





 PIS

ABOUT PIS

PIS (Professional Integrated Solutions for Trade and Construction) was established in 2002. For over 20 years of experience in the energy sector throughout Egypt along with sister companies, which allowed providing state-of-the-art solutions with higher quality compared to other competitors.

PIS is considered the most important specialist in the expertise of providing earthing system solutions, lightning protection systems, and all advisory and specialized services in this field, especially in the power stations, data centers, and national security projects.

PIS products for earthing and lightning protection systems accessories are also considered the biggest competitor for all products that have occupied the Egyptian and foreign markets, owing to the application of manufacturing and major international standards for measurements and quality. In addition,

PIS products have got an international accreditation conforming to the American International Code **UL 467 of 2023**, that has not been previously got among competitors, which confirms the company's general policy in providing the best levels of quality plus exporting them to foreign markets to enhance the image of the Egyptian products.

PIS also has a proven record of massive power savings, and infrastructure projects with high standards of excellence, reliability and future proof.

Our success in PIS has inspired us to adopt a vision that aims to provide innovative and unique solutions in the construction of energy, infrastructure, and industrial projects, as well as in various electrical stations for the transmission and generation of electrical power. This strategy has left its mark on strengthening the energy

and infrastructure sectors in Egypt and supporting the economic growth. Also, it led to affirm us as one of the distinguished pioneers in earthing and lightning protection systems in various applications from the residential level to advanced industrial applications, as well as the distribution and transmission of electricity throughout the sectors according to the requirements of the local market.

The products have been successfully applied to major core projects, such as the CBD project in the New Capital in Egypt and other notable governmental and commercial buildings and residential projects such as El Alamein and the New Capital projects, military colleges and institutes, Faisal Bank in the Administrative Capital, the Japanese University, Ismailia Military Airport, Telecom Egypt Club, public hospitals, the Ministerial Neighborhood project in the Administrative Capital, the Shooting Club, Burullus stations, and the Egyptian Electricity Transmission Company stations.

Overall, the company has grown to establish a solid reputation in the market as a leading plant builder and provider of high and medium voltage power products, besides being one of the most trusted professional contractors known for credibility projects in the market.

PIS was able to enter the African and Arab market in Nairobi, Iraq, Sudan, Tanzania and Yemen in projects that were considered as a milestone in the level of implementation, taking into account the latest methods in providing and establishing stations in a way that maintains the reputation of quality, workmanship, and coordination.

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1.2. Earthing & Lightning Protection Solution

At Professional PIS we provide you with complete one stop solution for all your Earthing and Lightning protection needs. As a solution provider we offer you with :-

1. Lightning Protection Solution which includes:

- **Risk Assessment Calculation:**

The aim of the risk assessment process is to remove a hazard or reduce the level of risk by adding precautions or control measures as necessary. By doing so, we aim to create a safe workplace.

- **Direct Lightning:**

As per the Risk Assessment Calculation protection level will be finalised. Based on the protection level and as per the requirements of the project / client, Lightning Protection Passive System (BS EN / IEC 62305) & (NFPA 780) and Active System (NFC 17 - 102) will be proposed.

- **Indirect Lightning Protection: Surge Protection Device (SPD)**

Indirect lightning system protects against transient induced over voltage / current to the internal equipments like:

- 1) Power
- 2) Data & Telecommunication

2. Earthing Solution which includes:

- **On-Site Soil Resistivity Survey and Ground Resistance Measurement:**

Professional PIS conducts the soil resistivity survey to determine the electrical resistance of the ground at a specific location. This is done by high end test instrument, capable of filtering out unwanted electrical noise that may foul the results gained.

Our team of Engineers and Technicians will attend to your site and carryout a full electrical assessment of the ground.

All work is carried out in accordance with BS 7430:2015 (Code of practice for protective earthing of electrical installations), BS EN 50522:2010 (Earthing of power installations exceeding 1kV a.c.).

- **Earthing Calculation:**

Earthing calculations (Earth Grid Conductor Cross section, Earth rod cross section and earthing grid calculations to achieve the $<1 \Omega m$) for Residential, Commercial and Industrial projects based on soil resistivity survey value of site, fault current in kA of Main Distribution Board (MDB).

- **Earthing Design:**

Based on the earthing calculation (BS 7430 / IEEE 80), we provide earthing system design for different type of structures. We also recommend back fill component where corrosive atmosphere to achieve required ground resistance.

TEST AND CERTIFICATE

Using components and devices which have been tested in compliance with the latest standards is a basic prerequisite for a functional lightning protection system. Installers of lightning protection systems must select components according to the requirements at the installation site and install them in accordance with the manufacturer specifications.

All of lightning protection components used for installing the external lightning protection system shall meet the requirements of IEC 62561 Series as following;

IEC625611-: Connection Component

IEC625612-: Conductors and Earth Electrodes

IEC625613-: Isolating Spark Gaps (ISG)

IEC625614-: Conductors Fasteners

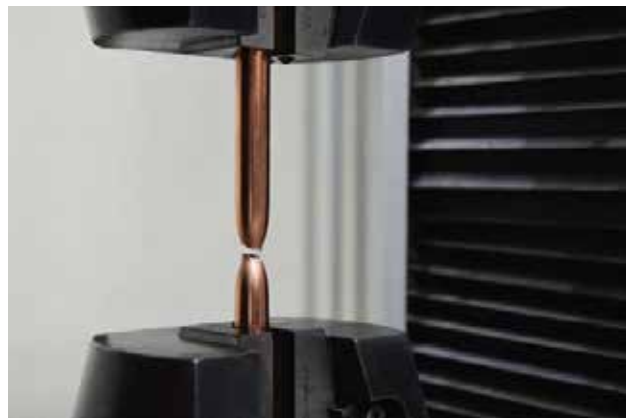
IEC625615-: Earth Electrode Inspection Housings and Electrode Seals

IEC625616-: Lightning Strike Counters

IEC625617-: Earthing Enhancing Compounds

IEC625618-: Components for Isolated LPS

All of **PIS** components are tested according to IEC 62561 Series and certified by accredited third-party.



STANDARD GROUND ROD

Copper-Bonded Ground Rods meet the requirements of the world rigorous standard-UL. Ground rods are made by molecularly bonding process 99.9% purity electrolytic copper onto high tensile and low carbon steel cores to ensure a perfect and even bonding between the steel and copper. The copper layer whose minimum thickness is 254 micron met to IEC 625612- and UL standard.

Standard size diameters being common used are 14/3 , «8/5 , «2/» , and 1».

Standard lengths being common used are 4» to 10».

Thread type ground rods are available for extensible the length of ground rods by coupling.

Intensive Test and Inspection of Ground Rod Ground Rods should pass the following criterions of international standards as shown;

Thickness Inspection

Copper shell of each ground rod shall be passed the thickness inspection to ensure its protective coating. The copper shell shall not be less than 0.254 mm (254 micron) thick at any point met to UL 467 standard.



Adherence of Coating Test

There shall be no separation of the coating from the steel core when subjected to the test described as follow met with UL 467 standard requirements. Peeling of the coating by the steel plates or the jaws of the vise shall be allowed.



Bending Strength Test

There shall be no cracking of the coating when subjected to the test met with UL 467 standard requirements. The application of force shall be such that the rod is permanently bent through a 30 angle.



Straightness Test

Ground rod should be passed straightness test to ensure in its straightness and high tensile with acceptable sag. The deviation of every 305 mm ground rod shall be less than 3.05 mm.

GROUND ROD

There are several main objectives providing for well-designed grounding system. First priority is personal safety which followed by protection equipment, signal reference quality, return path for faults and surges, and static dissipation.

In order to follow these objectives, all components shall be meet up to international standards as IEC 625612-, UL 467.

Grounding system must be maintained in a low permanent resistance under adverse conditions for the expected lifetime of Grounding System.

Ground Rods, Conductors, and Connectors in Grounding Network are subjected to severe corrosion to acidic and high concession of salt environment. In case of high mechanical stress is due to the electromagnetic force, and also rapid thermal heating is due to the high current magnitude during fault conditions.

Ground Rod Selection

When choosing which material types to use for a ground rod, the best way is to consider the installation location by measuring soil pH whether if it is acidic, neutral or alkaline.

- If it is acidic ($\text{pH} < 6$), the recommended selection is stainless steel ground rod.
- If it is neutral (pH between 6 - 8), the recommended selection is copper bonded ground rod (254 micron).
- If it is alkaline ($\text{pH} > 8$), the recommended selection is solid copper ground rod. In case of hard soil condition, the recommended selection is copper bonded ground rod 375 or 508 micron.

Copper-Bond Ground

- Earth rods are made from high tensile low carbon steel.
- Each rod is made by molecularly bonding 99.9 % pure electrolytic copper.
- Molecular bond to nickel-sealed high strength steel core
- The copper layer whose minimum thickness 254 micron met to UL standard
- High tensile steel core 450 N/mm² and ensurer a long life span.

Solid Copper

- High investment and high resistance to corrosion
- Low resistivity
- Solid Copper Ground Rod must be prepared a hole which deep down equal with length rod for protect bending
(can't be hammering rod).

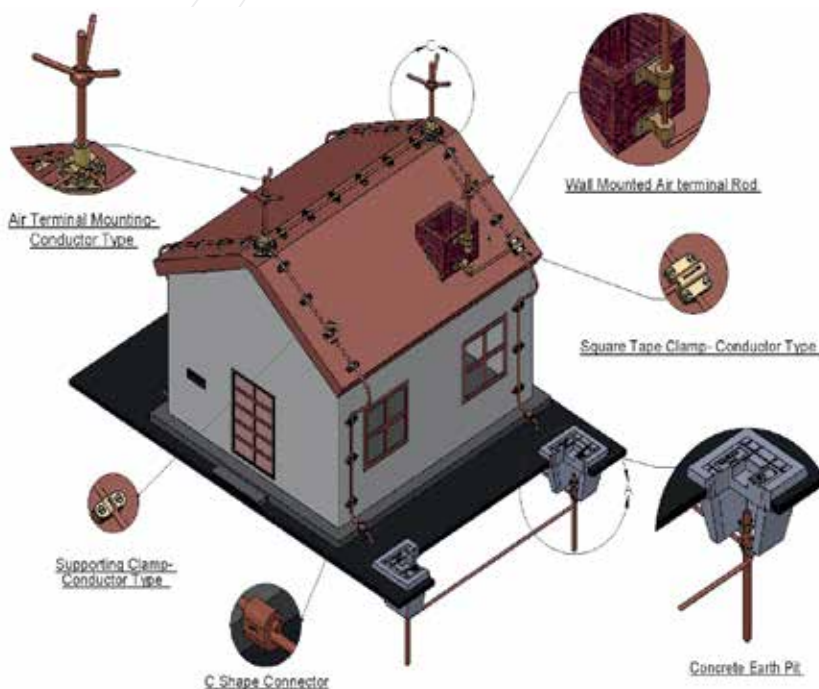
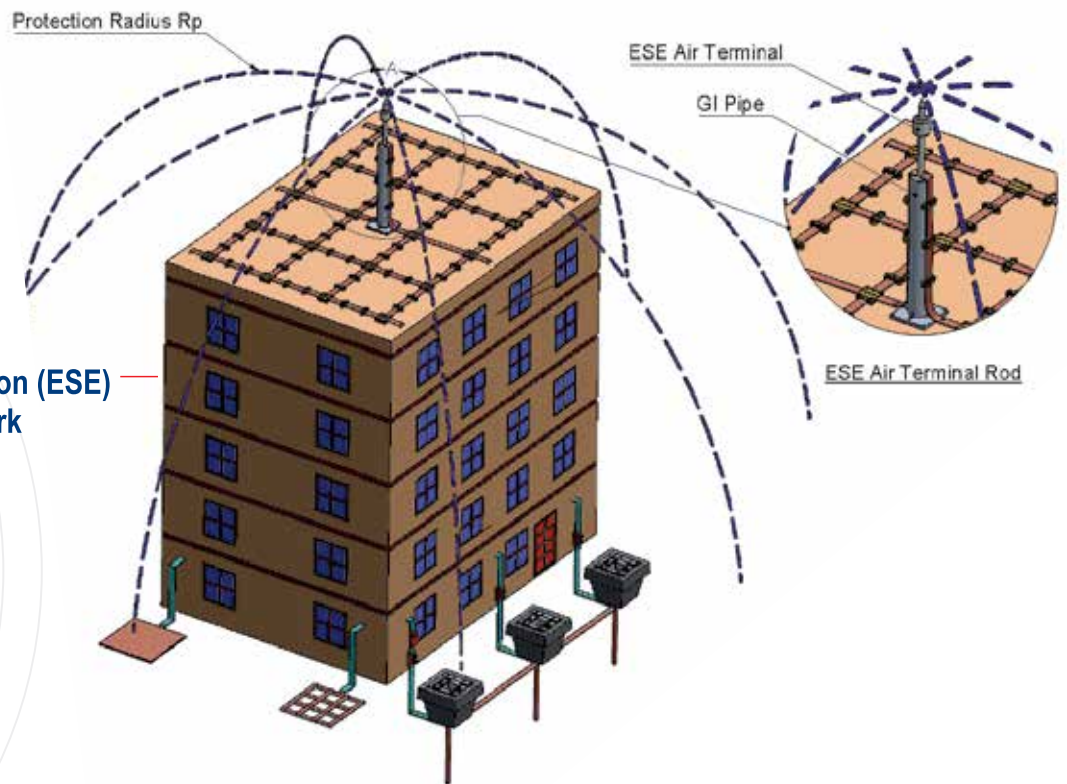
Stainless steel (316L)

- High investment and high resistance to corrosion
- High Strength

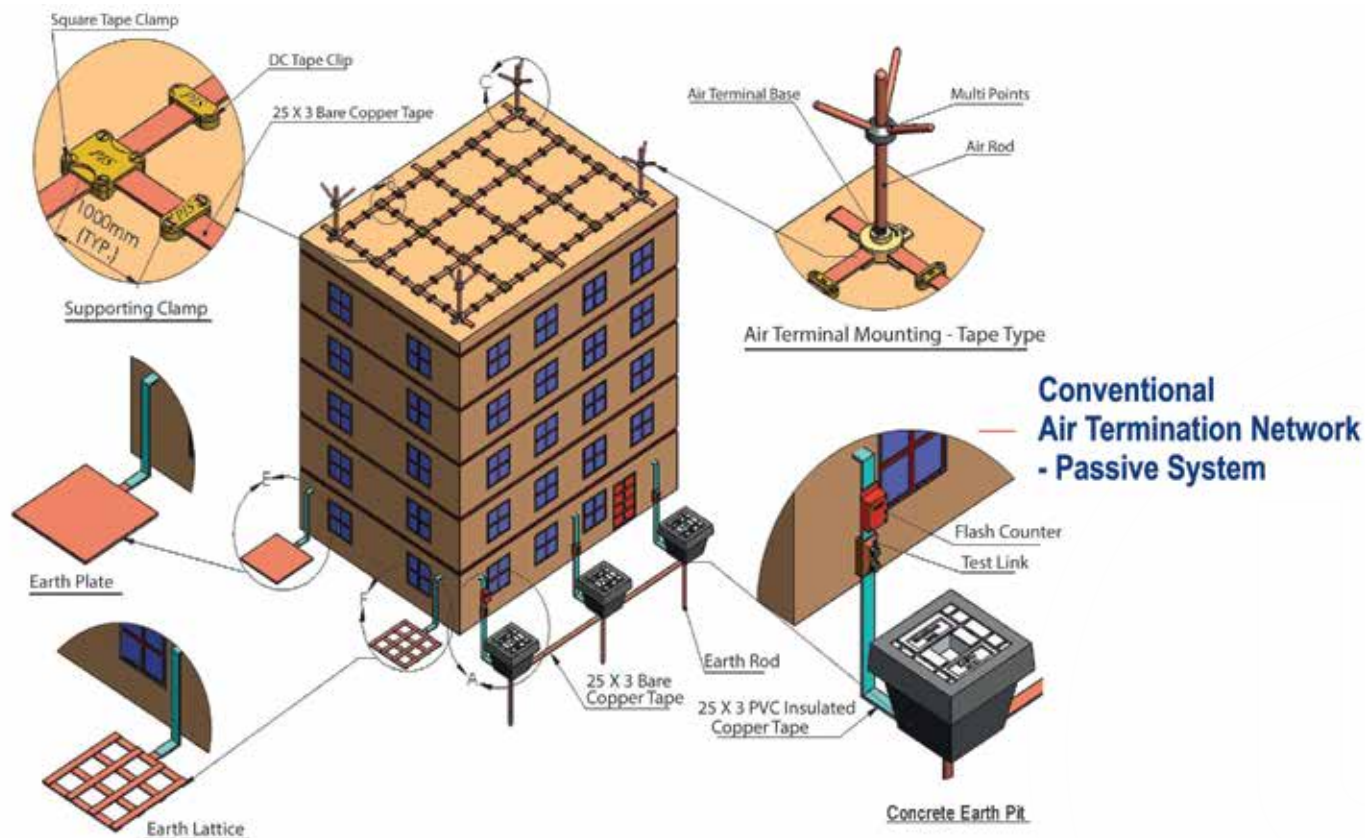
EARTHING & LIGHTNING

Protection Solution

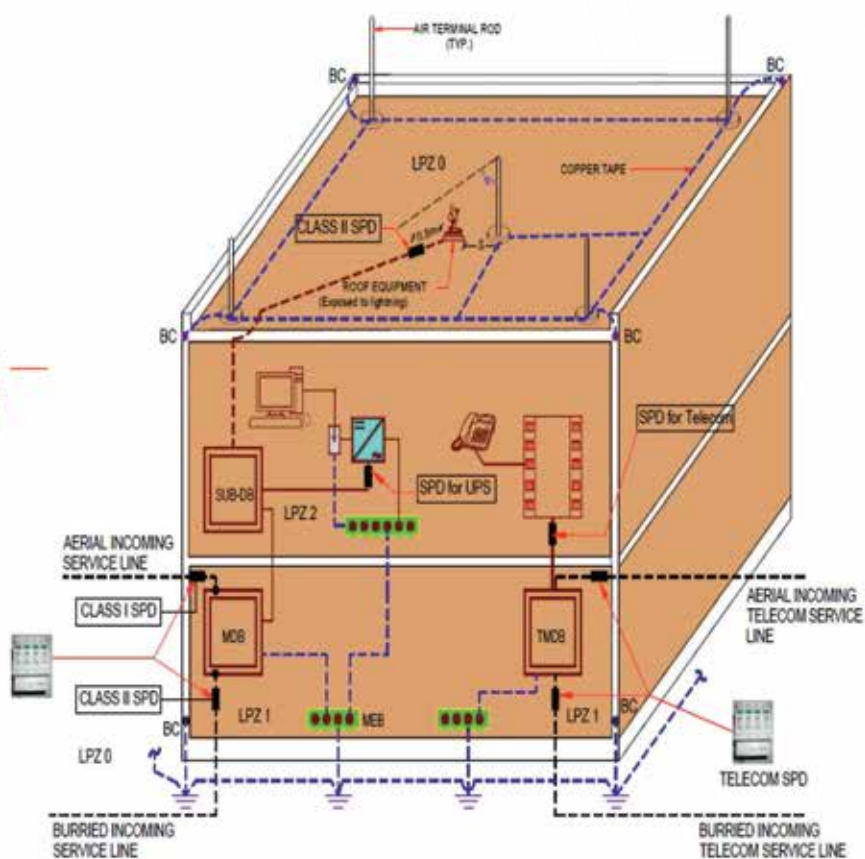
Early Streamer Emission (ESE)
Air Termination Network
– Active System



Lighting Protection Network
- Triangular Structure



Surge Protection Device (SPD) – Indirect Lightning Protection



2

LIGHTNING PROTECTION

2. LIGHTNING PROTECTION

2.1. Direct Lightning Protection (Direct Strike To Structures)

2.1.1. Conventional

Air terminal Rods - Passive Components

Air Terminal Rod is used on highest point of an elevated structure to captures maximum lightning strike .

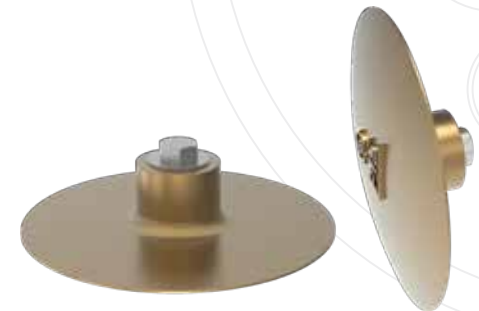
Product Code		Nominal dia. in mm	Thread Size	Length mm
Copper #	Aluminium			
PIS -01	PISA -01	15	M16	300
PIS -02	PISA -02	15	M16	500
PIS -03	PISA -03	15	M16	1000
PIS -04	PISA -04	15	M16	1500
PIS -05	PISA -05	15	M16	2000
PIS -06	PISA -06	19	M20	300
PIS -07	PISA -07	19	M20	500
PIS -08	PISA -08	19	M20	1000
PIS -09	PISA -09	19	M20	1500
PIS -10	PISA -10	19	M20	2000

- Grade of Copper used is Electrical Grade Type - Cu, having 99.9% purity.
- Lock nut can be provided as per the request.



2.1.2. Multipoint

Product Code		Product Name
Copper Alloy	Aluminium	
PIS MP-01	PISMPA - 01	Multipoint Set for 15mm dia. rod
PIS MP-02	PISMPA - 02	Multipoint Set for 19mm dia. rod



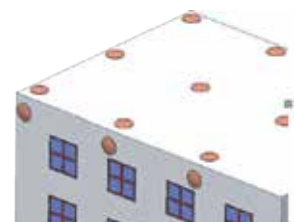
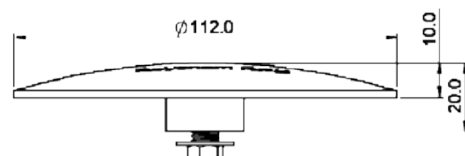
2.1.3. Strike Pad

Used where it is not possible to install conductor on the roof or side of a building. A typical application would be on the roof of a car park where the conductor is laid underneath the tarmac and the strike pads fitted on top.

Material: High Strength Copper Alloy

Part Code	Dia
PISASP-01	112 mm

- Additional accessories (Stem, Locknut, etc..) can be provided as per request.

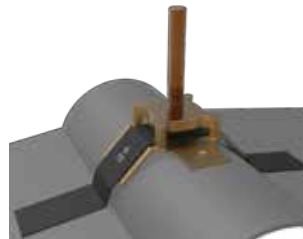


2.1.4. Air Terminal Base

Ridge Saddle: Tape Type

Used to provide support to the Air terminal rod on roof ridges.

Product Code		Thread Dia.	Max. Tape Size in mm
Copper Alloy	Aluminium		
PISRS-01	PISSA-01	M16	30 x 6
PISRS-03	PISRSA-03	M20	30 x 6



Conductor Type

Electrical connection between air terminal rod and down conductor (conductor).

Product Code		Cross Section in mm ²	Threading Dia.
Copper Alloy	Aluminium		
PISAT – 101	PISATA –101	50	M16
PISAT – 102	PISATA –102	50	M20
PISAT – 103	PISATA –103	70	M16
PISAT – 104	PISATA –104	70	M20
PISAT – 105	PISATA –105	95	M16
PISAT – 106	PISATA –106	95	M20



UL LISTED
Thru structure Assemblies
E534991



2. LIGHTNING PROTECTION

2.2. Down Conductor Network

2.2.1. Down Conductors - Tape

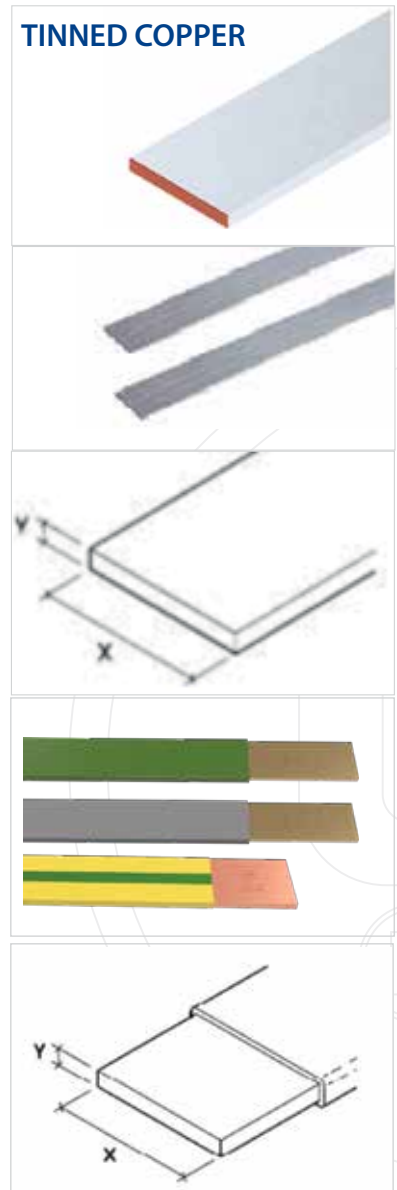
- Tape provides least resistance path from lightning fault current to ground earth pit.
- PVC Insulation provides protection against shock while carrying fault current of bare conductor

Product Code				Bare Tape (X * Y) mm
Bare Tape			PVC Covered Copper	
Copper	Tinned Coated Copper	Aluminium		
PISBCT-01	PISTCT-01	PISBAT - 01	PISPCT-01	12.5 x 1.5
PISBCT-02	PISTCT-02	PISBAT - 02	PISPCT-02	12.5 x 3
# PISBCT-03	# PISTCT-03	PISBAT - 03	PISPCT-03	20 x 1.5
# PISBCT-04	# PISTCT-04	PISBAT - 04	PISPCT-04	20 x 3
# PISBCT-05	# PISTCT-05	PISBAT - 05	PISPCT-05	25 x 1.5
# PISBCT-06	# PISTCT-06	PISBAT - 06	PISPCT-06	25 x 3
# PISBCT-07	# PISTCT-07	PISBAT - 07	PISPCT-07	25 x 4
# PISBCT-08	# PISTCT-08	PISBAT - 08	PISPCT-08	25 x 6
# PISBCT-09	# PISTCT-09	PISB AT - 09	PISPCT-09	30 x 3
# PISBCT-10	# PISTCT-10	PISBAT - 10	PISPCT-10	30 x 6
# PISBCT-11	# PISTCT-11	PISBAT - 11	PISPCT-11	38 x 3
# PISBCT-12	# PISTCT-12	PISBAT - 12	PISPCT-12	38 x 5
# PISBCT-13	# PISTCT-13	PISBAT - 13	PISPCT-13	38 x 6
# PISBCT-14	# PISTCT-14	PISBAT - 14	PISPCT-14	40 x 4
# PISBCT-15	# PISTCT-15	PISBAT - 15	PISPCT-15	40 x 6
# PISBCT-16	# PISTCT-16	PISBAT - 16	PISPCT-16	50 x 3
# PISBCT-17	# PISTCT-17	PISBAT - 17	PISPCT-17	50 x 4
# PISBCT-18	# PISTCT-18	PISBAT - 18	PISPCT-18	50 x 6
# PISBCT-19	# PISTCT-19	PISBAT - 19	PISPCT-19	30 x 2
# PISBCT-20	# PISTCT-20	PISBAT - 20	PISPCT-20	30 x 4
# PISBCT-21	# PISTCT-21	PISBAT - 21	PISPCT-21	30 x 5
# PISBCT-22	# PISTCT-22	PISBAT - 22	PISPCT-22	31 x 6
# PISBCT-23	# PISTCT-23	PISBAT - 23	PISPCT-23	40 x 5
# PISBCT-24	# PISTCT-24	PISBAT - 24	PISPCT-24	50 x 5

- Representative products colours as per BS 5252.
- PVC Sheath colour needs to be specified clearly while placing PO.
- Grade of Copper used is Electrical Grade Copper EGC - Cu, having 99.9% purity.



- Representative products tested for **IEC 62561-2:2012**.
- Tinplating is only for aesthetic reasons.



Lead Covered Copper Tape

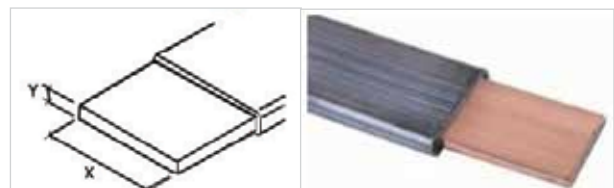
Lead-covered (Pb), high conductivity, annealed 25 x 3mm flat copper earthing tape.

Lead covered for use in highly contaminated areas.

Pb-covered lead-copper tape is annealed for ultimate ductility and has radiused edges.

Product Code	Tape Size in mm
PISLST-06	25 x 3

- Material: Copper to BS EN 13601 (formerly BS 1432).
- Customized cross section available on customer request



DOWN CONDUCTORS - STRANDED CONDUCTOR & SHEATHED

Bare Stranded Copper Conductor

- Copper stranded copper conductor provides least resistance path from lightning fault current to ground earth pit.
- Sheathed Insulation provides protection against shock while carrying fault current of bare conductor.



Bare Stranded Product Code	Sheathed Conductor Product Code	C/S Area in Sq.mm
PISBSCC - 4	PISPSCC - 4	4
PISBSCC - 6	PISPSCC - 6	6
PISBSCC - 10	PISPSCC - 10	10
PISBSCC - 16	PISPSCC - 16	16
PISBSCC - 25	PISPSCC - 25	25
PISBSCC - 35	PISPSCC - 35	35
PISBSCC - 50	PISPSCC - 50	50
PISBSCC - 70	PISPSCC - 70	70
PISBSCC - 95	PISPSCC - 95	95
PISBSCC - 120	PISPSCC - 120	120
PISBSCC - 150	PISPSCC - 150	150
PISBSCC - 185	PISPSCC - 185	185
PISBSCC - 240	PISPSCC - 240	240
PISBSCC - 300	PISPSCC - 300	300
PISBSCC - 400	PISPSCC - 400	400

- Grade of Copper used is Electrical Grade Copper - Cu, having 99.9% purity.
- PVC Sheath colour needs to be specified clearly while placing PO.

Bare Solid Conductor

Copper solid copper conductor provides least resistance path from lightning fault current to ground earth pit.



Product Code	C/S Area in Sq.mm
PISBSC - 8C	50
PISBSC - 9C	70

- Grade of Copper used is Electrical Grade Copper - Cu, having 99.9% purity.

Hard Drawn Copper Flat

Hard drawn copper flat bars suitable for used as copper bus bars.



Product Code	C/S Area in mm
PISHCT-01	25 x 3
PISHCT-02	25 x 6
PISHCT-03	38 x 6
PISHCT-04	50 x 6
PISHCT-05	50 x 10
PISHCT-06	75 x 6
PISHCT-07	100 x 6

2. LIGHTNING PROTECTION

2.2.2. Clamping Accessories

D.C.Tape Clip – Tape Type

It provides support to the down conductor tape and is rigid enough to with stand mechanical stresses, lightning stresses, and thermal expansion and contraction of the conductor tapes.



Product Code		Copper Tape / Strip Size in mm
Copper Alloy #	Aluminium	
PISDC – 01	PISDCA – 01	20 x 3
PISDC – 02	PISDCA – 02	25 x 3
PISDC – 03	PISDCA – 03	25 x 4
PISDC – 04	PISDCA – 04	25 x 6
PISDC – 05	PISDCA – 05	31 x 3
PISDC – 06	PISDCA – 06	31 x 6
PISDC – 07	PISDCA – 07	38 x 3
PISDC – 08	PISDCA – 08	38 x 5
PISDC – 09	PISDCA – 09	38 x 6
PISDC – 10	PISDCA – 10	50 x 3
PISDC – 11	PISDCA – 11	50 x 4
PISDC – 12	PISDCA – 12	50 x 6
PISDC – 13	PISDCA – 13	50 x 8
PISDC - 17	PISDCA - 17	30 x 5
PISDC - 18	PISDCA - 18	40 x 5
PISDC – 19	PISDCA – 19	31 x 7
PISDC - 20	PISDCA - 20	50 x 5



• Representative products tested for IEC 62561-2:2012

Tape Clip – Tape Type

It supports tape / strip on the flat surface.

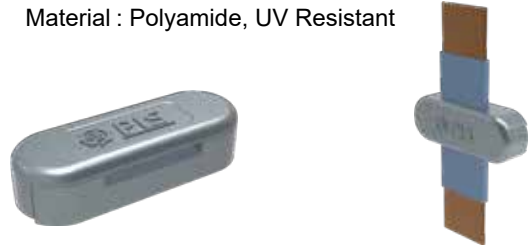


Product Code		Conductor Size in mm
Copper	Aluminium	
PISTC - 101	PISTCA - 101	20 x 3
PISTC - 102	PISTCA - 102	25 x 3
PISTC - 103	PISTCA - 103	50 x 6
PISTC – 106	PISTCA – 106	31 x 6

Non Metallic D.C. Tape Clip

It provides support to the PVC insulated tape and is rigid enough to with stand mechanical stresses, lightning stresses, and thermal expansion and contraction of the conductor tapes.

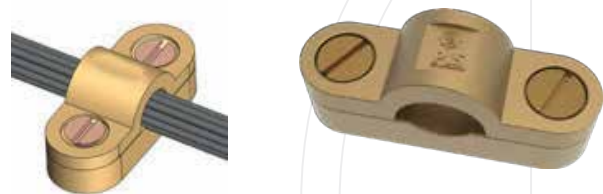
Material : Polyamide, UV Resistant



Product Code	Tape Size in mm	Colour	Tape
PISDCP - 01	25 x 3	Grey	PVC Insulated Tape
PISDCP - 02	25 x 3	Grey	Bare Copper Tape

Heavy Duty Conductor Saddle

It uses in conjunction wall mounted air terminal bases.



Product Code		Conductor Dia. in Sq.mm
Copper Alloy	Aluminium	
PISHDS - 01	PISHDSA - 01	50
PISHDS - 02	PISHDSA - 02	70
PISHDS - 03	PISHDSA - 03	95
PISHDS - 04	PISHDSA - 04	240
PISHDS - 05	PISHDSA - 05	120

One Hole Clip

It supports round conductor on the flat surface



Product Code		Conductor in Sq.mm
Copper	Aluminium	
PISHC-01	PISHCA-01	25 – 35
PISHC-02	PISHCA-02	50 – 70
PISHC-03	PISHCA-03	95
PISHC-04	PISHCA-04	120
PISHC-05	PISHCA-05	150
PISHC-06	PISHCA-06	185
PISHC-07	PISHCA-07	240
PISHC-08	PISHCA-08	300

Square Clamp - Tape To Conductor

Square Clamp are used to cross joints between the tane to solid conductor.



Product Code		Conductor Dia. in mm
Copper Alloy	Aluminium	
PISTSC-01	PISTSCA-01	8



Square Tape Clamp (Type 1)

Square tape clamp are used for supporting or fixing the 4-Way connection.



Product Code		Copper Tape / Strip size in mm
Copper Alloy	Aluminium	
PISSC-01	PISSCA-01	20 x 3
PISSC-02	PISSCA-02	25 x 3
PISSC-04	PISSCA-04	25 x 6
PISSC-05	PISSCA-05	38 x 3
PISSC-07	PISSCA-07	38 x 6
PISSC-08	PISSCA-08	50 x 3
PISSC-09	PISSCA-09	50 x 6



Square Conductor Clamp - Type 2

Square conductor Clamps are used for supporting or fixing the 4 - way connections on down conductor and an effective low resistive connection between overlapping conductors.



Product Code		Conductor C/S in Sq.mm
Copper Alloy	Aluminium	
PISSC-201	PISSCA-201	35
PISSC-202	PISSCA-202	50
PISSC-203	PISSCA-203	70
PISSC-204	PISSCA-204	95
PISSC-205	PISSCA-205	120



Self Adhesive D.C. Tape Clip

It secures conductors to surfaces that cannot be penetrated by a screw.

Suitable for aluminum, copper, Insulated tapes.

Applicable for glass, Perspex, enamel and stainless steel etc.

Disc Dia.: 85mm

Material: Polyamide base with Polyamide clip, UV Resistant.



Product Code	Tape Size in mm
PISSADC-253	25 X 3

Compound for Self Adhesive D.C.Tape Clip: Very High Bond (VHB) Double Sided Foam Type

1. Very conformable, double-sided, pressure-sensitive, closed-cell acrylic foam tape.
2. High strength, Durable and Clean appearance.

2. LIGHTNING PROTECTION

Tee Clamp

It provides effective low resistance cross joints in solid circular conductor networks.



Product Code		Conductor in Sq.mm
Copper Alloy	Aluminium	
PISTC-135	PISTCA-35	35
PISTC-150	PISTCA-150	50-95



Jointing Clamp

It provides effective low resistance cross joints in solid circular conductor networks.

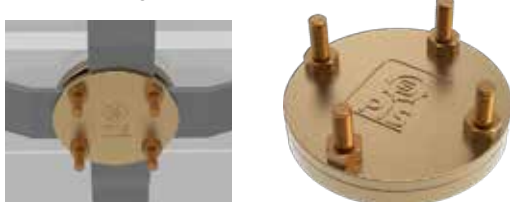


Product Code		Conductor Dia. in mm
Copper Alloy	Aluminium	
PISJC-01	PISJCA-01	8



Plate Test Clamp

It's used for supporting or fixing the 4 - way connections on down conductor and an effective low resistive connection between overlapping conductors.



Product Code		Tape Size in mm
Copper Alloy	Aluminium	
PISPC - 33	PISPCA - 33	25 x 3



Bi-Metallic Connector

Bi-Metallic connectors are used to join aluminium and copper tapes / cables together. They enable a neat and practical jointing method without the need for tinning, riveting or wrapping the joint.



Product Code	Tape Size in mm
PISBMC - 01	20 x 3
PISBMC - 02	25 x 3

Interface Test Clamp

Provides an effective low resistance connection and disconnection between overlapping conductors.

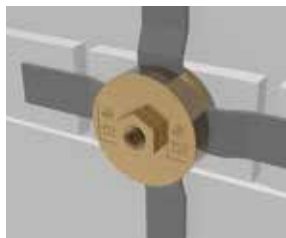


Product Code		Conductor dia. mm	Conductor Size in mm
Copper Alloy	Aluminium		
PISITC - 01	PISITCA -01	8	25 x 3



Screwdown Test Clamp

It's used to create a disconnection joint between the down conductor system with 4 - way connections and earthing system.



Product Code		Tape Size in mm
Copper Alloy	Aluminium	
PISSC - 253	PISSCA - 253	25 x 3



2.2.3. Bonding Components

Earth Boss

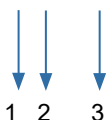
Mild Steel / Stainless Steel Earth Boss

The Earth Boss is manufactured from Steel or also from Stainless Steel SS304 / SS316.

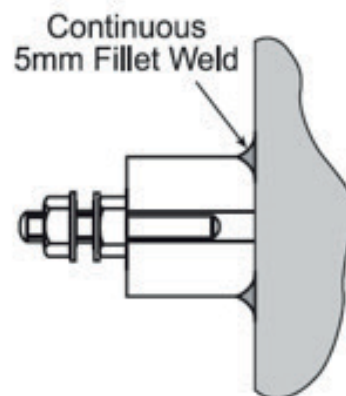
Length in mm	Dia. in mm
25	25
30	30
30	40
30	50
40	30
40	40
40	50
50	30
50	40
50	50

Product Key:

PIS X XX (XXX)



1. Material:
 - a. S – Stainless Steel
 - b. M – Steel
2. Size – (Length x Diameter)
3. Thread Size - (As per customer requirement.)



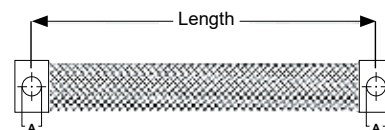
Braid

Flexible / Circular Braid

PIS Professional Manufacturers flexible bonding conductors / flexible earth braid as per IEC 62561-2:2012, BS EN 50164-2:2009 & BS 7430.

Flat Flexible Earth Braid

Product Code	Product Code	Cross Section Area	Nominal Dimension	Length of Braid	Hole Diameter (A)
Bare	Tinned	Sq.mm	mm	mm	mm
PISBCB 200-6-7	PISTCB 200-6-7	6	12 x 1	200	7
PISBCB 400-6-7	PISTCB 400-6-7	6	12 x 1	400	7
PISBCB 200-10-7	PISTCB 200-10-7	10	15 x 1.5	200	7
PISBCB 400-10-7	PISTCB 400-10-7	10	15 x 1.5	400	7
PISBCB 200-16-9	PISTCB 200-16-9	16	19 x 2.5	200	9
PISBCB 400-16-9	PISTCB 400-16-9	16	19 x 2.5	400	9
PISBCB 200-25-11	PISTCB 200-25-11	25	25 x 3.0	200	11
PISBCB 400-25-11	PISTCB 400-25-11	25	25 x 3.0	400	11
PISBCB 200-35-11	PISTCB 200-35-11	35	25 x 3.5	200	11
PISBCB 400-35-11	PISTCB 400-35-11	35	25 x 3.5	400	11
PISBCB 200-50-11	PISTCB 200-50-11	50	30 x 5.0	200	11
PISBCB 400-50-11	PISTCB 400-50-11	50	30 x 5.0	400	11
PISBCB 200-70-13	PISTCB 200-70-13	70	32 x 6.0	200	13
PISBCB 400-70-13	PISTCB 400-70-13	70	32 x 6.0	400	13
PISBCB 200-95-13	PISTCB 200-95-13	95	37 x 6.0	200	13
PISBCB 400-95-13	PISTCB 400-95-13	95	37 x 6.0	400	13
PISBCB 200-120-17	PISTCB 200-120-17	120	45 x 6.0	200	17
PISBCB 400-120-17	PISTCB 400-120-17	120	45 x 6.0	400	17
PISBCB 200-150-17	PISTCB 200-150-17	150	50 x 8.0	200	17
PISBCB 400-150-17	PISTCB 400-150-17	150	50 x 8.0	400	17

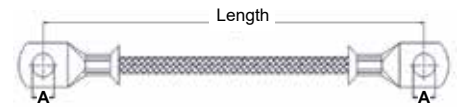


- Grade of Copper used is Electrical Grade Copper - Cu, having 99.9% purity.
- Customised **Sizes** and **Length** available as per the request.

2. LIGHTNING PROTECTION

Circular Flexible Earth Braid

Product Code	Product Code	Cross Section Area	Length of Braid	Hole Diameter (A)
Bare	Tinned	Sq.mm	mm	Amps
PISBCCB 200-6-7	PISTCCB 200-6-7	6	200	7
PISBCCB 400-6-7	PISTCCB 400-6-7	6	400	7
PISBCCB 200-10-7	PISTCCB 200-10-7	10	200	7
PISBCCB 400-10-7	PISTCCB 400-10-7	10	400	7
PISBCCB 200-16-9	PISTCCB 200-16-9	16	200	9
PISBCCB 400-16-9	PISTCCB 400-16-9	16	400	9
PISBCCB 200-25-11	PISTCCB 200-25-1	25	200	11
PISBCCB 400-25-11	PISTCCB 400-25-11	25	400	11
PISBCCB 200-35-11	PISTCCB 200-35-1	35	200	11
PISBCCB 400-35-11	PISTCCB 400-35-11	35	400	11
PISBCCB 200-50-11	PISTCCB 200-50-1	50	200	11
PISBCCB 400-50-11	PISTCCB 400-50-11	50	400	11
PISBCCB 200-70-13	PISTCCB 200-70-13	70	200	13
PISBCCB 400-70-13	PISTCCB 400-70-13	70	400	13
PISBCCB 200-95-13	PISTCCB 200-95-13	95	200	13
PISBCCB 400-95-13	PISTCCB 400-95-13	95	400	13



- Grade of Copper used is Electrical Grade Copper - Cu, having 99.9% purity.
- Customised Sizes and Length available as per the request.

B Bond Clamp

Bonding for tape to steel surfaces.

Product Code		Max. Tape Size in mm	Bolt Size	Conductor Tape Material
Copper Alloy	Aluminium			
PISBB – 01	PISBBA – 01	26	M10	Copper
PISBB – 03	PISBBA – 03	38	M10	Copper



* Representative products tested for Class H - BS EN 50164-1: 2009 / BS 50164-1: 2009 / IEC 62561-1:2012

Pipe Clamp (Type 1)

Bonding for conductor to pipe. It provides earth continuity to pipelines.

Product Code		Pipe Dia. in Inch	Conductor in Sq.mm
Copper Alloy	Aluminium		
PISPC –101	PISPCA –101	1/2" - 1"	25 - 95
PISPC –102	PISPCA –102	1.1/4" - 2"	25 - 95
PISPC –103	PISPCA –103	2.1/2" - 3.1/2"	25 - 95
PISPC –104	PISPCA –104	4" - 5"	25 - 95
PISPC –105	PISPCA –105	6"	25 - 95
PISPC –106	PISPCA –106	8"	25 - 95
PISPC –107	PISPCA –107	10"	25 - 95
PISPC –108	PISPCA –108	12"	25 - 95



Pipe Clamp (Type 2)

Bonding for conductor to pipe. It provides earth continuity to pipelines.

Product Code		Pipe Size in Inch	Conductor Range in Sq. mm
Copper Alloy	Aluminium		
PISPC – 01	PISPCA – 01	1/2"-1"	Up to 16
PISPC – 02	PISPCA – 02	1 1/4" – 2"	Up to 16
PISPC – 03	PISPCA – 03	2 1/2" – 4"	Up to 16



3

EARTHING PROTECTION

3. EARTHING PROTECTION

3.1. Earthing And Grounding Solutions

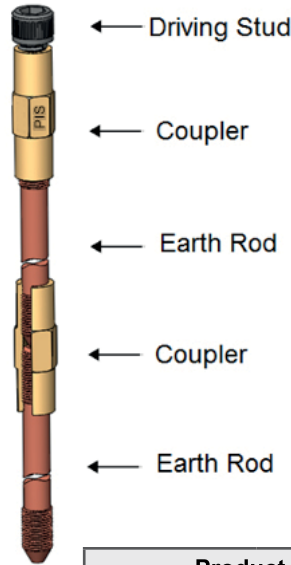
3.1.1. Copper Bonded Earth Rod & Accessories

Externally Threaded

Protective earthing of commercial and industrial buildings by dispersing the lightning flashes and fault currents of distribution to the earth.

Product Code (254 microns)	Shank dia.mm	Earth Rod Size in UNC Thread	Rod Length in mm
PISET - 01	12.7	9/16"	1200
PISET - 02	12.7	9/16"	1500
PISET - 03	12.7	9/16"	1800
# PISET - 04	12.7	9/16"	2440
# PISET - 05	12.7	9/16"	3050
PISET - 06	14.2	5/8"	1200
PISET - 07	14.2	5/8"	1500
PISET - 08	14.2	5/8"	1800
# PISET - 09	14.2	5/8"	2440
# PISET - 10	14.2	5/8"	3050
PISET - 15	17.2	3/4"	1200
PISET - 16	17.2	3/4"	1500
PISET - 17	17.2	3/4"	1800
# PISET - 18	17.2	3/4"	2440
# PISET - 19	17.2	3/4"	3050

- For Copper plating thickness <254 microns. (30 microns, 100 microns, 120 microns) etc....
- Add suffix "C" at end of part code.



Driving Stud:

The driving stud is used as the impact bearing head when deep driving of earth electrode is required.

Product Code	Earth Rod Size in UNC Thread
PISID - 01	5 / 8"
PISID - 02	3 / 4"
PISID - 03	9/16"

Coupler:



Coupler used to combine two / more earth rods.

Product Code		Earth Rod Size in UNC Thread
Brass	Al.Bronze	
PISECBR - 01	# PISECB - 01	9/16"
PISECBR - 02	# PISECB - 02	5 / 8"
PISECBR - 03	# PISECB - 03	3/4"

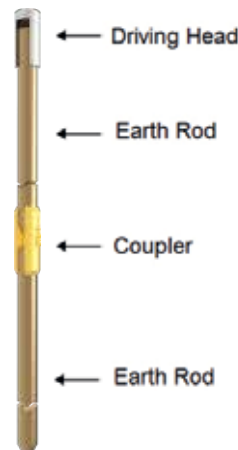


UnThreaded

Protective earthing of commercial and industrial buildings by dispersing the lightning flashes and fault currents of distribution to the earth.

Product Code (254 microns)	Earth Rod dia. (mm)	Rod Length in mm
PISEU - 04	12.7	1200
PISEU - 05	12.7	1500
PISEU - 06	12.7	1800
# PISEU - 07	12.7	2440
# PISEU - 08	12.7	3050
PISEU - 09	14.2	1200
PISEU - 10	14.2	1500
PISEU - 11	14.2	1800
# PISEU - 12	14.2	2440
# PISEU - 13	14.2	3050
PISEU - 14	17.2	1200
PISEU - 15	17.2	1500
PISEU - 16	17.2	1800
# PISEU - 17	17.2	2440
# PISEU - 18	17.2	3050

- For Copper plating thickness <254 microns. (30 microns, 100 microns, 120 microns) etc....
- Add suffix "C" at end of part code.



Driving Head:

The driving stud is used as the impact bearing head when deep driving of earth electrode is required.

Product Code	Earth Rod Size in UNC Thread
PISDH - 01	12.7
PISDH - 02	14.2
PISDH - 03	17.2

Coupler:

Coupler used to combine two / more earth rods.

Product Code		Earth Rod Size in UNC Thread
Brass	Al.Bronze	
PISEBU - 01	PISECU - 01	12.7
PISEBU - 02	PISECU - 02	14.2
PISEBU - 03	PISECU - 03	17.2



* Representative products tested for Class H - BS EN 50164-1: 2009 / BS 50164-1: 2009 / IEC 62561-1:2012

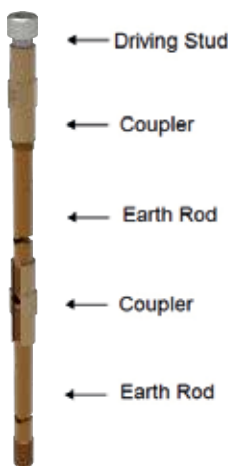
3.1.2. Solid Copper Earth Rod & Accessories

Externally Threaded

Solid Copper Earth rods used in protective earthing of commercial and industrial buildings by dispersing the lightning flashes and fault currents of distribution to the earth.

Product Code	Earth Rod Size in UNC Thread	Shank Dia. in mm	Length in mm
PISES-01	9/16"	12.7	1200
PISES-02	9/16"	12.7	1500
PISES-03	9/16"	12.7	1800
# PISES-04	9/16"	12.7	2440
# PISES-05	9/16"	12.7	3050
PISES-06	5/8"	14.2	1200
PISES-07	5/8"	14.2	1500
PISES-08	5/8"	14.2	1800
# PISES-09	5/8"	14.2	2440
# PISES-10	5/8"	14.2	3050
PISES-11	5/8"	16	1200
PISES-12	5/8"	16	1800
# PISES-13	5/8"	16	2440
# PISES-14	5/8"	16	3050
PISES-15	3/4"	17.2	1200
PISES-16	3/4"	17.2	1500
PISES-17	3/4"	17.2	1800
# PISES-18	3/4"	17.2	2440
# PISES-19	3/4"	17.2	3050

- Representative products tested for IEC 62561-2:2012
- Grade of Copper used is ETP - Cu, having 99.9% purity.
- Earth Rods available in Stainless Steel AISI 316 UL Listed. Add "S" for SS earth rods.



Driving Stud:

The driving stud is used as the impact bearing head when deep driving of earth electrode is required.

Product Code	Earth Rod Dia.	
	UNC Thread	IN mm
PISID - 01	5 / 8	14.2
PISID - 02	3 / 4	17.2
PISID - 03	9 / 16	12.7

Coupler:

Coupler is used to combine two / more earth rods.

Earth Rod Size in UNC Thread	Product Code	
	Brass	Al. Bronze
9/16	PISECBR - 01	# RECB - 01
5 / 8	PISECBR - 02	# RECB - 02
3/4	PISECBR - 03	# RECB - 03

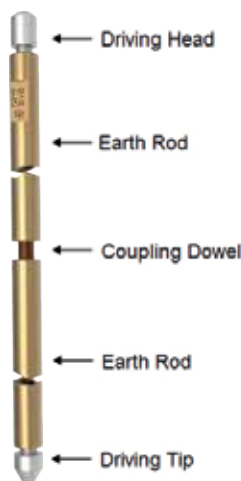


Internally Threaded

Solid Copper Earth rods used in protective earthing of commercial and industrial buildings by dispersing the lightning flashes and fault currents of distribution to the earth.

Product Code	Thread Dia.	Shank Dia. in mm	Length in mm
PISIS-01	M10	15	1200
PISIS-07	M10	15	1500
PISIS-02	M10	15	1800
# PISIS-03	M10	15	2440
# PISIS-08	M10	15	3050
PISIS-04	M12	20	1200
PISIS-09	M12	20	1500
PISIS-05	M12	20	1800
# PISIS-06	M12	20	2440
# PISIS-10	M12	20	3050
PISIS-11	M10	16	1200
PISIS-12	M10	16	1500
PISIS-13	M10	16	1800
# PISIS-14	M10	16	2440
# PISIS-15	M10	16	3050
PISIS-16	M12	19	1200
PISIS-17	M12	19	1500
PISIS-18	M12	19	1800
# PISIS-19	M12	19	2440
# PISIS-20	M12	19	3050

- Grade of Copper used is ETP - Cu, having 99.9% purity.
- The Earth Rods can be supplied with tinplating of 1µm. The tinplating is only for aesthetic reasons.
- Earth Rods available in Stainless Steel AISI 316 UL Listed. Add "S" for SS earth rods.



Driving Head:

The driving stud is used as the impact bearing head when deep driving of earth electrode is required.

Product Code	Earth Rod Dia. (mm)	Thread Size
PISDS-02	15	M10
PISDS-03	20	M12
PISDS-04	16	M10
PISDS-05	19	M12

Coupling Dowell:

Coupler dowell used to combine two / more earth rods.

Product Code	Earth Rod Dia. (mm)
PISIC - 01	15
PISIC - 02	20
PISIC - 03	16
PISIC - 04	19

Driving Tip:

Driving Tip is used as the bottom of the earth rod.

Product Code	Earth Rod Dia. (mm)
PISIT - 01	15
PISIT - 02	20
PISIT - 03	16
PISIT - 04	19

3. EARTHING PROTECTION

3.2. Clamps & Bonds

Rod to Tape Clamp (Type A)

Rod to Cable Clamp is used for providing a secure connection between the down conductor cable and the earth rod.



Product Code		Earth Rod Size in UNC Thread	Max. Tape In mm
Copper Alloy	Aluminium		
PISCA - 01	PISCAA - 01	1/2"	26 x 12
PISCA - 02	PISCAA - 02	5/8"	26 x 12
PISCA - 03	PISCAA - 03	3/4"	26 x 10
PISCA - 04	PISCAA - 04	5/8"	30 x 2
PISCA - 05	PISCAA - 05	3/4"	30 x 2
PISCA - 06	PISCAA - 06	5/8"	40 x 12
PISCA - 07	PISCAA - 07	5/8"	51 x 8
PISCA - 08	PISCAA - 08	3/4"	51 x 12
PISCA - 09	PISCAA - 09	1/2"	26 x 20
PISCA - 10	PISCAA - 10	5/8"	26 x 18
PISCA - 11	PISCAA - 11	1"	26 x 10



Rod to Cable Clamp (Type G)

Rod to Cable Clamp is used for providing a secure connection between the down conductor cable and the earth rod.



Product Code		Earth Rod Size in UNC Thread	Cross Section in Sq. mm
Copper Alloy	Aluminium		
PISCG - 01	PISCGA - 01	3/8"	6 - 35
PISCG - 02	PISCGA - 02	1/2"	16 - 50
PISCG - 03	PISCGA - 03	5/8"	16 - 70
PISCG - 04	PISCGA - 04	3/4"	16 - 95
PISCG - 05	PISCGA - 05	1"	70 - 120
PISCG - 06	PISCGA - 06	1.1/2"	120 - 150



* Representative products tested for Class H - BS EN 50164-1: 2009 / BS 50164-1: 2009 / IEC 62561-1:2012

U-Bolt : Single Plate Type For Horizontal Flat Tape (Type "E")

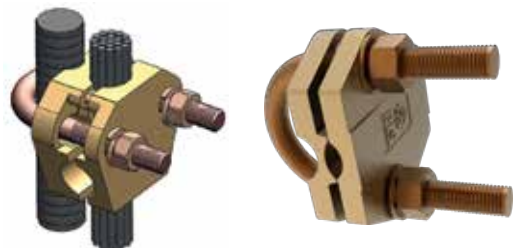
U-bolt Clamps- Single Plate Type is used for providing a secure connection between the horizontal tape and the earth rod.



Product Code		Earth Rod Size in UNC Thread	Hole Centre In mm
Copper Alloy	Aluminium		
PISUE - 01	PISUEA - 01	5/8"	37
PISUE - 02	PISUEA - 02	3/4"	37
PISUE - 03	PISUEA - 03	1"	37
PISUE - 04	PISUEA - 04	1.1/2"	54
PISUE - 05	PISUEA - 05	2"	64

U-Bolt : Double Plate Type for Vertical Stranded Cable Type

U-bolt Clamps- Double Plate Type for Vertical Stranded Cable Type GUV is used for providing a secure connection between the down conductor vertical stranded cable and the earth rod.



Product Code		Earth Rod Size in UNC Thread	Conductor Range in Sq. mm
Copper Alloy	Aluminium		
PISUC - 01	PISUCA - 01	5/8"	16 - 150
PISUC - 02	PISUCA - 02	5/8"	150 - 300
PISUC - 03	PISUCA - 03	3/4"	70 -185
PISUC - 04	PISUCA - 04	3/4"	150 -300
PISUC - 05	PISUCA - 05	1"	16 - 70
PISUC - 06	PISUCA - 06	1"	150 - 300
PISUC - 07	PISUCA - 07	3/4"	16 - 70



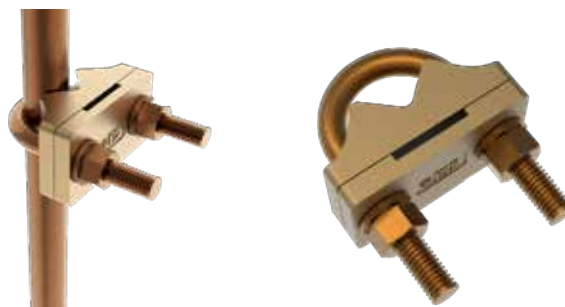
THE ONLY ONE IN EGYPT HAS COMPLETE
UL CERTIFIED
EARTHING PRODUCTS



U-Bolt : Double Plate Type Vertical Flat Tape (Type “E”)

U-bolt Clamps- Double Plate Type is used for providing a secure connection between the vertical tape and the steel reinforcement bar.

Product Code		Earth Rod Size in UNC Thread	Tape Size in mm
Copper Alloy	Aluminium		
PISUD - 01	PISUDA - 01	5/8"	25 x 3
PISUD - 02	PISUDA - 02	3/4"	25 x 3
PISUD - 03	PISUDA - 03	1"	25 x 3
PISUD - 04	PISUDA - 04	1.1/2"	25 x 3
PISUD - 05	PISUDA - 05	2"	25 x 3



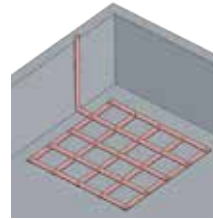
3. EARTHING PROTECTION

3.3. Earth Lattice

Earth Lattice used, where touch and step potential could cause a problem.

Product Code		Lattice Size in mm	No. of Strips
ETP Grade Copper	Stainless Steel (SS 316L)		
PISEL - 01	PISELS - 01	500 x 500 x 2	10
PISEL - 02	PISELS - 02	500 x 500 x 3	10
PISEL - 03	PISELS - 03	500 x 500 x 5	10
PISEL - 04	PISELS - 04	600 x 600 x 2	10
PISEL - 05	PISELS - 05	600 x 600 x 3	10
PISEL - 06	PISELS - 06	600 x 600 x 5	10
PISEL - 07	PISELS - 07	900 x 900 x 2	10
PISEL - 08	PISELS - 08	900 x 900 x 3	10
PISEL - 09	PISELS - 09	900 x 900 x 5	10
PISEL - 10	PISELS - 10	1000 x 1000 x 2	12
PISEL - 11	PISELS - 11	1000 x 1000 x 3	12
PISEL - 12	PISELS - 12	1000 x 1000 x 5	12

Note : Customized sizes can be available as per the request.



ETP Grade Copper



Stainless Steel (SS 316L)

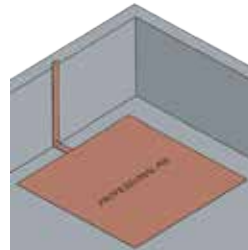


3.4. Solid Earth Plate

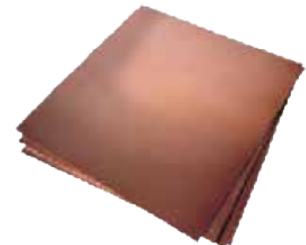
Solid Earth Plate is ideally suitable where soil conditions are very corrosive, such as soil with high salt and moisture content.

Product Code		Plate Size in mm
ETP Grade Copper	Stainless Steel (SS 316L)	
PISEP - 01	PISEPS - 01	500 x 500 x 1.5
PISEP - 02	PISEPS - 02	500 x 500 x 3
PISEP - 03	PISEPS - 03	600 x 600 x 1.5
PISEP - 04	PISEPS - 04	600 x 600 x 3
PISEP - 05	PISEPS - 05	900 x 900 x 1.5
PISEP - 06	PISEPS - 06	900 x 900 x 3
PISEP - 07	PISEPS - 07	1000 x 1000 x 1.5
PISEP - 08	PISEPS - 08	1000 x 1000 x 3

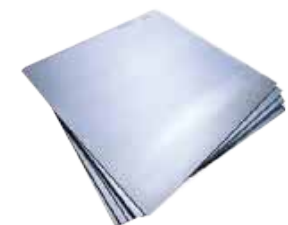
Note : Customized sizes can be available as per the request.



ETP Grade COPPER



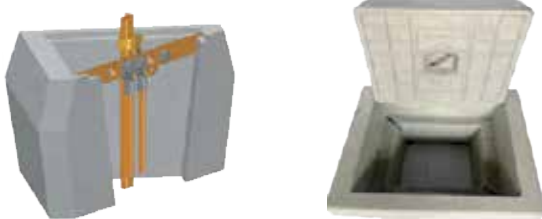
Stainless Steel (SS 316L)



3.5. Earth Inspection Housing Pits

3.5.1. Concrete Inspection Pit

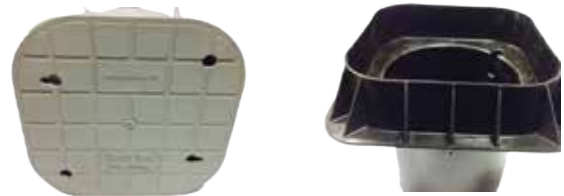
This facilitates periodic inspection of the connection for corrosion and regular maintenance, to ensure the safety of personnel and equipment from earth fault currents and the high currents injected into the earth by a lightning protection system.



Product Code	Dimensions in mm	Rated Load Kg
PISIP - 33	325 (L) x 325 (W) x 190 (D)	3500

3.5.2. Light weight Inspection Pit

Manufactured from high-performance, UV stable and chemically resistant polymer with either polymer or concrete lid to suit the application.



Product Code	Dimension in mm	Rated Load Kg
PISEP – 33	200 (Dia.) x 156 (Depth)	5000 kg

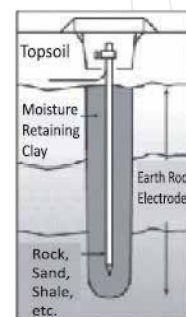


- Representative products tested for IEC 62561-2:2012

3.6. Earth Enhancing Compound

This Earth enhancing compound used as an earth electrode backfill to reduce soil resistivity. The clay is a sodium activated montmorillonite, which when mixed with water swells to many times its dry volume. It has the ability to hold its moisture content for a considerable period of time and to absorb moisture from the surrounding soil. (e.g. rain fall)

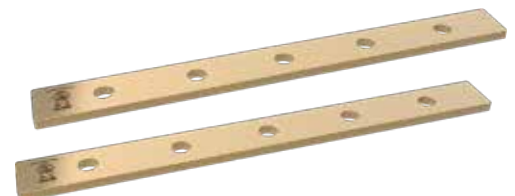
Product Code	Description
PISBM - 33	Pronite Moisture Retaining Clay



3.7. Inspection Housing Earth Bar

These earth bars fit into the slots provided in the concrete inspection housing and are used when multiple connections to the earth rod are required.

Product Code	Hole Dia. in mm	No of Holes	Application
PISIH – 01	11	5	Refer product RIP-33
PISIH – 02	11	7	Refer product RIP-33
PISIH – 03	11	5	Refer product REP-33
PISIH – 04	11	7	Refer product REP-33



- Grade of Copper used is ETP - Cu, having 99.9% purity.
- Earth Bar cross section (30 x 6)mm.

3. EARTHING PROTECTION

3.8. Additional Accessories

3.8.1. Earth Bar With Disconnecting Link

Disconnecting Link /
Test Link

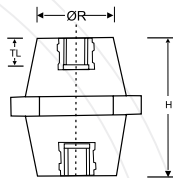


Description	Part Code	Total Length	Total Width	Total Height
Disconnecting Link	PISDL-01	125mm	90mm	90mm

Standoff Insulators

Standoff Insulators combine high mechanical strength with high arc resistance and dielectric properties at elevated temperatures and humidity.

Material: DMC (Dough Moulding Compound).



Product Code	Dimensions			Height (H) mm	Nominal Voltage (AC / DC)
	Rt Ø mm	Rb Ø mm	TL Ø mm		
PISH 1045 (M10)	40	32	12	45	1000 / 1200
PISH 1050 (M10)	46	35.5	17	50	1200 / 1500

Insert: Brass and Mild Steel. TL: Effective Length

Earth Bar



Description	Total Length in mm	Total Width in mm	Total Height in mm	Part No.
6 way	400	90	90	PISREB-6
8 way	500	90	90	PISREB-8
10 way	650	90	90	PISREB-10
12 way	750	90	90	PISREB-12
14 way	850	90	90	PISREB-14
16 way	950	90	90	PISREB-16
18 way	1050	90	90	PISREB-18
20 way	1200	90	90	PISREB-20
22 way	1300	90	90	PISREB-22
24 way	1400	90	90	PISREB-24
26 way	1500	90	90	PISREB-26
28 way	1650	90	90	PISREB-28
30 way	1750	90	90	PISREB-30

- Grade of Copper used is ETP - Cu, having 99.9% purity.
- Earth Bar cross section (50 X 6)mm.
- The Earth bar can be supplied with tinplating.
- For Tinned Earth Bar add suffix "T" part code.

Fasteners:

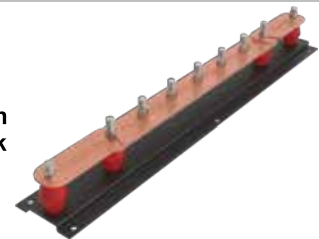
Fasteners for earthing components are selected from recommended standard BS 7430:2011.

Earth Bar with Single
Disconnecting Link



Description	Total Width in mm	Total Height in mm	Part No.
6 way	90	96	PISREB-1-6
8 way	90	96	PISREB-1-8
10 way	90	96	PISREB-1-10
12 way	90	96	PISREB-1-12
14 way	90	96	PISREB-1-14
16 way	90	96	PISREB-1-16
18 way	90	96	PISREB-1-18
20 way	90	96	PISREB-1-20
22 way	90	96	PISREB-1-22
24 way	90	96	PISREB-1-24
26 way	90	96	PISREB-1-26
28 way	90	96	PISREB-1-28
30 way	90	96	PISREB-1-30

Earth Bar with Twin
Disconnecting Link



Description	Total Width in mm	Total Height in mm	Part No.
6 way	90	96	PISREB-2-6
8 way	90	96	PISREB-2-8
10 way	90	96	PISREB-2-10
12 way	90	96	PISREB-2-12
14 way	90	96	PISREB-2-14
16 way	90	96	PISREB-2-16
18 way	90	96	PISREB-2-18
20 way	90	96	PISREB-2-20
22 way	90	96	PISREB-2-22
24 way	90	96	PISREB-2-24
26 way	90	96	PISREB-2-26
28 way	90	96	PISREB-2-28
30 way	90	96	PISREB-2-30

3.9. Test Link

Oblong Test Clamp

Provides an effective low resistance connection and disconnection between overlapping tape / strip conductors.

Material: High Strength Copper Alloy

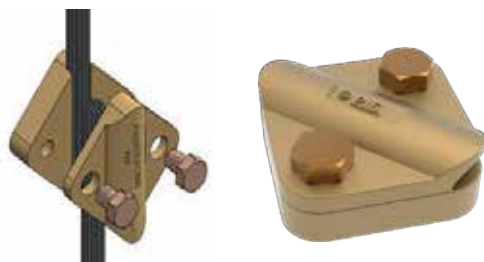


Product Code	Conductor Size in mm	Material
PISOC – 01	26 x 8	Copper Alloy
PISOC – 02	38 x 6	Copper Alloy
PISOC – 03	51 x 10	Copper Alloy



Test Clamp

Provides an effective low resistance connection and disconnection between overlapping conductors.



Product Code		Conductor Size in Sq mm
Copper Alloy	Aluminium	
PISCT – 01	PISTA – 01	35
PISCT – 02	PISTA – 02	50
PISCT – 03	PISTA – 03	70
PISCT – 04	PISTA – 04	95



Earth Point with Prewelded Tail



Product Code	Conductor Sq.mm	Length	Hole Size (mm)
PISEPT -70 -500	70	500	M10

Earth Points

Direct connection to earth conductors or down conductors.

The earth points enable connection to internal rebar arrangements via mechanical clamps as per BS EN 1982:2009 & BS 7430.

Material: High Strength Copper Alloy

Refer Exothermic Welding...

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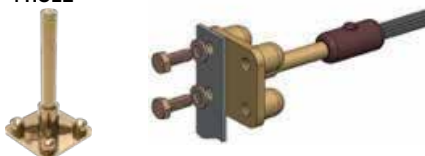
1 HOLE



2 HOLE



4 HOLE



Product Code	Material	Hole Size (mm)
1 HOLE		
PISBP – 01	Copper Alloy	M8
PISBP – 02	Copper Alloy	M10
PISBP – 03	Copper Alloy	M12
PISBP – 04	Copper Alloy	M16
2 HOLE		
PISBP – 05	Copper Alloy	M8
PISBP – 06	Copper Alloy	M10
4 HOLE		
PISBP – 07	Copper Alloy	M8
PISBP – 08	Copper Alloy	M10

Note: All sizes available in pre-welded tail

* Representative products tested for Class H - BS EN 50164-1: 2009 / BS 50164-1: 2009 / IEC 62561-1:2012

3. EARTHING PROTECTION

3.10. Crimp Connectors

C-Shape Connectors



- C- Shape Compression connector for making Run (conductor) and Tap off (conductor) joining two parallel running conductors in above and underground applications.
- Provides maximum conductivity and reduces the possibility of corrosion.
- Suitable for all types of weather conditions / Non-hazardous installation.

Material: High Conductivity Copper

Product Code	RUN mm ²	TAP mm ²
PISCC – 10-10	2.5 - 6	2.5 - 6
PISCC – 8 - 8	10	6 - 10
PISCC - 4 - 8		10
PISCC – 4 - 6	16 - 25	16
PISCC – 4 - 4		16 - 25
PISCC – 2 - 4	25-35	10 - 25
PISCC – 2 - 2	35	35
PISCC – 26 - 2		10 - 35
PISCC – 26 - 26	50 - 70	50 - 70
PISCC – 28 - 2		16 - 70
PISCC – 28 - 26	95 - 120	50 - 70
PISCC – 28 - 28		95 - 120

3-Shape Connectors

- 3- Shape Compression connector for making Run (conductor) and Tap off (conductor) joining two parallel running conductors in above and underground applications.
- Provides maximum conductivity and reduces the possibility of corrosion.
- Suitable for all types of weather conditions / Non-hazardous installation.



Material: High Conductivity Copper

Product Code	RUN mm ²	TAP mm ²
PISCC3 2-2	10 - 35	10 - 35
PISCC3 26-2	35 - 70	10 - 35
PISCC3 26-26	35 - 70	35 - 70
PISCC3 29-26	95 - 120	10 - 70
PISCC3 29-29	95 - 120	95 - 120
PISCC3 34-26	150 - 240	10 - 70
PISCC3 34-29	150 - 240	95 - 120
PISCC3 34-34	150 - 240	150 - 240
PISCC3 2-2	10 - 35	10 - 35
PISCC3 26-2	35 - 70	10 - 35
PISCC3 26-26	35 - 70	35 - 70
PISCC3 29-26	95 - 120	10 - 70

6-Shape Connectors

- 6 - Shape Compression connector making Run (conductor / Rod) and Tap off (conductor) for direct burial in earth or concrete.
- Provides maximum conductivity and reduces the possibility of corrosion.
- Suitable for all types of weather conditions / Non-hazardous installation.



Material: High Conductivity Copper

Product Code	RUN mm ²	* Ground Rod Dia. in mm	TAP mm ²
PISCC6 2-2	16 - 35	–	16 - 35
PISCC6 29-2			25 - 35
PISCC6 29-26	50 - 120	12.7 - 15.88	50 - 70
PISCC6 29-29			95 - 120
PISCC6 34-2			25 - 35
PISCC6 34-26	120 - 240	15.88 - 19	50 - 70
PISCC6 34-29			95 - 120
PISCC6 34-34			185 - 240

*Note: Suitable for ground Rod of copper, copper clad steel.

8-Shape Connectors

- 8 - Shape Compression connector for making Run (Rod) and Tap off (conductor) jointing ground rod to conductor in burial earth or concrete.
- Provides maximum conductivity and reduces the possibility of corrosion.
- Suitable for all types of weather conditions / Non-hazardous installation.



Material: High Conductivity Copper

Product Code	RUN mm ²	* Ground Rod Dia. in mm
PISCC8 26-12		12.7
PISCC8 26-58	35 - 70	15.88
PISCC8 26-34		19
PISCC8 26-100		25.4
PISCC8 29-12		12.7
PISCC8 29-34	95 - 120	19
PISCC8 29-58		15.88
PISCC8 29-100		25.4
PISCC8 34-34		19
PISCC8 34-58	150 - 240	15.88
PISCC8 34-100		25.4

*Note: Suitable for ground Rod of copper, copper clad steel.

4 EXOTHERMIC WELDING

4. EXOTHERMIC WELDING

4.1. Introduction

- The exothermic welding process is a simple, efficient method of permanently bonding of copper to copper or copper to steel.
- Exothermic welded joint carries more Tensile strength than mechanical connections, can be quality controlled simply by visual inspection.
- The Exothermic connection provides per-manent conductivity over the whole of the section due to molecular bonding between the metal surfaces.
- This system is very field friendly since it is light and portable and requires no outside power.

Mould:

Each Arrestek graphite mould produces a unique type of joint.

Weld Powder:

Produce high quality electrical connections between different metals (Copper to Copper / Copper to Steel).

Ignition Powder:

Ignition Powder is used to provide initial flame to the weld powder. It is sprinkled on the top of weld powder.

Steel Retaining Disc:

The disc acts as timing device to allow the welding powder to heat to proper temperature. Steel Disc is designed to contain the exothermic reaction to the upper crucible of a mold until the reaction is complete and ready to Welding.

Flint Gun / Igniter:

Used to ignite & initiate in exothermic Reaction.

Hand Gloves:

Used to provide safety high temperature resistant gloves while working on the exothermic reaction.

Handle Clamp:

To clamp the two/three part mould together (or) clamping the mould to the surface to which a connection is to be made.

Mould Brush:

Used for cleaning the scrap on mould after weld joints are completed.



Kit contains all the items required for the safe and efficient operation of exothermic weld.

4.2. Installation Guidelines:

The Arrestek exothermic welding process is a simple, self-contained method of forming high quality electrical connections. The compact process requires no external power or heat source making it completely portable. Connections are made inside a semi-permanent graphite mould using the high temperature reaction of powdered copper oxide and aluminium.

This is how it works:

The Mould (1) features a Crucible (2), a Tap Hole (3) and a Weld Cavity (4).

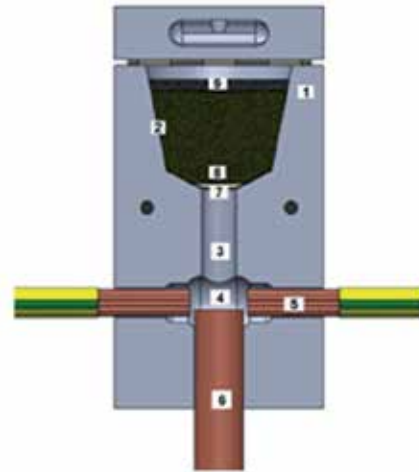
The conductors (5) and (6) to be joined are located in the weld cavity as shown, and the mould is closed. A steel Retaining Disc (7) is located in the bottom of the crucible to retain the Weld Powder (8) and Ignition Powder (9) which are poured in on top.

Ignited with a spark gun, the starting powder sets off an exothermic reaction in the weld powder, reducing it to molten copper alloy. This instantaneously melts the retaining disc, and flows down the tap hole, to the weld cavity, where it partially melts the conductors, before cooling to leave a fusion weld of great mechanical strength and electrical integrity.

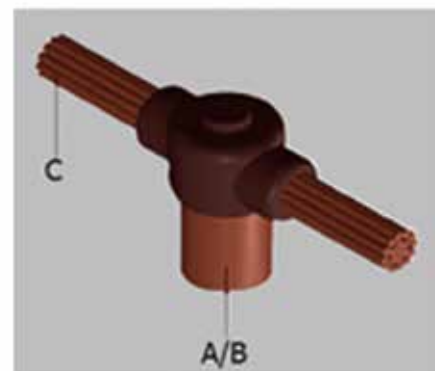
The majority of Arrestek weld connections have at least twice the cross sectional area of the conductors being joined, and an equivalent or greater current carrying capacity.

Because the connection is a fusion of high conductivity, high copper content alloy, it will withstand repeated fault currents, and will not loosen in the way that mechanical connectors can. Corrosion resistance too, is exceptional, due to the alloy's very high copper content (in excess of 90%).

WELD CONNECTION



WELD OUTPUT



4. EXOTHERMIC WELDING

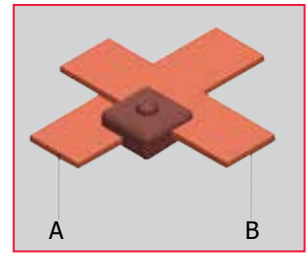
4.3. Weld Mould Components

4.3.1. BAR (TAPE) TO BAR (TAPE)*

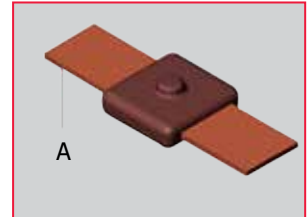
TYPE - 1 MOULD

A mm x mm	A / B mm x mm
20 x 2	20 x 2
25 x 3	25 x 3
30 x 4	30 x 4
40 x 3	40 x 3
40 x 4	40 x 4
50 x 3	50 x 3
50 x 5	50 x 5
50 x 6	50 x 6
60 x 6	60 x 6
80 x 5	80 x 5
80 x 6	80 x 6
80 x 8	80 x 8
100 x 5	100 x 5
100 x 10	100 x 10

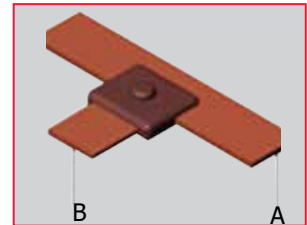
PISBB 41 →



PISBB 7 →



PISBB 14 →

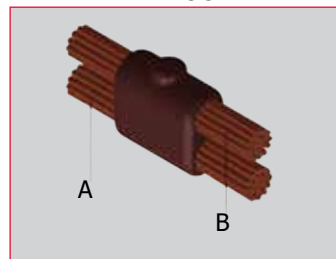


4.3.2. STRANDED CABLE TO STRANDED CABLE*

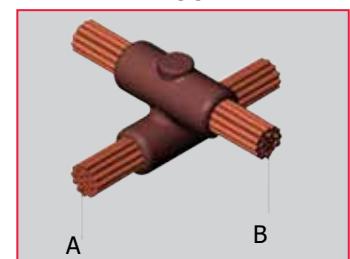
TYPE - 2 MOULD

A Sq. mm	B Sq. mm
10	10
16	16
25	25
35	35
50	50
70	70
95	95
120	120
150	150
185	185
240	240
300	300
400	400
500	500

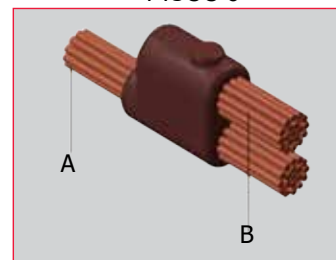
PISCC 7



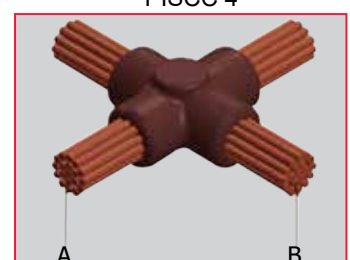
PISCC 11



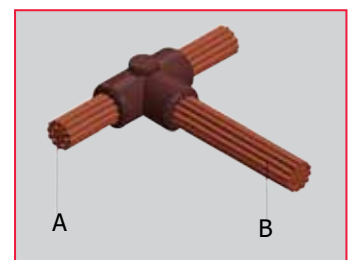
PISCC 6



PISCC 4



PISCC 2



* Representative sizes shown in here. Other sizes are also available on request.

* Ordering info. should include 1. Type of Mould, 2. Type of joint 3. Cross section reference (A&B)

4.3.3. STRANDED CABLE TO STRANDED CABLE* TYPE - 3 MOULD

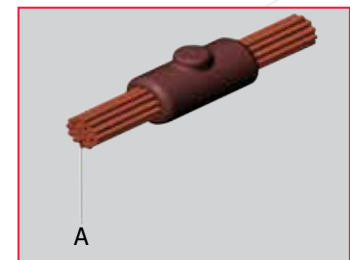
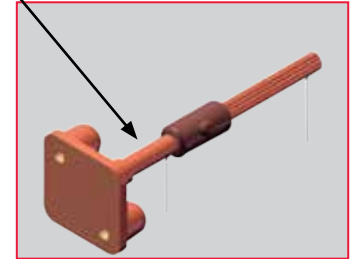
A Sq. mm
10
16
25
35
50
70
95
120
150
185
240
300
400
500

B Sq. mm
10
16
25
35
50
70
95
120
150
185
240
300
400
500

Refer Earth Point Details

Page no.: 29

Material: BS EN 1982: 2008



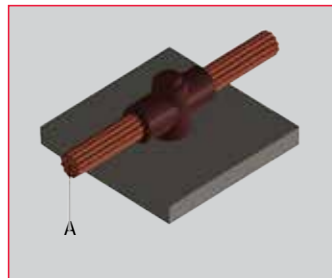
PISCC 1 →

4.3.4. BAR (TAPE) / STRANDED CABLE TO STEEL SURFACE BONDING* TYPE - 4 MOULD

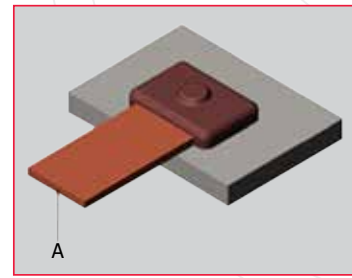
A mm x mm
20 x 2
25 x 3
30 x 4
40 x 3
40 x 4
50 x 3
50 x 5
50 x 6
60 x 6
80 x 5
80 x 6
80 x 8
100 x 5
100 x 10

A Sq. mm
10
16
25
35
50
70
95
120
150
185
240

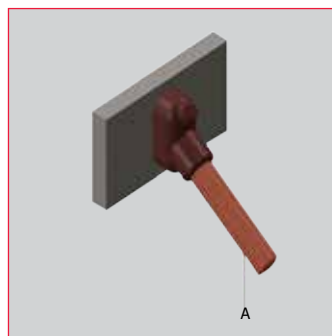
PISCS 2



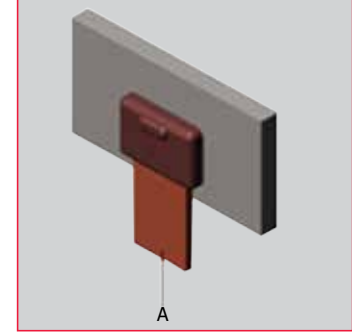
PISBS 2



PISCS 3



PISBS 1



* Representative sizes shown in here. Other sizes are also available on request.

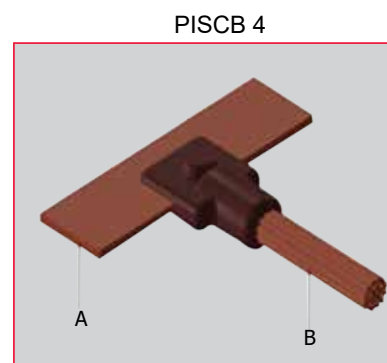
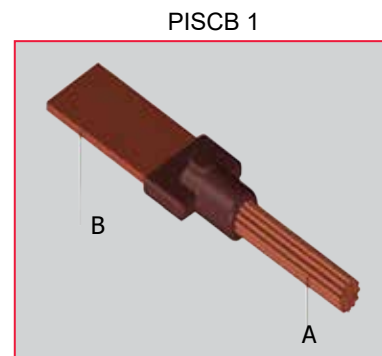
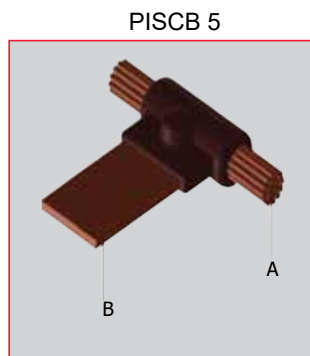
* Ordering info. should include 1. Type of Mould 2. Type of joint 3. Cross section reference (A&B)

4. EXOTHERMIC WELDING

4.3.5. BAR (TAPE) TO STRANDED CABLE* TYPE - 5 MOULD

A mm x mm
20 x 2
25 x 3
30 x 4
40 x 3
40 x 4
50 x 3
50 x 5
50 x 6
60 x 6
80 x 5
80 x 6
80 x 8
100 x 5
100 x 10

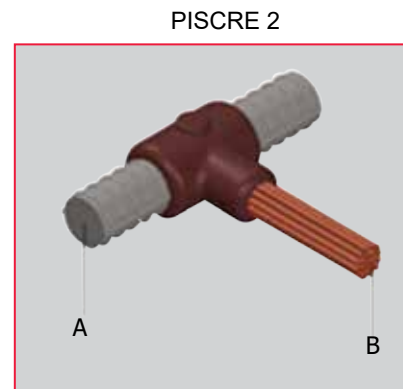
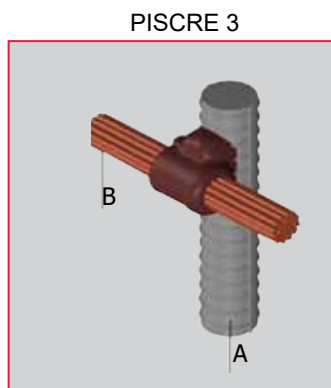
B Sq. mm
10
16
25
35
50
70
95
120
150
185
240



4.3.6. STRANDED CABLE TO REBAR BONDING* TYPE - 6 MOULD

A mm Φ
10 - 40

B Sq.mm
16
25
35
8 mm Φ
50
10 mmΦ
70
95
120



* Representative sizes shown in here. Other sizes are also available on request.

* Ordering info. should include 1. Type of Mould 2. Type of joint 3. Cross section reference (A&B)

4.3.7 BAR (TAPE) / STRANDED CABLE TO EARTH ELECTROD BONDING* TYPE - 7 MOULD

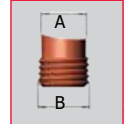
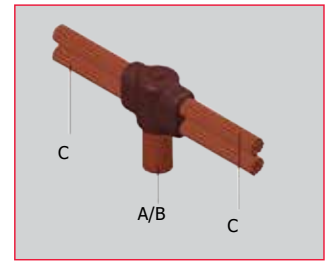
A mm Φ
12.7
14.2
17.2

B Earth Rod Size in UNC Thread
1/2"
5/8"
3/4"

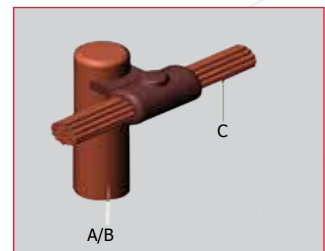
C Sq.mm
16
25
35
50
8 mmΦ
70
95
120
150
185
240
300

C mm x mm
20 x 3
25 x 3
30 x 4
40 x 3
40 x 4
50 x 3
50 x 5
50 x 6
50 x 8

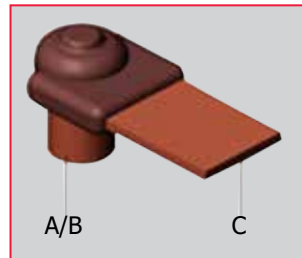
PISCR 24



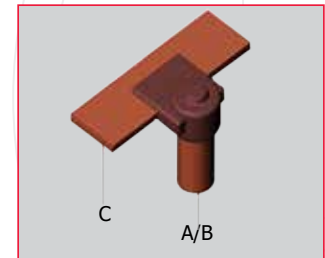
PISCR 3



PISBR 1



PISBR 7



* Representative sizes shown in here. Other sizes are also available on request.

* Ordering info. should include 1. Type of Mould 2. Type of joint 3. Cross section reference (A&B)

4. EXOTHERMIC WELDING

4.4. Accessories

4.4.1. HANDLE CLAMPS

Two-part moulds	HCRRL-4
Two-part moulds	HCRRL-5



4.4.2. EXO-THERMIC WELD POWDER

Part No	Raychem RPG Item Description
PISWP 015	Exo-thermic Welding Powder 15grams.
PISWP 025	Exo-thermic Welding Powder 25grams.
PISWP 032	Exo-thermic Welding Powder 32grams.
PISWP 045	Exo-thermic Welding Powder 45grams.
PISWP 065	Exo-thermic Welding Powder 65grams.
PISWP 090	Exo-thermic Welding Powder 90grams.
PISWP 115	Exo-thermic Welding Powder 115grams.
PISWP 150	Exo-thermic Welding Powder 150grams.
PISWP 200	Exo-thermic Welding Powder 200grams.
PISWP 250	Exo-thermic Welding Powder 250grams.



Note: Ignition powder and steel disc provided as part of weld powder.

4.4.3. OTHER MISCELLANEOUS ACCESSORIES

Part No	Professional PIS Item Description
PISFG-01	Flint Gun
PISMCB-01	Mould Cleaning Brush
PISWCCB-01	Weld Cavity cleaning brush
PISFCB-01	File Card Brush
PISSRS-01+D13	Slag remover scrapper
PISHG-01	Hand Gloves



1. **Active System:**

Early Streamer Emission (ESE) Air terminal: With Galvanized Iron (GI) Pipe Support.

- The Early Streamer Emission (ESE) air terminals are Active Lightning Protection System (LPS).
- The Active air terminal follows the relevant standards as per NFC 17-102, UNE 21186 or similar.
- These do not required any external power supply.

2. **Lightning Stroke / Flash Counter.**

It counts the total Lightning Strike and displays in Analogue format.

Note:-

- Manual intervention required.
- Installation in multiple locations for helps in easy maintenance and better results.



5. ADDITIONAL PRODUCTS AVAILABLE

Tape Lug Connector

Tape Lug Connector is use for connecting Tape conductor to earth point or earth termination without drilling.



Code No.	Tape Size (mm)	Weight (kg/m)
PISLTSSC-303.5	20x3 to 30x3.5	0.140



Material
Stainless Steel 304

Square Tape Clamp



Code No.	Tape Conductor (mm)	Torque (N•m)	Weight (kg/m)
PISLCACSS-T303.5	20x3 to 30x3.5	14	0.242
PISLCACSS-T406	30x3.5 to 40x6	14	0.312



Application
Connect Gavanized /
Stainless Steel tape conductor



Material
Stainless Steel 304

Round and Tape Connector



Code No.	Tape Conductor (mm)	Circular Conductor (Ø) (mm)	Weight (kg)
PISLCACSS-W10-T303.5	20x3 to 30x3.5	8-10	0.236
PISLCACSS-W10-T406	30x3.5 to 40x4	8-10	0.306

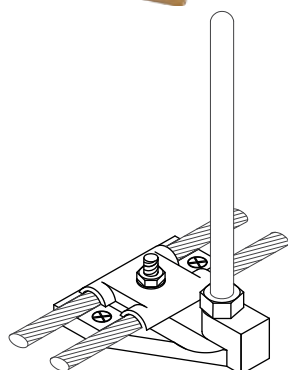


Application
Connect Gavanized /Stainless Steel tape
to round conductor



Material
Stainless Steel 304

Floor Saddle



Code No.	Thread Size (in)	Cable Size (mm ²)	Material	Weight (kg)
PISLFRS 58	5/8	50-70	Copper Alloy	0.58
PISLFRS 34	3/4	50-70	Copper Alloy	0.58
PISLFRS 58C-95	5/8	95	Copper Alloy	0.54
PISLFRS 34C-95	3/4	95	Copper Alloy	0.54
PISLFRS 58A	5/8	50-70	Aluminium Alloy	0.23
PISLFRS 34A	3/4	50-70	Aluminium Alloy	0.23

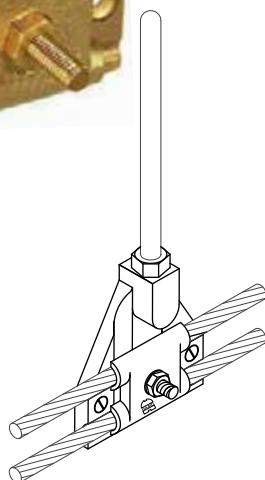


Application
Support air terminal to connect with copper stranded or solid conductors.



Material
Copper Alloy - BS EN 1982
Bolt Nut - Brass
Aluminium Alloy-BS 2898

Wall Saddle



Code No.	Thread Size (in)	Cable Size (mm ²)	Material	Weight (kg)
PISLWAS 58	5/8	25-70	Copper Alloy	0.58
PISLWAS 34	3/4	25-70	Copper Alloy	0.58
PISLWAS 58C-95	5/8	95	Copper Alloy	0.54
PISLWAS 34C-95	3/4	95	Copper Alloy	0.54
PISLWAS 58A	5/8	25-70	Aluminium Alloy	0.23
PISLWAS 34A	3/4	25-70	Aluminium Alloy	0.23



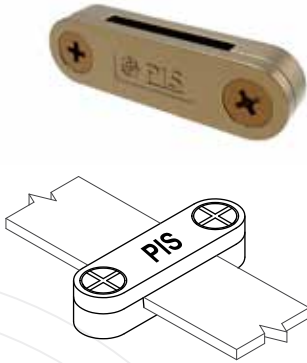
Application
Support air terminal to connect with copper stranded or solid conductors.



Material
Copper Alloy - BS EN 1982
Bolt Nut - Brass
Aluminium Alloy-BS 2898

5. ADDITIONAL PRODUCTS AVAILABLE

Tape Support



Code No.	Tape Size (mm)	Material	Weight (kg)
PISLTAS-252	25x2	Copper Alloy	0.067
PISLTAS-253	25x3	Copper Alloy	0.067
PISLTAS-254	25x4	Copper Alloy	0.071
PISLTAS-256	25x6	Copper Alloy	0.076
PISLTAS-304	30x4	Copper Alloy	0.087
PISLTAS-305	30x5	Copper Alloy	0.090
PISLTAS-324	32x4	Copper Alloy	0.094
PISLTAS-325	32x5	Copper Alloy	0.098
PISLTAS-326	32x6	Copper Alloy	0.101
PISLTAS-403	40x3	Copper Alloy	0.112
PISLTAS-404	40x4	Copper Alloy	0.116
PISLTAS-405	40x5	Copper Alloy	0.121
PISLTAS-503	50x3	Copper Alloy	0.117
PISLTAS-506	50x6	Copper Alloy	0.127
PISLTAS-253T	25x3	Tinned Copper Alloy	0.067
PISLTAS-254T	25x4	Tinned Copper Alloy	0.071
PISLTAS-256T	25x6	Tinned Copper Alloy	0.076
PISLTAS-253A	25x3	Aluminium Alloy	0.021
PISLTAS-254A	25x4	Aluminium Alloy	0.027
PISLTAS-256A	25x6	Aluminium Alloy	0.029

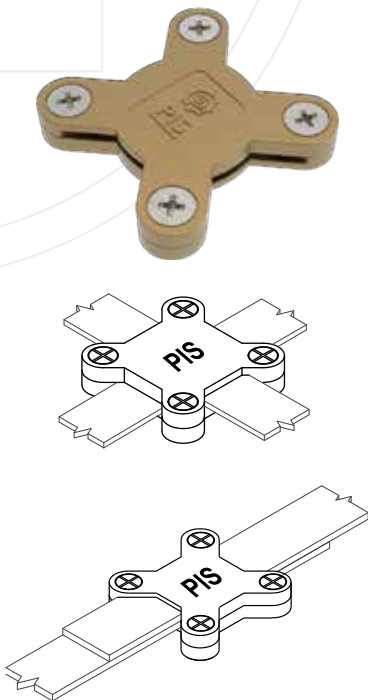


Application
Fix copper or aluminium tape conductors



Material
Copper Alloy - BS EN 1982, Bolt - Brass
Tinned Copper Alloy, Bolt - Stainless Steel
Aluminium Alloy - BS 2898, (A)
Bolt - Stainless Steel

Square Tape Support



Code No.	Tape Size (mm)	Material	Weight (kg)
PISSQS-252	25x2	Copper Alloy	0.150
PISSQS-253	25x3	Copper Alloy	0.150
PISSQS-254	25x4	Copper Alloy	0.172
PISSQS-256	25x6	Copper Alloy	0.216
PISSQS-304	30x4	Copper Alloy	0.261
PISSQS-305	30x5	Copper Alloy	0.295
PISSQS-324	32x4	Copper Alloy	0.245
PISSQS-325	32x5	Copper Alloy	0.276
PISSQS-403	40x3	Copper Alloy	0.341
PISSQS-404	40x4	Copper Alloy	0.381
PISSQS-405	40x5	Copper Alloy	0.423
PISSQS-503	50x3	Copper Alloy	0.412
PISSQS-506	50x6	Copper Alloy	0.561
PISSQS-253T	25x3	Tinned Copper Alloy	0.150
PISSQS-254T	25x4	Tinned Copper Alloy	0.172
PISSQS-256T	25x6	Tinned Copper Alloy	0.216
PISSQS-253A	25x3	Aluminium Alloy	0.045
PISSQS-254A	25x4	Aluminium Alloy	0.052
PISSQS-256A	25x6	Aluminium Alloy	0.065



Application
Connect copper or aluminium tape conductors.



Material
Copper Alloy - BS EN 1982, Bolt - Brass
Tinned Copper Alloy, Bolt - Stainless Steel
Aluminium Alloy - BS 2898, (A)
Bolt - Stainless Steel

Cable-Tape Test Connector



Code No.	Conductor Size (mm)	Tape Size (mm)	Weight (kg)
LPCTTC-C	8	25x3	0.31

Code No.	Conductor Size (Sq mm ²)	Tape Size (mm)	Weight (kg)
PISCTTC-70252	70	25x2	0.31
PISCTTC-70253	70	25x3	0.31
PISCTTC-70253	70	25x3	0.085
PISCTTC-95252	95	25x2	0.37
PISCTTC-95253	95	25x3	0.37
PISCTTC-120252	120	25x2	0.37
PISCTTC-120253	120	25x3	0.37

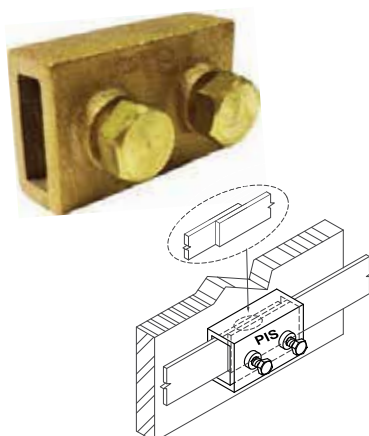


Application
Connect copper stranded or solid with copper tape conductors.



Material
Copper Alloy - BS EN 1982, Bolt - Brass

Tape Test Connector



Code No.	Maximum Tape Size (mm)	Material	Weight (kg)
PISLTCT 256	26x8	Copper Alloy	0.236
PISLTCT 256T	26x8	Copper Alloy	0.236
PISLTCT 506	51x8	Copper Alloy	0.425
PISLTCT 256A	26x8	Aluminium Alloy	0.072
PISLTCT 506A	51x8	Aluminium Alloy	0.128

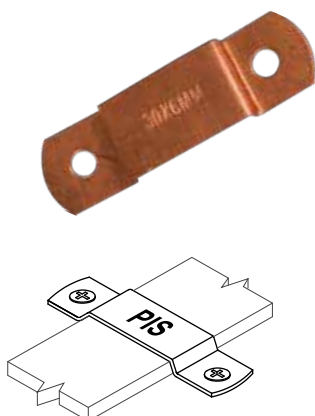


Application
Connect copper or aluminium tape conductors.



Material
Copper Alloy - BS EN 1982, Bolt - Brass
Aluminium Alloy - BS 2898,
Bolt - Stainless Steel

Tape Clip



Code No.	Tape Size (mm)	Weight/100 (kg)
PISLPTC-203	20x3	1.25
PISLPTC-252	25x2	1.34
PISLPTC-253	25x3	1.34
PISLPTC-254	25x4	1.38
PISLPTC-256	25x6	1.40
PISLPTC-303	30x3	1.35
PISLPTC-304	30x4	1.57
PISLPTC-306	30x6	1.60
PISLPTC-506	50x6	3.55



Application
Fix copper tape conductor on flat surface.



Material
Copper - BS EN 13601

5. ADDITIONAL PRODUCTS AVAILABLE

Bi-Metallic Connector



LBMC

Connector

Code No.	Connection Length (mm)	Material	Weight (kg)
PISLBMC	80	Copper / Aluminium	0.18

Washer

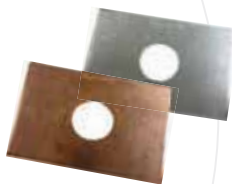
Code No.	Dimension (mm)	Hole Size (mm)	Weight/100 (kg)
PISLBMW-6	30x2	7	0.46
PISLBMW-8	30x2	9	0.45
PISLBMW-10	30x2	11	0.45
PISLBMW-12	30x2	14	0.44
PISLBMW-16	30x2	18	0.44



LBMW

Plate

Code No.	Dimension (mm)	Hole Size (mm)	Weight/100 (kg)
PISLBMP-6	55x36x2	7	0.68
PISLBMP-8	55x36x2	9	0.68
PISLBMP-10	55x36x2	11	0.68
PISLBMP-12	55x36x2	14	0.68
PISLBMP-16	55x36x2	18	0.68



LBMP

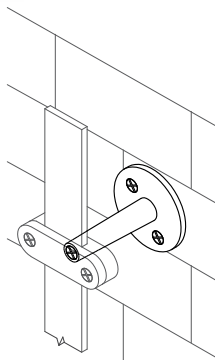


Material
Copper Alloy - BS EN 1982
Aluminium - BS 2898



Application
Connect copper and aluminium conductors by non-corrosive contact which is made by fusion method

Back Plate Holdfast



Code No.	Diameter (Ø) (mm)	Material	Weight (kg)
PISLXPH-C	63	Copper Alloy	0.26
PISLXPH-A	68	Aluminium Alloy	0.08

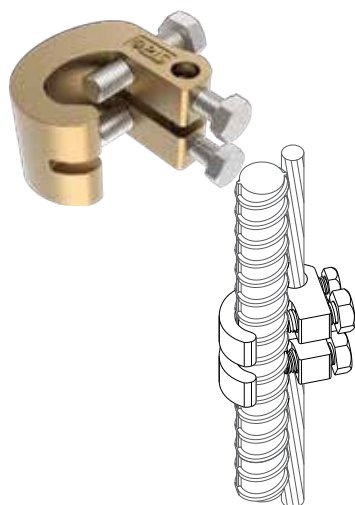


Application
Place copper stranded, solid or tape conductors onto flat surface.



Copper Alloy - BS EN 1982
Aluminium - BS 2898

Conductor to Rebar Clamp



Code No.	Cable Size (mm ²)	Rebar Size (mm)	Weight (kg)
PISLRBC 18-70	10-70	8-18	0.32

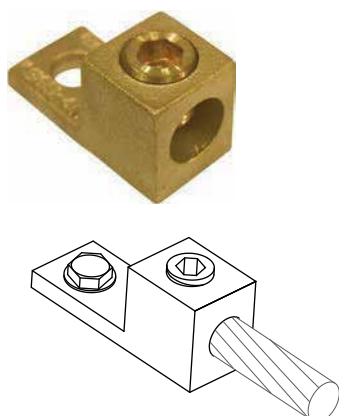


Application
Hold stranded copper or solid copper conductors to rebar.



Material
Copper Alloy - BS EN 1982
Bolt - Brass

Terminal Lug



Code No.	Cable Size (mm ²)	Stud Size (in)	Weight (kg)
PISLXTEL 35	6-35	3/16	0.10
PISLXTEL 70	50-70	5/16	0.15
PISLXTEL 120	95-120	5/16	0.24
PISLXTEL 185	150-185	1/2	0.35
PISLXTEL 300	240-300	1/2	0.60
PISLXTEL 500	400-500	1/2	0.80

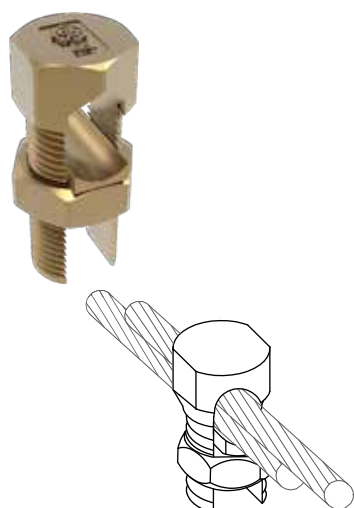


Application
Connect copper stranded or solid conductors to flat bar.



Material
Copper Alloy - BS EN 1982,
Bolt - Silicon Bronze

Split Bolt



Code No.	Cable Size (mm ²)		Weight (kg)
	Run	Tap	
PISS-2/0	2/0 AWG	2/0 AWG	0.10
PISLXSB 70	70	70	0.10



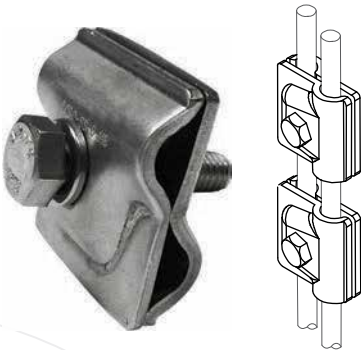
Application
Suitable for joint copper conductors (above ground).



Material
Copper Alloy - BS EN 1982

5. ADDITIONAL PRODUCTS AVAILABLE

Universal Connector



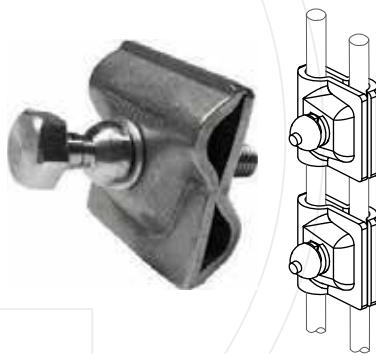
Universal Connector is made of Stainless Steel. There are two types of connecting process cross joint and parallel joint. The contact resistance shall be less than 1 mΩ, as well as the connected conductors tensile force shall be more than 900 N

Code No.	Cable Size (mm)	Torque (N•m)	Bolt Size (mm)	Weight (kg)
PISLCAC-SS-10-M10	8-10	26	M10 (1.50x35)	0.11



Material
Stainless Steel 304

Shear Bolt Connector



Shear Bolt Connector provide connection for cross joint or parallel joint. Easy installation, no torque wrench required.

Code No.	Cable Size (mm)	Torque (N•m)	Bolt Size (mm)	Weight (kg)
PISLCAC-SS-10-M10-N	8-10	26	M10 (1.50x35)	0.11



Material
Stainless Steel - 304

Rebar Clamp Connector with Shear Bolt



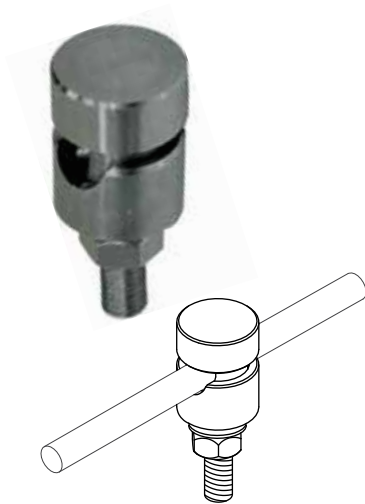
The universal clamp connector for connection type T-joint, cross joint and parallel join between rebar to rebar, rebar to round conductor, round conductor to round conductor. The shear bolt provide quick installation and the superior of connection.

Code No.	Rebar Size (mm)	Conductor Size (mm)
PISGCRER-SB-25-10	16 - 25	8 - 10
PISGCRER-SB-25-20	16 - 25	14 - 20
PISGCRER-SB-40-10	32 - 40	8 - 10
PISGCRER-SB-40-20	32 - 40	14 - 20



Material
Zinc Steel

Q-Connector



Code No.	Conductor (Ø) (mm)	Weight (kg)
PISGXCCSS 8	8	0.068
PISGXCCSS 10	10	0.068

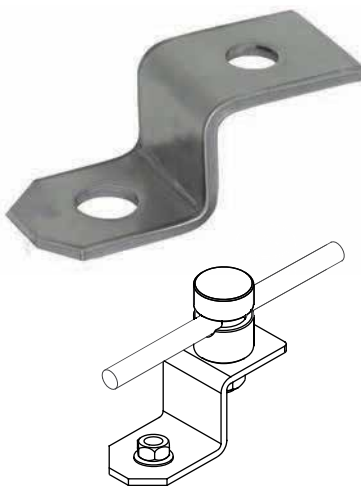


Application
Fix Gavanized /Stanless Steel round



Material
Stainless Steel 304

Z-Connector



Galvanized Steel

Code No.	Hold Size (mm)	Weight (kg)
PISTSSS 7030-1H	11	0.054



Application
Connect Q-Connector to Earth Point.



Material
Stainless Steel 304

Tape Support

Code No.	Tape Size (mm)	Weight (kg/m)
PISLTSSS-303.5	20x3 to 30x3.5	0.112



Application
Fix Gavanized /Stanless Steel round



Material
Stainless Steel 304