

# LIGHTNING PROTECTION SYSTEMS



Given the extensive experience of Mediterráneo Señales Marítimas in the field of prevention and protection against lightning, we offer a wide range of lightning arresters, surge protection and prevention products.

As lighthouses and navaid towers are very prone to be hit by lightning, in MSM we have incorporated in our catalogue safe and effective high-quality products that meet national and international regulations in force, thus achieving greater assurance and the best solution for our customers.

We offer elements to intercept a direct lightning strike on the structure, conduct current safely and disperse the discharge through the land or the sea.

## Types:

The **collection system** is intended to intercept the lightning strike to lead to ground. Among the various standardized collection systems we offer **Early Streamer Emission (ESE)** or **Franklin Rod Systems**.

**Early streamer emission (ESE)** lightning rods base their operation on the electrical characteristics of the lightning formation. The ray begins with a downward tracer propagating in any direction. Once approaching to objects located on the ground, either one can be struck. They are mainly characterized by issuing a continuous upward tracer earlier than any other object within its protection radius. The rod should be the controlled impact point of discharge, so as to provide the lightning current a path to ground without damaging the structure.

<b>Model</b>	<b>DAT CONTROLER PLUS</b>
<b>Material</b>	Stainless steel.
<b>Early Streamer Emission</b>	Double.
<b>Operation</b>	Under any atmospheric condition.
<b>Electrode isolation</b>	Guaranteed under any operating condition.
<b>Power Supply</b>	Autonomous.
<b>Maintenance</b>	Free.

**Collection systems by Franklin rods** consist of sharing and dissipating the lightning discharge current by a network of conductors. Sections and materials comply with the provisions of the rules defining such systems.

<b>Model</b>	<b>MAT 1302 FRANKLIN ROD</b>
<b>Material</b>	Stainless steel.
<b>Dimensions (mm)</b>	1 x (Ø 16 x 170) + 3 x (Ø 8 x 65).



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Specifications subject to change without previous notice.



### Conductor wire

Ref.	Dimensions (mm)	Material	Weight (Kg)
MAT-050D	9x1000x9	Copper	0.41
MAT-070D	10.5x1000x10.5	Copper	0.63
MAT-095D	12.5x1000x12.5	Copper	0.85
MAT-120D	15x1000x15	Copper	1.10
MAT-150D	16x1000x16	Copper	1.34

### Inspection pits for grounding systems

Ref.	Dimensions (mm)	Material
M-510	250x200x215	Polypropylene
M-512	22x22x22	Polypropylene
M-513	300x300x300	Polypropylene
M-520	245x245x115	Cast iron
M-530	320x320x190	Concrete

### Bonding bars for inspection pits

Ref.	Dimensions (mm)	No. of conductors	Material	For inspection pit
M-511	25x5x200	4	Copper	Polypropylene
M-521	25x5x150	4	Copper	Cast iron
M-531	25x5x300	4	Copper	Concrete
M-540	60x5x196	4	Stainless steel	Polypropylene
M-541	60x5x242	6	Stainless steel	Polypropylene

### Grounding plates

Ref.	Dimensions (mm)	Material
M-401	500x500x1.5	Copper
M-411	500x1000x1.5	Copper
M-402	500x500x2	Copper
M-412	500x1000x2	Copper
M-403	500x500x3	Copper
M-413	500x1000x3	Copper

### Enhancers of ground conductivity

Ref.	Weight (kg)	Material
M-460	3	WELLCONDUCTOR
M-470	25	Special graphite T.T.
M-480	25	Special Clay T.T.

### Lightning event counter

Ref.	Dimensions (mm)	Material	Range	Temperature
M-920	85x110x80	Polycarbonate	0-999999	From -40° to 50°C