# Data Sheet

HUBER+SUHNER

## Sencity Rail Antenna
## 1399.17.0039

## Description

Railway rooftop antenna: GSM 900, GSM 1800, GSM 1900, UMTS, 2.4, 3.5, 5.3 and 5.8 GHz Bands.
Supports Wi-Fi 4/Wi-Fi 6 bands.
Rugged design, meets EN 50155 railway standard.
Fire retardant acc. to DIN 5510-2, BS 6853, NF F16-101/102, EN 45545-2.
Works also on non-metallic surfaces.
Note: A new version of this product is available with extended frequency to cover the 5G Cellular bands - Article Number: 1399.99.0122 / 84071876.



## Product Configuration

## Technical Data

### Electrical Data

| | Band 1 | Band 2 | Band 3 | Band 4 |
|---|---|---|---|---|
| Frequency (MHz) | 870 - 960 | 1710 - 2170 | 2400 - 2700 | 3400 - 3700 |
| VSWR | 1.5 | 1.5 | 1.5 | 1.5 |
| Impedance (Ohm) | 50 | 50 | 50 | 50 |
| Gain (dBi) | 6 | 8.5 | 9.5 | 9.5 |
| Composite power max (W) | 550 | 450 | 350 | 300 |
| Ambient temperature (°C) | 25 | 25 | 25 | 25 |

| | Band 5 |
|---|---|
| Frequency (MHz) | 5150 - 5875 |
| VSWR | 1.8 |
| Impedance (Ohm) | 50 |
| Gain (dBi) | 8.5 |
| Composite power max (W) | 300 |
| Ambient temperature (°C) | 25 |

### Ports

| | Port 1 |
|---|---|
| Connector | N, jack (female) |
| Polarization | vertical |
| DC grounded | Yes |

### Connections

| | Band 1 | Band 2 | Band 3 | Band 4 | Band 5 |
|---|---|---|---|---|---|
| Port 1 | X | X | X | X | X |

### General Data

Ground plane: Indicated VSWR values are valid also for installations on non-metallic surfaces (no specific ground plane requirements).

### Mechanical Data

| | |
|---|---|
| Dimensions (mm) | 90 x 100 x 260 (Heigth x Width x Depth) |
| Weight (kg) | 1.1 |

High-current-protection: Designed acc. to UIC 533, DC-grounded antenna element (protection against lightning and short circuit with catenary lines(40kA/0.1s).

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Corrosion: Low corrosion design acc. to MIL-F-14072(E).
Mounting: Shall be installed in longitudinal position to wind/driving direction.

### Environmental Data

| | |
|---|---|
| Environmental conditions | outdoor |
| Operation temperature (°C) | -40 to 85 |
| Storage temperature (°C) | -40 to 85 |
| Transport temperature (°C) | -40 to 85 |
| IP rating | IP68 |
| Flammability rating | DIN 5510 |
| Solar radiation | DIN 75220 |
| 2011/65/EU (RoHS - including 2015/863 and 2017/2102) | compliant |
| Lead-free soldered | yes |
| WEEE 2012/19/EU | no special marking needed |
| REACH 1907/2006/EC | compliant |

Environmental tests: EN 50155:2004
Flammability rating DIN 5510-2, BS 6853, NF F16-101/102, EN 45545-2.

### Material Data

| | |
|---|---|
| Radome colour | RAL 7043 (dark grey) |
| Radome material | ASA (acrylic ester-styrene-acrylonitrile) |
| Back plate/base plate colour | RAL 7043 (dark grey) |
| Back plate/base plate material | Aluminium |

### Related Products

9091.99.0189 12mm adapter plate for Sencity Rail antenna
9091.99.0196 16mm adapter plate for Sencity Rail antenna

### Related Documents

| | |
|---|---|
| Mounting instruction | DOC-0000197320 |
| Painting instruction | DOC-0000256180 |
| Security instruction | DOC-0000278984 |
| Outline drawing | DOU-00016277 |
| 3D-model | DOC-0000252364 |

### Additional Information

This product meets the Deutsche Bahn specifications for rolling stock equipment. Protected by Patents: US7327320B2, CN1765030B, AU2003218856A1, CA2521771C, SG114406, ZA200508290.


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