



GROMTOR – is a manufacturer of complete spectre of products of lightning protection and grounding systems. Our assortment provides every kind of system solutions for projects of any complexity. GROMTOR company, operating on international market, recommended itself as a reliable and certified manufacturer of high quality lightning protection equipment.

GROMTOR is international company, which distribution network takes up territory of Poland (manufacture), Germany, Austria, Czech Republic, Baltic countries, Ukraine, Belarus (manufacture), Russia and Kazakhstan.

Spectre of products of GROMTOR company allows to choose the best technical solution for every project of lightning protection.

Connectors



Grounding and equipotential bonding



Air termination: vertical holders



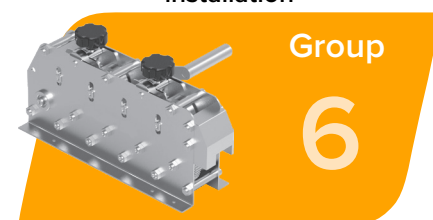
Holders for lightning protection conductors



Interception air rods and insulated systems



Accessories for lightning protection installation



Code structure



Material:			
11	FeGI	OC	Galvanized steel
12	FeZn	OG	Hot galvanized steel
13	Inox V2A	NI V2A	Stainless steel
14	Cu	CU	Copper
15	Inox V4A	NI V4A	Stainless steel V4A
16	FeCu	MI	Copper covered steel
17	Al.	AL	Aluminium
18	PI	PL	Plastic
19			Other

Compatibility of materials.

In lightning protection systems, mainly used is: hot dip galvanized steel, stainless steel, copper and an aluminium.

The hazard of corrosion occurs when different kind of materials are connected, whereby the galvanize steam is being created. This is the reason why connecting galvanized steel or aluminium with copper is prohibited. To prevent this occurrence, with help comes the compatibility table that we present below.

Material	Hot dip galvanized steel (FT)	Aluminium (Alu)	Copper (Cu)	Stainless steel (Va)
Hot dip galvanized steel	++	0	-	0
Aluminium (Alu)	0	++	-	0
Copper (Cu)	-	-	++	0
Stainless steel (Va)	0	0	0	++

* (++) – Recommended, (0) – Neutral, (-) – Not recommended.

General instructions about external lightning protection.

Lightning protection system should protect people and building objects against critical hazard of life and physical damages. To protect electrical devices inside the building, necessary is usage of overvoltage protection.

Based on lightning protection standards, which are determining some requirements, we suggest also to fulfill an industry standards for protected objects.

In case of lack of possibilities to fulfill standard requirements due to technological features of protectet object, components and solutions should be chosen based on conditions providing reliable and safe protectoin against atmospherical discharges.

List of standards for lightning protection systems:

- PN-EN 62305-1:2011** Lightning protection – Part 1: Protection of structures against lightning : general principles
- PN-EN 62305-2:2012** Lightning protection – Part 2: Risk management
- PN-EN 62305-3:2011** Lightning protection – Part 3: Physical damage and life hazard
- PN-EN 62305-4:2011** Lightning protection - Part 4: Electrical and electronic system within structures
- PN-HD 60364-54:2011** Low voltage electrical installations – Part 5-54: selection and assemblation of electrical equipment – grounding systems and protecting conductors.
- PN-EN 50522:2011** Grounding of electromagnetic installation of alternatic current with voltage not higher than 1kV.

Current standards for LPS components:

- PN-EN 62561-1:2012** – Lghtning protection system components (LPSC) Part 1: Requirements about connection components
- PN-EN 62561-2:2012** Lightning protection system components (LPSC) Part 2: Requirements for conductors and earth electrodes.
- PN-EN 62561-4:2011** Lightning protection system components (LPSC) – Part 3: Requirements for isolating spark gaps (ISG)
- PN-EN 62561-4:2011** Lightning protection system components (LPCS) – Part 4: Requirements for conductor fasteners.
- PN-EN 62561-5:2011** Lightning protection system components (LPCS) –Part 5: Requirements for earth electrode inspection housings and earth electrode seals.
- PN-EN 62561-4:2011** Lightning protection system components (LPCS) – Part 6: Requirements about lightning strike counters (LSC)
- PN-EN 62561-7:2012** Lightning protection system components (LPCS) – Part 7: Requirements for earthing enhancing compounds
- PN-EN 62561-7:2012** Lightning protection system components (LPCS) – Part 8: Requirements for components of insulated lightning protection system.

Lightning protection class and its classification.

It is required to set the classification of object before building or rebuilding it to set the category of lightning protection – reliability level.

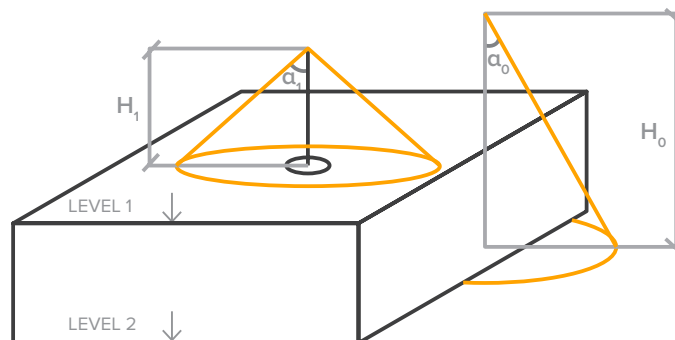
Protection of direct lightning strike is presented below.

Lightning protection category	Maximal peak value of lightning voltage	Reliability of protection against
I	200 kA	98%
II	150 kA	95%
III	100 kA	90%
IV	100 kA	80%

Designing lightning protection system.

Devices of lightning protection systems are integral part of leading off system and fulfill the function of intercepting the atmospherical discharge.

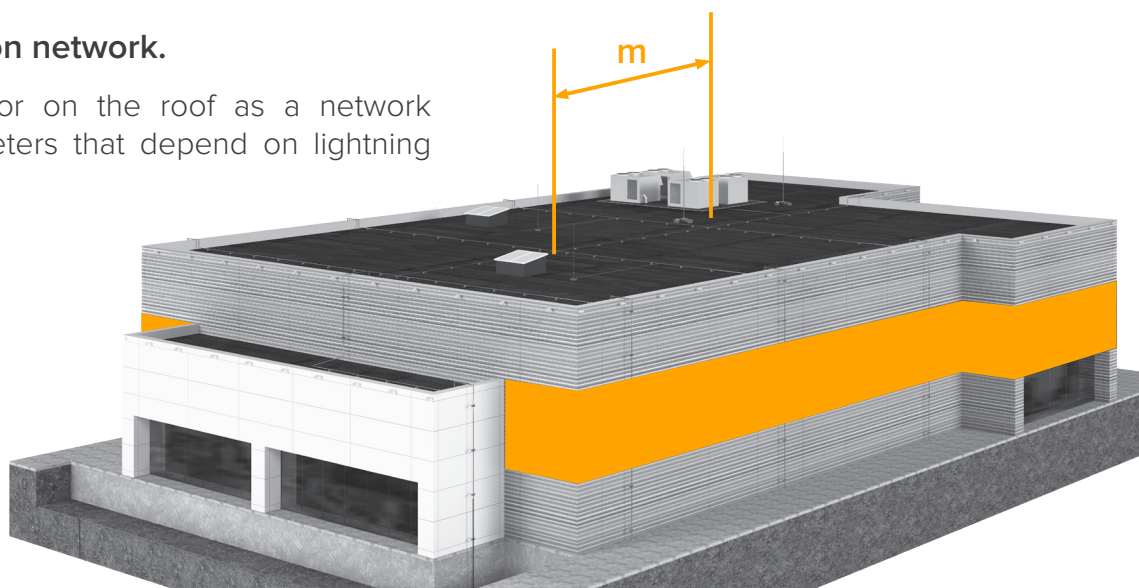
Lightning protection systems may be consisting of lightning rods, cables and conductors. During the designing process there might be lightning protection systems for conventional object, but specifying protected zone with usage of method of protecting angle must be according to the standard 62305.



H [m]	I LPS CLASS		II LPS CLASS		III LPS CLASS		IV LPS CLASS	
	Protection angle, A	Protection radius, A [m]	Protection angle, A	Protection radius, A [m]	Protection angle, A	Protection radius, A [m]	Protection angle, A	Protection radius, A [m]
1	70	2,75	73	3,27	76	4,01	79	5,14
2	70	5,49	73	6,54	76	8,02	79	10,29
3	66	6,74	71	8,71	74	10,46	76	12,03
4	62	7,52	68	9,90	72	12,31	74	13,95
5	59	8,32	65	10,72	70	13,74	72	15,39
6	56	8,90	62	11,28	68	14,85	71	17,43
7	53	9,29	60	12,12	66	15,72	69	18,24
8	50	9,53	58	12,80	64	16,40	68	19,80
9	48	10,00	56	13,34	62	16,93	66	20,21
10	45	10,00	54	13,76	61	18,04	65	21,45

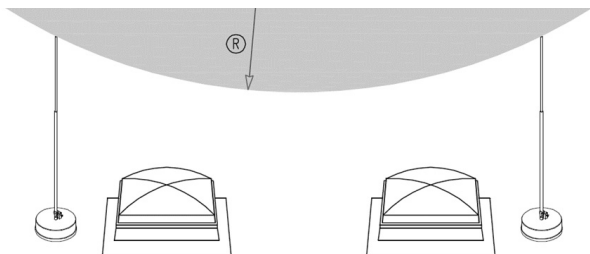
Lightning protection network.

Assembled conductor on the roof as a network with defined parameters that depend on lightning protection class.



Protection by scope.

To set the protection scope, there is a method of rolling sphere, which allows to choose the most appropriate products to protect the building and provide the best protecting angle.



Isolation space (S)

In case when on the protecting object are electrical devices which conductors are lead inside the building, then no doubt of that there is required keeping isolation space (S). Under this circumstance there is need to lead the conductor or set the intercepting air rod.

To calculate isolation space there is following formula:

Tab. 1

Lightning protection class	Ki
I	0,1
II	0,075
III	0,05
IV	0,05

Tab. 3

Material	Km
Air	1
Concrete, Brick	0,5
Polivinychloride PVC	20
Polyethylene	60

LPS Class of lightning protection	Safety methods	
	Network dimensions, W/m	Radius of rolling sphere, R/m
I	5 x 5	20
II	10 x 10	30
III	15 x 15	45
IV	20 x 20	60

$$S = K_i \frac{K_c}{K_m} I$$

where **Ki** – is coefficient that depends on chosen lightning protection class (tab. 1)

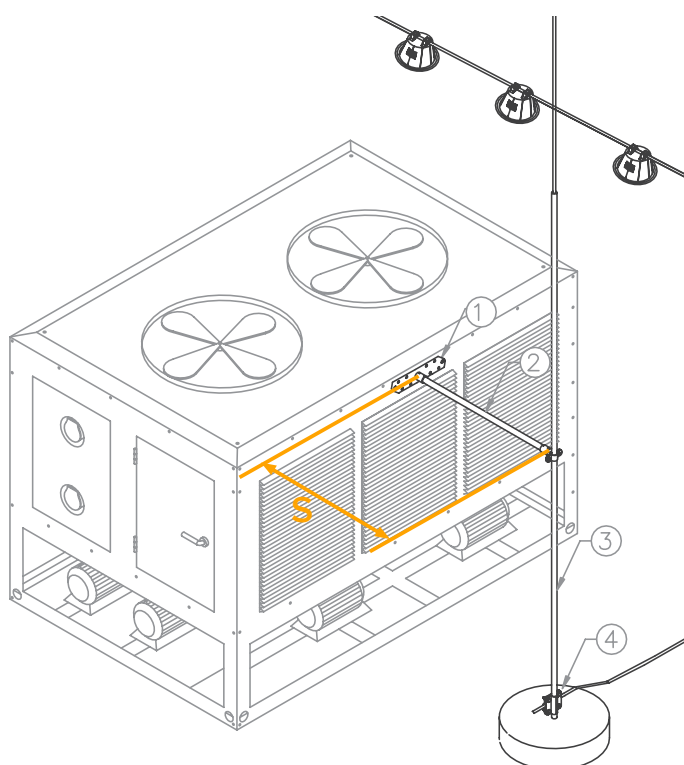
Kc – coefficient that depends on lightning voltage which flows in elements of lightning protection system.

Km – depends on isolation material.

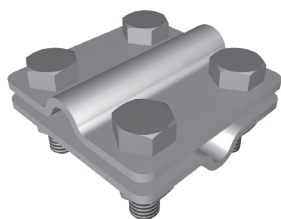
I – electromagnetic effect of lightning voltage.

Tab. 2

Amount of leading off wires, n	Approximate value, Kc	Possible scope of value, Kc
1	1	1
2	0,66	1...0,5
более 4	0,44	1...1/n

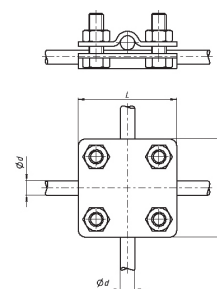


GT Cross connector L-55 for wire

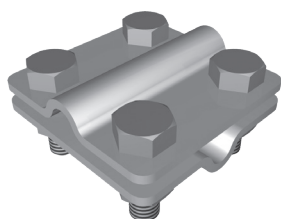


For:	Material	Size [mm]	Screw	Code
Wire 6-10 mm	FeGl	L-55	M8x25	101111
Wire 6-10 mm	FeZn			101112
Wire 6-10 mm	Inox V2A			101113
Wire 6-10 mm	Inox V4A			101115
Wire 6-10 mm	Cu			101114

* Used for cross, T-type and parallel connection of wires.

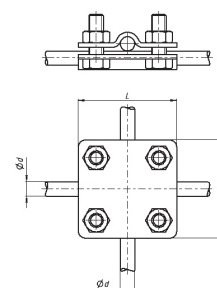


GT Cross connector L-65 for wire

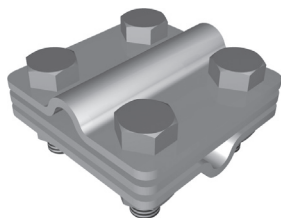


For:	Material	Size [mm]	Screw	Code
Wire 6-10 mm	FeGl	L-65	M8x25	101211
Wire 6-10 mm	FeZn			101212
Wire 6-10 mm	Inox V2A			101213
Wire 6-10 mm	Inox V4A			101215
Wire 6-10 mm	Cu			101214

* Used for cross, T-type and parallel connection of wires.

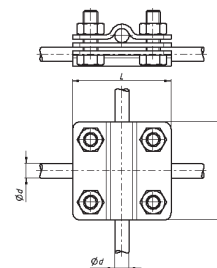


GT Cross connector L-55 with separator, for wire

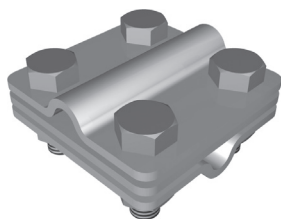


For:	Material	Size [mm]	Screw	Code
Wire 6-10 mm	FeGl	L-55	M8x30	101311
Wire 6-10 mm	FeZn			101312
Wire 6-10 mm	Inox V2A			101313
Wire 6-10 mm	Inox V4A			101315
Wire 6-10 mm	Cu			101314

* Used for cross, T-type and parallel connection of wires or flat conductors.

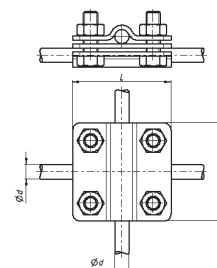


GT Cross connector L-65 with separator, for wire

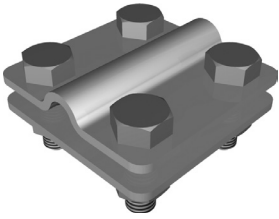


For:	Material	Size [mm]	Screw	Code
Wire 6-10 mm	FeGl	L-65	M8x30	101411
Wire 6-10 mm	FeZn			101412
Wire 6-10 mm	Inox V2A			101413
Wire 6-10 mm	Inox V4A			101415
Wire 6-10 mm	Cu			101414

* Used for cross, T-type and parallel connection of wires or flat conductors.

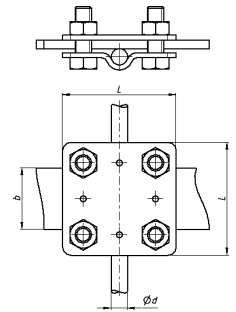


GT Cross connector L-55, for wire and flat conductor

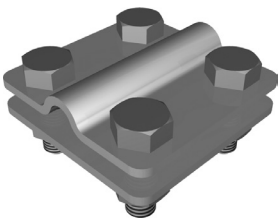


For:	Material	Size [mm]	Screw	Code
Wire 6-10 mm, flat conductor 30 mm	FeGl	L-55	M8x25	101511
Wire 6-10 mm, flat conductor 30 mm	FeZn			101512
Wire 6-10 mm, flat conductor 30 mm	Inox V2A			101513
Wire 6-10 mm, flat conductor 30 mm	Inox V4A			101515
Wire 6-10 mm, flat conductor 30 mm	Cu			101514

* Used for cross, T-type and parallel connection of wires or flat conductors.

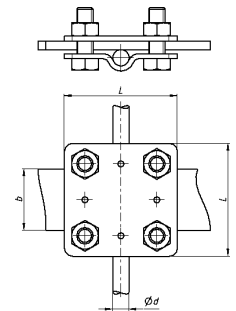


GT Cross connector L-65, for wire and flat conductor

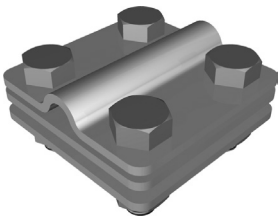


For:	Material	Size [mm]	Screw	Code
Wire 6-10 mm, flat conductor 40 mm	FeGl	L-65	M8x25	101611
Wire 6-10 mm, flat conductor 40 mm	FeZn			101612
Wire 6-10 mm, flat conductor 40 mm	Inox V2A			101613
Wire 6-10 mm, flat conductor 40 mm	Inox V4A			101615
Wire 6-10 mm, flat conductor 40 mm	Cu			101614

* Used for cross, T-type and parallel connection of wires or flat conductors.

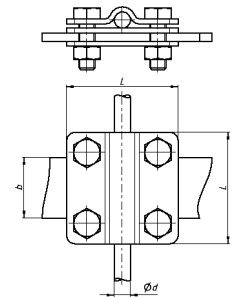


GT Cross connector L-55 with separator, for wire and flat conductor

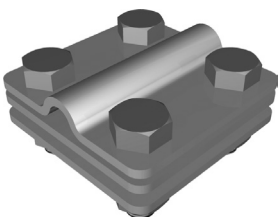


For:	Material	Size [mm]	Screw	Code
Wire 6-10 mm, flat conductor 30 mm	FeGl	L-55	M8x25	101711
Wire 6-10 mm, flat conductor 30 mm	FeZn			101712
Wire 6-10 mm, flat conductor 30 mm	Inox V2A			101713
Wire 6-10 mm, flat conductor 30 mm	Inox V4A			101715
Wire 6-10 mm, flat conductor 30 mm	Cu			101714

* Used for cross, T-type and parallel connection of wires and flat conductors.

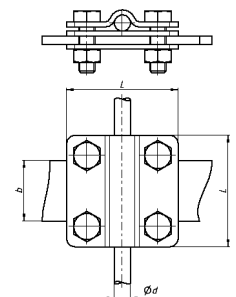


GT Cross connector L-65 with separator, for wire and flat conductor

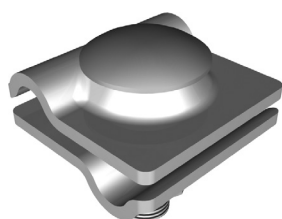


For:	Material	Size [mm]	Screw	Code
Wire 6-10 mm, flat conductor 40 mm	FeGl	L-65	M8x25	101811
Wire 6-10 mm, flat conductor 40 mm	FeZn			101812
Wire 6-10 mm, flat conductor 40 mm	Inox V2A			101813
Wire 6-10 mm, flat conductor 40 mm	Inox V4A			101815
Wire 6-10 mm, flat conductor 40 mm	Cu			101814

* Used for cross, T-type and parallel connection of wires or flat conductors.

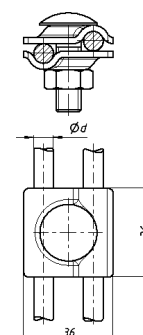


GT Universal connector for wire

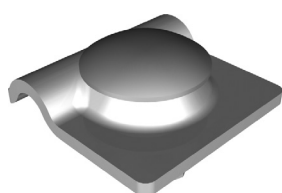


For:	Material	Size [mm]	Screw	Code
Wire 6-10 mm	FeGl	L-36	M10x35	102111
Wire 6-10 mm	FeZn			102112
Wire 6-10 mm	Al.			102117
Wire 6-10 mm	Inox V2A			102113
Wire 6-10 mm	Inox V4A			102115
Wire 6-10 mm	Cu			102114

* Used for cross, T-type and parrarel connection of wire.

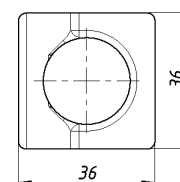
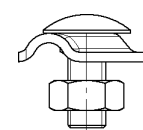


GT Screw clamp for wire

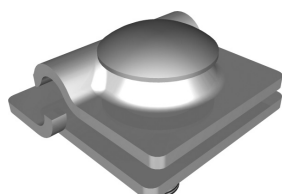


For:	Material	Size [mm]	Screw	Code
Wire 6-10 mm	FeGl	L-36	M10	102211
Wire 6-10 mm	FeZn		M10	102212

* Used for cross, T-type and parrarel connection of wire.

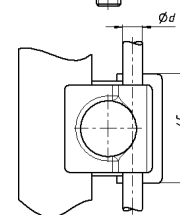
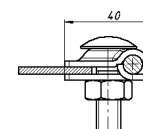


GT Tinware - wire connector

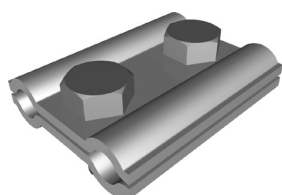


For:	Material	Size [mm]	Screw	Code
Wire 6-10 mm, plate 5 mm	FeGl	L-45	M10x35	103111
Wire 6-10 mm, plate 5 mm	FeZn			103112
Wire 6-10 mm, plate 5 mm	Inox V2A			103113
Wire 6-10 mm, plate 5 mm	Cu			103114
Wire 6-10 mm, plate 5 mm	Al.			103117

* Used for cross, T-type and parrarel connection of wire and tinware (thickness of tinware up to 5 mm).

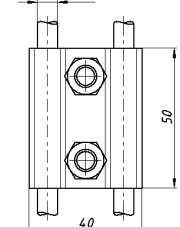
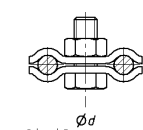


GT Universal clamp

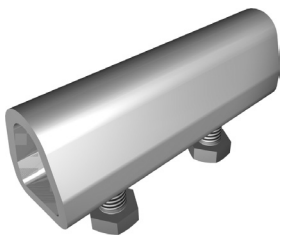


For:	Material	Size [mm]	Screw	Code
Wire 6-10 mm	FeGl	L-40	M8x20	104111
Wire 6-10 mm	FeZn			104112
Wire 6-10 mm	Inox V2A			104113
Wire 6-10 mm	Cu			104114
Wire 6-10 mm	Al.			104117

* Parrarel connecting of wire 6-10mm

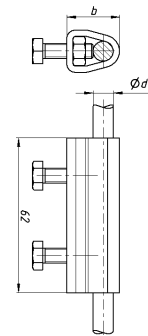


GT Connecting sleeve

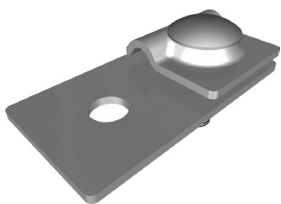


For:	Material	Size [mm]	Screw	Code
Wire 6-10 mm	FeGl	L-62	M6x20	105111
Wire 6-10 mm	FeZn			105112
	Inox V2A			105113
Wire 6-10 mm	Cu			105114

* Used for parralel connection of wire 6-10 mm and control connection of wire 8-10mm.

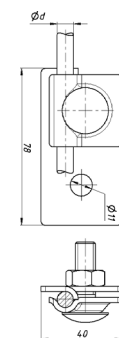


GT 1 screw control clamp

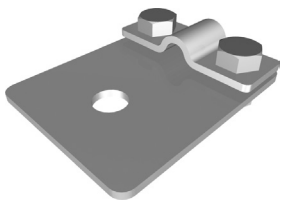


For:	Material	Size [mm]	Screw	Code
Wire 6-10 mm, flat conductor	FeGl	L-78	M10x35	106111
Wire 6-10 mm, flat conductor	FeZn			106112
Wire 6-10 mm, flat conductor	Inox V2A			106113
Wire 6-10 mm, flat conductor	Cu			106114

* Used for connecting wire 6-10 mm to steel construction and to flat conductor.

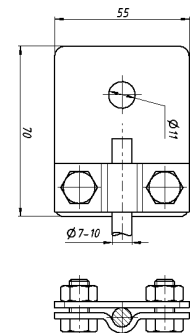


GT 2 screws control clamp

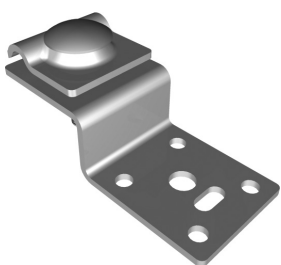


For:	Material	Size [mm]	Screw	Code
Wire 6-10 mm, flat conductor	FeGl	55x70	M8x16	107111
Wire 6-10 mm, flat conductor	FeZn			107112
Wire 6-10 mm, flat conductor	Inox V2A			107113
Wire 6-10 mm, flat conductor	Cu			107114

* Used for connecting wire 6-10 mm to steel construction and to flat conductor.

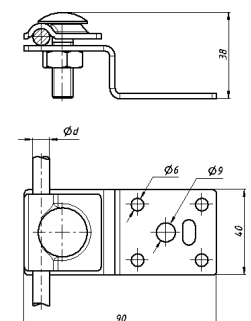


GT Connecting wire to steel tinware



For:	Material	Size [mm]	Screw	Code
Wire 6-10 mm, flat conductor	FeGl	90x40	M8x30	108111
Wire 6-10 mm, flat conductor	FeZn			108112
Wire 6-10 mm, flat conductor	Inox V2A			108113
Wire 6-10 mm, flat conductor	Alu			108117

* Used for connecting wire 6-10 mm to steel construction or steel tinware.

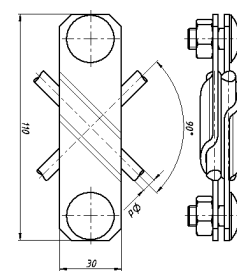


GT 2 screws cross connector

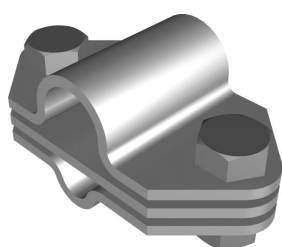


For:	Material	Size [mm]	Screw	Code
d 8-10 mm / d 8-10 mm	FeGl	110x30	M10x30	109111
d 8-10 mm / d 8-10 mm	FeZn			109112
d 8-10 mm / d 8-10 mm	Inox V2A			109113

* Used for cross connection of wire 8-10 mm

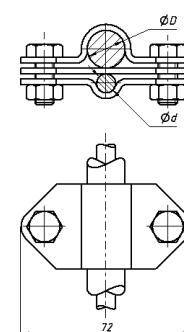


GT 2 screws clamp: wire, rod, flat conductor

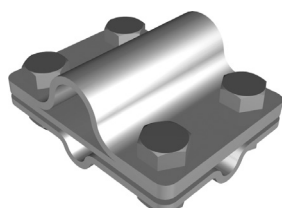


For:	Material	Size [mm]	Screw	Code
d 6-10 mm / D 16 mm	FeGl	L-72	M8x16	110111
d 6-10 mm / D 16 mm	FeZn			110112
d 6-10 mm / D 16 mm	Inox V2A			110113

* Used for parrarel connecting wire 6-10 mm and a rod 16mm.

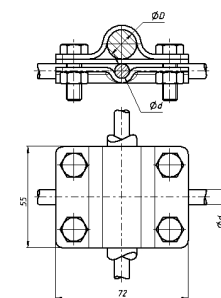


GT 4 screws cross connector: wire, rod, flat conductor



For:	Material	Size [mm]	Screw	Code
d 6-10 / D 16 / b 30-40	FeGl	72x55	M8x16	111111
d 6-10 / D 16 / b 30-40	FeZn			111112
d 6-10 / D 16 / b 30-40	Inox V2A			111113
d 6-10 / D 16 / b 30-40	Cu			111114

* Used for cross, T-type and parralel connecting of wire 6-10 mm and rod 16 mm or flat conductor.

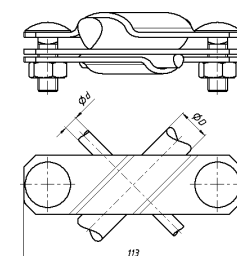


GT Diagonal connector D-20: wire, rod, flat conductor



For:	Material	Size [mm]	Screw	Code
d 8-10 / D 20 / b ≤ 40	FeGl	L-113	M10x30	112111
d 8-10 / D 20 / b ≤ 40	FeZn			112112
d 8-10 / D 20 / b ≤ 40	Inox V4A			112115

* Used for diagonal connections of rod 20mm with a wire 8-10 mm and flat connector.

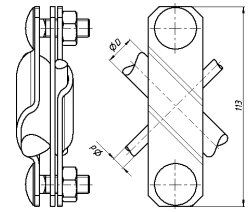


GT Diagonal connector D-16: wire, rod, flat conductor

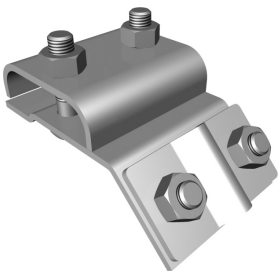


For:	Material	Size [mm]	Screw	Code
d 8-10 / D 16 / b ≤ 40	FeGl	L-113	M10x30	112211
d 8-10 / D 16 / b ≤ 40	FeZn			112212
d 8-10 / D 16 / b ≤ 40	Inox V4A			112215

* Used for diagonal connections of rod 16mm with a wire 8-10 mm and flat connector.

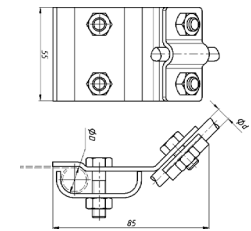


GT 4 screws gutter clamp

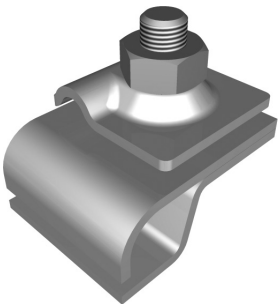


For:	Material	Size [mm]	Screw	Code
d 6-10 mm/ gutter	FeGl	L-55	M8x16	113111
d 6-10 mm/ gutter	FeZn			113112
d 6-10 mm/ gutter	Inox V2A			113113
d 6-10 mm/ gutter	Cu			113114

* Used for connecting wire 6-10mm on a gutter.

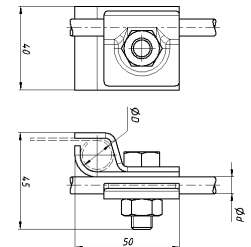


GT 1 screw gutter clamp

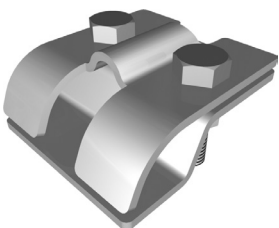


For:	Material	Size [mm]	Screw	Code
d 6-10 mm/ gutter	FeGl		M10x30	114111
d 6-10 mm/ gutter	FeZn			114112
d 6-10 mm/ gutter	Inox V2A			114113
d 6-10 mm/ gutter	Cu			114114
d 6-10 mm/ gutter	Al.			114117

* Used for connecting wire 6-10mm on a gutter.

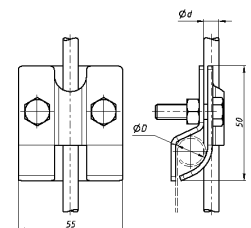


GT 2 screws gutter clamp

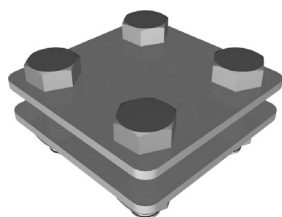


For:	Material	Size [mm]	Screw	Code
d 6-10 mm/ gutter	FeGl	25	M8x30	114211
d 6-10 mm/ gutter	FeZn			114212
d 6-10 mm/ gutter	Inox V2A			114213
d 6-10 mm/ gutter	Cu			114214

* Used for connecting wire 6-10mm on a gutter.

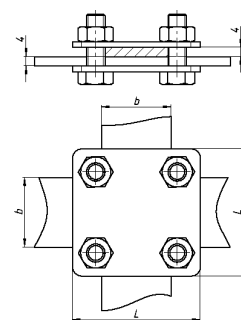


GT L-55 connector for flat conductor

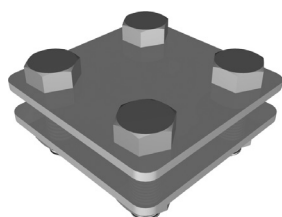


For:	Material	Size [mm]	Screw	Code
$b \leq 30$ mm	FeGl	L-55	M8x25	115111
$b \leq 30$ mm	FeZn			115112
$b \leq 30$ mm	Inox V4A			115115
$b \leq 30$ mm	Cu			115114

* Used for cross, T-type and parralel connection of flat conductor up to 30mm.

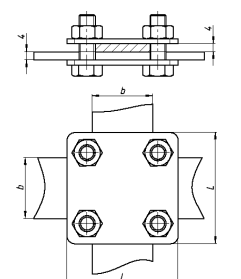


GT L-65 connector for flat conductor

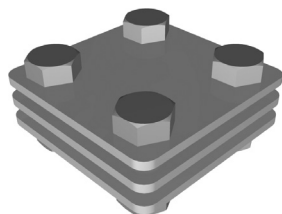


For:	Material	Size [mm]	Screw	Code
$b \leq 40$ mm	FeGl	L-65	M8x25	115211
$b \leq 40$ mm	FeZn			115212
$b \leq 40$ mm	Inox V4A			115215
$b \leq 40$ mm	Cu			115214

* Used for cross, T-type and parralel connection of flat conductor up to 40mm.

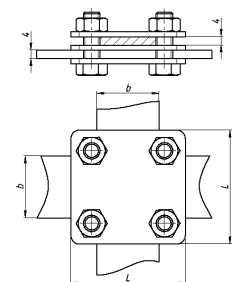


GT L-55 connector with separator for flat conductor

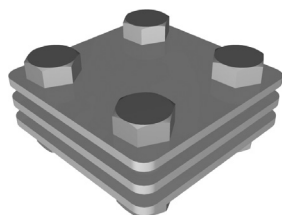


For:	Material	Size [mm]	Screw	Code
$b \leq 30$ mm	FeGl	L-55	M8x25	116111
$b \leq 30$ mm	FeZn			116112
$b \leq 30$ mm	Inox V4A			116115
$b \leq 30$ mm	Cu			116114

* Used for cross, T-type and parralel connection of flat conductor up to 30mm.

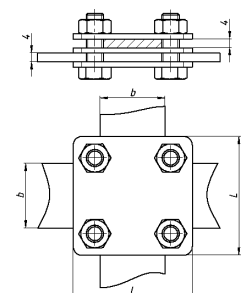


GT L-65 connector with separator for flat conductor

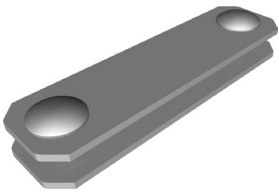


For:	Material	Size [mm]	Screw	Code
$b \leq 40$ mm	FeGl	L-65	M8x25	116211
$b \leq 40$ mm	FeZn			116212
$b \leq 40$ mm	Inox V4A			116215
$b \leq 40$ mm	Cu			116214

* Used for cross, T-type and parralel connection of flat conductor up to 40mm.

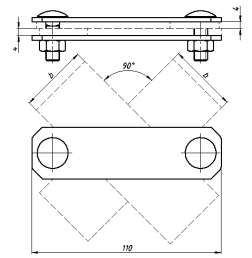


GT Diagonal connector for flat conductor

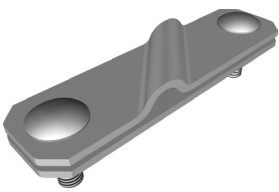


For:	Material	Size [mm]	Screw	Code
$b \leq 50$ mm	FeGl	L-110	M10x30	117111
$b \leq 50$ mm	FeZn			117112
$b \leq 50$ mm	Inox V2A			117113
$b \leq 50$ mm	Inox V4A			117115

* Used for cross and diagonal connection of flat conductors up to 50 mm.

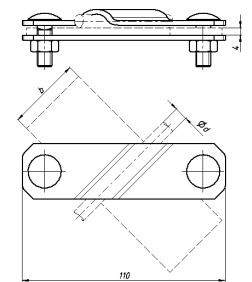


GT Diagonal connector for flat conductor and wire

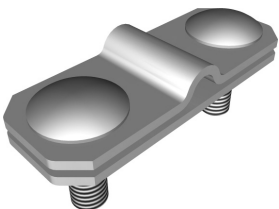


For:	Material	Size [mm]	Screw	Code
d 8-10 mm / $b \leq 40$ mm	FeGl	L-110	M10x30	118111
d 8-10 mm / $b \leq 40$ mm	FeZn			118112
d 8-10 mm / $b \leq 40$ mm	Inox V2A			118113
d 8-10 mm / $b \leq 40$ mm	Inox V4A			118115

* Used for cross and diagonal connection of flat conductor with wire.

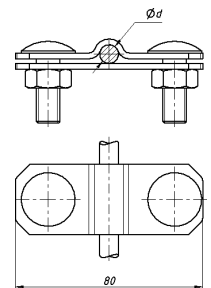


GT Clamp for wire and a flat conductor

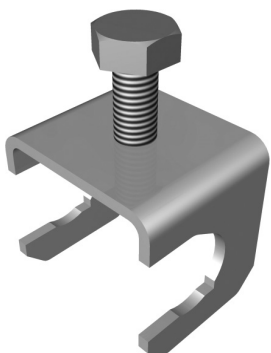


For:	Material	Size [mm]	Screw	Code
$b \leq 40$ mm / d 8-10 mm	FeGl	80	M10x30	118211
$b \leq 40$ mm / d 8-10 mm	FeZn			118212
$b \leq 40$ mm / d 8-10 mm	Inox V4A			118213

* Used for parralel connection of flat conductor up to 40 mm and wire.

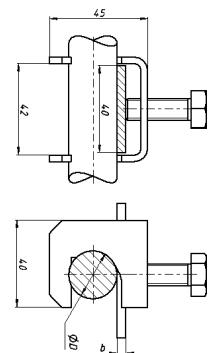


GT Rod - flat conductor connector

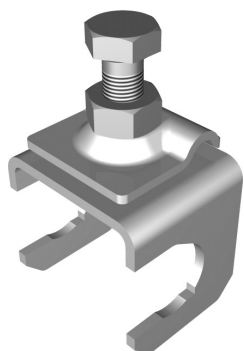


Применение	Материал	Размер, мм	Болт	Код
$b \leq 40$ mm / reinforcing steel	FeGl	25	M10x30	119111
$b \leq 40$ mm / reinforcing steel	FeZn			119112
$b \leq 40$ mm / reinforcing steel	Inox V4A			119113

* Used for connecting and leading flat conductor with reinforcing steel in foundation (diameter 5-22 mm).

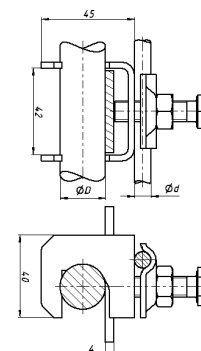


GT Rod - flat conductor and wire connector

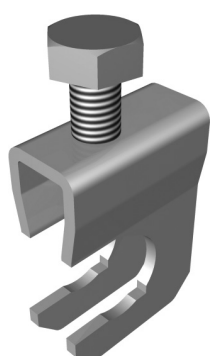


Применение	Материал	Размер, мм	Болт	Код
d 8-10 mm / b ≤ 40 mm / reinforcing steel	FeGl	25	M10x30	120111
d 8-10 mm / b ≤ 40 mm / reinforcing steel	FeZn			120112
d 8-10 mm / b ≤ 40 mm / reinforcing steel	Inox V4A			120115

* Used for connecting and leading flat conductor and wire with reinforcing steel in foundation (diameter 5-22 mm).

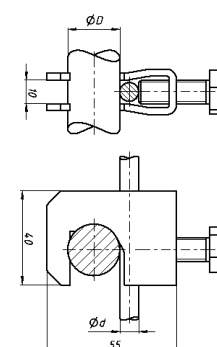


GT Rod - wire connector

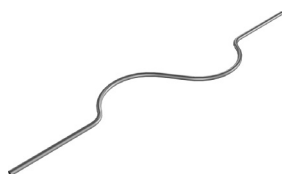


For:	Material	Size [mm]	Screw	Code
d 8-10 mm / reinforcing steel	FeGl	25	M10x30	121111
d 8-10 mm / reinforcing steel	FeZn			121112
d 8-10 mm / reinforcing steel	Inox V4A			121115

* Used for connecting and leading wire with reinforcing steel in foundation (diameter 5-22 mm).



GT Compensation connection

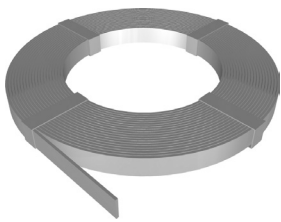


Description	Size [mm]	Material	Code
Wire 8 mm	L-400	Al.	109018
Cord 50 mm ²	L-500	Al.	109118

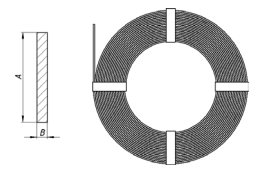
* Used for compensating the length of a wire under the influence of change of temperature.



GT Galvanised steel flat conductor



Size [mm]	Weight [kg/1m]	Material	Code
25x3	0,600	FeZn	225312
25x4	0,800	FeZn	225412
30x3	0,721	FeZn	230312
30x3,5	0,833	FeZn	233512
30x4	0,961	FeZn	230412
40x4	1,185	FeZn	240412
50x4	1,601	FeZn	250412

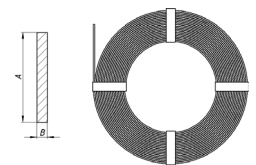


- * For lightning protection, earthing system and ring equipotential bonding
Thickness of zinc layer is compatible with PN-EN ISO 1461: 500 g/m²
In accordance with standard: PN- 62561-2 Part 2: Requirements for conductors and earth electrodes
Corresponds to the requirements of standard: PN-EN 62305

GT Steel flat conductor with copper layer



Size [mm]	Weight [kg/1m]	Material	Code
25x4	0,800	FeCu	225416
30x4	0,960	FeCu	230416
40x4	1,290	FeCu	240416

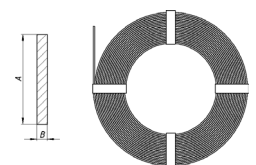


- * For lightning protection, earthing system and ring equipotential bonding
Thickness of copper layer: 500 g/m²
In accordance with standard: PN- 62561-2 Part 2: Requirements for conductors and earth electrodes
Corresponds to the requirements of standard: PN-EN 62305

GT Copper flat conductor

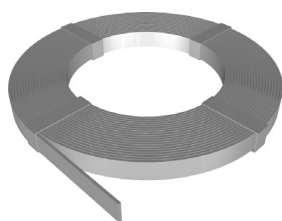


Size [mm]	Weight [kg/1m]	Material	Code
20x4	0,710	Cu	220414
25x3	0,670	Cu	225314
25x4	0,890	Cu	225414
30x4	1,070	Cu	230414
40x4	1,424	Cu	240414

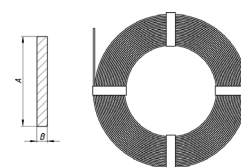


- * For lightning protection, earthing system and ring equipotential bonding
In accordance with standard: PN- 62561-2 Part 2: Requirements for conductors and earth electrodes
Corresponds to the requirements of standard: PN-EN 62305

GT Rustproof steel flat conductor

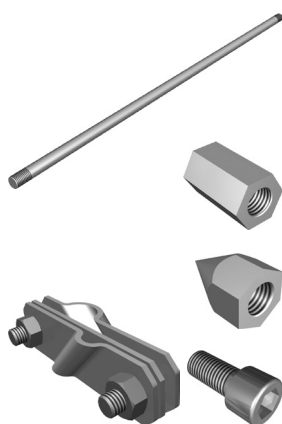


Size [mm]	Weight [kg/1m]	Material	Code
30x3,5	0,833	Inox V2A	233513
30x3	0,714	Inox V2A	230413
40x4	1,250	Inox V2A	240413
30x3,5	0,833	Inox V4A	233515
30x3	0,714	Inox V4A	230415
40x4	1,250	Inox V4A	240415

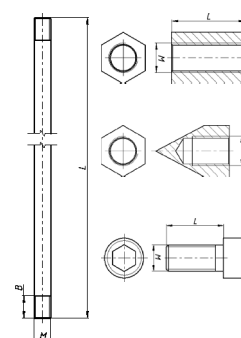


- * For lightning protection, earthing system and ring equipotential bonding
To use in places with high risk of occurrence of corrosion
Mark of the steel: V4A - 1,4404 / 1,4571, V2A - 1,4301 in accordance with standard: EN 10088-2
In accordance with standard: PN- 62561-2 Part 2: Requirements for conductors and earth electrodes
Corresponds to the requirements of standard: PN-EN 62305

GT Galvanised earthing rod with driving head

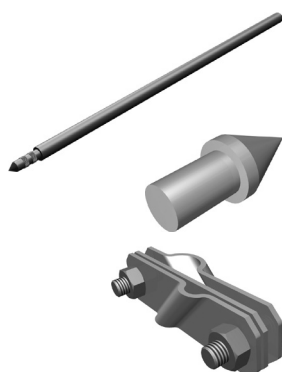


Parts	Size [mm]	Material	Code
Earthing rod	L1500xD16	FeZn	216112
Earthing coupling	M16/L-60	FeZn	216212
Earthing spike	M16	FeZn	216312
Driving head	M16/ L-40	Fe	216411
Connector for rod, flat conductor and wire	D16/b40/D8-10	FeZn	112212

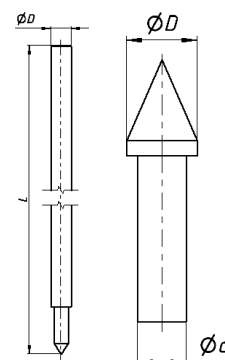


- * For lightning protection, earthing system and ring equipotential bonding
Thickness of zinc layer is compatible with standard PN-EN ISO 1461: not less than 70 micrometers (µm)
In accordance with standard: PN- 62561-2 Part 2: Requirements for conductors and earth electrodes
Corresponds to the requirements of standard: PN-EN 62305

GT Galvanised earthing rod D 16 mm with driving spike

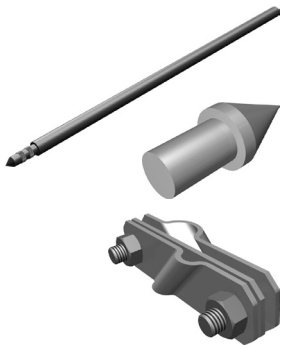


Parts	Size [mm]	Material	Code
Earthing rod with pin	L1500xD16	FeZn	216012
Driving spike	D16	FeZn	216512
Connector for rod, flat conductor and wire	D16/b40/D8-10	FeZn	112212

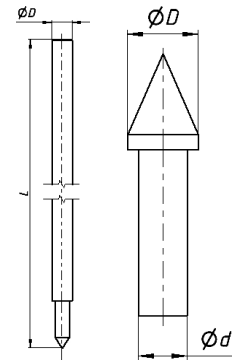


- * For lightning protection, earthing system and ring equipotential bonding
Thickness of zinc layer is compatible with standard PN-EN ISO 1461: not less than 70 micrometers (µm)
Earthing assembled with hammer method, connected with pin
In accordance with standard: PN- 62561-2 Part 2: Requirements for conductors and earth electrodes
Corresponds to the requirements of standard: PN-EN 62305

GT Galvanised earthing rod D 20 mm with driving spike



Parts	Size [mm]	Material	Code
Earthing rod with pin	L1500xD20	FeZn	220012
Driving spike	D20	FeZn	220512
Connector for rod, flat conductor and wire	D20/b40/D8-10	FeZn	112112

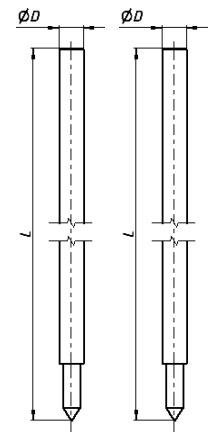


- * For lightning protection, earthing system and ring equipotential bonding
Thickness of zinc layer is compatible with standard PN-EN ISO 1461: not less than 70 micrometers (μm)
Earthing assembled with hammer method, connected with pin
In accordance with standard: PN- 62561-2 Part 2: Requirements for conductors and earth electrodes
Corresponds to the requirements of standard: PN-EN 62305

GT Galvanised grounding “Quick montage”



Parts	Size [mm]	Material	Code
Earthing rod with pin	L1500xD16	FeZn	216012
Sharpened earthing rod with pin	L1500xD16	FeZn	226612
Connector for rod, flat conductor and wire	D16/b40/D8-10	FeZn	101112
A set of earthing with connector	L3000xD16	FeZn	231612

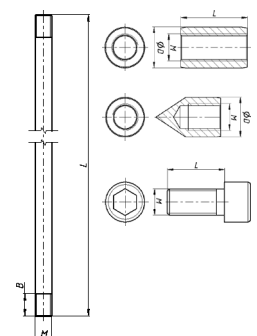


- * For lightning protection, earthing system and ring equipotential bonding
Thickness of zinc layer is compatible with standard PN-EN ISO 1461: not less than 70 micrometers (μm)
Earthing assembled with hammer method, connected with pin
In accordance with standard: PN- 62561-2 Part 2: Requirements for conductors and earth electrodes
Corresponds to the requirements of standard: PN-EN 62305

GT Grounding rod with copper layer and a screw 5/8”

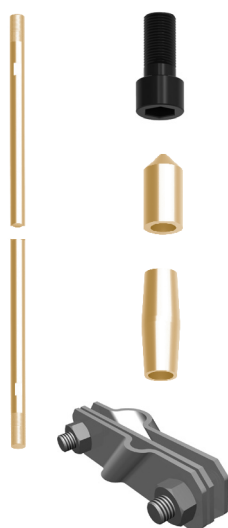


Parts	Size [mm]	Material	Code
Grounding rod with screw	L1500x 5/8"	FeCu	214216
Grounding connector	5/8"	CuZn	214319
Grounding driving spike	5/8"	Fe	214519
Driving head	5/8"	Fe	214411
Connector for rod, flat conductor and wire	D14-16/b40/D8-10	Inox V2A	112213



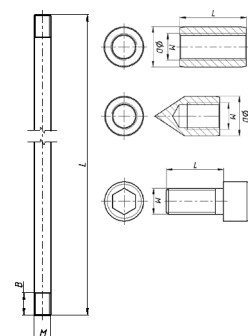
- * For lightning protection, earthing system and ring equipotential bonding
Thickness of copper layer: not less than 250 micrometers (μm)
In accordance with standard: PN- 62561-2 Part 2: Requirements for conductors and earth electrodes
Corresponds to the requirements of standard: PN-EN 62305

GT Grounding rod with copper layer and a screw 3/4"



Parts	Size [mm]	Material	Code
Grounding rod with screw	1500x 3/4"	StCu	217016
Grounding connector	3/4"	CuZn	217319
Grounding driving spike	3/4"	St	217519
Driving head	3/4"	StGl	217411
Connector for rod, flat conductor and wire	D14-16/b40/D8-10	Inox V2A	112213

- * For lightning protection, earthing system and ring equipotential bonding
Thickness of copper layer: not less than 250 micrometers (µm)
In accordance with standard: PN- 62561-2 Part 2: Requirements for conductors and earth electrodes
Corresponds to the requirements of standard: PN-EN 62305

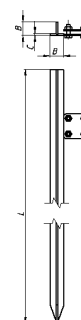


GT Galvanized proile grounding rod with connector

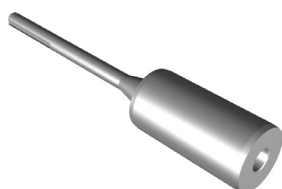


Parts	Size [mm]	Material	Code
T-Type profile 30x30x4	L-1000	FeZn	201012
T-Type profile 30x30x4	L-1500	FeZn	201512
T-Type profile 30x30x4	L-2000	FeZn	202012

- * For lightning protection, earthing system and ring equipotential bonding
Thickness of zinc layer is compatible with standard PN-EN ISO 1461: not less than 70 micrometers (µm)
In accordance with standard: PN- 62561-2 Part 2: Requirements for conductors and earth electrodes
Corresponds to the requirements of standard: PN-EN 62305

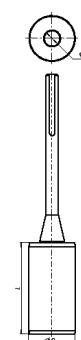


GT SDS MAX Head for embedding grounding rods

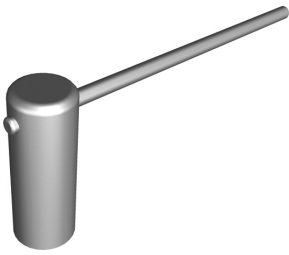


Parts	Size [mm]	Material	Code
SDS MAX head for rod D20	d-13	Fe-HRC	222411
SDS MAX head for rod D16	d-12	Fe-HRC	220411

- * For embedding pin grounding rods with use of vibration hammer

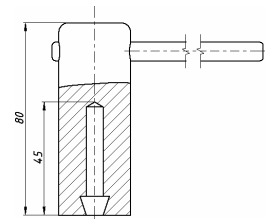


GT MECH head for embedding grounding rods

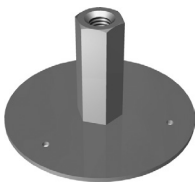


Parts	Size [mm]	Material	Code
MECH head for rod D20	d-13	Fe-HRC	222511
MECH head for rod D16	d-12	Fe-HRC	220511

* For embedding pin grounding rods with use of vibration hammer

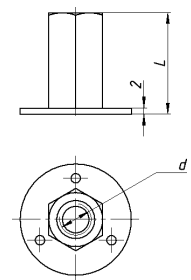


GT Plate type earthing connector

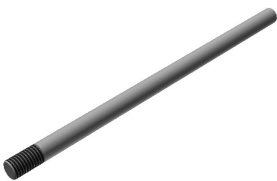


Parts	Size [mm]	Material	Code
Hole for connection M12	L32x M10	Inox V4A	291015
Hole for connection M12	L50x M10	Inox V4A	291115
Hole for connection M12	L50x M16	Inox V4A	291215

* Used for leading wires in a fundament of building fastening it to reinforcing steel.
Corresponds to the requirements of standard: PN-EN 62305

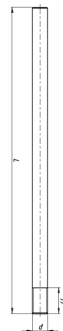


GT Connection for plate type earthing connector

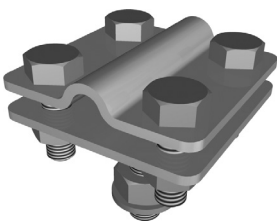


Parts	Size [mm]	Material	Code
Rod with screw M10	L200x D10	FeZn	291312
Rod with screw M10	L200x D10	Inox V4A	291315
Copper cord with connector M16	L200x M16	Cu Inox	291319

* Used for leading wires in a fundament of building fastening it to reinforcing steel.
Corresponds to the requirements of standard: PN-EN 62305

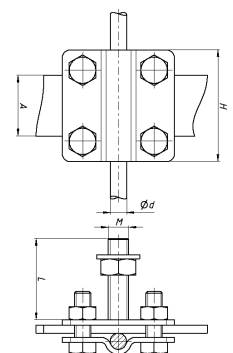


GT Connector L-55 mm for plate type earthing

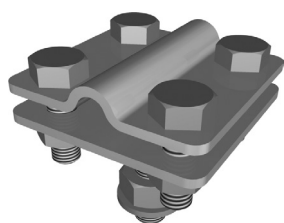


For:	Size [mm]	Material	Code
Flat conductor 30 mm and wire 8-10 mm	L40x M10x H55	FeZn	292012
Flat conductor 30 mm and wire 8-10 mm	L40x M10x H55	Inox V4A	292015

* Used for leading wires and conductors in a fundament of building fastening it to reinforcing steel.
Corresponds to the requirements of standard: PN-EN 62305

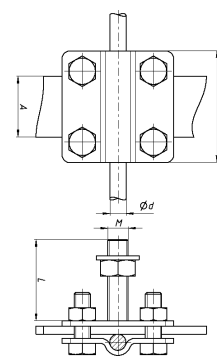


GT Connector L-65 mm for plate type earthing



For:	Size [mm]	Material	Code
Flat conductor 40 mm and wire 8-10 mm	L40x M10x H65	FeZn	292112
Flat conductor 40 mm and wire 8-10 mm	L40x M10x H65	Inox V4A	292115
Flat conductor 40 mm and wire 8-10 mm	L40x M16x H65	Inox V4A	292215

* Used for leading wires and conductors in a foundation of building fastening it to reinforcing steel. Corresponds to the requirements of standard: PN-EN 62305



GT Grounding bracket for wire and flat conductor

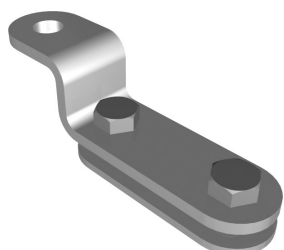


For:	Size [mm]	Material	Code
Flat conductor 4 mm thick and wire 8-10 mm	L-280	FeZn	292912

* Used for leading flat conductor above the ground or concrete. Corresponds to the requirements of standard: PN-EN 62305

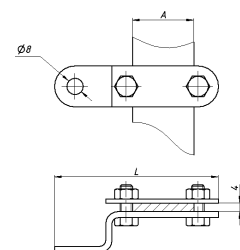


GT Holder for flat conductor, bottom open

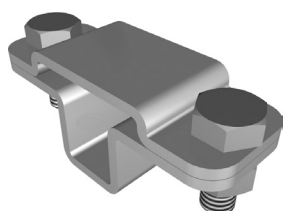


For:	Size [mm]	Material	Code
Hole for assemblation Fi 8 mm	b30	FeZn	281012
Hole for assemblation Fi 8 mm	b30	Cu	281014

* Used for installation flat conductor with width up to 30mm to walls or steel constructions. Corresponds to the requirements of standard: PN-EN 62305

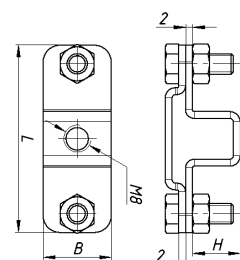


GT Screw holder for flat conductor

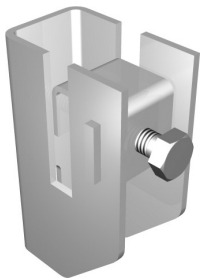


For	Size [mm]	Material	Code
Flat conductor up to 30 mm	B20x L55	FeZn	281112
Flat conductor up to 30 mm	B20x L65	FeZn	281212

* Used for installation flat conductor with width up to 30mm to wall with expansion bolt. Corresponds to the requirements of standard: PN-EN 62305

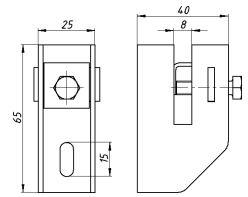


GT Holder for flat conductor with pressure screw

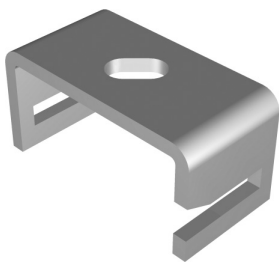


For:	Size [mm]	Material	Code
Flat conductor up to 40 mm	M8/H65	FeGl	283011
Flat conductor up to 40 mm	M8/H65	FeZn	283012

* Used for leading flat conductor along wall for equipotential bonding in lightning protection systems
Corresponds to the requirements of standard: PN-EN 62305

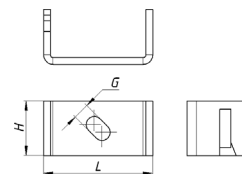


GT Screwed holder for flat conductor up to 30mm

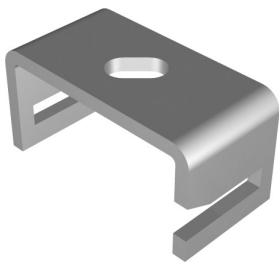


For:	Size [mm]	Material	Code
Flat conductor up to 30 mm	L40x G10x H35	FeGl	282111
Flat conductor up to 30 mm	L40x G10x H35	FeZn	282112
Flat conductor up to 30 mm	L40x G10x H35	Cu	282114

* Used for leading flat conductor along wall for equipotential bonding in lightning protection systems
Corresponds to the requirements of standard: PN-EN 62305

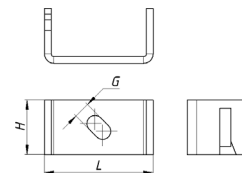


GT Screwed holder for flat conductor up to 40mm



For	Size [mm]	Material	Code
Flat conductor up to 50 mm	L55x G10x H35	FeGl	282211
Flat conductor up to 50 mm	L55x G10x H35	FeZn	282212
Flat conductor up to 50 mm	L55x G10x H35	Cu	282214

* Used for leading flat conductor along wall for equipotential bonding in lightning protection systems
Corresponds to the requirements of standard: PN-EN 62305

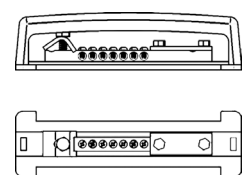


GT Equipotential bar

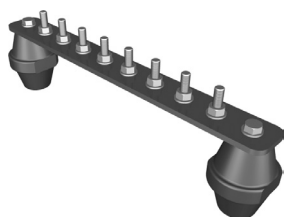


For:	Size [mm]	Material	Code
7 × 16 mm ² /1 × 50 mm ² /1 × b 25 mm	L170 / H50	FeGl	283019

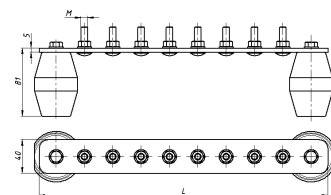
* Used for connecting grounding wires and bonding equipotentials
In accordance with standard of lightning equipotential bonding: PN-EN 62305-3
In accordance with functional equipotential bonding standard: IEC 60364-4-41/60364-5-54



GT Main equipotential bar

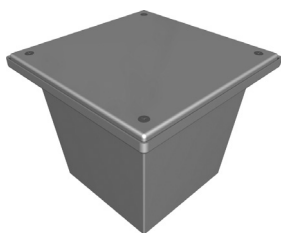


For:	Size [mm]	Material	Code
Amount of connections M10 - 5	L-246	Cu	292114
Amount of connections M10 - 5	L-246	Inoc V2A	292113
Amount of connections M10 - 6	L-278,5	Cu	292214
Amount of connections M10 - 8	L-343,5	Cu	292314
Amount of connections M10 - 10	L-408,5	Cu	292414
Amount of connections M10 - 10	L-408,5	Inox V2A	292413
Amount of connections M10 - 12	L-473,5	Cu	292514
Amount of connections M10 - 14	L-538,5	Cu	292614

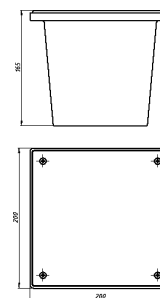


- * Used for connecting grounding wires, bonding equipotentials and for industrial uses
- Set contains isolation plates with pins and screws for wall installation
- M10 screws with cap and gasket that protects a screw from loosen
- In accordance with standard of lightning equipotential bonding: PN-EN 62305-3
- In accordance with functional equipotential bonding standard: IEC 60364-4-41/60364-5-54

GT Ground inspection pit

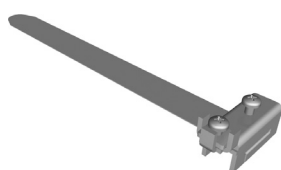


For	Size [mm]	Material	Code
Casing of inspection pit	200/200/165	PI	293018

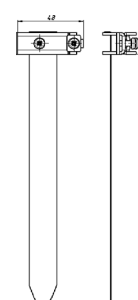


- * Used for control connectors installation and for measurements of resistance of grounding and ground
- Corresponds to the requirements of standard: PN-EN 62305

GT Grounding clamp

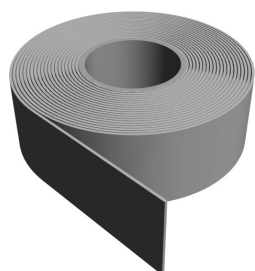


For:	Size [mm]	Material	Code
do rury Fi 16-54 mm	L-190	Inox	294113
do rury Fi 16-124 mm	L-410	Inox	294213
do rury Fi 16-180 mm	L-585	Inox	294313

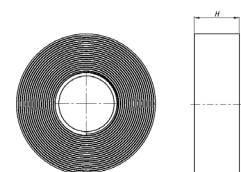


- * Corresponds to the requirements of standard: PN-EN 62305
- Connecting grounding wires (up to 2 wires 2,5-10mm²) to the equipotential bonding system.

GT Rustproof tape

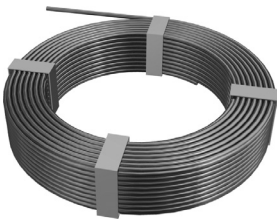


Products:	Size [mm]	Material	Code
Lenght L - 10 m	H-30	-	295019
Lenght L - 10 m	H-50	-	295119

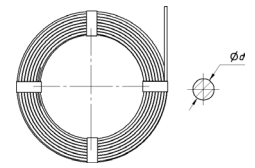


- * Used for protecting connections above and inside the ground. Welding is not necessary when tape is used. Improves rustproof protection up to 10 times.
- Corresponds to the requirements of standard: PN-EN 62305

GT Aluminium wire conductor

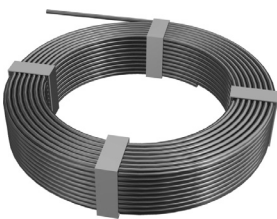


Size [mm]	Weight	Material	Code
150 meter roll Fi - 8	20 kg	Al.	300817
95 meter roll Fi - 10	20 kg	Al.	301017

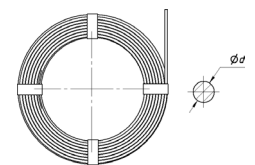


- * Used for lightning protection systems, grounding and equipotential bonding.
In accordance with standard: PN- 62561-2 Part 2: Requirements for conductors and earth electrodes
Corresponds to the requirements of standard: PN-EN 62305

GT Hot galvanised wire conductor



Size [mm]	Weight	Material	Code
Diameter 6 mm	0,220	FeZn	300612
Diameter 8 mm	0,395	FeZn	300812
Diameter 10 mm	0,620	FeZn	301012

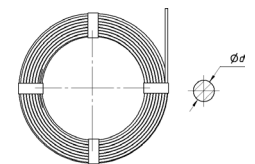


- * Used for lightning protection systems, grounding and equipotential bonding.
Thickness of zinc layer compatible with PN-EN ISO 1461: 350 g/m²
In accordance with standard: PN- 62561-2 Part 2: Requirements for conductors and earth electrodes

GT Wire conductor with copper layer



Size [mm]	Weight	Material	Code
Diameter 6 mm	0,395	FeCu	300816
Diameter 10 mm	0,625	FeCu	301016

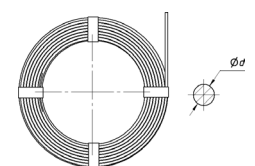


- * Used for lightning protection systems, grounding and equipotential bonding.
Thickness of copper layer: 350g/m²
In accordance with standard: PN- 62561-2 Part 2: Requirements for conductors and earth electrodes

GT Copper wire conductor



Size [mm]	Weight	Material	Code
Diameter 6 mm	0,252	Cu	300614
Diameter 8 mm	0,447	Cu	300814
Diameter 10 mm	0,699	Cu	301014

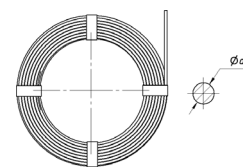


- * Used for lightning protection systems, grounding and equipotential bonding.
In accordance with standard: PN- 62561-2 Part 2: Requirements for conductors and earth electrodes
Corresponds to the requirements of standard: PN-EN 62305

GT PVC covered wire conductor

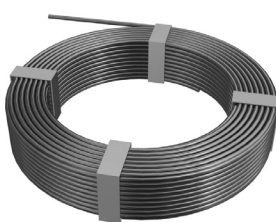


Size [mm]	Weight	Material	Code
d10 mm / D13 mm	0,625	FeZn - PVC	301018
d8 mm / D11 mm	0,200	Al - PVC	300818

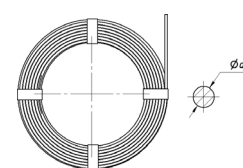


- * Used for lightning protection systems, grounding and equipotential bonding.
Corresponds to the requirements of standard: EN 62305
301018 - galvanised PVC covered wire conductor
300814 - Copper PVC covered aluminium conductor. Colour white or black.

GT Rustproof steel wire conductor

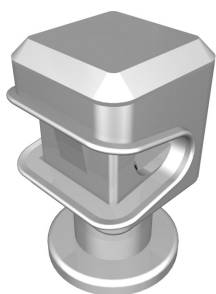


Size [mm]	Weight	Material	Code
125 m, Fi - 8 mm	50 kg	Inox V2A	300813
125 m, Fi - 8 mm	50 kg	Inox V4A	300815
80 m, Fi - 10 mm	50 kg	Inox V2A	301013
80 m, Fi - 10 mm	50 kg	Inox V4A	301015

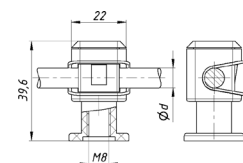


- * Used for lightning protection systems, grounding and equipotential bonding.
In accordance with standard: PN- 62561-2 Part 2: Requirements for conductors and earth electrodes
Corresponds to the requirements of standard: PN-EN 62305

GT Plastic holder for wire Fi 8

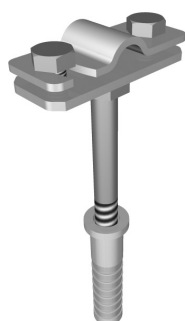


Size [mm]	Colour	Material	Code
thread M6, slot ϕ -5mm	grey	PI	310118
thread M6, slot ϕ -5mm	brick	PI	310218
thread M8, slot ϕ -7mm	grey	PI	310318
thread M8, slot ϕ -7mm	brick	PI	310418

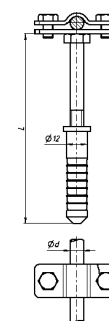


- * Used for installation of 8mm conductor with inside thread.
Holder made with polyethylene. Black, resistant to atmospheric conditions and UV

GT Wire conductor holder with pin L-100

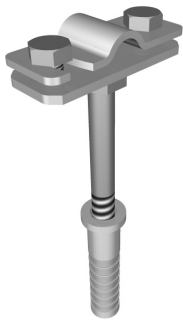


Description	Size [mm]	Material	Code
Pin lenght 60 mm	L-100	FeGl	311111
Pin lenght 60 mm	L-100	FeZn	311112
Pin lenght 60 mm	L-100	Inox	311113
Pin lenght 60 mm	L-100	Cu	311114



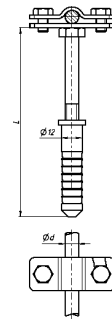
- * Used for assemblation the 6-10mm wire on building walls.

GT Wire conductor holder with pin L-120

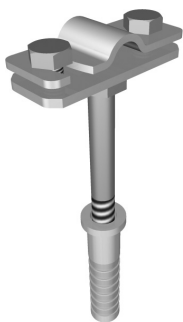


Description	Size [mm]	Material	Code
Pin length 60 mm	L-120	FeGl	311211
Pin length 60 mm	L-120	FeZn	311212
Pin length 60 mm	L-120	Inox	311213
Pin length 60 mm	L-120	Cu	311214

* Used for assemblation the 6-10mm wire on building walls.

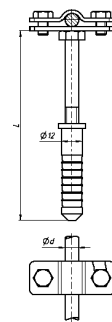


GT Wire conductor holder with pin L-160

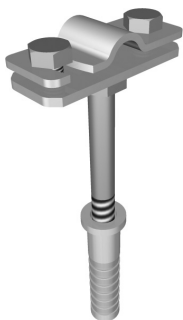


Description	Size [mm]	Material	Code
Pin length 60 mm	L-160	FeGl	311311
Pin length 60 mm	L-160	FeZn	311312
Pin length 60 mm	L-160	Inox	311313
Pin length 60 mm	L-160	Cu	311314

* Used for assemblation the 6-10mm wire on building walls.

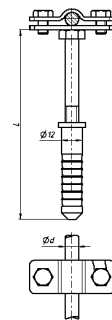


GT Wire conductor holder with pin L-250



Description	Size [mm]	Material	Code
Pin length 60 mm	L-250	FeGl	311411
Pin length 60 mm	L-250	FeZn	311412
Pin length 60 mm	L-250	Inox	311413
Pin length 60 mm	L-250	Cu	311414

* Used for assemblation the 6-10mm wire on building walls.

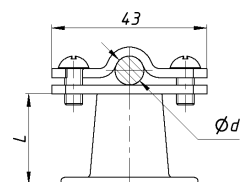


GT Wire conductor holder with pad

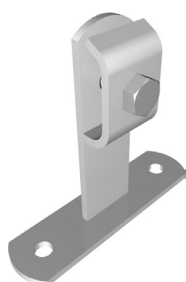


Description	Size [mm]	Material	Code
Wire8-10 mm	L-25	FeZn	312012
Wire8-10 mm	L-40	FeZn	312112

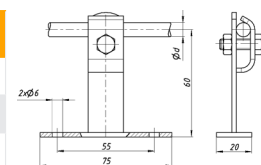
* Used for assemblation the 8-10mm wire on building walls with use of screwdrivers.



GT Wire conductor holder on a stand

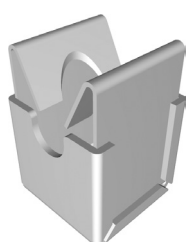


Description	Size [mm]	Material	Code
Wire 8-10 mm	L-60	FeZn	313012
Wire 8-10 mm	L-100	FeZn	313112
Wire 8-10 mm	L-60	Inox	313013

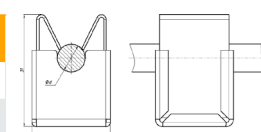


* Used for assemblation the 8-10mm wire on building walls with use of screwdrivers.

GT KLIK holder for wire Fi 8



Description	Size [mm]	Material	Code
Thread M6, slot Ø-5 mm	grey	Inox	314013
Thread M6, slot Ø-5 mm	brick	FeCu	314016

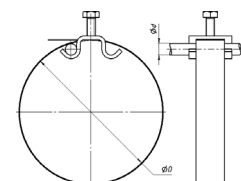


* Used for installation of 8mm conductor with inside thread.
Quick assemblation of a wire with use of KLIK system

GT Universal piping clamp for wire



Description	Size [mm]	Material	Code
Wire 8-10 mm	D-100	Inox	315013
Wire 8-10 mm	L-160	Inox	315113
Wire 8-10 mm	L-300	Inox	315213
Wire 8-10 mm	L-100	Cu	315014



* Used for assemblation of 8-10mm conductor to a downpipe

GT Lightning protection installation pipe



Description	Size [mm]	Material	Code
Lenght L-2000	Ø1 -14/ Ø2-20	PI	316118
Lenght L-3000	Ø1 -14/ Ø2-20	PI	316218
Flexible connector L-120	Ø1 -14/ Ø2-20	PI	316318



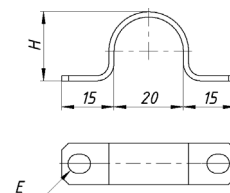
* Used for leading conductor inside the wall elevation.
Pipe made with polyethylene. Black, resistant to atmospheric conditions and UV

GT Lightning protection installation pipe holder

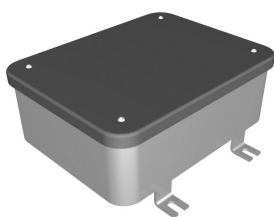


Description	Size [mm]	Material	Code
Pipe diameter Ø-20	E-5,5 / H-20	FeGl	316111

* Used for assemblation of 20mm diameter pipe to downpipe.

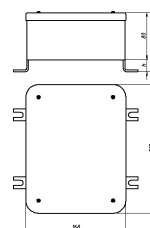


GT Elevation inspection pit



Description	Size [mm]	Material	Code
Rustproof steel cover	218 / 268 / 80	Inox - PI	317113
White plastic cover	219 / 268 / 80	Inox - PI	317118

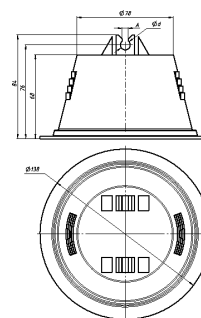
* Used for assemblation of control connector inside elevation of the wall
Pit made with polyethylene. Black, resistant to atmospheric conditions and UV
Depth of assemblation: 84-215 mm



GT Plastic holder with concrete for wire

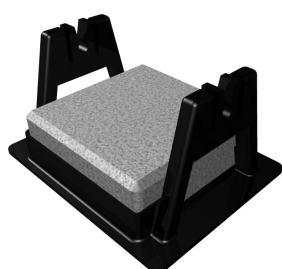


Description	Size [mm]	Material	Code
For wire 8 mm, concrete bottom	H-70	PI	401018
For wire 8 mm, plastic bottom	H-70	PI	401118
For wire 10 mm, concrete bottom	H-70	PI	401218
For wire 10 mm, plastic bottom	H-70	PI	401318
For wire 8 mm, plastic bottom	H-110	PI	401918

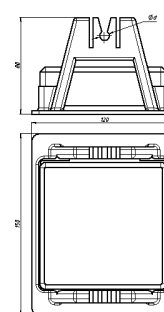


- * Used for assemblation of wire conductor on flat roof
Fill weight - 1kg. Freezing resistant concrete. Made with polyethylen, resistant to atmospheric conditions and UV

GT Plastic H-65 holder with concrete for wire

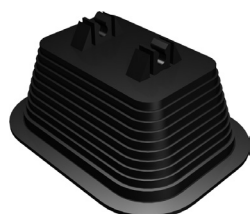


Description	Size [mm]	Material	Code
For wire 8 mm, plastic bottom	L-65	PI	401818

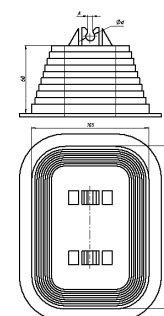


- * Used for assemblation of wire conductor on flat roof
Fill weight - 1kg. Freezing resistant concrete. Made with polyethylen, resistant to atmospheric conditions and UV

GT Plastic H-60 holder with concrete for wire



Description	Size [mm]	Material	Code
For wire 8 mm, plastic bottom	H-60	PI	401418

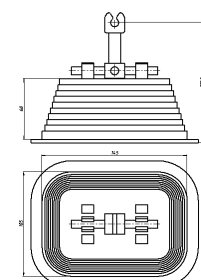


- * Used for assemblation of wire conductor on flat roof
Fill weight - 1kg. Freezing resistant concrete. Made with polyethylen, resistant to atmospheric conditions and UV

GT High plastic holder with concrete for wire

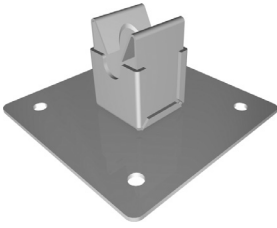


Description	Size [mm]	Material	Code
For wire 8 mm, plastic bottom	H-120	PI	401518
Stand	H-60	PI	401618



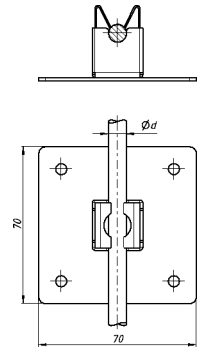
- * Used for assemblation of wire conductor on flat roof
Fill weight - 1kg. Freezing resistant concrete. Made with polyethylen, resistant to atmospheric conditions and UV

GT KLIK wire holder on pad

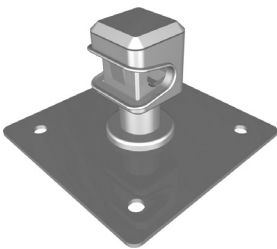


Description	Size [mm]	Material	Code
For wire 8 mm	H-30	FeGl -Inox	402011
For wire 8 mm	H-30	FeZn-Inox	402012
For wire 8 mm	H-30	Inox	402013
For wire 8 mm	H-30	Cu	402014

* Used for leading wire on roofs covered with steel tinware. Suitable for gluing.

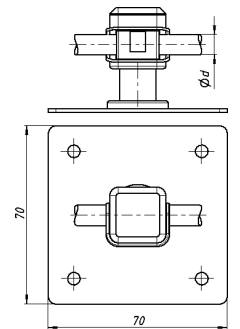


GT Plastic holder on stand for wire

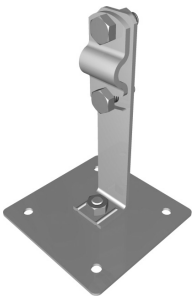


Description	Size [mm]	Material	Code
For wire 8 mm	H-35	FeGl	402111
For wire 8 mm	H-35	FeZn	402112
For wire 8 mm	H-35	Inox	402113
For wire 8 mm	H-35	Cu	402114

* Used for leading wire on roofs covered with steel tinware. Suitable for gluing.

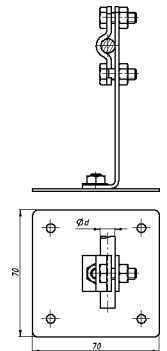


GT Wire holder on stand

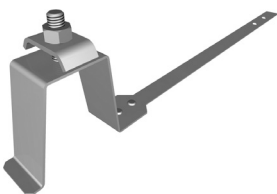


Description	Size [mm]	Material	Code
For wire 6-10 mm	H-100	FeGl	402211
For wire 6-10 mm	H-100	FeZn	402212
For wire 6-10 mm	H-100	Inox	402213
For wire 6-10 mm	H-100	Cu	402214

* Used for leading wire on roofs covered with steel tinware. Suitable for gluing.

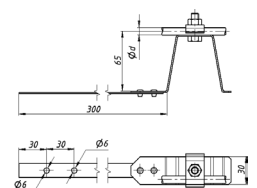


GT Wire holder on flexible tape

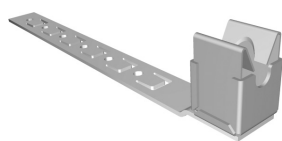


Description	Size [mm]	Material	Code
For wire 8-10 mm	H-65	Al.	403117

* Used for leading wire conductor on diagonal roofs covered with tiles.



GT KLIK wire holder on tape

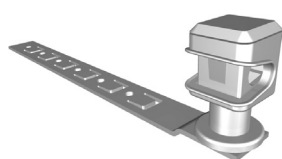


Description	Size [mm]	Material	Code
For wire 8 mm	H-30 / L-210	FeZn - Inox	405013
For wire 8 mm	H-30 / L-330	FeZn - Inox	405113
For wire 8 mm	H-30 / L-415	FeZn - Inox	405213

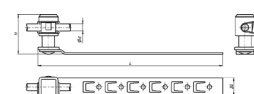


* Used for leading wire conductor on diagonal roofs covered with tiles.
To install with use of slots or bending the right lengths of cloves

GT Plastic holder on tape for wire



Description	Size [mm]	Material	Code
For wire 8 mm	H-35 / L-210	FeZn - PI	405018
For wire 8 mm	H-35 / L-330	FeZn - PI	405118
For wire 8 mm	H-35 / L-415	FeZn - PI	405218

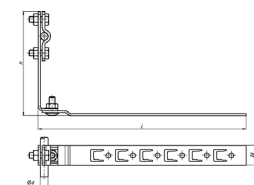


* Used for leading wire conductor on diagonal roofs covered with tiles.
To install with use of slots or bending the right lengths of cloves

GT Plastic holder on tape for wire

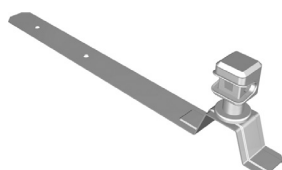


Description	Size [mm]	Material	Code
For wire 6-10 mm	H-100 / L-210	FeZn	405012
For wire 6-10 mm	H-100 / L-330	FeZn	405112
For wire 6-10 mm	H-100 / L-415	FeZn	405212

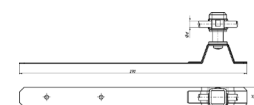


* Used for leading wire conductor on diagonal roofs covered with tiles.
To install with use of slots or bending the right lengths of cloves

GT Plastic holder on tape for wire

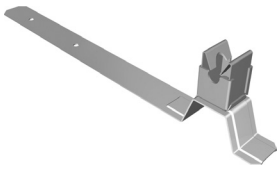


Description	Size [mm]	Material	Code
For wire 8 mm	L-265	FeZn - PI	403812
For wire 8 mm	L-265	Inox - PL	403818



* Used for leading wire conductor on diagonal roofs covered with tiles.

GT KLIK holder on tape



Description	Size [mm]	Material	Code
For wire 8 mm	L-265	Inox	403813

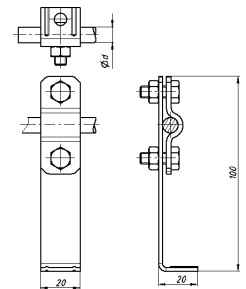


* Used for leading wire conductor on diagonal roofs covered with tiles.

GT Universal wire holder

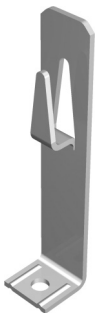


Description	Size [mm]	Material	Code
For wire 6-10 mm	H-100	FeGl	404011
For wire 6-10 mm	H-100	FeZn	404012
For wire 6-10 mm	H-100	Inox	404013
For wire 6-10 mm	H-100	Cu	404014

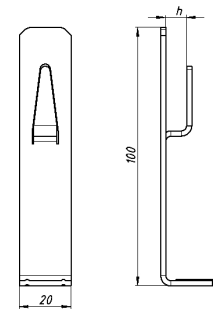


* Used for leading wire conductor on diagonal roof covered with trapezoidal steel tinware, tinware tiles or roofing felt shingles

GT Universal clamp holder for wire

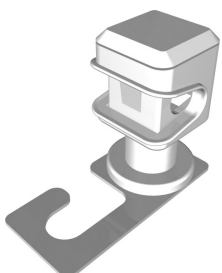


Description	Size [mm]	Material	Code
For wire 6-10 mm	H-100	FeGl	404111
For wire 6-10 mm	H-100	FeZn	404112
For wire 6-10 mm	H-100	Inox	404113
For wire 6-10 mm	H-100	Cu	404114

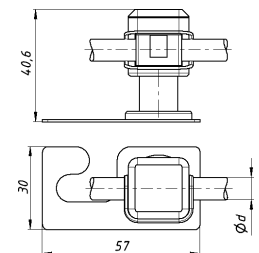


* Used for leading wire conductor on diagonal roof covered with trapezoidal steel tinware, tinware tiles or roofing felt shingles

GT Plastic holder for wire with hook

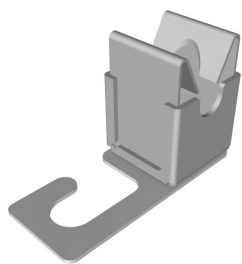


Description	Size [mm]	Material	Code
For wire 8 mm	L-30	Inox - PI	404218



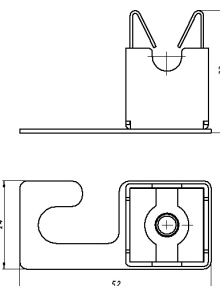
* Used for leading wire conductor on diagonal roof covered with trapezoidal steel tinware, tinware tiles or roofing felt shingles

GT KLIK wire holder with hook



Description	Size [mm]	Material	Code
For wire 8 mm	L-30	Inox	404313

* Used for leading wire conductor on diagonal roof covered with trapezoidal steel tinware, tinware tiles or roofing felt shingles

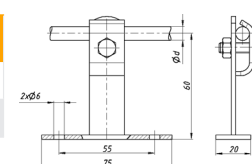


GT Wire holder on a stand

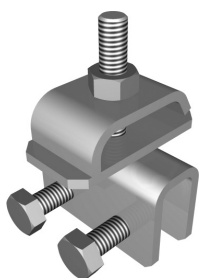


Description	Size [mm]	Material	Code
For wire 8-10 mm	L-60	FeZn	413012
For wire 8-10 mm	L-100	FeZn	413112

* Used for leading wire conductor on roof covered with tinware.

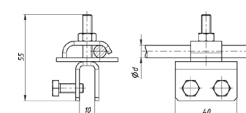


GT Wire holder on rabbet

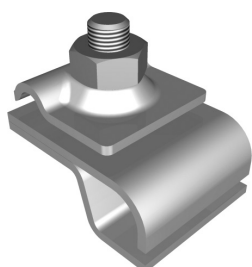


Description	Size [mm]	Material	Code
For wire 6-10 mm	H-55	FeZn	404912
For wire 6-10 mm	H-55	Inox	404913
For wire 6-10 mm	H-55	Cu	404914

* Used for leading wire conductor on rabbet tinware connections.

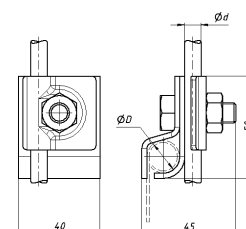


GT Edge clamp for wire

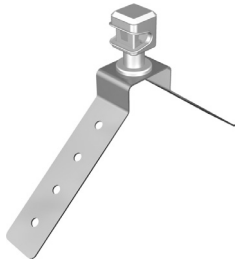


Description	Size [mm]	Material	Code
For wire 6-10 mm	FeZn		404812
For wire 6-10 mm	Inox V2A		404813
For wire 6-10 mm	Cu		404814
For wire 6-10 mm	Alu		404817

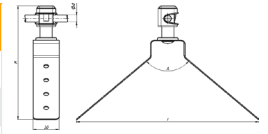
* Used for leading wire conductor on tinwares' edge.



GT Peak plastic holder for wire

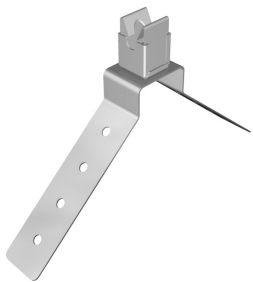


Description	Size [mm]	Material	Code
For wire 8 mm	H-50	FeZn - Pl	406012
For wire 8 mm	H-50	Inox - PL	406013
For wire 8 mm	H-50	Cu - PL	406014

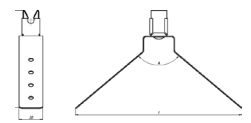


* Used for leading wires on the roofs' peak covered with tinwares.

GT Peak plastic holder for wire

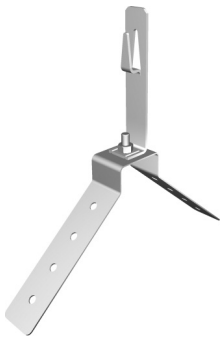


Description	Size [mm]	Material	Code
For wire 8 mm	H-50	FeZn - Inox	406112
For wire 8 mm	H-50	Inox	406113
For wire 8 mm	H-50	Cu - Inox	406114

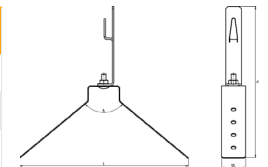


* Used for leading wires on the roofs' peak covered with tinwares.

GT Peak holder for wire

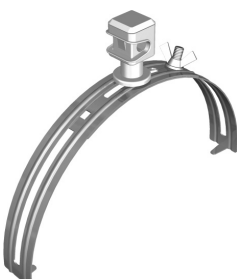


Description	Size [mm]	Material	Code
For wire 6-10 mm	H-100	FeZn	406212
For wire 6-10 mm	H-100	Inox	406213
For wire 6-10 mm	H-100	Cu	406214

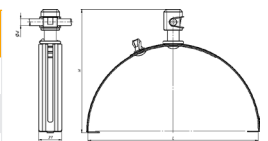


* Used for leading wires on the roofs' peak covered with tinwares.

GT Round peak plastic holder for wire

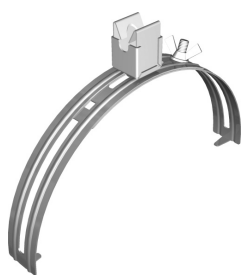


Description	Size [mm]	Material	Code
For wire 8 mm	H-30	FeZn - Pl	407012
For wire 8 mm	H-30	Inox - Pl	407013
For wire 8 mm	H-30	Cu - Pl	407014

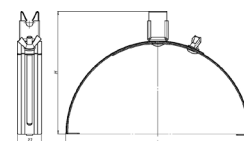


* Used for leading wires on the roofs' round peak covered with tiles.

GT Round KLIK plastic holder for wire

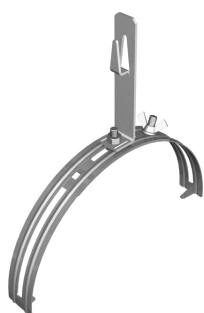


Description	Size [mm]	Material	Code
For wire 8 mm	H-30	StZn - Inox	407112
For wire 8 mm	H-30	Inox - Inox	407113
For wire 8 mm	H-30	Cu - Inox	407114

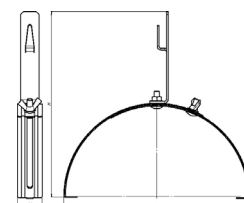


* Used for leading wires on the roofs' round peak covered with tiles.

GT Round peak holder for wire



Description	Size [mm]	Material	Code
For wire 6-10 mm	H-100	FeZn	407212
For wire 6-10 mm	H-100	Inox	407213
For wire 6-10 mm	H-100	Cu	407213



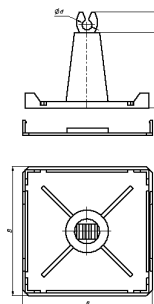
* Used for leading wires on the roofs' round peak covered with tiles.

GT Gluing holder for wire



Description	Size [mm]	Material	Code
For wire 8 mm	L-50	Inox - Pl	408018

* Used for leading wire conductor on roof covered with roofing felt or membrane. Suitable for gluing.

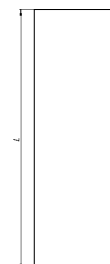


GT Tape for gluing holders



Description	Size [mm]	Material	Code
Roofing felt tape	L-300	Other	408118
Membrane tape	L-300	Other	408218

* Used for gluing 408018 holder on roofs covered with membrane or roofing felt. Suitable for gluing and heating.

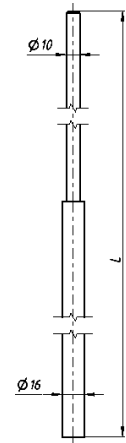


GT Lightning protection aluminium interception mast



Height [mm]	Diameter [mm]	Material	Code
1000 mm	16/10	Al.	501017
1500 mm	16/10	Al.	501517
2000 mm	16/10	Al.	502017
2500 mm	16/10	Al.	502517
3000 mm	16/10	Al.	503017
3500 mm	16/10	Al.	503517
4000 mm	16/10	Al.	504017
4500 mm	16/10	Al.	504517

* Used for protecting devices and objects on the roof from direct lightning strike.
In accordance with standard: PN-EN 62561-1 2017
Corresponds to the requirements of standard: PN-EN 62305-1

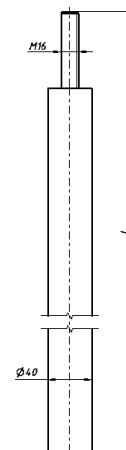


GT Lightning protection rustproof steel interception mast

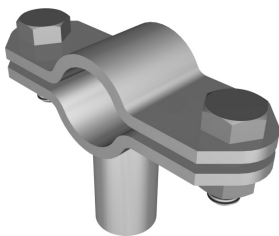


Height [mm]	Diameter [mm]	Material	Code
4000 mm	40	Inox	514013
4500 mm	40	Inox	514513
5000 mm	40	Inox	515013
5500 mm	40	Inox	515513
6000 mm	40	Inox	516013
6500 mm	40	Inox	516513
7000 mm	40	Inox	517013
7500 mm	40	Inox	517513
8000 mm	40	Inox	518013

* Used for protecting devices and objects on the roof from direct lightning strike.
In accordance with standard: PN-EN 62561-1 2017
Corresponds to the requirements of standard: PN-EN 62305-1

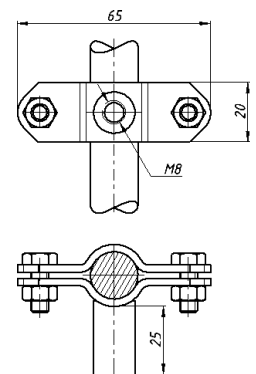


GT Aluminium mast holder Fi - 16 mm

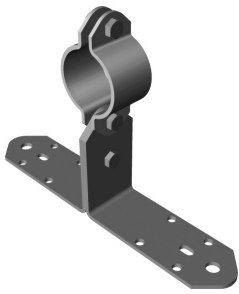


Description	Size [mm]	Material	Code
Mast holder 16 mm		FeZn	500112
Double-threaded screw	L-100	FeZn	500212
Double-threaded screw	L-160	FeZn	500312
Double-threaded screw	L-200	FeZn	500412

* Used for assemblation 16mm diameter mast to wall with use of double-threaded screw or M8 thread

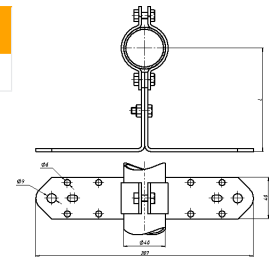


GT Inox mast holder Fi - 40 mm



Description	Size [mm]	Material	Code
Mast holder 40 mm	L-100	FeZn	510312

* Used for assemblation 40mm diameter mast to wall or steel construction.

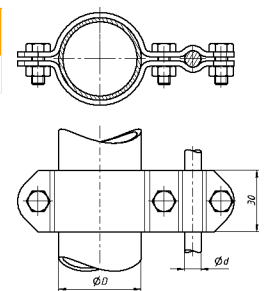


GT Connector of wire conductor to Inox Fi-40mm

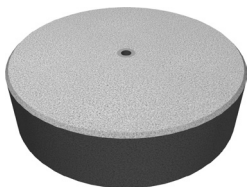


Description	Size [mm]	Material	Code
For 40-44mm diameter		StZn	510212

* Used to connect wire conductor to 40mm diameter mast.

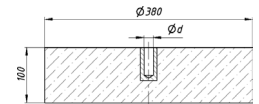


GT SMART Concrete stand

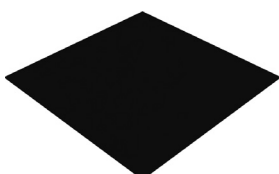


Description	Size [mm]	Material	Code
18 kg M16	D-375	Concrete	500119
18 kg FI - 16 mm	D-375	Concrete	550019

* Used for assemblation 16mm diameter mast with thread or for assemblation tripod with use of M16 screw.
System SMART allows to assemble concrete stands one on another and at the same time has the function of mast stabilizer

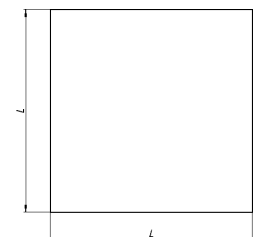


GT Pad under the concrete stand



Description	Size [mm]	Material	Code
Membrane PVC	L-350	Other	500119
Roofing felt	L-350	Other	500219

* Used for protection of roof under the concrete stand.

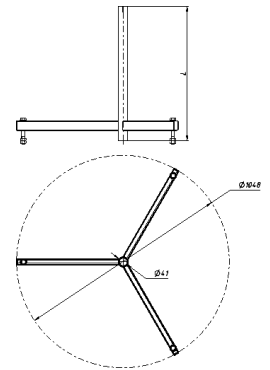


GT Tripod for Inox mast Fi - 40 mm



Description	Size [mm]	Material	Code
40 mm mast holder	H-1000	FeZn	510112
40 mm mast holder	H-1000	Inox	510113

* Used for assemblation 40mm diameter mast on concrete stands.



GT Lightning protection interception mast on concrete stand

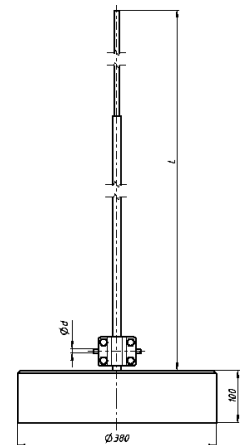


Height [mm]	Diameter [mm]	Material	Code
1000 mm	16/10	Al.	501019
1500 mm	16/10	Al.	501519
2000 mm	16/10	Al.	502019
2500 mm	16/10	Al.	502519
3000 mm	16/10	Al.	503019
3500 mm	16/10	Al.	503519
4000 mm	16/10	Al.	504019
4500 mm	16/10	Al.	504519

* Used for protecting devices and objects on the roof from direct lightning strike.

In accordance with standard: PN-EN 62561-1 2017

Corresponds to the requirements of standard: PN-EN 62305-1



GT Interception mast on tripod with concrete stands

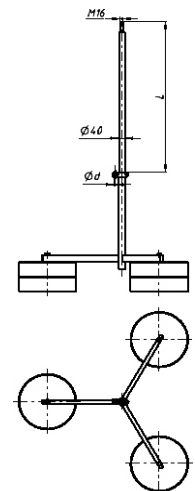


Height [mm]	Diameter [mm]	Material	Code
4000 mm	40	Inox	514019
4500 mm	40	Inox	514519
5000 mm	40	Inox	515019
5500 mm	40	Inox	515519
6000 mm	40	Inox	516019
6500 mm	40	Inox	516519
7000 mm	40	Inox	517019
7500 mm	40	Inox	517519
8000 mm	40	Inox	518019

* Used for protecting devices and objects on the roof from direct lightning strike.

In accordance with standard: PN-EN 62561-1 2017

Corresponds to the requirements of standard: PN-EN 62305-1

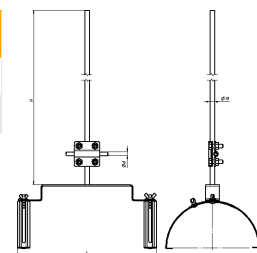


GT Interception mast on round peak stand



Description	Size [mm]	Material	Code
On round roofs' peak	H-1000	Inox/Al.	516113
On round roofs' peak	H-1500	Inox/Al.	516213

- * Used for protecting devices and objects on the roof from direct lightning strike.
In accordance with standard: PN-EN 62561-1 2017
Corresponds to the requirements of standard: PN-EN 62305-1

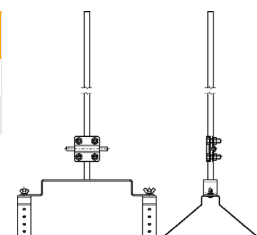


GT Interception mast on peak stand



Description	Size [mm]	Material	Code
On roof's peak	H-1000	Inox/Al.	517113
On roof's peak	H-1500	Inox/Al.	517213

- * Used for protecting devices and objects on the roof from direct lightning strike.
In accordance with standard: PN-EN 62561-1 2017
Corresponds to the requirements of standard: PN-EN 62305-1

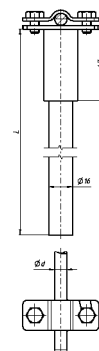


GT Isolation rod

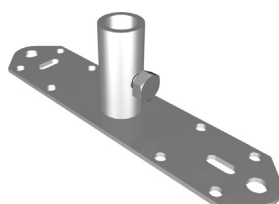


Description	Size [mm]	Material	Code
For wire 8-10 mm	L-500	FeZn	590119
For wire 8-10 mm	L-750	FeZn	590219
For wire 8-10 mm	L-1000	FeZn	590319
For mast 16 mm	L-500	FeZn	591119
For mast 16 mm	L-750	FeZn	591219
For mast 16 mm	L-1000	FeZn	591319

- * Used to ensure isolation space for lightning protection conductors.
Produced with fiberglass, resistant to UV

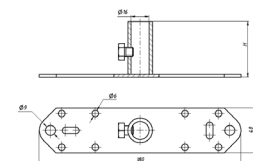


GT Rod holder

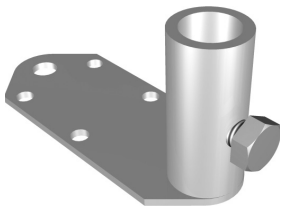


Description	Size [mm]	Material	Code
For isolation 16mm rod	L-180	FeZn	592012

- * Used for assemblation of isolation rod to wall or other construction.

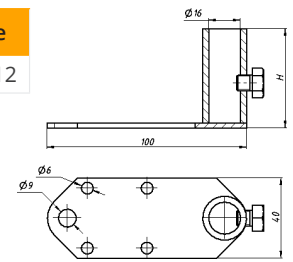


GT Small rod holder

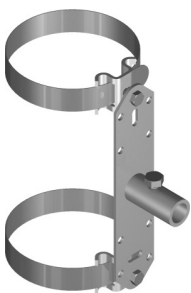


Description	Size [mm]	Material	Code
For isolation 16mm rod	L-100	FeZn	592112

* Used for assemblation of isolation rod to wall or other construction.

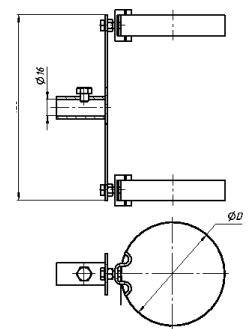


GT Isolation rod pipe clamp



Description	Size [mm]	Material	Code
For isolation 16mm rod	D up to 120	FeZn	593112
For isolation 16mm rod	D up to 200	FeZn	593212
For isolation 16mm rod	D up to 300	FeZn	593312

* Used for assemblation isolation rod on a pipe. Zastosowanie: służy do montażu drążka izolacyjnego na rurze

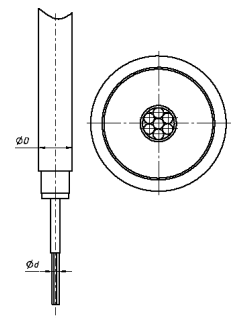


GT Lightning protection HVI conductor covered with high voltage isolation

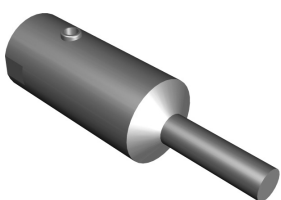


Description	Size [mm]	Material	Code
A-35	B-23	Cu	590019

* Used for ensuring isolation space between conductor and electrical device.
Isolated conductor ensures isolation space for the length of 750 mm according to IEC 62305.
No slide discharges, doesn't contain halogens.
In accordance to standard: IEC 62561-8 2018 part 8: Requirements about components of isolated lightning protection system.

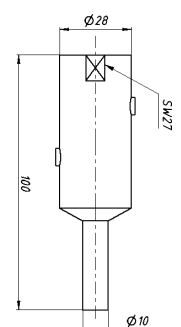


GT Connector for the end of conductor HVI

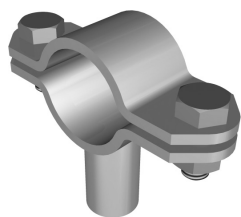


Length [mm]	Diameter [mm]	Material	Code
100	28	Inox V4A	590115

* Used for connecting HVI conductor with other conductor.
In accordance to standard: IEC 62561-8 2018 part 8: Requirements about components of isolated lightning protection system.

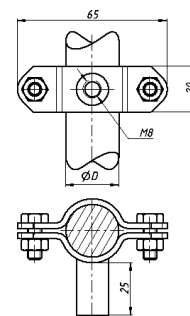


GT HVI conductor holder

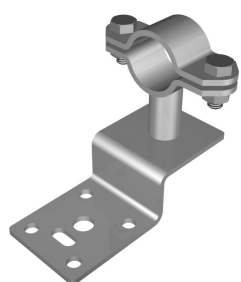


Description	Size [mm]	Material	Code
For conductor HVI	23 MM	FeZn	590212
For conductor HVI	23 MM	FeZn	590213

* Used for leading HVI conductor
In accordance to standard: IEC 62561-8 2018 part 8: Requirements about components of isolated lightning protection system.

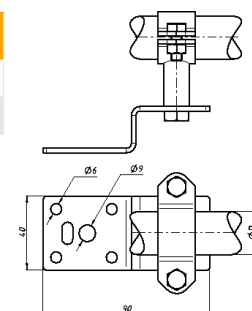


GT HVI conductor holder on a stand



Description	Size [mm]	Material	Code
For HVI conductor	23 MM	FeZn	590312
For HVI conductor	23 MM	FeZn	590313

* Used for leading HVI conductor on steel tinwares.
In accordance to standard: IEC 62561-8 2018 part 8: Requirements about components of isolated lightning protection system.

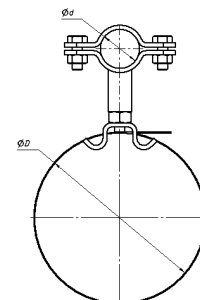


GT HVI conductor pipe clamp



Description	Size [mm]	Material	Code
For conductor HVI	D-100	Inox	595013
For conductor HVI	D-160	Inox	595113
For conductor HVI	D-300	Inox	595213

* Used for leading HVI conductor on pipes.
In accordance to standard: IEC 62561-8 2018 part 8: Requirements about components of isolated lightning protection system.

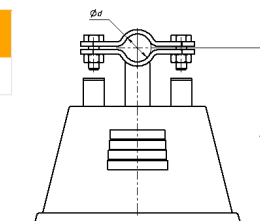


GT Concrete holder for HVI conductor



Description	Size [mm]	Material	Code
For HVI conductor	110	PI-FeZn	590419

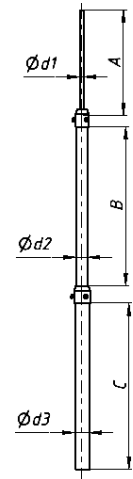
* Used for leading HVI conductor on flat roof
Zastosowanie: służy do prowadzenia przewodu HVI na dachach płaskich
In accordance to standard: IEC 62561-8 2018 part 8: Requirements about components of isolated lightning protection system.



GT Isoalted interception mast for HVI conductor

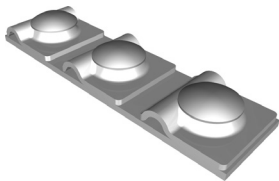


Height [mm]	Diameter [mm]	Material	Code
3000 mm	40	Inox/GFK/Al.	593019
3500 mm	40	Inox/GFK/Al.	593519
4000 mm	40	Inox/GFK/Al.	594019
4500 mm	40	Inox/GFK/Al.	594519
5000 mm	40	Inox/GFK/Al.	595019
5500 mm	40	Inox/GFK/Al.	595519
6000 mm	40	Inox/GFK/Al.	596019
6500 mm	40	Inox/GFK/Al.	596519
7000 mm	40	Inox/GFK/Al.	597019

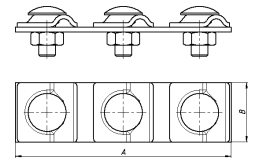


* Used for leading HVI conductor inside the mast, which protects electrical devices on roof.
In accordance to standard: IEC 62561-8 2018 part 8: Requirements about components of isolated lightning protection system.

GT Mast adapter to connect HVI conductor



Lenght [mm]	Diameter [mm]	Material	Code
137	8-10	Inox V4A	599913

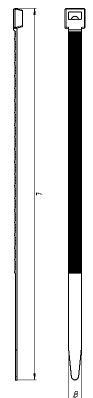


* Used for assemblation HVI conductor on isolated mast, when more than 1 HVI conductor is leaded.
In accordance to standard: IEC 62561-8 2018 part 8: Requirements about components of isolated lightning protection system.

GT Clamp for HVI conductor on mast

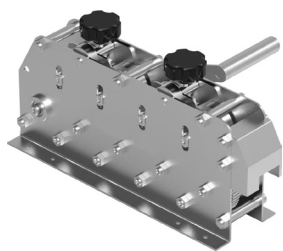


Lenght[mm]	Width [mm]	Material	Code
380	7,3	PI	599918



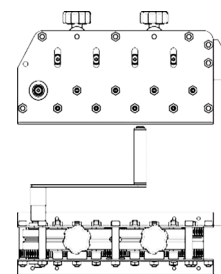
* Used for assemblation HVI conductors on isolated mast when more than 1 HVI conductor is leaded.
In accordance to standard: IEC 62561-8 2018 part 8: Requirements about components of isolated lightning protection system.

GT Straightener for lightning protection conductors



Description	Size [mm]	Material	Code
For wire 8-10 mm		FeGl	600011
For wire and tape conductor up to 40 mm		FeGl	600111

* Used for straightening lightning protection conductors.

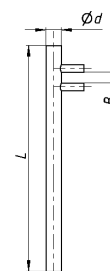


GT Holder for straightening lightning protection conductors



Description	Size [mm]	Material	Code
For wire and tape conductor	L-500	FeGl	600211

* Used for straightening lightning protection conductors
For straightening conductors it is required to use two holders.



GT Zinc in spray



Description	Size [mm]	Material	Code
	400ml	Other	600319

* Used for steel surfaces protection against rust.

GT Montage glue



Description	Size [mm]	Material	Code
	290ml	Other	600419

* Used for variety of materials and surfaces (concrete, steel, PVC etc, excluding PE, PP and teflon).

GT Adhesive mass for roofing felt



Description	Size [mm]	Material	Code
	10kr	Other	600519

* Used for gluing holders on roofs covered with bitumic roofing felt.

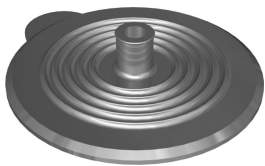
GT Glue for PCV membrane



Description	Size [mm]	Material	Code
	5kr	Other	600619

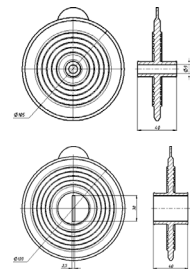
* Used for gluing holders on roofs covered with membrane.

GT Gasket for lightning protection conductors



Description	Size [mm]	Material	Code
For wire 8-10 mm	d-105	Other	600719
For tape conductor 30 mm	d-120	Other	600819

* Used for sealing culverts of conductors on roof.

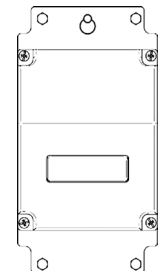


GT Counter of atmospheric discharges



Description	Size [mm]	Material	Code
PLW-03a	475 rp.	Other	600919
PLW-02b	200 rp.	Other	601019

* Registration of atmospheric discharges in lightning protection installation of protected object.



GT Technical Vaseline



Description	Size [mm]	Material	Code
	475,000	Other	601119

* Used for protecting galvanised screw connections.

