

UNIVOLT®



## LIGHTNING PROTECTION • EARTHING

## DIETZEL CATALOGUES

DIETZEL is a leading Austrian manufacturer and distributor of electric installation systems for modern electrotechnical applications.

Concentrating on research and development requirements, we have achieved an internationally recognized position and gained excellent reputation

Today we offer a broad product range and we are proud to be internationally recognized as top supplier regarding quality and choice.

In order to give our customers an overview of the variety of our approved and reliable installation systems we offer with more than 10,000 articles, we edited the following catalogues, mostly in German language:

**Cable Management Systems  
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Protective Conduits**

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For catalogues, price lists and samples please turn to:

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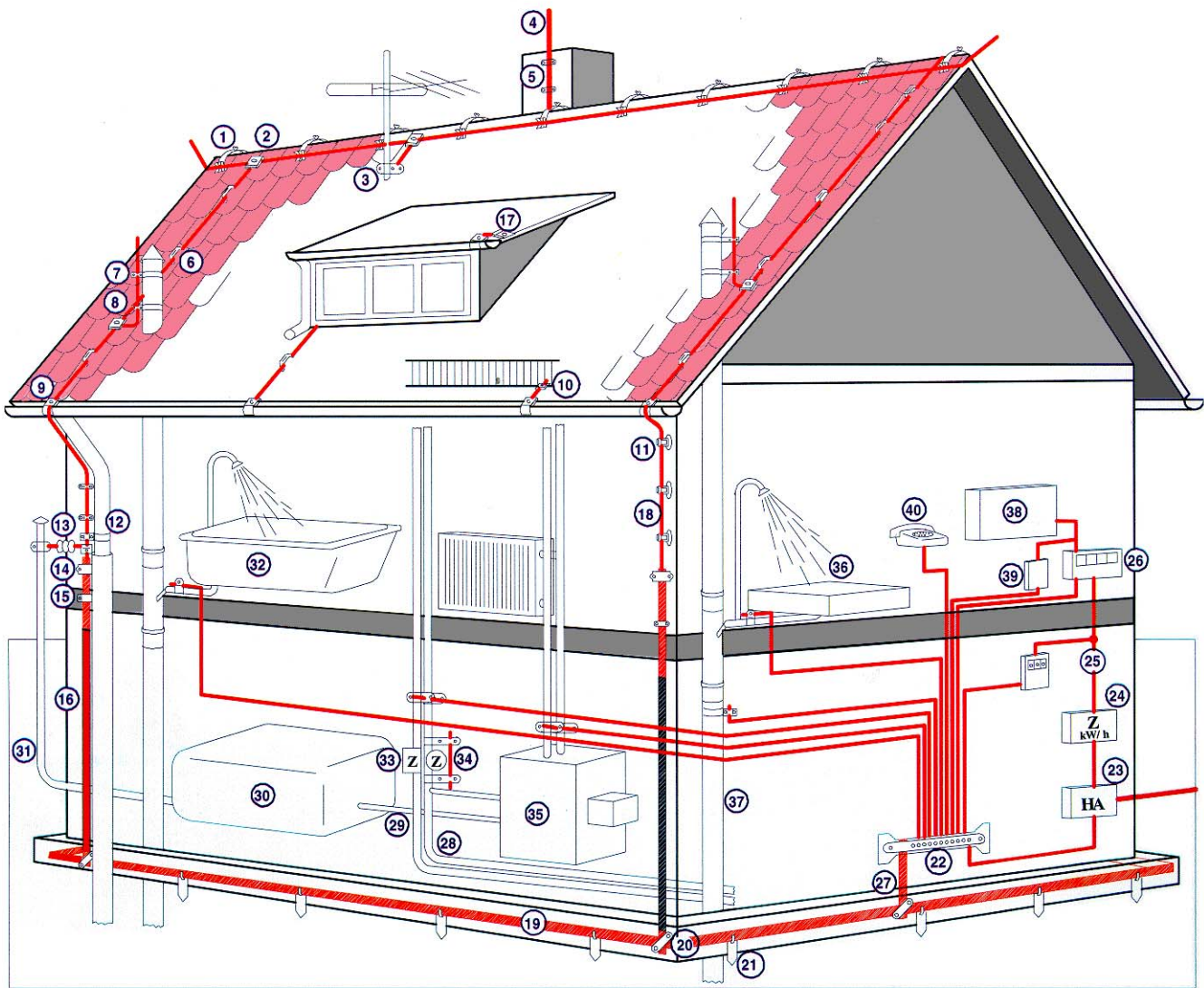
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All technical details in our catalogues and other information material derive from long term experience of our company in the field of cable management systems, but represent only recommendations. Errors and modifications excepted.

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	Page
<b>Technical Information</b>	<b>2</b>
<b>Round Wires, Flat Strips, Copper Cables</b>	<b>6</b>
<b>Deep-Driven, Cross-Profile and Lead-In Earthing Rods</b>	<b>7</b>
<b>Accessory for Earthing Systems</b>	<b>8</b>
<b>Cross Clamps, Multi-Purpose Clamps</b>	<b>9</b>
<b>Connection Clamps and Sleeves, Saddle Clamps</b>	<b>10</b>
<b>Gutter Clamps, Parallel Connectors, Snow Guard Clamps, T-Connectors, Cable Lugs</b>	<b>11</b>
<b>Contact Couplings, Downpipe Clamps</b>	<b>12</b>
<b>Pipe Earthing Clamps, Waterpipe Earthing Clamps</b>	<b>13</b>
<b>Pipe Earthing Clamping Straps, Conductor Holders</b>	<b>14</b>
<b>Cover and Spacing Collars, Roof Conductor Holders</b>	<b>15</b>
<b>Ridge Conductor Holders, Concrete Bases, Interception Rods</b>	<b>17</b>
<b>Interception Masts</b>	<b>18</b>
<b>Mushroom-shaped Interceptor, Test Point Boxes, Inspection Doors, Disconnection Clamps and Sleeves</b>	<b>19</b>
<b>Equipotential Bonding Bars, Isolating Spark Gaps, Wire Straighteners, Protection Tapes</b>	<b>20</b>
<b>Installation Accessory, Components</b>	<b>21</b>
<b>Couloured Lightning Protection Components</b>	<b>22</b>



## External Lightning Protection

- 1 Ridge conductor holder (Page 16/17)
- 2 Multi-purpose clamp (page 9)
- 3 Pipe earthing clamp (page 13/14)
- 4 Interception rod (page 17/18)
- 5 Rod holder (page 8)
- 6 Roof conductor holder (page 15/16)
- 7 Downpipe earthing clamp (page 12-14)
- 8 Single contact clamp (page 12)
- 9 Gutter clamp (page 11)
- 10 Snow guard clamp (page 11)
- 11 Wall conductor holder (page 14)
- 12 Downpipe clamp (page 12)
- 13 Isolating spark gap (page 20)
- 14 Disconnection clamp round/flat (page 19)
- 15 Flat strip conductor holder (page 9)
- 16 Insulation
- 17 Saddle clamp (page 10)
- 18 Conductor wire (page 6)
- 19 Foundation earth electrodes (page 6)
- 20 Cross clamp (page 9)

## Internal Lightning Protection

- 21 Foundation electrodes holder (page 8)
- 22 Equipotential bonding bar (page 20)
- 23 House service connection
- 24 Electricity meter
- 25 Lightning current arrester
- 26 Splitter
- 27 Equipotential bonding
- 28 Water supply
- 29 Gas supply
- 30 Oil tank
- 31 Oil tank breather
- 32 Bathtub
- 33 Gas meter
- 34 Water meter
- 35 Central heating
- 36 Shower
- 37 Sewage system
- 38 Electronic device
- 39 Surge arrester
- 40 Telephone system

## Technical Information

### Standards

In Austria the design and installation of lightning protection systems are based on ÖVE regulations stipulated in ÖVE/ÖNORM E8049-1/2001 "Blitzschutz baulicher Anlagen, Teil 1: Allgemeine Grundsätze". This regulation became mandatory on July 13th, 2002, together with the Austrian regulation on electrical engineering ETV 2002. Furthermore, clamps, connectors and isolating spark gaps must withstand lightning current test as described in the European standard draft prEN 50164-1. Our components for external lightning protection comply with these guidelines and standards.

### Quality

Founded 1938, DIETZEL's experience and know-how in metal working guarantee products of top quality for lightning protection components. Supplying suitable materials and producing functional systems UNIVOLT became a well-known brand for customer oriented services and product improvements. Apart from electrical and mechanical requirements for lightning protection, we also focus on easy installation and protection against corrosion of the components for the lightning conductor systems.

### Annotations on Application

UNIVOLT roof and wall conductor holders with single-screw cleats are both time and cost efficient.

The plastic snap-type holder '**Schnappduplo SD**' allows quick and easy installations (inserting the conductor, pressing it in the gap without using tools) and offers due to its sophisticated design (no mechanical loads on the snap fastener, the conductor cannot jump out) several advantages.

'**Schnappduplo SD**' is applicable as single element (conductor holder) or as a roof conductor holder if installed with appropriated bases from aluminium, stainless steel or copper. A sophisticated system for efficient and professional installations.

'**Spannhalter SP**' is a screwless grip-type percussion holder either of stainless steel or copper which supplements the plastic '**Schnappduplo SD**' conductor holder system. The screwless holders can be used both as roof and wall holders for conductors of up to 8mm diameter. The conductor is fixed by simply pressing it into the holder. A new design of this grip-type holder system allows the conductor to expand thermally and also eases mounting and dismantling of conductors.

The complete sophisticated holder system '**Schnappduplo SD**' and '**Spannhalter SP**' guarantee short assembly times and cost efficiency.



Snap-type conductor holder SD



Grip-type conductor holder SP

## Lightning Protection Installations

### Aluminium round wires AlMgSi

The 8mm round wire is a lightning down-conductor wire (acc. DIN 48 801, ÖNORM E 2950) made of a special wrought aluminium alloy either soft or semi-hard. It is suitable above ground and has much better mechanical properties than previously used pure aluminium wires of 10mm diameter. Furthermore, it is light to transport, easy to handle or install and highly resistant to corrosion. Please note that, as all aluminium materials, aluminium wires are not to be installed under plaster and renderings.

**Die-cast zinc components** must not be used under plasters and renderings or buried underground..

**Hot dip galvanized steel** is also suitable for embedding in concrete.

**Stainless steel** (catalogue abbreviation: NIRO; steel, stainless) has proven extremely durable under particularly harsh environmental conditions and can be installed above and below ground. For underground embeddings only stainless steel with the material code 1.4571/V4A is suitable.

### Components with stainless steel screws

To improve quality, most of our components are fitted with stainless steel screws. Stainless steel screws emphasize the high quality of our components. The same is true for components made of copper. Corrosion behaviour is not affected by this.

### Components with Dacromet® plated screws

To improve the quality of our products we use instead of conventional hot dip galvanised screws products with Dacromet® plated screws\*. These components are hereinafter marked with **Ⓢ**. The screws comply with the Austrian electrotechnical standard ÖVE/ÖNORM EN 50164-1 and are characterized by their smooth running and durability (2.5 times better resistant against environmental influence than hot dip galvanized screws). Additionally, the manufacturing process of these articles has less impact on the environment.

\* All other cross clamps will be supplied with Dacromet® screws successively.

**Terminal lugs** for connections between earth electrodes or foundation reinforcements and earthing systems laid underground must be corrosion-proof. Conductors with plastic sheathings or isolated or stainless steel terminal lugs are suitable for this purpose.

**Additional measures against corrosion** are required when components or conductors of different materials are interconnected, e.g. steel or aluminium to copper or stainless steel (see table below). In such cases, bimetallic connectors and disconnection clamps or liners (cupal sheets or sleeves) must be used. Centre plates made of lead are not permitted.

**Plastic sheet roof coverings:** the material compatibility (long-term durability) of plastic sheet roof coverings must be confirmed by the manufacturer before installing plastic lightning protection components on them.

### Interconnection of different materials

The table to the right shows which materials may be interconnected in a conductor system (yes) or require additional measures against corrosion (no).

	St/tZn*	Al	Cu	V2A	Titan	Tin
St/tZn*	yes	yes	no	yes	yes	yes
Al	yes	yes	no	yes	yes	yes
Cu	no	no	yes	yes	no	yes
V2A	yes	yes	yes	yes	yes	yes
Titan	yes	yes	no	yes	yes	yes
Tin	yes	yes	yes	yes	yes	yes

\*St/tZn stand for 'Steel, hot dip galvanized'

### Tightening torques

Clamps and connectors must be firmly tightened by hand using standard tools. The tightening torque required mainly depends on the shape and material of the connector or clamp, and on the material and mechanical properties of the screws. We recommend the following torque values for fixing screws, regardless of the material used for the clamp or connector.

Screws	Tightening torque in Nm
M6	4
M8	10
M10	20

### Abbreviation of Materials

Al	Aluminium
Ct	Concrete
V2A	Stainless steel V2A
V4A	Stainless steel V4A
gv	zinc-plated
gal Sn	tin-plated
CI	Grey cast iron
PI	Plastic
Cu	Copper
Cu/Sn	Copper, tin-plated
Br/Ni	Brass, nickel-plated
St	Steel, hot dip galvanized
TG	Malleable iron
ZG	Die-cast zinc

## Conversion Table of Conductor Materials

Material	Dimension in mm	1 m = kg	1 kg = m	Cross Section mm <sup>2</sup>
<b>Round Wires</b>				
RD8fv	dm 8mm	-,40	2,50	50
RD10fv	dm 10mm	-,62	1,62	78
RD8Alu/hh	dm 8mm	-,135	7,40	50
RD8Alu/w	dm 8mm	-,135	7,40	50
RD8Alu/K 1,5mm thick	dm 8mm	-,195	5,10	
RD8Cu/hh	dm 8mm	-,450	2,25	50
RD8Cu/w	dm 8mm	-,450	2,25	50
RD8Niro	dm 8mm	-,40	2,50	50
RD10Niro	dm 10mm	-,62	1,62	78
RD8fv/K	dm 8/11mm	-,44	2,27	50
RD10Ffv/K	dm10/13mm	-,70	1,43	78
<b>Flat Strips</b>				
EBE30x3fv	30 x 3	0,71	1,40	
EBE40x4fv	40 x 4	1,27	0,79	
EBE30x3,5Niro	30 x 3,5	-,85	1,18	105

We deliver exclusively conductor material of highest quality.  
 Please note that we can only deliver in coil lengths at original packing.  
 Upon request we will also offer at favourable current daily prices.

## Round Wires, Flat Strips, Copper Cables

Article No.	Item Code	Material	Description	Packing
<b>Round Wires</b>				
006 818	RD8fv	St	Round wire, 8mm, hot dip galvanized	ca. 50kg (125m)
006 818	RD8fv	St	Round wire, 8mm, hot dip galvanized	ca. 50kg (125m)
012 325	RD8fv/K	St/Pl	Round wire, 8mm, galv. with plastic sheathing	ca. 50m (22kg)
006 820	RD8Cu/hh	Cu	Round wire, 8mm, copper, semi-hard	ca. 50kg (113m)
027 601	RD8Cu/w	Cu	Round wire, 8mm, copper, soft	ca. 50kg (113m)
013 843	RD8Alu/hh	Al	Round wire, 8mm, aluminium, semi-hard	ca. 20kg (148m)
027 762	RD8Alu/w	Al	Round wire, 8mm, aluminium, soft	ca. 20kg (148m)
061 422	RD8Alu/K	Al	Round wire, 8mm, alum. with plastic sheathing	ca. 20kg (102m)
016 159	RD8Niro,V2A	V2a	Round wire, 8mm, stainless steel V2A, material No. 1.4301	ca. 100m (40kg)
006 821	RD10fv	St	Round wire, 10mm, hot dip galvanized	ca. 50kg (81m)
006 824	RD10fv/K	St/Pl	Round wire, 10mm, galv. with plastic sheathing	ca. 50m (35kg)
016 158	RD10NiroV4A	V4a	Round wire, 10mm, stainless steel V4A, material No. 1.4571	ca. 80m (50kg)



<b>Flat Strips</b>				
006 845	EBE30x3fv	St	Flat strip, 30x3mm, hot dip galvanized	ca. 50kg (70m)
006 849	EBE40x4fv	St	Flat strip, 40x4mm, hot dip galvanized	ca. 50kg (40m)
064 481	Ebe30x3,5Niro	V4a	Flat strip,30x3,5mm, stainless steel, V4A	ca. 50kg (59m)
006 852	ST-BE30x3/3mfv	St	Flat strip bar 3m, 30x3 mm, hot dip galvanized	2,13 kg
006 854	ST-BE40x4/3mfv	St	Flat strip bar 3m, 40x4 mm, hot dip galvanized	3,81 kg
006 040	EG1000x1000fv	St	Earthing lattice from strip steel 20x2mm, 1000x1000mm, hot dip galvanized with gutter screws M6x20 and locknut	1 piece



<b>Copper Cables</b>				
081 942	Seil35Cu	Cu	Copper cable, 35 mm <sup>2</sup> bright	ca. 50kg (162m)
021 722	Seil50Cu	Cu	Copper cable, 50 mm <sup>2</sup> , bright 7x3 mm	ca. 50kg (113m)
027 602	Seil70Cu	Cu	Copper cable, 70 mm <sup>2</sup> bright 19x2,14 mm	ca. 50kg (85m)
043 128	Seil50Cu/Sn	Cu/Sn	Copper cable, 50 mm <sup>2</sup> Cu zinc-plated	ca. 100m (44kg)
041 473	Seil70Cu/Sn	Cu/Sn	Copper cable, 70 mm <sup>2</sup> Cu zinc-plated	ca. 80m (59kg)



## Deep-Driven, Cross-Profile and Lead-In Earthing Rods

Article No.	Item Code	Material	Description	Packing
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### Deep-Driven Earthing Rods

for installation of earthing systems, can be joined together with spigot and hole, simple installation with vibration hammer



063 898	TE20/1500fv	St	Deep-driven earthing rod, 20/1500 mm, hot dip galvanized	1
063 897	TE25/1500fv	St	Deep-driven earthing rod, 25/1500 mm, hot dip galvanized	1
064 051	TE20/1000Niro	V4a	Deep-driven earthing rod, 20/1000mm, stainless steel V4A	1
063 882	TE20/1500Niro	V4a	Deep-driven earthing rod, 20/1500mm, stainless steel V4A	1
063 868	TE-S20x1500fv	St	Deep-driven earthing rod with hexagonal joint, 20x1500mm, galv.	1
063 869	TE-S25x1500fv	St	Deep-driven earthing rod with hexagonal joint, 25x1500mm, galv.	1

### Earthing Rods

for installation of earthing systems, with terminal lug and hole, rod Ø 16mm



006 496	ESP500fv	St	Earthing rod, 500 mm, hot dip galvanized, dm=16mm	10
006 497	ESP750fv	St	Earthing rod, 750 mm, hot dip galvanized, dm=16mm	10
006 498	ESP1000fv	St	Earthing rod, 1000 mm, hot dip galvanized, dm=16mm	10
006 499	ESP1500fv	St	Earthing rod, 1500 mm, hot dip galvanized, dm = 16mm	10
006 500	ESP2000fv	St	Earthing rod, 2000 mm, hot dip galvanized, dm=16mm	10

### Cross-Profile Earthing Rods

for installation of earthing systems, with 50x50x3mm profile and terminal lug with holes



032 292	KE1000fv	St	Cross-profile earthing rod, 1000mm, hot dip galv., dm=16mm	5
032 293	KE1500fv	St	Cross-profile earthing rod, 1500mm, hot dip galv., dm=16mm	5
032 294	KE2000fv	St	Cross-profile earthing rod, 2000mm, hot dip galv., dm=16mm	5
064 048	KE2500fv	St	Cross-profile earthing rod, 2500mm, hot dip galv., dm=16mm	5

### Lead-In Earthing Rods

for installation of earthing systems, with forged-on lugs and 2 holes, rod Ø 16mm



063 986	EES1500fv	St	Lead-in earthing rod, 1500 mm, <b>complete*</b> , galv., dm=16mm	10
006 411	EES1750fv	St	Lead-in earthing rod, 1750 mm, galv., dm=16mm	10
006 412	EES2000fv	St	Lead-in earthing rod, 2.000 mm, galv., dm=16mm	10
006 413	EES2500fv	St	Lead-in earthing rod, 2.500 mm, galv., dm=16mm	10
006 414	EES3000fv	St	Lead-in earthing rod, 3.000 mm, galv., dm=16mm	10

\* with 2 pieces KS screws and 1 piece disconnection sleeve

## Accessory for Earthing Systems

Article No. Item Code Material Description Packing

### Accessory for Deep-Driven Earthing Rods

#### Driving Tips for deep-driven earthing rods



063 995

063 995	ESP20fv	St	Driving tip, 20 mm, St	100
063 996	ESP25fv	St	Driving tip, 25 mm, St	100
063 866	ESP-S20fv	St	Driving tip, hexagonal joint 20 mm, St	100
063 867	ESP-S25fv	St	Driving tip, hexagonal joint 25 mm, St	100

#### Connection Clamps for connecting deep-driven earthing rods with round wires



063 899

063 899	TES/KS20fv	St	Connection clamp with KS, 20 mm, hot dip galvanized	50
063 900	TES/KS25fv	St	Connection clamp with KS, 25 mm, hot dip galvanized	50
064 052	TES20NIRO	V4a	Connection clamp, 20mm, stainless steel V4A	50

#### Hammer Insert for driving-in deep-driven earthing rods using a vibration hammer



065 677

065 677	TSK20	St	Hammer insert, 20mm	1
065 678	TSK25	St	Hammer insert, 25mm	1

#### Connection Clamps for connecting deep-driven earthing rods with round wires or earthing rods up to 16mm diameter as well as flat strips



080 045

080 045	TEK 20 UNI FV-3TLG.	St	Connection clamp 20, versatile, rd 8-16/20, fl 30-40/20 hot dip galvanized	25
080 044	TEK 25 UNI FV-3TLG.	St	Connection clamp 25, versatile, rd 8-16/25, fl 30-40/25 hot dip galvanized	25

#### Conductor Holder for foundation earth electrodes

suitable for round wires 8-10mm and flat strips up to 40x4mm



063 940

063 940	AHG8-10/fl	St	Conductor holder, 8-10/fl40 mm, straight, hot dip galvanized	100
063 939	AH8-10/flfv	St	Conductor holder, 8-10/fl40 mm, cranked, hot dip galvanized	50

#### Rod Holders with with M6 double-screw cleat, for rods Ø 16mm



063 883

063 888	STH100fv	St	Rod holder, 100 mm, hot dip galvanized	75
063 883	STH150fv	St	Rod holder, 150 mm, hot dip galvanized	75
063 887	STH100Cu	Cu	Rod holder, 100 mm, copper	75
063 889	STH150Cu	Cu	Rod holder, 150 mm, copper	75

#### Rod Holders with with M6 double-screw cleat,

female thread M8 for screw fixing and wood screws, for rods Ø 16mm



063 878

063 878	STH-IGM8ZG	ZG	Rod holder with female thread M8, die-cast zinc	75
063 877	STH-IGM8Cu	Cu	Rod holder with female thread M8, copper plated	75

064 491

064 491	STHfv+SD+PVC-Sockel	St/Pl	Rod holder+ screw 5x60+ plug 8x40 + PVC base	100
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#### Rod Clamps for connecting interception rods with round wires



063 880

063 880	STK8+16fv	fv	Rod clamp, 8+16 mm, hot dip galvanized	100
063 879	STK8+16Cu	Cu	Rod clamp, 8+16 mm, copper	100
063 881	STK8+16Niro	V2a	Rod clamp, 8+16 mm, stainless steel	100

## Cross Clamps, Multi-Purpose Clamps

Article No. Item Code Material Description Packing

### Cross Clamps

for cross- or T-shape connections of round wires and flat strips  
for connections above and below ground



006 232

Ground plate 50x50mm

006 232	KK8-10/8-10fvM6	St	Cross clamp, 8-10/8-10 mm, hot dip galvanized, M 6	50
006 233	KKG8-10/8-10fvM6	St	Cross clamp, spacer plate with thread M6, 8-10/8-10, galv.	50
006 234	KKG8-10/16fvM6	St	Cross clamp, ground plate with thread M6, 8-10/16 galv.	25
006 580	KKG8-10/8-10CuM6	Cu	Cross clamp, ground plate with thread M6, 8-10/8-10, copper	50
006 581	KKG8-10/16CuM6	Cu	Cross clamp, ground plate with thread M6, 8-10/16, copper	50



006 233

Ground plate 60x60mm

006 241	KK8-10/30fvM6/3tlg	St	Cross clamp, 8-10/30 mm, galv., M 6, with spacer plate	25
006 239	KK30/30fvM6/3tlg	St	Cross clamp, 30/30 mm, galv., M 6, with spacer plate	25
006 247	KK8-10/8-10fvM8/3tlg	St	Cross clamp, 8-10/8-10 mm, galv., M 8, with spacer plate	25
006 251	KK30/30fvM8/3tlg	St	Cross clamp, 30/30 mm, galv., M 8, with spacer plate	25



006 245

006 242	KK8-10/30fvM6	St	Cross clamp, 8-10/30 mm, hot dip galvanized, M 6	25
006 243	KK30/30fvM6	St	Cross clamp, 30/30 mm, hot dip galvanized, M 6	25
006 245	KK8-10/30fvM8	St	Cross clamp, 8-10/30 mm, hot dip galvanized M 8	25
006 244	KK30/30fvM8	St	Cross clamp, 30/30 mm, hot dip galvanized, M 8	25
064 484	KKrd8-10/fl30Niro	V4a	Cross clamp, rd 8-10/flat 30mm, stainless steel V4A	20
064 482	KKfl30/fl30Niro	V4a	Cross clamp, flat 30/flat 30mm, stainless steel V4A	20
064 485	KKrd8-10/rd8-10Niro	V4a	Cross clamp, rd 8-10/rd 8-10mm, stainless steel V4A	10



006 252

Ground plate 70x70mm

006 252	KK10/40fvM8	St	Cross clamp, 10/40 mm, hot dip galvanized, M 8	20
006 250	KK40/40fvM8	St	Cross clamp, 40/40 mm, hot dip galvanized, M 8	20
080 509	KKrd10/fl40 NIRO	V4a	Cross clamp, rd 10/flat 40, stainless steel V4A	20
080 508	KKfl40/fl40 NIRO	V4a	Cross clamp, flat 40/flat 40, stainless steel V4A	20



034 061

034 061	KK10/40EVN	St	Cross clamp, type EVN	10
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### Multi-Purpose Clamps

for connecting round wires with **one** screw M10  
to be used either as parallel, T-shape or cross clamp



065 705

065 705	MZK8-10/8-10fv	St	Multi-purpose clamp without locknut, 8-10/8-10mm, galv.	100
077 298	MZK8-10/8-10Cu	Cu	Multi-purpose clamp without locknut, rd 8-10/rd 8-10, copper	100
063 849	MZK8+8Alu	Al	Multi-purpose clamp without locknut, rd 8+rd 8, alum. 4mm	200



063 848

065 706	MZK8-10/8-10fvM10fv	St	Multi-purpose clamp with locknut M10 galv., 8-10/8-10mm, hot dip galvanized	200
077 297	MZK8-10/8-10 Cu M10NIRO	Cu/V2a	Multi-purpose clamp with locknut, rd 8-10/rd 8-10, Cu, M10 stainless steel	200
063 841	MZK8+8fvM10-Niro	st/V2a	Multi-purpose clamp, 8+8 mm, galv., M10, st. steel locknut	200
063 848	MZK/ZM8+8Cu/fvM10-Niro	Cu/St/V2a	Multi-purpose clamp, rd8+rd8 Cu/bimetal./galv., M10 st. steel	200
063 843	MZK8+8AluM10-Niro	Al/V2a	Multi-purpose clamp, rd 8+rd 8 alum. 3mm, M10, st. steel	200
063 842	MZK8+8NiroM10-Niro	V2a	Multi-purpose clamp, rd 8+rd 8 st. steel, M10 st. steel	200

### Mini Multi-Purpose Clamps

for connecting round wires with **one** screw M8  
to be used either as parallel, T-shape or cross clamp



064 500

064 499	MMZK8+8Cu	Cu	Mini multi-purpose clamp, 8+8mm, copper	100
064 501	MMZK8+8Alu	Al	Mini multi-purpose clamp, 8+8mm, aluminium	100
064 500	MMZK8+8Niro	V2a	Mini multi-purpose clamp, 8+8mm, stainless steel	100

## Connection Clamps and Sleeves, Saddle Clamps

Article No.	Item Code	Material	Description	Packing
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### Connection Clamps

for cross- or T-shape connections



063 852

063 852	VBK8-10/8-10fv	St	Connection clamp, 8-10/8-10 mm, hot dip galvanized	100
063 857	VBK8-10/20fv	St	Connection clamp, 8-10/20 mm, hot dip galvanized	75
063 851	VBK8-10/30fv	St	Connection clamp, 8-10/30 mm, hot dip galvanized	100

### Connection Sleeves

for joining together round wires



063 856

063 856	VM8/8ZG	ZG	Connection sleeve, 8/8 mm, die-cast zinc	100
063 855	VM8/8Cu	Cu	Connection sleeve, 8/8 mm, copper	100
063 854	VM8/8Alu	Al	Connection sleeve, 8/8 mm, aluminium	100
063 853	VM10/10ZG	ZG	Connection sleeve, 10/10 mm, die-cast zinc	100

### Versatile Connection Clamp

for cross-shape and parallel connections of round wires



065 667

065 667	UVB8-10/8-10fv	St	Versatile connection clamp, rd 8-10/rd 8-10mm, galv.	100
065 668	UVB8-10/8-10Cu	Cu	Universalverbinder, rd 8-10/rd 8-10mm, copper	100
065 669	UVB8-10/8-10Niro	V2a	Universalverbinder, rd 8-10/rd 8-10mm, st. steel	100

### Saddle Clamps

for fixing round wires on metallic folds



006 266

for tin sheets up to 8mm

006 266	FKDfv	St	Saddle clamp, turnable, hot dip galvanized	50
006 592	FKDCu	Cu	Saddle clamp, turnable, copper	50



063 961

063 961	FKrundfv	St	Saddle clamp, rd, hot dip galvanized	100
063 960	FKrundCu	Cu	Saddle clamp, rd, copper	100



063 959

063 959	FKflachfv	St	Saddle clamp, flat, hot dip galvanized	150
063 958	FKflachCu	Cu	Saddle clamp, flat, copper	150
063 957	FKflachAlu	Al	Saddle clamp, flat, aluminium	150



064 496

064 496	EHFkfv	St	Hooking clamp with cleat, galv., for folds 1-8mm	100
064 525	EHFkCu	Cu	Hooking clamp with cleat, copper, for folds 1-8mm	100



063 977

063 978	Fkuni/fv	St	Saddle clamp, versatile, hot dip galvanized	100
063 977	FKuni/Cu	Cu	Saddle clamp, versatile, copper	100
063 976	FKuni/Alu	Al	Saddle clamp, versatile, aluminum	100
064 505	FKUniNiro	V2a	Saddle clamp, versatile, stainless steel V2A	100



065 674

for tin sheets up to 12mm

065 674	FK-Wfv	St	Saddle clamp, cranked with M10 screw and cleat, galv.	50
065 675	FK-WCu	Cu	Saddle clamp, cranked with M10 screw and cleat, copper	50
065 676	FK-WAlu	Al	Saddle clamp, cranked with M10 screw and cleat, alum.	50
063 941	AKLfv	St	Connection clamp, for folds up to 12 mm, iron cast, galv.	100



064 823





for tin sheets up to 18mm

064 823	AKL8-18/TGtzn	TG	Saddle clamp, lengthwise and crosswise mounting of conductors, rd 7-10mm, melleable iron	25
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Article No.	Item Code	Material	Description	Packing
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## Gutter Clamps

for connection of round wires and gutters

	063 983	DRKschmalfv	St	Gutter clamp, narrow, hot dip galvanized	100
	063 982	DRKschmalCu	Cu	Gutter clamp, narrow, copper	100
	063 988	DRKschmalAlu	Al	Gutter clamp, narrow, aluminium	100
	063 989	DRK/ZMschmalKLFv	St/Cu	Gutter clamp, narrow, bimetalic, clamp hot dip galvanized	100
	063 955	DRK/ZMschmalKLCu	Cu/St	Gutter clamp, narrow, bimetalic, clamp copper	100
	063 994	DRKbreitfv	St	Gutter clamp, broad, hot dip galvanized	100
	063 993	DRKbreitCu	Cu	Gutter clamp, broad, copper	100
	063 992	DRKbreitAlu	Al	Gutter clamp, broad, aluminium	100
	063 921	DRK/ZMbreitKLFv	St/Cu	Gutter clamp, broad, bimetalic, clamp hot dip galvanized	100
	063 920	DRK/ZMbreitKLCu	Cu/St	Gutter clamp, broad, bimetalic, copper	100
	063 991	DRK16-22fv	St	Gutter clamp, 16-22 mm, hot dip galvanized	100
	063 990	DRK16-22Cu	Cu	Gutter clamp, 16-22 mm, copper	100
	064 497	DRK/2f.Ülschmalfv	St	Gutter clamp with double cleat, narrow, hot dip galvanized	100
	064 498	DRK/2f.Ülbreitfv	St	Gutter clamp with double cleat, broad, hot dip galvanized	100


## Parallel Connectors

for parallel connections of 2 round wires

	063 808	PV1/8-10fv	St	Parallel connector with 1 screw, 8-10 mm, hot dip galv.	200
	063 807	PV1/8-10Cu	Cu	Parallel connector with 1 screw, 8-10 mm, copper	200
	063 806	PV1/8-10Alu	Al	Parallel connector with 1 screw, 8-10 mm, aluminium	200
	063 804	PV2/8-10fv	St	Parallel connector with 2 screws, 8-10 mm, hot dip galv.	150
	063 810	PV2/8-10Cu	Cu	Parallel connector with 2 screws, 8-10 mm, copper	150
	063 809	PV2/8-10Alu	Al	Parallel connector with 2 screws, 8-10 mm, aluminium	150


## Snow Guard Clamps

for connecting round wires with snow guards



	063 815	SFRK1/2"fv	St	Snow guard clamp, 1/2", hot dip galvanized	50
	063 816	SFRK3/4"fv	St	Snow guard clamp, 3/4", hot dip galvanized	50

## T-Connectors

for t-shape connection of 2 round wires

	063 931	AZK8-10ZG	ZG	T-connector, rd 8-10 mm, M 10x35, die-cast zinc	100
	063 930	AZK8-10Cu	Cu	T-connector, rd 8-10 mm, M 10x35, copper	100

## Cable Lugs

	063 972	KLS8fv	St	Cable lug, 8 mm, hot dip galvanized	100
	063 833	KLS8Alu	Al	Cable lug, 8 mm, aluminium	100
	063 832	KLS8Cu	Cu	Cable lug, 8 mm, copper	100
	063 972	KLS10fv	St	Cable lug, 10 mm, hot dip galvanized	100
	063 974	KLS2/10fv	St	Cable lug with 2 screws, 10 mm, hot dip galvanized	100
	063 973	KLS2/10Cu	Cu	Cable lug with 2 screws, 10 mm, copper	100

## Connectors, Downpipe Clamps

Article No.	Item Code	Material	Description	Packing
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### Contact Couplings



063 836

<b>063 836</b>	KSV8-10fv	St	Contact coupling, 8-10 mm, hot dip galvanized	100
<b>063 835</b>	KSV8-10Cu	Cu	Contact coupling, 8-10 mm, copper	100
<b>063 830</b>	KSZSAlu	Al	Contact screw - intersection, aluminium	100
<b>063 834</b>	KS6-10fv	St	Contact screw, for rd 6-10mm, M 10, hot dip gavanized	100

### Downpipe Clamps



006 364

<b>006 358</b>	RRS50fv	St	Downpipe clamp, 50 mm, hot dip galvanized	25
<b>006 359</b>	RRS60fv	St	Downpipe clamp, 60 mm, hot dip galvanized	25
<b>006 360</b>	RRS70fv	St	Downpipe clamp, 70 mm, hot dip galvanized	25
<b>006 361</b>	RRS80fv	St	Downpipe clamp, 80 mm, hot dip galvanized	25
<b>006 362</b>	RRS90fv	St	Downpipe clamp, 90 mm, hot dip galvanized	25
<b>006 363</b>	RRS100fv	St	Downpipe clamp, 100 mm, hot dip galvanized	25
<b>006 364</b>	RRS110fv	St	Downpipe clamp, 110 mm, fhot dip galvanized	25
<b>006 365</b>	RRS120fv	St	Downpipe clamp, 120 mm, hot dip galvanized	25
<b>006 366</b>	RRS130fv	St	Downpipe clamp, 130 mm, hot dip galvanized	25
<b>006 367</b>	RRS140fv	St	Downpipe clamp, 140 mm, hot dip galvanized	25
<b>006 368</b>	RRS150fv	St	Downpipe clamp, 150 mm, hot dip galvanized	25
<b>006 369</b>	RRS180fv	St	Downpipe clamp, 180 mm, hot dip galvanized	25
<b>006 370</b>	RRS200fv	St	Downpipe clamp, 200 mm, hot dip galvanized	25



038 650

<b>038 650</b>	RRS80Niro	V2a	Downpipe clamp, 80 mm, stainless steel	25
<b>038 649</b>	RRS100Niro	V2a	Downpipe clamp, 100 mm, stainless steel	25
<b>038 648</b>	RRS120Niro	V2a	Downpipe clamp, 120 mm, stainless steel	25
<b>077 189</b>	RRS150Niro	V2a	Downpipe clamp, 150 mm, stainless steel	25



006 620

<b>006 616</b>	RRS80Cu	Cu	Downpipe clamp, 80 mm, copper	25
<b>006 617</b>	RRS90Cu	Cu	Downpipe clamp, 90 mm, copper	25
<b>006 618</b>	RRS100Cu	Cu	Downpipe clamp, 100 mm, copper	25
<b>006 619</b>	RRS110Cu	Cu	Downpipe clamp, 110 mm, copper	25
<b>006 620</b>	RRS120Cu	Cu	Downpipe clamp, 120 mm, copper	25
<b>006 621</b>	RRS150Cu	Cu	Downpipe clamp, 150 mm, copper	25



065 682

<b>065 682</b>	RRSUni/Niro	V2a	Downpipe clamp, versatile, 50-123mm, rd6-10, st. steel	10
<b>065 683</b>	RRSUni/Cu	Cu	Downpipe clamp, versatile, 50-123mm, rd6-10, copper	10



063 819

<b>063 819</b>	RRS60-120fv	St	Downpipe clamp with cleat, 60-120 mm, hot dip galv.	10
<b>063 817</b>	RRS80-120fv	St	Downpipe clamp with cleat, 80-120 mm, hot dip galv.	10
<b>063 822</b>	RRS70-200fv	St	Downpipe clamp with cleat, 70-200 mm, hot dip galv.	10
<b>063 818</b>	RRS60-120Cu	Cu	Downpipe clamp with cleat, 60-120 mm, copper	10
<b>063 821</b>	RRS70-200Cu	Cu	Downpipe clamp with cleat, 70-200 mm, copper	10
<b>006 622</b>	RRS200/800Cu	Cu	Downpipe clamp, adjustable, 200/800 mm, copper	25
<b>063 803</b>	RRS60-120Alu	Al	Downpipe clamp with cleat, 60-120 mm, aluminium	10
<b>063 823</b>	RRS80-120Alu	Al	Downpipe clamp with cleat, 80-120 mm, aluminium	10
<b>063 820</b>	RRS70-200Alu	Al	Downpipe clamp with cleat, 70-200 mm, aluminium	10
<b>063 802</b>	RRS180-300Alu	Al	Downpipe clamp with cleat, 180-300 mm, aluminium	10






064 507

<b>064 510</b>	RK16fv	St	Pipe earthing clamp with cleat, 16mm, hot dip galvanized	50
<b>064 511</b>	RK20fv	St	Pipe earthing clamp with cleat, 20mm, hot dip galvanized	50
<b>064 512</b>	RK25fv	St	Pipe earthing clamp with cleat, 25mm, hot dip galvanized	50
<b>064 506</b>	RK16Niro	V2a	Pipe earthing clamp with cleat, 16mm, stainless steel	50
<b>064 507</b>	RK20Niro	V2a	Pipe earthing clamp with cleat, 20mm, stainless steel	50
<b>064 508</b>	RK25Niro	V2a	Pipe earthing clamp with cleat, 25mm, stainless steel	50
<b>063 799</b>	RK16Alu	Al	Pipe earthing clamp with cleat, 16mm, aluminium	50
<b>063 800</b>	RK20Alu	Al	Pipe earthing clamp with cleat, 20 mm, aluminium	50
<b>063 801</b>	RK25Alu	Al	Pipe earthing clamp with cleat, 25 mm, aluminium	50


## Pipe Earthing Clamps, Water Pipe Earthing Clamps

Article No.	Item Code	Material	Description	Packing
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### Pipe Earthing Clamps with Screw

076 963		<b>076 961</b>	ERS/M5-1/8"gv	gv	Pipe earthing clamp with screw M5,1/8", zinc-plated	1
		<b>076 962</b>	ERS/M5-1/4"gv	gv	Pipe earthing clamp with screw M5,1/4", zinc-plated	1
		<b>076 963</b>	ERS/M6-3/8"gv	gv	Pipe earthing clamp with screw M6,3/8", zinc-plated	50
		<b>064 518</b>	ERS/M6-1/2"gv	gv	Pipe earthing clamp with screw M6,1/2", zinc-p., dm=21,3mm	50
		<b>064 519</b>	ERS/M6-3/4"gv	gv	Pipe earthing clamp with screw M6,3/4", zinc-p., dm=26,9mm	50
064 521		<b>064 520</b>	ERS/M6-1"gv	gv	Pipe earthing clamp with screw M6,1", zinc-p., dm=33,7mm	50
		<b>064 521</b>	ERS/M6-5/4"gv	gv	Pipe earthing clamp with screw M6,5/4", zinc-p., dm=42,4mm	50
		<b>064 522</b>	ERS/M6-6/4"gv	gv	Pipe earthing clamp with screw M6,6/4", zinc-p., dm=48,5mm	50
		<b>064 523</b>	ERS/M6-2"gv	gv	Pipe earthing clamp with screw M6,2", zinc-p., dm=60,3mm	25
		<b>064 524</b>	ERS/M6-2 1/2"gv	gv	Pipe earthing clamp with screw M6,2 1/2", zinc-p., dm=76,1mm	25
064 474		<b>064 473</b>	ERS/M5-1/8"Cu	Cu	Pipe earthing clamp with screw M5,1/8" copper, dm=10mm	50
		<b>064 474</b>	ERS/M5-3/8"Cu	Cu	Pipe earthing clamp with screw M5,3/8" copper, dm=17,2mm	50
		<b>064 475</b>	ERS/M5-1/4"Cu	Cu	Pipe earthing clamp with screw M5,1/4" copper, dm=13,5mm	50
		<b>064 476</b>	ERS/M6-1/2"Cu	Cu	Pipe earthing clamp with screw M6,1/2" copper, dm=21,3mm	50
		<b>064 477</b>	ERS/M6-3/4"Cu	Cu	Pipe earthing clamp with screw M6,3/4" copper, dm=26,9mm	50
		<b>064 478</b>	ERS/M6-1"Cu	Cu	Pipe earthing clamp with screw M6,1" copper, dm=33,7mm	50
		<b>064 479</b>	ERS/M6-5/4"Cu	Cu	Pipe earthing clamp with screw M6,5/4" copper, dm=42,4mm	50
		<b>064 480</b>	ERS/M6-6/4"Cu	Cu	Pipe earthing clamp with screw M6,6/4" copper, dm=48,5mm	50



### Pipe Earthing Clamps with Cleat

064 005		<b>064 003</b>	ERS1/2"fv	St	Pipe earthing clamp with cleat, 1/2", hot dip galvanized	75
		<b>064 005</b>	ERS3/4"fv	St	Pipe earthing clamp with cleat, 3/4", hot dip galvanized	75
		<b>064 002</b>	ERS1"fv	St	Pipe earthing clamp with cleat, 1", hot dip galvanized	75
		<b>064 006</b>	ERS5/4"fv	St	Pipe earthing clamp with cleat, 5/4", hot dip galvanized	50
		<b>064 007</b>	ERS6/4"fv	St	Pipe earthing clamp with cleat, 6/4", hot dip galvanized	50
		<b>064 001</b>	ERS7/4"fv	St	Pipe earthing clamp with cleat 7/4", hot dip galvanized	50
		<b>064 004</b>	ERS2"fv	St	Pipe earthing clamp with cleat, 2", hot dip galvanized	50

### Pipe Earthing Clamps with Contact Clamp

006 343		<b>006 342</b>	ERS+KS1/2"fv	St	Pipe earthing clamp with contact clamp, 1/2", hot dip galv.	25
		<b>006 343</b>	ERS+KS3/4"fv	St	Pipe earthing clamp with contact clamp, 3/4", hot dip galv.	25
		<b>006 344</b>	ERS+KS1"fv	St	Pipe earthing clamp with contact clamp, 1", hot dip galv.	25
		<b>006 346</b>	ERS+KS5/4"fv	St	Pipe earthing clamp with contact clamp, 5/4", hot dip galv.	25
		<b>006 345</b>	ERS+KS6/4"fv	St	Pipe earthing clamp with contact clamp, 6/4", hot dip galv.	25
		<b>006 347</b>	ERS+KS2"fv	St	Pipe earthing clamp with contact clamp, 2", hot dip galv.	25
		<b>006 348</b>	ERS+KS2 1/2"fv	St	Pipe earthing clamp with contact clamp, 2 1/2", hot dip galv.	25
		<b>006 349</b>	ERS+KS3"fv	St	Pipe earthing clamp with contact clamp, 3", hot dip galv.	15

### Water Pipe Earthing Clamps

063 874		<b>063 874</b>	WLS1/2"fv	St	Water pipe earthing clamp, 1/2", hot dip galvanized	75
		<b>063 876</b>	WLS3/4"fv	St	Water pipe earthing clamp, 3/4", hot dip galvanized	75
		<b>063 873</b>	WLS1"fv	St	Water pipe earthing clamp, 1", hot dip galvanized	75
		<b>063 870</b>	WLS5/4"fv	St	Water pipe earthing clamp, 5/4", hot dip galvanized	50
		<b>063 864</b>	WLS6/4"fv	St	Water pipe earthing clamp, 6/4", hot dip galvanized	50
		<b>063 865</b>	WLS7/4"fv	St	Water pipe earthing clamp, 7/4", hot dip galvanized	50
065 670		<b>063 875</b>	WLS2"fv	St	Water pipe earthing clamp, 2", hot dip galvanized	50
		<b>065 670</b>	WLS20+KSfv	St	Water pipe earthing clamp, 20mm, with contact clamp, galv.	50
		<b>065 671</b>	WLS25+KSfv	St	Water pipe earthing clamp, 25mm, with contact clamp, galv.	50

## Downpipe Clamps, Conductor Holders

Article No.	Item Code	Material	Description	Packing
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### Pipe Earthing Clamping Straps

*pipe earthing clamp for flexible use*

064 590



064 487	EBRS1/8-1"16mm2	gal Sn	Pipe earthing clpg. strap, 1/8-1", tin-p., 1x 25mm2-2x16mm2	10
064 488	EBRS1/8-4"16mm2	gal Sn	Pipe earthing clpg. strap, 1/8-4", tin-p., 1x25mm2 or 2x16mm2	10
064 489	EBRS1/8-6"16mm2	gal Sn	Pipe earthing clpg. strap, 1/8-6", tin-p., 1x25mm2 or 2x16mm2	10
064 593	EBRS1/8-1"NIRO16mm2	V2a	Pipe earthing clpg. strap, 1/8-1", st. steel, 16mm2	10
064 590	EBRS1/8-2"NIRO16mm2	V2a	Pipe earthing clpg. strap, 1/8-2", st. steel, 16mm2	10
064 591	EBRS1/8-4"NIRO16mm2	V2a	Pipe earthing clpg. strap, 1/8-4", st. steel, 16mm2	10
064 592	EBRS1/8-6"NIRO16mm2	V2a	Pipe earthing clpg. strap, 1/8-6", st. steel, 16mm2	10

065 679



### Antenna Mast Clamps

065 679	ABRS1"-3"ZG/Niro	ZG/V2a	Antenna mast clamp 1"-3", rd7-10, die-cast zinc, st. steel	10
065 680	ABRS1"-6"ZG/Niro	ZG/V2a	Antenna mast clamp 1"-6", rd7-10, die-cast zinc, st. steel	10

### Anchoring Brackets



063 847

063 846	ME100fv	St	Anchoring bracket, 100 mm, hot dip galvanized	100
063 847	ME150fv	St	Anchoring bracket, 150 mm, hot dip galvanized	100
064 660	ME200fv	St	Anchoring bracke, 200 mm, hot dip galvanized	100
063 845	ME100Cu	Cu	Anchoring bracke, 100 mm, copper	100

### Conductor Holders



063 844

063 844	LH+SD/ZG	ZG/PI	Conductor holder with screw fixing, die-cast zinc	100
063 829	LH+SD/CU	Cu/PI	Conductor holder with screw fixingl, copper-plated	100



063 828

063 828	LH-IGZG	ZG	Conductor holder with female thread M8, die-cast zinc	100
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063 827

063 827	LH8-10/30fv	St	Conductor holder for rd 8-13 mm/fl 30 mm, hot dip galv.	100
063 826	LH40fv	St	Conductor holder for flat strips 40 mm, hot dip galvanized	100

### Grip-Type Conductor Holders



063 884

063 884	SP8Niro	V2a	Grip-type conductor holder, 8 mm, stainless steel	300
063 850	SP8Cu	Cu	Grip-type conductor holder, 8 mm, copper	300



063 886

063 886	SPHNiro	V2a	Grip-type conductor holder with screw fixing, st. steel	75
063 885	SPHCu	Cu	Grip-type conductor holder with screw fixing, copper	75



065 673

065 672	SP8Niro+SD	V2a/PI	Grip-type conductor holder, 8mm, with screw thread, st. steel	200
065 673	SP8Cu+SD	Cu/PI	Grip-type conductor holder, 8mm, with screw thread, copper	200

### Snap-Type Conductor Holders



063 814

063 812	SD25grau	PI	Snap-type conductor holder, 25 mm, grey	200
063 811	SD25Cu-braun	PI	Snap-type conductor holder, 25 mm, copper brown	200
063 814	SD40grau	PI	Snap-type conductor holder, 40 mm, grey	150
063 813	SD40Cu-braun	PI	Snap-type conductor holder, 40 mm, copper brown	150

## Cover and Spacing Collars, Roof Conductor Holders

Article No.	Item Code	Material	Description	Packing
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### Cover and Spacing Collars



<b>063 938</b>	ADRfv	St	Cover and spacing collar, hot dip galvanized	100
<b>063 937</b>	ADRCu	Cu	Cover and spacing collar, copper	100
<b>064 490</b>	ADR/Kgrau	PI	Cover collar, plastic, grey	200
<b>081 903</b>	ADK/PVC hellgrau	PI	Cover collar, PVC, light grey RAL 7005, rainproof, for upgraded insulation available in other RAL colours upon request	100

### Conductor Holders for corrugated sheet roofs



<b>006 080</b>	DLH/WP-Afv	St	Conductor holder for corr. sheet roofs, type A, hot dip galv.	50
<b>006 081</b>	DLH/WP-Bfv	St	Conductor holder for corr. sheet roofs, type B, hot dip galv.	50
<b>006 535</b>	DLH/WP-BCu	Cu	Conductor holder for corr. sheet roofs, type B, copper	50
<b>006 083</b>	DLH/WP-Cfv	St	Conductor holder for corr. sheet roofs, type C, hot dip galv.	50
<b>006 533</b>	DLH/WP-CCu	Cu	Conductor holder for corr. sheet roofs, type C, copper	50
<b>063 943</b>	DLH/WPSDNiro	V2a/PI	Snap-type conductor holder for corr. sheet roofs, st. steel	150
<b>063 944</b>	DLH/WSPNiro	V2a	Grip-type conductor holder for corr. sheet roofs, st. steel	150
<b>063 924</b>	DLHZST/WP-SDNiro	V2a/PI	Intersection for snap-type conductor holder for corrugated sheet roofs, st. steel	100
<b>063 925</b>	DLHZST/WP-SPNiro	V2a	Intersection for grip-type conductor holder for corrugated sheet roofs, st. steel	100
<b>063 954</b>	DLH/F140SDNiro	V2a/PI	Snap-type roof conductor holder for folds, L=140 mm, stainless steel	150
<b>063 953</b>	DLH/F140SDCu	Cu/PI	Snap-type roof conductor holder for folds, L=140 mm, copper	150
<b>063 942</b>	DLH/F140SPNiro	V2a	Grip-type roof conductor holder for folds, L=140 mm, stainless steel	150
<b>063 948</b>	DLH/F140SPCu	Cu	Grip-type roof conductor holder for folds, L=140 mm, copper	150

### Conductor Holders with cleat

#### *angled version*



<b>064 083</b>	DLH115fv	St	Roof conductor holder with cleat, 115 mm, hot dip galv.	50
<b>064 080</b>	DLH115Cu	Cu	Roof conductor holder with cleat, 115 mm, copper	50
<b>063 923</b>	DLH410fv	St	Roof conductor holder with cleat, 410 mm, hot dip galv.	75
<b>006 532</b>	DLH410Cu	Cu	Roof conductor holder with cleat, 410 mm, copper	50
<b>064 078</b>	DLH410Niro	V2a	Roof conductor holder with cleat, 410 mm, stainless steel	50

#### *straight version*



<b>006 079</b>	DLH160fv	St	Roof conductor holder with cleat, 160 mm, hot dip galv.	50
<b>006 536</b>	DLH160Cu	Cu	Roof conductor holder with cleat, 160 mm, copper	50
<b>006 086</b>	DLH210fv	St	Roof conductor holder with cleat, 210 mm, hot dip galv.	50
<b>006 531</b>	DLH210Cu	Cu	Roof conductor holder with cleat, 210 mm, copper	50
<b>064 082</b>	DLH210Niro	V2a	Roof conductor holder with cleat, 210mm, stainless steel	50

#### *cranked version*



<b>006 082</b>	DLH260fv	St	Roof conductor holder with cleat, 260 mm, hot dip galv.	50
<b>006 529</b>	DLH260Cu	Cu	Roof conductor holder with cleat, 260 mm, copper	50
<b>064 081</b>	DLH260Niro	V2a	Roof conductor holder with cleat, 260mm, stainless steel	50

## Roof Conductor Holders

Article No.	Item Code	Material	Description	Packing
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### Snap-Type Roof Conductor Holders

#### angled version



063 947

<b>063 946</b>	DLH140SDCu	Cu/PI	Snap-type roof conductor holder, L=140 mm, copper	150
<b>063 945</b>	DLH140SDAlu	Al/PI	Snap-type roof conductor holder, L=140 mm, aluminium	150
<b>063 947</b>	DLH140SDNiro	V2a/PI	Snap-type roof conductor holder, L=140 mm, stainless steel	150

#### straight version, spiked



063 914

<b>063 913</b>	DLH190SD25Cu	Cu/PI	Snap-type roof conductor holder 25 mm, L=190 mm, copper	100
<b>063 914</b>	DLH190SD25Niro	V2a/PI	Snap-type roof conductor holder 25 mm, L=190 mm, stainless steel	100
<b>063 915</b>	DLH190SD60Cu	Cu/PI	Snap-type roof conductor holder 60 mm, L=190 mm, copper	75
<b>063 909</b>	DLH190SD60Niro	V2a/PI	Snap-type roof conductor holder 60 mm, L=190 mm, stainless steel	75



063 906

#### straight version

<b>063 905</b>	DLH250SDCu	Cu/PI	Snap-type roof conductor holder, L=250 mm, copper	100
<b>063 906</b>	DLH250SDNiro	V2a/PI	Snap-type roof conductor holder, L=250 mm, stainless steel	100

### Grip-Type Roof Conductor Holders

#### angled version



063 911

<b>063 911</b>	DLH140SPCu	Cu	Grip-type roof conductor holder, L=140 mm, copper	150
<b>063 910</b>	DLH140SPAlu	Al	Grip-type roof conductor holder, L=140 mm, aluminium	150
<b>063 912</b>	DLH140SPNiro	V2a	Grip-type roof conductor holder, L=140 mm, stainless steel	150

#### straight version, spiked



065 664

<b>063 903</b>	DLH190SPCu	Cu	Grip-type roof conductor holder, L=190 mm, copper	100
<b>063 904</b>	DLH190SPNiro	V2a	Grip-type roof conductor holder, L=190 mm, stainless steel	100
<b>065 665</b>	DLH200SP/G/Cu	Cu	Grip-type roof conductor holder, L=200 mm, copper, pre-punched fixing holes	100
<b>065 664</b>	DLH200SP/G/Niro	V2a	Grip-type roof conductor holder, L=200 mm, stainless steel, pre-punched fixing holes	100

#### straight version



063 907

<b>063 907</b>	DLH250SPCu	Cu	Grip-type roof conductor holder, L=250 mm, copper	100
<b>063 908</b>	DLH250SPNiro	V2a	Grip-type roof conductor holder, L=250 mm, stainless steel	100
<b>064 516</b>	DLH400SPCu	Cu	Grip-type roof conductor holder, L=400mm, copper	50
<b>064 515</b>	DLH400SPNiro	V2a	Grip-type roof conductor holder, L=400mm, stainless steel	50

### Snap-Type Roof Conductor Holders with Clamping Saddle



063 927

<b>063 926</b>	DLKH40/8SDCu	Cu/PI	Snap-type holder with clamping saddle, 40/8 mm, copper	100
<b>063 927</b>	DLKH40/8SDNiro	V2a/PI	Snap-type holder with clamping saddle, 40/8 mm, st. steel	100
<b>063 916</b>	DLKH50/15SDCu	Cu/PI	Snap-type holder with clamping saddle, 50/15 mm, copper	100
<b>063 917</b>	DLKH50/15SDNiro	V2a/PI	Snap-type holder with clamping saddle, 50/15 mm, st. steel	100

### Grip-Type Roof Conductor Holders with Clamping Saddle



063 919

<b>063 928</b>	DLKH40/8SPCu	Cu	Grip-type holder with clamping saddle, 40/8 mm, copper	100
<b>065 666</b>	DLKH40/8SP/G	V2a	Grip-type holder with clamping saddle, 40/8 mm, st. steel, pre-punched fixing holes	75
<b>063 918</b>	DLKH50/15SPCu	Cu	Grip-type holder with clamping saddle, 50/15 mm, copper	100
<b>063 919</b>	DLKH50/15SPNiro	V2a	Grip-type holder with clamping saddle, 50/15 mm, st. steel	100

## Ridge Conductor Holders, Concrete Bases, Interception Rods

Article No. Item Code Material Description Packing

### Snap-Type Ridge Conductor Holder



064 000	FB-SD160-170Cu	Cu/PI	Snap-type ridge conductor holder, 160-170 mm, copper	100
063 999	FB-SD160-170Niro	V2a/PI	Snap-type ridge conductor holder, 160-170 mm, st. steel	100
063 963	FB-SD180-260Cu	Cu/PI	Snap-type ridge conductor holder, 180-260 mm, copper	100
063 964	FB-SD180-260Niro	V2a/PI	Snap-type ridge conductor holder, 180-260 mm, st. steel	100

### Grip-Type Ridge Conductor Holder



063 965	FB-SP160-170Cu	Cu	Grip-type ridge conductor holder, 160-170 mm, copper	100
063 966	FB-SP160-170Niro	V2a	Grip-type ridge conductor holder, 160-170 mm, st. steel	100
063 967	FB-SP180-260Cu	Cu	Grip-type ridge conductor holder, 180-260 mm, copper	100
063 968	FB-SP180-260Niro	Cu	Grip-type ridge conductor holder, 180-260 mm, st. steel	100
063 962	FB-SP40/180-260Cu	Cu	Grip-type ridge cond. holder, 40 mm, 180-260 mm, copper	100
063 956	FB-SP40/180-260Niro	V2a	Grip-type ridge cond. holder, 40 mm, 180-260 mm, st. steel	100
064 615	FB-SP190-400Cu	Cu	Grip-type ridge conductor holder, 190-400 mm, copper	100
064 616	FB-SP190-400Niro	V2a	Grip-type ridge conductor holder, 190-400 mm, st. steel	100

### Roof Conductor Holders

for installation of conductor systems on flat roofs



063 934	BS-Öko	PI/Ct	Roof conductor holder, recyclable, 1.000 gramm	10
063 949	BS-PVC	PI/Ct	Roof conductor holder, with PVC coating, 1.000 gramm	20
081 904	BS-recyclebar	PI/Ct	PVC case with removable concrete base	10

### Concrete Bases

for threaded interception rods



080 130

063 932	BS/IG245	Ct	Concrete base, 245 mm, with female thread for interception rods	1
063 933	BS/IG350	Ct	Concrete base, 350 mm, with female thread for interception rods	1
080 130	BS-SET M12/1000MM	Ct/Al	Set of concrete base IGM12 + interception rod GFS alum./M12, 1000mm + clamp TM12mm alum.	1
080 131	BS-SET M12/1500MM	Ct/Al	Set of concrete base IGM12 + interception rod GFS alum./M12, 1500mm + clamp TM12mm alum.	1

### Threaded Interception Rods, Ø 16mm



063 969	GFS1000Alu	Al	Interception rod, 1000 mm, aluminium	5
063 970	GFS1500Alu	Al	Interception rod, 1500 mm, aluminium	5
063 971	GFS2000Alu	Al	Interception rod, 2000 mm, aluminium	5

### Plain Interception Rods, Ø 16mm



006 408

006 406	FS500fv	St	Interception rod, 500 mm, hot dip galvanized	10
006 407	FS750fv	St	Interception rod, 750 mm, hot dip galvanized	10
006 408	FS1000fv	St	Interception rod, 1000 mm, hot dip galvanized	10
006 409	FS1250fv	St	Interception rod 1250 mm, hot dip galvanized	10
006 410	FS1500fv	St	Interception rod, 1500 mm, hot dip galvanized	10
006 637	FS500Cu	Cu	Interception rod, 500 mm, copper	10
006 638	FS1000Cu	Cu	Interception rod, 1000 mm, copper	10
006 639	FS1500Cu	Cu	Interception rod, 1500 mm, copper	10



063 981

063 981	FS/KS 1000 fv	St	Interception rod with contact clamp, 1000 mm, hot dip galv.	5
063 975	FS/KS 1500 fv	St	Interception rod with contact clamp, 1500 mm, hot dip galv.	5

## Interception Masts

Article No.	Item Code	Material	Description	Packing
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### Interception Masts and Accessory

#### Interception Masts up to 8.5m height, complete with tripod



081 905	FM-3Bein 3m	V2a/Al	Interception mast 3m complete with tripod, stainless steel V2A, aluminium tip	1
081 906	FM-3Bein 3,5m	V2a/Al	Interception mast 3.5m complete with tripod, stainless steel V2A, aluminium tip	1
081 907	FM-3Bein 4m	V2a/Al	Interception mast 4m complete with tripod, stainless steel V2A, aluminium tip	1
081 908	FM-3Bein 4,5m	V2a/Al	Interception mast 4.5m complete with tripod, stainless steel V2A, aluminium tip	1
081 909	FM-3Bein 5m	V2a/Al	Interception mast 5m complete with tripod, stainless steel V2A, aluminium tip	1
081 910	FM-3Bein 5,5m	V2a/Al	Interception mast 5.5m complete with tripod, stainless steel V2A, aluminium tip	1
081 911	FM-3Bein 6m	V2a/Al	Interception mast 6m complete with tripod, stainless steel V2A, aluminium tip	1
081 912	FM-3Bein 6,5m	V2a/Al	Interception mast 6.5m complete with tripod, stainless steel V2A, aluminium tip	1
081 913	FM-3Bein 7m	V2a/Al	Interception mast 7m complete with tripod, stainless steel V2A, aluminium tip	1
081 914	FM-3Bein 7,5m	V2a/Al	Interception mast 7.5m complete with tripod, stainless steel V2A, aluminium tip	1
081 915	FM-3Bein 8m	V2a/Al	Interception mast 8m complete with tripod, stainless steel V2A, aluminium tip	1
081 916	FM-3Bein 8,5m	V2a/Al	Interception mast 8.5m complete with tripod, stainless steel V2A, aluminium tip	1

#### Accessory



081 925	FMS-3Bein 36mm 1,35m	V2a	Tripod for interception masts with max. diameter of 36mm, dimension at base 1.35m, V2A	1
081 926	FMS-3Bein 31mm 1,35m	V2a	Tripod for interception masts with max. diameter of 31mm, dimension at base 1.35m, V2A	1
081 928	FMS-3Bein 36mm 1,85m	V2a	Tripod for interception masts with max. diameter of 36mm, dimension at base 1.85m, V2A	1



081 930	FM-Gewindestange 170mm	V2a	Threaded rod M16, length 170mm, for single concrete bases, V2A	1
081 932	FM-Gewindestange 260mm	V2a	Threaded rod M16, length 260mm, for two concrete bases above each other, V2A	1
081 934	FM-Gewindestange 350mm	V2a	Threaded rod M16, length 350mm, for three concrete bases above each other, V2A	1
081 935	FM-Gewindestange 440mm	V2a	Threaded rod M16, length 440mm, for four concrete bases above each other, V2A	1

081 936



081 936	FM-Schraube M16x40	V2a	Fixing screw between concrete base and tripod with thread M16, V2A	1
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081 937



081 937	FM-Betonsockel	Ct	Concrete base for tripods, 17kg, diameter 340mm, with V2A wedge	1
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081 938



081 938	FM-Unterlegplatte		Plastic plate for concrete base	1
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## Interceptor, Test Point Boxes, Inspection Doors, Disconnection Clamps and Sleeves

Article No. Item Code Material Description Packing

### Mushroom-Shaped Interceptor

for flat roofs capable of carrying personnel and vehicles



063 979

063 979	FP7-10/30	St	Mushroo-shaped interceptor, rd 7-10/fl30 mm	5
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### Test Point Boxes, Inspection Doors



006 062

006 062	BE-AD	Pl	Test point and connection box for flat strips with disconnection clamp	10
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063 798

063 798	RK	Cl	Test point box, cast iron, enamelled, rectangular	1
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006 431

006 431	TK	Cl	Test point box, cast iron, for underfloor installation, oval	1
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006 396

060 791	RT+SV/fv	St	Inspection door, hot dip galvanized	10
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064 106	RT+SV/Cu	Cu	Inspection door, copper	10
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006 396	RT+DR/fv	St	Inspection door with lock, hot dip galvanized	10
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006 634	RT+DR/Cu	Cu	Inspection door with lock, copper	10
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### Disconnection Clamps and Sleeves

for connecting lead-in earthing rods and conductors

063 901



063 890	TK8/8M10ZG	ZG	Disconnection clamp, 8/8 mm, M10, die-cast zinc	100
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063 896	TK8/8M10Cu	Cu	disconnection clamp, 8/8 mm, M10, copper-plated	100
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063 901	TK8/10M10ZG	ZG	Disconneciton clamp, 8/10 mm, M10, die-cast zinc	100
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063 892



063 902	TK8/16fv	St	Discon. clamp without spacer plate, 8/16 mm, M10, galv.	100
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063 891	TK8-10/30fv	St	Discon. clamp without spacer plate, 8-10/30 mm, M10, galv.	100
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063 892	TK8-10/30Niro	V2a	Discon. clamp without spacer plate, 8-10/30 mm, M10, st.stl.	100
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064 824



064 824	TK7-10/7-10ZG	ZG	Disconnection clamp with connection screw M8 stainless steel, 7-10/7-10, die-cast zinc	50
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064 822	TK7-10/7-16ZG	ZG	Disconnection clamp with connection screw, die cast zinc	25
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063 894



063 894	TM6/16ZG	ZG	Disconnection sleeve, 6/16 mm, open, die-cast zinc	100
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063 893	TM6/16Cu	Cu	Disconnection sleeve, 6/16 mm, open, copper-plated	100
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063 859



063 861	TS8-10/8-10fv	St	Disconnection clamp with spacer plate, 8-10/8-10 mm, galv.	100
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063 860	TS8-10/8-10Cu	Cu	Discon. clamp with spacer plate, 8-10/8-10 mm, copper	100
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063 858	TS8-10/16fv	St	Disconnection clamp with spacer plate, 8-10/16 mm, galv.	100
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063 895	TS8-10/16Cu	Cu	Disconnection clamp with spacer plate, 8-10/16 mm, copper	100
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063 859	TS8-10/30fv	St	Disconnection clamp with spacer plate, 8-10/30 mm, galv.	100
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064 503



065 446	TS/ZM 8-10Cu/fl40mmfv	Cu/St	Disconnection clamp, bimetalic, 8-10mmCu/fl40mmSt	100
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064 486	TS/ZM8-10Cu/fl30mmfv	Cu/St	Disconnection clamp, bimetalic, 8-10mmCu/fl30mmSt	100
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064 502	TS/ZM8-10Cu/8-10fv	Cu/St	Disconnection clamp, bimetalic, 8-10mmCu/8-10mmSt	100
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064 503	TS/ZM8-10Cu/16fv	Cu/St	Disconnection clamp, bimetalic, 8-10mmCu/16mmSt	100
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## Equipotential Bonding Bar, Isolating Spark Gaps, Installation Accessory

Article No.	Item Code	Material	Description	Packing
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### Equipotential Bonding Bar

for main equipotential bonding



063 805

<b>063 805</b>	PASklein	Br/Ni	Equipotential bonding bar, small for house systems 100A, nickel-plated brass, with plastic cover (sealable) 7 conductors of up to 25mm <sup>2</sup> 1xflat strip 30x4mm 1xround wire 8-10mm	1
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006 458

<b>006 458</b>	PASgroß	St	Equipotential bonding bar, large with terminal bar 35x4mm, hot dip galvanized base plate and cover from sheet steel 1xround wire 8-10mm 2xflat strips 40x4mm 1xcopper cable of up to 50mm <sup>2</sup> 12xconductors of up to 16mm <sup>2</sup>	1
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077 331

<b>077 331</b>	PAS NIRO	V2A	Equipotential bonding bar, stainless steel V2A base plate, cover and screws form stainless steel 8xconnections with screws M6 3xconnections with screws M10	1
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064 565

<b>064 565</b>	ESCHfv	St	Earthing bar 394mm, hot dip galvanised	10
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063 980

### Isolating Spark Gaps

<b>063 980</b>	FS/KS		Isolating spark gaps with contact clamps	100
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063 984

### Wire Straighteners

<b>063 984</b>	DRMA		Wire straightener, type A	1
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063 985

<b>063 985</b>	DRMB		Wire straightener, type B	1
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006 479

<b>006 478</b>	RE/RD		Straightening tool for round wires	1
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<b>006 479</b>	RE/EBE		Straightening tool for flat strips	1
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037 439

### Protection Tapes

<b>037 435</b>	KSB50		Corrosion protection tape, 50mm	1
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<b>037 626</b>	KSB100		Corrosion protection tape, 100mm for covering <b>underground</b> joints exposed to corrosion risk, in coils of 10m	1
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037 435

<b>006 439</b>	SB50		Protection tape, 50 mm	1
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<b>006 440</b>	SB100		Protection tape, 100 mm for covering components exposed to corrosion risk, but <b>not underground</b>	1
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Article No.	Item Code	Material	Description	Packing	
<b>Installation Accessory, Componentns</b>					
 063 936	<b>063 936</b>	AB205Alu	Al	Expansion strap, 205mm, aluminium	100
	<b>063 935</b>	AL/Alu	Al	Connection bracket, aluminium	100
	<b>063 929</b>	AST/Alu	Al	Connection bracket, aluminium, with cleat	100
 064 513	<b>064 513</b>	AST/fv	St	Connection bracket, hot dip galvanised, with cleat	100
	<b>064 514</b>	AST/2-f.Ülfv	St	Connection bracket, hot dip galvanised, with double cleat	100
 063 952	<b>063 952</b>	DB/Alu	Al	Round expansion bracket, aluminium	100
 063 951	<b>063 950</b>	CH1	Cu/Al	Cupal sleeve, aluminium outside, copper inside, 32mm	100
	<b>063 951</b>	CH2	Al/Cu	Cupal sleeve, copper outside, aluminium inside, 32mm	100
 063 997	<b>063 998</b>	ESPCu	Cu	Interception tip for round wires, copper	100
	<b>063 997</b>	ESPAlu	Al	Interception tip for round wires, aluminium	100
 063 862	<b>063 862</b>	ÜBB/Alu	Al	Shorting braid, for interconn. metal coverings, 200mm, alum.	100
	<b>063 863</b>	ÜBB/Cu	Cu	Shorting braid, for interconn. metal coverings, 200mm, copr.	100
 006 209	<b>006 209</b>	ÜL8-10/28fv	St	Cleat for round wires 8-10mm, hole distance 28mm	500
	<b>006 564</b>	ÜL8-10/28Cu	Cu	Cleat for round wires 8-10mm, hole distance 28mm	500
	<b>006 212</b>	ÜL8-10/38fv	St	Cleat for round wires 8-10mm, hole distance 38mm	500
	<b>006 211</b>	ÜL16/38fv	St	Cleat for round wires 16mm, hole distance 38mm	500
 063 872	<b>063 872</b>	VS/ÜLNiro	V2a	Single twist protection cleat, stainless steel	100
	<b>063 871</b>	VS/ÜLCu	Cu	Single twist protection cleat, stainless steel	100
 006 056	<b>006 056</b>	WA	PL	Sealing collar with drip nose, plastic	100
 064 821	<b>064 821</b>	DDF/K8-10	K	Roof bushing, plastic, for round wires 8-10mm, 16mm drilling hole	25

# Coloured Lightning Protection Components

A disadvantage of existing lightning protection systems is that they sometimes do not fit optically to their environment and it has become an increasingly important issue for architects and building owners to have better solutions for their specific requirements.

Especially for prefabricated houses the conductor system may spoil the appearance of cladding and roof and too often serves as an argument for building owners to abstain from installing a lightning protection system.

Here is how to bring more colour to your houses:

## UNIVOLT 'Color' Lightning Protection Components



- no urban blight
- additional customer satisfaction
- limited thermal expansion of the raw material (especially important in case of temperature extremes)

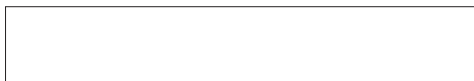
The lightning protection components are available with the following colour coatings:



**Anthracite Grey** RAL 7016



**Moss Green** RAL 6005



**Traffic White** RAL 9016



**Chestnut Brown** RAL 8015



**Copper Brown** RAL 8004



**Sepia Brown** RAL 8014



**Orange Brown** RAL 8023



**Pigeon Blue** RAL 5014



Upon request other RAL colours are also available.

RAL colours as shown above may only serve as example to receive an impression of the actual colours.

All our lightning protection components from hot dip galvanized steel, stainless steel or aluminium are also available powder-coated with a coating thickness of approximately 70 µm. This holds also for the round wires RD8Alu/w in lengths from minimum 74 m (=10 kg). To ensure proper conductivity all clamping contacts remain uncoated.



### Mounting Instructions:

Please note especially the following instruction for the mounting of coloured conductor systems :

- Coatings on conductors (acc. ÖNORM 2960) have to be removed at all clamping contacts to ensure a proper conductivity and failure-free connections of the system's components.
- The cross section of a conductor must not be reduced when removing the coating
- We recommend to use a insulation stripping knife to remove the coating.  
Clamps and holders are delivered without coating in such parts where electric contact is required.
- Coated components and conductors in industrial premises with potentially explosive atmospheres are **prohibited**.
- Round aluminium wires with 8 mm diameter (RD8Alu) shall be straightened with consideration and at low rotational speed.
- If using a wire straightener remove protection from guid rollers.



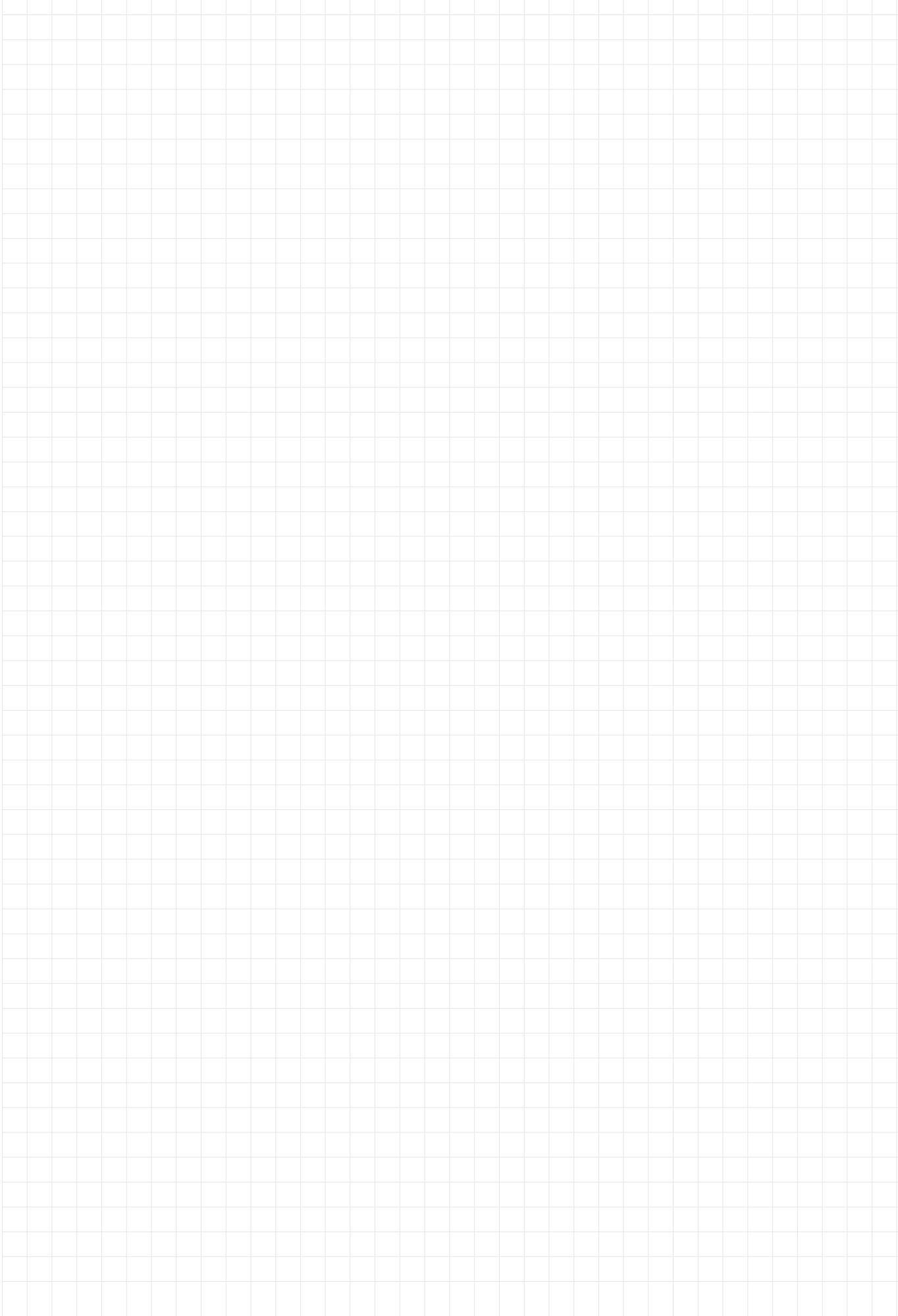
### Surcharges & Delivery Times:

For standard colours the surcharge per piece of component or meter of conductor is **EUR 2.30**

**Delivery time:** app. 14 days after date of order

**Minimum order quantity:** For each standard colour we require a minimum order quantity of 150 pieces of components or 150 meters of conductor. As markup for small-volume purchases we will charge additionally EUR 29.00 per colour.





# GENERAL TERMS AND CONDITIONS FOR SALE AND DELIVERY OF DIETZEL GMBH.

## 1. General Provisions

- 1.1 These general terms and conditions shall apply unless the parties to the contract have expressly made an explicit agreement to the contrary in writing.
- 1.2 Any quotations submitted by DIETZEL GmbH. (hereinafter briefly referred to as DIETZEL) shall be subject to change without notice. The contract shall only come into force upon written confirmation or delivery. The documents part of the quotation such as illustrations, drawings, weights and measurements in particular shall only be considered to be approximate statements unless they were expressly referred to as binding. Statements as to properties, weights, volumes, capacities, colours, prices and similar specifications shall only become an integral part of the contract to the extent they were used in the catalogues, circulars, brochures, adverts, illustrations and price lists used by DIETZEL in the course of its business operations.
- 1.3 DIETZEL expressly reserves the right to implement changes in the design and shape of the subject matter of the contract based on technical progress without prior announcement.
- 1.4 Guarantees, collateral agreements and changes in and amendments to this agreement shall only be effective in writing. This requirement cannot be dispensed with.
- 1.5 Changes in the general terms and conditions of sale and delivery shall become legally effective at the beginning of next but one month following the month during which the customer was notified and shall henceforth apply to any current and future business transactions between the customer and DIETZEL unless a written objection filed by the customer was received by DIETZEL prior to that date.

## 2. Prices and Terms of Payment

- 2.1 Unless otherwise agreed, DIETZEL's prices shall be ex works or warehouse, excluding loading, excluding VAT. Unless otherwise agreed, we will charge the prices applicable on the day of delivery.
- 2.2 The indicated prices are including packaging as usual in trade. Any other packaging which might be required shall be charged at the actual fee. If reusable packaging which is provided upon delivery is not returned in time franco one of DIETZEL's warehouses, it shall be invoiced.
- 2.3 Unless otherwise agreed, invoices shall be payable within thirty days from date of invoice without deductions. If the customer effects payment within fourteen days from date of invoice, DIETZEL shall grant the customer a 2 % cash discount. No cash discount shall be granted for invoices concerning repair and outwork. The ordering party shall not be entitled to a cash discount if the ordering party is in default of payment obligations to DIETZEL based on any other contracts.
- 2.4 At request, the customer shall effect payment in instalments to DIETZEL relative to progress in performance of the contract.
- 2.5 The customer shall not be entitled to offset any counterclaims or warranty claims which are in dispute or have not been declared in a final and absolute judgement. This shall also apply to the assertion of a right of retention by the customer.

## 3. Delay in Payment

- 3.1 If the customer is in delay with payment of an agreed sum or any other performances, DIETZEL shall have the following rights:
  - the right to defer performance of its own obligations until the arrears were paid or any other performances were effected.
  - the right to implement a reasonable extension of the term of delivery.
  - the right to charge 8 % interest on arrears from the due date subject to assertion of higher actual damage due to delay in performance.
  - the right to rescind the contract after a reasonable period of grace has lapsed without results.
- 3.2 In any case, the customer shall be obliged to compensate DIETZEL for any costs incurred for demands for payment as well as any costs such as creditor protection association and collection agency costs and lawyer's fees incurred before institution of proceedings in particular.

## 4. Delivery and Performance

- 4.1 The term of delivery which must be expressly agreed shall start upon conclusion of the contract but, in any case, not before receipt of a down-payment which might have been agreed. One condition for DIETZEL respecting the term of delivery shall in any case be the performance of contractual obligations by the customer.
- 4.2 The term of delivery shall be deemed to have been observed if the subject of delivery was dispatched by DIETZEL to the customer or if notice of readiness for shipment was given to the customer by DIETZEL before expiry of the term of delivery. The term of delivery shall be prolonged correspondingly if changes or amendments are subsequently requested by the customer. This shall also apply if any impediments were to occur which had not been foreseeable upon execution to the extent such impediments are proven to influence the completion or delivery of the subject of performance such as, in particular, delays caused by force majeure, industrial strife, strikes, lock-outs, delays in the delivery of key raw materials, materials or components. This shall also apply if the above-mentioned circumstances occur at one of DIETZEL's sub-suppliers. If the delivery cannot be effected due to the occurrence of such circumstances, DIETZEL shall be entitled to repudiate the contract. This shall not give rise to any customer claims whatsoever. This shall also apply if the aforementioned circumstances have occurred during an unrelated delay in performance.
- 4.3 If it is impossible to ship goods ready for shipment without DIETZEL being responsible for this inability to ship or if the customer refuses to take delivery of the goods, DIETZEL shall be entitled to store the goods at the customer's expense. In this case, delivery shall be deemed to have been effected upon delivery to the warehouse. This shall, however, be without prejudice to the agreed terms of payment.

## 5. Passage of Risks

- 5.1 Unless otherwise agreed, the goods shall be deemed to have been sold „ex works“ (readiness for collection). DIETZEL shall effect delivery excluding insurance and duties unpaid ex works. Part deliveries shall be allowed, unless otherwise agreed.
- 5.2 The risk of accidental perishing of a chattel and damage shall pass to the customer upon dispatch of the delivery parts at the latest even if part deliveries are effected and other items are included in DIETZEL's scope of performance such as consignment fees or delivery and installation.
- 5.3 Otherwise, the INCOTERMS as amended on the day of execution of the contract shall apply.

## 6. Reservation of Ownership and Assignment

- 6.1 DIETZEL reserves the proprietary right to the object of purchase until complete performance of all financial obligations by the customer.
- 6.2 The customer shall be entitled to sell the reserved goods in its ordinary course of business as long as it is not in delay with payment. It shall not be entitled to dispose of the reserved goods any other way (such as by chattel mortgage, assignment by way of pledge). The customer's claims to payment of the purchasing price or compensation for work arising from resale of the reserved goods shall be assigned to DIETZEL up to the amount of DIETZEL's claim to the customer.
- 6.3 In case of a delay in payment, the risk of cessation of payments or in the event of execution upon the customer's assets, DIETZEL shall be entitled to dismantle the reserved goods and/or otherwise require them to be returned. This shall not, however, be considered to be a repudiation of the contract. The customer is required to return property.
- 6.4 DIETZEL must promptly be informed if the reserved goods are assigned by way of pledge or if the reserved goods are affected any other way by third parties. The customer shall bear any costs incurred for such third-party attachment.
- 6.5 The customer expressly consents to DIETZEL's right to assign any claims to the customer to third parties for any purpose whatsoever. Any prohibition to assign which might be applicable shall only become legally effective if this was explicitly agreed between the parties to the contract in each specific case.

## 7. Returned Goods

- 7.1 Goods can only be returned if this was expressly agreed in writing beforehand. Goods must be returned franco warehouse specified by DIETZEL. The goods must be as good as new and packed in their original packaging. In any case, DIETZEL shall charge a reasonable manipulation fee.

## 8. Warranty

- 8.1 DIETZEL shall assume warranty for the accordance of the delivered goods with the order and for the fitness of the goods for normal use. It is expressly stated that indications as to the properties, weight, volume, capacity, colour, prices and any other specifications shall only become an integral part of the contract if these statements were used in the catalogues, circulars, brochures, adverts, illustrations and price lists used by DIETZEL in its ordinary course of business. Public statements on DIETZEL products by parties other than DIETZEL shall not be decisive for the evaluation of the integral parts of the contract.
- 8.2 DIETZEL shall only assume a warranty obligation for defects which are based on a design defect, faulty material or execution and even then only if such defects are noticed over a period of twelve months of common use from the passage of risks and/or the date of delivery:
  - a) Within the first six months, DIETZEL undertakes, at its absolute discretion, to rectify defects or replace parts in defective goods which turn out to be unfit for use or only suitable for considerably limited use due to a circumstance which occurred before the passage of risks such as, in particular, faulty construction, faulty material or faulty execution free of charge excluding incidental expenses (such as, in particular, travelling time costs, labour costs or transport costs and the like). DIETZEL reserves title to the replaced components.  
The customer must prove that the defect already existed at the time of delivery within the first six months after delivery.
  - b) Six months after performance, DIETZEL shall assume a guarantee for, at its absolute discretion, either repairing or replacing defective objects by objects free of defects for another six months if it can be proven that the defective goods are not fit for use or are only suitable for considerably limited use due to a manufacturing defect, faulty material or design. Any incidental expenses such as travelling time expenses, labour costs or transport costs in particular, shall be borne by the customer. DIETZEL excludes liability for any other warranty claims such as, in particular, the right of rescission of sale or reduction in price (even in the event of failure of the rectification of defects and/or repeated delivery) as well as claims for damages on any legal basis whatsoever.
- 8.3 The customer shall only be entitled to claim relief based on its warranty rights if DIETZEL was promptly notified of the defects which have occurred in writing. In this case, DIETZEL shall have the following options if the defects can be rectified by DIETZEL based on the applicable provisions: a) it can rectify defects in defective goods at the customer's premises; b) it can ask the customer to send the defective goods or components to it for rectifying the defects; c) it can replace the defective goods or components. If it is impossible to rectify the defects or if it would be disproportionately expensive to rectify the defects, DIETZEL shall also be entitled to grant a reasonable reduction in the price.
- 8.4 If the defective goods or components are returned for rectification of defects or replacement, the customer shall bear both the costs and risk of transportation.
- 8.5 The defective goods or components replaced pursuant to these provisions shall exclusively be placed at DIETZEL's disposal. DIETZEL's warranty obligations shall only apply to defects which have occurred subject to observance of the prescribed operating conditions and in the course of use common in trade. The customer must provide evidence. In particular, DIETZEL shall not assume warranty for defects which were caused due to improper installation by the customer or its agents, improper maintenance, improper repair or modifications by third parties which were not approved by DIETZEL in writing as well as common wear and tear.
- 8.6 DIETZEL's liability based on the special right of recourse shall in any case expire two years from DIETZEL's performance and the scope of liability shall be limited to the effect that the customer is only indemnified for any warranty costs which might be incurred by the customer to the amount of the actually agreed DIETZEL sales price of the defective goods minus any cash discounts or other discounts which might have been granted.
- 8.7 DIETZEL shall not assume liability for defects in excess of the aforementioned provisions.

## 9. Liability

- 9.1 DIETZEL shall not assume liability for personal injury, for damage to goods which do not constitute a subject matter of the contract as well as for any other damage and lost profit unless it turns out in this individual case that this was caused by DIETZEL with gross negligence.
- 9.2 The goods delivered by DIETZEL are safe to the extent specified in the provisions for approval, operating instructions, DIETZEL instructions on how to use the object of purchase such as, in particular, with a view to any inspections which might be required and other warnings which might have been given. If sub-section 8.1 does not apply, DIETZEL's liability for slightly negligent damage shall in any case be limited to 5 % of the volume of the order.
- 9.3 Unless otherwise agreed, this stipulation shall exclude liability on the part of DIETZEL vis-à-vis the customer for production downtime, lost profits, loss of use, lost contracts or any other economic or indirect consequential damage.

## 10. Data Protection

- 10.1 DIETZEL shall be entitled to store, transmit, revise or delete personal data concerning the customer in the course of its ordinary business.
- 10.2 The parties undertake to keep any information obtained within the framework of their business relations strictly confidential and refrain from disclosing it to third parties.

## 11. Place of Jurisdiction, Applicable Law, Place of Performance

- 11.1 The court which has jurisdiction as regards the subject matter at the registered office of DIETZEL GmbH. in Vienna shall be the place of jurisdiction for any disputes which might arise directly or indirectly from the contract. Regardless of this agreement, DIETZEL shall be entitled to invoke a court competent for the other party to the contract.
- 11.2 The remainder of this contract shall continue to be binding even if individual provisions of this contract may be or become legally invalid. This shall not apply if it would constitute an unreasonable hardship for either of the parties to continue to be bound by the terms of this contract.
- 11.3 This contract shall be governed by Austrian substantive law. Both parties have mutually agreed to exclude application of the United Nations Convention on Contracts for the International Sale of Goods.
- 11.4 The registered office of DIETZEL GmbH. in Vienna shall constitute the place of delivery and place of payment even if it is agreed to effect delivery to any other location.

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