



# MONO BAND UHF\* ANTENNA

440 ÷ 470 MHz

MRD-R

POLOMARCONI.IT

POLOMARCONI offers a very wide range of wireless products. Our products can be tailored according to the customer's need.

TRANSPORT

## Electrical Specifications

Frequency band (MHz)	440 ÷ 470
Impedance ( $\Omega$ )	50
VSWR	< 1.7:1
Continuous Max. Power (W)	30
Polarization	vertical
Gain (dB) over $\lambda/4$ monopole	0
Operating Temp. Range ( $^{\circ}\text{C}$ )	-40 ÷ +70

## Mechanical Specifications

Connector	N female	
Dimensions (mm)	140x80x145	
Weight (kg)	abt. 0.5	
Materials	base	Aluminium with SURTEC 650 treatment
	radome	High impact polycarbonate
	connectors	Silver plated brass
Mounting	on metallic surface (600x600 mm minimum)	
Reliability	above to 200,000 hours	



Patent n° 1548873

Antenna for train with protective means against high voltages. Patent has been used by SNCF and by the most important producers of trains.



## Environmental Characteristics

### ATMOSPHERIC and CLIMATIC CONDITIONS according to NF EN 60068

Temperature conditions	-40 $^{\circ}\text{C}$ , +70 $^{\circ}\text{C}$
Atmospheric pressure	-40 $^{\circ}\text{C}$ , +70 $^{\circ}\text{C}$ , 95% HR at 2000 m
Rain, hail, snow, frost	1000 mm/h, 1 J impact, 0.5 m, 3 cm
Combined wind and train speed	530 km/h

### MECHANICAL CONDITIONS according to NF EN 60068, 61373 and 15-818

Free falls	1 m
Hits (vertical, cross-sectional, longitudinal)	30m/s <sup>2</sup> , 30m/s <sup>2</sup> , 50m/s <sup>2</sup> , 30ms
Impacts	50 J

### GROUNDING and HIGH VOLTAGE PROTECTION according to NF EN 50388 and NF EN 50123

Short-circuit currents flow / time before breaking	70 kA / 5 ms – 40 kA / 100 ms (DC) 31,5 kA / 10 ms – 15 kA / 100 ms (AC)
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## MOUNTING FLANGE

Mounting: on a conductive surface with a minimum size of 600x600 mm; it's advisable to keep the mounting surface clean for a better electrical contact. Flange with 4 M10 studs included; see mounting flange A on page 2;

**Grounding and high voltage protection:** Our antennas have passed the strict SNCF's tests that approved our products as protected against lightning and high-tension voltage thanks to our patented DC and AC grounded system. **\*Advantage:** UHF frequency could be modified on customer's request **Approved by:** SNCF, SNCB, TRENITALIA



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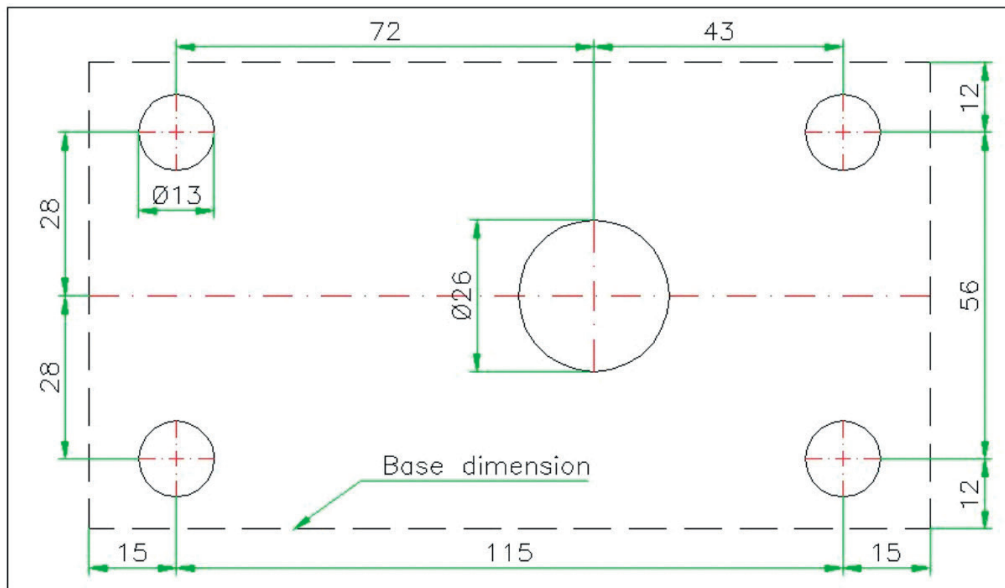
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## MOUNTING FLANGE

### TYPE A:



All dimensions are in mm