

LIGHTNING PROTECTION PRODUCT RANGE PRODUCT GROUP 5

2024/2025

LIGHTNING PROTECTION







Basic principles of the installation of lightning protection conductors and connectors

Earth conductors Dimensions and materials according to DIN EN 62561-2 Earthing straps

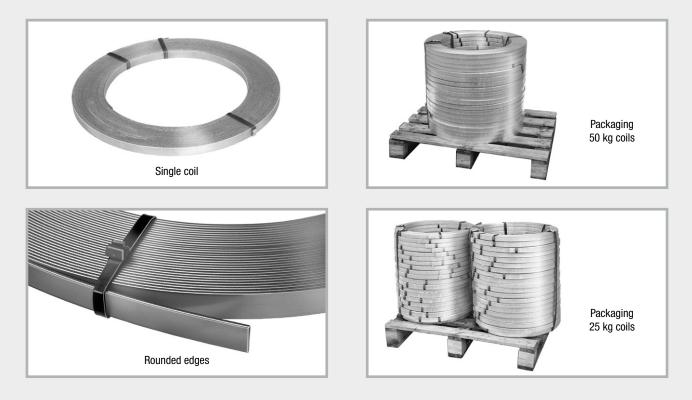
Galvanised steel



Art. no.	Size	Material	PU	Secondary packaging
100014	30 x 3.5 mm	Galvanised steel Z 500	1 roll of 25 kg = approx. 30 m	1 pallet = 40 rolls
100016	30 x 3.5 mm	Galvanised steel Z 500	1 roll of 50 kg = approx. 60 m	1 pallet = 20 rolls
100022	40 x 4.0 mm	Galvanised steel Z 500	1 roll of 50 kg = approx. 39 m	1 pallet = 20 rolls
100024	40 x 5.0 mm	Galvanised steel Z 500	d steel Z 500 1 roll of 50 kg = approx. 32 m	

Stainless steel

Art. no.	Size	Material	PU	Secondary packaging
100028	30 x 3.5 mm Art.Gr. 502	V2A stainless steel according to DIN EN 62561-2	1 roll of 25 kg = approx. 30 m	1 pallet = 40 rolls
100031	30 x 3.5 mm Art.Gr. 501	V4A stainless steel according to DIN EN 62561-2	1 roll of 25 kg = approx. 30 m	1 pallet = 40 rolls
100032	30 x 3.5 mm Art.Gr. 501	V4A stainless steel according to DIN EN 62561-2	1 roll of 50 kg = approx. 60 m	1 pallet = 20 rolls
100035	40 x 4.0 mm Art.Gr. 501	V4A stainless steel according to DIN EN 62561-2	1 roll of 50 kg = approx. 39 m	1 pallet = 20 rolls



Round wires



Galvanised steel

Art.Gr. **505**

Art. no.	Size	Material	PU	Secondary packaging
100041	Ø 10 mm	Galvanised steel Z 350	1 roll of 25 kg = approx. 40.5 m	1 pallet = 40 rolls
100042	Ø 10 mm	Galvanised steel Z 350	1 roll of 50 kg = approx. 81 m	1 pallet = 20 rolls

Stainless steel standard

Art. no.	Size	Material	PU	Secondary packaging
100051	Ø 10 mm Art.Gr. 507	V2A stainless steel according to DIN EN 62561-2	1 roll of 25 kg = approx. 40.5 m	1 pallet = 20 rolls
100055	Ø 10 mm Art.gr. 506	V4A stainless steel according to DIN EN 62561-2	1 roll of 25 kg = approx. 40.5 m	1 pallet = 20 rolls
100056	Ø 10 mm Art.Gr. 506	V4A stainless steel according to DIN EN 62561-2	1 roll of 50 kg = approx. 81 m	1 pallet = 10 rolls
100062	Ø 10 mm Art.Gr. 506	V4A stainless steel according to DIN EN 62561-2	1 roll of 31 kg = approx. 50 m	1 pallet = 16 rolls

Stainless steel SUPER-SOFT

A special manufacturing procedure ensures uniformly soft quality of the wire. SUPER-SOFT can be unrolled very easily and lies flat without undulation.

Art.Gr.
508

Art.Gr. 509

Art. no.	Size	Material	PU	Secondary packaging
100061	Ø 10 mm	SUPER-SOFT V4A according to DIN EN 62561-2, inner diameter 900 mm	1 roll of 25 kg = approx. 40.5 m	1 pallet = 40 rolls

Aluminium

Art. no.	Size	Material	PU	Secondary packaging
100080	Ø 8 mm	ALU AIMgSi soft-twistable	1 roll of 20 kg = approx. 148 m	1 pallet = 25 rolls

Multi-purpose connecting clamps



Art.Gr. 511

Art.Gr. 511

Art.Gr. 511

with mushroom head bolt and protection against twisting

Art. no.	Description	PU	Secondary packaging	Weight per carton
100147	Galvanised steel, 2-part, round/round, Clamping range: Round conductor Ø 8 + 10 mm, with M10 mushroom head bolt and protection against twisting	1 carton of 50 pcs.	1 pallet = 5600 pcs.	5.05 kg
100149	V2A stainless steel, 2-part, round/round Clamping range: Round conductor Ø 8 + 10 mm, with M10 mushroom head bolt and protection against twisting	1 carton of 50 pcs.	1 pallet = 5600 pcs.	4.45 kg
100150	V4A stainless steel, 2-part, round/round Clamping range: Round conductor Ø 8 + 10 mm, with M10 mushroom head bolt and protection against twisting	1 carton of 50 pcs.	1 pallet = 5600 pcs.	4.50 kg

Multi-purpose connecting clamps



with thread in lower part

Art. no.	Description	PU	Secondary packaging	Weight per carton
100157	Galvanised steel, 2-part, round/round, Clamping range: Ø 8 + 10 mm, M10 screw, thread in lower part	1 carton of 50 pcs.	1 pallet = 5600 pcs.	4.45 kg
100159	V4A stainless steel, 2-part, round/round Clamping range: Ø 8 + 10 mm, M10 screw, thread in lower part	1 carton of 50 pcs.	1 pallet = 5600 pcs.	3.75 kg
100153	Aluminium, 2-part, round/round, Clamping range: Ø 8 + 10 mm, NIRO M10 screw, Thread in lower part	1 carton of 50 pcs.	1 pallet = 5600 pcs.	2.60 kg

MAXI multi-purpose connecting clamp



for connection of round conductors to the reinforcement and conductive connection of steel reinforcement with up to Ø 25 mm

Art. no.	Description	PU	Secondary packaging	Weight per carton
100148	Galvanised steel, round/round, Round conductor Ø 8-16 mm / Ø 15-25 mm, with mushroom head bolt and protection against twisting	1 carton of 25 pcs.	1 pallet = 1000 pcs.	11.10 kg
100152	V4A stainless steel, round/round, Round conductor Ø 8-16 mm / Ø 15-25 mm, with mushroom head bolt and protection against twisting	1 carton of 25 pcs.	1 pallet = 1000 pcs.	10.05 kg

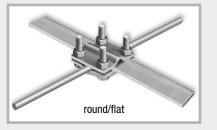
Art.Gr. 512

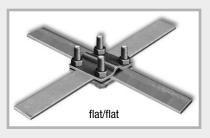
Stainless steel cross connectors round/round

Universal for flat/flat, flat/round and round/round Clamping range: round conductor Ø 8 + 10 mm, flat conductor up to 30 mm

Art. no.	Description	PU	Secondary packaging	Weight per carton
100143	V4A stainless steel, 2-part, round/round universal, heavy duty version, M8 screws	1 carton of 50 pcs.	1 pallet = 3200 pcs.	9.55 kg
100145	V4A stainless steel, 2-part, round/round universal, light version, M6 screws	1 carton of 50 pcs.	1 pallet = 3200 pcs.	6.90 kg







Galvanised cross connectors flat/flat



Clamping range: flat conductor up to 30 mm

Art.Gr. **512**

Art.Gr. 512

Art. no.	Description	PU	Secondary packaging	Weight per carton
100100	Galvanised steel, 2-part, flat/flat, heavy duty version, M8 screws	1 carton of 50 pcs.	1 pallet = 3200 pcs.	10.75 kg
100106	Galvanised steel, 2-part, flat/flat, light version, M6 screws	1 carton of 50 pcs.	1 pallet = 3200 pcs.	7.65 kg

Galvanised cross connectors flat/round

Clamping range: round conductor \emptyset 8 + 10 mm, flat conductor up to 30 mm



Secondary Weight Art. no. Description PU packaging per carton 100115 Galvanised steel, 2-part, flat/round, 1 carton 1 pallet = 10.80 kg 3200 pcs. heavy duty version, M8 screws of 50 pcs. 100121 Galvanised steel, 2-part, flat/round, 1 pallet = 7.80 kg 1 carton light version, M6 screws of 50 pcs. 3200 pcs.

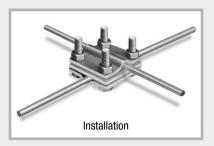
Galvanised cross connector (for flat conductors up to 30 mm) round/round

Universal for flat/flat, flat/round and round/round Clamping range: round conductor Ø 8 + 10 mm, flat conductor 30 mm

Art. no.	Description	PU	Secondary packaging	Weight per carton
100127	Galvanised steel, 2-part, round/round, heavy duty version, M8 screws	1 carton of 50 pcs.	1 pallet = 3200 pcs.	10.95 kg
100130	Galvanised steel, 3-part, round/round, heavy duty version, M8 screws With intermediate plate	1 carton of 50 pcs.	1 pallet = 3200 pcs.	14.65 kg
100133	Galvanised steel, 2-part, round/round, light version, M6 screws	1 carton of 50 pcs.	1 pallet = 3200 pcs.	8.00 kg







Galvanised cross connector (for flat conductors up to 40 mm) round/round

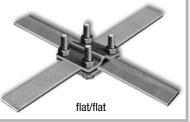
Universal for flat/flat, flat/round and round/round

Clamping range: round conductor \emptyset 8 + 10 mm, flat conductor 30 + 40 mm

Art.Gr. 512

Art. no.	Description	PU	Secondary packaging	Weight per carton
100129	Galvanised steel, 2-part, round/round, heavy duty version, M8 screws	1 carton of 50 pcs.	1 pallet = 3200 pcs.	17.60 kg





9

Art.Gr. **518**

Connecting clamps for flat conductors

Art. no. 100250	Description Galvanised steel, M10 screw, flat conductors up to 30 mm and constructional steel Ø 6-22 mm	PU 1 carton of 50 pcs.	Secondary packaging 1 pallet = 4000 pcs.	Weight per carton 6.95 kg	Art. no. 100250 Art. no. 100251
100251	Bright steel, M10 screw, flat conductors up to 30 mm and constructional steel Ø 6-22 mm	1 carton of 50 pcs.	1 pallet = 4000 pcs.	6.45 kg	
100253	Galvanised steel, M10 screw, flat conductors up to 40 mm and constructional steel Ø 6-22 mm	1 carton of 50 pcs.	1 pallet = 3200 pcs.	6.05 kg	Art. no. 100252 Art. no. 100253
100252	V4A stainless steel, M10 screw flat conductors up to 40 mm and constructional steel Ø 6-22 mm	1 carton of 50 pcs.	1 pallet = 3200 pcs.	5.25 kg	Z

Connecting clamps for flat and round conductors

Art. no.	Description	PU	Secondary packaging	Weight per carton	Art. no. 100255 Art. no. 100257
100255	Galvanised steel, M10 screw, for flat conductors up to 30 mm, Round conductor Ø 8 + 10 mm, Constructional steel Ø 6-22 mm	1 carton of 50 pcs.	1 pallet = 3200 pcs.	9.30 kg	
100257	V4A stainless steel, M10 screw, for flat conductors up to 30 mm, Round conductor Ø 8 + 10 mm, Constructional steel 6-22 mm	1 carton of 50 pcs.	1 pallet = 3200 pcs.	8.05 kg	1 m
100146	Universal connecting clamp with pressure plate, Galvanised steel, M10 screw, for flat conductors up to 30 mm, Round conductor Ø 8 + 10 mm, Constructional steel Ø 6-22 mm	1 carton of 50 pcs.	1 pallet = 3200 pcs.	7.55 kg	Art. no. 100146 Art. no. 100254
100254	Universal connecting clamp with pressure plate, V4A stainless steel, M10 screw, for flat conductors up to 30 mm, Round conductor Ø 8 + 10 mm, Constructional steel Ø 6-22 mm	1 carton of 50 pcs.	1 pallet = 3200 pcs.	6.40 kg	Pressure plate

Connecting clamps for round conductors

	Art. no.	Description	PU	Secondary packaging	Weight per carton	Art. no. 100258
NEW!	100258	Galvanised steel, M10 screw, for round connector Ø 6-10 mm, Constructional steel Ø 6-10 mm	1 carton of 50 pcs.	1 pallet = 4000 pcs.	5.00 kg	Art. no. 100260 Art. no. 100260 Art. no. 100261
	100259	Galvanised steel, M10 screw, for round conductors \emptyset 8 + 10 mm, Constructional steel \emptyset 6-22 mm	1 carton of 50 pcs.	1 pallet = 3200 pcs.	5.85 kg	2
	100261	Bright steel, M10 screw, for round conductors \emptyset 8 + 10 mm, Constructional steel \emptyset 6-22 mm	1 carton of 50 pcs.	1 pallet = 3200 pcs.	5.60 kg	
	100260	V4A stainless steel, M10 screw, for round conductors \emptyset 8 + 10 mm, Constructional steel \emptyset 6-22 mm	1 carton of 50 pcs.	1 pallet = 3200 pcs.	5.10 kg	



Double clamps



Stainless steel double clamps

for earthing strap up to 40 mm width and round conductors \emptyset 8 + 10 mm

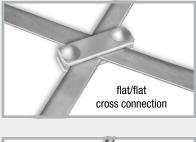
Art. no.	Description	PU	Secondary packaging	Weight per carton
100273	V4A stainless steel, 2-part, flat/flat, heavy duty version, M10 screws	1 carton of 50 pcs.	1 pallet = 3200 pcs.	9.80 kg
100279	V4A stainless steel, 2-part, flat/round, heavy duty version, M10 screws	1 carton of 50 pcs.	1 pallet = 3200 pcs.	9.35 kg
100282	V2A stainless steel, 2-part, round/round heavy duty version, M10 screws	1 carton of 50 pcs.	1 pallet = 3200 pcs.	9.55 kg
100285	V4A stainless steel, 2-part, round/round heavy duty version, M10 screws	1 carton of 50 pcs.	1 pallet = 3200 pcs.	9.35 kg

Galvanised double clamps

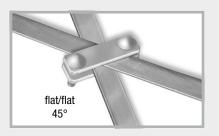
for earthing strap up to 40 mm width and round conductors Ø 8 + 10 mm

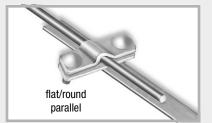
Art. no.	Description	PU	Secondary packaging	Weight per carton
100220	Galvanised steel, 2-part, flat/flat, heavy duty version, M10 screws	1 carton of 50 pcs.	1 pallet = 3200 pcs.	12.15 kg
100225	Galvanised steel, 2-part, flat/round, heavy duty version, M10 screws	1 carton of 50 pcs.	1 pallet = 3200 pcs.	11.60 kg
100230	Galvanised steel, 2-part, round/round, heavy duty version, M10 screws	1 carton of 50 pcs.	1 pallet = 3200 pcs.	11.70 kg

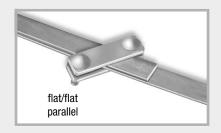
Possible clamping connections













Art.Gr. 513

Art.Gr. 514

Single clamps

Art. no.	Description	PU	Secondary packaging	Weight per carton
100163	Galvanised steel, 1 M10 screw, for flat conductors up to 30 mm and round conductors \emptyset 8+ 10 mm, for T, cross and parallel connections	1 carton of 50 pcs.	1 pallet = 3200 pcs.	6.40 kg
100162	V4A stainless steel, 1 M10 screw, for flat conductors up to 30 mm and round conductors Ø 8+ 10 mm, for T, cross and parallel connections	1 carton of 50 pcs.	1 pallet = 3200 pcs.	5.25 kg



Single clamp



flat/flat parallel connection



flat/flat cross connection



flat/round parallel connection



flat/flat/round connection





Parallel connectors 514

Art. no.	Description	PU	Secondary packaging	Weight per carton
100240	Galvanised steel, 1 M10 screw, 2-part, for round conductors Ø 8 + 10 mm	1 carton of 50 pcs.	1 pallet = 5600 pcs.	7.35 kg
100243	V4A stainless steel, 1 M10 screw, 2-part, for round conductors Ø 8 + 10 mm	1 carton of 50 pcs.	1 pallet = 5600 pcs.	6.05 kg



Wedge connector

Art. no.	Description	PU	Secondary packaging	Weight per carton
100160	Galvanised steel, for round conductors Ø 10 mm and flat conductors up to 40 mm, with lock-in position in the wedge	1 carton of 50 pcs.	1 pallet = 3200 pcs.	10.90 kg

Fixed earthing terminal M10/M12

to connect the equipotential bonding conductors to the ring electrode, reinforcement and lightning protection system



Art.Gr. **519**

Art. no.	Description	PU	Weight per carton	
100187	Fixed earthing terminal M10/M12, V4A stainless steel, without axis, with yellow protective cap, connection M10 + M12	1 carton of 10 pcs.	1.60 kg	47 mm -
100195	Fixed earthing terminal M10/M12 "Safe", without axis, with yellow protective cap and waterstop, connection M10 + M12	1 carton of 10 pcs.	2.00 kg	<u>Cecc</u>
100202	Fixed earthing terminal M10/M12, V4A stainless steel, with mounted, galvanised axis, Length 200 mm, with yellow protective cap	1 carton of 10 pcs.	2.90 kg	
100200	Fixed earthing terminal M10/M12, V4A stainless steel, with mounted A2 multi-purpose connecting clamp, with yellow protective cap	1 carton of 10 pcs.	2.40 kg	

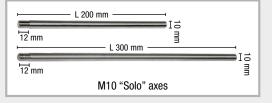
Installation

Art. no. 100187





M10 "Solo" axes Art.Gr. **521** for fixed earthing terminal



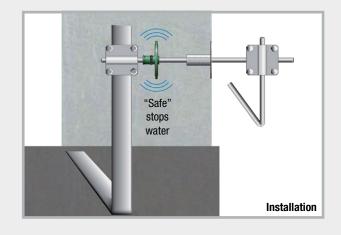
Art. no.	Description	PU	Weight/carton
100183	galvanised, length 200 mm	Carton of 50 pcs.	6.00 kg
100185	galvanised, length 300 mm	Carton of 50 pcs.	9.50 kg
100184	V4A stainless steel, length 200 mm	Carton of 50 pcs.	6.00 kg
100186	V4A stainless steel, length 300 mm	Carton of 50 pcs.	9.00 kg



M10 "Safe" axes for pressure water-tight fixed earthing terminal 521

Art. no. Description PU Weight/pc. 100177 galvanised, length 200 mm 0.15 kg 1 pc. 100178 galvanised, length 300 mm 1 pc. 0.22 kg 100179 V4A stainless steel, length 200 mm 0.15 kg 1 pc. 100180 V4A stainless steel, length 300 mm 1 pc. 0.21 kg





Cross clamps for fixed earthing terminals M10/12



Art. no.	Description	PU	Weight per carton	Art. no. 100188 Art. no. 100189
100188	Cross clamp for fixed earthing terminal M10/12, galvanised, M10 thread, Thread length 70 mm, for round conductors Ø 8 + 10 mm and flat conductors up to 40 mm	Carton of 10 pcs.	3.80 kg	Thread length 70 mm M10
100189	Cross clamp for fixed earthing terminal M10/12, V4A stainless steel, M10 thread, Thread length 70 mm, for round conductors Ø 8 + 10 mm and flat conductors up to 40 mm	Carton of 10 pcs.	3.20 kg	Installation Fixed earthing terminal with screwed in cross clamp. Round and flat conductors can be connected.

M10 "Safe" wall bushings with pre-assembled fixed earthing terminals

The M10 wall bushings are pre-assembled and supplied in the exact wall thickness.

Time-consuming adjustments are not necessary.

Fixed earthing terminal: V4A stainless steel,

connection axes 10 mm: stainless steel



Art.Gr. **521**

Wall thickness	Art. no.	Weight/pc.	
200 mm	100394	0.42 kg	
240 mm	100396	0.45 kg	
250 mm	100398	0.45 kg	
300 mm	100400	0.48 kg	
350 mm	100402	0.52 kg	
365 mm	100404	0.53 kg	
400 mm	100406	0.55 kg	

M10 connection axis "Safe" for wall bushings

Stainless steel, diameter 10 mm, M10 thread at both ends, length of thread 12 mm

Wall thickness	Art. no.	Weight/pc.	
200 mm	100360	0.10 kg	
240 mm	100365	0.13 kg	
250 mm	100370	0.13 kg	
300 mm	100375	0.16 kg	
350 mm	100380	0.20 kg	
365 mm	100385	0.21 kg	
400 mm	100390	0.23 kg	

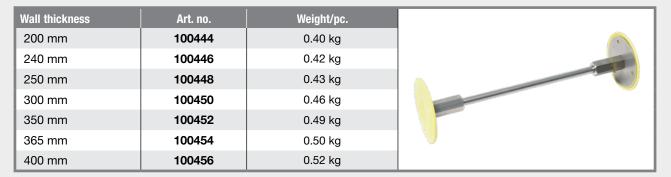
M10 "Solo" wall bushings with pre-assembled fixed earthing terminals

The M10 wall bushings are pre-assembled and supplied in the exact wall thickness.

Time-consuming adjustments are not necessary.

Fixed earthing terminal: V4A stainless steel,

connection axes: 10 mm: stainless steel



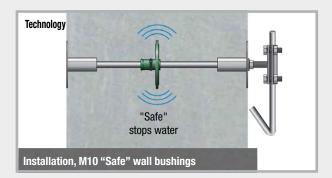
Art.Gr. **521**

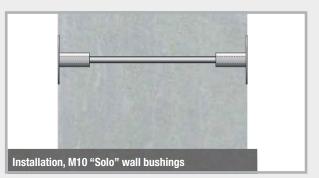
Art.Gr. 534

M10 connection axis "Solo" for wall bushings

Stainless steel, diameter 10 mm, M10 thread at both ends, length of thread 12 mm

Wall thickness	Art. no.	Weight/pc.	
200 mm	100410	0.07 kg	
240 mm	100415	0.10 kg	
250 mm	100420	0.10 kg	
300 mm	100425	0.14 kg	
350 mm	100430	0.17 kg	
365 mm	100435	0.18 kg	
400 mm	100440	0.20 kg	





Wall bushings (N)

For subsequent installation of earthing conductors in borehole Ø 14 mm or distance tube. Threaded rod with fixed/loose flange made of V4A stainless steel, connecting clamp and nuts made of galvanised steel.

Wall thicknesses	Art. no.	PU	Weight per pc.	Inside connection options: Round conductors with pre-installed multi-purpose connecting clamp; flat conductors with double clamp page 10: This clamp can be installed in place of the multi- purpose connecting clamp at the construction site. Outside connection M12		
100-300 mm	100310	1 set	0.66 kg			
300-500 mm	100315	1 set	0.80 kg	Outside connection options:	Cross clamp M12, page 18	M12 "Solo" axes page 17
Description				Art. no.	PU	Weight/pc.
Connection terminal for wall bushing (N), galvanised Connection: Threaded rod on multi-purpose connecting clamp, M10 screw, for round conductors 8-10 mm, with borehole Ø 13 mm			100181	1 pc.	0.14 kg	

Gasket insert for round conductors, core drill hole 50 mm

Pressure water-tight lead-in with the MASTER-RING gasket insert

Art. no.	Description	PU	Weight/pc.	
120080	Gasket insert for round conductors 8 +10 mm, Core drill hole Ø 50 mm, Medium pipe 6-12 mm	1 pc.	0.38 kg	

Wall bushing, flexible

Flexible wall bushing M10

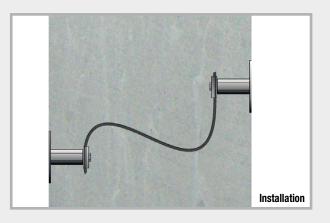
for height-offset and side-shifted offset positioning of earthing connections,

fixed earthing terminal in V4A stainless steel, steel cable Ø 10 mm

Art.Gr. **520**

Art. no.	Description	PU	Weight/pc.
100660	Wall bushing, flexible 600 mm, 2 x fixed earthing terminal with connecting clamp 1 x steel cable length 600 mm	1 pc.	0.70 kg
100662	Wall bushing, flexible 1200 mm, 2 x fixed earthing terminal with connecting clamp 1 x steel cable length 1200 mm	1 pc.	0.93 kg





Wall bushing, flexible "Safe"

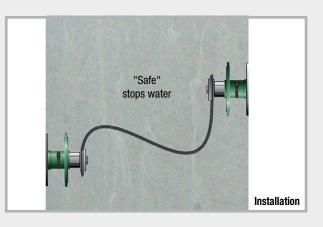
Flexible wall bushing M10,

sealed pressure water-tight with RONDO EFP,

for height-offset and side-shifted offset positioning of earthing connections

Art. no.	Description	PU	Weight/pc.
100670	Wall bushing, flexible 600 mm "Safe" 2 x fixed earthing terminal with connecting clamp and RONDO EFP 1 x steel cable length 600 mm	1 pc.	0.77 kg
100672	Wall bushing, flexible 1200 mm 2 x fixed earthing terminal with connecting clamp and RONDO EFP 1 x steel cable length 1200 mm	1 pc.	1.00 kg





to conne to the rii	d earthing terminal ect the equipotential bonding conducting ang earth electrode, reinforcement and protection system	Art.Gr. 523		
Art. no.	Description	PU	Weight per carton	
100300	Fixed earthing terminal M12, V4A stainless steel, with yellow protective cap, Connection M12	1 carton of 10 pcs.	2.00 kg	To mm
100304	Fixed earthing terminal M12 "Safe" with yellow protective cap and waterstop, Connection M12	1 carton of 10 pcs.	2.40 kg	
100308	Connecting plate 40 x 4 mm, incl. screw M12 x 25	1 carton of 10 pcs.	1.90 kg	storm
100312	Fixed earthing terminal M12 with connecting plate and yellow protective cap, Connection M12	1 carton of 10 pcs.	3.90 kg	
100316	Fixed earthing terminal M12 "Safe" with connecting plate and yellow protective cap, Connection M12	1 carton of 10 pcs.	4.30 kg	Core -

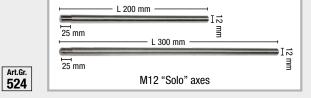
Technology

Art. no. 100300 Connection M12

Connection **Connection options**



M12 "Solo" axes for fixed earthing terminal



Art. no.	Description	PU	Weight/carton
101170	galvanised, length 200 mm	1 carton of 50 pcs.	8.50 kg
101172	galvanised, length 300 mm	1 carton of 50 pcs.	13.00 kg
101174	V4A stainless steel, length 200 mm	1 carton of 50 pcs.	9.00 kg
101176	V4A stainless steel, length 300 mm	1 carton of 50 pcs.	13.00 kg

M12



M12 "Safe" axes for pressure water-tight fixed earthing terminal

Art. no.	Description	PU	Weight/pc.
101180	galvanised, length 200 mm	1 pc.	0.20 kg
101182	galvanised, length 300 mm	1 pc.	0.29 kg
101184	V4A stainless steel, length 200 mm	1 pc.	0.20 kg
101186	V4A stainless steel, length 300 mm	1 pc.	0.29 kg

Cross clamps for fixed earthing terminals M12

Art.G	r.
52	5

Art. no.	Description	PU	Weight/carton
100460	Cross clamp for fixed earthing terminal M12, galvanised, M12 thread, thread length 70 mm, for round conductors \emptyset 8 + 10 mm and flat conductors up to 40 mm	1 carton of 10 pcs.	4.20 kg
100462	Cross clamp for fixed earthing terminal M12, V4A stainless steel, M12 thread, thread length 70 mm, for round conductors \emptyset 8 + 10 mm and flat conductors up to 40 mm	1 carton of 10 pcs.	3.45 kg
100464	Cross clamp for fixed earthing terminal M12, V4A stainless steel M12 thread, thread length 200 mm, for round conductors Ø 8 + 10 mm and flat conductors up to 40 mm	1 carton of 10 pcs.	4.50 kg





M12 "Safe" wall bushings with fixed earthing points pre-assembled

The M12 wall bushings are pre-assembled and supplied in the exact wall thickness.

Time-consuming adjustments are not necessary.

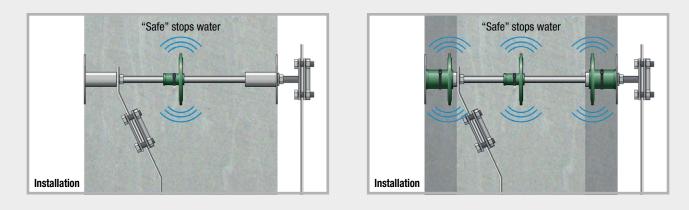
Fixed earthing terminal: stainless steel V4A,

connection axes 12 mm: stainless steel

incl. connecting plate 4 x 40 mm



Wall thickness	Art. no.	Weight/pc.		
200 mm	100334	0.68 kg		
240 mm	100336	0.72 kg		
250 mm	100338	0.73 kg		
300 mm	100340	0.78 kg		
350 mm	100342	0.82 kg		
365 mm	100344	0.83 kg		
400 mm	100346	0.87 kg		



M12 "DW Safe" wall bushings with fixed earthing points pre-assembled

The M12 wall bushings are pre-assembled and supplied in the exact wall thickness.

Time-consuming adjustments are not necessary.

Fixed earthing terminal: stainless steel V4A,

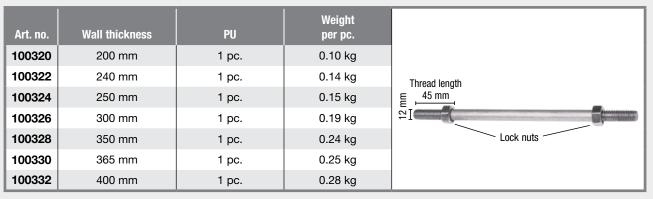
connection axes 12 mm: stainless steel

incl. connecting plate 4 x 40 mm

Wall thickness	Art. no.	Weight/pc.	
200 mm	100348	0.76 kg	
240 mm	100350	0.80 kg	
250 mm	100352	0.81 kg	
300 mm	100354	0.85 kg	
350 mm	100356	0.90 kg	
365 mm	100358	0.91 kg	-
400 mm	100359	0.94 kg	

M12 connection axis "Solo" for wall bushings

Stainless steel, diameter 12 mm, M12 thread at both ends, length of thread 45 mm, incl. 2 lock nuts



Fixed earthing terminal M16 and accessories

to connect the equipotential bonding conductors to the foundation earth electrode, reinforcement and lightning protection system

Art. no.	Description	PU	Weight per pc.	Connection M16
100455	Fixed earthing terminal M16, V4A stainless steel, without axis, with yellow protective cap, Connection M16	1 carton of 10 pcs.	1.70 kg per carton	Connection M16
100461	Fixed earthing terminal M16, V4A stainless steel, with flexible connection conductor, Connection conductor CU/SN 95 mm ² , Conductor length 400 mm	1 pc.	0.66 kg	400 mm
100458	Cross clamp for fixed earthing terminal M16, VA4 stainless steel, M16 thread, Thread length 30 mm, for round conductors Ø 8 + 10 mm and flat conductors up to 40 mm	1 carton of 10 pcs.	3.10 kg per carton	Thread length 30 mm M16

Accessories for fixed earthing terminal

Art.Gr. **529**

Art. no.	Description	PU	Weight per pc.	
100198	Plastic foam for fixed earthing terminal, self-adhesive on one side, Ø 76 mm, thickness 20 mm	1 bag of 10 pcs.	0.08 kg	
100196	Fixing spider for fixed earthing terminal, steel/bright	1 pc.	0.12 kg	50 mm



Remove protective cap of fixed earthing terminal



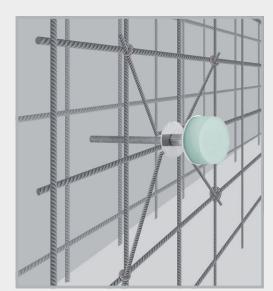
Screw axis through the fixing spider and fasten fixed earthing terminal



Stick on plastic foam



Installation complete



Fixed earthing terminal with fixing spider on the reinforcement

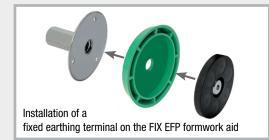
FIX formwork aid

NEW: Fastening systems for fixed earthing terminals in precast concrete plants

Fastening to steel formworks using the FIX Magnet

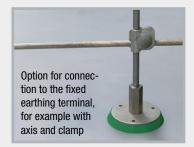


Art. no.	Description	PU	Weight/pc.	
091410	FIX Magnet for formwork aid Power Magnet for all FIX formwork aids, incl. screw and wing nut	25 pcs.	0.14 kg	
090804	FIX EFP formwork aid for fixed earthing terminals M10/12 and M12 Cone height 11 mm	25 pcs.	0.03 kg	\bigcirc





terminal fastened with FIX Magnet







PVC protective cap for round and Art.Gr. **530** flat conductors

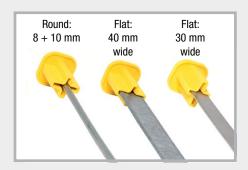


Art. no.	Description	PU	Weight/bag
100500	MultiCap, colour: yellow, area of application: round conductor: 8 + 10 mm flat conductor: 30 x 3.5 mm 30 x 3.0 mm	1 bag of 100 pcs.	5.15 kg

Technical data



Material: PVC, Large labelled safety cap, 60 x 60 mm, long mounting slot 50 mm



Round: 8 + 10 mm Flat: 40 mm wide 30 mm wide Flat:



MultiCap can be used universally



Excerpt from DIN 18014 Foundation earth electrode: For safety reasons, the terminal lugs must be prominently marked during the construction phase.

Description

- No risk of injury
- Simply plug on
- Yellow signal colour
- One protection cap for 6 sizes

Art.Gr. 531

Terminal lugs

Round conductor rods, bevelled

Art. no.	Description	Length	PU	Weight per bundle	
100555	V4A stainless steel round conductor Ø 10 mm	1.50 m	1 bundle of 10 pcs.	9.40 kg	
100560	V4A stainless steel round conductor Ø 10 mm	2.00 m	1 bundle of 10 pcs.	12.50 kg	
100565	V4A stainless steel round conductor Ø 10 mm	2.50 m	1 bundle of 10 pcs.	15.70 kg	
100570	V4A stainless steel round conductor Ø 10 mm	3.00 m	1 bundle of 10 pcs.	18.60 kg	

RONDO Standard

Sealing collars for lightning protection wire and earthing strap

RONDO sealing collars form pressure water-tight seals for lightning protection wires and earthing straps passing through concrete walls, floor slabs and shafts.

-0-0-0-

Art. no.	Description	PU	Secondary packaging	Weight per pc.	
090890	RONDO RO 10, for lightning protection conductors Ø 8 + 10 mm	1 pc.	1 carton of 100 pcs.	0.12 kg	
090892	RONDO RO flat, for earthing strap 30x3.5 + 30x3.0 mm	1 pc.		0.18 kg	
090988	RONDO EFP, for hexagon fixed earthing terminal	1 pc.	1 bag of 25 pcs.	0.04 kg	



The sealing collars are supplied with fastening straps, ready for installation

Accessories

Art. no.	Description	PU	Weight per pc.	
100165	Profiled earth rod, Length: 1.5 m, galvanised, cross profile 50 x 50 mm, with terminal lug	1 pc.	3.40 kg	
100206	Earth rod for the construction site, Length 1.2 m, Ø 20 mm, galvanised, with impact tip, Connection with clamps from the earth rod range	1 pc.	2.86 kg	
100170	Spacer for foundation earth electrode, galvanised, for round connector Ø 8-10 mm, earthing strap 30 x 3.5 mm, length 280 mm, installation spacing 1-1.5 m	1 carton of 100 pcs.	9.80 kg per carton	Spacer with attached flat conductor (flat conductor not included in scope of supply)
100176	Expansion strip with polystyrene body, V2A stainless steel, for routing of foundation earth electrode through expansion joints	1 pc.	0.70 kg	700 mm [85 mm 45 mm ⁻¹ - 180 mm ⁻¹

Anti-corrosive tapes

for wrapping of overground and underground connections

Weight per roll Art. no. PU Description Anti-corrosive tapes, Roll length 10 m certified by DVGW 100190 Size: 1.5 x 50 mm 1 carton 0.71 kg of 24 rolls 100193 Size: 1.5 x 100 mm 1 carton 1.20 kg of 12 rolls Installation

Secured connection

Art.Gr. **530**

Earth rod

for use in earthing systems

Art. no.	Design	PU	Weight per pc.	
100205	Earth rod for the installation of earthing systems, galvanised, Length 1500 mm, Ø 20 mm	1 pc.	3.60 kg	
100210	Earth rod for the installation of earthing systems, V4A stainless steel, Length 1500 mm, Ø 20 mm	1 pc.	3.70 kg	The earth rods have a drilled hole on one side and a pin on the other. This produces a self-closing coupling.
100215	Impact tip for driving in the first earth rod, bright steel	1 pc.	0.04 kg	
100216	Drive-in aid for earth rod, bright steel	1 pc.	0.48 kg	
100218	Connecting clamp for earth rod, galvanised, heavy duty version with M10 screws for round conductors Ø 8 + 10 mm and flat conductors up to 40 mm	1 pc.	0.38 kg	
100217	Connecting clamp for earth rod V4A stainless steel, heavy duty version with M10 screws for round conductors Ø 8 + 10 mm and flat conductors up to 40 mm	1 pc.	0.30 kg	Connecting clamp installed

Basic principles of the installation of lightning protection conductors and connectors

FOUNDATION EARTH ELECTRODE	
Installation location:	In the concrete of the foundation and floor slab with minimum 5 cm concrete cover on all sides
Material:	Galvanised or non-galvanised steel as flat conductor 30 x 3.5 mm or round conductor DN 10 mm
CONNECTION PARTS ON FOUNDATION EARTH ELECTRODE	
Installation location: Material:	In subsoil A4 stainless steel material grades 1.4401, 1.4404, 1.4571 Flat conductor 30 x 3.5 mm or round conductor DN 10 mm
RING EARTH ELECTRODE AND CONNECTION PARTS ON RING EARTH ELECTRODE	
	Outside the foundation in the subsoil
Material:	A4 stainless steel material grades 1.4401, 1.4404, 1.4571 as 30 x 3.5 mm flat conductor or DN 10 mm round conductor
	Galvanised material is not permitted in this area
CONNECTORS	
Installation location: Description:	In subsoil, connector made of A4 stainless steel, galvanised in foundation Wedge connectors are not permitted: unless installed in non-vibrated concrete 4 x M6 screws above ground only and for arrester lines and down conductors 4 x M8 or 2 x M10 screws and M10 multi-purpose connecting clamp for use in the fol- lowing areas: subsoil, concrete, above ground, down conductors and arrester lines.
DIN STANDARDS	DIN EN 62561-1 and 62561-2
COSTS	The cost of stainless steel round conductors is up to 33% less than stainless steel flat conductors. The round conductor, which can be installed as an alternative to the flat conductor, is easier to handle and therefore has a significantly higher workability.

LIGHTNING PROTECTION CONDUCTORS

CONNECTORS

CONNECTING CLAMPS

FIXED EARTHING TERMINALS

WALL BUSHINGS

EARTH RODS

MASTERTEC GmbH & Co. KG Special articles for reinforced concrete construction

Gewerbegebiet Unterhaid Im Maintal 13 96173 Oberhaid, Germany Tel. +49 (0) 9503 / 5047-0

info@mastertec.eu www.mastertec.eu