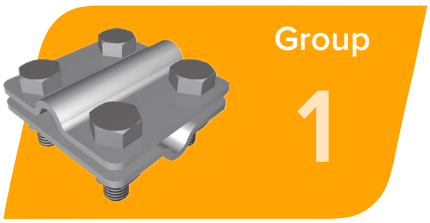
**GROMTOR** – is a manufacturer of complete spectre of products of lightning protection and grounding systems. Our assortment provides every kind of system solutions for projects of any complexity. GROMTOR company, operating on international market, recommended itself as a reliable and certified manufacturer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

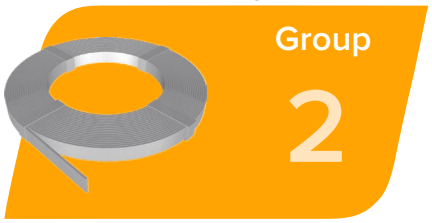
**GROMTOR** is international company, which distribution network takes up territory of Poland (manufacture), Germany, Austria, Czech Republic, Baltic countries, Ukraine, Belarus (manufacture), Russia and Kazakhstan.

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

**Connectors**




**Grounding and equipotential bonding**

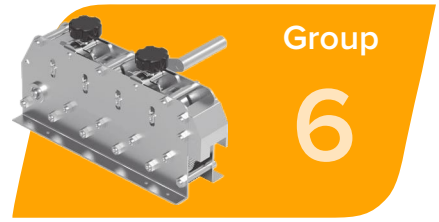



**Air termination: vertical holders**


**Holders for lightning protection conductors**


**Interception air rods and insulated systems**


**Accessories for lightning protection installation**




## Code structure

| 1 | 011 | 12 |
|---|---|---|
| chapter/group | Catalog number | Material |

| Material: | | | |
|---|---|---|---|
| 11 | FeGl | 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 | Pl | 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 occures 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 | ++ | O | – | O |
| Aluminium (Alu) | O | ++ | – | O |
| Copper (Cu) | – | – | ++ | O |
| Stainless steel (Va) | O | O | O | ++ |

✳ **(++)** – Recommended, **(O)** – 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 electomagnetic 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.

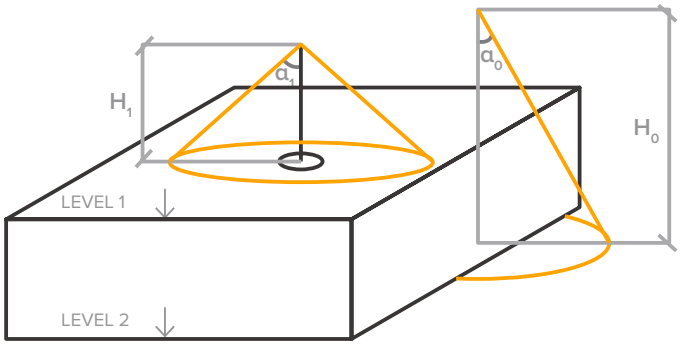
Protection of direct lightning strike is presented below.

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

## Designing lightnin protection system.

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

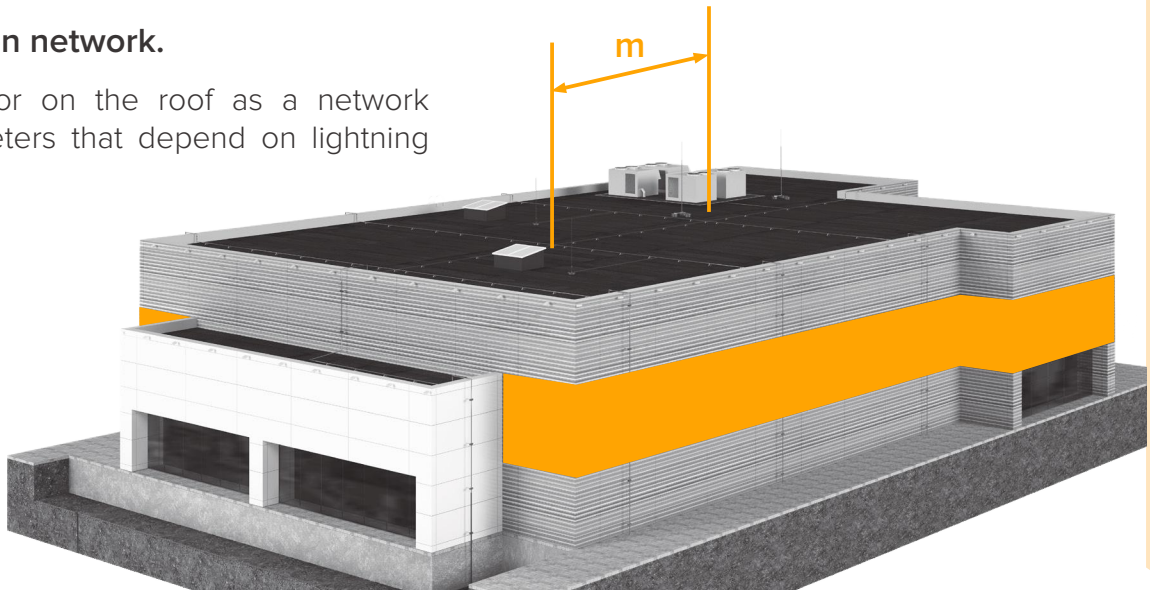
Lightning protection systems may be consisting of lightning rods, cables and conductors. During the designing process there might be lightning protection systems for conventional object, but specifying protected zone with usage of method of protecting angle must be according to the standard 62305.




| 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 |

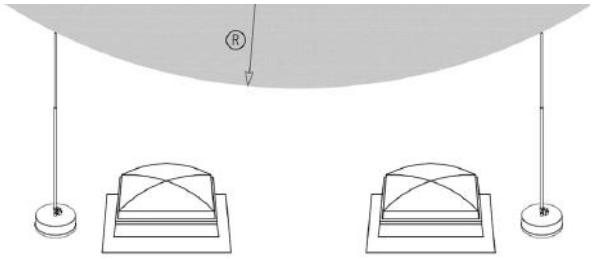
## Lightning protection network.

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 appropiate products to protect the building and provide the best protecting angle.




| 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 |

## 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:

$$S = Ki \frac{Kc}{Km} l$$

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.

**l** – electromagnetic effect of lightning voltage.

Tab. 1

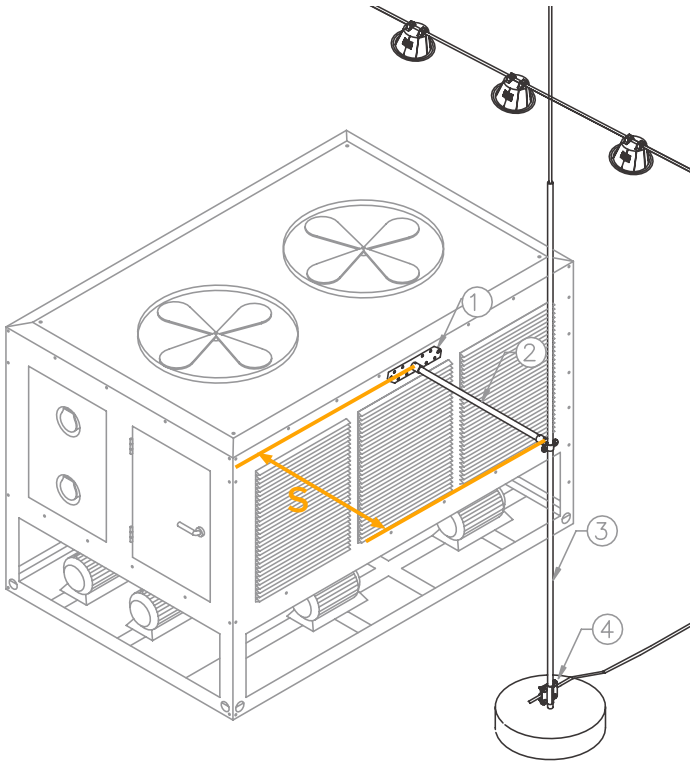
| Lightning protection class | Ki |
|---|---|
| I | 0,1 |
| II | 0,075 |
| III | 0,05 |
| IV | 0,05 |

Tab. 2

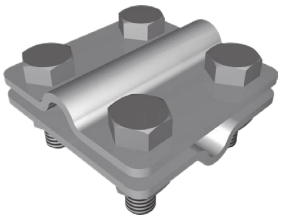
| Amount of leading off wires, n | Approximate value, Kc | Possible scope of value, Kc |
|---|---|---|
| 1 | 1 | 1 |
| 2 | 0,66 | 1...0,5 |
| более 4 | 0,44 | 1...1/n |

Tab. 3

| Material | Km |
|---|---|
| Air | 1 |
| Concrete, Brick | 0,5 |
| Polivinylchloride PVC | 20 |
| Polyethylene | 60 |

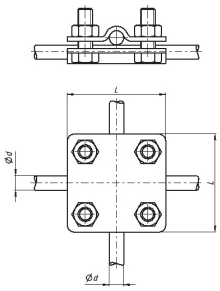


## Cross connector L-55 for wire

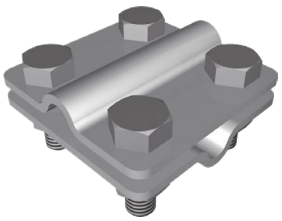


| For: | Material | Size [mm] | Screw | Code |
|---|---|---|---|---|
| Wire 6-10 mm | FeGl | L-55 | M8x25 | 101111 |
| Wire 6-10 mm | FeZn | | | 101112 |
| Wire 6-10 mm | Inox V2A | | | 101113 |
| Wire 6-10 mm | Inox V4A | | | 101115 |
| Wire 6-10 mm | Cu | | | 101114 |

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

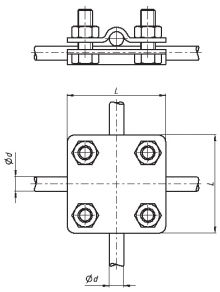


## Cross connector L-65 for wire

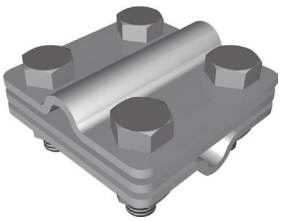


| For: | Material | Size [mm] | Screw | Code |
|---|---|---|---|---|
| Wire 6-10 mm | FeGl | L-65 | M8x25 | 101211 |
| Wire 6-10 mm | FeZn | | | 101212 |
| Wire 6-10 mm | Inox V2A | | | 101213 |
| Wire 6-10 mm | Inox V4A | | | 101215 |
| Wire 6-10 mm | Cu | | | 101214 |

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

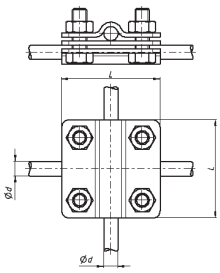


## Cross connector L-55 with separator, for wire

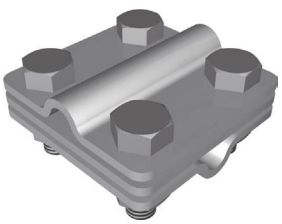


| For: | Material | Size [mm] | Screw | Code |
|---|---|---|---|---|
| Wire 6-10 mm | FeGl | L-55 | M8x30 | 101311 |
| Wire 6-10 mm | FeZn | | | 101312 |
| Wire 6-10 mm | Inox V2A | | | 101313 |
| Wire 6-10 mm | Inox V4A | | | 101315 |
| Wire 6-10 mm | Cu | | | 101314 |

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

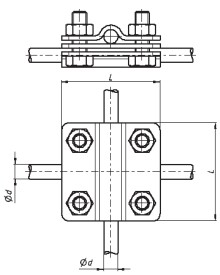


## Cross connector L-65 with separator, for wire

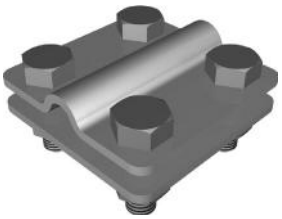


| For: | Material | Size [mm] | Screw | Code |
|---|---|---|---|---|
| Wire 6-10 mm | FeGl | L-65 | M8x30 | 101411 |
| Wire 6-10 mm | FeZn | | | 101412 |
| Wire 6-10 mm | Inox V2A | | | 101413 |
| Wire 6-10 mm | Inox V4A | | | 101415 |
| Wire 6-10 mm | Cu | | | 101414 |

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

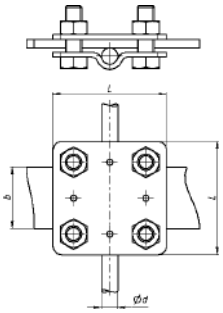


## Cross connector L-55, for wire and flat conductor

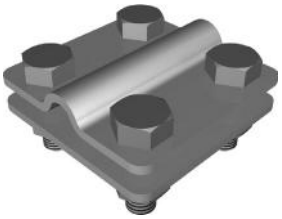


| For: | Material | Size [mm] | Screw | Code |
|---|---|---|---|---|
| Wire 6-10 mm, flat conductor 30 mm | FeGl | L-55 | M8x25 | 101511 |
| Wire 6-10 mm, flat conductor 30 mm | FeZn | | | 101512 |
| Wire 6-10 mm, flat conductor 30 mm | Inox V2A | | | 101513 |
| Wire 6-10 mm, flat conductor 30 mm | Inox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

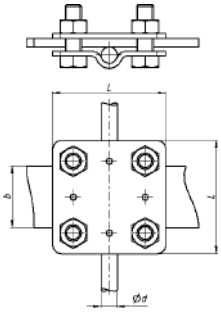


## Cross connector L-65, for wire and flat conductor

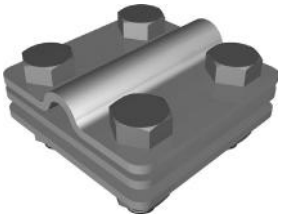


| For: | Material | Size [mm] | Screw | Code |
|---|---|---|---|---|
| Wire 6-10 mm, flat conductor 40 mm | FeGl | L-65 | M8x25 | 101611 |
| Wire 6-10 mm, flat conductor 40 mm | FeZn | | | 101612 |
| Wire 6-10 mm, flat conductor 40 mm | Inox V2A | | | 101613 |
| Wire 6-10 mm, flat conductor 40 mm | Inox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

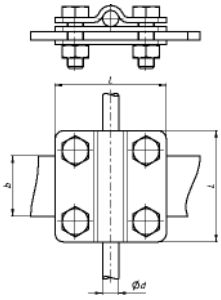


## Cross connector L-55 with separator, for wire and flat conductor



| 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 |

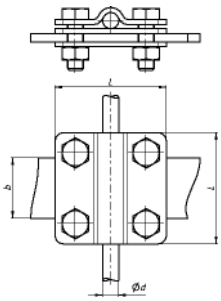
✳ Used for cross, T-type and parallel connection of wires and flat conductors.



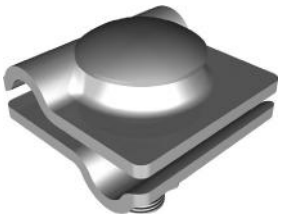
## Cross connector L-65 with separator, for wire and flat conductor

| 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.

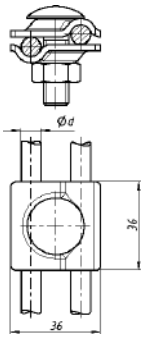


## Universal connector for wire

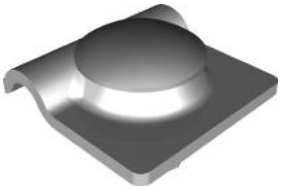


| For: | Material | Size [mm] | Screw | Code |
|---|---|---|---|---|
| Wire 6-10 mm | FeGl | L-36 | M10x35 | 102111 |
| Wire 6-10 mm | FeZn | | | 102112 |
| Wire 6-10 mm | Al. | | | 102117 |
| Wire 6-10 mm | Inox V2A | | | 102113 |
| Wire 6-10 mm | Inox V4A | | | 102115 |
| Wire 6-10 mm | Cu | | | 102114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

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

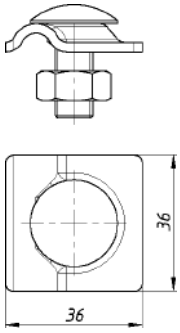



## Screw clamp for wire

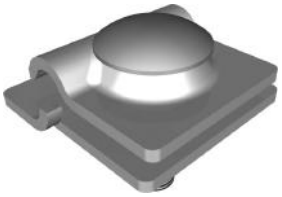


| For: | Material | Size [mm] | Screw | Code |
|---|---|---|---|---|
| Wire 6-10 mm | FeGl | L-36 | M10 | 102211 |
| Wire 6-10 mm | FeZn | | M10 | 102212 |

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

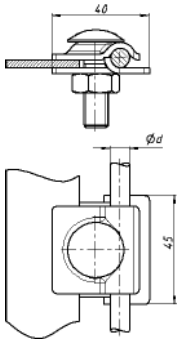



## Tinware - wire connector

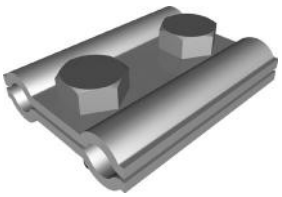


| For: | Material | Size [mm] | Screw | Code |
|---|---|---|---|---|
| Wire 6-10 mm, plate 5 mm | FeGl | L-45 | M10x35 | 103111 |
| Wire 6-10 mm, plate 5 mm | FeZn | | | 103112 |
| Wire 6-10 mm, plate 5 mm | Inox V2A | | | 103113 |
| Wire 6-10 mm, plate 5 mm | Cu | | | 103114 |
| Wire 6-10 mm, plate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

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

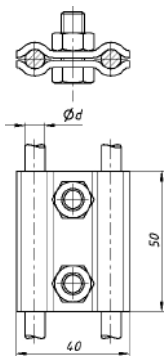



## Universal clamp



| 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 |

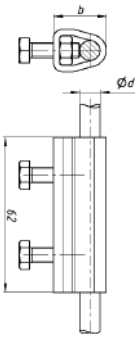
✳ Parrarel connecting of wire 6-10mm



## 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 |

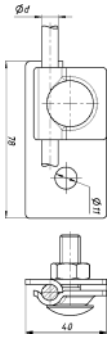
✳ Used for parralel connection of wire 6-10 mm and control connection of wire 8-10mm.



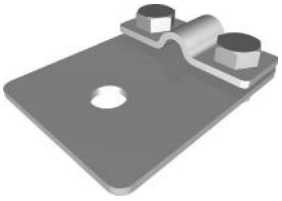

## 1 screw control clamp

| 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.

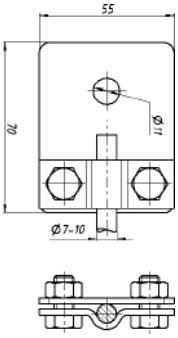



## 2 screws control clamp



| 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 |

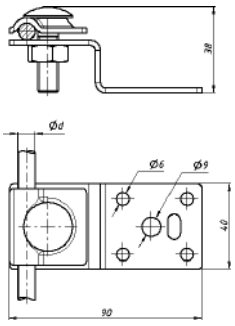
✳ Used for connecting wire 6-10 mm to steel construction and to flat conductor.




## 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 |

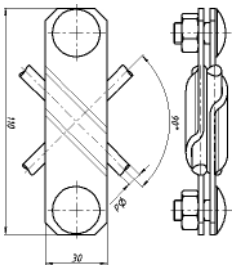
✳ Used for connecting wire 6-10 mm to steel construction or steel tinware.



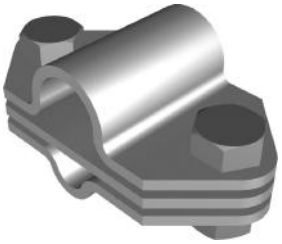
## 2 screws cross connector

| 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

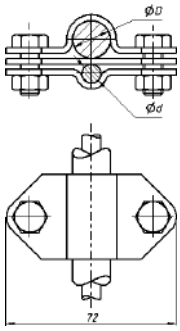


## 2 screws clamp: wire, rod, flat conductor



| 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 |

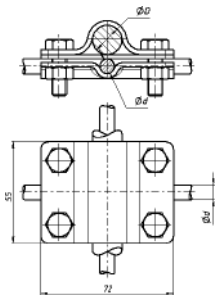
✳ Used for parrarel connecting wire 6-10 mm and a rod 16mm.



## 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 |

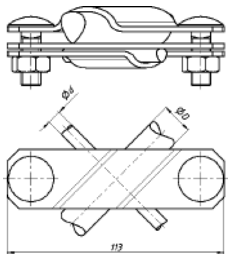
✳ Used for cross, T-type and parralel connecting of wire 6-10 mm and rod 16 mm or flat conductor.



## 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 |

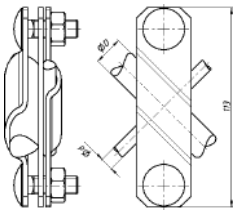
✳ Used for diagonal connections of rod 20mm with a wire 8-10 mm and flat connector.



## 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 |

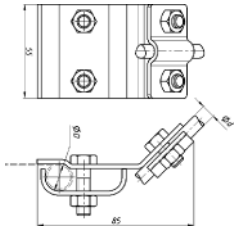
✳ Used for diagonal connections of rod 16mm with a wire 8-10 mm and flat connector.



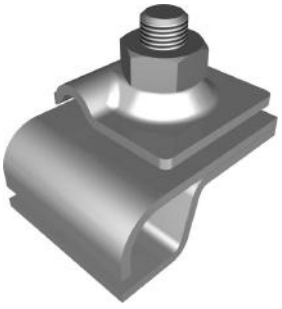
## 4 screws gutter clamp

| 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.

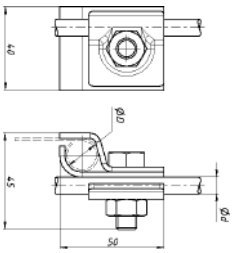


## 1 screw gutter clamp

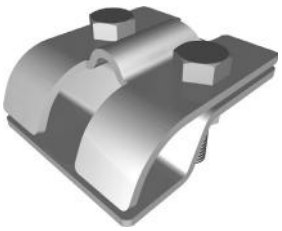


| For: | Material | Size [mm] | Screw | Code |
|---|---|---|---|---|
| d 6-10 mm/ gutter | FeGl | | M10x30 | 114111 |
| d 6-10 mm/ gutter | FeZn | | | 114112 |
| d 6-10 mm/ gutter | Inox V2A | | | 114113 |
| d 6-10 mm/ gutter | Cu | | | 114114 |
| d 6-10 mm/ gutter | Al. | | | 114117 |

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

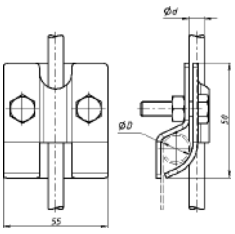


## 2 screws gutter clamp

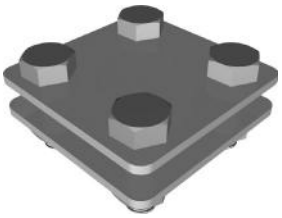


| For: | Material | Size [mm] | Screw | Code |
|---|---|---|---|---|
| d 6-10 mm/ gutter | FeGl | 25 | M8x30 | 114211 |
| d 6-10 mm/ gutter | FeZn | | | 114212 |
| d 6-10 mm/ gutter | Inox V2A | | | 114213 |
| d 6-10 mm/ gutter | Cu | | | 114214 |

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

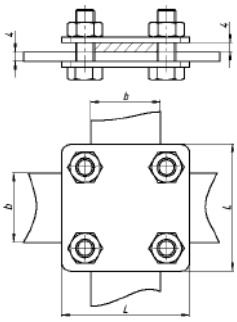


## L-55 connector for flat conductor

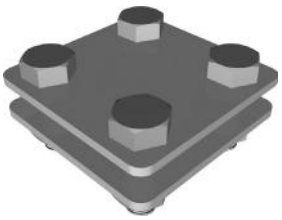


| For: | Material | Size [mm] | Screw | Code |
|---|---|---|---|---|
| b ≤ 30 mm | FeGl | L-55 | M8x25 | 115111 |
| b ≤ 30 mm | FeZn | | | 115112 |
| b ≤ 30 mm | Inox V4A | | | 115115 |
| b ≤ 30 mm | Cu | | | 115114 |

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

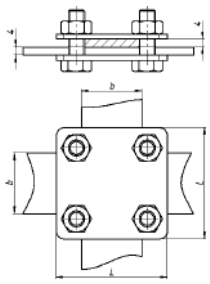


## L-65 connector for flat conductor

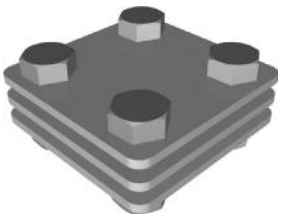


| For: | Material | Size [mm] | Screw | Code |
|---|---|---|---|---|
| b ≤ 40 mm | FeGl | L-65 | M8x25 | 115211 |
| b ≤ 40 mm | FeZn | | | 115212 |
| b ≤ 40 mm | Inox V4A | | | 115215 |
| b ≤ 40 mm | Cu | | | 115214 |

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

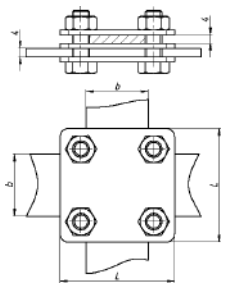


## L-55 connector with separator for flat conductor

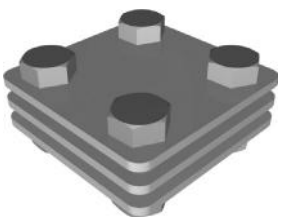


| For: | Material | Size [mm] | Screw | Code |
|---|---|---|---|---|
| b ≤ 30 mm | FeGl | L-55 | M8x25 | 116111 |
| b ≤ 30 mm | FeZn | | | 116112 |
| b ≤ 30 mm | Inox V4A | | | 116115 |
| b ≤ 30 mm | Cu | | | 116114 |

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

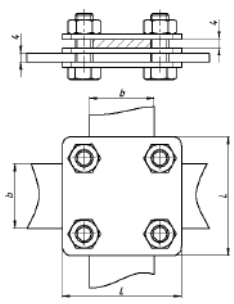


## L-65 connector with separator for flat conductor

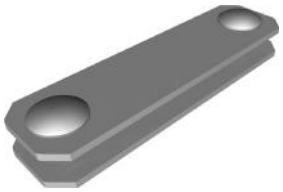


| For: | Material | Size [mm] | Screw | Code |
|---|---|---|---|---|
| b ≤ 40 mm | FeGl | L-65 | M8x25 | 116211 |
| b ≤ 40 mm | FeZn | | | 116212 |
| b ≤ 40 mm | Inox V4A | | | 116215 |
| b ≤ 40 mm | Cu | | | 116214 |

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

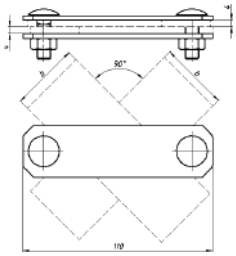


## Diagonal connector for flat conductor

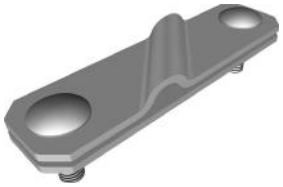


| For: | Material | Size [mm] | Screw | Code |
|---|---|---|---|---|
| b ≤ 50 mm | FeGl | L-110 | M10x30 | 117111 |
| b ≤ 50 mm | FeZn | | | 117112 |
| b ≤ 50 mm | Inox V2A | | | 117113 |
| b ≤ 50 mm | Inox V4A | | | 117115 |

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

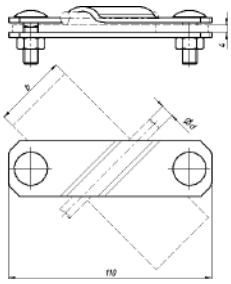


## Diagonal connector for flat conductor and wire



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

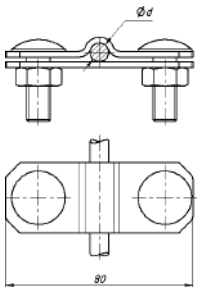
✳ Used for cross and diagonal connection of flat conductor with wire.



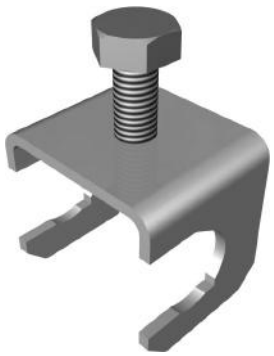
## Clamp for wire and a flat conductor

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

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

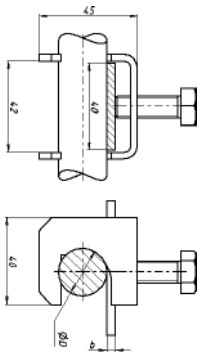


## Rod - flat conductor connector



| Применение | Материал | Размер, мм | Болт | Код |
|---|---|---|---|---|
| b ≤ 40 mm / reinforcing steel | FeGl | 25 | M10x30 | 119111 |
| b ≤ 40 mm / reinforcing steel | FeZn | | | 119112 |
| b ≤ 40 mm / reinforcing steel | Inox V4A | | | 119113 |

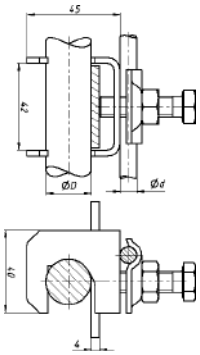
✳ Used for connecting and leading flat conductor with reinforcing steel in foundation (diameter 5-22 mm).



## 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 |

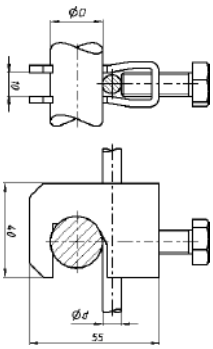
✳ Used for connecting and leading flat conductor and wire with reinforcing steel in foundation (diameter 5-22 mm).



## 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).

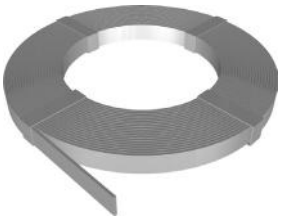


## Compensation connection

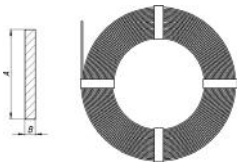
| Description | Size [mm] | Material | Code |
|---|---|---|---|
| Wire 8 mm | L-400 | Al. | 109018 |
| Cord 50 mm² | L-500 | Al. | 109118 |

✳ Used for compensating the lenght of a wire under the influence of change of temperature.

## Galvanised steel flat conductor



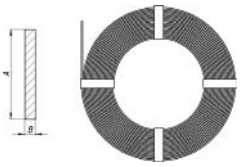
| Size [mm] | Weight [kg/1m] | Material | Code |
|---|---|---|---|
| 25x3 | 0,600 | FeZn | 225312 |
| 25x4 | 0,800 | FeZn | 225412 |
| 30x3 | 0,721 | FeZn | 230312 |
| 30x3,5 | 0,833 | FeZn | 233512 |
| 30x4 | 0,961 | FeZn | 230412 |
| 40x4 | 1,185 | FeZn | 240412 |
| 50x4 | 1,601 | FeZn | 250412 |



- 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

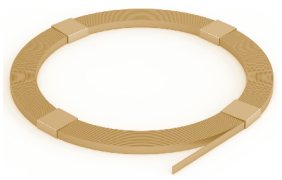
## Steel flat conductor with copper layer

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

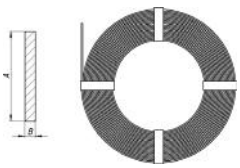


- For lightning protection, earthing system and ring equipotential bonding
- Thickness of copper layer: 500 g/m²
- In accordance with standard: PN- 62561-2 Part 2: Requirements for conductors and earth electrodes
- Corresponds to the requirements of standard: PN-EN 62305

## Copper flat conductor

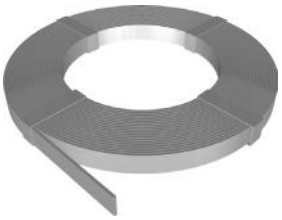


| Size [mm] | Weight [kg/1m] | Material | Code |
|---|---|---|---|
| 20x4 | 0,710 | Cu | 220414 |
| 25x3 | 0,670 | Cu | 225314 |
| 25x4 | 0,890 | Cu | 225414 |
| 30x4 | 1,070 | Cu | 230414 |
| 40x4 | 1,424 | Cu | 240414 |

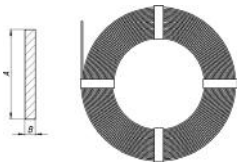


- For lightning protection, earthing system and ring equipotential bonding
- In accordance with standard: PN- 62561-2 Part 2: Requirements for conductors and earth electrodes
- Corresponds to the requirements of standard: PN-EN 62305

## Rustproof steel flat conductor



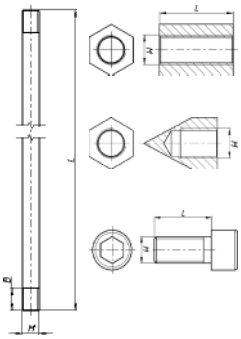
| Size [mm] | Weight [kg/1m] | Material | Code |
|---|---|---|---|
| 30x3,5 | 0,833 | Inox V2A | 233513 |
| 30x3 | 0,714 | Inox V2A | 230413 |
| 40x4 | 1,250 | Inox V2A | 240413 |
| 30x3,5 | 0,833 | Inox V4A | 233515 |
| 30x3 | 0,714 | Inox V4A | 230415 |
| 40x4 | 1,250 | Inox V4A | 240415 |



- 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

## Galvanised earthing rod with driving head

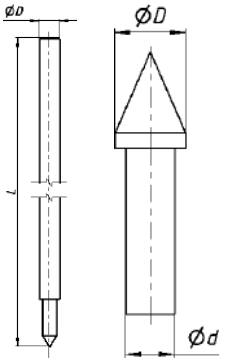
| Parts | Size [mm] | Material | Code |
|---|---|---|---|
| **Earthing rod** | L1500xD16 | FeZn | 216112 |
| **Earthing coulping** | M16/L-60 | FeZn | 216212 |
| **Earthing spike** | M16 | FeZn | 216312 |
| **Driving head** | M16/ L-40 | Fe | 216411 |
| **Connector for rod, flat conductor and wire** | 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

## Galvanised earthing rod D 16 mm with driving spike

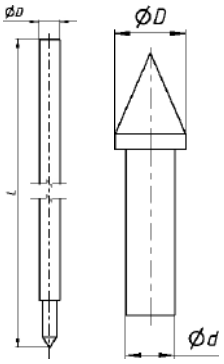
| Parts | Size [mm] | Material | Code |
|---|---|---|---|
| **Earthing rod with pin** | L1500xD16 | FeZn | 216012 |
| **Driving spike** | D16 | FeZn | 216512 |
| **Connector for rod, flat conductor and wire** | D16/b40/D8-10 | FeZn | 112212 |




- 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

## Galvanised earthing rod D 20 mm with driving spike

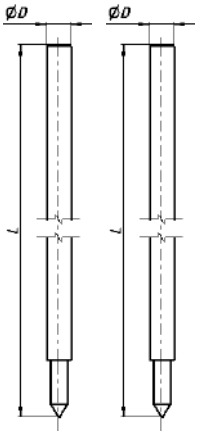
| Parts | Size [mm] | Material | Code |
|---|---|---|---|
| Earthing rod with pin | L1500xD20 | FeZn | 220012 |
| Driving spike | D20 | FeZn | 220512 |
| Connector for rod, flat conductor and wire | D20/b40/D8-10 | FeZn | 112112 |




✳ 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

## Galvanised grounding “Quick montage”

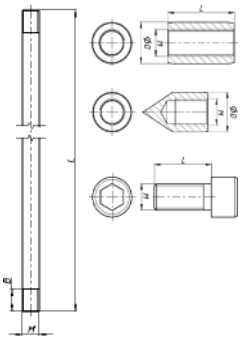
| Parts | Size [mm] | Material | Code |
|---|---|---|---|
| Earthing rod with pin | L1500xD16 | FeZn | 216012 |
| Sharpened earthing rod with pin | L1500xD16 | FeZn | 226612 |
| Connector for rod, flat conductor and wire | D16/b40/D8-10 | FeZn | 101112 |
| A set of earthing with connector | L3000xD16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

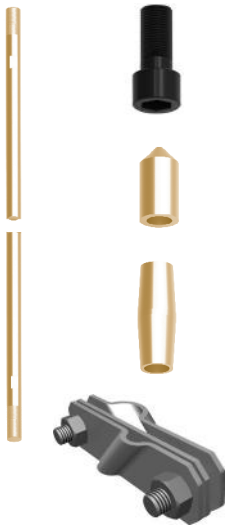
## Grounding rod with copper layer and a screw 5/8”

| 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 |

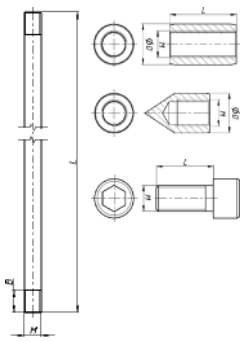


✳ For lightning protection, earthing system and ring equipotential bonding
Thickness of copper layer: not less than 250 micrometers (µm)
In accordance with standard: PN- 62561-2 Part 2: Requirements for conductors and earth electrodes
Corresponds to the requirements of standard: PN-EN 62305

## Grounding rod with copper layer and a screw 3/4”



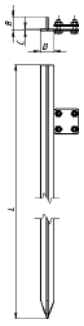
| Parts | Size [mm] | Material | Code |
|---|---|---|---|
| Grounding rod with screw | 1500x 3/4" | StCu | 217016 |
| Grounding connector | 3/4" | CuZn | 217319 |
| Grounding driving spike | 3/4" | St | 217519 |
| Driving head | 3/4" | StGl | 217411 |
| Connector for rod, flat conductor and wire | D14-16/b40/D8-10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

## Galvanized proile grounding rod with connector

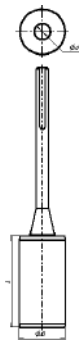
| Parts | Size [mm] | Material | Code |
|---|---|---|---|
| T-Type profile 30x30x4 | L-1000 | FeZn | 201012 |
| T-Type profile 30x30x4 | L-1500 | FeZn | 201512 |
| T-Type profile 30x30x4 | L-2000 | FeZn | 202012 |



- 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

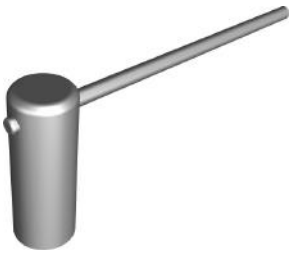
## SDS MAX Head for embeding grounding rods

| 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 |



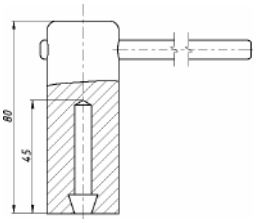
- For embeding pin grounding rods with use of vibration hammer

## MECH head for embeding 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 |

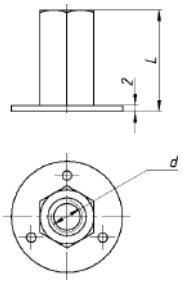
✳ For embeding pin grounding rods with use of vibration hammer




## 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 foundament of building fastening it to reinforcing steel. Corresponds to the requirements of standard: PN-EN 62305




## Connection for plate type earthing connector

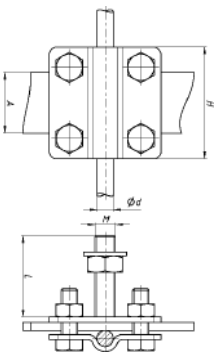
| Parts | Size [mm] | Material | Code |
|---|---|---|---|
| Rod with screw M10 | L200x D10 | FeZn | 291312 |
| Rod with screw M10 | L200x D10 | Inox V4A | 291315 |
| Copper cord with connector M16 | L200x M16 | Cu Inox | 291319 |

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

## 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 |

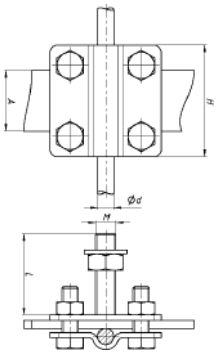
✳ Used for leading wires and conductors in a foundament of building fastening it to reinforcing steel. Corresponds to the requirements of standard: PN-EN 62305



## 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 foundament of building fastening it to reinforcing steel.
Corresponds to the requirements of standard: PN-EN 62305



## Grounding bracket for wire and flat conductor

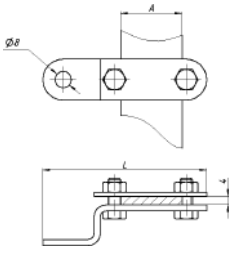
| For: | Size [mm] | Material | Code |
|---|---|---|---|
| Flat conductor 4 mm thick and wire 8-10 mm | L-280 | FeZn | 292912 |

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

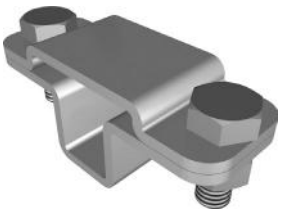
## Holder for flat conductor, bottom open

| 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 instalation flat conductor with width up to 30mm to walls or steel constructions
Corresponds to the requirements of standard: PN-EN 62305

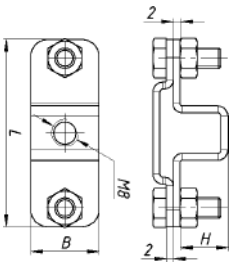


## Screw holder for flat conductor



| 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 |

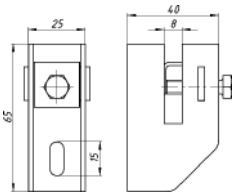
✳ Used for instalation flat conductor with width up to 30mm to wall with expansion bolt
Corresponds to the requirements of standard: PN-EN 62305



## 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 |

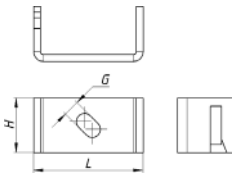
✳ Used for leading flat conductor along wall for equipotential bonding in lightning protection systems
Corresponds to the requirements of standard: PN-EN 62305




## 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 |

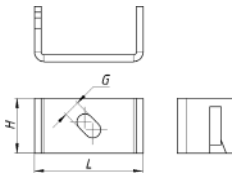
✳ Used for leading flat conductor along wall for equipotential bonding in lightning protection systems
Corresponds to the requirements of standard: PN-EN 62305




## 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 |

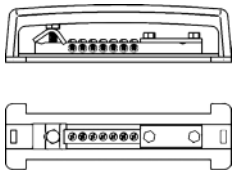
✳ Used for leading flat conductor along wall for equipotential bonding in lightning protection systems
Corresponds to the requirements of standard: PN-EN 62305



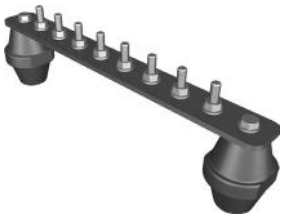

## Equipotential bar

| For: | Size [mm] | Material | Code |
|---|---|---|---|
| 7 × 16 mm2/1 × 50 mm2/1× b 25 mm | L170 / H50 | FeGl | 283019 |

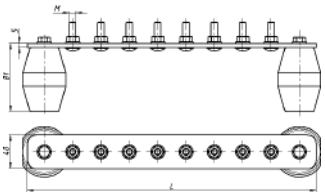
✳ Used for connecting grounding wires and bonding equipotentials
In accordance with standard of lightning equipotential bonding: PN-EN 62305-3
In accordance with functional equipotential bonding standard: IEC 60364-4-41/60364-5-54



## Main equipotential bar

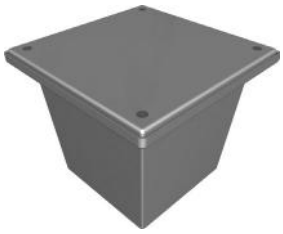


| For: | Size [mm] | Material | Code |
|---|---|---|---|
| Amount of connections M10 - 5 | L-246 | Cu | 292114 |
| Amount of connections M10 - 5 | L-246 | Inoc V2A | 292113 |
| Amount of connections M10 - 6 | L-278,5 | Cu | 292214 |
| Amount of connections M10 - 8 | L-343,5 | Cu | 292314 |
| Amount of 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 |

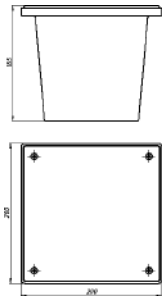


- Used for connecting grounding wires, bonding equipotentials and for industrial uses
  Set contains isolation plates with pins and screws for wall instalation
  M10 screws with cap and gasket that protects a screw from loosen
  In accordance with standard of lightning equipotential bonding: PN-EN 62305-3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

## Ground inspection pit



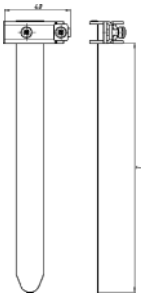
| For | Size [mm] | Material | Code |
|---|---|---|---|
| Casing of inspection pit | 200/200/165 | Pl | 293018 |



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

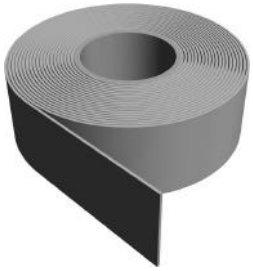
## Grounding clamp

| 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 |

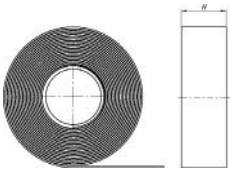


- Corresponds to the requirements of standard: PN-EN 62305
  Connecting grounding wires (up to 2 wires 2,5-10mm²) to the equipotential bonding system.

## Rustproof tape



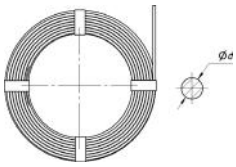
| Products: | Size [mm] | Material | Code |
|---|---|---|---|
| Lenght L - 10 m | H-30 | - | 295019 |
| Lenght L - 10 m | H-50 | - | 295119 |



- 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

## Aluminium wire conductor

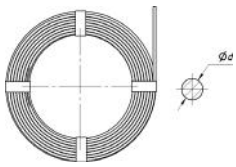
| Size [mm] | Weight | Material | Code |
|---|---|---|---|
| 150 meter roll Fi - 8 | 20 kg | Al. | 300817 |
| 95 meter roll Fi - 10 | 20 kg | Al. | 301017 |



- 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

## Hot galvanised wire conductor

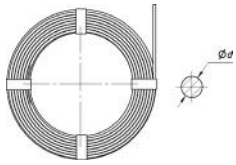
| Size [mm] | Weight | Material | Code |
|---|---|---|---|
| Diameter 6 mm | 0,220 | FeZn | 300612 |
| Diameter 8 mm | 0,395 | FeZn | 300812 |
| Diameter 10 mm | 0,620 | FeZn | 301012 |



- 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

## Wire conductor with copper layer

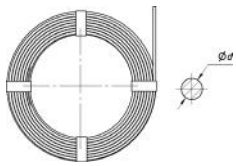
| Size [mm] | Weight | Material | Code |
|---|---|---|---|
| Diameter 6 mm | 0,395 | FeCu | 300816 |
| Diameter 10 mm | 0,625 | FeCu | 301016 |



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

## Copper wire conductor

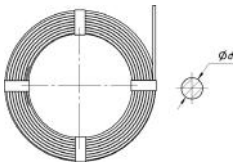
| Size [mm] | Weight | Material | Code |
|---|---|---|---|
| Diameter 6 mm | 0,252 | Cu | 300614 |
| Diameter 8 mm | 0,447 | Cu | 300814 |
| Diameter 10 mm | 0,699 | Cu | 301014 |



- 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

## PVC covered wire conductor

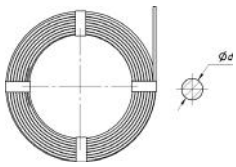
| Size [mm] | Weight | Material | Code |
|---|---|---|---|
| d10 mm / D13 mm | 0,625 | FeZn - PVC | 301018 |
| d8 mm / D11 mm | 0,200 | Al - PVC | 300818 |




- 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.

## Rustproof steel wire conductor

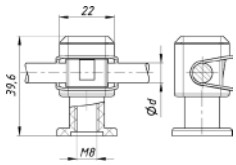
| Size [mm] | Weight | Material | Code |
|---|---|---|---|
| 125 m, Fi - 8 mm | 50 kg | Inox V2A | 300813 |
| 125 m, Fi - 8 mm | 50 kg | Inox V4A | 300815 |
| 80 m, Fi - 10 mm | 50 kg | Inox V2A | 301013 |
| 80 m, Fi - 10 mm | 50 kg | Inox V4A | 301015 |




- 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

## Plastic holder for wire Fi 8

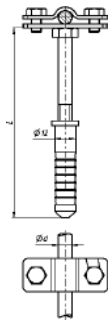
| Size [mm] | Colour | Material | Code |
|---|---|---|---|
| thread M6, slot Ø-5мм | grey | PI | 310118 |
| thread M6, slot Ø-5мм | brick | PI | 310218 |
| thread M8, slot Ø-7мм | grey | PI | 310318 |
| thread M8, slot Ø-7мм | brick | PI | 310418 |




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

## 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 |

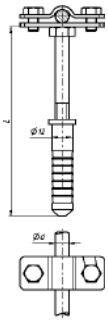


- Used for assemblation the 6-10mm wire on building walls.

## Wire conductor holder with pin L-120

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

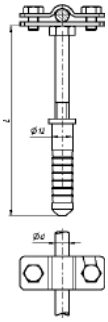
✳ Used for assemblation the 6-10mm wire on building walls.



## Wire conductor holder with pin L-160

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

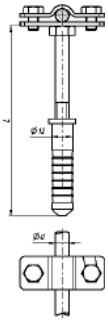
✳ Used for assemblation the 6-10mm wire on building walls.



## Wire conductor holder with pin L-250

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

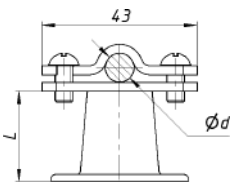
✳ Used for assemblation the 6-10mm wire on building walls.



## Wire conductor holder with pad

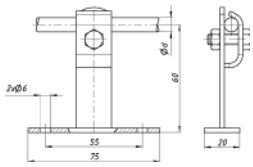
| Description | Size [mm] | Material | Code |
|---|---|---|---|
| Wire8-10 mm | L-25 | FeZn | 312012 |
| Wire8-10 mm | L-40 | FeZn | 312112 |

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



## Wire conductor holder on a stand

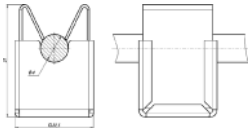
| Description | Size [mm] | Material | Code |
|---|---|---|---|
| Wire 8-10 mm | L-60 | FeZn | 313012 |
| Wire 8-10 mm | L-100 | FeZn | 313112 |
| Wire 8-10 mm | L-60 | Inox | 313013 |



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

## KLIK holder for wire Fi 8

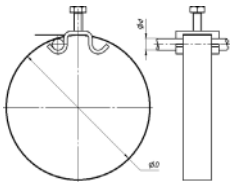
| Description | Size [mm] | Material | Code |
|---|---|---|---|
| Thread M6, slot Ø-5 mm | grey | Inox | 314013 |
| Thread M6, slot Ø-5 mm | brick | FeCu | 314016 |



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

## 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

## Lightning protection installation pipe

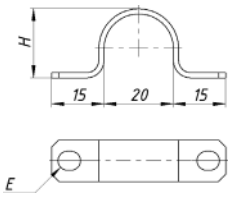
| Description | Size [mm] | Material | Code |
|---|---|---|---|
| Lenght L-2000 | Ø1 -14/ Ø2-20 | Pl | 316118 |
| Lenght L-3000 | Ø1 -14/ Ø2-20 | Pl | 316218 |
| Flexible connector L-120 | Ø1 -14/ Ø2-20 | Pl | 316318 |

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

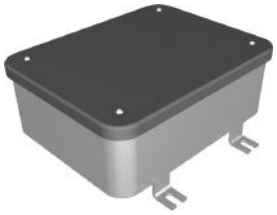
## Lightning protection installation pipe holder

| 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.

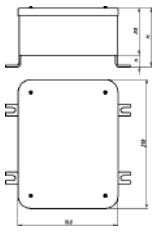



## Elevation inspection pit



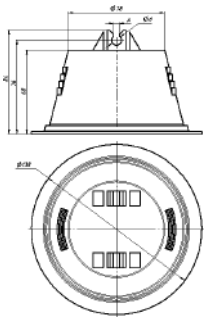
| Description | Size [mm] | Material | Code |
|---|---|---|---|
| **Rustproof steel cover** | 218 / 268 / 80 | Inox - Pl | 317113 |
| **White plastic cover** | 219 / 268 / 80 | Inox - Pl | 317118 |

✳ 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



## 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 |

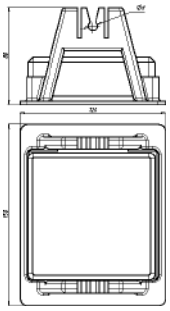


- Used for assemblation of wire conductor on flat roof

  Fill weight - 1kg. Freezing resistant concrete. Made with polyethylen, resistant to atmospheric conditions and UV

## Plastic H-65 holder with concrete for wire

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

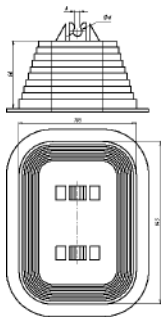


- Used for assemblation of wire conductor on flat roof

  Fill weight - 1kg. Freezing resistant concrete. Made with polyethylen, resistant to atmospheric conditions and UV

## Plastic H-60 holder with concrete for wire

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

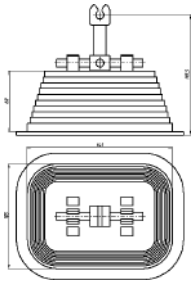


- Used for assemblation of wire conductor on flat roof

  Fill weight - 1kg. Freezing resistant concrete. Made with polyethylen, resistant to atmospheric conditions and UV

## High plastic holder with concrete for wire

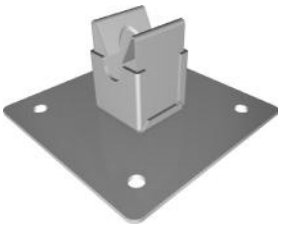
| Description | Size [mm] | Material | Code |
|---|---|---|---|
| For wire 8 mm, plastic bottom | H-120 | PI | 401518 |
| Stand | H-60 | PI | 401618 |



- Used for assemblation of wire conductor on flat roof

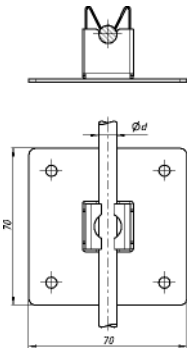
  Fill weight - 1kg. Freezing resistant concrete. Made with polyethylen, resistant to atmospheric conditions and UV

## KLIK wire holder on pad

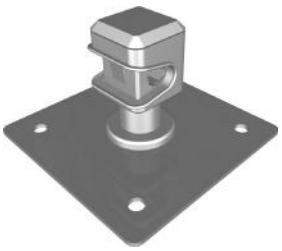


| Description | Size [mm] | Material | Code |
|---|---|---|---|
| For wire 8 mm | H-30 | FeGl -Inox | 402011 |
| For wire 8 mm | H-30 | FeZn-Inox | 402012 |
| For wire 8 mm | H-30 | Inox | 402013 |
| For wire 8 mm | H-30 | Cu | 402014 |

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

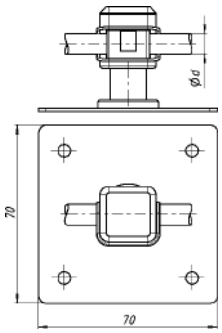



## Plastic holder on stand for wire



| 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 |

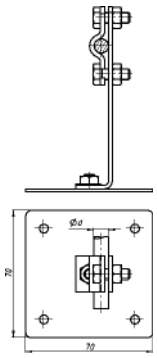
✳ Used for leading wire on roofs covered with steel tinware. Suitable for gluing.




## 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 |

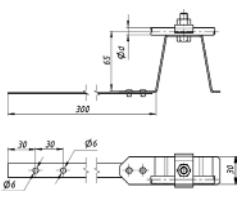
✳ Used for leading wire on roofs covered with steel tinware. Suitable for gluing.



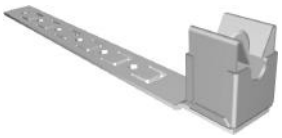

## Wire holder on flexible tape

| 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.



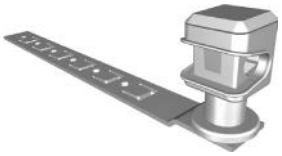
## KLIK wire holder on tape



| 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 lenghts of cloves

## Plastic holder on tape for wire

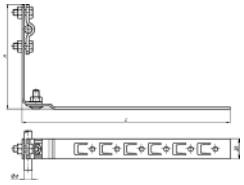


| Description | Size [mm] | Material | Code |
|---|---|---|---|
| For wire 8 mm | H-35 / L-210 | FeZn - Pl | 405018 |
| For wire 8 mm | H-35 / L-330 | FeZn - Pl | 405118 |
| For wire 8 mm | H-35 / L-415 | FeZn - Pl | 405218 |

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

## 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 lenghts of cloves

## Plastic holder on tape for wire

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

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

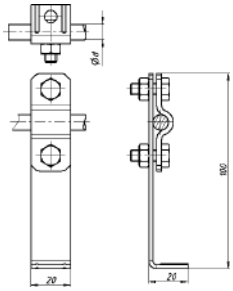
## KLIK holder on tape

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

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

## Universal wire holder

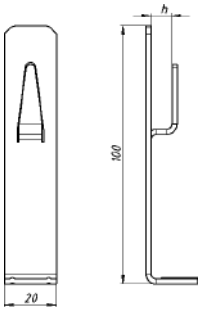
| Description | Size [mm] | Material | Code |
|---|---|---|---|
| For wire 6-10 mm | H-100 | FeGl | 404011 |
| For wire 6-10 mm | H-100 | FeZn | 404012 |
| For wire 6-10 mm | H-100 | Inox | 404013 |
| For wire 6-10 mm | H-100 | Cu | 404014 |




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

## Universal clamp holder for wire

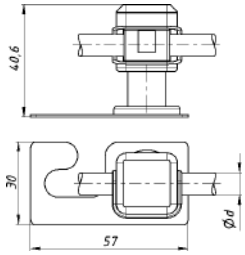
| Description | Size [mm] | Material | Code |
|---|---|---|---|
| For wire 6-10 mm | H-100 | FeGl | 404111 |
| For wire 6-10 mm | H-100 | FeZn | 404112 |
| For wire 6-10 mm | H-100 | Inox | 404113 |
| For wire 6-10 mm | H-100 | Cu | 404114 |




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

## Plastic holder for wire with hook

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

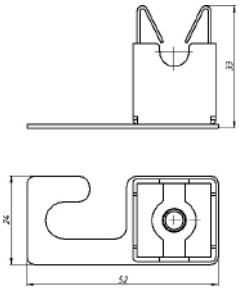



✳ Used for leading wire conductor on diagonal roof covered with trapezoidal steel tinware, tinware tiles or roofing felt shingles

## KLIK wire holder with hook

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

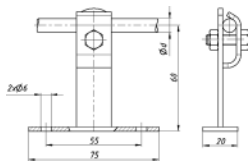
✳ Used for leading wire conductor on diagonal roof covered with trapezoidal steel tinware, tinware tiles or roofing felt shingles



## 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 |

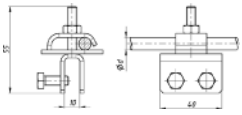
✳ Used for leading wire conductor on roof covered with tinware.



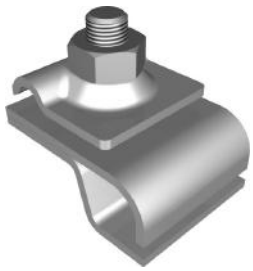
## Wire holder on rabbet

| 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.

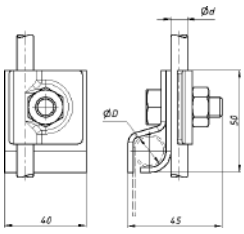


## Edge clamp for wire

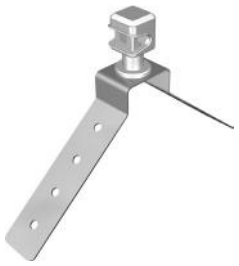


| Description | Size [mm] | Material | Code |
|---|---|---|---|
| For wire 6-10 mm | FeZn | | 404812 |
| For wire 6-10 mm | Inox V2A | | 404813 |
| For wire 6-10 mm | Cu | | 404814 |
| For wire 6-10 mm | Alu | | 404817 |

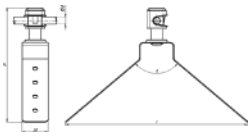
✳ Used for leading wire conductor on tinwares' edge.



## Peak plastic holder for wire

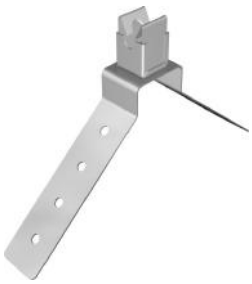


| Description | Size [mm] | Material | Code |
|---|---|---|---|
| For wire 8 mm | H-50 | FeZn - Pl | 406012 |
| For wire 8 mm | H-50 | Inox - PL | 406013 |
| For wire 8 mm | H-50 | Cu - PL | 406014 |

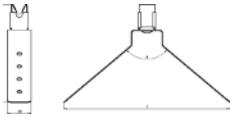


✳ Used for leading wires on the roofs' peak covered with tinwares.

## Peak plastic holder for wire



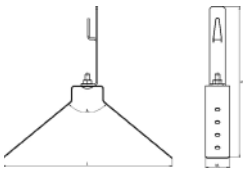
| Description | Size [mm] | Material | Code |
|---|---|---|---|
| For wire 8 mm | H-50 | FeZn - Inox | 406112 |
| For wire 8 mm | H-50 | Inox | 406113 |
| For wire 8 mm | H-50 | Cu - Inox | 406114 |



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

## Peak holder for wire

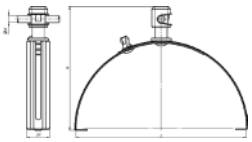
| Description | Size [mm] | Material | Code |
|---|---|---|---|
| For wire 6-10 mm | H-100 | FeZn | 406212 |
| For wire 6-10 mm | H-100 | Inox | 406213 |
| For wire 6-10 mm | H-100 | Cu | 406214 |



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

## 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 |

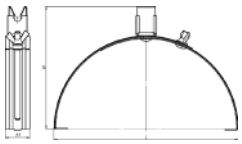


✳ Used for leading wires on the roofs' round peak covered with tiles.

## 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 |

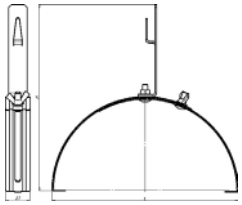
✳ Used for leading wires on the roofs' round peak covered with tiles.



## 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 |

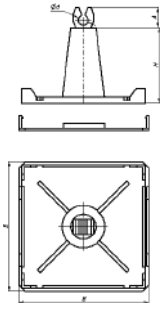
✳ Used for leading wires on the roofs' round peak covered with tiles.



## Gluing holder for wire

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

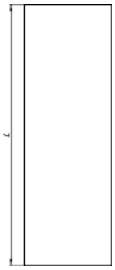
✳ Used for leading wire conductor on roof covered with roofing felt or membrane. Suitable for gluing.



## Tape for gluing holders

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

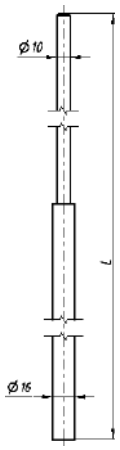
✳ Used for gluing 408018 holder on roofs covered with membrane or roofing felt. Suitable for gluing and heating.



## 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 |

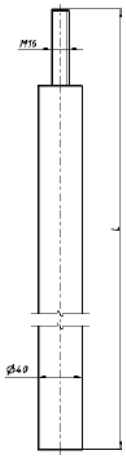
✳ Used for protecting devices and objects on the roof from direct lightning strike.
In accordance with standard: PN-EN 62561-1 2017
Corresponds to the requirements of standard: PN-EN 62305-1



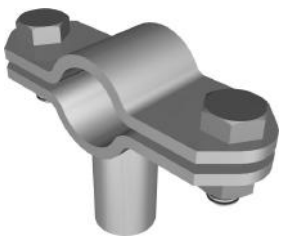

## Lightning protection rustproof steel interception mast

| 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

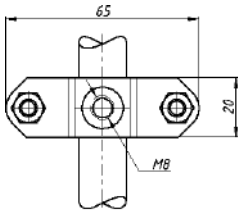


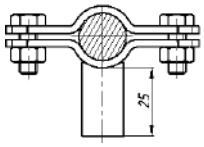

## Aluminium mast holder Fi - 16 mm



| 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

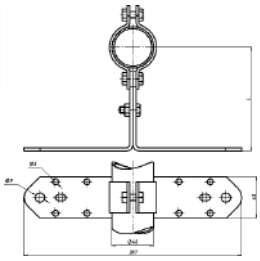


## Inox mast holder Fi - 40 mm

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

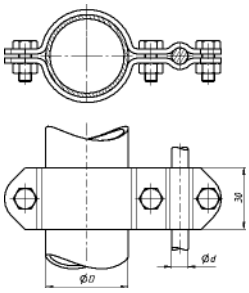
✳ Used for assemblation 40mm diameter mast to wall or steel construction.



## 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.

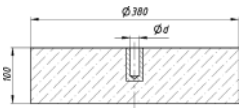


## SMART Concrete stand

| Description | Size [mm] | Material | Code |
|---|---|---|---|
| **18 kg M16** | D-375 | Concrete | 500019 |
| **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.

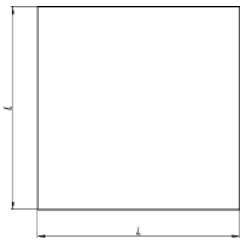
System SMART allows to assemble concrete stands one on another and at the same time has the function of mast stabilizer



## Pad under the concrete stand

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

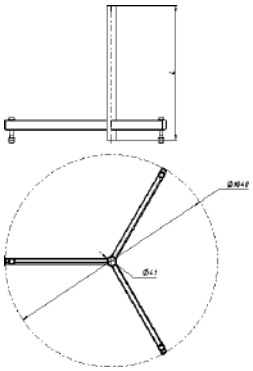
✳ Used for protection of roof under the concrete stand.



## 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 |

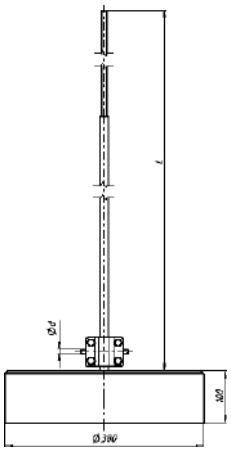
✳ Used for assemblation 40mm diameter mast on concrete stands.



## 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 |

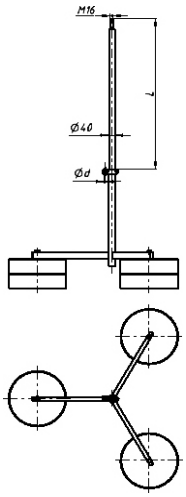
✳ Used for protecting devices and objects on the roof from direct lightning strike.
In accordance with standard: PN-EN 62561-1 2017
Corresponds to the requirements of standard: PN-EN 62305-1



## 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 |

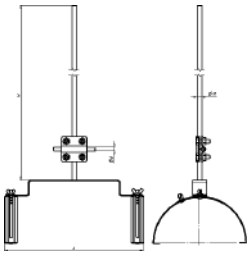
✳ Used for protecting devices and objects on the roof from direct lightning strike.
In accordance with standard: PN-EN 62561-1 2017
Corresponds to the requirements of standard: PN-EN 62305-1



## 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 |

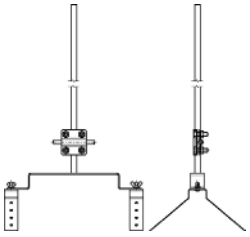
- Used for protecting devices and objects on the roof from direct lightning strike.
  In accordance with standard: PN-EN 62561-1 2017
  Corresponds to the requirements of standard: PN-EN 62305-1



## 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 |

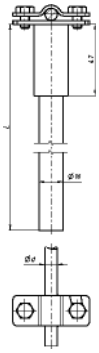
- Used for protecting devices and objects on the roof from direct lightning strike.
  In accordance with standard: PN-EN 62561-1 2017
  Corresponds to the requirements of standard: PN-EN 62305-1



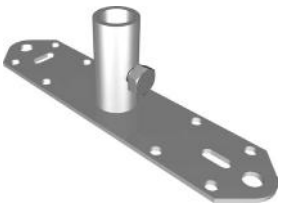
## Isolation rod

| 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

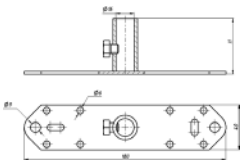


## Rod holder



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

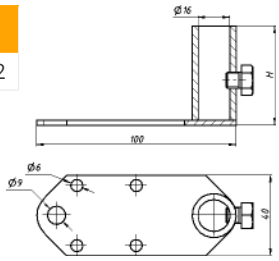
- Used for assemblation of isolation rod to wall or other construction.



## Small rod holder

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

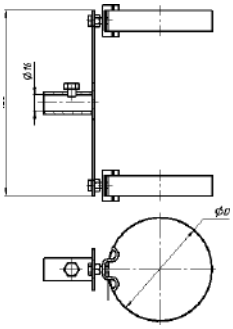
✳ Used for assemblation of isolation rod to wall or other construction.



## 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 to200 | FeZn | 593212 |
| For isolation 16mm rod | D up to 300 | FeZn | 593312 |

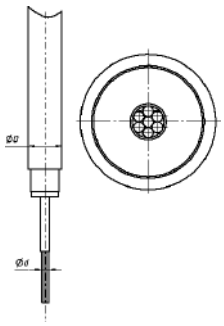
✳ Used for assemblation isolation rod on a pipe.Zastosowanie: służydo montażu drążka izolacyjnego na rurze



## Lightning protection HVI conductor covererd with high voltage isolation

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

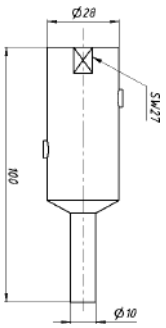
✳ Used for ensuring isolation space between conductor and electrical device.
Isolated conductor ensures isolation space for the lenght of 750 mm according to IEC 62305.
No slide discharges, doesnt contain halogens.
In accordance to standard: IEC 62561-8 2018 part 8: Requirements about components of isolated lightning protection system.



## Connector for the end of conductor HVI

| Lenght [mm] | Diameter [mm] | Material | Code |
|---|---|---|---|
| 100 | 28 | Inox V4A | 590115 |

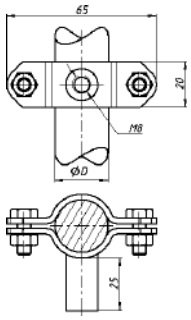
✳ Used for connecting HVI conductor with other conductor.
In accordance to standard: IEC 62561-8 2018 part 8: Requirements about components of isolated lightning protection system.



## HVI conductor holder

| Description | Size [mm] | Material | Code |
|---|---|---|---|
| For conductor HVI | 23 мм | FeZn | 590212 |
| For conductor HVI | 23 мм | FeZn | 590213 |

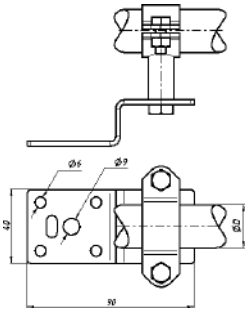
✳ Used for leading HVI conductor
In accordance to standard: IEC 62561-8 2018 part 8: Requirements about components of isolated lightning protection system.



## HVI conductor holder on a stand

| Description | Size [mm] | Material | Code |
|---|---|---|---|
| For HVI conductor | 23 мм | FeZn | 590312 |
| For HVI conductor | 23 мм | FeZn | 590313 |

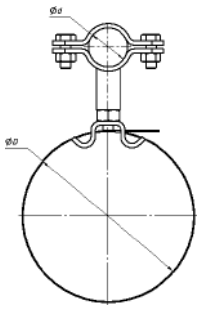
✳ Used for leading HVI conductor on steel tinwares.
In accordance to standard: IEC 62561-8 2018 part 8: Requirements about components of isolated lightning protection system.



## 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 |

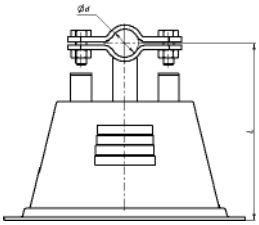
✳ Used for leading HVI conductor on pipes.
In accordance to standard: IEC 62561-8 2018 part 8: Requirements about components of isolated lightning protection system.



## Concrete holder for HVI conductor

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

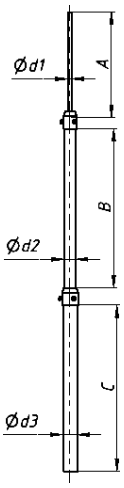
✳ Used for leading HVI conductor on flat roofZastosowanie: służy do prowadzenia przewodu HVI na dachach płaskich
In accordance to standard: IEC 62561-8 2018 part 8: Requirements about components of isolated lightning protection system.



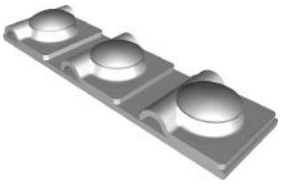
## Isoalted interception mast for HVI conductor

| 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.

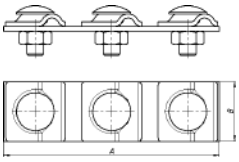



## Mast adapter to connect HVI conductor



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

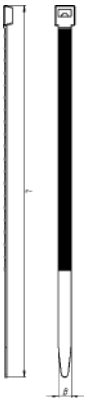
✳ Used for assemblation HVI conductor on isolated mast, when more than 1 HVI conductor is leaded.
In accordance to standard: IEC 62561-8 2018 part 8: Requirements about components of isolated lightning protection system.



## Clamp for HVI conductor on mast

| Lenght[mm] | Width [mm] | Material | Code |
|---|---|---|---|
| 380 | 7,3 | Pl | 599918 |

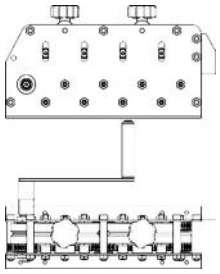
✳ Used for assemblation HVI conductors on isolated mast when more than 1 HVI conductor is leaded.
In accordance to standard: IEC 62561-8 2018 part 8: Requirements about components of isolated lightning protection system.



## 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 |

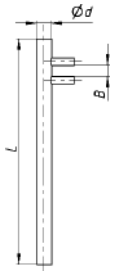
✳ Used for straightening lightning protection conductors.



## 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.




## Zinc in spray


| Description | Size [mm] | Material | Code |
|---|---|---|---|
| | 400ml | Other | 600319 |

✳ Used for steel surfaces protection against rust.

## 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.

## Adhesive mass for roofing felt


| Description | Size [mm] | Material | Code |
|---|---|---|---|
| | 10кг | Other | 600519 |

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

## Glue for PCV membrane

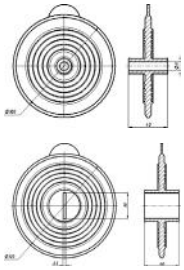
| Description | Size [mm] | Material | Code |
|---|---|---|---|
| | 5кг | Other | 600619 |

✳ Used for gluing holders on roofs covered with membrane.

## 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 |

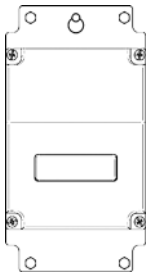
✳ Used for sealing culverts of conductors on roof.



## Counter of atmospheric discharges

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

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



## Technical Vaseline

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

✳ Used for protecting galvanised screw connections.

## NOTES