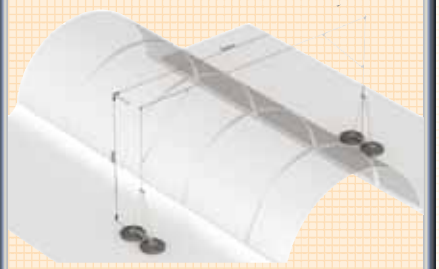


Ord. no. 490 624



Ord. no. 914 077

Bridging-SET

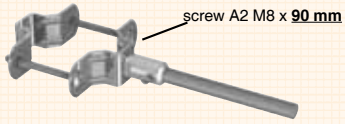


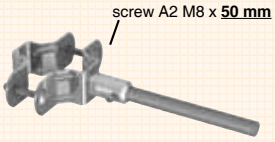
Ord. no. 490 300

Pipe clamp for mounting on pipes or railings with fixing bush aluminium, for GRP ø 16 mm.

Specification	Fit	Fit in inch	PU	Ord. no.
Pipe clamp stainless steel V2A	ø 42.4-60.3 mm	1 1/4" - 2"	20	490 587
with fixing screws	ø 42.4-88.9 mm	1 1/4" - 3"	20	490 587 S
in stainless steel V2A				
Pipe clamp Steel, hot galvanized		1 1/4" - 2"	20	490 588
with fixing screws		1 1/4" - 3"	20	490 588 S
in stainless steel V2A				

Example of application:



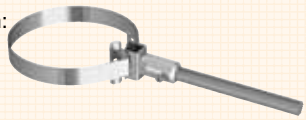


Pipe clamp for mounting on pipes up to ø 300 mm with fixing bush aluminium for GRP ø 16 mm.

Specification	Pipe- ø	PU	Ord. no.
Pipe clamp with tensioning strap stainless steel V2A	max. ø 300 mm	10	490 589
Pipe clamp without tensioning strap stainless steel V2A	--	20	490 590
tensioning strap stainless steel V2A, 22 x 0.4 mm	--	25 m	913 825
	--	50 m	913 831

Note: For sheet metal chimneys, use an intermediate plate (e.g.: a piece of VA-sheet)

Example of application:



Insulated stand-off, light-weight type for the fixation of air termination rods with concrete base. Stand-off GRP ø 16 mm for air termination rods aluminium ø 16 mm.

Specification	Length	PU	Ord. no.
with mounting plate	0.50 m	1	490 620
	0.75 m	1	490 621
with angle bracket	0.50 m	1	490 622
	0.75 m	1	490 623
with tape pipe clamp up to ø 300 mm	0.50 m	1	490 624
	0.75 m	1	490 625
V-shape with down conductors (Actual insulated distance 600 mm)	0.60 m	1	914 077

Bridging-SET to bridge continuous rooflights or other roof structures.

Specification	Height x Width	PU	Ord. no.
Aluminium bridging-set completely ø 16 mm	1.5 x 2.0 m	1	490 300
with struts aluminium ø 10 mm	2.0 x 2.5 m	1	490 301
and stainless steel fixing elements			
Stainless steel V2A tube ø 20 mm	2.5 x 3.0 m	1	490 302
with Aluminium bridging-set ø 16 mm, struts aluminium ø 16 mm and stainless steel fixing elements			

Please state the dimensions of the object to be bridged when ordering!

Additional types on request.

Insulated conductor support (complete SET)

to raise the conductor leading

Insulated conductor support, to raise the conductor on flat roofs with plastic base 2 kg and Niro-Clip for ø 8 mm ***Type A (fl).***

Specification	Height	Insulated-length	PU	Ord. no.
Conductor support GRP ø 16 mm for air termination conductor ø 8 mm / 50 mm²	0.2 m	0.17 m	1	490 000
	0.3 m	0.27 m	1	490 001
	0.4 m	0.37 m	1	490 002

*) ***Type A (fl)*** = fixed conductor leading

Insulated conductor support, to raise the conductor on flat roofs with square concrete base 16 kg, stainl. st. wedge, support plate and Niro-Clip for ø 8 mm ***Type A (fl).***

Specification	Height	Insulated-length	PU	Ord. no.
Conductor support GRP ø 16 mm for air termination conductor ø 8 mm / 50 mm²	0.6 m	0.45 m	1	490 003
	0.7 m	0.55 m	1	490 004
	0.9 m	0.75 m	1	490 005

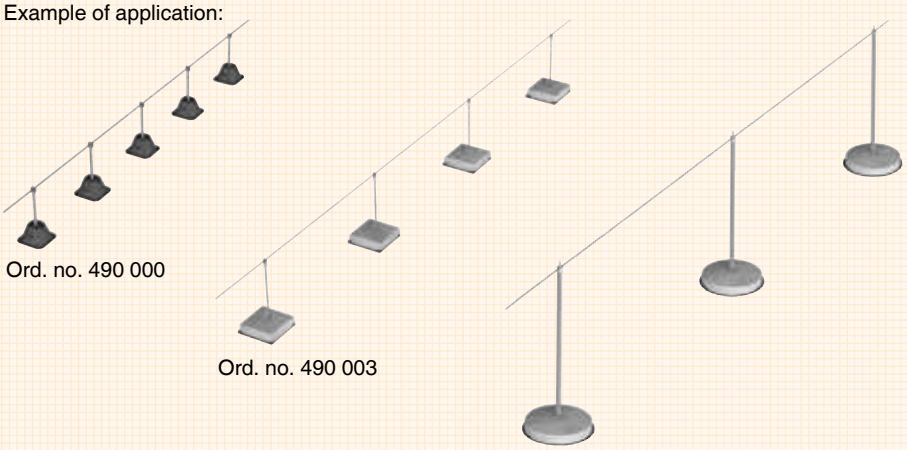
*) ***Type A (fl)*** = fixed conductor leading

Insulated conductor support, to raise the conductor on flat roofs with round concrete base 25kg, support plate and clamping frame V2A for ø 8 mm.

Specification	Height	Insulated-length	PU	Ord. no.
Conductor support GRP ø 32 mm for conductor ø 8 mm / 50 mm²	1.1 m	0.94 m	1	490 007
	1.3 m	1.14 m	1	490 008

Air termination tips for insulated conductors on request.

Example of application:



Ord. no. 490 000

Ord. no. 490 003

Ord. no. 490 007

JP-plastic attic made of GRP, for replacing metal attics with non-conducting material to control the separation distance.

Specification		Length	PU	Ord. no.
GRP-flat section (light grey)	450x3 mm	3.0 m	1	490 700
GRP-angle section (light grey)	60x40x3 mm	3.0 m	1	490 701

Note: flat and angle section are without bore holes and rivets (see page 93).

Accessories	PU	Ord. no.
Cleaning spray for GRP surfaces	1	490 702
Elastic universal adhesive and sealant	1	490 703

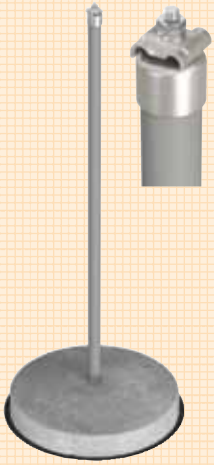
Insulated conductor support 16-plus

Ord. no. 490 001

Insulated conductor support 16-plus

Ord. no. 490 003

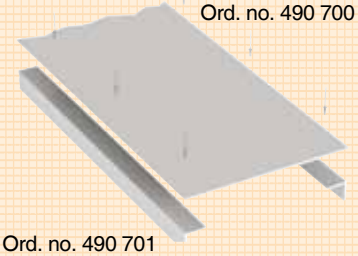
Insulated conductor support 32-stable



Ord. no. 490 007

GRP-attic

Ord. no. 490 700



Ord. no. 490 701

Air termination pole -

free-standing to a max. height of 12.0 m

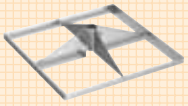
Air termination pole- stainless steel V2A with aluminium air termination tip.

Multi-component, on each other plugable system with screw retention.

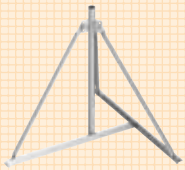
Type	Height of pole	Pole parts	PU	Ord. no.
JP-LPH 3.0 F	3.0 m	2-part, 1.5 m / 1.5 m	1	912 000
JP-LPH 3.5 F	3.5 m	2-part, 2.0 m / 1.5 m	1	912 001
JP-LPH 4.0 F	4.0 m	2-part, 2.5 m / 1.5 m	1	912 002
JP-LPH 4.5 F	4.5 m	2-part, 3.5 m / 1.0 m	1	912 003
JP-LPH 5.0 F	5.0 m	2-part, 3.5 m / 1.5 m	1	912 004
JP-LPH 5.5 F	5.5 m	2-part, 4.0 m / 1.5 m	1	912 005
JP-LPH 6.0 F	6.0 m	3-part, 2.0 m / 2.0 m / 2.0 m	1	912 006
JP-LPH 6.5 F	6.5 m	3-part, 2.5 m / 2.0 m / 2.0 m	1	912 007
JP-LPH 7.0 F	7.0 m	3-part, 3.0 m / 2.0 m / 2.0 m	1	912 008
JP-LPH 7.5 F	7.5 m	3-part, 3.5 m / 2.0 m / 2.0 m	1	912 009
JP-LPH 8.0 F	8.0 m	3-part, 4.0 m / 2.0 m / 2.0 m	1	912 010
JP-LPH 9.0 F	9.0 m	3-part, 4.0 m / 2.5 m / 2.5 m	1	912 011
JP-LPH 10.0 F	10.0 m	3-part, 5.0 m / 2.5 m / 2.5 m	1	912 013
JP-LPH 11.0 F	11.0 m	3-part, 5.0 m / 3.5 m / 2.5 m	1	912 015
JP-LPH 12.0 F	12.0 m	3-part, 6.0 m / 3.5 m / 2.5 m	1	912 019

Additional air termination pole heights on request!

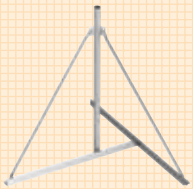
Base frame



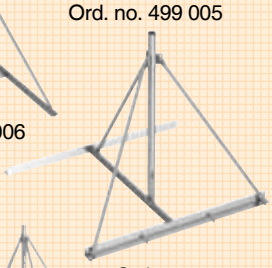
Ord. no. 499 000



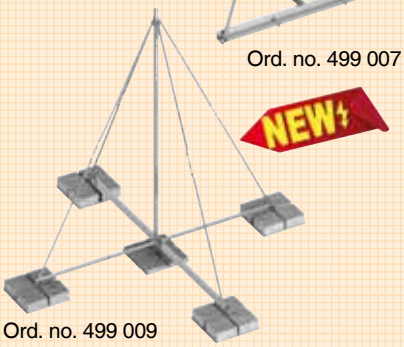
Ord. no. 499 005



Ord. no. 499 006



Ord. no. 499 007



Ord. no. 499 009

Air termination pole base frame for concrete bases 300 x 300 mm.

For holding air termination poles ø 42 mm (max. 4.0 m pole height).

Specification	Footprint	PU	Ord. no.
Stainless steel V2A	ca. 650 x 650 mm	1	499 000

Air termination pole base frame with 3 safety braces for 3 round concrete bases.

For holding air termination poles ø 42 mm (max. 5.5 m pole height).

Specification	Footprint	PU	Ord. no.
Stainless steel V2A	ca. 1350 x 1350 mm	1	499 005

Air termination pole base frame with 3 safety braces for 6 concrete bases round.

For holding air termination poles ø 60 mm (max. 8.0 m pole height).

Specification	Footprint	PU	Ord. no.
Stainless steel V2A	ca. 1850 x 1850 mm	1	499 006

Air termination pole base frame with 3 safety braces for 10 concrete bases round

For holding air termination poles ø 60 mm (max. 10.0 m pole height).

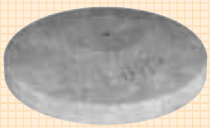
Specification	Footprint	PU	Ord. no.
Stainless steel V2A	ca. 1850 x 1850 mm	1	499 007

Air termination pole base frame - SET incl. 36 concrete bases with

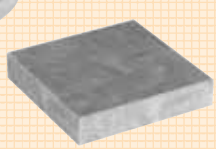
4 safety braces and turnbuckle. For holding air termination poles ø 60 mm (max. 12.0 m pole height).

Specification	Footprint	PU	Ord. no.
Stainless steel V2A	ca. 3400 x 3400 mm	1	499 009

Concrete base



Ord. no. 103 103



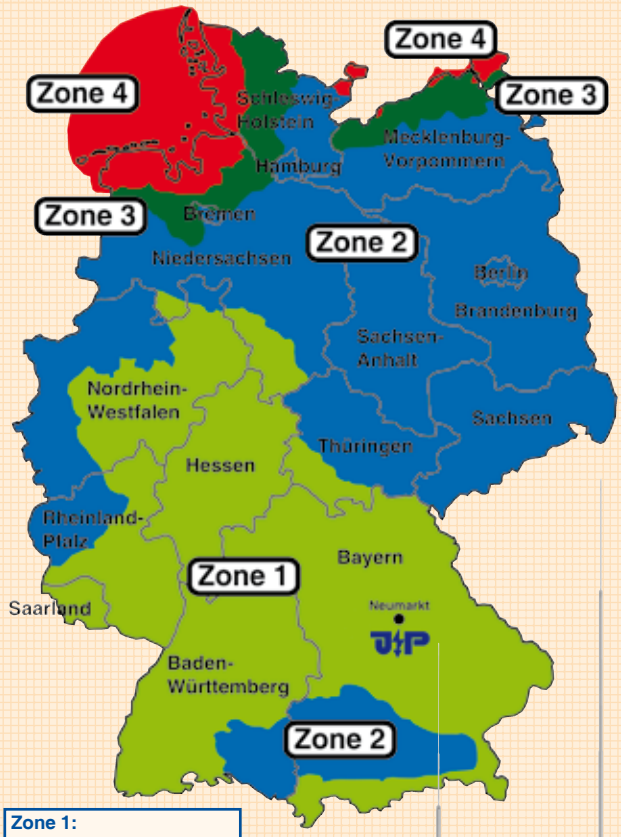
Ord. no. 499 100

Concrete base

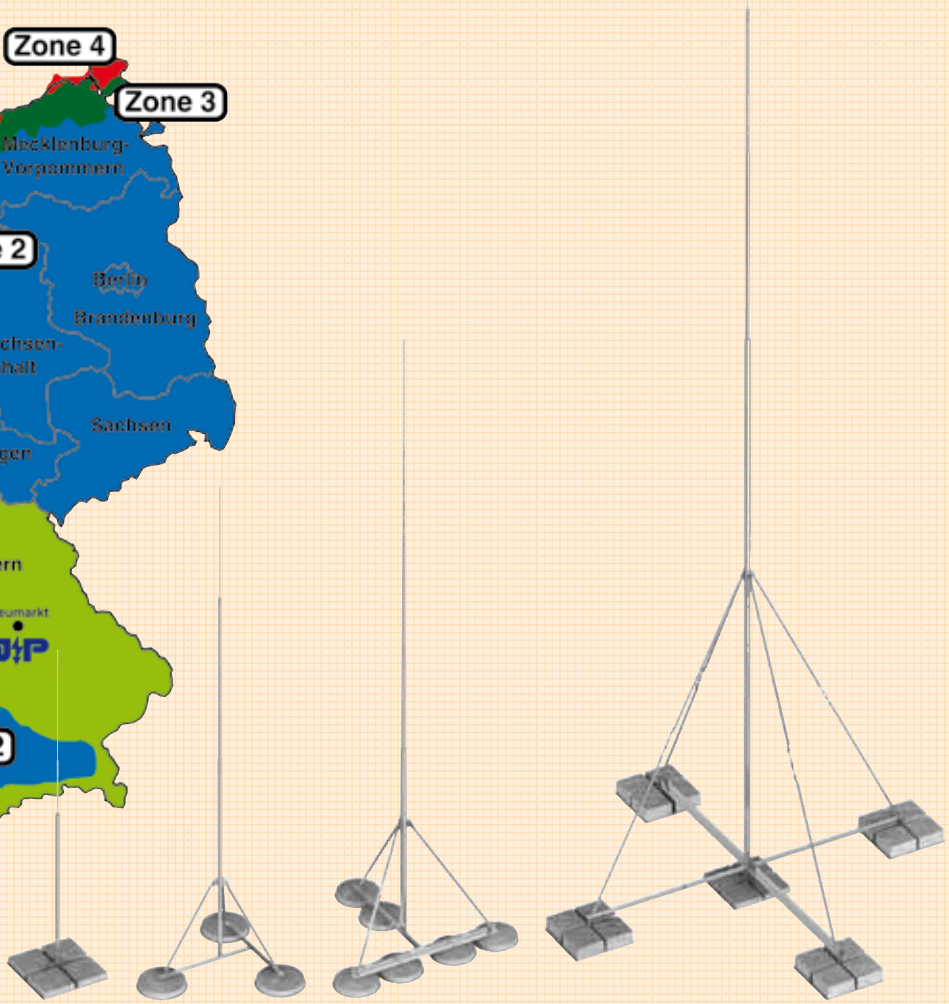
Specification	Weitght	PU	Ord. no.
Concrete base round	12 kg	1	103 103
with female thread M16	16 kg	1	103 101
for the base frame	20 kg	1	103 110
	25 kg	1	103 118
Concrete base 300 x 300 x 60 mm	12 kg	1	499 100
Concrete base 300 x 300 x 80 mm	16 kg	1	499 101

Support plates (Ord. no. 103 102) see page 22.

Air termination pole - Location in different wind load zones! Example: Map of Germany!



Zone 1:
Locations with ground level up to 600 m above MSL



The right base frame for your air termination pole and the appropriate concrete base

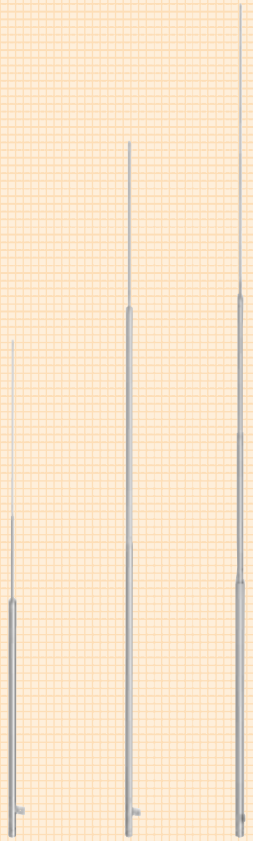
Height of air termination pole	Ord. no. for base frame / number of concrete base			
	Zone 1 (to 130 km/h)	Zone 2 (to 150 km/h)	Zone 3 (to 170 km/h)	Zone 4 (to 190 km/h)
3.0 m (Ord. no. 912 000)	JP-499 000 / 4x JP-499 100	JP-499 000 / 4x JP-499 100	JP-499 000 / 4x JP-499 100	JP-499 000 / 4x JP-499 100
3.5 m (Ord. no. 912 001)	JP-499 000 / 4x JP-499 100	JP-499 000 / 4x JP-499 100	JP-499 000 / 4x JP-499 101	JP-499 000 / 4x JP-499 101
4.0 m (Ord. no. 912 002)	JP-499 000 / 4x JP-499 100	JP-499 000 / 4x JP-499 101	JP-499 000 / 8x JP-499 100	JP-499 000 / 8x JP-499 101
4.5 m (Ord. no. 912 003)	JP-499 005 / 3x JP-103 101	JP-499 005 / 3x JP-103 110	JP-499 005 / 3x JP-103 118	JP-499 006 / 6x JP-103 103
5.0 m (Ord. no. 912 004)	JP-499 005 / 3x JP-103 101	JP-499 005 / 3x JP-103 110	JP-499 005 / 3x JP-103 118	JP-499 006 / 6x JP-103 103
5.5 m (Ord. no. 912 005)	JP-499 005 / 3x JP-103 110	JP-499 005 / 3x JP-103 118	JP-499 006 / 6x JP-103 103	JP-499 006 / 6x JP-103 103
6.0 m (Ord. no. 912 006)	JP-499 006 / 6x JP-103 103	JP-499 006 / 6x JP-103 103	JP-499 006 / 6x JP-103 103	JP-499 006 / 6x JP-103 101
6.5 m (Ord. no. 912 007)	JP-499 006 / 6x JP-103 103	JP-499 006 / 6x JP-103 103	JP-499 006 / 6x JP-103 101	JP-499 006 / 6x JP-103 118
7.0 m (Ord. no. 912 008)	JP-499 006 / 6x JP-103 103	JP-499 006 / 6x JP-103 101	JP-499 006 / 6x JP-103 110	on request
7.5 m (Ord. no. 912 009)	JP-499 006 / 6x JP-103 101	JP-499 006 / 6x JP-103 110	JP-499 006 / 6x JP-103 118	on request
8.0 m (Ord. no. 912 010)	JP-499 006 / 6x JP-103 110	JP-499 006 / 6x JP-103 118	JP-499 007 / 10x JP-103 118	on request
9.0 m (Ord. no. 912 011)	JP-499 007 / 10x JP-103 118	JP-499 007 / 10x JP-103 118	JP-499 007 / 10x JP-103 118	on request
10.0 m (Ord. no. 912 013)	JP-499 007 / 10x JP-103 118	JP-499 007 / 10x JP-103 118	on request	on request
11.0 m (Ord. no. 912 015)	JP-499 009 / complete SET	JP-499 009 / complete SET	on request	on request
12.0 m (Ord. no. 912 019)	JP-499 009 / complete SET	JP-499 009 / complete SET	on request	on request

Ord. example: Pole 4.5 m for wind load zone 2

air termination pole:	JP-912 003
base frame:	JP-499 005
concrete base:	JP-103 110 (3x)
support plate:	JP-103 102 (3x)

Air termination pole for wall mounting

unsupported for poles to max. 12.0 m length

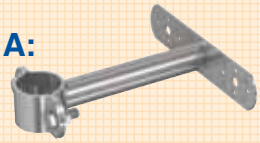


Air termination pole - stainless steel V2A with aluminium air termination tip.
Multi-component, on each other plugable system with screw retention.
Incl. connection lug with clamping screw “KS” and slip-proofing.

Height of pole	Necessary wall fastener	Pole parts	PU	Ord. no.
3.0 m	2x Type A	2-part, 1.5 m / 1.5 m	1	912 000 W
3.5 m	2x Type A	2-part, 2.0 m / 1.5 m	1	912 001 W
4.0 m	2x Type A	2-part, 2.5 m / 1.5 m	1	912 002 W
4.5 m	2x Type B	2-part, 3.5 m / 1.0 m	1	912 003 W
5.0 m	2x Type B	2-part, 3.5 m / 1.5 m	1	912 004 W
5.5 m	2x Type B	2-part, 4.0 m / 1.5 m	1	912 005 W
6.0 m	2x Type C	3-part, 2.0 m / 2.0 m / 2.0 m	1	912 006 W
6.5 m	2x Type C	3-part, 2.5 m / 2.0 m / 2.0 m	1	912 007 W
7.0 m	2x Type C	3-part, 3.0 m / 2.0 m / 2.0 m	1	912 008 W
7.5 m	2x Type C	3-part, 3.5 m / 2.0 m / 2.0 m	1	912 009 W
8.0 m	2x Type C	3-part, 4.0 m / 2.0 m / 2.0 m	1	912 010 W
9.0 m	3x Type C	3-part, 4.0 m / 2.5 m / 2.5 m	1	912 011 W
10.0 m	3x Type C	3-part, 5.0 m / 2.5 m / 2.5 m	1	912 013 W
11.0 m	3x Type C	3-part, 5.0 m / 3.5 m / 2.5 m	1	912 015 W
12.0 m	3x Type C	3-part, 6.0 m / 3.5 m / 2.5 m	1	912 019 W

Wall fastener

Typ A:

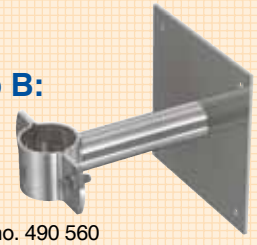


Ord. no. 490 550

Wall fastener for poles with a max. height of 4.0 m and **ø 42 mm**.
Hole pattern for rivet and screw mounting and 2 x ø 10.5 mm.

Specification	Wall distance	PU	Ord. no.
Completely in stainless steel V2A **for ø 42 mm**	150 mm	1	490 550
pole clamp with 2 x screws M10 ,	200 mm	1	490 551
spring lock washer and nut in V2A	250 mm	1	490 552
	300 mm	1	490 553

Typ B:



Ord. no. 490 560

Wall fastener for poles with a max. height of 5.5 m and **ø 42 mm**.
Hole pattern 4 x ø 10.5 mm.

Specification	Wall distance	PU	Ord. no.
Completely in stainless steel V2A **for ø 42 mm**	150 mm	1	490 560
pole clamp with 2 x screws M10 ,	200 mm	1	490 561
spring lock washer and nut in V2A	250 mm	1	490 562
mounting plate V2A: 200 x 200 x 8 mm	300 mm	1	490 563
hole pattern mounting plate: □ 170 x 170 mm			

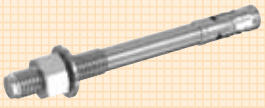
Typ C:

Ord. no. 490 570

Wall fastener for poles with a max. height of 12.0 m and **ø 60 mm**.
Hole pattern 4 x ø 12.5 mm.

Specification	Wall distance	PU	Ord. no.
Completely in stainless steel V2A **for ø 60 mm**	150 mm	1	490 570
pole clamp with 2 x screws M10 ,	200 mm	1	490 571
spring lock washer and nut in V2A	250 mm	1	490 572
mounting plate V2A: 300 x 300 x 8 mm	300 mm	1	490 573
hole pattern mounting plate: □ 260 x 260 mm			

Fixing anchors



Ord. no. 490 548

Fixing anchors, stainless steel V4A for wall fastener on concrete walls.

Specification	PU	Ord. no.
M10 for wall fastener Type A and Type B	1	490 548
M12 for wall fastener Type C	1	490 549

Lightning protection air termination pole
for block foundations

This system was developed to protect objects and installations, such as areas with potentially explosive atmospheres, power distributors, transformer stations, biogas plants or other facilities with especially hazardous areas.

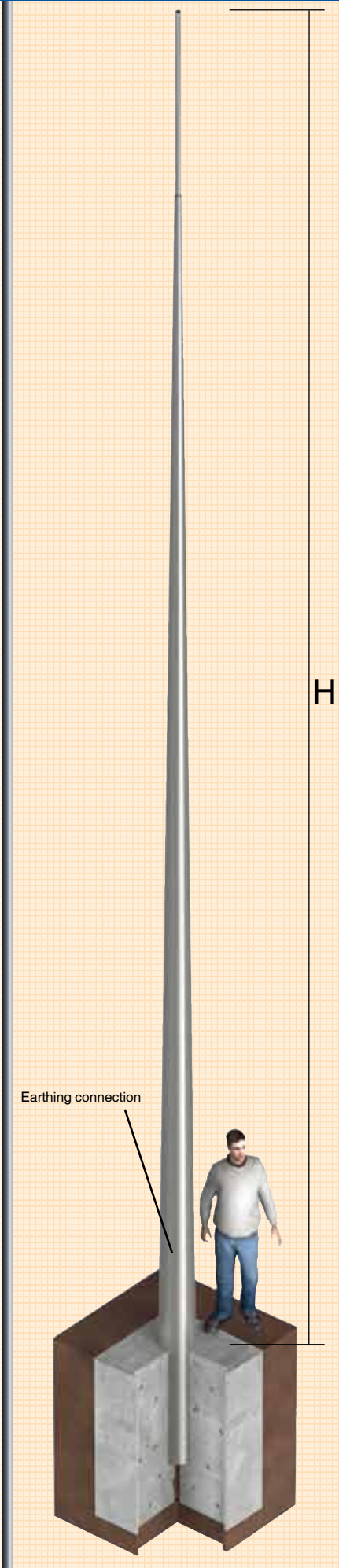
To ensure compliance with the valid standard EN 62305 1-4 we recommend the installation of an insulated lightning air termination system using air termination poles. With this method, it is also possible to completely encase larger objects within a protective zone and avoid bridging horizontally installed air termination conductors.

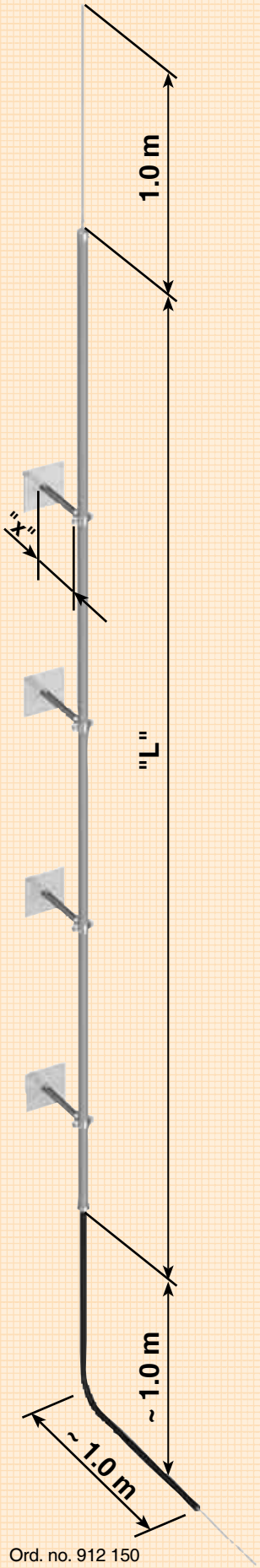
The air termination pole is embedded in a concrete block foundation that must be prefabricated on site according to our instructions, as the manufacturer. Please request our data sheet JP-LPH/BFM, with all the important information about the block foundation.

Lightning protection pole Steel, hot galvanized (inside and outside). Multi-part, conic nesting system with air termination rod (0.3 m - 1.5 m) and earthing connection.

Type	Height (H)	Pole diameter		Weight (entire pole)	Parts	Ord. no.
		top	bottom			
JP-LPH 9.5	9.5 m	58 mm	153 mm	ca. 100 kg	3-part	920 700
JP-LPH 10.5	10.5 m	58 mm	153 mm	ca. 101 kg	3-part	920 701
JP-LPH 11.5	11.5 m	89 mm	189 mm	ca. 158 kg	3-part	920 702
JP-LPH 14.0	14.0 m	58 mm	189 mm	ca. 181 kg	4-part	920 703
JP-LPH 15.0	15.0 m	89 mm	224 mm	ca. 256 kg	4-part	920 704
JP-LPH 16.0	16.0 m	89 mm	224 mm	ca. 257 kg	4-part	920 705
JP-LPH 17.5	17.5 m	108 mm	264 mm	ca. 361 kg	4-part	920 706
JP-LPH 18.5	18.5 m	108 mm	264 mm	ca. 362 kg	4-part	920 707
JP-LPH 20.5	20.5 m	89 mm	264 mm	ca. 385 kg	5-part	920 708
JP-LPH 22.0	22.0 m	139 mm	344 mm	ca. 737 kg	3-part	920 709
JP-LPH 25.0	25.0 m	108 mm	344 mm	ca. 790 kg	4-part	920 710
JP-LPH 28.0	28.0 m	89 mm	344 mm	ca. 813 kg	5-part	920 711

Additional pole heights on request!
Information and accessories for pole foundations on request (e.g.: foundation ring, plastic bushing, etc.).





Ord. no. 912 150

JP-MBF
lightning protection system - ISO-Air termination system for complex roof constructions

Version W - Complete-SET

Specification	
Fastening:	4 x insulated stand-off GRP and mounting plate stainless steel V2A 200 x 200 mm; Hole pattern: 8 x ø 6.5 mm
Pole design:	GRP ø 48 mm with interior insulated down conductor (PE ø 32 mm and 50 mm² aluminium conductor)
Air termination tip:	Aluminium ø 10 mm, 1000 mm long

up to **0.8 m** separation distance in air

Specification	Length (L)	Stand-off length (x)	PU	Ord. no.
Complete-SET	3500 mm	400 mm	1	912 150
	4500 mm	400 mm	1	912 155

up to **1.6 m** separation distance in air

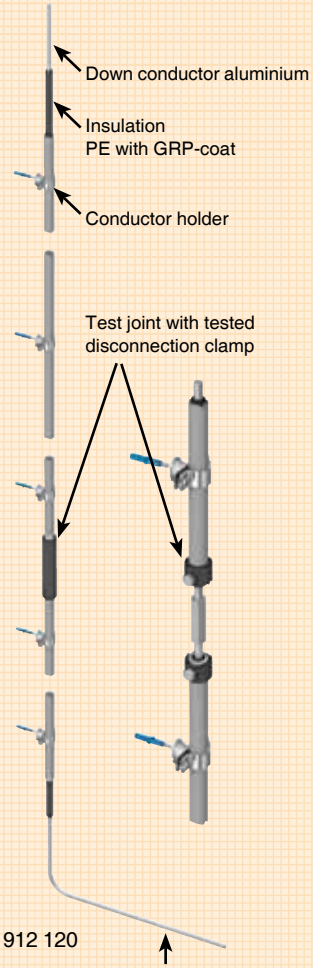
Specification	Length (L)	Stand-off length (x)	PU	Ord. no.
Complete-SET	3500 mm	800 mm	1	912 160
	4500 mm	800 mm	1	912 165

Additional lengths on request!

Touch voltage protection measure for lightning protection systems

Complete-SET, total length 3.0 m
with test joint (disconnection clamp) and conductor holder

Specification	Fit	PU	Ord. no.
Complete-SET consisting of:		1	912 120
1. insulation with length of: 3.0 m (PE with GRP-coat in light grey)	ø 22 mm		
2. interior conductor, length: 4.0 m:			
under disconnection clamp stainless steel V4A	ø 10 mm		
over disconnection clamp aluminium	ø 10 mm		
3. tested disconnection clamp			
4. conductor holder (5 pc.)	ø 22 mm		



Ord. no. 912 120

Stainless steel earth terminal lag

Insulated down conductor, total length 3.0 m

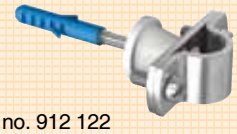
Specification	Fit	PU	Ord. no.
Consisting of:		1	912 121
1. Length of insulation: 3.0 m (PE with GRP-coat in light grey)	ø 22 mm		
2. Interior conductor, stainless steel V4A, length: 4.0 m	ø 10 mm		

Insulated conductor

Ord. no. 912 121

Conductor holder

Specification	Fit	PU	Ord. no.
Stainless steel V2A, with spacer (h= 20 mm), screw and dowel.	ø 22 mm	1	912 122



Ord. no. 912 122

Test laboratory with 10/350 µs impulse current generator

In our test laboratory, all lightning protection components and surge protective devices are tested according to the latest national and international standards.

Equipment for environmental testing

Surge protection

Power supply
Photovoltaic systems
Measurement and control technology
Information technology

Lightning current arrester (patent), type 1 (class I) single pole

P-BM 230

Ord. no. 306 100

P-N/PE B

Ord. no. 306 101

P-BM 230 and P-N/PE B; (class I)//LPZ 0_A-LPZ 1
High energy, no leakage current, encapsulated, non-exhausting spark gap.
Therefore, no need to keep a safety distance from other electrical installations.

Type		System	Old ord. no.	Ord. no.
P-BM 230	1-pole		206 100	**306 100**
P-N/PE B	1-pole	TT	206 101	**306 101**

Technical data		
Type	P-BM 230	P - N/PE B
Mains system		TT
Lightning impulse current (10/350 µs) I_{imp}	35 kA	100 kA
Nominal discharge current (8/20 µs) I_n	35 kA	100 kA
Follow current interrupting rating I_{fi}	2.0 kA	100 A
Max. backup fuse	**250 A gL/gG**	**---**
Max. continuous operating voltage U_c	255 V~	
Voltage protection level U_p	< 4 kV	
Dimensions	1 mod.	
Response time t_A	< 100 ns	
Cross section for connection	min. 6 mm² single-core / finely-stranded max. 50 mm² stranded / 35 mm² finely-stranded	

Lightning current arrester (patent), type 1 (class I) multipole

P-BM, mains system compliant

Ord. no. 306 050

P-BM; (class I)//LPZ 0_A-LPZ 1
High energy, no leakage current, encapsulated, non-exhausting spark gap.
Therefore, no need to keep a safety distance from other electrical installations.

Type		System	Old ord. no.	Ord. no.
P-BM 3	3-pole	TN-C	206 050	**306 050**
P-BM 4	4-pole	TN-S	206 051	**306 051**
P-BM 3+1	3+1-pole	TT	206 052	**306 052**

Technical data			
Type	P-BM 3	P-BM 4	P-BM 3+1
Mains system	TN-C	TN-S	TT
Lightning impulse current (10/350 µs) /total I_{imp}	100 kA		
Nominal discharge current (8/20 µs) /total I_n	100 kA		
Follow current interrupting rating I_{fi}	2 kA		
Max. backup fuse	**250 A gL/gG**		
Max. continuous operating voltage U_c	255 V~		
Voltage protection level U_p	< 4 kV		
Dimensions	4 mods.		
Response time t_A	< 100 ns		
Cross section for connection	min. 6 mm² single-core/ finely-stranded max. 50 mm² stranded / 35 mm² finely-stranded		

Combined lightning current and surge arrester type 1+2 (class I+II)

single pole, e.g. for residential or office buildings

P-HMS 280 (Fm) and P-N/PE B+C S; (class I+II)//LPZ 0_A-LPZ 2

Combined lightning current and surge arrester, pluggable			
Type **with or without remote signalling contact (Fm)**		Old ord. no.	**Ord. no.**
P-HMS 280	1-pole	207 200	**307 200**
P-HMS 280 Fm	1-pole, with remote signalling contact	207 202	**307 202**
N/PE-combined lightning current and surge arrester for TT-system			
Type		Old ord. no.	**Ord. no.**
P-N/PE B+C S	1-pole	207 260	**307 260**

Technical data		
Type	P-HMS 280 (Fm)	P-N/PE B+C S
Mains system		TT
Dimensions	1 mod.	1 mod.
Nominal discharge current (8/20 µs) I_n	35 kA	30 kA
Max. discharge current (8/20 µs) I_{max}	60 kA	60 kA
Lightning impulse current (10/350 µs) I_{imp}	8 kA	20 kA
Voltage protection level U_p	< 1.5 kV	< 1.5 kV
Max. backup fuse	**125 A gL/gG**	**---**
Max. continuous operating voltage U_c	280 V~	255 V~
Cross section for connection	min. 6 mm² single-core / finely-stranded max. 50 mm² stranded / 35 mm² finely-stranded	

Combined lightning current and surge arrester type 1+2 (class I+II)

multipole

P-HMS 280 (Fm); (class I+II)//LPZ 0_A-LPZ 2

Combined arrester lightning current and surge arrester, pluggable				
Type		System	Old ord. no.	**Ord. no.**
P-HMS 280 2	2-pole	TN	207 220	**307 220**
P-HMS 280 1+1	1+1-pole	TT	207 210	**307 210**
P-HMS 280 3	3-pole	TN-C	207 230	**307 230**
P-HMS 280 4	4-pole	TN-S	207 250	**307 250**
P-HMS 280 3+1	3+1-pole	TT	207 240	**307 240**
Combined lightning current and surge arrester, pluggable				
Type **with remote signalling contact (Fm)**		System	Old ord. no.	**Ord. no.**
P-HMS 280 Fm 2	2-pole	TN	207 222	**307 222**
P-HMS 280 Fm 1+1	1+1-pole	TT	207 212	**307 212**
P-HMS 280 Fm 3	3-pole	TN-C	207 232	**307 232**
P-HMS 280 Fm 4	4-pole	TN-S	207 252	**307 252**
P-HMS 280 Fm 3+1	3+1-pole	TT	207 242	**307 242**

Technical data					
Type P-HMS 280 (Fm)	2-pole	1+1-pole	3-pole	4-pole	3+1-pole
Mains system	TN	TT	TN-C	TN-S	TT
Dimensions	2 mods.	2 mods.	3 mods.	4 mods.	4 mods.
Nominal discharge current (8/20 µs) /total I_n	70 kA	30 kA	100 kA	100 kA	30 kA
Max. discharge current (8/20 µs) /total I_{max}	120 kA	60 kA	150 kA	150 kA	60 kA
Lightning impulse current (10/350 µs) /total I_{imp}	16 kA	16 kA	24 kA	32 kA	20 kA
Response time t_A	< 25 ns	< 100 ns	< 25 ns	< 25 ns	< 100 ns
Voltage protection level U_p	< 1.5 kV				
Max. backup fuse	**125 A gL/gG**				
Max. continuous operating voltage U_c	L-N 280 V~ / N-PE 255 V~				
Cross section for connection	min. 6 mm² single-core/ finely-stranded max. 50 mm² stranded / 35 mm² finely-stranded				

P-HMS 280

Ord. no. 307 200

P-N/PE B+C S

Ord. no. 307 260

P-HMS 280, mains system compliant

Ord. no. 307 230

Ord. no. 307 242

Combined lightning current and surge arrester type 1+2 (class I+II) NEW!

single pole e.g. for residential or office buildings

Benefits:
- Secure plug fixation and contact ensured by module locking mechanism.
- P-HMS 280 R having 12.5 kA (10/350 µs) /pole and 50 kA (10/350 µs) as 4-pole.
- Optimal price/performance ratio.
- High values for backup fuses.

P-HMS 280 R

Ord. no. 317 200

P-N/PE B+C R

Ord. no. 317 260

P-HMS 280 (Fm) R and P-N/PE B+C R; (class I+II)//LPZ 0_A-LPZ 2

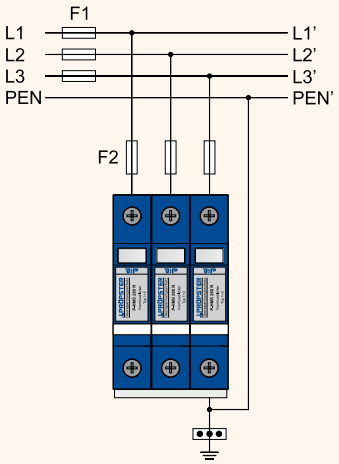
Combined lightning current and surge arrester, pluggable		
Type **with or without remote signalling contact (Fm)**		**Ord. no.**
P-HMS 280 R	1-pole	**317 200**
P-HMS 280 Fm R	1-pole, with remote signalling contact	**317 202**

Combined lightning current and surge arrester for TT-system			
Type		System	**Ord. no.**
P-N/PE BC R	1-pole	TT	**317 260**
P-N/PE BC R 50	1-pole	TT	**317 262**

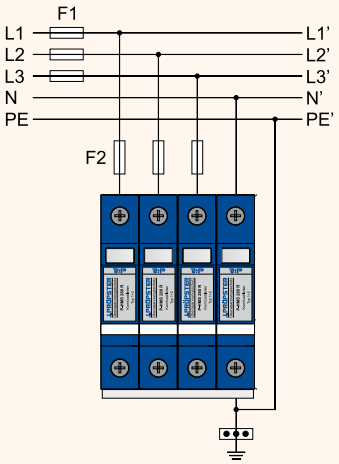
Technical data			
Type	P-HMS 280 (Fm) R	P-N/PE BC R	P-N/PE BC R 50
Mains system		TT	TT
Dimensions	1 mod.	1 mod.	1 mod.
Nominal discharge current (8/20 µs) I_n	30 kA	30 kA	100 kA
Max. discharge current (8/20 µs) I_{max}	50 kA	60 kA	120 kA
Lightning impulse current (10/350) I_{imp}	**12.5 kA**	**20 kA**	**50 kA**
Voltage protection level U_p	< 1.3 kV	< 1.5 kV	< 1.5 kV
Max. backup fuse	**160 A gL/gG**	---	---
Max. continuous operating vol. U_c	L-N 280 V~ / N-PE 255 V~		
Cross section for connection	min. 4 mm² single-core/ finely-stranded max. 50 mm² stranded / 35 mm² finely-stranded		

SPD type 1+2 (single pole) for

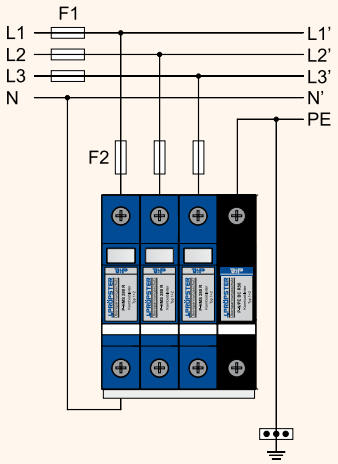
TN-C system with
3 x Ord. no. 317 200
+ busbar
Ord. no. 206 063



TN-S system with
4 x Ord. no. 317 200
+ busbar
Ord. no. 206 064



TT system with
3 x Ord. no. 317 200
1 x Ord. no. 317 262
+ busbar
Ord. no. 206 064



Combined lightning current and surge arrester type 1+2 (class I+II)

NEW

multipole, e.g. for residential or office building

Benefits:
- Secure plug fixation and contact ensured by module locking mechanism.
- P-HMS 280 R having 12.5 kA (10/350 µs) /pole and 50 kA (10/350 µs) as 4-pole.
- Optimal price/performance ratio.
- High values for backup fuses.

P-HMS 280 (Fm) R; (class I+II)//LPZ 0_A-LPZ 2

Combined lightning current and surge arrester, pluggable			
Type		System	**Ord. no.**
P-HMS 280 R 2	2-pole	TN	**317 220**
P-HMS 280 R 1+1	1+1-pole	TT	**317 210**
P-HMS 280 R 3	3-pole	TN-C	**317 230**
P-HMS 280 R 4	4-pole	TN-S	**317 250**
P-HMS 280 R 3+1	3+1-pole	TT	**317 240**
Combined lightning current and surge arrester, pluggable			
Type **with remote signalling contact (Fm)**		System	**Ord. no.**
P-HMS 280 Fm R 2	2-pole	TN	**317 222**
P-HMS 280 Fm R 1+1	1+1-pole	TT	**317 212**
P-HMS 280 Fm R 3	3-pole	TN-C	**317 232**
P-HMS 280 Fm R 4	4-pole	TN-S	**317 252**
P-HMS 280 Fm R 3+1	3+1-pole	TT	**317 242**

Technical data					
Type P-HMS 280 (Fm) R	2-pole	1+1-pole	3-pole	4-pole	3+1-pole
Mains system	TN	TT	TN-C	TN-S	TT
Dimensions	2 mods.	2 mods.	3 mods.	4 mods.	4 mods.
Nominal discharge current (8/20 µs) /total I_n	60 kA	30 kA	90 kA	120 kA	100 kA
Max. discharge current (8/20 µs) /total I_{max}	100 kA	60 kA	150 kA	150 kA	120 kA
Lightning impulse current (10/350) /total I_{imp}	**25 kA**	**20 kA**	**37.5 kA**	**50 kA**	**50 kA**
Voltage protection level U_p	< 1.3 kV	< 1.5 kV	< 1.3 kV	< 1.3 kV	< 1.5 kV
Response time t_A	< 25 ns	< 100 ns	< 25 ns	< 25 ns	< 100 ns
Max. backup fuse	**160 A gL/gG**				
Max. continuous operating voltage U_c	L-N 280 V~ / N-PE 255 V~				
Cross section for connection	min. 4 mm² single-core/ finely-stranded max. 50 mm² stranded / 35 mm² finely-stranded				

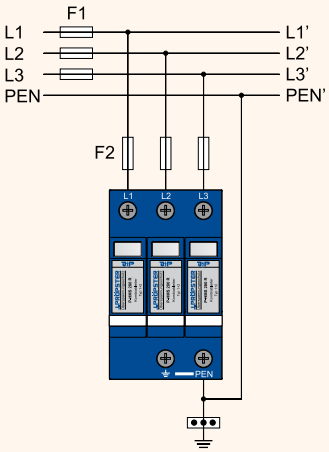
P-HMS 280 R, mains system compliant

Ord. no. 317 230

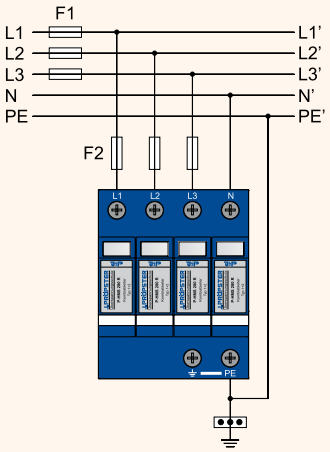
Ord. no. 317 242

SPD typ 1+2 multipole / mains system compliant for

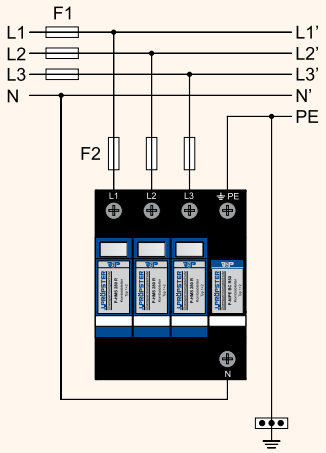
TN-C system with
1 x Ord. no. 317 230



TN-S system with
1 x Ord. no. 317 250



TT system with
1 x Ord. no. 317 240



High energy combined lightning current and surge arrester type 1+2 (class I+II) single pole

e.g. for industrial plants

P-HMS 280 Fm DP

Ord. no. 307 207

P-N/PE B+C

Ord. no. 306 105

P-HMS 280 DP (Fm) and P-N/PE B+C; (class I+II)//LPZ 0_A-LPZ 2

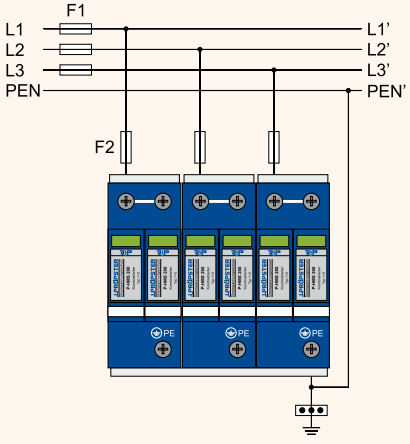
Combined arrester, pluggable			
Type **with or without remote signalling contact (Fm)**		Old ord. No	**Ord. no.**
P-HMS 280 DP	1-pole	207 205	**307 205**
P-HMS 280 Fm DP	1-pole, with remote signalling contact	207 207	**307 207**
Combined lightning current and surge arrester for TT-system			
Typ		Old ord. No	**Ord. no.**
P-N/PE B+C	1-pole	206 105	**306 105**

Technical data			
Type		P-HMS 280 DP (Fm)	P-N/PE B+C
Mains system			TT
Dimensions		2 mods.	1 mod.
Nominal discharge current (8/20 µs) I_n		70 kA	100 kA
Max. discharge current (8/20 µs) I_{max}		120 kA	120 kA
Lightning impulse current (10/350 µs) I_{imp}		16 kA	50 kA
Max. backup fuse	**parallel wiring**	**160 A gL/gG**	**---**
	serial wiring	**125 A gL/gG**	**---**
Voltage protection level U_p		< 1.5 kV	
Max. continuous operating voltage U_c		L-N 280 V~ / N-PE 255 V~	
Cross section for connection		min. 6 mm² single-core/ finely-stranded max. 50 mm² stranded/ 35 mm² finely-stranded	

High energy SPD type 1+2 (single pole) for

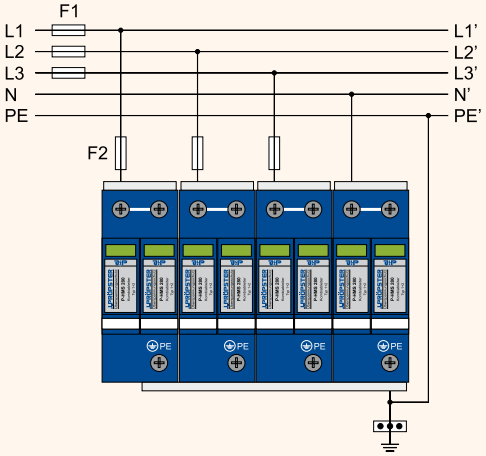
TN-C system with

3 x Ord. no. 307 205
+ busbar
Ord. no. 206 065



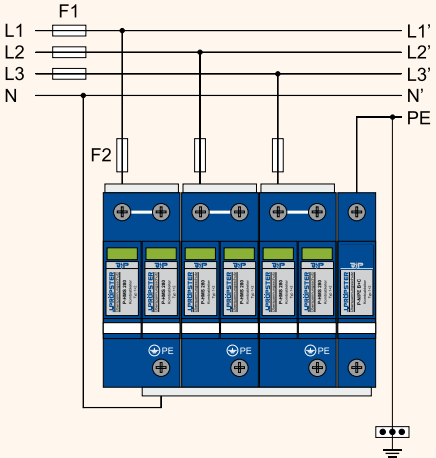
TN-S system with

4 x Ord. no. 307 205
+ busbar
Ord. no. 206 067



TT system with

3 x Ord. no. 307 205
1 x Ord. no. 306 105
+ busbar
Ord. no. 206 065



High energy combined lightning current and surge arrester type 1+2 (class I+II) multipole

e.g. for industrial plants

P-HMS 280 DP (Fm); (class I+II)//LPZ 0_A-LPZ 2

Combined lightning current and surge arrester, pluggable				
Type		System	Old ord. No	**Ord. no.**
P-HMS 280 DP 2	2-pole	TN	207 225	**307 225**
P-HMS 280 DP 1+1	1+1-pole	TT	207 215	**307 215**
P-HMS 280 DP 3	3-pole	TN-C	207 235	**307 235**
P-HMS 280 DP 4	4-pole	TN-S	207 255	**307 255**
P-HMS 280 DP 3+1	3+1-pole	TT	207 245	**307 245**
Combined lightning current and surge arrester, pluggable				
Type **with remote signalling contact (Fm)**		System	Old ord. No	**Ord. no.**
P-HMS 280 Fm DP 2	2-pole	TN	207 227	**307 227**
P-HMS 280 Fm DP 1+1	1+1-pole	TT	207 217	**307 217**
P-HMS 280 Fm DP 3	3-pole	TN-C	207 237	**307 237**
P-HMS 280 Fm DP 4	4-pole	TN-S	207 257	**307 257**
P-HMS 280 Fm DP 3+1	3+1-pole	TT	207 247	**307 247**

Technical data					
Type P-HMS 280 DP (Fm)	2-pole	1+1-pole	3-pole	4-pole	3+1-pole
Mains system	TN	TT	TN-C	TN-S	TT
Dimensions	4 mods.	3 mods.	6 mods.	8 mods.	7 mods.
Nominal discharge current (8/20 µs) /total I_n	100 kA	30 kA	100 kA	100 kA	100 kA
Max. discharge current (8/20 µs) /total I_{max}	150 kA	60 kA	150 kA	150 kA	150 kA
Lightning impulse current (10/350) /total I_{imp}	32 kA	20 kA	48 kA	64 kA	50 kA
Response time t_A	< 25 ns	< 100 ns	< 25 ns	< 25 ns	< 100 ns
Voltage protection level U_p	< 1.5 kV				
Max. backup fuse parallel wiring	**160 A gL/gG**				
serial wiring	**125 A gL/gG**				
Max. continuous operating voltage U_c	L-N 280 V~ / N-PE 255 V~				
Cross section for connection	min. 6 mm² single-core/ finely-stranded max. 50 mm² stranded / 35 mm² finely-stranded				

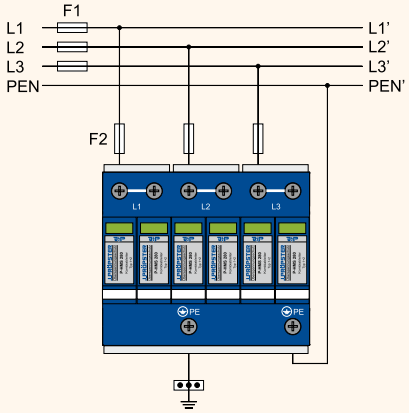
P-HMS 280 DP, mains system compliant

Ord. no. 307 235

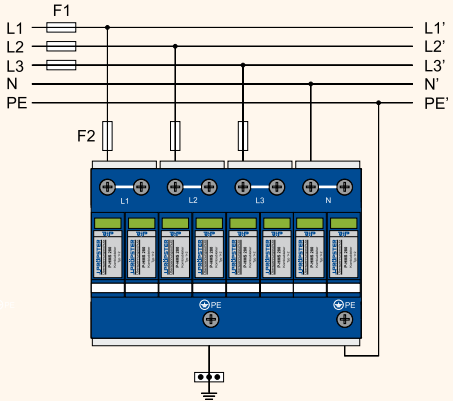
Ord. no. 307 247

High energy SPD type 1+2 multipole / mains system compliant

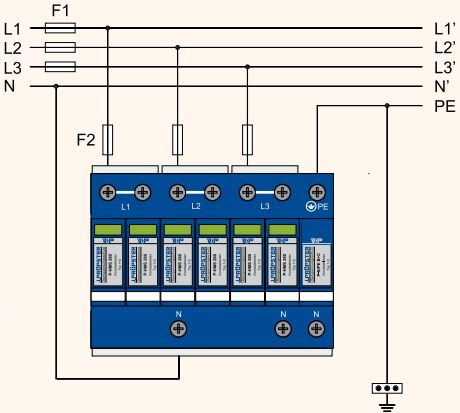
TN-C system with
1 x Ord. no. 307 235



TN-S system with
1 x Ord. no. 307 255



TT system with
1 x Ord. no. 307 245



High energy combined lightning current and surge arrester *max* type 1+2 (class I+II) single pole NEW

e.g. for industrial plants

Benefits:
- Secure plug fixation and contact ensured by module locking mechanism.
- P-HMS 280 *max* having 25 kA (10/350 µs) /pole and 100 kA (10/350 µs) as 4-pole.
- Optimal price/performance ratio.
- High values for backup fuses.

P-HMS 280 (Fm) *max*

Ord. no. 317 207

P-N/PE BC *max*

Ord. no. 317 264

P-HMS 280 *max* (Fm) and P-N/PE B+C *max*; (class I+II)//LPZ 0_A-LPZ 2

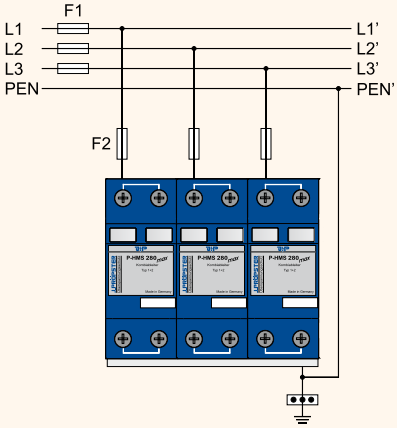
Combined lightning current and surge arrester, pluggable		
Type **with or without remote signalling contact (Fm)**		**Ord. no.**
P-HMS 280 *max*	1-pole	**317 205**
P-HMS 280 Fm *max*	1-pole, with remote signalling contact	**317 207**
Combined lightning current and surge arrester for TT-system		
Type	System	**Ord. no.**
P-N/PE BC *max*	1-pole	TT	**317 264**

Technical data			
Type		P-HMS 280 max (Fm)	P-N/PE BC max
Mains system			TT
Dimensions		2 mods.	2 mods.
Nominal discharge current (8/20 µs) I_n		50 kA	75 kA
Max. discharge current (8/20 µs) I_{max}		75 kA	150 kA
Lightning impulse current (10/350 µs) I_{imp}		**25 kA**	**100 kA**
Voltage protection level U_p		< 1.3 kV	< 1.5 kV
Max. backup fuse	**parallel wiring**	**250 A gL/gG**	---
	serial wiring	**125 A gL/gG**	---
Max. continuous operating voltage U_c		L-N 280 V~ / N-PE 255 V~	
Cross section for connection		min. 4 mm² single-core/ finely-stranded max. 50 mm² stranded / 35 mm² finely-stranded	

High energy SPD type 1+2 (single pole) for

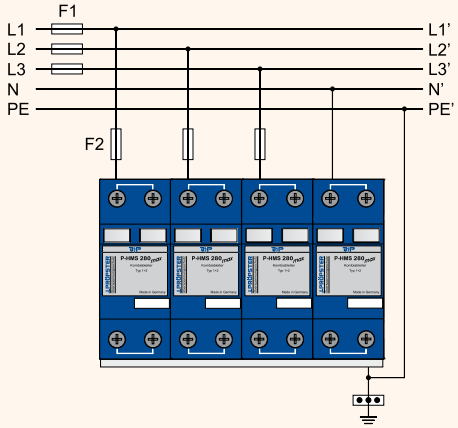
TN-C system with

3 x Ord. no. 317 205
+ busbar
Ord. no. 206 065



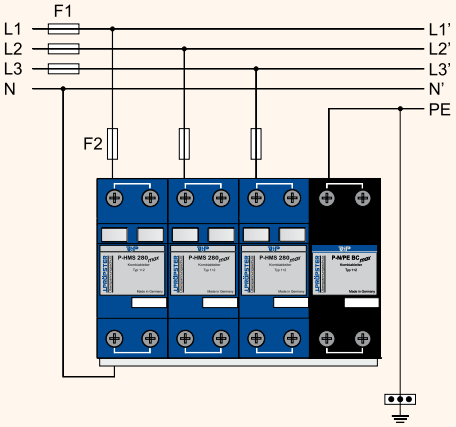
TN-S system with

4 x Ord. no. 317 205
+ busbar
Ord. no. 206 066



TT system with

3 x Ord. no. 317 205
1 x Ord. no. 317 264
+ busbar
Ord. no. 206 066



High energy combined lightning current and surge arrester *max* type 1+2 (class I+II) multipole NEW

e.g. for industrial plants

Benefits:
- Secure plug fixation and contact ensured by module locking mechanism.
- P-HMS 280 *max* having 25 kA (10/350 µs) /pole and 100 kA (10/350 µs) as 4-pole.
- Optimal price/performance ratio.
- High values for backup fuses.

P-HMS 280 *max* (Fm); (class I+II)//LPZ 0_A-LPZ 2

Combined lightning current and surge arrester, pluggable Type		System	**Ord. no.**
P-HMS 280 *max* 2	2-pole	TN	**317 225**
P-HMS 280 *max* 1+1	1+1-pole	TT	**317 215**
P-HMS 280 *max* 3	3-pole	TN-C	**317 235**
P-HMS 280 *max* 4	4-pole	TN-S	**317 255**
P-HMS 280 *max* 3+1	3+1-pole	TT	**317 245**
Combined lightning current and surge arrester, pluggable Type **with remote signalling contact (Fm)**		System	**Ord. no.**
P-HMS 280 Fm *max* 2	2-pole	TN	**317 227**
P-HMS 280 Fm *max* 1+1	1+1-pole	TT	**317 217**
P-HMS 280 Fm *max* 3	3-pole	TN-C	**317 237**
P-HMS 280 Fm *max* 4	4-pole	TN-S	**317 257**
P-HMS 280 Fm *max* 3+1	3+1-pole	TT	**317 247**

Technical data					
Type P-HMS 280 max (Fm)	2-pole	1+1-pole	3-pole	4-pole	3+1-pole
Mains system	TN	TT	TN-C	TN-S	TT
Dimensions	4 mods.	3 mods.	6 mods.	8 mods.	8 mods.
Nominal discharge current (8/20 µs) /total I_n	100 kA	100 kA	120 kA	120 kA	75 kA
Max. discharge current (8/20 µs) /total I_{max}	150 kA	120 kA	150 kA	150 kA	150 kA
Lightning impulse current (10/350) /total I_{imp}	**50 kA**	**50 kA**	**75 kA**	**100 kA**	**100 kA**
Voltage protection level U_p	< 1.3 kV	< 1.5 kV	< 1.3 kV	< 1.3 kV	< 1.5 kV
Response time t_A	< 25 ns	< 100 ns	< 25 ns	< 25 ns	< 100 ns
Max. backup fuse parallel wiring	**250 A gL/gG**				
serial wiring	**125 A gL/gG**				
Max. continuous operating voltage U_c	L-N 280 V~ / N-PE 255 V~				
Cross section for connection	min. 4 mm² single-core/ finely-stranded max. 50 mm² stranded / 35 mm² finely-stranded				

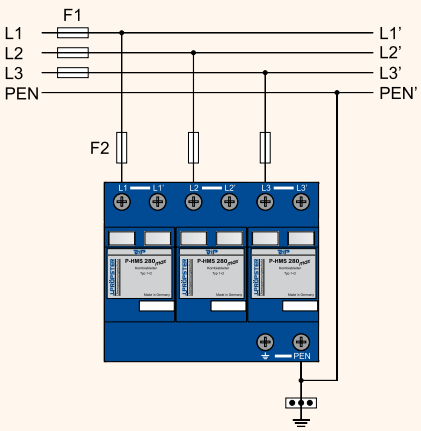
P-HMS 280 *max* mains system compliant

Ord. no. 317 235

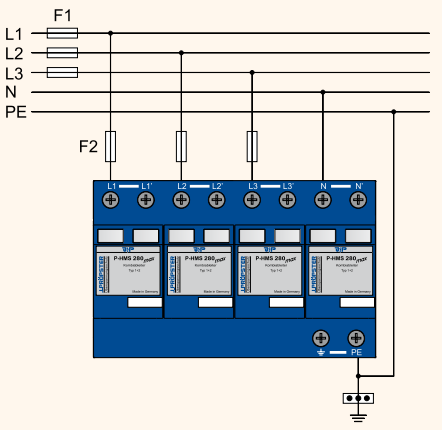
Ord. no. 317 247

High energy SPD type 1+2 multipole / mains system compliant

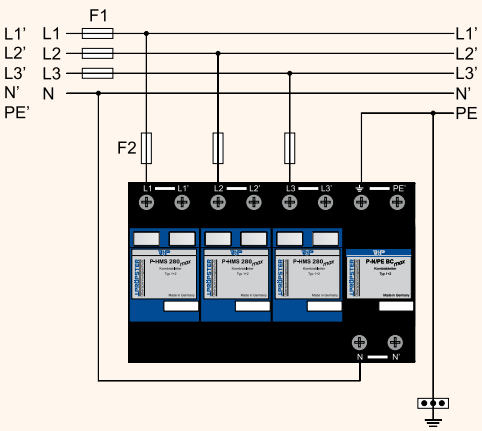
TN-C system with
1 x Ord. no. 317 235



TN-S system with
1 x Ord. no. 317 255



TT system with
1 x Ord. no. 317 245



Surge arrester type 2
(class II) single pole

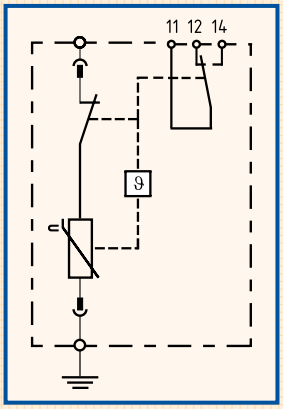
P-VMS 280
(pluggable)

Ord. no. 306 280

P-VM 280
(not pluggable)

Ord. no. 3066

Basic circuit:



P-N/PE C

Ord. no. 306 285

P-VM(S) (Fm) and P-N/PE C (S); (class II)//LPZ 1-LPZ 2

Surge arrester					
Type	Max. continuous operating voltage U_c	Voltage protection level U_p	Nominal discharge current I_n (8/20 µs)	Old ord. no.	**Ord. no.**
P-VM 280; not pluggable	280 V~	< 1300 V	20 kA	2066	**3066**
P-VMS 280; pluggable	280 V~	< 1300 V	20 kA	206 280	**306 280**
Surge arrester, pluggable					
Type	U_c	U_p	I_n (8/20 µs)		**Ord. no.**
P-VMS 75	75 V~	< 600 V	15 kA	206 076	**306 076**
P-VMS 150	150 V~	< 950 V	20 kA	206 150	**306 150**
P-VMS 360	360 V~	< 1850 V	20 kA	206 361	**306 361**
P-VMS 440	440 V~	< 2000 V	20 kA	206 441	**306 441**
P-VMS 500	500 V~	< 2200 V	20 kA	206 501	**306 501**
P-VMS 600	600 V~	< 2400 V	20 kA	206 602	**306 602**
Surge arrester, pluggable, with remote signalling contact (Fm)					
Type	U_c	U_p	I_n (8/20 µs)		**Ord. no.**
P-VMS 280 Fm	280 V~	< 1300 V	20 kA	206 282	**306 282**
P-VMS 75 Fm	75 V~	< 600 V	15 kA	206 078	**306 078**
P-VMS 150 Fm	150 V~	< 950 V	20 kA	206 152	**306 152**
P-VMS 360 Fm	360 V~	< 1850 V	20 kA	206 365	**306 365**
P-VMS 440 Fm	440 V~	< 2000 V	20 kA	206 443	**306 443**
P-VMS 500 Fm	500 V~	< 2200 V	20 kA	206 503	**306 503**
P-VMS 600 Fm	600 V~	< 2400 V	20 kA	206 604	**306 604**
Surge arrester, not pluggable					
Type	U_c	U_p	I_n (8/20 µs)		**Ord. no.**
P-VM 75	75 V~	< 600 V	15 kA	206 075	**306 075**
P-VM 360	360 V~	< 1850 V	20 kA	206 360	**306 360**
P-VM 500	500 V~	< 2200 V	20 kA	206 500	**306 500**
Surge arrester, not pluggable, with remote signalling contact (Fm)					
Type	U_c	U_p	I_n (8/20 µs)		**Ord. no.**
P-VM 75 Fm	75 V~	< 600 V	15 kA	206 074	**306 074**
P-VM 280 Fm	280 V~	< 1300 V	20 kA	2067	**3067**
Surge arrester for TT-System					
Type			I_n (8/20 µs)		**Ord. no.**
P-N/PE C	1-pole (not pluggable)		30 kA	206 285	**306 285**
P-N/PE C S	1-pole (pluggable)		30 kA	206 286	**306 286**

Technical data	P-VM(S)	P-N/PE C (S)
Dimensions	1 mod.	1 mod.
Max. continuous operating voltage U_c	see above	255 V~
Nominal discharge current (8/20 µs) I_n	see above	30 kA
Max. discharge current (8/20 µs) I_{max}	40 kA	60 kA
Voltage protection level U_p	see above	< 1.5 kV
Response time t_A	< 25 ns	< 100 ns
Max. backup fuse	**125 A gL/gG**	**---**
Cross section for connection	min. 6 mm² single-core/ finely-stranded max. 50 mm² stranded / 35 mm² finely-stranded	

Additional operating voltages on request.

Surge arrester type 2
(class II) multipole / mains system compliant

P-VMS 280 (Fm); (class II)//LPZ 1-LPZ 2

Multipole surge arrester, pluggable				
Type		System	Old ord. No	**Ord. no.**
P-VMS 280 2	2-pole	TN	206 226	**306 226**
P-VMS 280 1+1	1+1-pole	TT	206 228	**306 228**
P-VMS 280 3	3-pole	TN-C	206 220	**306 220**
P-VMS 280 4	4-pole	TN-S	206 221	**306 221**
P-VMS 280 3+1	3+1-pole	TT	206 222	**306 222**
Multipole surge arrester, pluggable, with remote signalling contact (Fm)				
Type		System	Old ord. No	**Ord. no.**
P-VMS 280 Fm 2	2-pole	TN	206 227	**306 227**
P-VMS 280 Fm 1+1	1+1-pole	TT	206 229	**306 229**
P-VMS 280 Fm 3	3-pole	TN-C	206 223	**306 223**
P-VMS 280 Fm 4	4-pole	TN-S	206 224	**306 224**
P-VMS 280 Fm 3+1	3+1-pole	TT	206 225	**306 225**

Technical data					
Type P-VMS 280 (Fm)	2-pole	1+1-pole	3-pole	4-pole	3+1-pole
Mains system	TN	TT	TN-C	TN-S	TT
Dimensions	2 mods.	2 mods.	3 mods.	4 mods.	4 mods.
Nominal discharge current (8/20 µs) /total I_n	40 kA	30 kA	60 kA	80 kA	30 kA
Max. discharge current (8/20 µs) /total I_{max}	80 kA	60 kA	120 kA	150 kA	60 kA
Response time t_A	< 25 ns	< 100 ns	< 25 ns	< 25 ns	< 100 ns
Max. continuous operating voltage U_c	L-N 280 V~ / N-PE 255 V~				
Voltage protection level U_p	< 1.5 kV				
Max. backup fuse	**125 A gL/gG**				
Cross section for connection	min. 6 mm² single-core/ finely-stranded max. 50 mm² stranded / 35 mm² finely-stranded				

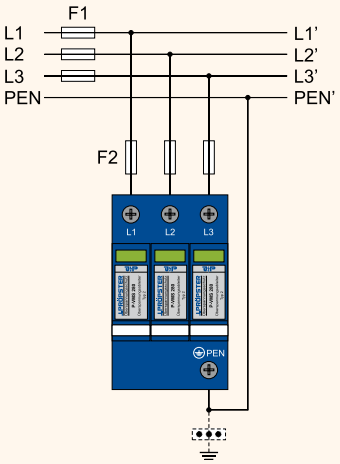
P-VMS 280, mains system compliant

Ord. no. 306 220

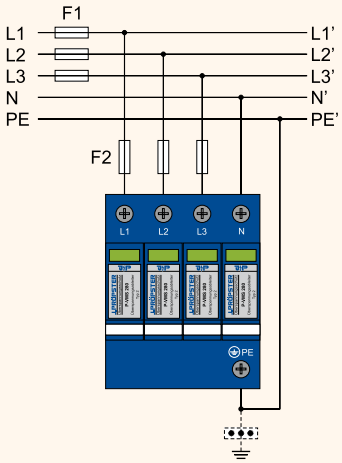
Ord. no. 306 224

SPD type 2 multipole / mains system compliant for

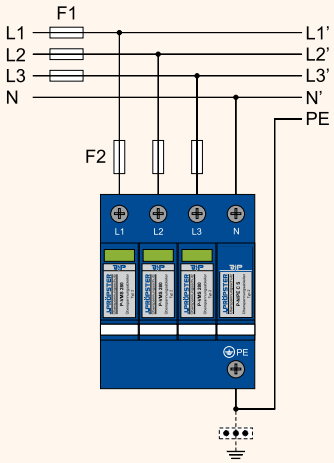
TN-C system with
1 x Ord. no. 306 220



TN-S system with
1 x Ord. no. 306 221



TT system with
1 x Ord. no. 306 222



Surge arrester type 2
(class II) single pole

NEW

Benefits:
- Secure plug fixation and contact ensured by module locking mechanism.
- Optimal price/performance ratio.

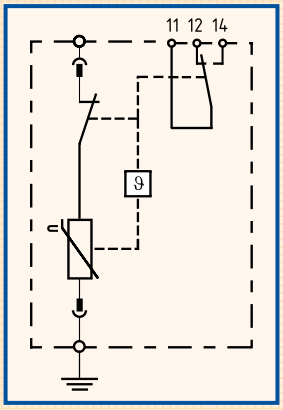
P-VMS 280 R

Ord. no. 316 280

P-N/PE C R

Ord. no. 316 286

Basic circuit:



P-VMS (Fm) R and P-N/PE C R; (class II)//LPZ 1-LPZ 2

Surge arrester, pluggable			
Type	Max. continuous operating voltage U_c	Voltage protection level U_p	**Ord. no.**
P-VMS 280 R	280 V~	< 1.3 kV	**316 280**
P-VMS 360 R	360 V~	< 1.5 kV	**316 361**
P-VMS 440 R	440 V~	< 1.8 kV	**316 441**
Surge arrester, pluggable, with remote signalling contact (Fm)			
Type	U_c	U_p	**Ord. no.**
P-VMS 280 Fm R	280 V~	< 1.3 kV	**316 282**
P-VMS 360 Fm R	360 V~	< 1.5 kV	**316 365**
P-VMS 440 Fm R	440 V~	< 1.8 kV	**316 443**
Surge arrester for TT-System			
Type			**Ord. no.**
P-N/PE C R	1-pole (pluggable)		**316 286**

Technical data	P-VMS R	P-N/PE C R
Dimensions	1 mod.	1 mod.
Max. continuous operating voltage U_c	See above	255 V~
Nominal discharge current (8/20 µs) I_n	20 kA	30 kA
Max. discharge current (8/20 µs) I_{max}	40 kA	60 kA
Voltage protection level U_p	See above	< 1.5 kV
Response time t_A	< 25 ns	< 100 ns
Max. backup fuse	**125 A gL/gG**	**---**
Cross section for connection	min. 4 mm² single-core/ finely-stranded max. 50 mm² stranded / 35 mm² finely-stranded	

Additional operating voltages on request.

Surge arrester type 2

(class II) multipole / mains system compliant

NEW

Benefits:
- Secure plug fixation and contact ensured by module locking mechanism.
- Optimal price/performance ratio.

P-VMS 280 (Fm) R; (class II)//LPZ 1-LPZ 2

Multipole surge arrester, pluggable			
Type		System	Ord. no.
P-VMS 280 R 2	2-pole	TN	**316 226**
P-VMS 280 R 1+1	1+1-pole	TT	**316 228**
P-VMS 280 R 3	3-pole	TN-C	**316 220**
P-VMS 280 R 4	4-pole	TN-S	**316 221**
P-VMS 280 R 3+1	3+1-pole	TT	**316 222**
Multipole surge arrester, pluggable, with remote signalling contact (Fm)			
Type		System	Ord. no.
P-VMS 280 Fm R 2	2-pole	TN	**316 227**
P-VMS 280 Fm R 1+1	1+1-pole	TT	**316 229**
P-VMS 280 Fm R 3	3-pole	TN-C	**316 223**
P-VMS 280 Fm R 4	4-pole	TN-S	**316 224**
P-VMS 280 Fm R 3+1	3+1-pole	TT	**316 225**

Technical data					
Type P-VMS 280 (Fm)	2-pole	1+1-pole	3-pole	4-pole	3+1-pole
Mains system	TN	TT	TN-C	TN-S	TT
Dimensions	2 mods.	2 mods.	3 mods.	4 mods.	4 mods.
Nominal discharge current (8/20 µs) /total I_n	40 kA	30 kA	60 kA	80 kA	30kA
Max. discharge current (8/20 µs) /total I_{max}	80 kA	60 kA	120 kA	150 kA	60 kA
Response time t_A	< 25 ns	< 100 ns	< 25 ns	< 25 ns	< 100 ns
Voltage protection level U_p	< 1.3 kV	< 1.5 kV	< 1.3 kV	< 1.3 kV	< 1.5 kV
Max. continuous operating voltage U_c	L-N 280 V~ / N-PE 255 V~				
Max. backup fuse	**125 A gL/gG**				
Cross section for connection	min. 4 mm² single-core/ finely-stranded max. 50 mm² stranded / 35 mm² finely-stranded				

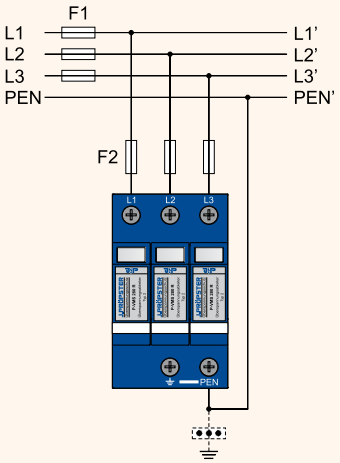
P-VMS 280 R, mains system compliant

Ord. no. 316 220

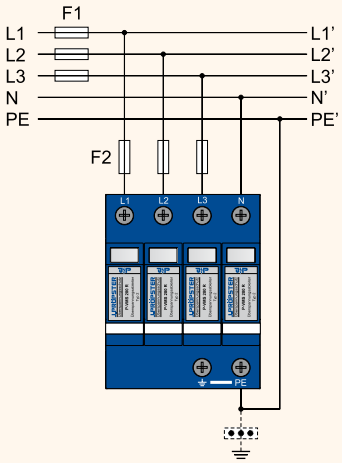
Ord. no. 316 224

SPD type 2 multipole / mains system compliant for

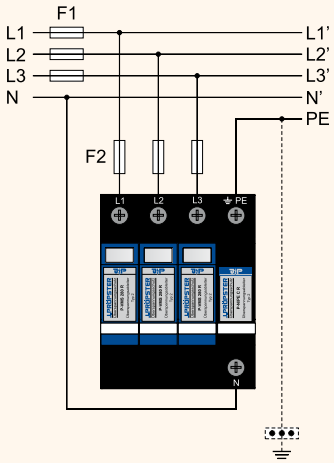
TN-C system with
1 x Ord. no. 316 220



TN-S system with
1 x Ord. no. 316 221



TT system with
1 x Ord. no. 316 222

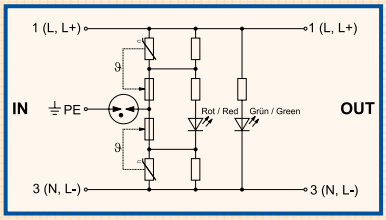


Surge arrester type 3
(class III) fine protection

P-DA 230

Ord. no. 306 460

Basic circuit:



P-DA, (class III)//LPZ 2-LPZ 3

Type	I_n (8/20 µs) L/N ⇒ PE	L ⇒ N	L+N ⇒ PE	Old ord. No	**Ord. no.**
P-DA 230	3 kA	3 kA	5 kA	206 460	**306 460**
P-DA 120	2.5 kA	2.5 kA	5 kA	206 450	**306 450**
P-DA 60	2.5 kA	2.5 kA	5 kA	206 440	**306 440**
P-DA 48	1 kA	1 kA	2 kA	206 430	**306 430**
P-DA 24	1 kA	1 kA	2 kA	206 420	**306 420**

Technical data						
Type P-DA		230	120	60	48	24
Dimensions		1 mod.				
Max. continuous operating voltage U_c	(AC)	255 V~	120 V~	60 V~	48 V~	24 V~
	(DC)	255 V-	150 V-	75 V-	60 V-	30 V-
Nominal discharge c. (8/20µs) I_n	L+N ⇒ PE	5 kA	5 kA	5 kA	2 kA	2 kA
Combination wave U_{oc}	L+N ⇒ PE	10 kV	10 kV	10 kV	4 kV	4 kV
Voltage protection level U_p	L ⇒ N	<1100 V	< 700 V	< 500 V	< 400 V	< 225 V
Response time t_A	L ⇒ N	< 25 ns				
Max. backup fuse		**16 A gL/gG**				
Cross section for connection		0.14 - 2.5 mm²				
Remote signalling contact (Fm):						
Contact		Floating break contact (21/22)				
Switching capacity		250 V~ / 1 A				
Cross section for connection		0.08 - 1.5 mm²				

Surge protection for flush-mounted sockets type 3

P-DA 10 UP (flush-mounted)

Ord. no. 206 310

Example of application:

P-DA 10 UP, (class III)//LPZ 2-LPZ 3; with acoustic fault indication

Type	Description	**Ord. no.**
P-DA 10 UP	Surge protective adapter	**206 310**

Technical data		
Type		P-DA 10 UP
Max. continuous operating voltage U_c		255 V~
Nominal discharge cur. (8/20 µs) I_n	L+N ⇒ PE	5 kA
Voltage protection level U_p	L ⇒ N	1.2 kV
Response time t_A	L ⇒ N	< 25 ns
Max. backup fuse		**16 A gL/gG**

Surge protective adapter type 3 (class III) fine protection

P-DA 1, (class III)//LPZ 2-LPZ 3

Type	Ord. no.
P-DA 1 with integrated surge protection	**206 302**
P-DA 1 NF with integrated surge protection and mains filter	**206 303**
P-DA 1 TEL with integrated surge protection & analogue telephone protection (RJ-11/RJ-45 socket)	**206 306**
P-DA 1 TV with integrated surge protection and TV protection (IEC 75-plug/socket)	**206 307**
P-DA 1 ISDN with integrated surge protection and ISDN telephone protection (RJ-45 socket)	**206 308**
P-DA 1 SAT with integrated surge protection and SAT protection (F-socket)	**206 309**

Technical data							
Type P-DA		1 NF	1	1 TEL	1 TV	1 ISDN	1 SAT
Max. continuous operating voltage U_c		250 V~					
Nominal discharge current (8/20 µs) I_n		3.0 kA	2.5 kA				
Voltage protection level U_p	L ⇒ N	< 1300 V	< 1500 V				
Response time t_A	L ⇒ N	< 2 ns	< 25 ns				
Max. backup fuse		**16 A gL/gG**					

P-DA 1

Ord. no. 206 302

P-DA 1 ISDN

Ord. no. 206 308

Surge protection multiple socket outlet type 3

P-DA 6, (class III)//LPZ 2-LPZ 3

Type	Ord. no.
P-DA 6 with integrated surge protection	**206 300**
P-DA 6 NF with integrated surge protection and mains filter	**206 301**
P-DA 6 NF IS with integrated surge protection, mains filter and ISDN protection	**206 304**

Technical data				
Type		P-DA 6	P-DA 6 NF	P-DA 6 NF IS
Max. continuous operating voltage U_c		255 V~		
Nominal discharge current (8/20 µs) I_n		6.5 kA		
Voltage protection level U_p	L ⇒ N	< 1000 V		
Response time t_A		< 25 ns		
Max. backup fuse		**16 A gL/gG**		
Max. connection load P_{max}		3680 W		
Dimensions		490 mm	570 mm	660 mm
Mains filter according to		---	EN 60939-1	

P-DA 6

Ord. no. 206 300

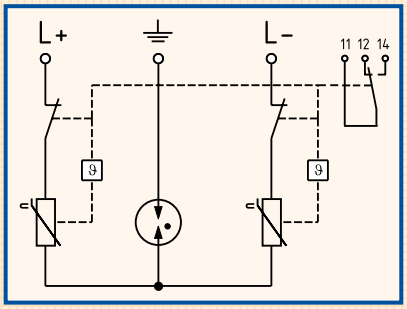
Combined lightning current and surge arrester for photovoltaic systems type 1+2 (class I+II)

P-HYS

Ord. no. 307 766

Ord. no. 307 796

Basic circuit:

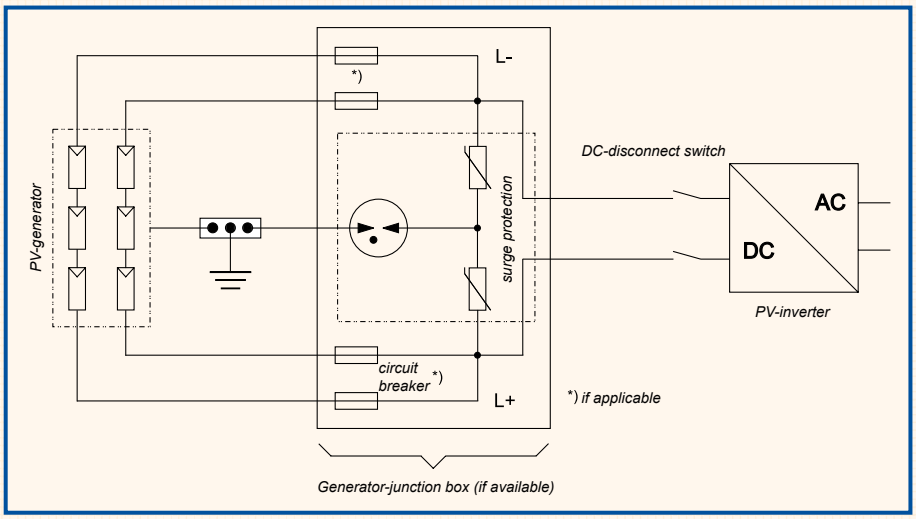


P-HYS, (class I+II)//LPZ 0_A-LPZ 2

Combined lightning current and surge arrester, pluggable Type		Old ord. no.	Ord. no.
P-HYS 605	Y-circuit; 2+1-pole	207 762	**307 762**
P-HYS 805	Y-circuit; 2+1-pole	207 782	**307 782**
P-HYS 1005	Y-circuit; 2+1-pole	207 792	**307 792**
Combined lightning current and surge arrester, pluggable Type with remote signalling contact (Fm)		**Old ord. no.**	**Ord. no.**
P-HYS 605 Fm	Y-circuit; 2+1-pole	207 766	**307 766**
P-HYS 805 Fm	Y-circuit; 2+1-pole	207 786	**307 786**
P-HYS 1005 Fm	Y-circuit; 2+1-pole	207 796	**307 796**

Technical data				
Type P-HYS (Fm)		605	805	1005
Dimensions		3 mods.	5 mods.	5 mods.
Max. continuous operating voltage U_c		**600 V-**	**800 V-**	**1000 V-**
Nominal discharge current (8/20 µs) /total I_n		30 kA		
Max. discharge current (8/20 µs) /total I_{max}		60 kA		
Lightning impulse current (10/350 µs) /total I_{imp}		16 kA		
Voltage protection level U_p	(L+ ⇒ L-)	< 3.0 kV	< 3.8 kV	< 4.5 kV
	(L+/L- ⇒ PE)	< 1.6 kV	< 2.0 kV	< 2.5 kV
Response time t_A		< 100 ns		
Cross section for connection		min. 6 mm² single-core/ finely stranded max. 50 mm² stranded / 35 mm² finely-stranded		

Note: The max. continuous operating voltage of the SPD must be higher than the open circuit voltage of the PV generator!



Surge arrester for photovoltaic systems type 2 (class II)

P-VYS, (class II)//LPZ 1-LPZ 2

Surge arrester, pluggable			
Type		Old ord. no.	**Ord. no.**
P-VYS 605	Y-circuit; 2+1-pole	206 762	**306 762**
P-VYS 805	Y-circuit; 2+1-pole	206 782	**306 782**
P-VYS 1005	Y-circuit; 2+1-pole	206 792	**306 792**
Surge arrester, pluggable			
Type **with remote signalling contact (Fm)**		Old ord. no.	**Ord. no.**
P-VYS 605 Fm	Y-circuit; 2+1-pole	206 766	**306 766**
P-VYS 805 Fm	Y-circuit; 2+1-pole	206 786	**306 786**
P-VYS 1005 Fm	Y-circuit; 2+1-pole	206 796	**306 796**

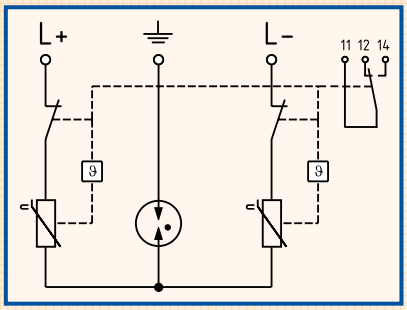
Technical data				
Typ P-VYS (Fm)		605	805	1005
Dimensions		3 mods.	3 mods.	3 mods.
Max. continuous operating voltage U_c		**600 V-**	**800 V-**	**1000 V-**
Nominal discharge current (8/20 µs) /total I_n		20 kA		
Max. discharge current (8/20 µs) /total I_{max}		40 kA		
Voltage protection level U_p	(L+ ⇒ L-)	< 2.6 kV	< 3.3 kV	< 3.8 kV
	(L+/L- ⇒ PE)	< 1.4 kV	< 1.75 kV	< 2.0 kV
Response time t_A		< 100 ns		
Cross section for connection		min. 6 mm² single-core/ finely stranded max. 50 mm² stranded / 35 mm² finely stranded		

Note: The max. continuous operating voltage of the SPD must be higher than the open circuit voltage of the PV generator!

P-VYS

Ord. no. 306 766

Basic circuit:



Decoupling coil P-ED 16 and P-ED 25; **Note:** arresters with different requirement classes in one installation must be energetically coordinated.

Typ	Compensation circuit	Installation between	Old ord. no.	**Ord. no.**
P-ED 16	< 10 m	Type 1 and type 2 arrester	206 016	**306 016**
	< 5 m	Type 2 and type 3 arrester		
P-ED 25	< 10 m	Type 1 and type 2 arrester	206 025	**306 025**
	< 5 m	Type 2 and type 3 arrester		

Technical data		
Typ	P-ED 16	P-ED 25
Dimensions	1 mod.	1 mod.
Rated load current I_L	16 A	25 A
Max. continuous operating volt. U_C	500 V ~/-	
Nominal inductance (± 20%) L_N	10 µH	
Cross section for connection	min. 6 mm² single-core/ finely-stranded max. 50 mm² stranded / 35 mm² finely-stranded	

P-ED 16

Ord. no. 306 016

P-ED 25

Ord. no. 306 025

Combined lightning current and surge arrester for photovoltaic systems type 1+2 (class I+II)

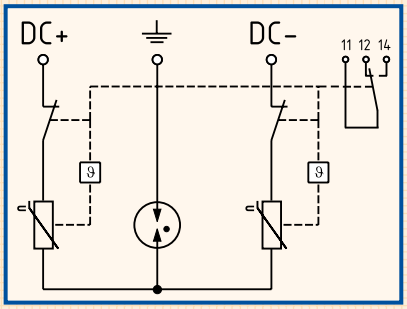
NEW

P-HYS R PV

Ord. no. 317 766

Ord. no. 317 796

Basic circuit:



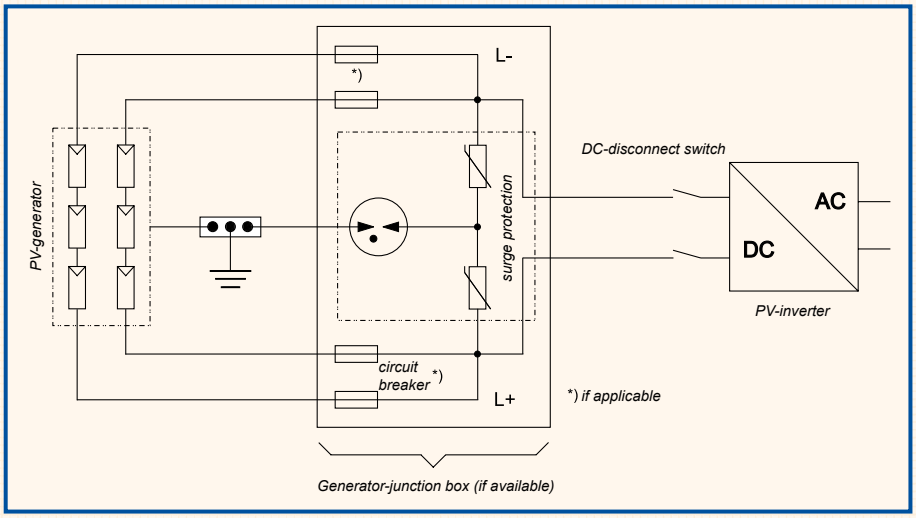
Benefits:
- Secure plug and contact ensured by module locking mechanism.
- Type 1+2 having 12.5 kA (10/350 µs) /pole.
- Optimal price/performance ratio.

P-HYS (Fm) R PV, (class I+II)//LPZ 0_A-LPZ 2

Combined lightning current and surge arrester, pluggable		
Type		**Ord. no.**
P-HYS 605 R PV	Y-circuit; 2+1-pole	**317 762**
P-HYS 805 R PV	Y-circuit; 2+1-pole	**317 782**
P-HYS 1005 R PV	Y-circuit; 2+1-pole	**317 792**
Combined lightning current and surge arrester, pluggable		
Type **with remote signalling contact (Fm)**		**Ord. no.**
P-HYS 605 Fm R PV	Y-circuit; 2+1-pole	**317 766**
P-HYS 805 Fm R PV	Y-circuit; 2+1-pole	**317 786**
P-HYS 1005 Fm R PV	Y-circuit; 2+1-pole	**317 796**

Technical data				
Type P-HYS (Fm) R PV		605	805	1005
Dimensions		3 mods.	3 mods.	5 mods.
Max. continuous operating voltage U_c		**600 V-**	**800 V-**	**1000 V-**
Nominal discharge current (8/20 µs) I_n	(DC+ ⇒ DC-)	30 kA		
	(DC+/DC- ⇒ PE)	30 kA		
	(Total ⇒ PE)	30 kA		
Max. discharge current (8/20 µs) I_{max}	(DC+ ⇒ DC-)	50 kA		
	(DC+/DC- ⇒ PE)	50 kA		
	(Total ⇒ PE)	60 kA		
Lightning impulse current (10/350 µs) I_{imp}	**(DC+ ⇒ DC-)**	**12.5 kA**		
	(DC+/DC- ⇒ PE)	**12.5 kA**		
	(Total ⇒ PE)	**20 kA**	**18 kA**	**16 kA**
Voltage protection level U_p	(DC+ ⇒ DC-)	< 2.4 kV	< 2.9 kV	< 3.4 kV
	(DC+/DC- ⇒ PE)	< 1.8 kV	< 2.0 kV	< 2.3 kV
Response time t_A		< 100 ns		
Cross section for connection		min. 4 mm² single-core/ finely-stranded max. 50 mm² stranded / 35 mm² finely-stranded		

Note: The max. continuous operating voltage of the SPD must be higher than the open circuit voltage of the PV generator!



Surge arrester for photovoltaic systems type 2 (class II)

Benefits:
- Secure plug fixation and contact ensured by module locking mechanism.
- Optimal price/performance ratio.

P-VYS (Fm) R PV, (class II)//LPZ 1-LPZ 2

Surge arrester, pluggable		
Type		**Ord. no.**
P-VYS 605 R PV	Y-circuit; 2+1-pole	**316 762**
P-VYS 805 R PV	Y-circuit; 2+1-pole	**316 782**
P-VYS 1005 R PV	Y-circuit; 2+1-pole	**316 792**
Surge arrester, pluggable		
Type **with remote signalling contact (Fm)**		**Ord. no.**
P-VYS 605 Fm R PV	Y-circuit; 2+1-pole	**316 766**
P-VYS 805 Fm R PV	Y-circuit; 2+1-pole	**316 786**
P-VYS 1005 Fm R PV	Y-circuit; 2+1-pole	**316 796**

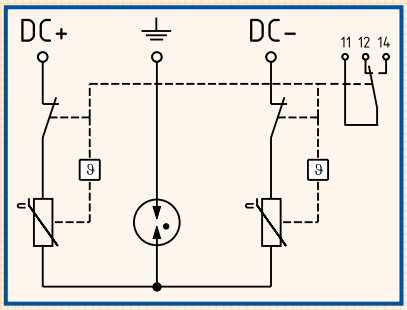
Technical data				
Type P-VYS (Fm) R PV		605	805	1005
Dimensions		3 mods.	3 mods.	3 mods.
Max. continuous operating voltage U_c		**600 V-**	**800 V-**	**1000 V-**
Nominal discharge current (8/20 µs) I_n	(DC+ ⇒ DC-)	20 kA		
	(DC+/DC- ⇒ PE)	20 kA		
	(Total ⇒ PE)	30 kA		
Max. discharge current (8/20 µs) I_{max}	(DC+ ⇒ DC-)	40 kA		
	(DC+/DC- ⇒ PE)	40 kA		
	(Total ⇒ PE)	60 kA		
Voltage protection level U_p	(DC+ ⇒ DC-)	< 2.5 kV	< 3.0 kV	< 3.5 kV
	(DC+/DC- ⇒ PE)	< 1.7 kV	< 1.8 kV	< 2.0 kV
Response time t_A		< 100 ns		
Cross section for connection		min. 4 mm² single-core/ finely-stranded max. 50 mm² stranded / 35 mm² finely-stranded		

Note: The max. continuous operating voltage of the SPD must be higher than the open circuit voltage of the PV generator!

P-VYS R PV

Ord. no. 316 766

Basic circuit:



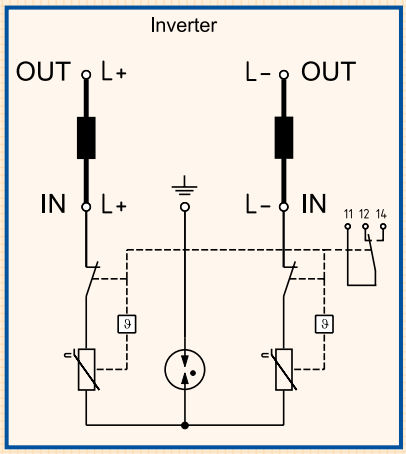
Surge arrester for photovoltaic systems type 2 (class II)

with integrated decoupling coils

P-VYD
with decoupling coils

Ord. no. 306 787

Basic circuit:

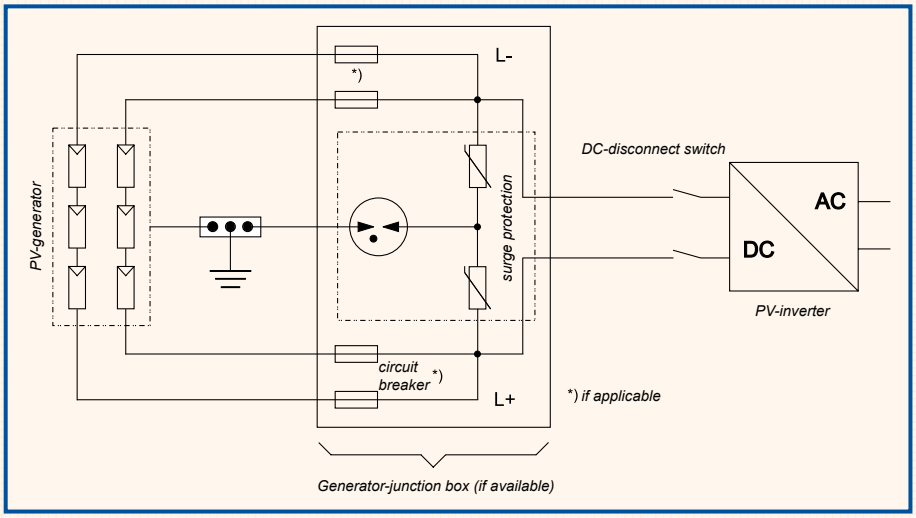


P-VYD, (class II)//LPZ 1-LPZ 2

Surge arrester, pluggable			
Type		Old ord. no.	**Ord. no.**
P-VYD 606	Y-circuit; 2+1-pole	206 763	**306 763**
P-VYD 806	Y-circuit; 2+1-pole	206 783	**306 783**
P-VYD 1006	Y-circuit; 2+1-pole	206 793	**306 793**
Surge arrester, pluggable			
Type **with remote signalling contact (Fm)**		Old ord. no.	**Ord. no.**
P-VYD 606 Fm	Y-circuit; 2+1-pole	206 767	**306 767**
P-VYD 806 Fm	Y-circuit; 2+1-pole	206 787	**306 787**
P-VYD 1006 Fm	Y-circuit; 2+1-pole	206 797	**306 797**

Technical data				
Type P-VYD (Fm)		606	806	1006
Dimensions		5 mods.	5 mods.	5 mods.
Max. continuous operating voltage U_c		**600 V-**	**800 V-**	**1000 V-**
Nominal discharge current (8/20 µs) I_n		20 kA		
Max. discharge current (8/20 µs) I_{max}		40 kA		
Voltage protection level U_p	(L+ ⇒ L-)	< 2.6 kV	< 3.3 kV	< 3.8 kV
	(L+/L- ⇒ PE)	< 1.4 kV	< 1.75 kV	< 2.0 kV
Response time t_A		< 100 ns		
Nominal load current I_L		**16 A**		
Cross section for connection		min. 6 mm² single-core/ finely-stranded max. 50 mm² stranded / 35 mm² finely-stranded		

Note: The max. continuous operating voltage of the SPD must be higher than the open circuit voltage of the PV generator!



Surge arrester for information, measurement and control technology

Design:

Signal circuit

P-**1**	1 signal circuit
P-**2**	2 signal circuit

Basic protection (LPZ 0 - LPZ 1)

P-_ **S**	signal circuit basic protection

Basic protection + fine protection for (LPZ 0 - LPZ 3)

P-_ **SQ**	common mode interference	line/line
P-_ **SL**	differential mode interference	line/PE
P-_ **SQL**	common and differential mode interference	line/line+line/PE

P-1(2)S, LPZ 0 - LPZ 1 and P-1(2)SQL, LPZ 0 - LPZ 3

Signal circuit basic protection for LPZ 0 - 1			
Type with 1 signal circuit		U_N	**Ord. no.**
P-1 S	1 signal circuit	110 V~	**220 000**
Common and differential mode interference for LPZ 0 - 3			
P-1 SQL 5	1 signal circuit	5 V-	**220 205**
P-1 SQL 12		12 V-	**220 212**
P-1 SQL 24		24 V-	**220 224**
P-1 SQL 48		48 V-	**220 248**

Signal circuit - basic protection for LPZ 0-1			
Type with 2 signal circuits		U_N	**Ord. no.**
P-2 S	2 signal circuits	110 V~	**220 500**
Common and differential mode interference for LPZ 0 - 3			
P-2 SQL 5	2 signal circuits	5 V-	**220 705**
P-2 SQL 12		12 V-	**220 712**
P-2 SQL 24		24 V-	**220 724**
P-2 SQL 48		48 V-	**220 748**

Type for analogue telephone lines			**Ord. no.**
P-1 SQ 110	1 signal circuit	110 V~	**220 193**
P-2 SQ 110	2 signal circuits	110 V~	**220 693**

Technical data							
Type P-1 (2)		S	SQ110	SQL5	SQL12	SQL24	SQL48
Norminal voltage U_n		110 V~	110 V~	5 V-	12 V-	24 V-	48 V-
Max. continuous operating voltage U_C		180 V- 130 V~	170 V- 130 V~	6 V- 4.3 V~	14.5 V- 10 V~	27 V- 19 V~	55 V- 39 V~
Voltage protection level U_p at 1kV/µs	line/line	< 700 V	< 300 V	< 10 V	< 20 V	< 40 V	< 80 V
Nominal current		1 A		0.6 A			
Nominal discharge current (8/20µs) I_n		20 kA					
Lightning impulse current (10/350µs) I_{imp}		2.5 kA					
Response time t_A		100 ns	25 ns	1 ns			
Line resistance		---	1.2 Ω	2.2 Ω			
Cross section for connection		0.14 - 2.5 mm²					
Test category acc. to EN 61643-21		A2, C1, C2, C3, D1					
Housing material		Thermoplast, UL 94 V-0, colour orange					

Surge arrester only with common mode interference (SQ) or only with differential mode interference (SL) on request!

P-1 S

Ord. no. 220 000

P-1 SQL 5

Ord. no. 220 205

P-2 SQL 12

Ord. no. 220 712

Communication and network protection

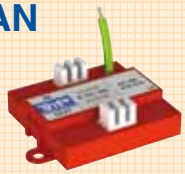
P-TK/Z-ISDN

Ord. no. 210 100

P-TK/ISDN

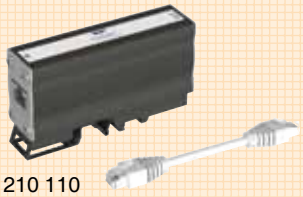
Ord. no. 210 000

P-TK/AN



Ord. no. 210 010

P-TK/Z-CAT 5



Ord. no. 210 110

P-TK/Z-CAT 6

Ord. no. 210 120

P-TK/Z-CAT 6 S

Ord. no. 210 130

P-TK/Z-SUB 9

Ord. no. 210 150

P-TK/Z-ISDN, P-TK/ISDN and P-TK/AN ///(LPZ 0_B-LPZ 3)

Type		Ord. no.
P-TK/Z-ISDN	Including network patch cable	210 100
P-TK/ISDN		210 000
P-TK/AN		210 010

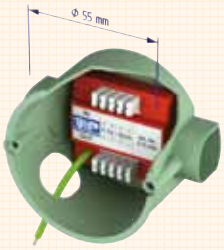
Technical data				
Type P-TK		/Z-ISDN	/ISDN	/AN
Nominal voltage U_N		14 V~ / 18 V-		65 V~ / 180 V-
Nominal discharge current (8/20) I_n	line/PE	5.0 kA		
Voltage protection level U_p	line/line	< 60 V	< 40 V	≤ 300 V
Temperature range ϑ		-20°C ... +60°C		
Connection		2x RJ 45-socket	LSA Plus terminal strip	
Dimensions LxWxH (mm)		80x41x24	41.5x44.5x15	

Installation note:

P-TK/(Z-)ISDN: surge arrester for the protection of the data side of ISDN-devices **(S_0-Bus)**

P-TK/AN: surge arrester for analogue telephone lines

Installation example:



P-TK/Z-CAT 5, -CAT 6, -CAT 6 S ///(LPZ 0_B-LPZ 3) and P-TK/Z-SUB9, LPZ 1-LPZ 3

Type		Ord. no.
P-TK/Z-CAT 5	Including network patch cable	210 110
P-TK/Z-CAT 6	Including network patch cable	210 120
P-TK/Z-CAT 6 S	Including network patch cable	210 130
P-TK/Z-SUB 9		210 150

Technical data					
Type P-TK/Z		-CAT 5	-CAT 6	-CAT 6 S	-SUB9
Max. continuous operating voltage U_C		6 V~ 8.1 V-	34 V~ 48 V-	--- 60 V-	12.7 V~ 18 V-
Nominal current I_L		100 mA	100 mA	500 mA	1 A
Nominal discharge current (8/20) I_n	line/PE	1.6 kA	2.5 kA	1.6 kA	1.35 kA
Voltage protection level U_p	line/line	< 40 V	< 110 V	< 40 V	< 65 V
Response time t_A		< 1 ns			
Connection		2x RJ 45			D-SUB9; pin-/ socket strip
Transmission rate		1 Gbit/s			10 Mbit/s
Dimensions LxWxH (mm)		90x25x47			53x33x17

Communication protection in LSA-plus technology

Plug-in type surge arresters for communication systems, designed as terminal block and disconnection block with LSA-plus insulation displacement technology (soldering, screwing and strip-free connection technology).

Basic protection P-LSA/GA (gas discharge tube), LPZ 0_A-LPZ 1

Type	Max. continuous operating voltage U_c	PU	Ord. no.
Gas discharge tube for magazine P-LSA/MU			
P-LSA/GA 75	75 V	10	**240 350**
P-LSA/GA 90	90 V	10	**240 351**
P-LSA/GA 150	150 V	10	**240 352**
P-LSA/GA 230	230 V	10	**240 353**

System component for 2-step protection P-LSA/KA (combined lightning current and surge arrester) LPZ 1-LPZ 3

Type	Max. continuous operating voltage U_c	PU	Ord. no.
Combined arrester for direct plug-it at the disconnection block P-LSA/TL			
P-LSA/KA 180	180 V	1	**240 451**

System components for basic protection P-LSA/GA (gas discharge tube)

Type	PU	Ord. no.
Magazine (unequipped) for gas discharge tube P-LSA/GA		
P-LSA/MU	1	**240 300**
Cover for P-LSA/MU		
P-LSA/MAD	1	**240 309**

System components for the assembly of protective systems

Type	PU	Ord. no.
P-LSA/EB - Earthing clip	1	**240 190**
P-LSA/TL - Disconnection block for mounting on LSA mounting frame	1	**240 200**
P-LSA/AL - Terminal block for mounting on LSA mounting frame	1	**240 250**

System component mounting frame

Protection of 1x 2-line IT systems per LSA-plus terminal block

Type	PU	Ord. no.
P-LSA/MB- for 10 LSA-plus disconnection or terminal blocks Type P-LSA/TL or P-LSA/AL	1	**240 100**
P-LSA/MBM (modular) - for 10 LSA-plus disconnection or terminal blocks Type P-LSA/TL or /AL. Mounting frame (modular) is perforated and can be divided for 1-45 LSA-plus terminal blocks	1	**240 150**

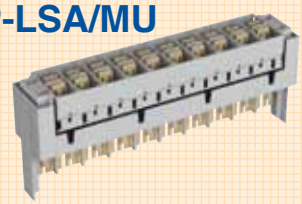
P-LSA/GA

Ord. no. 240 351

P-LSA/KA 180

Ord. no. 240 451

P-LSA/MU



Ord. no. 240 300

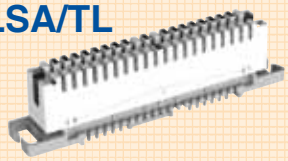
P-LSA/MAD

Ord. no. 240 309

P-LSA/EB

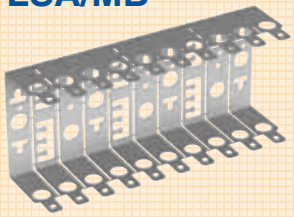
Ord. no. 240 190

P-LSA/TL



Ord. no. 240 200

P-LSA/MB



Ord. no. 240 100

Coax
basic and fine protection

P-TK/Z-SAT

Ord. no. 210 210

P-TK/Z-TV

Ord. no. 210 200

P-TK/Z-BNC 75

Ord. no. 210 228

P-TKF/Z-SAT

Ord. no. 210 212

P-TKF/Z-TV

Ord. no. 210 202

P-TKF/Z-BNC

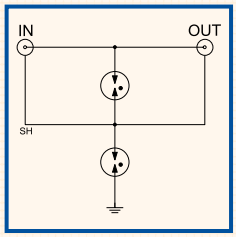
Ord. no. 210 222

Basic protection
P-TK/Z-SAT, P-TK/Z-TV and P-TK/Z-BNC 75, LPZ 0_A - LPZ 1

Type	Ord. no.
P-TK/Z-SAT	**210 210**
P-TK/Z-TV	**210 200**
P-TK/Z-BNC 75	**210 228**

Technical data			
Type P-TK/Z	-SAT	-TV	-BNC 75
Max. continuous operating voltage U_C	70 V-	60 V-	70 V-
Nominal current I_L	4 A		
Lightning impulse current (10/350 µs) I_{imp}	2.5 kA		
Nominal discharge current (8/20 µs) I_n	10 kA		
Voltage protection level U_p line / PE	< 600 V		
Response time t_A	< 100 ns		
Wave impedance Z	75 Ω		
Frequency range f	< 2.15 GHz	< 862 MHz	< 2.15 GHz
Connection	2x F-socket	IEC 75-plug IEC 75-socket	2x BNC-socket
Dimensions L/W/H (mm)	45/25/48	43/32/22	45/25/48
Test standard	IEC 61643-21		

Basic circuit:

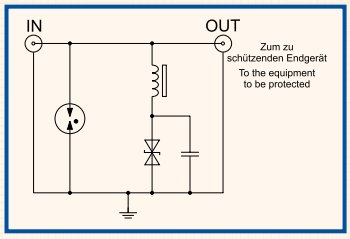


Fine protection
P-TKF/Z-SAT, P-TKF/Z-TV and P-TKF/Z-BNC, LPZ 1 - LPZ 3

Type	I_n (8/20 µs)	Ord. no.
P-TKF/Z-SAT	1.5 kA	**210 212**
P-TKF/Z-TV	1.5 kA	**210 202**
P-TKF/Z-BNC	1.5 kA	**210 222**

Technical data			
Type P-TKF/Z	-SAT	-TV	-BNC
Max. continuous operating voltage U_C	65 V~/-		
Nominal current I_L	4 A		
Nominal discharge current (8/20 µs) I_n	1.5 kA		
Voltage protection level U_p	< 350 V		
Response time t_A	< 1 ns		
Frequency range f	1 MHz-2.15GHz	1 MHz-862MHz	1 MHz-2.15GHz
Connection	2x F-socket	IEC 75-plug IEC 75-socket	2x BNC-socket
Wave impedance Z	75 Ω		50 Ω
Dimensions L/W/H (mm)	58.5/44/22		
Test standard	IEC 61643-21		

Basic circuit:



Other plug and socket arrangements available on request.

Accessories

Busbar
for multipole connection of lightning current and surge arresters.

Specification	Fit	Length	PU	Ord. no.
Copper with plastic strip	16 mm²	1 m	1	**206 060**
2 mods. with integrated end cap	16 mm²	36 mm	1	**206 062**
3 mods. with integrated end cap	16 mm²	54 mm	1	**206 063**
4 mods. with integrated end cap	16 mm²	72 mm	1	**206 064**
6 mods. with integrated end cap	16 mm²	108 mm	1	**206 065**
7 mods. with integrated end cap	16 mm²	126 mm	1	**206 067**
8 mods. with integrated end cap	16 mm²	144 mm	1	**206 066**
(1 mod. = 17.5 mm according to DIN 43880)				
End cap for busbar for Ord. no. 206 060 (1 m)			1	**206 061**

Earth-side bridging bar, for the bridging of earthing terminals
for 2, 3 or 4 lightning current and surge arresters.

Specification	PU	Ord. no.
Brass / tinned With terminal clamp 25 mm² 2-pole to 4-pole	1	**2064**
Earthing terminals for the connection of an additional protective conductors up to 35 mm²	1	**207 000**

Distribution board grey, degree of protection IP 65,
as insulation material housing for lightning current and surge arresters.

Housing Type	Dimensions (W x H x D)	PU	Ord. no.
KV 3 TE (3 mods.)	100 x 150 x 96 mm	1	**206 010**
KV 5 TE (5 mods.)	125 x 200 x 122 mm	1	**206 005**
KV 9 TE (9 mods.)	200 x 200 x 122 mm	1	**206 004**
KV 12 TE (12 mods.)	250 x 200 x 122 mm	1	**206 011**
Other housing dimensions on request.			

Spark gaps

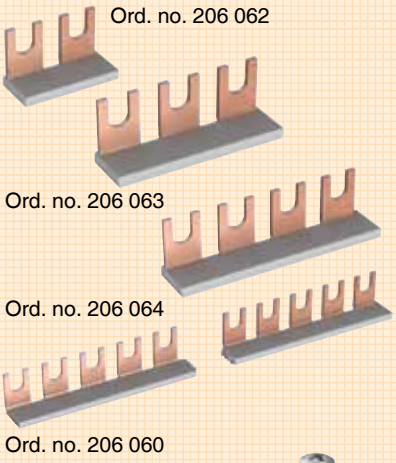
Protective spark gap
made of porcelain with corrosion proof connectors e.g. for roof racks

Specification	Power frequency withstand voltage (U_{aw})	PU	Ord. no.
Protective spark gap with connection bolt made of Brass ø 8 mm	~ 10 kV (50 Hz)	25	**111 060**
Protective spark gap with connection bolt made of Stainless st. V2A ø 10 mm	~ 2.5 kV (50 Hz)	25	**111 061**

Isolating spark gap for installing in lightning equipotential bonding systems
according to EN 62305; Encapsulated with plastic coating; anti-tracking.

Specification			PU	Ord. no.
Isolating Spark Gap with connection bolt made of Stainless steel V2A ø 8 mm			1	**111 065**
Technical data:				
Power frequency withstand voltage	U_{aw}	< 2.5 kV (50 Hz)		
Lightning impulse sparkover voltage	U_{as100}	< 5.0 kV (1.2/50 µs)		
Lightning impulse current	I_{imp}	100 kA (10/350 µs)		

Busbar
Ord. no. 206 062



Ord. no. 206 063

Ord. no. 206 064

Ord. no. 206 060

Earth-side bridging bar

Ord. no. 2064

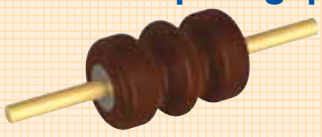
Earthing terminals

Ord. no. 207 000

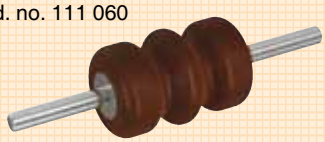
Distribution board

Ord. no. 206 005

Protective spark gaps



Ord. no. 111 060



Ord. no. 111 061

Isolating spark gaps

Ord. no. 111 065

Plug-in P-HMS 280

Ord. no. 207 201

Plug-in P-HMS 280

Ord. no. 307 201

Plug-in P-VMS 280

Ord. no. 206 281

Plug-in P-VMS 280

Ord. no. 306 281

Plug-in P-HMS 280 R

Ord. no. 317 201

Plug-in P-HMS 280 *max*

Ord. no. 317 206

Plug-in P-HMS 500 R PV

Ord. no. 317 405 PV

Plug-in P-VMS 280 R

Ord. no. 316 281

Spare parts

Plug-in	Housing color	Ord. no.
P-HMS 280	red	207 201
P-HMS 280 Fm	red	207 203
P-HMS 360	red	207 301
P-HMS 360 Fm	red	207 303
P-HMS 440	red	207 401
P-HMS 440 Fm	red	207 403

Plug-in	Housing color	Ord. no.
P-HMS 280	blue	307 201
P-HMS 300 PV	blue	307 201 PV
P-HMS 280 Fm	blue	307 203
P-HMS 300 Fm PV	blue	307 203 PV
P-HMS 360	blue	307 301
P-HMS 400 PV	blue	307 301 PV
P-HMS 360 Fm	blue	307 303
P-HMS 400 Fm PV	blue	307 303 PV
P-HMS 440	blue	307 401
P-HMS 500 PV	blue	307 401 PV
P-HMS 440 Fm	blue	307 403
P-HMS 500 Fm PV	blue	307 403 PV

Plug-in	Housing color	Ord. no.
P-VMS 280	red	206 281
P-VMS 280 Fm	red	206 283
P-VMS 360	red	206 364
P-VMS 360 Fm	red	206 366
P-VMS 440	red	206 442
P-VMS 440 Fm	red	206 444

Plug-in	Housing color	Ord. no.
P-VMS 280	blue	306 281
P-VMS 300 PV	blue	306 281 PV
P-VMS 280 Fm	blue	306 283
P-VMS 300 Fm PV	blue	306 283 PV
P-VMS 360	blue	306 364
P-VMS 400 PV	blue	306 364 PV
P-VMS 360 Fm	blue	306 366
P-VMS 400 Fm PV	blue	306 366 PV
P-VMS 440	blue	306 442
P-VMS 500 PV	blue	306 442 PV
P-VMS 440 Fm	blue	306 444
P-VMS 500 Fm PV	blue	306 444 PV

Plug-in	Housing color	Ord. no.
P-HMS 280 R	blue	317 201
P-HMS 300 R PV	blue	317 201 PV
P-HMS 400 R PV	blue	317 301 PV

Plug-in	Housing color	Ord. no.
P-HMS 280 *max*	blue	317 206

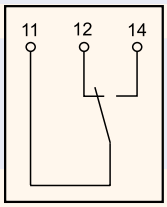
Plug-in	Housing color	Ord. no.
P-HMS 500 R PV	blue	317 405 PV

Plug-in	Housing color	Ord. no.
P-VMS 280 R	blue	316 281
P-VMS 300 R PV	blue	316 281 PV
P-VMS 360 R	blue	316 364
P-VMS 400 R PV	blue	316 364 PV
P-VMS 440 R	blue	316 442
P-VMS 500 R PV	blue	316 442 PV

Additional spare parts on request.

Important notes and explanations for the category “surge protection”:

For surge protective devices, that are marked with **“Fm”**, the following applies:

Remote signalling contact (Fm):		
Contact	Change-over contact	Diagram: 
Switching capacity	250 V / 5.0 A~ 75 V / 0.75 A- 125 V / 0.5 A- 250 V / 0.25 A-	
Cross-section for connection	1.5 mm²	

For all surge protective devices illustrated in the catalogue the following applies:

Dimensions according to DIN 43 880	17.5 mm (1 mod. = 18 mm)	
Temperature range	-40°C ... + 80°C	
Housing material	Thermoplast UL 94 V-0	
Protection class	IP 20	
Mounting on DIN rail	35 mm according to EN 60715	
Installation tool	Screwdriver:	Slot, size. 5.5
		Phillips, size. 2
Function indicator	OK:	Green
	Defective:	Logo “*DEFECT*”
Important:	**Defect arresters offer no protection and must be replaced!**	
Test standard for surge protective devices for power supply	EN 61643-11	

If specifications differ, please refer to the information supplied in the "technical data" tables for the respective device.

Important note:

The information about possible application areas for our products is intended as product-specific information only. Our technical application notes are the result of many years of experience and are made to the best of our knowledge. This information is, however, non-binding, since the different possibilities of application and individual installation conditions that our products may be subjected to, lie outside our sphere of influence. We therefore recommend that you observe the current country-specific standards and check that the products in question are suitable for the intended application.

Use and installation of the products are outside of our control and are therefore the sole responsibility of the user.

Keyword register

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The components marked with -H- are tested with 100 kA (10/350 µs) according to EN 62561-1. Status: August 2013

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The components marked with -H- are tested with 100 kA (10/350 µs) according to EN 62561-1. Status: August 2013

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110 253			33
110 255			33
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110 272			32
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110 283			34
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110 523			42
110 524			43
110 525			43
110 526			43
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110 531			43
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111 023			39
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111 192			43
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111 210			68
111 211			68
111 212			68
111 213			68
111 214			68
111 215			68
111 216			68
111 217			68
111 222			33
111 222 G			33
111 225			33
111 225 G			33
111 227			33
111 227 G			33
111 232			33
111 232 G			33
111 235			33
111 235 G			33
111 237			33
111 237 G			33
111 240		H	70
111 241		H	70
111 242		H	70
111 243		H	70
111 244		H	70
111 245		H	70
111 246		H	70
111 247		H	70
111 248		H	70
111 249		H	70
111 260			69
111 261		H	68
111 265			33
111 265 G			33
111 266			33
111 266 G			33
111 267			33
111 267 G			33
111 270		H	53/60
111 270 S		H	53/60
111 271		H	53/60
111 271 S		H	53/60
111 272		H	53/60
111 273		H	53/60
111 274		H	53/60/62
111 279			53
111 280		H	53/74
111 284			54
111 285			54
111 286			54
111 287			54
111 296		H	24
111 297		H	24
111 298		H	24
111 299		H	24
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111 319			73
111 337		H	58
111 339		H	58
111 341		H	58
111 344		H	58
111 345		H	58
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111 353		H	74
111 354		H	74
111 355		H	77
111 356		H	77
111 357		H	77
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111 363			64
111 364		H	64
111 365			64
111 366		H	64
111 370		H	55
111 371		H	55
111 375		H	57
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111 379		H	61
111 380		H	61
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111 384		H	61
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111 386		H	61
111 387		H	61
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111 390		H	69
111 391		H	69
111 392		H	69
111 393		H	69
111 394		H	69
111 395		H	69
111 396		H	33
111 397		H	33
111 398		H	33
111 399		H	33
111 400		H	80
111 404		H	65
111 405		H	57
111 410		H	28/54
111 411		H	28/54
111 412		H	28/54
111 420		H	75

The components marked with -H- are tested with 100 kA (10/350 µs) according to EN 62561-1. Status: August 2013

Numerical index

The components marked with -H- are tested with 100 kA (10/350 µs) according to EN 62561-1. Status: August 2013

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Numerical index

The components marked with -H- are tested with 100 kA (10/350 µs) according to EN 62561-1. Status: August 2013

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