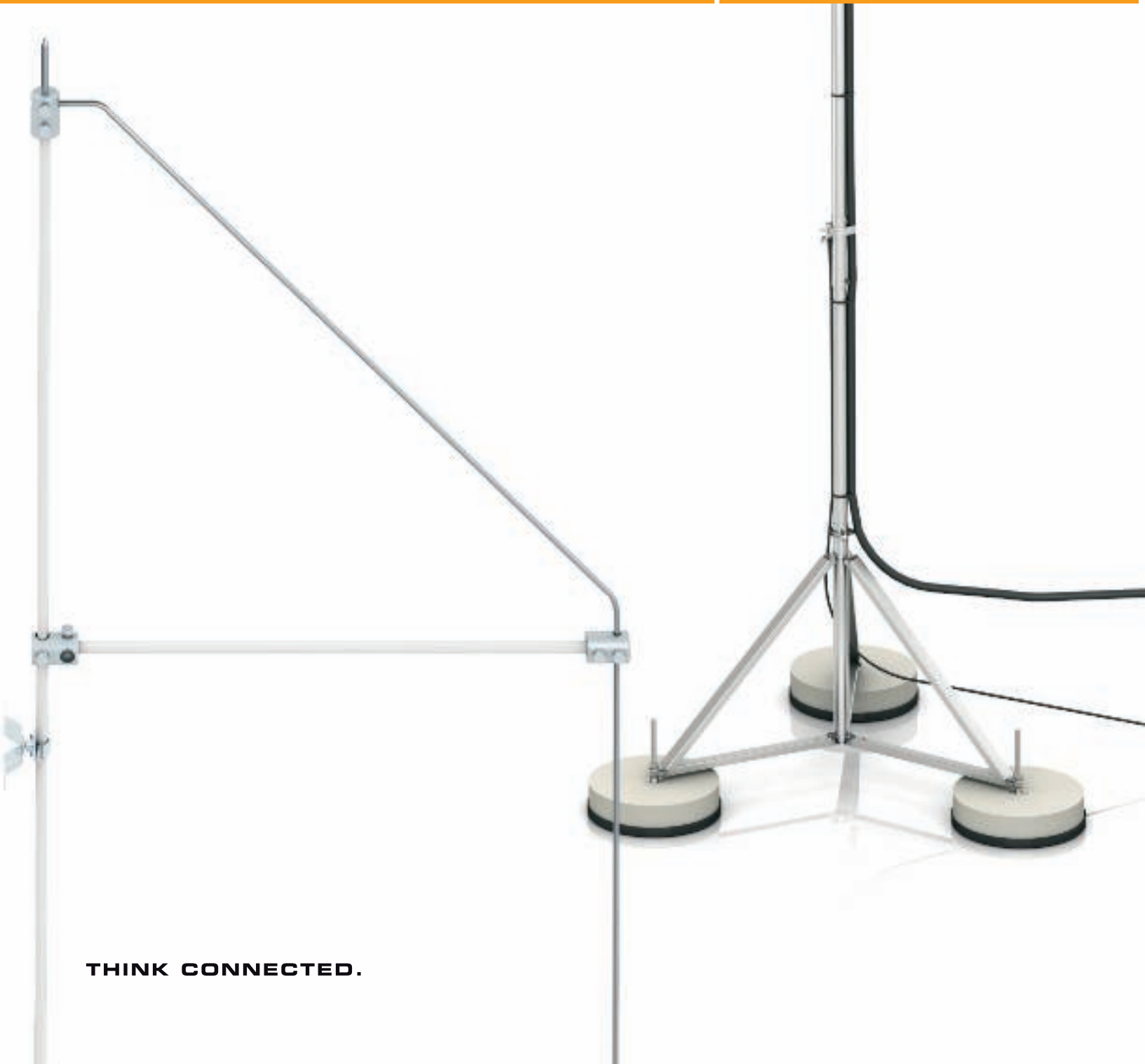


**Insulated lightning protection
for roof structures**



THINK CONNECTED.

Safe and effective systems for insulated lightning protection

Safe functioning.

Effective mounting.

Insulated lightning protection has a decisive role to play in the protection of buildings against lightning strikes. The systems shown permit standardised lightning protection systems according to VDE 0185-305 (IEC 62305). We think it is particularly important for you to be able to work quickly and effectively with our products. We live up to this promise through a range of practical product characteristics.

Overview of the systems

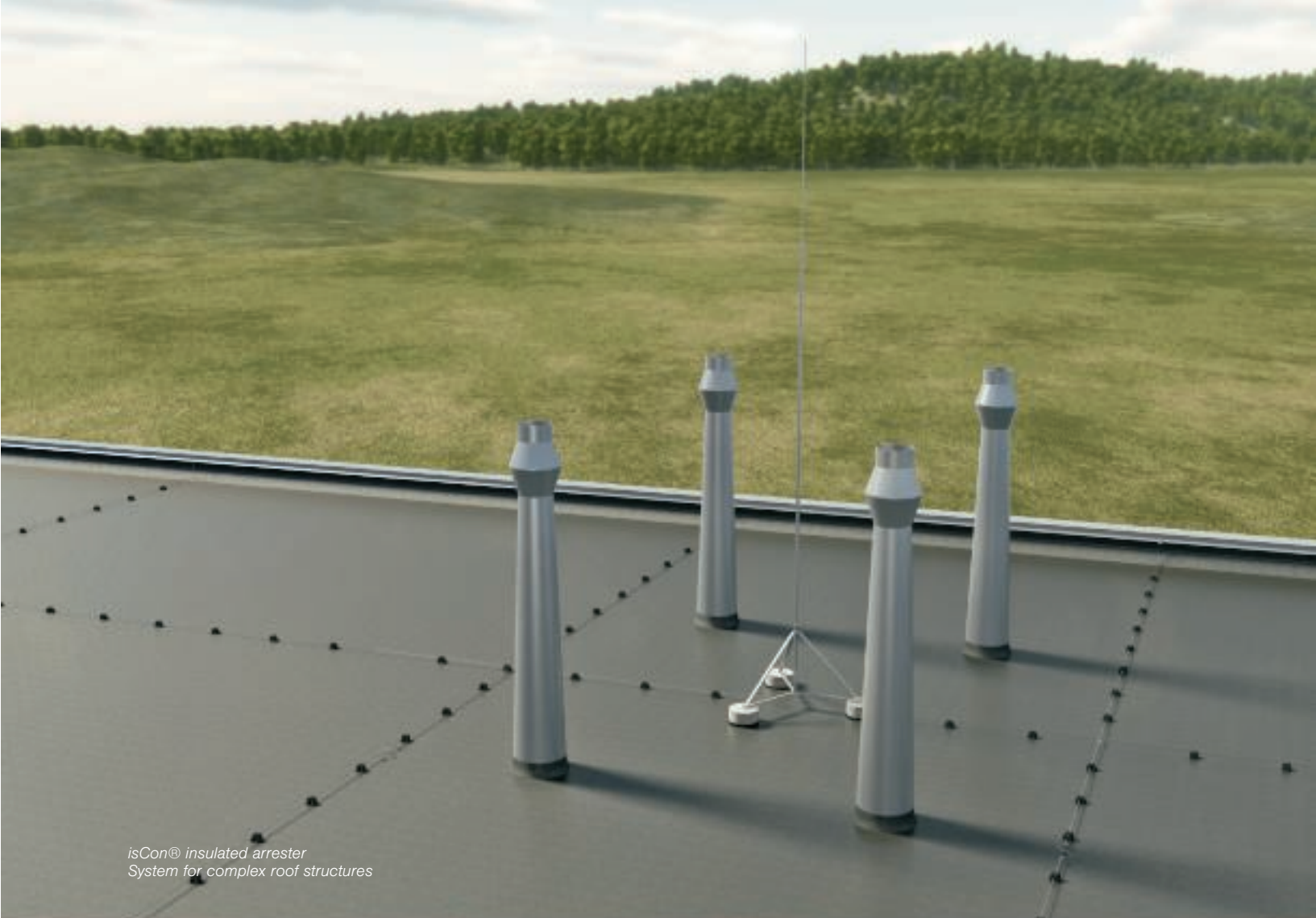
- Insulated interception systems
- isFang interception rod system
- isCon® insulated conductor

We will present these systems in detail on the following pages.

Planning aids

You can find comprehensive planning aids in our main catalogue, on the Internet or by visiting our seminars. Get in touch with us, we'd be glad to help you!

Insulated lightning rod for roof structures



*isCon® insulated arrester
System for complex roof structures*



*isFang interception rod system
Interception rods of up to 8 m with tripod stand*

02_TBS Prospekt_Isolierter Blitzschutz für Dachaufbauten / en / 29/07/2010 (LLExport_01059)

Insulated intercepting devices for almost any application



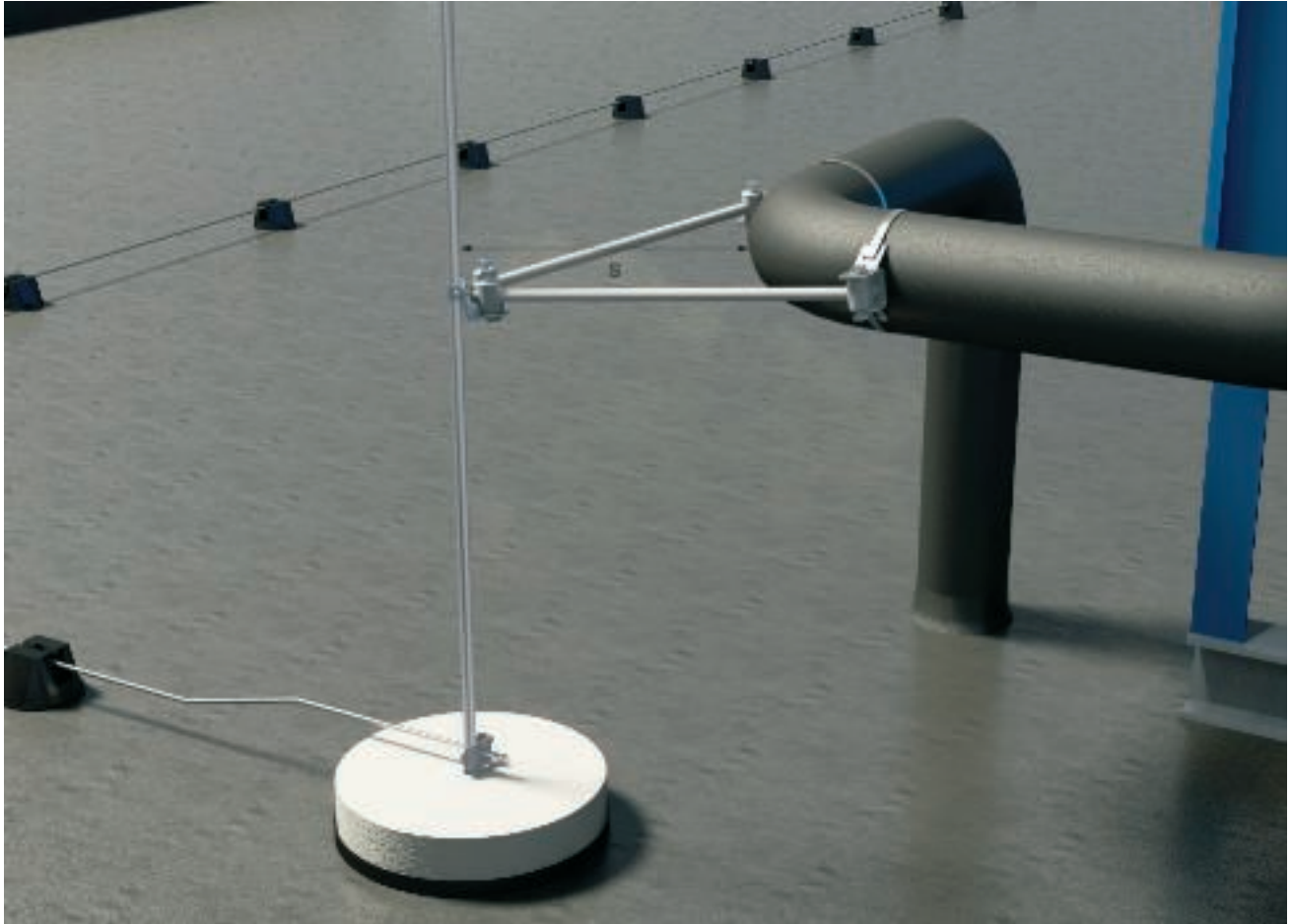
Insulated intercepting device with separating spacing (s)

The complex contours of metallic and electrical units protruding above the roof make particular demands of lightning protection and compliance with the separating distance.

Creating a separating distance

With the OBO insulated lightning protection, you can erect separate interception devices safely, economically and in accordance with standards. The core of the system is an insulating, fibre glass-reinforced plastic rod, which creates the separating distance safely and prevents uncontrolled arcing and dangerous spark creation. This means that no partial lightning currents can enter the building.





Interception rod with Iso-combination set and separating distance (s)

Two material thicknesses for different applications

The insulated lightning protection system consists of GFK rods with a diameter of 16 or 20 mm with the following properties:

16 mm GFK rods

- Up to 3 m length
- UV-stable
- Light grey
- Material factor km: 0.7
- Load torque: > 400 mm³
- Support load: 54 N (1.5 m)

20 mm GFK rods

- Up to 3 m length
- UV-stable
- Light grey
- Material factor km: 0.7
- Load torque: > 750 mm³
- Support load: 105 N (1.5 m)

There is a comprehensive range of system accessories available for both variants.

Particularly simple mounting through pre-terminated sets

Besides the modular products, we can offer you pre-installed sets for standard installation requirements:

- Set with two fastening plates
- Set with wall connection brackets
- Set for fastening on folds
- Set for fastening on pipes

Quick, simple, premounted: the sets of the insulated interception system

Iso-combination set for 3-corner fastening

Iso-combination set for 3-corner fastening for the erection of an insulated interception system at a safe separating distance (s). For mounting on walls and roof structures with two fastening plates. To accept interception rods and round cables of 8, 16 and 20 mm diameter.

- Type: 101 3-ES-16
- Article No. 5408976
- L = 750 mm
- H = 1,500 mm



Iso-combination set for V fastening

Iso-combination set for fold fastening for the erection of an insulated interception system at a safe separating distance (s) of up to 750 mm. For mounting on the fold of supports and roof structures with folding clamps of a folding thickness of up to 20 mm. To accept interception rods and round cables of 8, 16 and 20 mm diameter.

- Type: 101 VS-16
- Article No. 5408978
- L = 750 mm





Iso-combination set for fold fastening

Iso-combination set for fold fastening for the erection of an insulated interception system at a safe separating distance (s). For mounting on the fold of supports and roof structures with folding clamps with a folding thickness of up to 20 mm. To accept interception rods and round cables of 8, 16 and 20 mm diameter.

- Type: 101 FS-16
- Article No. 5408980
- L = 750 mm



Iso-combination set for pipe V fastening

Iso-combination set for pipe V fastening for the erection of an insulated interception system at a safe separating distance (s). For mounting on pipes with two pipe clamps. To accept interception rods and round cables of 8, 16 and 20 mm diameter.

- Type: 101 RVS-16
- Article No. 5408982
- L = 750 mm

On top of everything: the isFang interception rod system

Quickly and simply installed

The OBO isFang modular interception rod system can offer a fast and freely terminable solution for insulated interception rod systems, as well as high interception rods for the largest possible protection angle.

Insulated variant

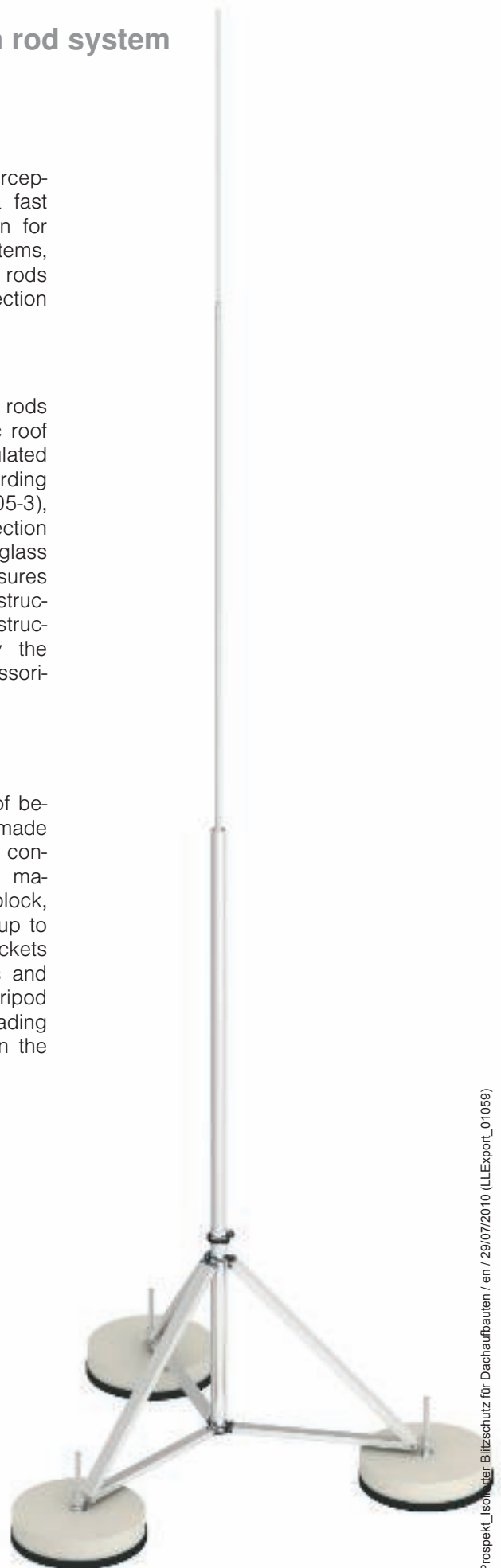
The insulated interception rods protect electrical and metallic roof structures, taking the calculated separating distance (s), according to VDE 0185-305-3 (IEC 62305-3), into account. An insulated section of 1.5 metres made of fibre-glass reinforced plastic (GFK) ensures sufficient distance to all roof structures. Even complex building structures can be protected by the comprehensive system accessories.

Aluminium variant

The 3-part interception rods of between 4 and 8 metres and made of aluminium complement the conventional interception system made of interception rod and block, which is used for heights of up to 4 metres. Various brackets for mounting on walls, pipes and corner pipes, as well as two tripod stands with different spreading widths, are available to fasten the various interception rods.



Insulated interception rod in heights of 3 m and 5 m



Aluminium interception rod, from 4 m to 8 m in height

Position, open up, fix – and you're done



Simple erection of the tripod stand: position the blocks...



... open up the stand...



... and screw to the FangFix concrete blocks.

Please note that the number of FangFix blocks required may vary according to the wind strength.

Arrangement of isFang system (in wind load zone 2)

Height of interception rod, aluminium	Height of insulated interception rod, material GFK/VA	Spreading width, tripod stand	Amount of Fang-Fix concrete blocks 16 kg in wind load zone 2	Amount of FangFix edge protection	Length of threaded rod
	3 m Art. No. 5408942	1 m Art. No. 5408968	3 blocks Art. No. 5403227	3 x edge protection Art. No. 5403235	270 mm Art. No. 5408971
4 m Art. No. 5402864		1 m Art. No. 5408968	3 blocks Art. No. 5403227	3 x edge protection Art. No. 5403235	270 mm Art. No. 5408971
4.5 m Art. No. 5402866		1 m Art. No. 5408968	3 blocks Art. No. 5403227	3 x edge protection Art. No. 5403235	270 mm Art. No. 5408971
	5 m Art. No. 5408946	1 m Art. No. 5408968	6 blocks Art. No. 5403227	3 x edge protection Art. No. 5403235	340 mm Art. No. 5408972
5 m Art. No. 5402868		1 m Art. No. 5408968	6 blocks Art. No. 5403227	3 x edge protection Art. No. 5403235	340 mm Art. No. 5408972
5.5 m Art. No. 5402870		1 m Art. No. 5408968	6 blocks Art. No. 5403227	3 x edge protection Art. No. 5403235	340 mm Art. No. 5408972
6 m Art. No. 5402872		1.5 m Art. No. 5408969	6 blocks Art. No. 5403227	3 x edge protection Art. No. 5403235	340 mm Art. No. 5408972
6.5 m Art. No. 5402874		1.5 m Art. No. 5408969	6 blocks Art. No. 5403227	3 x edge protection Art. No. 5403235	340 mm Art. No. 5408972
7 m Art. No. 5402876		1.5 m Art. No. 5408969	6 blocks Art. No. 5403227	3 x edge protection Art. No. 5403235	340 mm Art. No. 5408972
7.5 m Art. No. 5402878		1.5 m Art. No. 5408969	9 blocks Art. No. 5403227	3 x edge protection Art. No. 5403235	430 mm Art. No. 5408973
8 m Art. No. 5402880		1.5 m Art. No. 5408969	9 blocks Art. No. 5403227	3 x edge protection Art. No. 5403235	430 mm Art. No. 5408973

Stay flexible with our isCon® system.

Total flexibility in the design of the lightning protection system

isCon® is an conductor without creeping discharge. It allows maintenance of a separating distance according to VDE 0185-305-3 (I-EC 62305-3) and can replace a separating distance of 0.75 metres in the air and 1.5 metres in the case of solid materials. These are properties confirmed by independent testing institutes.





Delivered on a disposable cable reel



Simple insulation removal



Simple termination

Total flexibility on the construction site

The OBO isCon® cable can be used flexibly. It is supplied on disposable cable reels, sold by the metre. The length of the individual arrester and the termination of the connection is made on site. This means: no ordering of pre-terminated cables, but rather flexible working according to actual conditions on the construction site. Special knowledge is required to be able to carry out the planning and routing of the isCon® correctly. This knowledge is imparted by the current installation instructions, but can also be deepened in special OBO workshops.

Structure of the isCon® cable

The OBO isCon® cable consists of five parts. The copper core has a cross-section of 35 mm² (at least 28 mm² to IEC 62305) and is surrounded by an internal conductive layer and a high voltage-resistant VPE insulation. In turn, this is surrounded by an external conductive layer and with an additional weakly conductive material. The lightning current flows through the copper core. For operation, the copper core must be connected to the weakly conductive jacket using a connection element.

Design of the conductor

The routing of the isCon® cable must be planned and executed according to the current mounting and installation instructions.

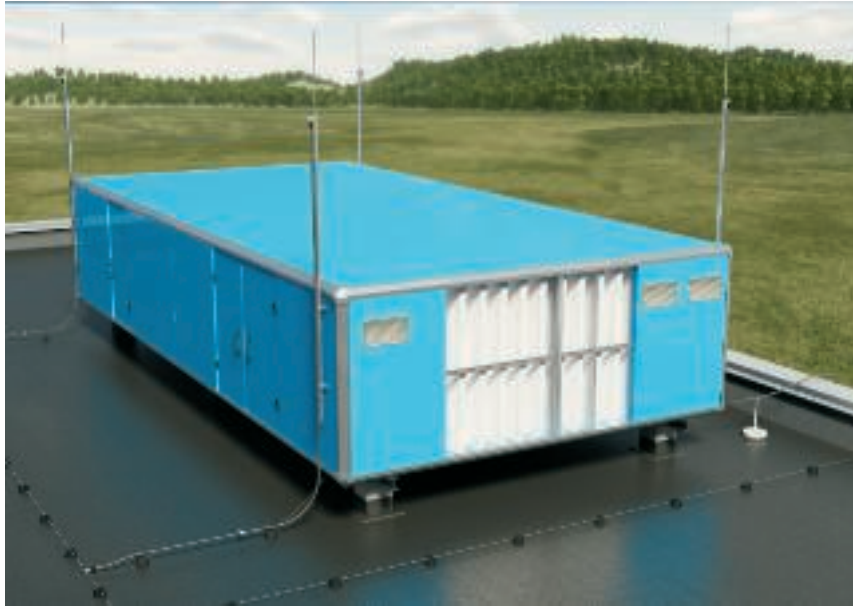
Overview of product benefits

- Replaces 0.75 metres of separating distance in the air
- Universal: simple termination on the construction site
- Conforms to the standard: cross-section of 35 mm² copper
- Tested: by independent testing institutes

Maximum length of isCon® cable for s = 0.75 m (one conductor)

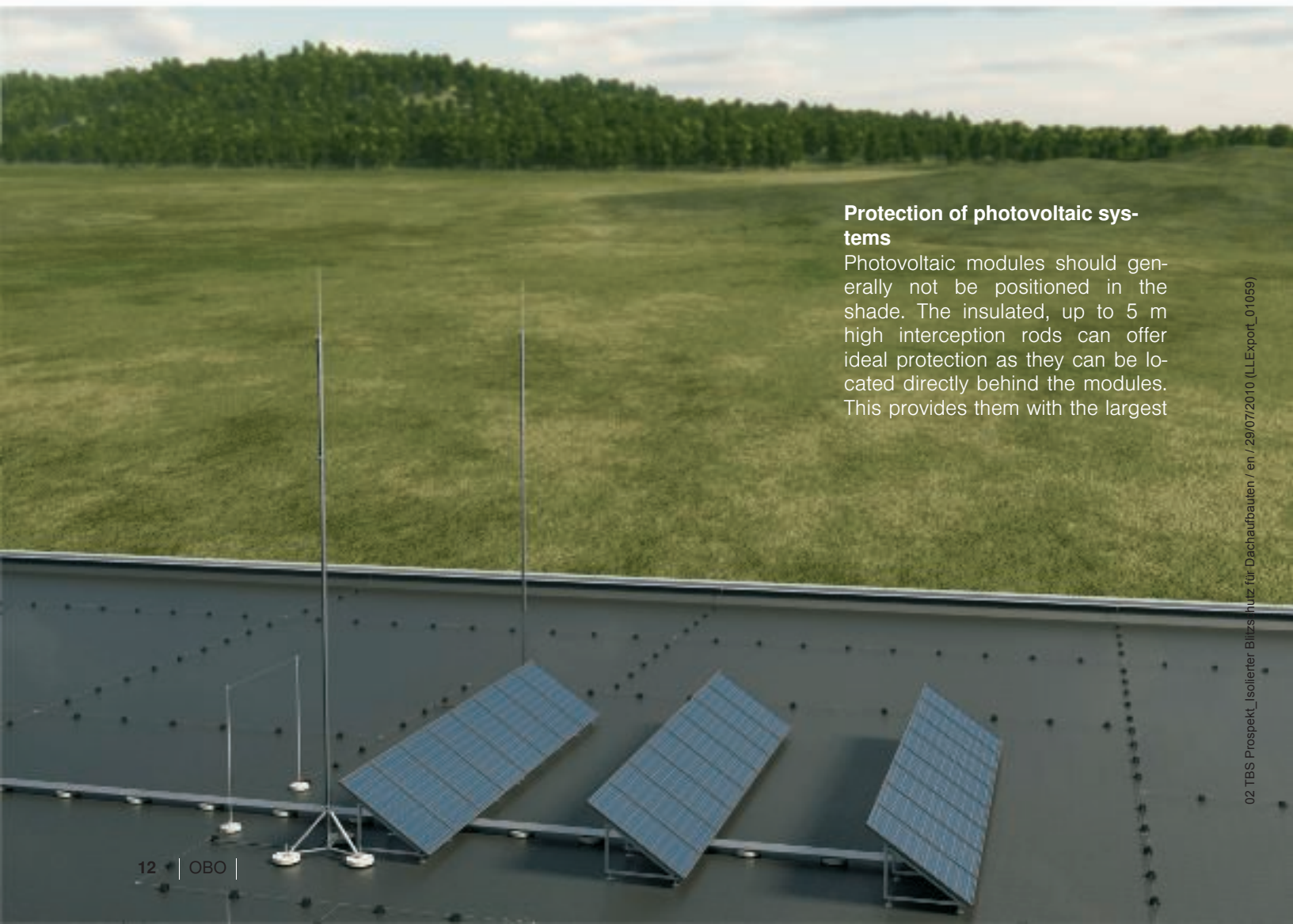
LPS – lightning protection class	Maximum length of the isCon® cable
I	9.37 m
II	12.50 m
III + IV	18.75 m

Application examples for the isCon® system



Protection of roof structures

Insulated interception rods and a range of fastening clips allow space-saving protection of different building structures and roof structures.

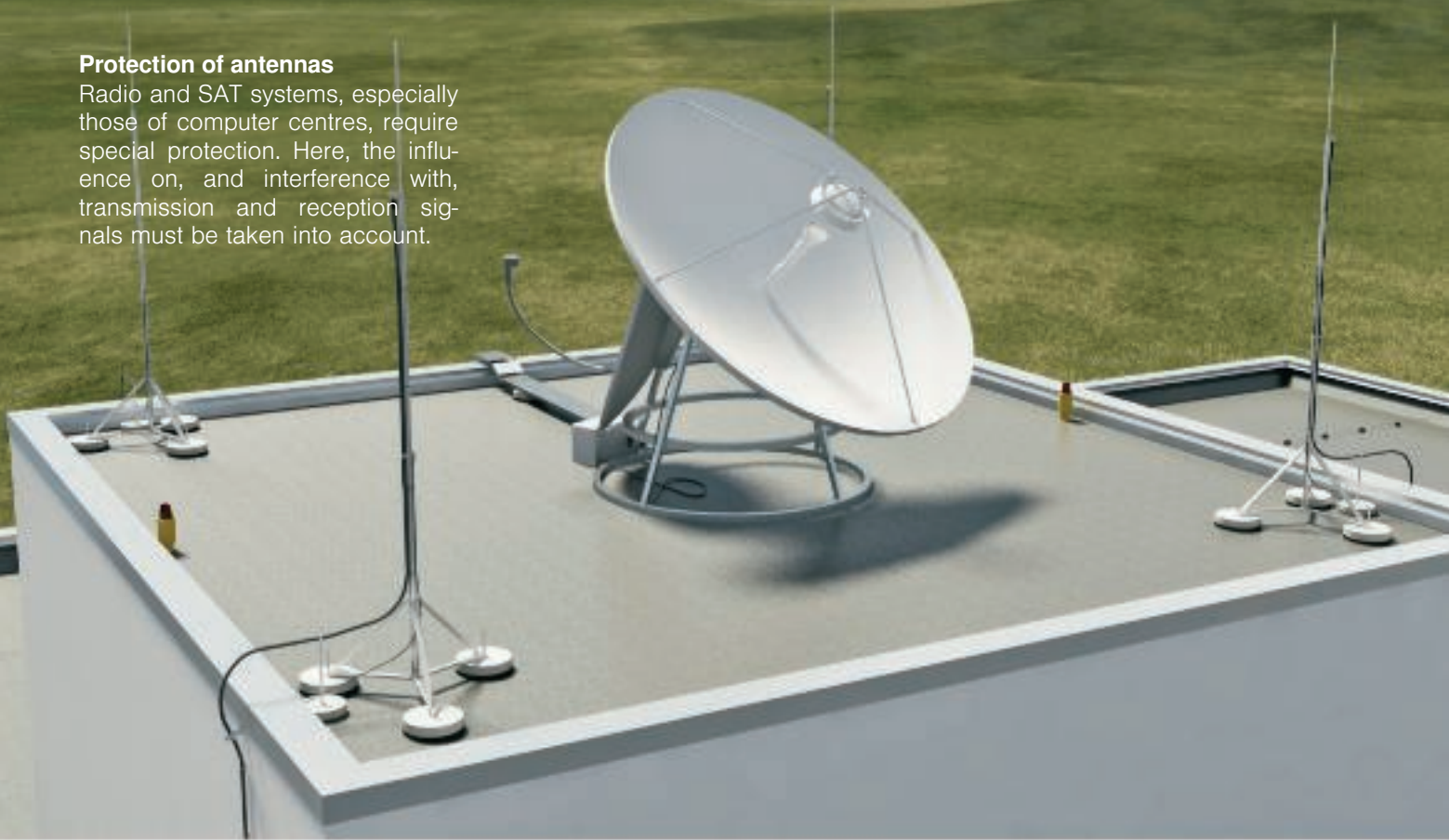


Protection of photovoltaic systems

Photovoltaic modules should generally not be positioned in the shade. The insulated, up to 5 m high interception rods can offer ideal protection as they can be located directly behind the modules. This provides them with the largest

Protection of antennas

Radio and SAT systems, especially those of computer centres, require special protection. Here, the influence on, and interference with, transmission and reception signals must be taken into account.



Easy refitting and combination with existing lightning protection systems

Roof installations and antennas installed later must be integrated into an existing lightning protection system. In so doing, separating distances which cannot be maintained rapidly become a problem. The isCon® cable replaces this distance by up to 0.75 metres.

Planning aid, protective angle method

Protective angle method for roof structures

You have protected the flat-roofed building correctly according to the standard VDE 0185-305 (IEC 62305). You must now protect all roof structures with interception rods. This involves observing the separating distance (s).

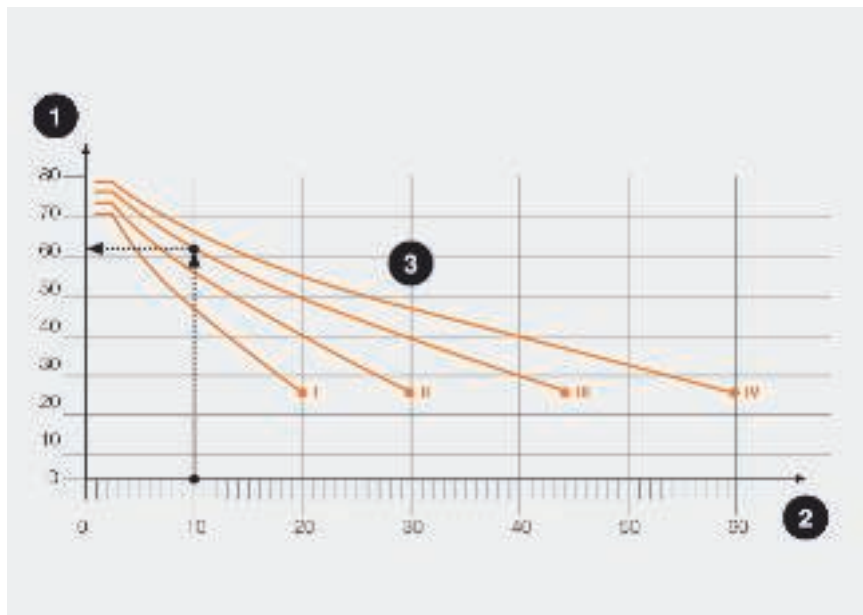
If the roof structure has a conductive continuation into the building (e.g. with a stainless steel pipe with a connection to the ventilation or air conditioning system), then the separating distance (s) must always be maintained. The interception rod must be erected at a certain distance from the building to be protected. This distance safely prevents arcing of the lightning current and dangerous spark creation.



α° = lightning protection angle, s = separating distance

Roof structures with an individual interception rod

The protective angle for lightning rods varies according to lightning protection class. You can find the protective angle (α) in the table for the most common interception rods of up to 3 m in length.



1 = lightning protection angle α° , 2 = ridge height h in mm, 3 = lightning protection classes I/II/III/IV

Protective angle according to lightning protection class according to VDE 0185-305 (IEC 62305)

Lightning protection class	Protection angle α for interception rods to 3 m length
I	70°
II	72°
III	76°
IV	79°

Planning aid, rolling sphere method



$$p = R - \sqrt{R^2 - \left(\frac{d}{2}\right)^2}$$

p = penetration depth, R = radius of the lightning sphere, d = distance of the interception system

Formula for calculating the penetration depth (p)

Roof structures with multiple interception rods

If you use several interception rods to protect an object, you must take into consideration the penetration depth between them. For a precise calculation, use the following formula:

Penetration depth according to the lightning protection class according to VDE 0185-305 (IEC 62305)

Distance of interception system (d) in m	Penetration depth Lightning protection class I lightning protection sphere: R = 20 m	Penetration depth Lightning protection class II lightning protection sphere: R = 30 m	Penetration depth Lightning protection class III lightning protection sphere: R = 45 m	Penetration depth Lightning protection class IV lightning protection sphere: R = 60 m
2	0.03	0.02	0.01	0.01
3	0.06	0.04	0.03	0.02
4	0.10	0.07	0.04	0.04
5	0.16	0.10	0.07	0.05
10	0.64	0.42	0.28	0.21
15	1.46	0.96	0.63	0.47
20	2.68	1.72	1.13	0.84

Insulation lightning protection

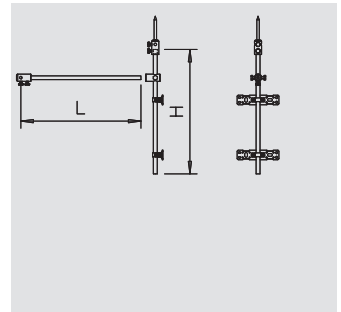


Insulated lightning protection set, 3-corner fastening

Type	Dimension D	Dimension L	Dimension H	Pack	Weight	Item no.
	Ø mm	mm	mm			
101 3-ES-16	16	750	1500	1	207.100	5408 97 6

3-corner fastening: For an insulated interceptor unit at the separation distance, see mounting on walls and roof structures with two fastening plates. Seat for interception rods and round conductors of 8, 16 and 20 mm diameter.

With M10 bolts

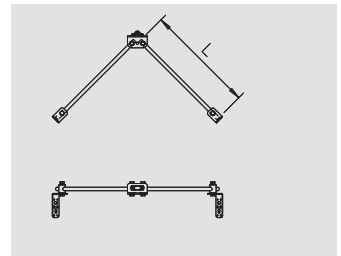


Insulated lightning protection set, V fastening

Type	Dimension D	Dimension L	Pack	Weight	Item no.
	Ø mm	mm			
101 VS-16	16	750	1	201.800	5408 97 8

V fastening: For an insulated interceptor unit at the separation distance, see mounting on walls and roof structures with two wall connection brackets. To accept interception rods and round conductors of 8, 16 and 20 mm diameter.

With M10 bolts

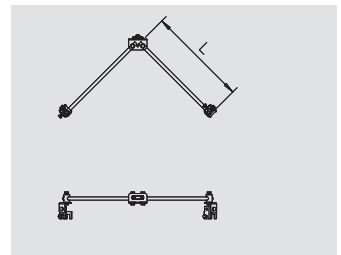


Insulated lightning protection set, FS fastening

Type	Dimension D	Dimension L	Pack	Weight	Item no.
	Ø mm	mm			
101 FS-16	16	750	1	235.500	5408 98 0

Fold fastening: For an insulated interceptor unit at the separation distance, see mounting on folds with fold thicknesses of up to 20 mm. To accept interception rods and round conductors of 8, 16 and 20 mm diameter.

With M10 bolts

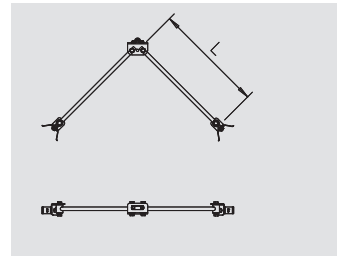


Insulated lightning protection set, VRS fastening

Type	Dimension D	Dimension L	Pack	Weight	Item no.
	Ø mm	mm			
101 VRS-16	16	750	1	209.400	5408 98 2

Pipe V fastening: For an insulated interceptor unit at the separation distance, see mounting on pipes with two pipe clips. To accept interception rods and round conductors of 8, 16 and 20 mm diameter.

With M10 bolts

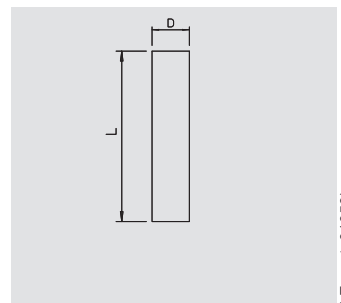


Insulating rod

Type	Nominal size Ø	Length	Pack	Weight	Item no.
	mm	mm			
101 20-3000	20	3000	5	190.000	5408 10 5
101 20-6000	20	6000	5	380.000	5408 14 8
101 16-750	16	750	5	30.000	5408 10 7
101 16-1500	16	1500	5	60.000	5408 10 8
101 16-3000	16	3000	5	120.000	5408 10 9

To erect insulated interception devices to VDE 0185-305 (IEC 62305), km = 0.7.

With M10 bolts

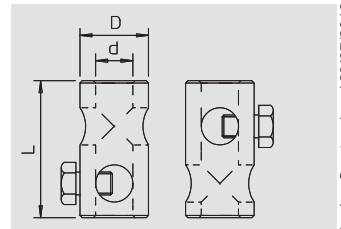


T connector

Type	dimension d Ø	Length	Dimension D	Product additional text 1	Pack	Weight	Item no.
	mm	mm	Ø mm				
101 IT	20	65	40	With M10 bolts	10	20.000	5408 15 6
101 IT-16	16	60	30	With M10 bolts	10	11.475	5408 15 8

T connector for installation of insulation rods.

With M10 bolts

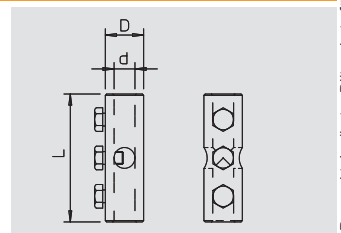


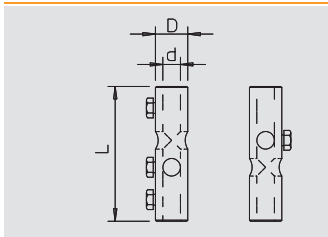
K connector

Type	dimension d Ø	Length	Dimension D	Product additional text 1	Pack	Weight	Item no.
	mm	mm	Ø mm				
101 IK	20	100	40	With M10 bolts	10	20.000	5408 29 6
101 IK-16	16	100	30	With M10 bolts	10	27.090	5408 29 8

K connector for installation of insulation rods.

With M10 bolts

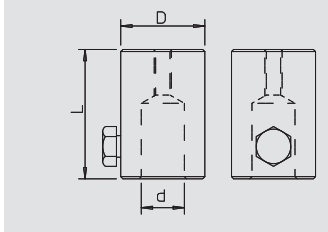




DK connector

Type	dimension d Ø mm	Length mm	Dimension D Ø mm	Product additional text 1	Pack Units	Weight kg/100 pc.	Item no.
101 IDK	20	125	40	With M10 bolts	10	40.000	5408 24 5
101 IDK-16	16	125	30	With M10 bolts	10	25.990	5408 24 7

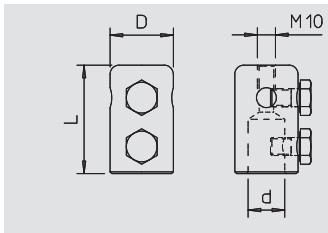
DK connector link for installing insulation rods type 101 I.
With M10 bolts



Wall connection

Type	dimension d Ø mm	Length mm	Dimension D Ø mm	Product additional text 1	Pack Units	Weight kg/100 pc.	Item no.
101 IW-M10	20	60	40	With M10 bolts	10	20.000	5408 68 7
101 W-16	16	60	30	With M10 bolts	10	14.200	5408 68 9

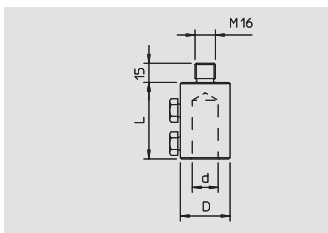
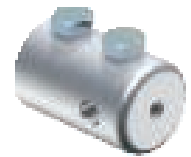
With female thread M8 for installing insulating rods to structures or walls.
With M10 bolts



End piece

Type	dimension d Ø mm	Length mm	Dimension D Ø mm	Product additional text 1	Pack Units	Weight kg/100 pc.	Item no.
101 IES	20	60	35	With M10 bolts	10	20.000	5408 39 3
101 IES-16	16	60	30	With M10 bolts	10	10.000	5408 39 5

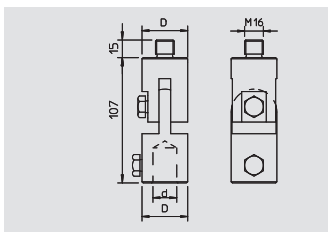
End piece for attaching round conductors Rd 8-10 and interception tips, type 101 ISP.
With M10 bolts



Connection piece

Type	dimension d Ø mm	Length mm	Dimension D Ø mm	Product additional text 1	Pack Units	Weight kg/100 pc.	Item no.
101 A-M16	20	60	40	With M10 bolts	10	20.000	5408 35 0
101 A-16	16	60	30	With M10 bolts	10	13.000	5408 35 2

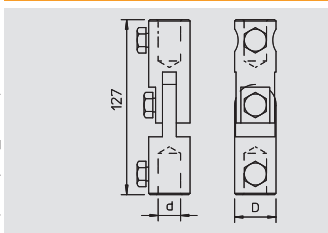
Fitting with M16 thread for installation on stands with M16 female thread.
With M10 bolts



Connection joint

Type	dimension d Ø mm	Length mm	Dimension D Ø mm	Product additional text 1	Pack Units	Weight kg/100 pc.	Item no.
101 IAG	20	107	40	With M10 bolts	10	40.000	5408 50 4
101 IAG-16	16	107	30	With M10 bolts	10	27.160	5408 50 6

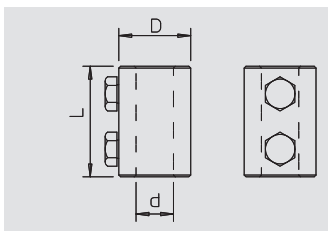
Attaching joint for installation on concrete stones with thread M16 on slanting roof surfaces.
With M10 bolts



Articulated connector

Type	dimension d Ø mm	Length mm	Dimension D Ø mm	Product additional text 1	Pack Units	Weight kg/100 pc.	Item no.
101 IGL	20	127	40	With M10 bolts	10	40.000	5408 62 8
101 IGL-16	16	127	30	With M10 bolts	10	32.000	5408 63 0

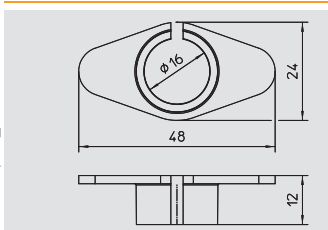
Connector for installation of insulation pipes.
With M10 bolts



Extension

Type	dimension d Ø mm	Length mm	Dimension D Ø mm	Product additional text 1	Pack Units	Weight kg/100 pc.	Item no.
101 IV	20	60	40	With M10 bolts	10	20.000	5408 55 5
101 IV-16	16	60	30	With M10 bolts	10	16.000	5408 55 7

Extension of insulating rods.
With M10 bolts



FangFix reducing sleeve

Type	Colour	Fit mm	Pack Units	Weight kg/100 pc.	Item no.
101 RH-16	Black	16	25	0.190	5408 10 1

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



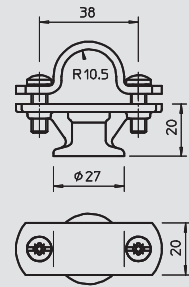
Insulation lightning protection



Rod holders

Type	Material	Fit	Pack	Weight	Item no.
		mm	Units	kg/100 pc.	
113 Z-20	Zn	Rd 20	100	6.450	5230 52 7

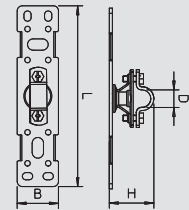
With female thread M8 or through hole \varnothing 7 mm.



Fastening plate

Type	Length	Dimension B	Dimension H	Pack	Weight	Item no.
	mm	mm	mm	Units	kg/100 pc.	
101 BP-16	175	40	42	1	21.200	5408 98 4

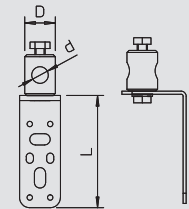
To mount insulating rods on constructions or walls.
Plate made of VA stainless steel.
Holder and crosspiece for 16 and 20 mm rods and Rd 8–10 mm.
With M10 bolts



Wall connection, angled

Type	dimension d \varnothing	Dimension L	Dimension D	Pack	Weight	Item no.
	mm	mm	\varnothing mm	Units	kg/100 pc.	
101 WG-16	16	110	30	1	27.960	5408 98 6

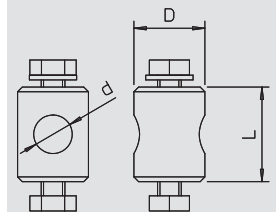
Wall connection for GFK rods, dimension D \varnothing : 16 mm.
With M10 bolts



Fastening bolt

Type	dimension d \varnothing	Dimension L	Dimension D	Pack	Weight	Item no.
	mm	mm	\varnothing mm	Units	kg/100 pc.	
101 BB-16	16	40	30	1	13.920	5408 98 8

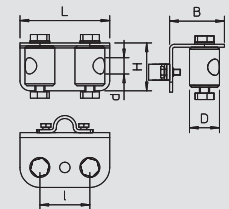
For GFK rods, dimension D \varnothing : 16 mm.
With M10 bolts



Holder, V support

Type	dimension d \varnothing	Dimension L	Dimension H	Dimension B	Pack	Weight	Item no.
	mm	mm	mm	mm	Units	kg/100 pc.	
101 HV-16	16	90	55	48	1	50.700	5408 99 0

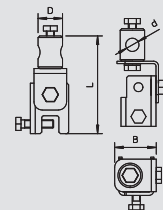
Rod holder to accept two GFK rods, dimension D \varnothing : 16 mm.
With M10 bolts



Fold fastening

Type	dimension d \varnothing	Dimension L	Dimension D	Pack	Weight	Item no.
	mm	mm	\varnothing mm	Units	kg/100 pc.	
101 F-16	16	121	30	1	45.120	5408 99 2

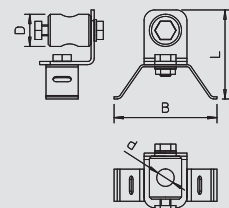
To fasten a GFK rod on constructions of 4 to 20 mm, dimension D \varnothing : 16 mm.
With M10 bolts

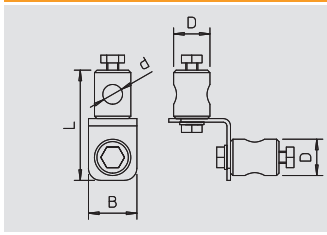


Pipe fastening

Type	dimension d \varnothing	Dimension L	Dimension D	Dimension B	Pack	Weight	Item no.
	mm	mm	\varnothing mm	mm	Units	kg/100 pc.	
101 R-16	16	81	30	96	1	26.830	5408 99 4

For pipe fastening of a GFK rod using tightening strap, dimension D \varnothing : 16 mm.
With M10 bolts

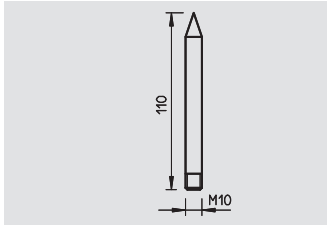




Multi-Adapter

Type	Dimension d Ø mm	Dimension L mm	Dimension D Ø mm	Dimension B mm	Pack	Weight	Item no.
					Units	kg/100 pc.	
101 MA-16	16	91	30	40	1	36.280	5408 99 6

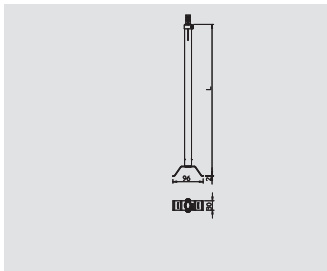
Connector for two GFK rods, dimension D Ø: 16 mm.
With M10 bolts



Interception tip

Type	Length mm	Pack	Weight	Item no.
		Units	kg/100 pc.	
101 ISP M10	110	10	10.000	5408 45 8

Interception tip for attaching to end piece, Type 101 IES, with M10 thread.
With M10 bolts

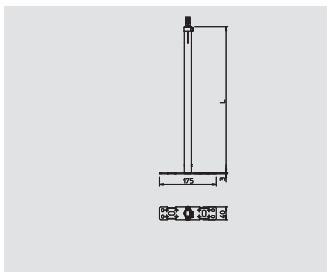


Adjustable insulating beam - pipe

Type	Pack	Weight	Item no.
	Units	kg/100 pc.	
ISAV1000R	1	130.000	5408 84 9

Variable spacer for cables and interception rods to maintain the separation distance.

- Infinitely adjustable distance range (L = 550–1,000 mm)
- Made of fibre glass-reinforced plastic (km = 0.7)
- For pipe mounting (including 2 m tightening strap and tension jack)



Adjustable insulating beam - wall

Type	Pack	Weight	Item no.
	Units	kg/100 pc.	
ISAV1000W	1	130.000	5408 85 2

Variable spacer for cables and interception rods to maintain the separation distance.

- Infinitely adjustable distance range (L = 550–1,000 mm)
- Made of fibre glass-reinforced plastic (km = 0.7)
- For wall mounting with 10 4.2 mm fastening holes and 4 6.9 mm fastening holes



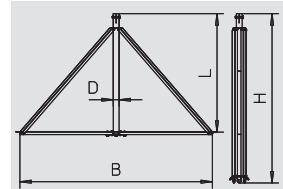
Interception system



isFang interception rod stand

Type	Dimension B mm	Dimension D Ø mm	Dimension L mm	Dimension H mm	Pack Units	Weight kg/100 pc.	Item no.
isFang 3B-100	1000	40	—	—	1	620.000	5408 96 8
isFang 3B-150	1500	40	—	—	1	950.000	5408 96 9

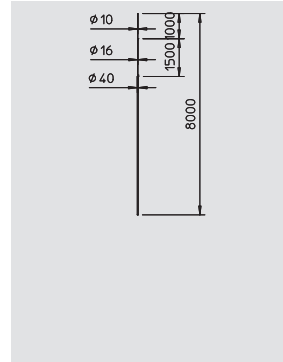
Tripod stand for screwless installation of freestanding interceptor rods and insulated interception rods with 40 mm diameter, e.g. for OBO isCon® cable. Roof slope to max. 5 degrees. Concrete plinths as well as threaded rods should be ordered separately.



isFang interception rod

Type	Nominal size Ø mm	Dimension B mm	Dimension D mm	Dimension H mm	Length mm	Pack Units	Weight kg/100 pc.	Item no.
101 3B-4000	40/ 16/ 10	2000	1000	1000	4000	1	400.000	5402 86 4
101 3B-4500	40/ 16/ 10	2500	1000	1000	4500	1	480.000	5402 86 6
101 3B-5000	40/ 16/ 10	3000	1000	1000	5000	1	550.000	5402 86 8
101 3B-5500	40/ 16/ 10	3500	1000	1000	5500	1	630.000	5402 87 0
101 3B-6000	40/ 16/ 10	4000	1000	1000	6000	1	700.000	5402 87 2
101 3B-6500	40/ 16/ 10	4500	1000	1000	6500	1	780.000	5402 87 4
101 3B-7000	40/ 16/ 10	5000	1000	1000	7000	1	850.000	5402 87 6
101 3B-7500	40/ 16/ 10	5500	1000	1000	7500	1	930.000	5402 87 8
101 3B-8000	40/ 16/ 10	5500	1500	1000	8000	1	1000.000	5402 88 0

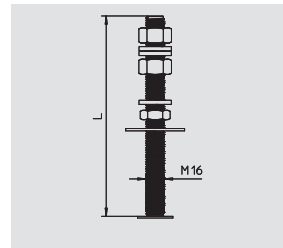
Tapered interception rod for isFang tripod stand.



isFang-3B threaded rod

Type	Dimension L mm	Pack Units	Weight kg/100 pc.	Item no.
isFang 3B-G1	270	3	48.000	5408 97 1
isFang 3B-G2	340	3	60.400	5408 97 2
isFang 3B-G3	430	3	76.600	5408 97 3

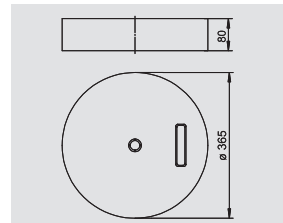
Threaded rod to fasten 1, 2 or 3 FangFix concrete bases with tripod stand. To mount the threaded rods, the edge protection must be drilled.



Concrete block for FangFix-System 16 kg

Type	Pack Units	Weight kg/100 pc.	Item no.
F-FIX-S16	1	1700.000	5403 22 7

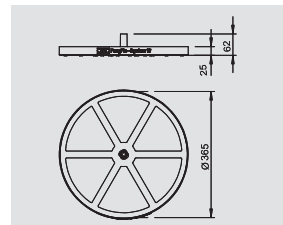
- 16 kg stone of Ø 365 mm, high level of stability
- Concrete, frost-resistant
- Stackable



Basis for FangFix system 16 kg

Type	Pack Units	Weight kg/100 pc.	Item no.
F-FIX-B16	10	12.600	5403 23 5

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

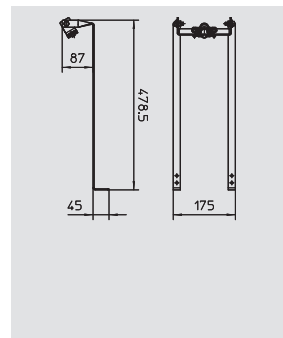


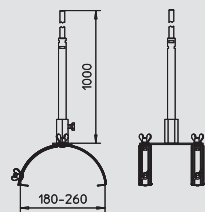
Interception rod holder for sloping roof

Type	Pack Units	Weight kg/100 pc.	Item no.
SD-Fix	1	81.000	5403 33 5

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

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





Interception rod holder for ridge tiles

Type

Pack	Weight	Item no.
Units	kg/100 pc.	

F-FIX-132	1	62.000	5403 33 0
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Rod holder for ridge tiles, for simple, quick and safe fastening of Ø 16 mm interception rods.

- System consisting of holder made of V2A stainless steel and aluminium interception rod
- Quick and easy mounting thanks to pre-mounted interception rod
- Interception rod length: 1,000 mm
- Width adjustable between 180–260 mm
- Spacing of the ridge holders: 110 mm

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



OBO isCon® system

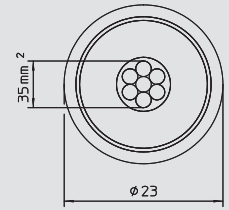


isCon® conductor

Type	Material	Cross-section mm ²	Nominal size Ø mm	Normal ring ca. m	Pack m	Weight kg/100 m	Item no.
isCon 750 SW	—	35	23	25	25	69.400	5408 00 2
isCon 750 SW	—	35	23	100	100	69.400	5408 00 4

Surface discharge-free and high voltage-resistant insulated conductor to maintain the separation distance according to IEC 62305.
Equivalent separation distance $s \leq 0.75$ m in the air.

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



Insulation removal pliers

Type	Pack	Weight	Item no.
	Units	kg/100 pc.	
isCon stripper	1	138.000	5408 00 9

Pliers to remove the insulation of the OBO isCon® cable.



Spare blade

Type	Material	Dimension 34mm	Dimension D Ø mm	Pack Units	Weight kg/100 pc.	Item no.
isCon cut	—	34mm	—	5	0.000	5408 01 1

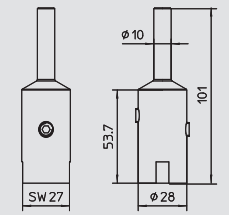
Replacement blade for isCon® insulation removal pliers.



Connection element

Type	Material	Dimension D Ø mm	Fit mm	Pack Units	Weight kg/100 pc.	Item no.
isCon connect	V2A	23	10	2	21.500	5408 02 2

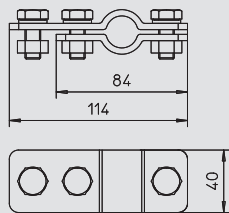
Screw-on termination of the connection for the isCon® cable.
Including heat-shrinkable sleeve and screw lock.



Potential connection

Type	Material	Dimension D Ø mm	Fit mm	Pack Units	Weight kg/100 pc.	Item no.
isCon PAE	V2A	—	Ø 17-25mm	2	36.500	5408 03 6

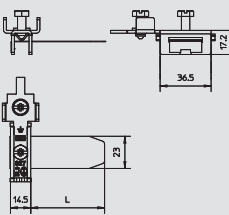
Potential control to avoid surface discharges on the isCon® cable. Installation takes place after the first 1.5 metres.



Potential connection terminal for mounting on isFang

Type	Material	Dimension D Ø mm	Fit mm	Pack Units	Weight kg/100 pc.	Item no.
927 2 6-K	V2A	—	3/8-4"	10	5.500	5057 59 9

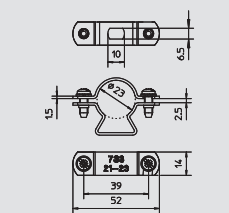
Potential connection for isCon® cable for mounting on insulated interception rods of type is-Fang.



VA cable bracket

Type	Material	Dimension D Ø mm	Pack Units	Weight kg/100 pc.	Item no.
isCon H VA	V2A	23	50	2.850	5408 05 6

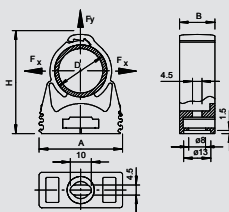
Cable brackets for isCon® cable for mounting on roof/wall structures.

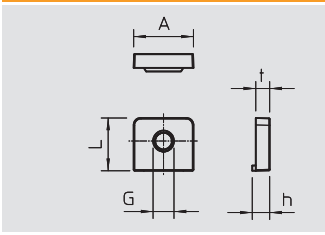


starQuick cable bracket PA

Type	Colour	Dimension A mm	Dimension B mm	Pack Units	Weight kg/100 pc.	Item no.
SQ-20 SW	Jet black	29	17	50	0.848	2146 16 4

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

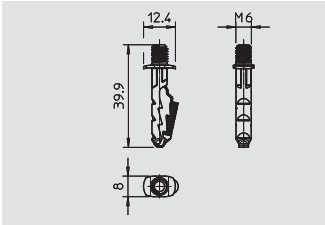




starQuick nut M6

Type	Thread	Dimension L mm	Dimension h mm	Dimension t mm	Colour	Shipping box Units	Pack Units	Weight kg/100 pc.	Item no.
SQ M6	M6	15	5	4	Light grey	12000	100	0.070	2146 50 9

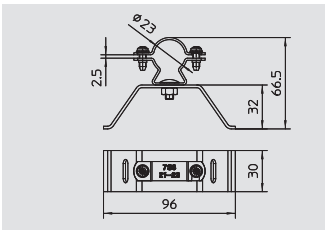
The starQuick nut was developed especially for the starQuick clip. Simply push into the intended opening of the starQuick. The starQuick nut is captive in the clip. Suitable for M6/M8 threads.



starQuick anchor M6

Type	Dowel Ø mm	Length mm	Drill hole Ø mm	Bore hole depth mm	Shipping box Units	Pack Units	Weight kg/100 pc.	Item no.
SQ PP	6	30	6	35	6000	50	0.100	2351 70 6

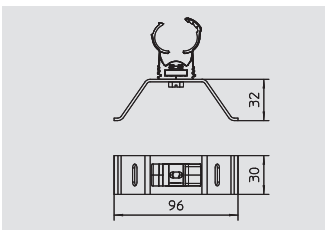
Suitable for concrete, calcareous sandstone, brick or porous concrete masonry with interplay of the starQuick clip and starQuick nut.



VA cable bracket with tightening strap

Type	Material	Dimension D Ø mm	Pack Units	Weight kg/100 pc.	Item no.
isCon HS VA	V2A	23	10	0.000	5408 05 2

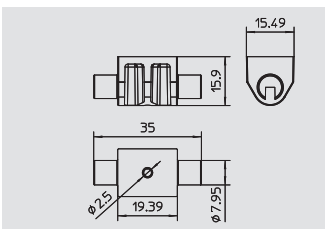
Cable brackets for isCon® cable for pipe mounting on 2 m tightening strap.



PA cable bracket with tightening strap

Type	Material	Dimension Ø mm	Dimension D Ø mm	Pack Units	Weight kg/100 pc.	Item no.
isCon HS PA	PA	Ø 23mm	23	10	23.100	5408 05 4

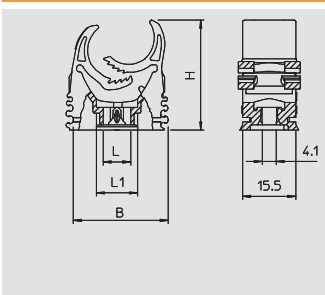
Cable brackets for isCon® cable for pipe mounting on 2 m tightening strap.



Flat roof cable holder

Type	Fit mm	Colour	Pack Units	Weight kg/100 pc.	Item no.
165 MBG UH	Rd 8	Black	25	0.280	5218 88 2

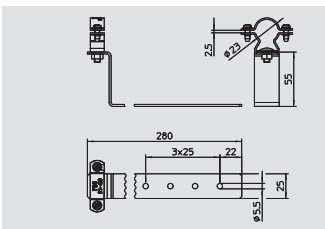
Universal adapter with drill hole Ø 2.5 mm e.g. for OBO Golden Sprint screw, type 4758 4 x L (L = depending on application), for fastening to 165/MBG.



M-Quick cable bracket PA

Type	Clamping range D mm	Pull-out value N	Colour	Pack Units	Weight kg/100 pc.	Item no.
M-Quick M25 SW	-250	50	Jet black	50	0.930	2153 78 7

Multi-quick metric
Simple fastening
Secure locking
Radial arrangement
Simplified storage
Universally applicable



VA roof cable holder, sloping roof

Type	Material	Installation height mm	Dimension D Ø mm	Pack Units	Weight kg/100 pc.	Item no.
isCon H280 VA	V2A	55	23	25	16.100	5408 04 7

To route the isCon® cable on pitched roofs.



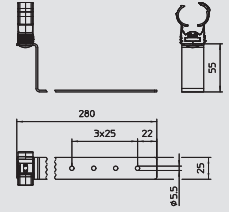
OBO isCon® system



PA roof cable holder, sloping roof

Type	Material	Dimension	Dimension D	Pack	Weight	Item no.
			Ø mm	Units	kg/100 pc.	
isCon H280 PA	PA	280mm	23	25	13.950	5408 04 9

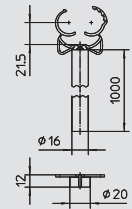
To route the isCon® cable on pitched roofs.



Spacer

Type	Material	Dimension D	Pack	Weight	Item no.
		Ø mm	Units	kg/100 pc.	
isCon DH	GFK	23	2	41.400	5408 04 3

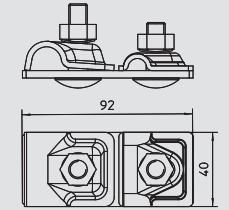
For stand-off installation of the isCon® cable in the area of the connection. Incl. reducing sleeve for mounting on FangFix concrete block 10 Kg.



Connection plate for one isCon® cable

Type	Material	Dimension D	Pack	Weight	Item no.
		Ø mm	Units	kg/100 pc.	
isCon AP1-16 VA	V2A	—	1	27.400	5408 02 6

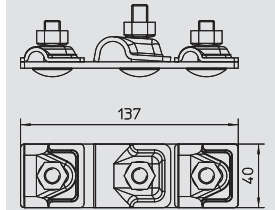
Connection plate to connect an isCon® cable with interception rod Ø 16 mm.



Connection plate for two isCon® cables

Type	Material	Dimension	Dimension D	Pack	Weight	Item no.
			Ø mm	Units	kg/100 pc.	
isCon AP2-16 VA	V2A	16x8-10mm	—	1	39.500	5408 02 8

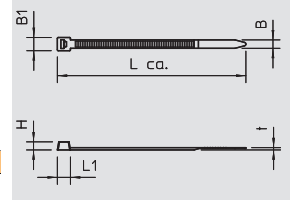
Connection plate to connect two isCon® cables with interception rod Ø 16 mm.



Strip clip for fastening the isCon® cable to insulated interception rods

Type	Dimension	Max. bundle Ø	Minimum breaking load kN	Colour	Shipping box	Pack	Weight	Item no.
	mm	mm			Units	Units	kg/100 pc.	
555 7.6x380 SW	7.6 x 380	102	0.55	Black	1000	100	0.500	2332 75 2

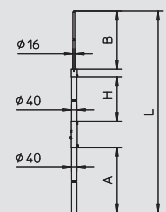
For quick fixing



Insulated interception rod

Type	Dimension D	Dimension A	Dimension H	Dimension B	Length	Pack	Weight	Item no.
	Ø mm	mm	mm	mm	mm	Units	kg/100 pc.	
isFang 3000	40	1240	1500	865	3865	1	680.000	5408 94 2
isFang 5000	40	3340	1500	865	5865	1	1260.000	5408 94 6

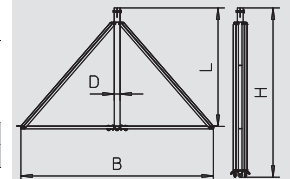
Insulated support pipe for separate installation of interception units and fastening the OBO is-Con® cable.

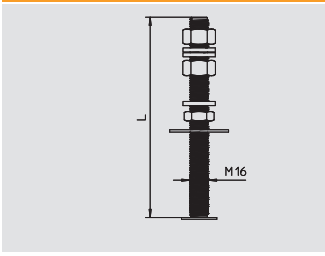


isFang interception rod stand

Type	Dimension B	Dimension D	Dimension L	Dimension H	Pack	Weight	Item no.
	mm	Ø mm	mm	mm	Units	kg/100 pc.	
isFang 3B-100	1000	40	—	—	1	620.000	5408 96 8
isFang 3B-150	1500	40	—	—	1	950.000	5408 96 9

Tripod stand for screwless installation of freestanding interceptor rods and insulated interception rods with 40 mm diameter, e.g. for OBO isCon® cable. Roof slope to max. 5 degrees. Concrete plinths as well as threaded rods should be ordered separately.

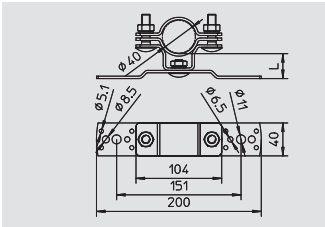




isFang-3B threaded rod

Type	Dimension L mm	Pack Units	Weight kg/100 pc.	Item no.
isFang 3B-G1	270	3	48.000	5408 97 1
isFang 3B-G2	340	3	60.400	5408 97 2
isFang 3B-G3	430	3	76.600	5408 97 3

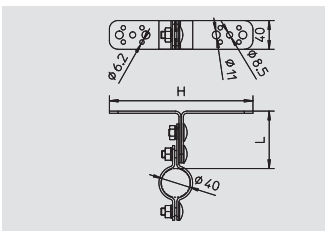
Threaded rod to fasten 1, 2 or 3 FangFix concrete bases with tripod stand. To mount the threaded rods, the edge protection must be drilled.



isFang support for wall mounting, 15 mm spacing

Type	Dimension D Ø mm	Dimension L mm	Pack Units	Weight kg/100 pc.	Item no.
isFang TW30	40	30	2	62.000	5408 95 2

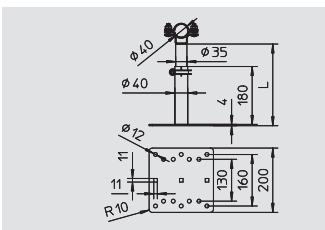
Fastening clip to fasten the insulated support pipes on the structure to be protected or on the wall.



isFang support for wall mounting, 80 mm spacing

Type	Dimension D Ø mm	Dimension L mm	Pack Units	Weight kg/100 pc.	Item no.
isFang TW80	40	80	2	63.000	5408 95 0

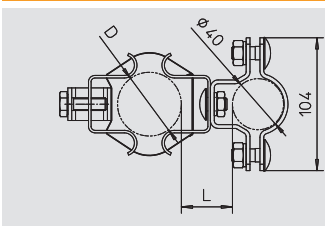
Fastening clip to fasten the insulated support pipes on the structure to be protected or on the wall.



isFang support for wall mounting, 200–300 mm spacing

Type	Dimension D Ø mm	Dimension L mm	Pack Units	Weight kg/100 pc.	Item no.
isFang TW200	—	—	2	230.000	5408 95 4

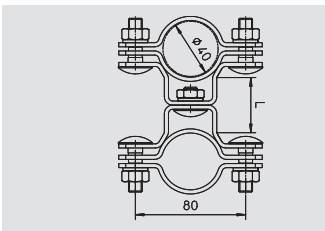
Fastening clip to fasten the insulated support pipes on the structure to be protected or on the wall.



isFang support for pipe mounting, Ø 100–300 mm

Type	Dimension D Ø mm	Dimension L mm	Pack Units	Weight kg/100 pc.	Item no.
isFang TR100	300	40	2	77.000	5408 95 6

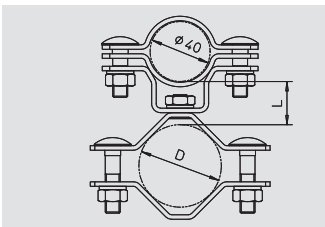
Tightening strap clip to fasten the insulated support pipes on the structure to be protected or for construction-side pipes of Ø 100–300mm.



isFang support for pipe mounting, Ø 40–50 mm

Type	Dimension D Ø mm	Dimension L mm	Pack Units	Weight kg/100 pc.	Item no.
isFang TS40-50	50	40	2	90.000	5408 95 8

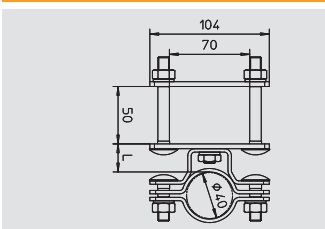
Fastening clip to fasten the insulated support pipes on the structure to be protected or for construction-side pipes of Ø 40–50mm.



isFang support for pipe mounting, Ø 50–60 mm

Type	Dimension D Ø mm	Dimension L mm	Pack Units	Weight kg/100 pc.	Item no.
isFang TS50-60	60	30	2	76.000	5408 96 0

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

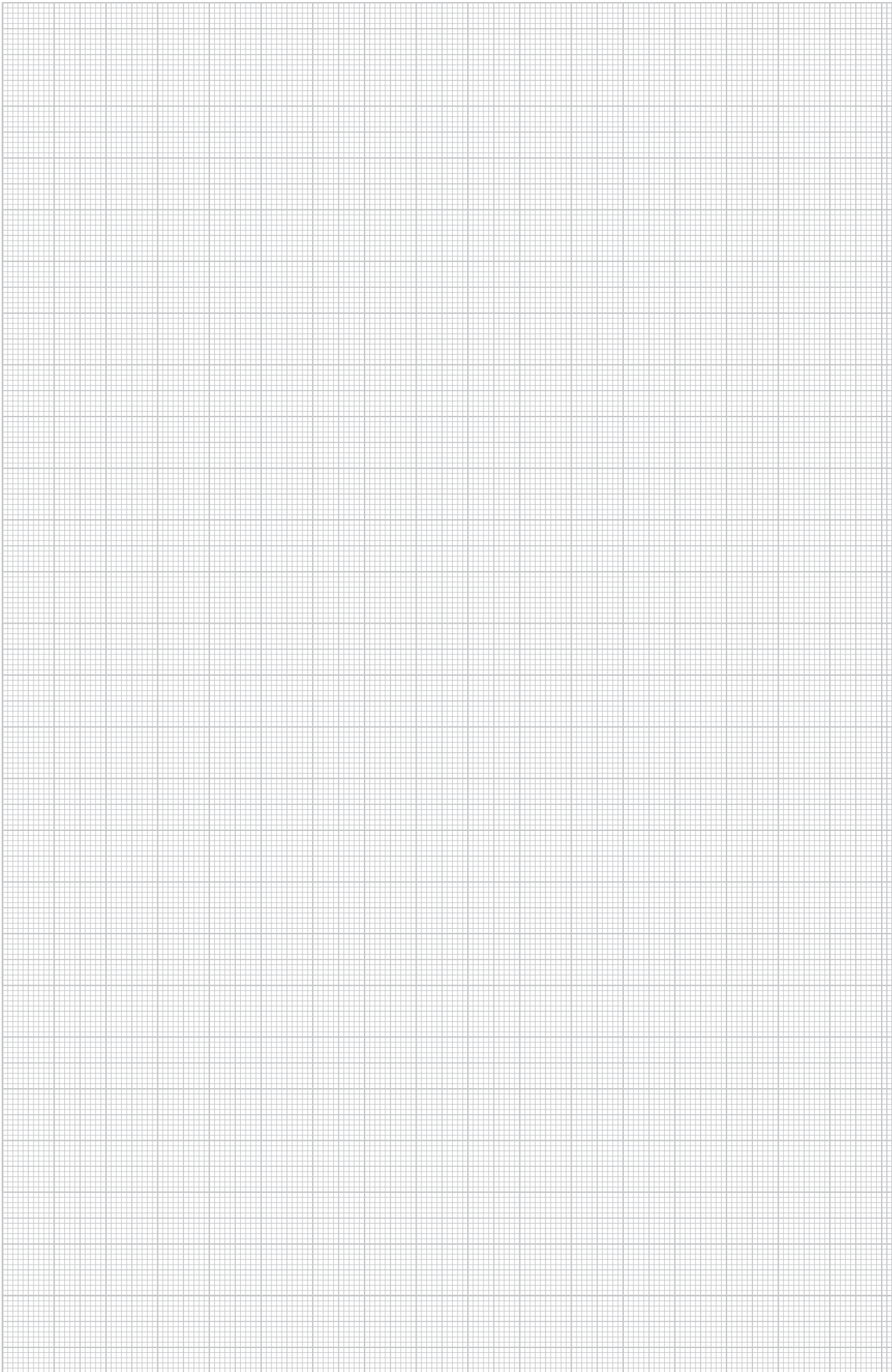


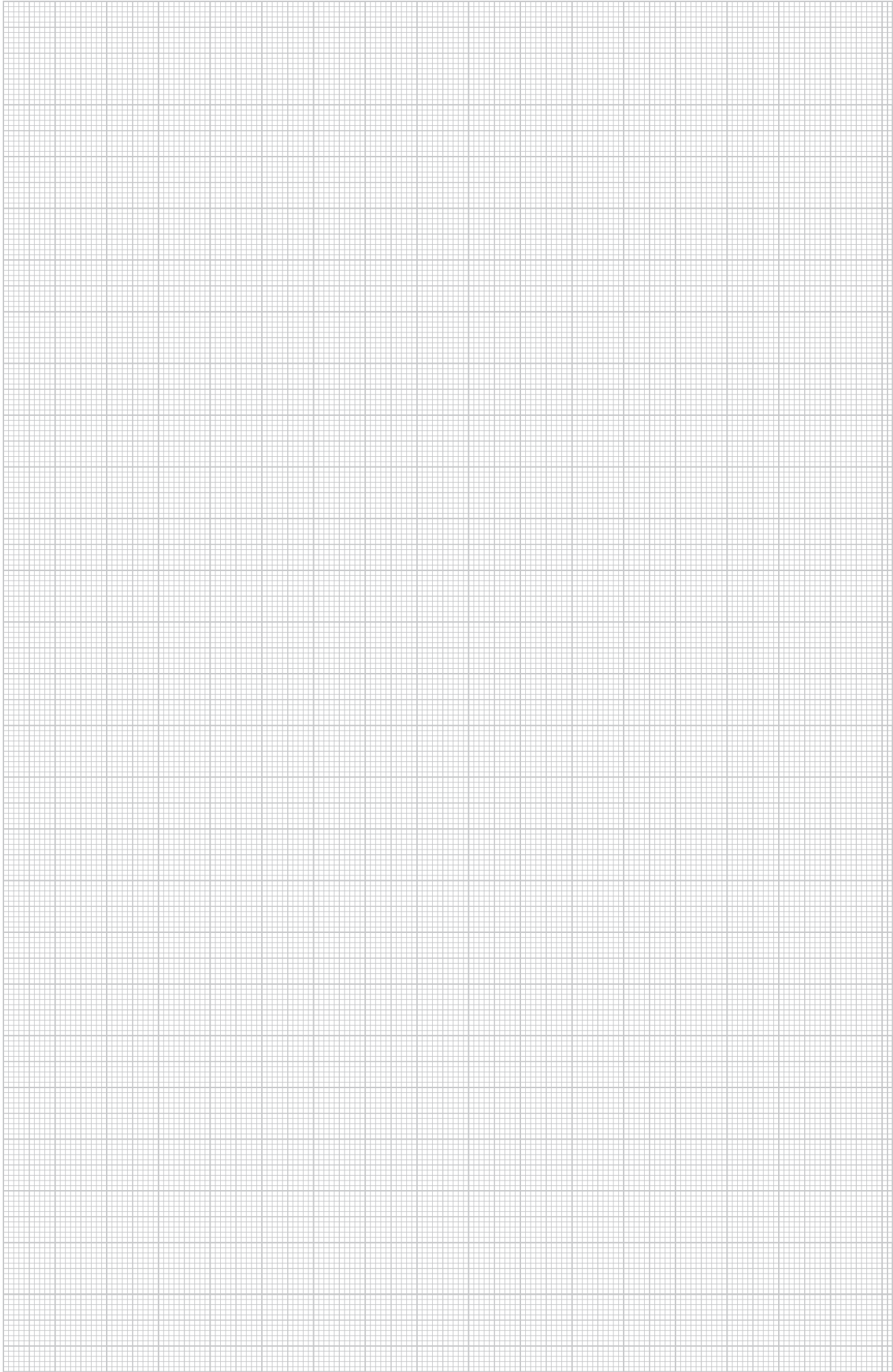
isFang support for corner pipe mounting, 50 x 50 mm

Type	Dimension D Ø mm	Dimension L mm	Pack Units	Weight kg/100 pc.	Item no.
isFang TS50x50	—	30	2	82.000	5408 96 4

Fastening clip to fasten the insulated support pipes on the structure to be protected or for construction-side corner pipes of 50x50mm.







www.obo-bettermann.com



OBO Bettermann GmbH & Co. KG

PO Box 1120
58694 Menden, Germany

Customer Service Germany

Tel.: +49 (0)2373 89-1500
Fax: +49 (0)2373 89-7777
E-mail: info@obo.de

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