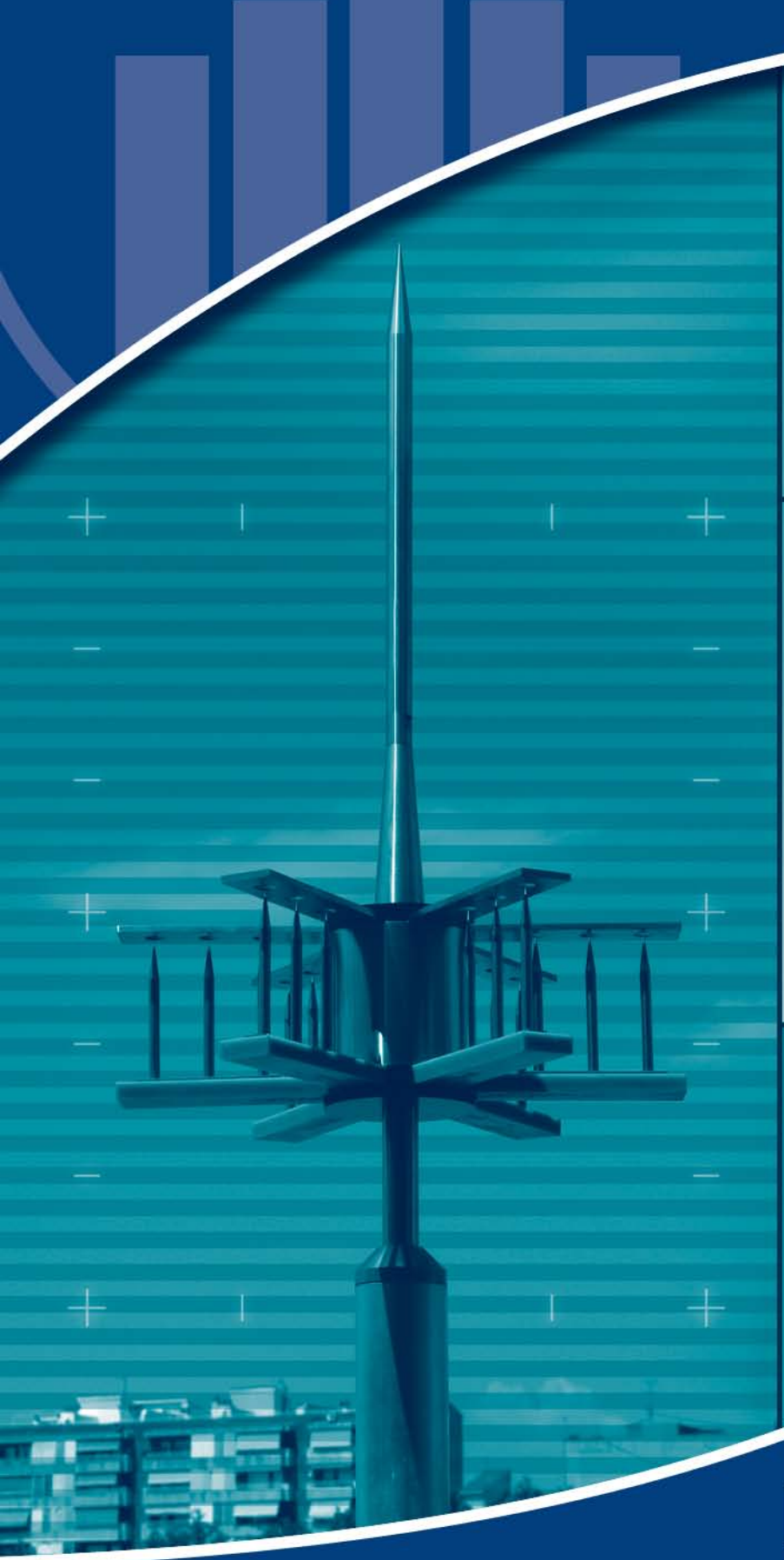
ENGLISH

PRODUCT CATALOGUE

2007-08



INGESCO®
LIGHTNING SOLUTIONS

www.ingesco.com

R&D
Manufacture
Laboratory
Engineering
Installation
Control
INGESCO
Software DESIGN
....

.... more information in :

http://www.ingesco.com

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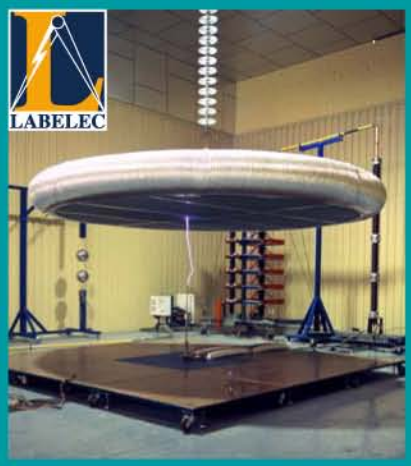
CONTENTS

1. WHO ARE WE?

The **INGESCO®** brand has been distinguished since 1973 for quality and leadership in **design, manufacture and installation** of **lightning protection systems** (lightning rods, meshes and surge protectors) and the **devices for lightning and storm prevention** and early warning.

Our manufacturing division relies on the reinforcement of the **LABELEC Electrotechnical Laboratory** in order to carry out the research and tests which permit our R&D department to advance the design of more efficient lightning rods and prevention devices.

In addition, **LABELEC** verifies the quality of all our products by submitting them to rigorous and severe electrical tests, including the most extreme environmental and corrosive conditions.



From this permanent effort for the technical renovation and the quality, appear products such as **INGESCO® PDC, PDC-E** and ***Stream*** Lightning Rods or the **IPSO** series of lightning detectors in their different applications, these are included in this catalog.

The quality of our lightning rods has been recognised by their corresponding product certificates, granted by the **Bureau Veritas International** certification organisation, which also guarantees the **ISO 9001:2000** quality certificate given to our production and marketing processes.

Our group of companies is guaranteed by more than **30 years of experience,** with the execution of almost **40,000 lightning protection facilities** in Spain in all types of construction, and by a clear wager of the **research and development of new technological solutions** to the challenges faced by lightning protection.

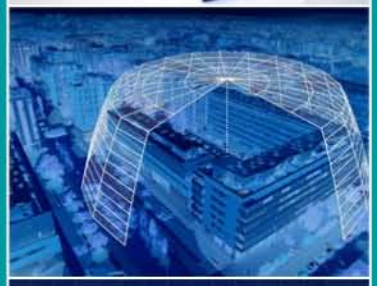
ENAC
Entidad Nacional de Acreditación

With Accreditation from the ENAC (41/EI069) as Inspection Organisation, we have gathered together the necessary conditions to provide the best service in engineering and control.

From a private dwelling to airports, each building or facility needs a protection system measured to its needs.

This is our job: to design and install innovative and adaptive solutions to the concrete requirements of our clients.

2. WHAT DO WE OFFER?



DESIGN, MANUFACTURING & INSTALLATION :

INGESCO® offers an integral lightning and surge protection and prevention service. Our offers encompass the initial protection and prevention systems design to the manufacture, installation and start up of the equipment. This allows us to provide concrete solutions to the specific needs of our clients.

The engineers at our Technical Office know in depth the national and international application norms and regulations (norms **UNE 21185, UNE 21186, NFC 17102, EN 50164** and **EN 62305**) and the latest available technology, and can advise and design the protection project most adequate for your needs.

Investment products and **solutions to made to fit** are the currency which paves our way.

QUALITY SYSTEMS :

All the **INGESCO®** products are submitted to strict quality checks before entering the market. This effort has been recognised with, already in 2004, **ISO 9001:2000 certification,** a guarantee of quality in the processes of our products and services.

Also, our group counts on:

- Lightning rods **product certificates INGESCO® PDC** (ESPMDD004531-B), **INGESCO® PDC-E** (ESPMDD004531-A) and **INGESCO® PDC *Stream*** (ESPMDD004531-C).
- **Accreditation of ENAC** as **Inspection Entity,** a guarantee of rigor in the inspection of lightning rods.
- **ENAC accreditation** of our **LABELEC Testing Laboratory,** a guarantee of rigor in lightning rods and component tests.

And we are continually working to improve the quality of our products and services.

PERSONALISED ATTENTION :

INGESCO® offers immediate replies to your consultations. We offer for your disposition our qualified technical and personnel infrastructure which will provide the best assessment of lightning and surge protection and prevention.

TRAINING :

The long experience **INGESCO®** and our technical capacity allows us to offer training courses on lightning and surge protection and prevention systems design and installation.
Our objective is to disclose the present state of the techniques and the application norms between the professionals: installers, distributors, people in charge of safety, architects, engineers, investigators, university people...

Because knowledge improves safety and your safety is our goal.

3. INSTALLATION SCHEME

Safety recommendations :

A CAPTURE SYSTEM :

- The end of the lightning rods must be located, at a minimum, two meters above the zone it protects (including antennas, cooling towers, ceilings and deposits).
- The receiving antennas (TV, radio, telephone) must be connected by means of spark gaps to the down conductors of the lightning rod installations.
- The coaxial cables of the antennas must be protected with a device against surges.
- The metallic elements that rise above the roof should be connected to the closest down conductor.

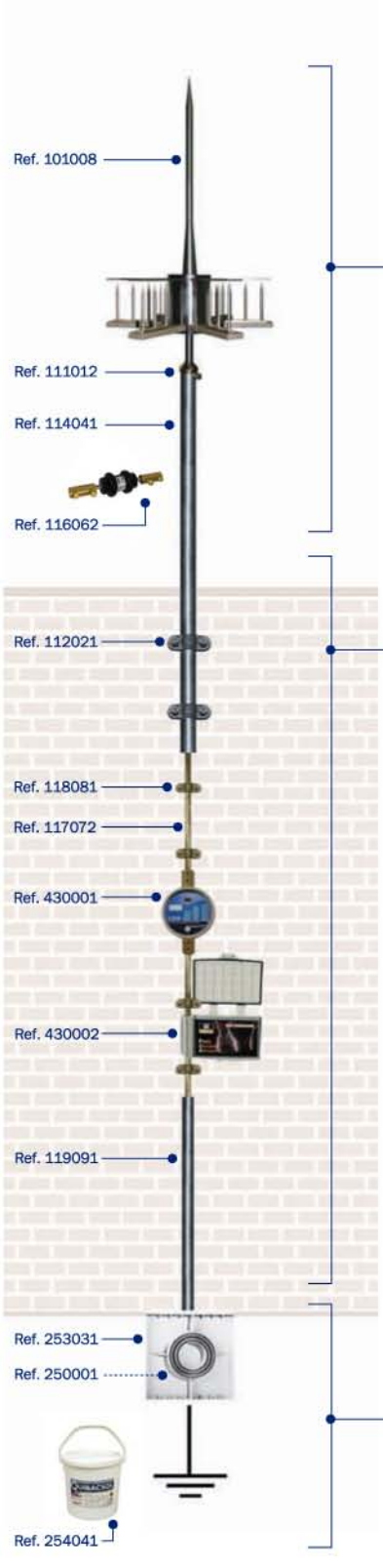
B DOWN CONDUCTORS :

- The down conductors are designed to lead the lightning current from the capture devices to the ground.
- Each lightning rod must be connected to at least one down conductor. At least two down conductors are needed in the following cases:
  - If the horizontal projection of the conductor is superior to its vertical projection.
  - In the case where the structure to be protected has a height higher than 28m.
  - The two down conductors are to be located on two different facades, whenever this is possible.
  - The trajectory of the down conductor must be as straight as possible and follow the shortest possible path, avoiding any abrupt layers or overhangings.
  - In the layerings, the curvature of the radius are not to be inferior to 20 cm.
  - The conducting cable must be placed outside of the building, avoiding the proximity of electrical or gas conductors.

C GROUNDING SYSTEM :

- It is necessary to have a grounding for each down conductor and to choose the most suitable system according to the type of land.
- The resistance of the grounding taken must be the lowest possible (less than 10 ohms). The value is measured on the ground insulted from all other elements of conductive nature.
- It is recommended the grounding have a registry case available in order to perform periodic inspections.
- The registry case (or, in its absence the conducting cable) must be provided with a system disconnecting switch that permits the disconnection of the grounding in order to measure its resistance.
- It is advisable to connect the grounding of the lightning rods with the general grounding system of the building it is designed to protect.

3. INSTALLATION SCHEME



Mounting Instructions :

1.- AIR TERMINAL :

- Fix the central axis of the air terminal to the head-mast adaptor piece.
- Pass the down conductor cable through the interior of the mast and connect it to the base of the head-mast adaptor piece, fixing it by means of two allen screws.
- Connect the head-mast adaptor piece within the mast, fix it with its screw.
- Connect all metallic structures that are within the safe distance by means of spark gaps.

2.- LIGHTNING ROD DOWN CONDUCTOR :

- Anchor the mast to the structure by means of suitable support and if necessary, fix the mast to the cover using anchor braces.
- Fix the down conductor by means of fastener clips, tightening them well and, as a reference, use three fasteners per meter.
- Install the CDR-1 lightning counter on the lower part of the conductor, two or three meters above the ground.
- Install the PCS card to the ground conducting cable.
- Protect the lower part of the down conductor by way of a minimum 2 meter protection tube.

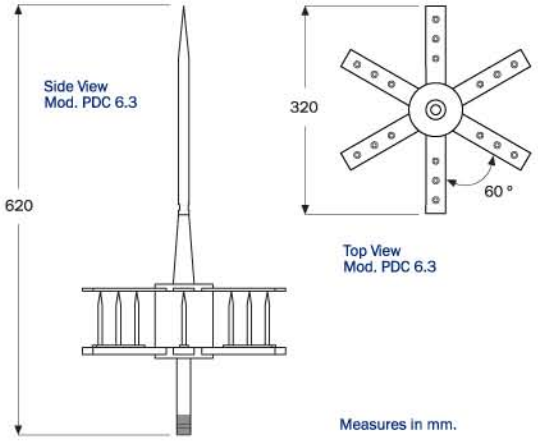
3.- GROUNDING :

- With spike grounds, they must be installed vertically inline or triangular and are connected between them and the down conductor by way of an identical section. Bury the cable at a minimum depth of 50cm.
- The grounding plate is especially recommended for rocky terrain which does not permit excavation of great depth. Place the plate vertically in relation to the land and with a minimum 1 m^3 ditch and fold the side feet to enhance conductivity.
- Another possible configuration consists of burying the conducting cable of the same nature and section as that of the down conductor (excepting aluminium), having a large dimensioned webbed foot shape which must be buried at least 50 cm in depth.
- It is recommended to add Quibacsol mineral composite to enhance ground conductivity.

4. PROTECTION

INGESCO® PDC LIGHTNING RODS

Photo Mod. PDC 6.3
(Ref. 101008)



DESCRIPTION :

- Lightning rod with non-electronic ***ESE*** (Early Streamer Emission) system, standardized according norms UNE 21.186 and NFC 17.102.
- Adaptable to all types of buildings.
- Application norms:
  - NFC 17.102
  - EN 50.164
  - EN 62.305
  - UNE 21.186
  - UNE 21.185
- Product certification nº ESPMDD004531-B issued by the certification entity Bureau Veritas International.
- Made of AISI 316 stainless steel and epoxy resin.
- 100 % EFFICIENCY, maximum durability.
- Does not need an external power supply.
- Guarantee of electrical continuity and operation after lightning strike, in any atmospheric conditions.
- Triple safety factor.

MODELS / PROTECTION LEVELS :

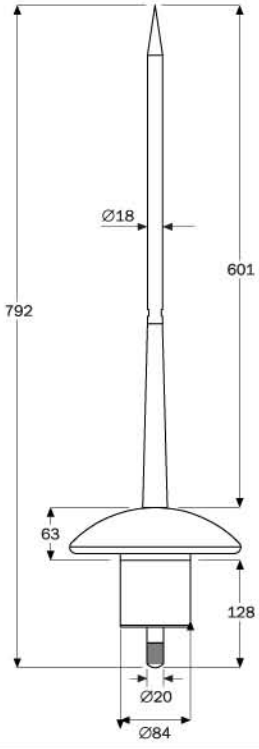
MODEL	PDC 3.1	PDC 3.3	PDC 4.3	PDC 5.3	PDC 6.3
Reference	*Ref.* 101000	*Ref.* 101001	*Ref.* 101003	*Ref.* 101005	*Ref.* 101008
Weight	2.075 gr.	3.000 gr.	3.200 gr.	3.400 gr.	3.600 gr.
△t	**15 µs**	**25 µs**	**34 µs**	**43 µs**	**54 µs**
LEVEL I	35 m	45 m	54 m	63 m	74 m
LEVEL II	54 m	65 m	74 m	84 m	95 m
LEVEL III	63 m	75 m	85 m	95 m	106 m

Protection radii calculated according to: Norm UNE 21.186 & NFC 17.102
(These radii of protection have been calculated according to an altitude difference of 20 m between the end of the lightning rods and the considered horizontal plane).

4. PROTECTION

INGESCO® PDC *STREAM* LIGHTNING RODS

Photo Mod. PDC STREAM



Measures in mm.

DESCRIPTION :

- Lightning rod with electronic ***ESE*** (Early Streamer Emission) system, standardized according norms UNE 21.186 and NFC 17.102.
- Adaptable to all types of buildings.
- Application norms:
  - NFC 17.102
  - EN 50.164
  - EN 62.305
  - UNE 21.186
  - UNE 21.185
- Product certification nº ESPMDD004531-C issued by the certification entity Bureau Veritas International.
- Made of AISI 316 stainless steel.
- 100 % EFFICIENCY, maximum durability.
- Does not need an external power supply.
- Guarantee of electrical continuity and operation after lightning strike, in any atmospheric conditions.
- Triple safety factor.

MODELS / PROTECTION LEVELS :

MODEL	*STREAM*-15	*STREAM*-30	*STREAM*-45	*STREAM*-60
Reference	*Ref.* 102020	*Ref.* 102021	*Ref.* 102022	*Ref.* 102023
Weight	4.090 gr.	4.080 gr.	4.070 gr.	4.060 gr.
△t	**15 µs**	**30 µs**	**45 µs**	**60 µs**
LEVEL I	35 m	50 m	65 m	80 m
LEVEL II	54 m	70 m	86 m	102 m
LEVEL III	63 m	81 m	97 m	113 m

Protection radii calculated according to: Norm UNE 21.186 & NFC 17.102
(These radii of protection have been calculated according to an altitude difference of 20 m between the end of the lightning rods and the considered horizontal plane).

Protection level:

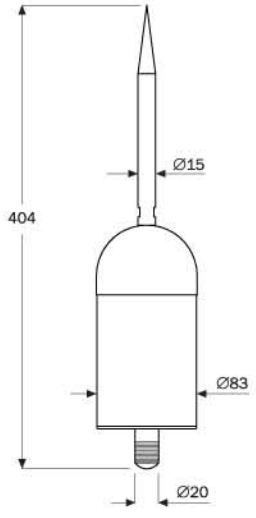
4. PROTECTION

INGESCO® PDC-*E* LIGHTNING RODS

Photo Mod. PDC-E

DESCRIPTION :

- Lightning rod with electronic ***ESE*** (Early Streamer Emission) system, standardized according norms UNE 21.186 and NFC 17.102.
- Adaptable to all types of buildings.
- Application norms:
  - NFC 17.102
  - EN 50.164
  - EN 62.305
  - UNE 21.186
  - UNE 21.185
- Product certification nº ESPMDD004531-A issued by the certification entity Bureau Veritas International.
- Made of AISI 316 stainless steel.
- 100 % EFFICIENCY, maximum durability.
- Does not need an external power supply.
- Guarantee of electrical continuity and operation after lightning strike, in any atmospheric conditions.
- Triple safety factor.



Measures in mm.

MODELS / PROTECTION LEVELS :

MODEL	PDC-*E* 15	PDC-*E* 30	PDC-*E* 45	PDC-*E* 60
Reference	*Ref.* 102000	*Ref.* 102001	*Ref.* 102002	*Ref.* 102003
Weight	2.660 gr.	2.650 gr.	2.640 gr.	2.630 gr.
△t	**15 µs**	**30 µs**	**45 µs**	**60 µs**
LEVEL I	35 m	50 m	65 m	80 m
LEVEL II	54 m	70 m	86 m	102 m
LEVEL III	63 m	81 m	97 m	113 m

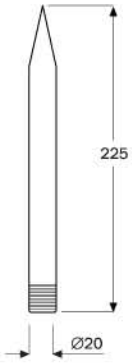
Protection radii calculated according to: Norm UNE 21.186 & NFC 17.102
(These radii of protection have been calculated according to an altitude difference of 20 m between the end of the lightning rods and the considered horizontal plane).

Protection level: VERY HIGH

ECOLOGICAL

4. PROTECTION

SIMPLE FRANKLIN



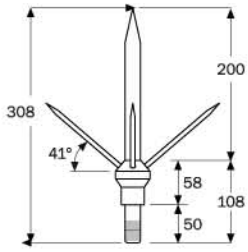
DESCRIPTION :

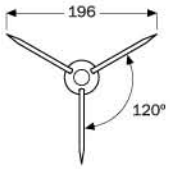
- External protection of structures against lightning.
- Application norms:
  - UNE 21.185
  - EN 50.164
- SIMPLE POINT in stainless steel or copper.

MODELS :

SIMPLE FRANKLIN - STAINLESS STEEL	*Ref.* 110006	465 gr.
SIMPLE FRANKLIN - COPPER	*Ref.* 110010	520 gr.

MULTIPLE FRANKLIN





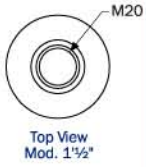
DESCRIPTION :

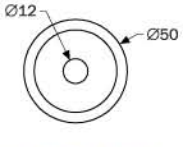
- External protection of structures against lightning.
- Application norms:
  - UNE 21.185
  - EN 50.164
- Note: Consult for special measurements.
- MULTIPLE POINT in stainless steel or copper.

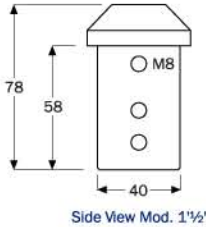
MODELS :

MULTIPLE FRANKLIN - STAINLESS STEEL	*Ref.* 110001	995 gr.
MULTIPLE FRANKLIN - COPPER	*Ref.* 110002	1.110 gr.

HEAD - MAST ADAPTOR PIECE







DESCRIPTION :

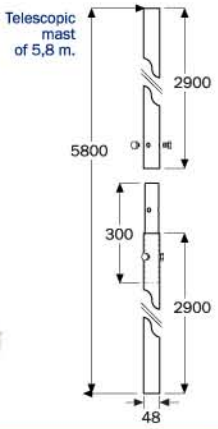
- Necessary to connect the air terminal receiver to the mast.
- Facilitates the connection of the head to the conducting network.
- Made of brass, complies with the specifications of norm EN 50.164.

MODELS :

1'¼" inches	*Ref.* 111011	610 gr.
1'½" inches	*Ref.* 111012	770 gr.
2" inches	*Ref.* 111013	1.300 gr.

4. PROTECTION

MASTS



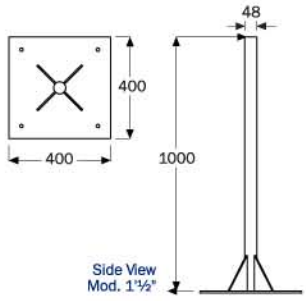
DESCRIPTION :

- 5.80 m Telescopic masts (in two pieces with M12 connection piece).
- 3 m Masts.

MODELS :

FROM 5,8 M. of GALVANIZED IRON	*Ref.* 114041	21,400 kg.
FROM 5,8 M. of STAINLESS STEEL	*Ref.* 114042	18,900 kg.
FROM 3 M. of GALVANIZED IRON	*Ref.* 114043	9,800 kg.
FROM 3 M. of STAINLESS STEEL	*Ref.* 114045	8,600 kg.

BASE SUPPORT PLATE



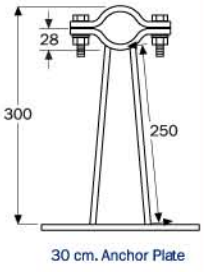
DESCRIPTION :

- Horizontal fastening of flat base to structure for 1"½" and 2" tubes.
- Hot galvanized iron fastener.

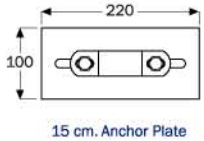
MODELS :

1"½" inches	*Ref.* 113031	17,400 kg.
2" inches	*Ref.* 113032	18,200 kg.

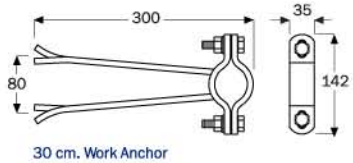
MAST ANCHOR SET



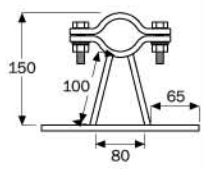
30 cm. Anchor Plate



15 cm. Anchor Plate



30 cm. Work Anchor



DESCRIPTION :

- Useful for vertical fastening of masts to various structures.
- Permits fastening 1"½" tubes. Consult for other measurements.
- Suppliable in Work, Plate or Double versions.
- Set of two pieces made of Galvanized Iron.

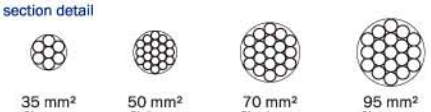
MODELS :

30 CM. WORK ANCHOR (2 pieces)	*Ref.* 112021	3,800 kg.
60 CM. WORK ANCHOR (2 pieces)	*Ref.* 112022	13,000 kg.
100 CM. WORK ANCHOR (2 pieces)	*Ref.* 112023	17,700 kg.
15 CM. PLATE ANCHOR (2 pieces)	*Ref.* 112024	5,200 kg.
30 CM. PLATE ANCHOR (2 pieces)	*Ref.* 112025	6,500 kg.
60 CM. PLATE ANCHOR (2 pieces)	*Ref.* 112027	15,400 kg.
DOUBLE ANCHOR (2 pieces)	*Ref.* 112026	3,000 kg.

4. PROTECTION

BRAIDED COPPER CABLE

Cable section detail



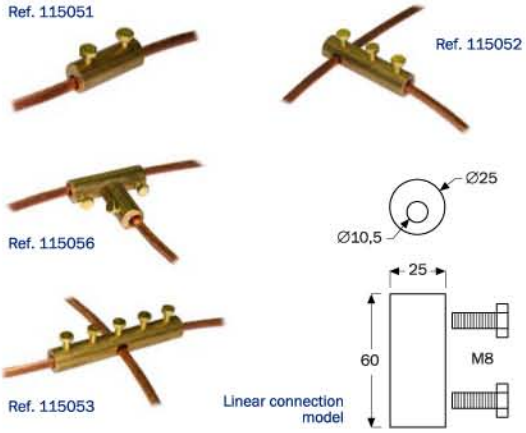
DESCRIPTION :

- Braided bare electrolytic copper cable.
- Mainly applied as a down conductor for lightning protection and grounding systems.

MODELS :

35 mm² of section	*Ref.* 117071	315 gr./m
50 mm² of section	*Ref.* 117072	500 gr./m
70 mm² of section	*Ref.* 117073	600 gr./m
95 mm² of section	*Ref.* 117074	830 gr./m

CONNECTION SLEEVE



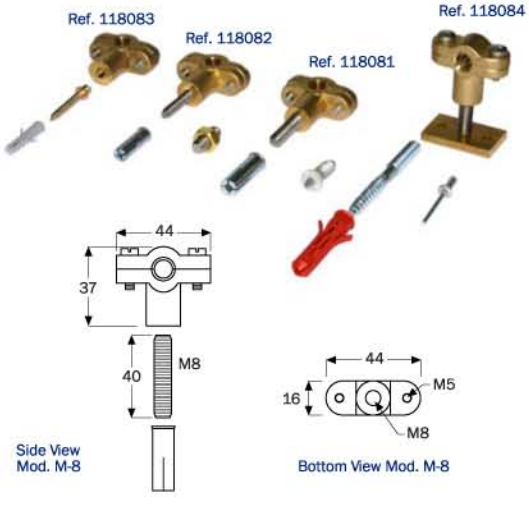
DESCRIPTION :

- Sleeves for the connection of 50-70-95 mm² section cables.
- Made of brass, complies with the specification of Norm EN 50.164.

MODELS :

LINEAR CONNECTION	*Ref.* 115051	220 gr.
'T' CONNECTION (1 Piece)	*Ref.* 115052	355 gr.
'T' CONNECTION (2 Pieces)	*Ref.* 115056	500 gr.
CROSS CONNECTION	*Ref.* 115053	450 gr.

CABLE CLAMPING BRACKETS



DESCRIPTION :

- Fastener clips for 50-70-95 mm² section cables, for each model.
- Made of brass, complies with the specification of Norm EN 50.164.

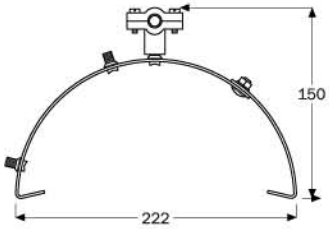
MODELS :

M-8	*Ref.* 118081	120 gr.
M-6	*Ref.* 118082	110 gr.
DOWNLINK	*Ref.* 118083	115 gr.
WITH FOOT	*Ref.* 118084	145 gr.

4. PROTECTION

ROOF CONDUCTOR SUPPORT

Ref. 118086



DESCRIPTION :

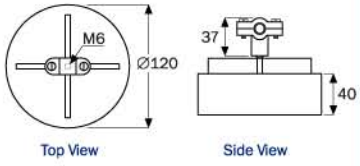
- Adjustable support for 160-260 mm wide lintel tiles and round 10 mm conductors.
- Made of galvanized steel.

MODELS :

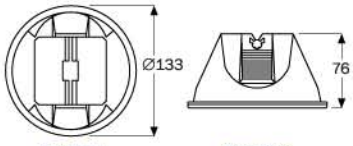
WITHOUT CLIP ..... *Ref.* 118085	185 gr.
WITH CLIP ..... *Ref.* 118086	280 gr.

COVERED SUPPORT FASTENERS

Ref. 118087



Ref. 800011



DESCRIPTION :

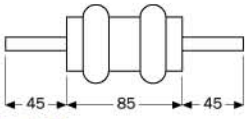
- Concrete supports for the fasteners of conductors and covers. For round conductors of 35 to 95 mm², for flat tile roofs.
- The concrete model (Ref. 118087) does not include clips.

MODELS :

IN CONCRETE ..... *Ref.* 118087	1,000 kg.
CONCRETE surrounded with black polethylene ... *Ref.* 800011	1,160 kg.

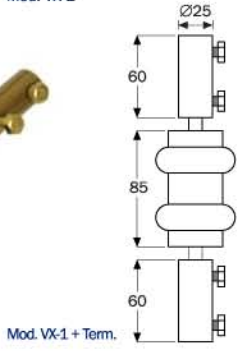
VX-1 SPARK GAP

Ref. 116061



Mod. VX-1

Ref. 116062



Mod. VX-1 + Term.

DESCRIPTION :

- Indicated for the connection of TV and communications antennas and cathodic protection.
- Maximum intensity 50 kA, wave type 10/350 µs.
- Response voltage (1,2/50 µs) = 15kV

MODELS :

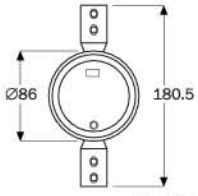
VX-1 ..... *Ref.* 116061	410 gr.
VX-1+Terminals* ..... *Ref.* 116062	860 gr.

*****(Connection sleeves are provided for 35-50-70 or 95 mm² section cables).*

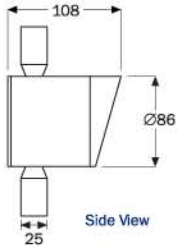
4. PROTECTION

CDR-1 LIGHTNING STRIKE COUNTER

Ref. 430001



Front View



Side View

DESCRIPTION :

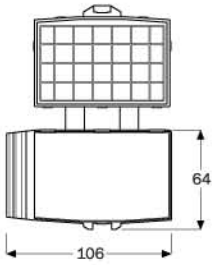
- Logs the lightning strikes which occur within the external lightning protection system (norms UNE 21.186 and NFC 17.102).
- Minimum intensity 2 kA, (wave type 8/20 µs and 10/350 µs)
- Maximum intensity 100 kA, (wave type 10/350 µs)
- Cable connection cable/rod sleeve Ø10-12 mm.

MODELS :

CDR-1 ..... *Ref.* 430001 860 gr.

PCS CARD

Ref. 430002



DESCRIPTION :

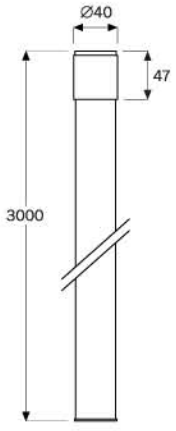
- It detects and stores current spikes which circulate through the conductor.
- A support fixture is included for a 8 to 10 mm diameter round cable.

MODELS :

PCS CARD ..... *Ref.* 430002 24 gr.

PROTECTION TUBE

Ref. 119091



DESCRIPTION :

- Mechanical protection of the lower section of the down conductor of the lightning protection system.
- Length 3 m.
- Model made with hot galvanized iron with 3 clips, plugs and slips.

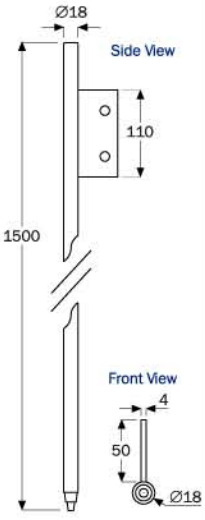
MODELS :

IN GALVANIZED IRON ..... *Ref.* 119091 4,800 kg.

4. PROTECTION

GROUNDING ELECTRODE - SPIKE

Ref. 252020 Ref. 252030



DESCRIPTION :

- Very useful in any type of grounding (houses, antennas, machinery and instrumentation, etc.)
- Length 1500 mm.

MODELS :

IN GALVANIZED IRON 18 mm.	*Ref.* 252020	3,950 kg.
IN STAINLESS STEEL 18 mm.	*Ref.* 252030	3,820 kg.

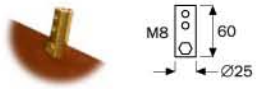
**(for models made of copperplated steel, consult measurements).*

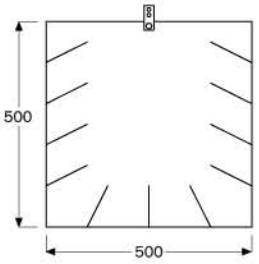
GROUNDING PLATE

Ref. 251011

Ref. 251012

Plate connection sleeve detail





DESCRIPTION :

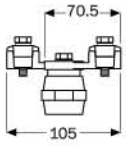
- Ideal for the installation of grounding systems with high resistance terrain.
- Great contact surface.
- It is recommended to add the Quibacsol mineral composite in the installation.

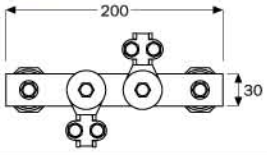
MODELS :

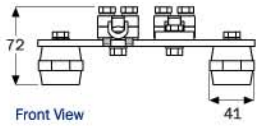
GROUNDING PLATE - STAINLESS STEEL	*Ref.* 251012	4,068 kg.
GROUNDING PLATE - COPPER	*Ref.* 251011	4,640 kg.

TEST JOINT

Ref. 250001







DESCRIPTION :

- Grounding connection bar formed of billet, two insulators and two connection clamps.
- Made of Cu (billet) and brass (clips), it complies with the specification of Norm EN 50.164.

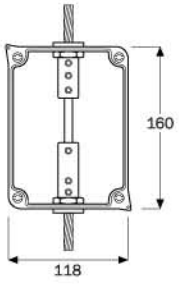
MODELS :

TEST JOINT	*Ref.* 250001	940 gr.

4. PROTECTION

TEST JOINT IN BOX

Ref. 250006



DESCRIPTION :

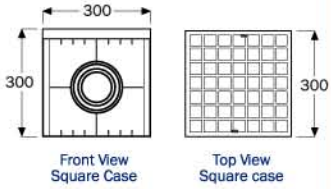
- Registry for ground test for the wall, formed by a copper and brass manual disconnection system of, the box is water resistant PVC (IP 65).
- Especially for lightning rod installations.
- Closed box measurements 160x118x75 mm.

MODELS :

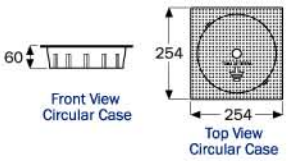
TEST JOINT IN BOX	*Ref.* 250006	610 gr.

REGISTRY CASE

Ref. 253031



Ref. 253032



DESCRIPTION :

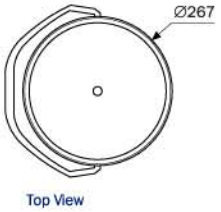
- Registry system for grounding installations.
- Highly resistant.
- Made of polypropylene.

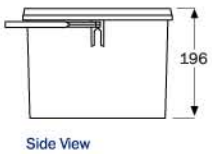
MODELS :

SQUARE REGISTRY CASE ..... (300x300x300 mm.)	*Ref.* 253031	3.050 gr.
CIRCULAR REGISTRY CASE ..... (Ø 200 mm.)	*Ref.* 253032	770 gr.

QUIBACSOL

Ref. 254041





DESCRIPTION :

- Mineral composite to improve conductivity to ground.
- With its use, low resistances are obtained in all types of groundings (houses, antennas, machinery and instrumentation, lightning rods, etc.)
- Packaging made of recycled plastic, practical and easy to store.

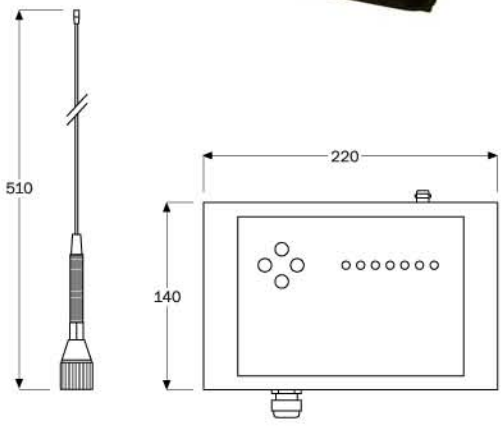
MODELS :

QUIBACSOL - 10 kg. PACKAGE	*Ref.* 254041	10,440 kg.

5. PREVENTION

IPSO LIGHTNING DETECTOR

Ref. 102030



DESCRIPTION :

- ***IPSO*** is an atmospheric electrical discharge (lightning) detector, whose operation is based on the registry of the electromagnetic field generated by the lightning strike in a radius of 30 km.
- The knowledge of the storm phenomena distance in real time permits the activation of the necessary alarm and protection systems in order to reduce or alleviate the effects of lightning discharges.
- The existence of electro-atmospheric discharges within the coverage radius is indicated by illuminated signals (LED),which are lit as the number of detected discharges grow.
- The user can freely decide to what level of activity (and its corresponding LED) is desired to associate each one of the two alarms with the ***IPSO*** lightning detector count. When one of the prefixed alarm levels is reached, the corresponding relay is activated (which permits the disconnection of sensitive apparatus, start acoustic alarms or external visual alarms, send warning SMS messages, etc.) and can also activate optional audio warnings.
- The ***IPSO*** lightning detector consists of the following technical characteristics:

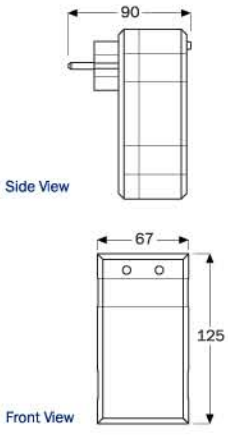
Power:	6 V DC
Consumption:	7 mA
Relays (max.):	10 A, 250 V AC, 60 V DC
Fastening Module:	wall or table
Antenna fastener :	exterior fastening adaptor
Relays activation time 1 & 2:	30 minutes
Detection radius:	30 km
Acoustic signal duration:	2 seconds
Standard cable length:	15 m

MODELS :

IPSO LIGHTNING DETECTOR ..... *Ref.* 102030 — 983 gr.

ABSORBER MCD

Ref. 370070



DESCRIPTION :

- Protection against transitory surges for equipment classified as category I (ITC-BT-23). Fine protection.
- Nominal voltage U_N= 230V. Max. operational voltage U_C= 275V
- Nominal discharge intensity I_n (8/20)= 5kA
- Max. discharge intensity I_{max} (8/20)= 8kA

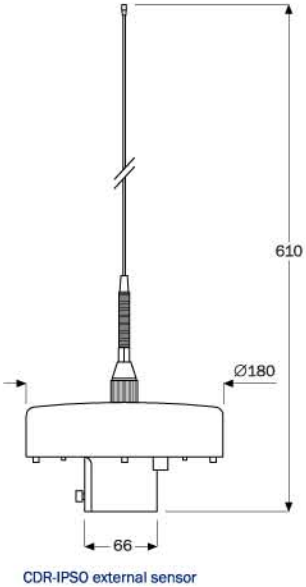
MODELS :

ABSORBER MCD ..... *Ref.* 370070 — 320 gr.

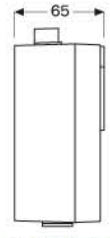
5. PREVENTION

CDR-*IPSO* LIGHTNING LOCATOR

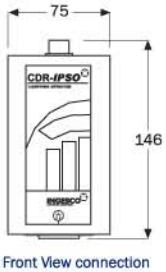
Ref. 700009



CDR-IPSO external sensor



Side View connection module



Front View connection module

DESCRIPTION :

- The **CDR-*IPSO*** is a lightning locator whose high precision external sensor processes the electric signals of any lightning strike in a radius of 500 meters and informs the user of the location of the impact within the installations as well as logging the date and time of the incident.
- When a lightning strike occurs in less than 500 meters of the **CDR-*IPSO*** Sensor, it determines the exact distance the strike occurred and sends the information to the connections module. The module, for its part, send the information data received (sensor status, impact distance, electrical activity in the area) to a computer where a personalised program alerts the user by way of visual and acoustic signals.
- The **CDR-*IPSO*** provides us with real-time information on the status of our installations and alerts us in the case of a nearby impact in order to take immediate necessary safety measures (attention to people, rearm equipment, fire risk control, etc.).
- The **CDR-*IPSO*** computer program permits:
  - Optimising the locating of impacts by connecting various sensors in a network.
  - Logging of incidents history.
  - View remote stations by Internet connection.
- All the data collected is reflected over a real map of the facilities.
- The **CDR-*IPSO*** lightning locator consist of the following technical characteristics:

Power:	220 V AC
Consumption:	45 mA
Protection:	Transitory surges
Communication:	Serial (RS-232, RS-485)
Operation temperature:	-30 °C a 60 °C
Detection radius:	500 m
Standard cable length:	20 m

MODELS :

CDR-IPSO LIGHTNING LOCATOR ..... *Ref.* 700009 1.874 gr.

DISTRIBUTOR :

CAT01 ENG(INTERNATIONAL)050907-V0

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