

SENCITY® Rail PTC Antenna

1302.17.0094

Properties

- Railway rooftop antenna for Positive train control (220 MHz)
- Rugged design, meets EN 50155 Railway Standard
- Fire retardant according to EN 45545-2 and NFPA-130
- Dedicated grounding contact (optional)
- Cable conduit support (optional)

**Electrical bands**

	Band 1
Name	PTC
Frequency	219.98 MHz ... 220.02 MHz
VSWR	1.5
Impedance	50 Ω
Gain	1.72 dBi
Ambient Temperature	25 °C

Electrical remarks

Remarks	Indicated VSWR values are valid for a metallic ground plane of 2.0 x 2.0m or larger. Indicated gain values will be achieved on a metallic ground plane of 1.0 x 1.0 m or larger.
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Ports

	Port 1
Port name	PTC
Connector	N, jack (female)
Polarization	vertical
DC grounded	Yes

Connections

Port number	Port 1
Band 1	☒

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Mechanical data	
Weight	1.6 kg
Dimensions	154 mm x 100 mm x 256 mm (Height x Width x Depth)
Windload	Wind Speed survival: 500 km/h
Remarks	High-voltage-protection: no voltage on RF port, if the catenary line touches antenna (EN 50124-1, 27.5 kVAC/1min). High-current-protection: Designed acc. to UIC 533, DC-grounded antenna element protection against lightning and short circuit with catenary lines (EN50388, EN 50122-1, 40kA/0.125sec) Corrosion: Low corrosion design according to MIL-F-14072(E), 96 hours Salt Spray test. Mounting: Shall be installed in longitudinal position to the wind/driving direction. Suitable for installation on high-speed trains with a maximum speed of 500 km/hr.

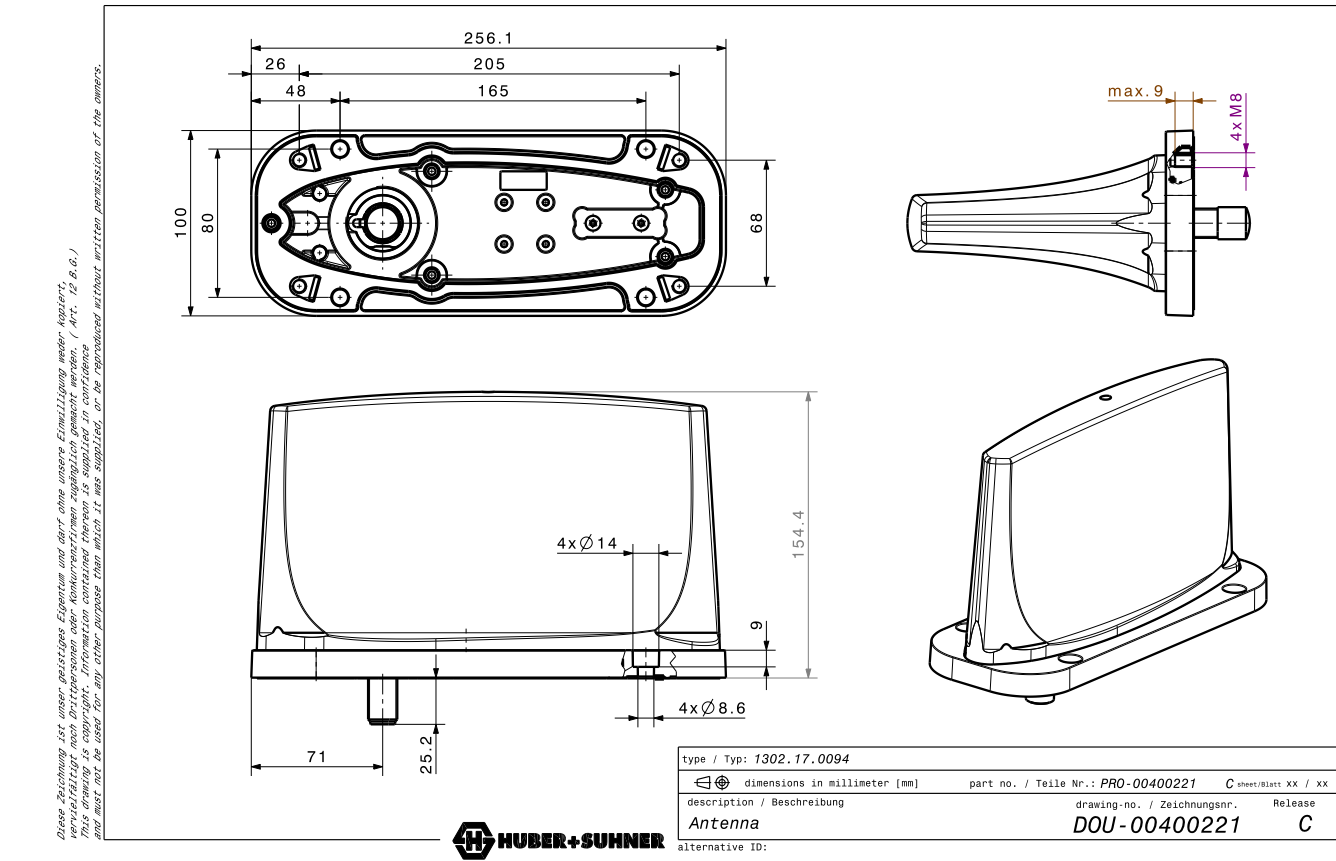
Interface and material data	
Radome material	PC (Polycarbonate)
Radome colour	RAL 7043 (dark grey)
Back plate/base plate material	Aluminum
Back plate/base plate plating	Passivated (Plating)
Back plate/base plate colour	Grey

Environmental data	
Operation temperature	-55 °C ... 85 °C
Storage temperature	-55 °C ... 85 °C
Transport temperature	-55 °C ... 85 °C
Environment (application)	Outdoor
Ingress protection (IP Rating)	IP67, IP69
Flammability rating	EN 45545-2 R24 HL3
Solar radiation	UL 746C, FI

Environmental remarks	
Environmental tests: EN 50155:2018-05 Flammability rating: EN45545-2:2013 + A1:2015, NFPA-130:2017 Tested according to ISO 4589-2:2017, NFX 70-100-1:2006, ISO 5659-2:2011. There is no applicable EU directive nor related harmonized standard for passive antennas. Consequently, there is no CE marking on these antennas and no EU Declaration of Conformity can be issued.	

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Outline drawing



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